

2003–2024 Index to Feature Articles IEEE Power & Energy Magazine Vols. 1–22

This index covers all feature articles that appeared in IEEE Power & Energy Magazine during 2003–2024. The Author Index contains the primary entry for each article, listed under the first author's name. The primary entry includes the coauthors' names, the title of the article, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the article under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the article title is found only under the primary entry in the Author Index. (Index entries have been compiled from the 2003 through 2024 year-end indexes.)

Each index entry contains a link (blue text) to allow you to view the article's abstract in IEEE Xplore®. PES Members may access the full article provided they have an IEEE web account. Non-Members who wish to purchase the full article may do so by following the instructions on the site.

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- Bechara, H., Ibrahim, R., Tahan, A., Zemouri, R., Merkhof, A., Kedjar, B., and Al-Haddad, K., Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators; *MPE Nov-Dec 2024 89-99*
- Becker, H., see Braun, M., *MPE Nov-Dec 2018 30-41*
- Beckstedde, E., and Meeus, L., From "Fit and Forget" to "Flex or Regret" in Distribution Grids: Dealing With Congestion in European Distribution Grids; *MPE Jul-Aug 2023 45-52*
- Bednar, D.J., see Nock, D., *MPE Jul-Aug 2024 26-37*
- Befus, C., see Staszkesy, D.M., *PAE-M Sep-Oct 2005 56-63*
- Begovic, M., see Thorp, J.S., *PAE-M Sep-Oct 2008 43-51*
- Begovic, M.M., see Novosel, D., *PAE-M Jan-Feb 2004 32-43*
- Behnke, M., see Ellis, A., *MPE May-Jun 2011 55-61*
- Behnke, R.P., see Strunz, K., *PAE-M Jul-Aug 2003 50-55*
- Belhomme, R., Corsetti, E., Gutschi, C., Kessels, K., Virag, A., Qardran, M., Xu, X., Li, H., and Jurasz, J., Bottom-Up Flexibility in Multi-Energy Systems: Real-World Experiences From Europe; *MPE Jul-Aug 2021 74-85*
- Belnap, H., see Farley, A., *MPE Jul-Aug 2024 38-48*
- Benavides, C., see Rudnick, H., *MPE Sep-Oct 2014 50-60*
- Benitez, D., see Flores, D., *MPE Sep-Oct 2020 36-48*
- Benner, S., see Chen, H., *MPE Sep-Oct 2017 59-67*
- Bergman, D., Sun, T., Buechler, E., Zanocco, C., and Rajagopal, R., The Grid Under Extremes: Pandemic Impacts on California Electricity Consumption; *MPE Nov-Dec 2022 38-46*
- Bernabeu, E., see Romero Aguero, J., *MPE Jul-Aug 2019 75-84*
- Berner, A., see Chen, H., *MPE Sep-Oct 2017 59-67*
- Bernhoff, H., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Bernstein, A., see Kroposki, B., *MPE Nov-Dec 2020 37-46*
- Bertagnolli, D., see Henderson, M., *PAE-M Mar-Apr 2007 52-60*
- Bessa, R., see Dobschinski, J., *MPE Nov-Dec 2017 40-49*
- Bessa, R.J., see Fox, J., *MPE Nov-Dec 2021 77-85*
- Bessa, R.J., see Mello, J., *MPE Jul-Aug 2024 49-63*
- Betraoui, B., see Sanchis, G., *MPE Jan-Feb 2015 38-51*
- Beuning, S., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Beuning, S., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- Bezerra, B., Mocarquer, S., Barroso, L., and Rudnick, H., Expansion Pressure: Energy Challenges in Brazil and Chile; *MPE May-Jun 2012 48-58*
- Bezerra, B., see Barroso, L., *MPE Jan-Feb 2021 64-73*
- Bezerra, B., see Mocarquer, S., *PAE-M Sep-Oct 2009 26-35*
- Bezerra, B., see Moreno, R., *MPE May-Jun 2020 33-48*
- Bezerra, B., see Moreno, R., *PAE-M Sep-Oct 2010 36-46*
- Bezerra, B., see Rudnick, H., *PAE-M Jul-Aug 2008 22-35*
- Bezerra, F.E., see Manassero, G., *MPE Nov-Dec 2024 112-117*
- Bezerra, U.H., see de Lima Montenegro Duarte, A.R.C., *PAE-M Jan-Feb 2007 51-57*
- Bhargava, B., see Novosel, D., *PAE-M Jan-Feb 2008 49-60*
- Bhatia, M., see Madrigal, M., *MPE May-Jun 2012 20-29*
- Bhatt, R., see Enslin, J., *MPE Sep-Oct 2016 66-74*
- Bhattacharya, K., see Farrokhbadi, M., *MPE Sep-Oct 2017 81-91*
- Bhuiyan, M., see Litzenberger, W., *MPE Mar-Apr 2016 32-41*
- Bi, T., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- Bi, T., Zhu, M., and Liu, H., A Powerful Tool for Power System Monitoring: Distributed Dynamic State Estimation Based on a Full-View Synchronized Measurement System; *MPE Jan-Feb 2023 26-35*
- Bialek, J., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Bialek, J., see Orths, A., *MPE Nov-Dec 2013 83-95*
- Bianco, G., see Dondossola, G., *MPE May-Jun 2024 42-49*
- Bidram, A., see Reno, M., *MPE May-Jun 2021 36-46*
- Bielen, D., see Mai, T., *MPE Jul-Aug 2018 34-47*
- Bilby, C., see Ngo, Y., *MPE Jan-Feb 2020 34-42*
- Billimoria, F., see Ela, E., *MPE Nov-Dec 2019 58-66*
- Billimoria, F., see Mancarella, P., *MPE Mar-Apr 2021 79-88*
- Billimoria, F., see Lal, N., *MPE Sep-Oct 2021 29-45*
- Bilodeau, H., Babaei, S., Bisewski, B., Burroughs, J., Drover, C., Fenn, J., Fardanesh, B., Tozer, B., Shperling, B., and Zanchette, P., Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada; *MPE Mar-Apr 2016 42-56*
- Bindner, H., see Ostergaard, J., *MPE Mar-Apr 2021 46-55*
- Bird, L., Walker, C., Womble, J., Atcity, S., Trevizan, R., Concessao, L., Meenawat, H., and Tarekegne, B., Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities; *MPE Jul-Aug 2024 64-74*
- Birke, A., see Lorenzo, M., *MPE Jan-Feb 2015 75-83*
- Bisewski, B., see Bilodeau, H., *MPE Mar-Apr 2016 42-56*
- Bishop, M.T., see Kojovic, L.A., *PAE-M May-Jun 2003 43-48*
- Bissel, G., see Lorenzo, M., *MPE Jan-Feb 2015 75-83*
- Bissel, G., see Varela, J., *MPE May-Jun 2015 81-89*
- Bjorklund, H., Thelenius, A., Elgqvist, U., Kjaergaard, J., and Reddy, C., Keeping the Power Flowing: A Commitment Throughout the HVdc and FACTS Life Cycles; *MPE Mar-Apr 2016 66-71*
- Bjorklund, P., see Bahrman, M., *MPE Jan-Feb 2014 44-53*
- Black, C., see Meliopoulos, S., *MPE Jan-Feb 2023 59-72*
- Black, J., Hofmann, A., Hong, T., Roberts, J., and Wang, P., Weather Data for Energy Analytics: From Modeling Outages and Reliability Indices to Simulating Distributed Photovoltaic Fleets; *MPE May-Jun 2018 43-53*
- Black, J., see Tuohy, A., *MPE Nov-Dec 2015 50-59*
- Blanco, A., see Rudnick, H., *PAE-M Jul-Aug 2005 49-59*
- Blatchford, J., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Blaver, A., see Hadingham, W., *MPE Sep-Oct 2021 76-88*
- Bletterie, B., see Varela, J., *MPE May-Jun 2017 30-40*
- Bleuler, P., see Franck, C.M., *MPE Mar-Apr 2023 18-29*
- Blevins, B., see Koellner, K., *MPE Sep-Oct 2015 36-40*
- Block, D.L., see T-Raissi, A., *PAE-M Nov-Dec 2004 40-45*
- Bloom, A., Helman, U., Holttinen, H., Summers, K., Bakke, J., Brinkman, G., and Lopez, A., It's Indisputable: Five Facts About Planning and Operating Modern Power Systems; *MPE Nov-Dec 2017 22-30*
- Bloom, A., see Lew, D., *MPE Nov-Dec 2021 56-66*
- Bloom, A., see Stenclik, D., *MPE Nov-Dec 2021 29-36*
- Blyden, B.K., and Akiwumi, F.A., Unrealized potential in Africa; *PAE-M Jul-Aug 2008 52-58*
- Blyden, B.K., and I.E. Davidson, Organizing Africa's emerging economy; *PAE-M Jul-Aug 2005 24-31*
- Boardman, E., Advanced Applications in an Advanced Distribution Management System: Essentials for Implementation and Integration; *MPE Jan-Feb 2020 43-54*
- Boardman, E., see Clark, L., *MPE Sep-Oct 2011 33-41*
- Bobba, R.B., Dagle, J., Heine, E., Khurana, H., Sanders, W.H., Sauer, P., and Yardley, T., Enhancing Grid

- Measurements: Wide Area Measurement Systems, NASPInet, and Security; [MPE Jan-Feb 2012 67-73](#)
- Boddeti, M., see Kyeon Hur, [PAE-M Jan-Feb 2010 37-45](#)
- Bodson, M., see Merrill, H., [MPE Jul-Aug 2020 64-75](#)
- Boemer, J., see Lew, D., [MPE Nov-Dec 2017 50-60](#)
- Boemer, J.C., see Hoke, A., [MPE Mar-Apr 2024 42-54](#)
- Bolton, C., see Udren, E.A., [MPE Jan-Feb 2022 64-77](#)
- Bolton, C., see Zhou, G., [MPE Jul-Aug 2019 35-46](#)
- Bolund, B., see Leijon, M., [PAE-M Jan-Feb 2009 50-54](#)
- Bompard, E., Fulli, G., Ardelean, M., and Masera, M., It's a Bird, It's a Plane, It's a...Supergrid!: Evolution, Opportunities, and Critical Issues for Pan-European Transmission; [MPE Mar-Apr 2014 40-50](#)
- Bono, C., see Evans, M., [MPE Jul-Aug 2022 44-54](#)
- Border, S., see Haacke, S., [PAE-M Mar-Apr 2003 32-41](#)
- Borlase, S., see Fan, J., [PAE-M Mar-Apr 2009 63-68](#)
- Borre Eriksen, P., see Holttinen, H., [MPE Nov-Dec 2011 47-59](#)
- Borup, L.D., see Ackermann, T., [PAE-M Nov-Dec 2009 65-75](#)
- Bose, A., Podmore, R., and Spanel, U., Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid; [MPE May-Jun 2023 61-69](#)
- Bose, A., see Anderson, D., [MPE Jan-Feb 2012 49-57](#)
- Bose, A., see Dubey, A., [MPE Jan-Feb 2020 63-75](#)
- Bose, A., see Hauser, C.H., [PAE-M Mar-Apr 2005 47-55](#)
- Bose, A., see Reder, W., [PAE-M Jul-Aug 2010 27-35](#)
- Bose, S., see Phillips, A., [PAE-M Nov-Dec 2010 61-68](#)
- Boston, W.T., see Robertson, F.R., [MPE May-Jun 2023 43-50](#)
- Bostrom, C., see Leijon, M., [PAE-M Jan-Feb 2009 50-54](#)
- Boteler, D., see Guillon, S., [MPE Nov-Dec 2016 59-71](#)
- Botero, J.F., see Gutierrez, S.A., [MPE Sep-Oct 2023 58-67](#)
- Botha, A., see Heinen, S., [MPE Nov-Dec 2023 38-47](#)
- Botterud, A., see Korpas, M., [MPE Nov-Dec 2023 18-27](#)
- Bouchez, N., see Ela, E., [MPE Jan-Feb 2021 41-52](#)
- Bouffard, F., see Kirschen, D., [PAE-M Jan-Feb 2009 50-60](#)
- Bouford, J.D., and Warren, C.A., Many states of distribution; [PAE-M Jul-Aug 2007 24-32](#)
- Bouhaf, F., Mackay, M., and Merabti, M., Links to the Future: Communication Requirements and Challenges in the Smart Grid; [MPE Jan-Feb 2012 24-32](#)
- Bouman, T., see Jans, L., [MPE Jan-Feb 2018 35-41](#)
- Bourbonnais, C., see Faruqi, A., [MPE May-Jun 2020 18-25](#)
- Bourg, J., see Reid, B., [MPE Mar-Apr 2022 23-31](#)
- Bourgault, A. Sturdy but sensitive to heat: the impact of a winding temperature on power transformer reliability; [PAE-M Sep-Oct 2005 42-47](#)
- Bouzarovski, S., see Nock, D., [MPE Jul-Aug 2024 26-37](#)
- Bowen, T., see O'Malley, M., [MPE Nov-Dec 2021 45-55](#)
- Bower, W., and Key, T., Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration; [MPE May-Jun 2021 83-92](#)
- Bower, W., see Joos, G., [MPE Jul-Aug 2017 32-40](#)
- Boyes, J.D., see Gyuk, I., [PAE-M Mar-Apr 2005 31-39](#)
- Bradt, M., see Piwko, R., [MPE Nov-Dec 2011 26-35](#)
- Brahma, S., see Ray, D., [MPE Sep-Oct 2018 32-41](#)
- Brahma, S., see Reno, M., [MPE May-Jun 2021 36-46](#)
- Brahma, S., see Venkata, S.S., [PAE-M Jul-Aug 2010 36-43](#)
- Braithwait, S., Behavior Modification; [PAE-M May-Jun 2010 36-45](#)
- Brake, D., see MacDowell, J., [MPE Nov-Dec 2019 79-88](#)
- Brancaccio, D., see Madani, V., [MPE Sep-Oct 2015 18-28](#)
- Bratcher, D., see Yates, D., [MPE Sep-Oct 2014 66-75](#)
- Braun, M., Arnold, G., and Laukamp, H., Plugging into the Zeitgeist; [PAE-M May-Jun 2009 63-76](#)
- Braun, M., Brombach, J., Hachmann, C., Lafferte, D., Klingmann, A., Heckmann, W., Welck, F., Lohmeier, D., and Becker, H., The Future of Power System Restoration: Using Distributed Energy Resources as a Force to Get Back Online; [MPE Nov-Dec 2018 30-41](#)
- Braun, M., Hachmann, C., and Haack, J., Blackouts, Restoration, and Islanding: A System Resilience Perspective; [MPE Jul-Aug 2020 54-63](#)
- Braun, M., see O'Malley, M., [MPE Nov-Dec 2021 45-55](#)
- Braun, M., see Stetz, T., [MPE Mar-Apr 2015 50-61](#) (Correction, [MPE May-Jun 2015 24](#))
- Braun, M., see von Appen, J., [MPE Mar-Apr 2013 55-64](#)
- Bresler, F.S., see Chen, H., [MPE Jul-Aug 2020 20-30](#)
- Brickhouse, B., Siegfried, G., Torres-Soto, E., and Williams, B., Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement; [MPE Jul-Aug 2024 75-84](#)
- Bridgeman, A., see Flores, D., [MPE Sep-Oct 2020 36-48](#)
- Briff, P., Zou, L., Schuldt, H., Schettler, F., Wikstrom, C., Lundberg, P., and Kolichev, D., Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges; [MPE Sep-Oct 2024 49-59](#)
- Bright, J.M., see Alsac, O., [PAE-M Jul-Aug 2004 47-57](#)
- Brignone, S., see Alsac, O., [PAE-M Jul-Aug 2004 47-57](#)
- Brinkman, G., Denholm, P., Drury, E., Margolis, R., and Mowers, M., Toward a Solar-Powered Grid; [MPE May-Jun 2011 24-32](#)
- Brinkman, G., see Bloom, A., [MPE Nov-Dec 2017 22-30](#)
- Brinkman, G., see Denholm, P., [MPE Mar-Apr 2013 22-32](#)
- Brinkman, G., see Lew, D., [MPE Nov-Dec 2013 20-32](#)
- Brito-Pereira, P., see Rodilla, P., [MPE Jul-Aug 2023 64-71](#)
- Britton, J., Brown, P., Moseley, J., and Bunda, M., Optimizing Operations with CIM: Today's Grid Relies on Network Analysis (and a Lot of Data); [MPE Jan-Feb 2016 48-57](#)
- Brombach, J., see Braun, M., [MPE Nov-Dec 2018 30-41](#)
- Brooks, A., Lu, E., Reicher, D., Spirakis, C., and Weihl, B., Demand Dispatch; [PAE-M May-Jun 2010 20-29](#)
- Brooks, A., see Corbus, D., [MPE Sep-Oct 2013 65-74](#)
- Brooks, D.L., see Lauby, M.G., [MPE Nov-Dec 2011 75-85](#)
- Brosinsky, C., Naglic, M., Lehnhoff, S., Krebs, R., and Westermann, D., A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems; [MPE Jan-Feb 2024 24-34](#)
- Brosnan, U., see Hamadi, V., [MPE Jul-Aug 2019 67-74](#)
- Brower, M., see Mills, A., [MPE May-Jun 2011 33-41](#)
- Brown, M., see Arghandeh, R., [MPE Sep-Oct 2014 76-83](#)
- Brown, P., see Britton, J., [MPE Jan-Feb 2016 48-57](#)
- Brown, P., see Lew, D., [MPE Nov-Dec 2021 56-66](#)
- Brown, R., see McCalley, J., [MPE Sep-Oct 2013 24-35](#)
- Brown, R., Wilson, C., and van Nispen, H., Becoming the Utility of the Future: Risks and Opportunities; [MPE Sep-Oct 2016 57-65](#)
- Brown, R.E., and B.G. Humphrey. Asset management for transmission and distribution; [PAE-M May-Jun 2005 39-45](#)
- Brown, R.E., and H.L. Willis. The economics of aging infrastructure; [PAE-M May-Jun 2006 36-43](#)
- Brown, R.E., see Fangxing Li, [PAE-M Jan-Feb 2003 53-57](#)
- Brown, R.E., see Morrow, D.J., [PAE-M Sep-Oct 2007 36-45](#)
- Brown, T., see Jiang, L., [MPE Nov-Dec 2015 40-49](#)
- Brown, T., see Orths, A., [MPE Nov-Dec 2019 67-78](#)
- Bruce, A., see Stringer, N., [MPE Nov-Dec 2020 20-36](#)
- Bruine de Bruin, W., see van der Werff, E., [MPE Jan-Feb 2018 42-48](#)
- Brundlinger, R., Strasser, T., Lauss, G., Hoke, A., Chakraborty, S., Martin, G., Kroposki, B., Johnson, J., and de Jong, E., Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart; [MPE Mar-Apr 2015 30-42](#)
- Brunekreft, G., see Li, F., [MPE Jul-Aug 2015 76-86](#)
- Bryant, P., see Sharafi, D., [MPE Jan-Feb 2022 52-63](#)
- Bryson, M., see Chen, H., [MPE Nov-Dec 2022 26-37](#)
- Bryson, M.E., see Chen, H., [MPE Jul-Aug 2020 20-30](#)

- Bubb, S., see Sonderegger, R.C., *PAE-M May-Jun 2004 32-39*
- Buch, N., see Shahidehpour, M., *MPE May-Jun 2015 67-80*
- Buechler, E., see Bergman, D., *MPE Nov-Dec 2022 38-46*
- Buhagiar, T., see Astic, J., *MPE Mar-Apr 2018 57-66*
- Bulent Tor, O., and Shahidehpour, M., Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey; *MPE Nov-Dec 2014 49-62*
- Bunda, M., see Britton, J., *MPE Jan-Feb 2016 48-57*
- Buongiorno, J., Corradini, M., Parsons, J., and Petti, D., Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities; *MPE Mar-Apr 2019 69-77*
- Burbure, N.V., see Fahey, T.S., *PAE-M Mar-Apr 2008 46-52*
- Burdalo, U., see Lorenzo, M., *MPE Jan-Feb 2015 75-83*
- Burdick, A., Schlag, N., Au, A., Go, R., Ming, Z., and Olson, A., Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid; *MPE Jul-Aug 2022 30-43*
- Burg, R., see Paaso, A., *MPE Mar-Apr 2022 39-46*
- Burger, S., Jenkins, J., Huntington, S., and Perez-Arriaga, I., Why Distributed?: A Critical Review of the Tradeoffs Between Centralized and Decentralized Resources; *MPE Mar-Apr 2019 16-24*
- Burger, S., see Usera, I., *MPE Sep-Oct 2017 42-50*
- Burgess, P., see Shahidehpour, M., *MPE May-Jun 2015 67-80*
- Burica, N., see Paaso, A., *MPE Mar-Apr 2022 39-46*
- Burks, S., see Koellner, K., *MPE Sep-Oct 2015 36-40*
- Burroughs, J., see Bilodeau, H., *MPE Mar-Apr 2016 42-56*
- Buse, D.P., P. Sun, Q.H. Wu, and J. Fitch. Agent-based substation automation; *PAE-M Mar-Apr 2003 50-55*
- Bustos, C., see Velasquez, C., *MPE Jul-Aug 2016 20-29*
- Butler, T., see Quiros-Tortos, J., *MPE Nov-Dec 2018 64-76*
- Byriel, I., see Lorenzo, M., *MPE Jan-Feb 2015 75-83*
- Bystrom, O., Next-Generation Distribution Planning: How Do We Capture the Value of Distributed Energy Resources?; *MPE Mar-Apr 2022 32-38* (Erratum, *MPE Jul-Aug 2022 104*)
- C
- Caballero, A., see Gil, J., *MPE Nov-Dec 2014 40-48*
- Cabrera, A.J., see Wu, Y., *MPE Jan-Feb 2024 35-42*
- Cailliau, M., Foresti, M., and Villar, C.M., Winds of Change; *PAE-M Sep-Oct 2010 53-62*
- Caisheng Wang, and Nehrir, M.H., Fuel cells and load transients; *PAE-M Jan-Feb 2007 58-63*
- Caisheng Wang, see Nehrir, H., *PAE-M Jan-Feb 2006 47-53*
- Caldwell, J., see Ahlstrom, M., *MPE Nov-Dec 2015 60-66*
- Callaghan, C., see Chakrabarti, B., *MPE Mar-Apr 2011 67-73*
- Callavik, M., see Lundberg, P., *MPE Nov-Dec 2012 30-38*
- Callavik, M., see Orths, A., *MPE Nov-Dec 2013 83-95*
- Callavik, M., see Pan, J., *MPE May-Jun 2019 94-102*
- Calviou, M., see Mahone, A., *MPE Jul-Aug 2018 58-68*
- Calzada, J., see Hong, T., *MPE May-Jun 2018 66-73*
- Camm, E., see Piwko, R., *MPE Nov-Dec 2011 26-35*
- Camm, E., see Piwko, R., *PAE-M Nov-Dec 2009 26-35*
- Camm, E., see Zavadil, R., *PAE-M Nov-Dec 2007 47-58*
- Camyab, A., and J.S. McConnach. A more perfect energy union; *PAE-M Jul-Aug 2006 47-56*
- Canizares, C., see Arriaga, M., *MPE Jul-Aug 2014 50-59*
- Canizares, C., see Farrokhbadi, M., *MPE Sep-Oct 2017 81-91*
- Cano, E., see Jones, K., *MPE Sep-Oct 2015 29-35*
- Capitanescu, F., Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience; *MPE May-Jun 2023 77-86*
- Capitanescu, F., see Avramidis, I., *MPE Jul-Aug 2023 53-63*
- Carbonne, A., see Guibout, C., *MPE May-Jun 2024 67-78*
- Carden, J., and Popovic, D., Closed-Loop Volt/Var Optimization: Addressing Peak Load Reduction; *MPE Mar-Apr 2018 67-75*
- Cardozo, C., see Badrzadeh, B., *MPE Mar-Apr 2024 66-77*
- Carley, S., see Sovacool, B.K., *MPE Jul-Aug 2024 18-25*
- Carli, F., see Guibout, C., *MPE May-Jun 2024 67-78*
- Carlino, E., see Ackermann, T., *MPE Nov-Dec 2015 67-77*
- Carlson, R., see Levitan, R., *MPE Nov-Dec 2014 78-88*
- Carneiro, S., see Rudnick, H., *PAE-M Jul-Aug 2010 61-74*
- Carney, J.L., see Currie, R.A.F., *MPE Nov-Dec 2023 68-76*
- Carpini, L.D., see Dondossola, G., *MPE May-Jun 2024 42-49*
- Carre, O., see Grenard, S., *MPE Sep-Oct 2011 42-51*
- Carroll, J.R., see Martin, K.E., *PAE-M Sep-Oct 2008 24-33*
- Carter, J.P. The transformation of the nuclear power industry; *PAE-M Nov-Dec 2006 25-33*
- Carvalho, M., see Moreno, R., *MPE May-Jun 2020 33-48*
- Carvalho, M.R., see Serrano, R., *MPE Jan-Feb 2022 38-51*
- Casado, M., see Tuohy, A., *MPE Nov-Dec 2015 50-59*
- Casey, E., Beaini, S., Pabi, S., Zammit, K., and Amarnath, A., The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks; *MPE Jan-Feb 2017 34-42*
- Casey, L., see Vartanian, C., *MPE Nov-Dec 2018 52-63*
- Caspary, J., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Caspary, J., see Lawhorn, J., *PAE-M Nov-Dec 2009 76-88*
- Caspary, J., see Lew, D., *MPE Nov-Dec 2021 56-66*
- Caspary, J., see McCalley, J., *MPE Nov-Dec 2017 83-93*
- Caspary, J., see Osborn, D., *MPE Nov-Dec 2011 60-74*
- Castenschiold, R. Ground control for alternate power; *PAE-M May-Jun 2003 49-55*
- Castro, T., see Barroso, L.A., *PAE-M Jul-Aug 2006 32-46*
- Cavaliere, M., see Cunha, G., *MPE Jul-Aug 2023 26-35*
- Cave, D., see Vankayala, V., *PAE-M Mar-Apr 2008 61-69*
- Cave, D., see Ziwen Yao, *PAE-M Jan-Feb 2010 54-60*
- Ceja-Gomez, F., see Meridji, T., *MPE May-Jun 2019 22-31*
- Cha, S., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Chadliev, V., see Morjaria, M., *MPE May-Jun 2014 87-95*
- Chae, Y.J., see Hamilton, B., *MPE Jan-Feb 2011 32-39*
- Chaffey, G., see Van Hertem, D., *MPE Jul-Aug 2019 56-66*
- Chakrabarti, B., Callaghan, C., Krichtal, V., Goodwin, D., and Mistry, M., Beat the Heat; *MPE Mar-Apr 2011 67-73*
- Chakrabarti, S., Kyriakides, E., Tianshu Bi, Deyu Cai, and Terzija, V., Measurements get together; *PAE-M Jan-Feb 2009 41-49*
- Chakraborty, S., see Brundlinger, R., *MPE Mar-Apr 2015 30-42*
- Chalamala, B., see Fioravanti, R., *MPE Nov-Dec 2020 86-97*
- Chalamala, B., see Stenclik, D., *MPE Nov-Dec 2017 31-39*
- Chamorro, H.R., see Li, F., *MPE Nov-Dec 2022 56-65*
- Champion, B., see Aronoff, J., *MPE Jan-Feb 2013 30-38*
- Chan, C.C., and Y.S. Wong. Electric vehicles charge forward; *PAE-M Nov-Dec 2004 24-33*
- Chan, E.K., see Gooi, H.B., *MPE Jul-Aug 2012 65-74*
- Chang, C., see Kroposki, B., *MPE Nov-Dec 2020 37-46*
- Chapman, A., Fraser, A., Jones, L., Lovell, H., Scott, P., Thiebaux, S., and Verbic, G., Network Congestion Management: Experiences From Bruny Island Using Residential Batteries; *MPE Jul-Aug 2021 41-51*
- Chattopadhyay, D., see Bakovic, T., *MPE Jan-Feb 2021 74-84*
- Chattopadhyay, D., see Oguah, S., *MPE Mar-Apr 2019 61-68*
- Chattopadhyay, D., see Rudnick, H., *MPE Jul-Aug 2014 35-41*
- Chatzivasilieiadis, S., see Papadopoulos, P.N., *MPE Nov-Dec 2024 100-111*

- Chatzivasileiadis, S., Venzke, A., Stiasny, J., and Misyris, G., Machine Learning in Power Systems: Is It Time to Trust It?; *MPE May-Jun 2022 32-41*
- Chaudhuri, B., Ramasubramanian, D., Matevosyan, J., O'Malley, M., Miller, N., Green, T., and Zhou, X., Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources; *MPE Mar-Apr 2024 30-41*
- Chaves-Avila, J., Wurzburg, K., Gomez, T., and Linares, P., The Green Impact: How Renewable Sources Are Changing EU Electricity Prices; *MPE Jul-Aug 2015 29-40*
- Chavez-Rodriguez, M., see Schaeffer, R., *MPE May-Jun 2013 22-31*
- Che, L., Khodayar, M., and Shahidehpour, M., Only Connect: Microgrids for Distribution System Restoration; *MPE Jan-Feb 2014 70-81*
- Chen, B., see Roberson, D., *MPE May-Jun 2019 38-47*
- Chen, F., see Yates, D., *MPE Sep-Oct 2014 66-75*
- Chen, H., Baker, S., Benner, S., Berner, A., and Liu, J., PJM Integrates Energy Storage: Their Technologies and Wholesale Products; *MPE Sep-Oct 2017 59-67*
- Chen, H., Bresler, F.S., Bryson, M.E., Seiler, K., and Monken, J., Toward Bulk Power System Resilience: Approaches for Regional Transmission Operators; *MPE Jul-Aug 2020 20-30*
- Chen, H., Bryson, M., Sharafi, D., Rossi, S., Narasimhan, S.R., and Barroso, L., Operating the Power Grid During a Pandemic: COVID-19 Experiences; *MPE Nov-Dec 2022 26-37*
- Chen, H., see Jones, K., *MPE Sep-Oct 2015 29-35*
- Chen Jing, see Sheffrin, A.Y., *PAE-M Jul-Aug 2004 58-65*
- Chen, Q., Wang, X., Feng, C., Li, C., and Zheng, K., Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China; *MPE Nov-Dec 2024 66-77*
- Chen, X., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Chen, Y., see Zhou, H., *MPE Jul-Aug 2016 72-78*
- Chen, Z., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Chen-Ching Liu, Stefanov, A., Junho Hong, and Panciatici, P., Intruders in the Grid; *MPE Jan-Feb 2012 58-66*
- Cheng, Y., see Ramasubramanian, D., *MPE Mar-Apr 2024 55-65*
- Cheng, Y., see Sahni, M., *MPE Jul-Aug 2012 35-42*
- Chi, Y., see Jiang, L., *MPE Nov-Dec 2011 36-46*
- Chi, Y., see MacDowell, J., *MPE Nov-Dec 2019 79-88*
- Chi, Y., see Piwko, R., *MPE Mar-Apr 2012 44-52*
- Chicco, G., Crossley, P., and Nucci, C., Electric Power Engineering Education: Cultivating the Talent in the United Kingdom and Italy to Build the Low-Carbon Economy of the Future; *MPE Sep-Oct 2018 53-63*
- Chien-fei C., see Worcester, A.C., *MPE Jan-Feb 2013 18-29*
- Ching, C., see Lew, D., *MPE Nov-Dec 2017 50-60*
- Chiu, B., Roy, R., and Tran, T., Wildfire Resiliency: California Case for Change; *MPE Jan-Feb 2022 28-37*
- Chiu, B., see Romero Aguero, J., *MPE Jul-Aug 2019 75-84*
- Cho, G., Kim, C., Oh, Y., Kim, M., and Kim, J., Planning for the Future: Optimization-Based Distribution Planning Strategies for Integrating Distributed Energy Resources; *MPE Nov-Dec 2018 77-87*
- Choi, J., Generation to Come: Natural Gas and Electric System Interactions in South Korea; *MPE Nov-Dec 2014 63-77*
- Choi, J., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Choo, F.H., see Wang, P., *MPE May-Jun 2013 76-83*
- Chou, E., see Zhang, Y., *MPE Sep-Oct 2017 51-58* (Correction, *MPE Nov-Dec 2017 108*)
- Choudhury, P., see Li, W., *PAE-M Sep-Oct 2007 46-53*
- Choudhury, P., see Wenyuan Li, *PAE-M May-Jun 2006 52-58*
- Chow, J.H., see Worcester, A.C., *MPE Jan-Feb 2013 18-29*
- Chowdhury, A.A., and D.O. Koval. Value-based system facility planning; *PAE-M Sep-Oct 2004 58-67*
- Christensen, J., see Ostergaard, J., *MPE Mar-Apr 2021 46-55*
- Christison, B., see Pack, E., *MPE Sep-Oct 2021 56-66*
- Chrysanthopoulos, N., see Strbac, G., *MPE Jan-Feb 2021 53-63*
- Chun Li, Wilsun Xu, B. Hughes, J. Gurney, and B. Neilson. Virtual PQ troubleshooter [power quality]; *PAE-M May-Jun 2003 24-31*
- Ci, S., see Zhang, N., *MPE Jul-Aug 2021 63-73*
- Cifuentes, X., see Ferreira, R., *MPE Mar-Apr 2019 50-60*
- Ciocci, L.C., Keeping water in the U.S. mix; *PAE-M Jul-Aug 2008 36-39*
- Cirimele, V., Freschi, F., and Mitolo, M., I Charge, Therefore I Drive: Current State of Electric Vehicle Charging Systems; *MPE Nov-Dec 2023 91-97*
- Clack, C., see Lew, D., *MPE Nov-Dec 2021 56-66*
- Clack, C., see McCalley, J., *MPE Nov-Dec 2017 83-93*
- Clack, C.T., see O'Connell, R., *MPE Nov-Dec 2021 67-76*
- Clapauch, J.H., see Atanackovic, D., *PAE-M Jan-Feb 2008 61-68*
- Clark, G., A Changing Map: Four Decades of Service Restoration at Alabama Power; *MPE Jan-Feb 2014 64-69*
- Clark, H., Edris, A.-A., El-Gasseir, M., Epp, K., Isaacs, A., and Woodford, D., Softening the Blow of Disturbances; *PAE-M Jan-Feb 2008 30-41*
- Clark, K., see Miller, N., *MPE Nov-Dec 2013 63-71*
- Clark, K., see Milligan, M., *MPE Nov-Dec 2015 78-87*
- Clark, K., see Piwko, R., *PAE-M Mar-Apr 2010 18-26*
- Clark, L., and Boardman, E., I Sing the Mapboard Electric; *MPE Sep-Oct 2011 33-41*
- Clerc, B., see Dennetiere, S., *MPE May-Jun 2019 48-60*
- Cleveland, F., see McGranaghan, M., *MPE Jan-Feb 2016 83-93*
- Cochran, J., Bak, C.L., Francos, P.L., McGowan, D., Illiceto, A., Kiseliovas, G., Rondou, J., Tan, J., Trondheim, H.M., and Whiteford, J., Same Goal, Different Pathways for Energy Transition: A More Holistic, Multisector, Community-Driven Approach; *MPE Jul-Aug 2022 18-29*
- Coddington, M., Sciano, D., and Fuller, J., Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning; *MPE Mar-Apr 2017 40-47*
- Cody, K., see Mills, M., *MPE Nov-Dec 2023 48-55*
- Coe, S., Ott, A., and Pratt, D., Demanding Standards; *PAE-M May-Jun 2010 55-59*
- Cohn, J.A., From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States; *MPE May-Jun 2023 70-76*
- Cokkinides, G.J., see Meliopoulos, A.P.S., *PAE-M May-Jun 2007 74-86*
- Cokkinides, G.J., see Meliopoulos, S., *MPE Jan-Feb 2023 59-72*
- Cole, J., see Novosel, D., *PAE-M Jan-Feb 2008 49-60*
- Cole, W., see Stenclik, D., *MPE Nov-Dec 2021 29-36*
- Coley, S., see Trueblood, C., *MPE Mar-Apr 2013 33-44*
- Collier, C., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Collier, C., see Tuohy, A., *MPE Nov-Dec 2015 50-59*
- Concessao, L., see Bird, L., *MPE Jul-Aug 2024 64-74*
- Conejo, A., see Gil, J., *MPE Nov-Dec 2014 40-48*
- Conejo, A.J., see Dios, R.D., *PAE-M Sep-Oct 2007 64-70* (Correction, *PAE-M Nov-Dec 2007 108*)
- Conroy, B., see Currie, B., *MPE May-Jun 2017 20-29*
- Consiglio, L., see Varela, J., *MPE Jan-Feb 2015 84-91*
- Consonni, E., see Gandini, M., *MPE Sep-Oct 2024 100-110*
- Constantinescu, N., see Ferrante, A., *MPE Jan-Feb 2015 52-59*
- Cook, C.J., see Williams, C., *PAE-M Mar-Apr 2008 53-60*

- Corbett, J., and Savarimuthu, B.T.R., Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being; *MPE Jul-Aug 2024 94-102*
- Corbus, D., Kuss, M., Piwko, D., Hinkle, G., Matsuura, M., McNeff, M., Roose, L., and Brooks, A., All Options on the Table: Energy Systems Integration on the Island of Maui; *MPE Sep-Oct 2013 65-74*
- Corbus, D., Lew, D., Jordan, G., Winters, W., Hull, F.V., Manobianco, J., and Zavadil, B., Up with wind; *PAE-M Nov-Dec 2009 36-46*
- Corchero Garcia, C., see Repo, S., *MPE May-Jun 2017 41-51*
- Corey, G.P., see Gyuk, I., *PAE-M Mar-Apr 2005 31-39*
- Cornforth, D., see Abbey, C., *MPE May-Jun 2014 67-76*
- Corradini, M., see Buongiorno, J., *MPE Mar-Apr 2019 69-77*
- Corredor, P., see Ferreira, R., *MPE Mar-Apr 2019 50-60*
- Corredor, P.H., and Ruiz, M.E., Against All Odds; *MPE Mar-Apr 2011 59-66*
- Corsetti, E., see Belhomme, R., *MPE Jul-Aug 2021 74-85*
- Cortez, E., see Mohsenian-Rad, H., *MPE May-Jun 2018 26-34*
- Corzine, S., see Smith, E., *MPE Sep-Oct 2016 48-56*
- Costantini, L.P., see Gent, M.R., *PAE-M Jan-Feb 2003 46-52*
- Coste, T., see Nativel, G., *MPE May-Jun 2024 59-66*
- Costello, S., see Higginson, M., *MPE May-Jun 2021 70-82*
- Coughlan, Y., see Holttinen, H., *MPE Nov-Dec 2011 47-59*
- Couturier, N., see Meyer, B., *MPE Mar-Apr 2020 43-52*
- Cox, R., see Enslin, J., *MPE Sep-Oct 2016 66-74*
- Cox, R., see Laughman, C., *PAE-M Mar-Apr 2003 56-63*
- Cox, S., see Alam, J., *MPE Mar-Apr 2020 69-80*
- Cox, S., see Ballanti, A., *MPE May-Jun 2017 52-63*
- Craig, D., see Staszsky, D.M., *PAE-M Sep-Oct 2005 56-63*
- Crossley, P., see Chicco, G., *MPE Sep-Oct 2018 53-63*
- Crow, M. Making the graduate-industry connection; *PAE-M Jan-Feb 2005 34-37*
- Crow, M., and Stichnote, L., The New Centurions; *PAE-M Jul-Aug 2010 20-26*
- Cubillos, F., see Bakovic, T., *MPE Jan-Feb 2021 74-84*
- Cuffe, P., see Ochoa, L., *MPE Sep-Oct 2016 16-28*
- Cui, H., see Li, F., *MPE Mar-Apr 2020 60-68*
- Cummings, R.W., System Disturbance and Blackout Analysis: Identifying Trends in System Behavior; *MPE May-Jun 2023 30-42*
- Cunha, G., see Barroso, L., *MPE Jan-Feb 2021 64-73*
- Cunha, G., see Li, F., *MPE Nov-Dec 2022 56-65*
- Cunha, G., see Rudnick, H., *MPE Nov-Dec 2014 29-39*
- Cunha, G., Valenzuela, P., Siciliano, G., Gomes, A.M., Cavaliere, M., and Barroso, L., Achieving Retail Liberalization in Middle-Income Countries: Challenges and Successes of the Brazilian Experience; *MPE Jul-Aug 2023 26-35*
- Currie, B., Abbey, C., Ault, G., Ballard, J., Conroy, B., Sims, R., and Williams, C., Flexibility Is Key in New York: New Tools and Operational Solutions for Managing Distributed Energy Resources; *MPE May-Jun 2017 20-29*
- Currie, R., Peisert, S., Scaglione, A., Shumavon, A., and Ravi, N., Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources; *MPE Sep-Oct 2023 48-57*
- Currie, R.A.F., Ward, T., Carney, J.L., Mandelman, G., Everett, M.C., Shumavon, A., Phelps, N., Griffin, L., and Roundtree, S., Grid Planning for Electrification Using Highly Granular Analytics: Insights Into the Transportation Distribution Infrastructure; *MPE Nov-Dec 2023 68-76*
- Curtiss, P., see Higginson, M., *MPE May-Jun 2021 70-82*
- Cutler, J., see Hamilton, B., *MPE Jan-Feb 2011 32-39*
- Cutululis, N., see Bahrani, B., *MPE Mar-Apr 2024 18-29*
- Cutululis, N., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Cvetkovic, M., see Palensky, P., *MPE Jan-Feb 2024 52-60*
- Czernie, M., see Sanchis, G., *MPE Jan-Feb 2015 38-51*

D

- D'Aquila, R., see Manz, D., *MPE May-Jun 2014 26-36*
- D'haeseleer, W., de Vries, L., Kang, C., and Delarue, E., Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns; *MPE Jan-Feb 2017 61-71*
- da Rocha Filho, G.N., see de Lima Montenegro Duarte, A.R.C., *PAE-M Jan-Feb 2007 51-57*
- Dagle, J., see Bobba, R.B., *MPE Jan-Feb 2012 67-73*
- Dagle, J.E. Postmortem analysis of power grid blackouts; *PAE-M Sep-Oct 2006 30-35*
- Dai, R., Liu, G., and Zhang, X., Transmission Technologies and Implementations: Building a Stronger, Smarter Power Grid in China; *MPE Mar-Apr 2020 53-59*
- Dale, L.L., see Sathaye, J.A., *MPE May-Jun 2013 32-45*
- Dale, M., see Li, F., *MPE May-Jun 2018 35-42*
- Dall'Anese, E., Mancarella, P., and Monti, A., Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems; *MPE Jan-Feb 2017 43-52*
- Dall'Anese, E., see Kroposki, B., *MPE Nov-Dec 2020 37-46*
- Dangelmaier, L., see Quint, R., *MPE Nov-Dec 2019 35-45*
- Danielsson, O., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Darby, S., see Abrahamse, W., *MPE Jan-Feb 2018 29-34*
- Daryanian, B., see Manz, D., *MPE May-Jun 2014 26-36*
- Das, G., see Devanand, P., *MPE Jan-Feb 2020 55-62*
- Dashti, R., and Afsharnia, S., Decisions, Decisions: An Asset Management-Based Distribution System Framework; *MPE May-Jun 2014 96-108*
- DaSilva, R., see Fardanesh, B., *MPE Mar-Apr 2020 22-30*
- Dauenhauer, P., see Louie, H., *MPE Jul-Aug 2014 70-78*
- Davat, B., see Thounthong, P., *PAE-M Jan-Feb 2008 69-76*
- Davidson, C., Grieshaber, W., Modeer, T., Smith, D., Yang, B., Yu, Z., and Zhang, R., DC Circuit Breakers for High-Voltage dc Grids: Present and Future; *MPE Sep-Oct 2024 87-99*
- Davidson, I.E., see Blyden, B.K., *PAE-M Jul-Aug 2005 24-31*
- Davidson, M., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Davies, C., see O'Connell, B., *MPE Sep-Oct 2021 18-28*
- Davis, M., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Davoudi, A., see Fahimi, B., *MPE Jul-Aug 2011 54-64*
- De Clercq, B., see Sanchis, G., *MPE Jan-Feb 2015 38-51*
- De Decker, J., see Orths, A., *MPE Nov-Dec 2013 83-95*
- de Jong, E., see Brundlinger, R., *MPE Mar-Apr 2015 30-42*
- de la Fuente, I., see Gomez, T., *MPE Jan-Feb 2019 20-31*
- de la Torre, M., see Ackermann, T., *PAE-M Nov-Dec 2009 65-75*
- de la Torre Rodriguez, M., see Ackermann, T., *MPE Nov-Dec 2015 67-77*
- de la Torre Rodríguez, M., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- de la Torre Rodriguez, M., see Dobschinski, J., *MPE Nov-Dec 2017 40-49*
- de Lima Montenegro Duarte, A.R.C., Bezerra, U.H., de Lima Tostes, M.E., and da Rocha Filho, G.N., Alternative energy sources in the Amazon; *PAE-M Jan-Feb 2007 51-57*
- de Lima Tostes, M.E., see de Lima Montenegro Duarte, A.R.C., *PAE-M Jan-Feb 2007 51-57*
- de Longeaux, P., see Astic, J., *MPE Mar-Apr 2018 57-66*
- De Martini, P., Gallagher, L., Takayesu, E., Hanley, R., and Henneaux, P., Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services; *MPE Jul-Aug 2022 76-84*

- De Martini, P., Operational Coordination Architecture: New Models and Approaches; *MPE Sep-Oct 2019 29-39*
- De Martini, P., see Kristov, L., *MPE May-Jun 2016 63-69*
- de Sa Ferreira, R., Rudnick, H., and Barroso, L., The Expansion of Transmission: The Challenges Faced in South America; *MPE Jul-Aug 2016 54-64*
- de Vries, L., see D'haeseleer, W., *MPE Jan-Feb 2017 61-71*
- de Vries, L., see Strbac, G., *MPE Jan-Feb 2021 53-63*
- Deconinck, G., see Avramidis, I., *MPE Jul-Aug 2023 53-63*
- Dehouck-Neveu, A., see Nativel, G., *MPE May-Jun 2024 59-66*
- Del Rosso, A., see Arghandeh, R., *MPE Sep-Oct 2014 76-83*
- Delarue, E., see D'haeseleer, W., *MPE Jan-Feb 2017 61-71*
- Delimar, M., see Vu Van, T., *MPE Jan-Feb 2015 30-37*
- Della Giustina, D., see Repo, S., *MPE May-Jun 2017 41-51*
- DeLosa III, J., see Pfeifenberger, J.P., *MPE Sep-Oct 2024 20-30*
- DeMarco, C., see Kezunovic, M., *PAE-M Mar-Apr 2009 69-78*
- Demaree, K., see Osterlund, L., *MPE Jan-Feb 2016 68-82*
- Demello, R., see Piwko, R., *PAE-M Nov-Dec 2007 68-77*
- Demeo, E., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- DeMeo, E., see Smith, J., *PAE-M Mar-Apr 2009 41-51*
- Demeo, E.A., Jordan, G.A., Kalich, C., King, J., Milligan, M.R., Murley, C., Oakleaf, B., and Schuerger, M.J., Accommodating Wind's Natural Behavior; *PAE-M Nov-Dec 2007 59-67*
- DeMeo, E.A., W. Grant, M.R. Milligan, and M.J. Schuerger. Wind plant integration; *PAE-M Nov-Dec 2005 38-46*
- Denholm, P., Margolis, R., Mai, T., Brinkman, G., Drury, E., Hand, M., and Mowers, M., Bright Future: Solar Power as a Major Contributor to the U.S. Grid; *MPE Mar-Apr 2013 22-32*
- Denholm, P., see Ahlstrom, M., *MPE Nov-Dec 2021 37-44*
- Denholm, P., see Brinkman, G., *MPE May-Jun 2011 24-32*
- Denholm, P., see Kroposki, B., *MPE Mar-Apr 2017 61-73*
- Denholm, P., see Milligan, M., *MPE Nov-Dec 2015 78-87*
- Denholm, P., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- Denholm, P., see O'Connell, R., *MPE Nov-Dec 2021 67-76*
- Denholm, P., see Stenclik, D., *MPE Nov-Dec 2017 31-39*
- Dennetière, S., Rault, P., Sharifabadi, K., Krajisnik, N., Priebe, T., and Hjalmarsson, P., De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial; *MPE Sep-Oct 2024 73-86*
- Dennetière, S., Saad, H., Vernay, Y., Rault, P., Martin, C., and Clerc, B., Supporting Energy Transition in Transmission Systems: An Operator's Experience Using Electromagnetic Transient Simulation; *MPE May-Jun 2019 48-60*
- Dent, C., see Stenclik, D., *MPE Nov-Dec 2021 29-36*
- Desai, B., and Lebow, M., Needed: ASAP Approach; *PAE-M Nov-Dec 2010 53-60*
- Desai, B., Walther, M., and Haufler, J., If It Ain't Broke...; *PAE-M Nov-Dec 2010 48-52*
- DeShazo, G., see Henderson, M., *PAE-M Mar-Apr 2007 52-60*
- DeSocio, M., see Ela, E., *MPE Jan-Feb 2021 41-52*
- Despouys, O., see Lorenzo, M., *MPE Jan-Feb 2015 75-83*
- Devanand, P., Rastogi, R., Ahmad, M., Batra, T., Ohja, A., Kumar, M., V., Das, G., and Ansari, M., Advanced Distribution Management System: Improving Distribution Efficiency Through an Integrated Approach; *MPE Jan-Feb 2020 55-62*
- Devaux, O., see Grenard, S., *MPE Sep-Oct 2011 42-51*
- Devine-Wright, P., see Perlaviciute, G., *MPE Jan-Feb 2018 49-55*
- Deyu Cai, see Chakrabarti, S., *PAE-M Jan-Feb 2009 41-49*
- Di Ninno, F., see Li, F., *MPE Nov-Dec 2022 56-65*
- Di Santo, S.G., see Manassero, G., *MPE Nov-Dec 2024 112-117*
- Dickerman, L., and Harrison, J., A New Car, a New Grid; *PAE-M Mar-Apr 2010 55-61*
- Dietmeyer, D., see Udren, E.A., *MPE Jan-Feb 2022 64-77*
- Dietz, T., see Steg, L., *MPE Jan-Feb 2018 20-28*
- Dilliot, J., see Washom, B., *MPE Jul-Aug 2013 28-32*
- Dimeas, A., see Katiraei, F., *PAE-M May-Jun 2008 54-65*
- Dimeas, A., see Strbac, G., *MPE May-Jun 2015 35-43*
- Dinkel, A., see Steffel, S., *MPE Mar-Apr 2013 45-54*
- Dios, R.D., Soto, F., and Conejo, A.J., Planning to expand?; *PAE-M Sep-Oct 2007 64-70* (Correction, *PAE-M Nov-Dec 2007 108*)
- Dise, S., see Tuohy, A., *MPE Nov-Dec 2015 50-59*
- Disosway, J. Generations: The Nuclear family comes of age; *PAE-M Nov-Dec 2006 18-24*
- Diwold, K., see von Appen, J., *MPE Mar-Apr 2013 55-64*
- Dixon, J., see Rudnick, H., *PAE-M Sep-Oct 2003 32-40*
- Djapic, P., Ramsay, C., Pudjianto, D., Strbac, G., Mutale, J., Jenkins, N., and Allan, R., Taking an active approach; *PAE-M Jul-Aug 2007 68-77*
- Djapic, P., see Strbac, G., *MPE Mar-Apr 2019 25-36*
- Dobschinski, J., Bessa, R., Du, P., Geisler, K., Haupt, S., Lange, M., Mohrlen, C., Nakafuji, D., and de la Torre Rodriguez, M., Uncertainty Forecasting in a Nutshell: Prediction Models Designed to Prevent Significant Errors; *MPE Nov-Dec 2017 40-49*
- Dobschinski, J., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Doig, P., and L. Durante. The CT Reclassification system; *PAE-M Nov-Dec 2006 56-60*
- Dombek, C., see Piwko, R., *PAE-M Nov-Dec 2007 68-77*
- Dominelli, N., A. Rao, and P. Kundur. Life extension and condition assessment: techniques for an aging utility infrastructure; *PAE-M May-Jun 2006 24-35*
- Domingues, L., see Arruda, C., *MPE Mar-Apr 2020 31-42*
- Donahoe, K., see Myrda, P., *PAE-M May-Jun 2007 32-44*
- Donalek, P., Pumped Storage Hydro: Then and Now; *MPE Sep-Oct 2020 49-57*
- Dondossola, G., Terruggia, R., Todeschini, M.G., Bianco, G., Carpini, L.D., and Modica, M., Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition; *MPE May-Jun 2024 42-49*
- Dong, H., Zeng, B., Wang, Y., Liu, Y., and Zeng, M., China's Solar Subsidy Policy: Government Funding Yields to Open Markets; *MPE May-Jun 2020 49-60*
- Donnelly, M., see Glavic, M., *MPE Jul-Aug 2012 43-55*
- Donohoo, P., see Hobbs, B., *MPE Jul-Aug 2016 30-40*
- Donohoo-Vallett, P., see Frisch, C., *MPE Jul-Aug 2018 90-98*
- dos Santos, M.L., see Manassero, G., *MPE Nov-Dec 2024 112-117*
- Douglas, J., see Schainker, R., *PAE-M Mar-Apr 2006 30-37*
- Douglas, J.H., see Sobajic, D.J., *PAE-M Mar-Apr 2004 45-49*
- Dowdy, A., see Sharafi, D., *MPE Jan-Feb 2022 52-63*
- Dragoon, K., Iliceto, A., Korpas, M., Markussen, P., Pivovar, B., Ruth, M., Westlake, B., and Endler, E., Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles; *MPE Jul-Aug 2022 85-95*
- Driesen, J., and Katiraei, F., Design for distributed energy resources; *PAE-M May-Jun 2008 30-40*
- Driesen, J., see Van Roy, J., *MPE Sep-Oct 2013 75-81*
- Drover, C., see Bilodeau, H., *MPE Mar-Apr 2016 42-56*
- Druet, C., see Lorenzo, M., *MPE Jan-Feb 2015 75-83*
- Drury, E., see Brinkman, G., *MPE May-Jun 2011 24-32*
- Drury, E., see Denholm, P., *MPE Mar-Apr 2013 22-32*
- Du, P., see Dobschinski, J., *MPE Nov-Dec 2017 40-49*

- Du, P., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Du, P., see Matevosyan, J., *MPE Mar-Apr 2021 18-27* (Erratum. *MPE May-Jun 2021 103*)
- Du, Y., Li, F., Kurte, K., Munk, J., and Zandi, H., Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control; *MPE May-Jun 2022 42-53*
- Du, Y., see Li, F., *MPE Mar-Apr 2018 76-84*
- Dubbelday, W., see Schinker, R., *PAE-M Mar-Apr 2006 51-58*
- Dubey, A., Bose, A., Liu, M., and Ochoa, L., Paving the Way for Advanced Distribution Management Systems Applications: Making the Most of Models and Data; *MPE Jan-Feb 2020 63-75*
- Duchesne, J., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Duchesne, J., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Dudek, E., The Flexibility of Domestic Electric Vehicle Charging: The Electric Nation Project; *MPE Jul-Aug 2021 16-27*
- Dudurych, I., see Holttinen, H., *MPE Nov-Dec 2011 47-59*
- Dudurych, I., The Impact of Renewables on Operational Security: Operating Power Systems That Have Extremely High Penetrations of Nonsynchronous Renewable Sources; *MPE Mar-Apr 2021 37-45*
- Dudurych, I.M., Rogers, A., Aherne, R., Wang, L., Howell, F., and Lin, X., Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration; *MPE Mar-Apr 2012 62-70*
- Dudurych, I.M., see Ackermann, T., *PAE-M Nov-Dec 2007 90-103*
- Dufournet, D., Circuit breakers go high voltage; *PAE-M Jan-Feb 2009 34-40*
- Dugan, R., see Smith, J., *MPE Mar-Apr 2015 20-29*
- Dugan, R.C., and McGranaghan, M., Sim City; *MPE Sep-Oct 2011 74-81*
- Dumas, J., see Grant, W., *PAE-M Nov-Dec 2009 47-58*
- Dumas, J., see Kyeon Hur, *PAE-M Jan-Feb 2010 37-45*
- Dunne, P., see Smith, E., *MPE Sep-Oct 2016 48-56*
- Durante, L., see Doig, P., *PAE-M Nov-Dec 2006 56-60*
- Durrwachter, H., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- Dussartre, M., see Astic, J., *MPE Mar-Apr 2018 57-66*
- Dutta, S., see MacDowell, J., *MPE Nov-Dec 2015 22-30*
- Dwernychuk, G., see Atanackovic, D., *PAE-M Jan-Feb 2008 61-68*
- Dwernychuk, G., see Yao, Z., *MPE May-Jun 2014 77-86*
- Dwernychuk, G., see Ziwen Yao, *PAE-M Jan-Feb 2010 54-60*
- E
- Edelson, D., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Edelson, D., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Edelson, D., see Grant, W., *PAE-M Nov-Dec 2009 47-58*
- Edelson, D., see Quint, R., *MPE Nov-Dec 2019 35-45*
- Edris, A.-A., see Clark, H., *PAE-M Jan-Feb 2008 30-41*
- Eggleston, J., see Sharafi, D., *MPE Jan-Feb 2022 52-63*
- Eggleston, J., Zuur, C., and Mancarella, P., From Security to Resilience: Technical and Regulatory Options to Manage Extreme Events in Low-Carbon Grids; *MPE Sep-Oct 2021 67-75*
- Ehlers, R., see Ingram, M., *PAE-M May-Jun 2007 67-73*
- El-Gasseir, M., see Clark, H., *PAE-M Jan-Feb 2008 30-41*
- Ela, E., Billimoria, F., Ragsdale, K., Moorthy, S., O'Sullivan, J., Gramlich, R., Rothleder, M., Rew, B., Supponen, M., and Sotkiewicz, P., Future Electricity Markets: Designing for Massive Amounts of Zero-Variable-Cost Renewable Resources; *MPE Nov-Dec 2019 58-66*
- Ela, E., Mills, A., Gimon, E., Hogan, M., Bouchez, N., Giacomoni, A., Ng, H., Gonzalez, J., and DeSocio, M., Electricity Market of the Future: Potential North American Designs Without Fuel Costs; *MPE Jan-Feb 2021 41-52*
- Ela, E., see Ahlstrom, M., *MPE Nov-Dec 2015 60-66*
- Ela, E., see Fox, J., *MPE Nov-Dec 2021 77-85*
- Ela, E., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- Ela, E., Wang, C., Moorthy, S., Ragsdale, K., O'Sullivan, J., Rothleder, M., and Hobbs, B., Electricity Markets and Renewables: A Survey of Potential Design Changes and Their Consequences; *MPE Nov-Dec 2017 70-82*
- Elgqvist, U., see Bjorklund, H., *MPE Mar-Apr 2016 66-71*
- Elizondo, G., see Madrigal, M., *MPE May-Jun 2012 20-29*
- Elkington, K., see Winter, W., *MPE Jan-Feb 2015 60-74*
- Ellis, A., Behnke, M., and Keller, J., Model Makers; *MPE May-Jun 2011 55-61*
- Ellis, A., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Ellis, A., see Mills, A., *MPE May-Jun 2011 33-41*
- Ellis, A., see Piwko, R., *MPE Nov-Dec 2011 26-35*
- Ellis, A., see Piwko, R., *PAE-M Nov-Dec 2009 26-35*
- Ellis, A., see Trueblood, C., *MPE Mar-Apr 2013 33-44*
- Ellis, A., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Ellis, A., see Zavadil, R., *PAE-M Nov-Dec 2005 26-37*
- Ellis, A., see Zavadil, R., *PAE-M Nov-Dec 2007 47-58*
- Elmhirst, O., see Fowler, R., *MPE Jul-Aug 2018 48-57*
- Elmoudi, R., see Meliopoulos, S., *MPE Jan-Feb 2023 59-72*
- Eshafi, M., see Robertson, P., *MPE Sep-Oct 2023 27-37*
- Emadi, A., Transportation 2.0; *MPE Jul-Aug 2011 18-29*
- Enayati, B., A Success Story: The Value of the Massachusetts Technical Standards Review Group; *MPE Mar-Apr 2017 57-60*
- Enayati, B., see Katiraei, F., *MPE Mar-Apr 2015 43-49*
- Enayati, B., see Romero Agüero, J., *MPE Jul-Aug 2019 75-84*
- Endler, E., see Dragoon, K., *MPE Jul-Aug 2022 85-95*
- Endrenyi, J., and G.J. Anders. Aging, maintenance, and reliability - approaches to preserving equipment health and extending equipment life; *PAE-M May-Jun 2006 59-67*
- Engel, M., see Welch, G.V., *PAE-M May-Jun 2003 36-42*
- Engelbrecht, T., Isaacs, A., Kynev, S., Matevosyan, J., Niemann, B., Owens, A.J., Singh, B., and Grondona, A., STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability; *MPE Mar-Apr 2023 30-39*
- Engstrom, J., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Enslin, J., Bhatt, R., and Cox, R., Applying the Principle of Locality: How to Build a Robust, Technology-Agnostic Regulatory Model for Tomorrow's Electrical Grid; *MPE Sep-Oct 2016 66-74*
- Epp, K., see Clark, H., *PAE-M Jan-Feb 2008 30-41*
- Eriksen, P.B., see Ackermann, T., *PAE-M Nov-Dec 2009 65-75*
- Eriksen, P.B., T. Ackermann, H. Abildgaard, P. Smith, W. Winter, and J.R. Garcia. System operation with high wind penetration; *PAE-M Nov-Dec 2005 65-74*
- Eriksson, M., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Erlich, I., see Ackermann, T., *PAE-M Nov-Dec 2007 90-103*
- Erlich, I., see Venayagamoorthy, G.K., *MPE Sep-Oct 2012 70-78*
- Ernst, B., Oakleaf, B., Ahlstrom, M., Lange, M., Moehrlen, C., Lange, B., and Rohrig, K., Predicting the Wind; *PAE-M Nov-Dec 2007 78-89*
- Ernst, B., see Ackermann, T., *MPE Nov-Dec 2015 67-77*
- Ernst, B., see Ackermann, T., *PAE-M Nov-Dec 2009 65-75*
- Ernst, B., see MacDowell, J., *MPE Nov-Dec 2019 79-88*
- Ernst, B., see O'Connell, R., *MPE Nov-Dec 2021 67-76*
- Ernst, B., see Orths, A., *MPE Nov-Dec 2019 67-78*
- Ernst, B., see Smith, J., *PAE-M Mar-Apr 2009 41-51*

- Escobar, R., see Gomez, T., *MPE Jan-Feb 2019 20-31*
- Escudero, M.V., see Modi, N., *MPE Mar-Apr 2024 78-88*
- Esmaeilian, A., see Fardanesh, B., *MPE Mar-Apr 2020 22-30*
- Estanqueiro, A., see Holttinen, H., *MPE Nov-Dec 2011 47-59*
- Estanqueiro, A., see Strbac, G., *MPE Jan-Feb 2021 53-63*
- Esteves dos Reis, A., see Arruda, C., *MPE Mar-Apr 2020 31-42*
- Eto, J., see Hobbs, B., *MPE Jul-Aug 2016 30-40*
- Eto, J., see Overholt, P., *MPE May-Jun 2014 44-51*
- Eurek, K., see Mai, T., *MPE Jul-Aug 2018 34-47*
- Evans, M., Bono, C., and Wang, Y., Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?; *MPE Jul-Aug 2022 44-54*
- Everett, M.C., see Currie, R.A.F., *MPE Nov-Dec 2023 68-76*
- F
- Fahey, T.S., and Burbure, N.V., Single-Phase Tripping; *PAE-M Mar-Apr 2008 46-52*
- Fahimi, B., Kwasinski, A., Davoudi, A., Balog, R.S., and Kiani, M., Charge It!; *MPE Jul-Aug 2011 54-64*
- Falk, H., see Skare, P., *MPE Jan-Feb 2016 94-104*
- Falk, H., see Udren, E.A., *MPE May-Jun 2024 79-89*
- Fan, J., and Borlase, S., The evolution of distribution; *PAE-M Mar-Apr 2009 63-68*
- Fan, L., Miao, Z., Shah, S., Koralewicz, P., Gevorgian, V., and Fu, J., Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling; *MPE May-Jun 2022 64-76*
- Fan, X., see Shi, D., *MPE Nov-Dec 2024 54-65*
- Fan, Y., see Strbac, G., *MPE Mar-Apr 2019 25-36*
- Fangxing Li Web tool opens up power system visualization; *PAE-M Jul-Aug 2003 37-41*
- Fangxing Li, L.A.A. Freeman, and R.E. Brown. Web-enabling applications for outsourced computing; *PAE-M Jan-Feb 2003 53-57*
- Farantatos, E., see Meliopoulos, S., *MPE Jan-Feb 2023 59-72*
- Fardanesh, B., see Bilodeau, H., *MPE Mar-Apr 2016 42-56*
- Fardanesh, B., see Meliopoulos, S., *MPE Jan-Feb 2023 59-72*
- Fardanesh, B., Shapiro, A., Saglimbene, P., DaSilva, R., Stefopoulos, G., and Esmaeilian, A., A Digital Transformation at New York Power Authority: Using Innovative Technologies to Create a More Efficient Power System; *MPE Mar-Apr 2020 22-30*
- Fardeanesh, B., see Meliopoulos, A.P.S., *PAE-M May-Jun 2007 74-86*
- Farhangi, H., A Road Map to Integration: Perspectives on Smart Grid Development; *MPE May-Jun 2014 52-66*
- Farhangi, H., The path of the smart grid; *PAE-M Jan-Feb 2010 18-28*
- Farid, A., see Muhanji, S., *MPE Sep-Oct 2019 71-81*
- Farland, J., see Puckett, C., *MPE May-Jun 2020 61-70*
- Farley, A., Belnap, H., and Parvania, M., Resilience Hubs: Bolstering the Grid and Empowering Communities; *MPE Jul-Aug 2024 38-48*
- Farrokhbadi, M., Solanki, B., Canizares, C., Bhattacharya, K., Koenig, S., Sauter, P., Leibfried, T., and Hohmann, S., Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services; *MPE Sep-Oct 2017 81-91*
- Faruqui, A., and Bourbonnais, C., The Tariffs of Tomorrow: Innovations in Rate Designs; *MPE May-Jun 2020 18-25*
- Farzan, F., Lahiri, S., Kleinberg, M., Gharieh, K., Farzan, F., and Jafari, M., Microgrids for Fun and Profit: The Economics of Installation Investments and Operations; *MPE Jul-Aug 2013 52-58*
- Farzan, F., see Farzan, F., *MPE Jul-Aug 2013 52-58*
- Farzan, F., see Mahani, K., *MPE Mar-Apr 2022 14-22*
- Favre-Perrod, P., see Geidl, M., *PAE-M Jan-Feb 2007 24-30*
- Feix, O., Shifting Currents: Challenges and Solutions for the Planned Evolution of the German Transmission Grid; *MPE Mar-Apr 2014 36-39*
- Fell, K., see Ungar, E., *PAE-M May-Jun 2010 30-35*
- Feltes, J., and Grande-Moran, C., Down, but Not Out: A Brief Overview of Restoration Issues; *MPE Jan-Feb 2014 34-43*
- Feltes, J., Hendriks, R., Stapleton, S., Voelzke, R., Lam, B., and Pfuntner, N., Twixt Land and Sea: Cost-Effective Grid Integration of Offshore Wind Plants; *MPE Mar-Apr 2012 53-61*
- Feltes, J., see Gomes, P., *MPE Nov-Dec 2016 40-51*
- Feng, C., see Chen, Q., *MPE Nov-Dec 2024 66-77*
- Feng, S., see Jiang, L., *MPE Nov-Dec 2011 36-46*
- Fenn, J., see Bilodeau, H., *MPE Mar-Apr 2016 42-56*
- Fernandes, B., see Gomes, P., *MPE Nov-Dec 2016 40-51*
- Fernandez-Jimenez, L.A., see Ramirez-Rosado, I.J., *PAE-M Mar-Apr 2005 56-63*
- Ferrante, A., Constantinescu, N., and Jackson, J., Lines of Convergence: R&D for Transmission and Distribution: Coordination and the Regulatory Challenge; *MPE Jan-Feb 2015 52-59*
- Ferreira, R., Corredor, P., Rudnick, H., Cifuentes, X., and Barroso, L., Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia; *MPE Mar-Apr 2019 50-60*
- Ferreira, R., see Moreno, R., *MPE Sep-Oct 2017 68-80*
- Ferreira, R., see Rudnick, H., *MPE Mar-Apr 2012 24-36*
- Ferreira, R., see Serrano, R., *MPE Jan-Feb 2022 38-51*
- Ferrero, R., see Shahidehpour, M., *PAE-M May-Jun 2005 32-38*
- Fielding, K., see Jans, L., *MPE Jan-Feb 2018 35-41*
- Fink, L.H., see Adibi, M.M., *PAE-M Sep-Oct 2006 68-79*
- Finley, C., see Grant, W., *PAE-M Nov-Dec 2009 47-58*
- Finn, A., see Majumder, R., *MPE Nov-Dec 2012 39-49*
- Fioravanti, R., Khoi Vu, and Stadlin, W., Large-scale solutions; *PAE-M Jul-Aug 2009 48-57*
- Fioravanti, R., Kumar, K., Nakata, S., Chalamala, B., and Preger, Y., Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems; *MPE Nov-Dec 2020 86-97*
- Fioravanti, R., see Kean, E., *MPE Sep-Oct 2022 39-45*
- Fitch, J., see Buse, D.P., *PAE-M Mar-Apr 2003 50-55*
- Fitchett, D.R., see Nourai, A., *PAE-M Mar-Apr 2005 40-46*
- Fitts, G.A., see Sathaye, J.A., *MPE May-Jun 2013 32-45*
- Flataker, A.F., see Korpas, M., *MPE Nov-Dec 2023 18-27*
- Fleeman, J., see McCalley, J., *MPE May-Jun 2011 42-54* (Corrections, *MPE Jul-Aug 2011 90*)
- Fleming, D., see Roychowdhury, R., *MPE Mar-Apr 2023 40-50*
- Fletcher, F., see Rahimi, F., *MPE May-Jun 2016 52-62*
- Fletscher, L.A., see Gutierrez, S.A., *MPE Sep-Oct 2023 58-67*
- Flores, D., Bridgeman, A., Welt, F., Aveiro, J., Benitez, D., and Vallejos, J., The Acaray Generating Station: Life-Extension and Modernization Studies; *MPE Sep-Oct 2020 36-48*
- Flores, W.C., see Li, F., *MPE Nov-Dec 2022 56-65*
- Flores-Castro, S., see Udren, E.A., *MPE Jan-Feb 2022 64-77*
- Flueck, A., and Li, Z., Destination: Perfection; *PAE-M Nov-Dec 2008 36-47*
- Flueck, A., see Reder, W., *PAE-M Jul-Aug 2010 27-35*
- Flynn, B., see Hunt, R., *MPE Jul-Aug 2019 47-55*
- Flynn, D., see Kiviluoma, J., *MPE Jul-Aug 2022 55-65*
- Focken, U., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Focken, U., see Ernst, B., *PAE-M Nov-Dec 2007 78-89*
- Focken, U., see Lew, D., *MPE Nov-Dec 2017 50-60*
- Fodero, K., see Robertson, P., *MPE Sep-Oct 2023 27-37*
- Fontaine, M., see Meyer, B., *MPE Mar-Apr 2020 43-52*

- Foresti, M., see Cailliau, M., *PAE-M Sep-Oct 2010 53-62*
- Forfia, D., Knight, M., and Melton, R., The View from the Top of the Mountain: Building a Community of Practice with the GridWise Transactive Energy Framework; *MPE May-Jun 2016 25-33*
- Fortin, P., Canadian clean; *PAE-M Jul-Aug 2008 40-46*
- Fortmann, J., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Fowler, R., Elmhirst, O., and Richards, J., Electrification in the United Kingdom: A Case Study Based on Future Energy Scenarios; *MPE Jul-Aug 2018 48-57*
- Fox, J., Ela, E., Hobbs, B., Sharp, J., Novacheck, J., Motley, A., Bessa, R.J., Pinson, P., and Kariniotakis, G., Forecasting and Market Design Advances: Supporting an Increasing Share of Renewable Energy; *MPE Nov-Dec 2021 77-85*
- Franck, C.M., Hsu, C., Xiao, Y., Bleuler, P., Frusque, G., Muratovic, M., and Polonelli, T., Transmission and Distribution Equipment: Providing Intelligent Maintenance; *MPE Mar-Apr 2023 18-29*
- Francos, P.L., see Cochran, J., *MPE Jul-Aug 2022 18-29*
- Franklin, H.A. Play to your strengths in difficult time; *PAE-M Jul-Aug 2003 22-28*
- Fraser, A., see Chapman, A., *MPE Jul-Aug 2021 41-51*
- Freeman, L.A.A., see Fangxing Li, *PAE-M Jan-Feb 2003 53-57*
- Freschi, F., see Cirimele, V., *MPE Nov-Dec 2023 91-97*
- Frew, B., see Milligan, M., *MPE Nov-Dec 2015 78-87*
- Friis-Hansen, P., see Yates, D., *MPE Sep-Oct 2014 66-75*
- Frisch, C., Donohoo-Vallett, P., Murphy, C., Hodson, E., and Horner, N., An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States; *MPE Jul-Aug 2018 90-98*
- Frohlich, K., see Geidl, M., *PAE-M Jan-Feb 2007 24-30*
- Frossard Pereira de Lucena, A., see Sathaye, J.A., *MPE May-Jun 2013 32-45*
- Frossard Pereira de Lucena, A., see Schaeffer, R., *MPE May-Jun 2013 22-31*
- Frowd, R., see Olson, A., *MPE Jul-Aug 2015 41-52*
- Frusque, G., see Franck, C.M., *MPE Mar-Apr 2023 18-29*
- Fu, J., see Fan, L., *MPE May-Jun 2022 64-76*
- Fu, S., and Zhong, J., Hydropower in China; *PAE-M Jul-Aug 2008 47-51*
- Fu Shutl, see Wu, F.F., *PAE-M Jul-Aug 2005 32-38*
- Fukui, S., see Ito, H., *MPE Mar-Apr 2018 46-56*
- Fuller, J., see Coddington, M., *MPE Mar-Apr 2017 40-47*
- Fullerton, E., see Majumder, R., *MPE Nov-Dec 2012 39-49*
- Fulli, G., Masera, M., Spisto, A., and Vitiello, S., A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets; *MPE Jan-Feb 2019 53-66*
- Fulli, G., see Bompard, E., *MPE Mar-Apr 2014 40-50*
- G
- Gagnon, J., see Henderson, M., *PAE-M Mar-Apr 2007 52-60*
- Galarza, R.J., B.S. Gisin, J.V. Mitsche, and S.J. Balsler. Market monitoring and performance evaluation; *PAE-M Nov-Dec 2004 46-54*
- Gallagher, K., and Myslikova, Z., Collective Action: Adaptation, Mitigation, Innovation: The Case of the Chinese PV Industry; *MPE Sep-Oct 2014 28-33*
- Gallagher, L., see De Martini, P., *MPE Jul-Aug 2022 76-84*
- Galli, W., see Majumder, R., *MPE Nov-Dec 2012 39-49*
- Galli, W., see McCalley, J., *MPE Nov-Dec 2017 83-93*
- Galloway, S., see Hunter, L., *MPE Nov-Dec 2023 56-67*
- Galvan, F., see Gol, M., *MPE Sep-Oct 2012 50-57*
- Galvan, F., see Meliopoulos, A.P.S., *PAE-M May-Jun 2007 74-86*
- Galvin, J., see Van Broekhoven, S., *MPE Jul-Aug 2013 40-45*
- Gan, H., see Gooi, H.B., *MPE Jul-Aug 2012 65-74*
- Gandini, M., Trolli, A., Karnezis, P., Pietribiasi, D., Rochat, E., Consonni, E., and Siripurapu, S., Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future; *MPE Sep-Oct 2024 100-110*
- Ganguli, R., see O'Connell, B., *MPE Sep-Oct 2021 18-28*
- Ganugula, V., see Quint, R., *MPE Nov-Dec 2019 35-45*
- Gao, D., see Hong, T., *MPE May-Jun 2018 66-73*
- Garaud-Verdier, R., see Varela, J., *MPE Jan-Feb 2015 84-91*
- Garbutt, M., see Lal, N., *MPE Sep-Oct 2021 29-45*
- Garcia, A., see Guerrero, J., *MPE Sep-Oct 2020 64-75*
- Garcia, J.R., see Eriksen, P.B., *PAE-M Nov-Dec 2005 65-74*
- Garcia Caro, S., see Guerrero, J., *MPE Sep-Oct 2020 64-75*
- Garcia Casado, M., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Garcia-Garrido, E., see Ramirez-Rosado, I.J., *PAE-M Mar-Apr 2005 56-63*
- Gardner, R., see Jones, K., *MPE Sep-Oct 2015 29-35*
- Garre, L., see Yates, D., *MPE Sep-Oct 2014 66-75*
- Garrity, T.F. Shaping the future of global energy delivery; *PAE-M Sep-Oct 2003 26-30*
- Garrity, T.F., Getting Smart; *PAE-M Mar-Apr 2008 38-45*
- Garton, K., see Mills, M., *MPE Nov-Dec 2023 48-55*
- Gaudin, C., see Huet, O., *PAE-M Nov-Dec 2010 88-93*
- Geibel, D., see von Appen, J., *MPE Mar-Apr 2013 55-64*
- Geidl, M., Koepfel, G., Favre-Perrod, P., Klockl, B., Andersson, G., and Frohlich, K., Energy hubs for the future; *PAE-M Jan-Feb 2007 24-30*
- Geisler, K., see Dobschinski, J., *MPE Nov-Dec 2017 40-49*
- Gellings, C.W., M. Samotyj, and B. Howe. The future's smart delivery system; *PAE-M Sep-Oct 2004 40-48*
- Gellings, C.W., Power to the People; *MPE Sep-Oct 2011 52-63*
- Gelston, A., see Ahlstrom, M., *MPE Nov-Dec 2021 37-44*
- Gemmell, B., and Korytowski, M., Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia; *MPE Mar-Apr 2016 72-79*
- Gent, M.R., and L.P. Costantini. Reflections on security [power systems]; *PAE-M Jan-Feb 2003 46-52*
- George, R., see Mills, A., *MPE May-Jun 2011 33-41*
- Georgilakis, P.S., and Amoiralis, E.I., Spotlight on transformer design; *PAE-M Jan-Feb 2007 40-50*
- Gesino, A., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Gevorgian, V., see Fan, L., *MPE May-Jun 2022 64-76*
- Gevorgian, V., see Kroposki, B., *MPE Mar-Apr 2017 61-73*
- Gevorgian, V., see Zhang, Y., *MPE Sep-Oct 2017 51-58* (Correction, *MPE Nov-Dec 2017 108*)
- Gharieh, K., see Farzan, F., *MPE Jul-Aug 2013 52-58*
- Ghatikar, G., see Arghandeh, R., *MPE Sep-Oct 2014 76-83*
- Giacomoni, A., see Ela, E., *MPE Jan-Feb 2021 41-52*
- Giacomoni, A.M., see Amin, S.M., *MPE Jan-Feb 2012 33-40*
- Giannuzzi, G., see Sattinger, W., *MPE Sep-Oct 2015 41-48*
- Gibson, L., see Guillon, S., *MPE Nov-Dec 2016 59-71*
- Gifford, W., see Puckett, C., *MPE May-Jun 2020 61-70*
- Gil, J., Caballero, A., and Conejo, A., Power Cycling: CCGTs: The Critical Link Between the Electricity and Natural Gas Markets; *MPE Nov-Dec 2014 40-48*
- Gill, S., Kane, L., Infield, D., Leithead, B., and McDonald, A., Training Tornado: An Intensive, Cross-Curricular Ph.D. Program in Wind Engineering at the University of Strathclyde; *MPE Jan-Feb 2013 51-57*
- Gimon, E., see Ahlstrom, M., *MPE Nov-Dec 2021 37-44*
- Gimon, E., see Ela, E., *MPE Jan-Feb 2021 41-52*
- Girad, R., see Piwko, R., *PAE-M Mar-Apr 2010 18-26*
- Giraldez, J., see Hoke, A., *MPE Nov-Dec 2018 18-29*
- Girgis, R., see Stiegemeier, C.L., *PAE-M Mar-Apr 2006 38-45*
- Giri, J., Parashar, M., Trehern, J., and Madani, V., The Situation Room: Control Center Analytics for Enhanced Situational Awareness; *MPE Sep-Oct 2012 24-39*

- Giri, J., Real-Time Grid Management: Keeping the Lights On! [MPE May-Jun 2023 51-60](#)
- Giri, J., see Madani, V., [MPE Sep-Oct 2015 18-28](#)
- Giri, J., see Thorp, J.S., [PAE-M Sep-Oct 2008 43-51](#)
- Giri, J., Sun, D., and Avila-Rosales, R., Wanted: A more intelligent grid; [PAE-M Mar-Apr 2009 34-40](#)
- Gisin, B.S., see Galarza, R.J., [PAE-M Nov-Dec 2004 46-54](#)
- Gjerde, O., see Tellefsen, T., [MPE Sep-Oct 2020 27-35](#)
- Gkritza, K., see McCalley, J., [MPE Sep-Oct 2013 24-35](#)
- Glavic, M., Novosel, D., Heredia, E., Kosterev, D., Salazar, A., Habibi-Ashrafi, F., and Donnelly, M., See It Fast to Keep Calm: Real-Time Voltage Control Under Stressed Conditions; [MPE Jul-Aug 2012 43-55](#)
- Go, R., see Burdick, A., [MPE Jul-Aug 2022 30-43](#)
- Godin, C., see Puckett, C., [MPE May-Jun 2020 61-70](#)
- Goel, L., see Wang, P., [MPE May-Jun 2013 76-83](#)
- Gol, M., Abur, A., and Galvan, F., Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs; [MPE Sep-Oct 2012 50-57](#)
- Goldberg, M., Measure Twice, Cut Once; [PAE-M May-Jun 2010 46-54](#)
- Golriz, A., Vilgan, I., Mortgage, H., Kazempour, F., and Ahmed, M., Auctions for Nonwires Alternatives: Securing and Operating Dispatchable Distributed Energy Resources; [MPE Mar-Apr 2022 47-56](#)
- Gomes, A.M., see Cunha, G., [MPE Jul-Aug 2023 26-35](#)
- Gomes, P., Aquino, A., Ticom, S., Fernandes, B., and Feltes, J., How Brazil Aims for Gold in Reliability: From Past Blackouts to Preparedness for the 2016 Summer Olympic and Paralympic Games; [MPE Nov-Dec 2016 40-51](#)
- Gomez, N.G., see Gutierrez, S.A., [MPE Sep-Oct 2023 58-67](#)
- Gomez, T., Herrero, I., Rodilla, P., Escobar, R., Lanza, S., de la Fuente, I., Llorens, M., and Junco, P., European Union Electricity Markets: Current Practice and Future View; [MPE Jan-Feb 2019 20-31](#)
- Gomez, T., see Chaves-Avila, J., [MPE Jul-Aug 2015 29-40](#)
- Gomez-Exposito, A., see Rosendo-Macias, J.A., [MPE Jan-Feb 2023 73-82](#)
- Gonzalez, J., see Ela, E., [MPE Jan-Feb 2021 41-52](#)
- Gonzalez-Cagigal, M.A., see Rosendo-Macias, J.A., [MPE Jan-Feb 2023 73-82](#)
- Goodrich, M., see Neumann, S., [MPE Jan-Feb 2016 40-47](#)
- Goodrich, M., see Osterlund, L., [MPE Jan-Feb 2016 68-82](#)
- Goodwin, D., see Chakrabarti, B., [MPE Mar-Apr 2011 67-73](#)
- Gooi, H.B., So, P.L., Chan, E.K., Toh, E., and Gan, H., Strait Ahead: Toward a Sustainable, Economic, and Secure Electricity Supply in Singapore; [MPE Jul-Aug 2012 65-74](#)
- Goswami, B., Tian, Y., Mishra, Y., Jin, J., and Tang, Y., Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges; [MPE Nov-Dec 2024 118-133](#)
- Gou, B., and Shue, D., Advances in Algorithms for Power System Static State Estimators: An Improved Solution for Bad Data Management and State Estimator Convergence; [MPE Jan-Feb 2023 16-25](#)
- Grainger, B.M., see Reed, G.F., [MPE Nov-Dec 2012 70-79](#)
- Gramlich, R., see Ela, E., [MPE Nov-Dec 2019 58-66](#)
- Gramlich, R., see Piwko, R., [PAE-M Nov-Dec 2005 47-56](#)
- Gramlich, R., see Piwko, R., [PAE-M Nov-Dec 2007 68-77](#)
- Gramlich, R., see Stenclik, D., [MPE Nov-Dec 2021 29-36](#)
- Grande-Moran, C., see Feltes, J., [MPE Jan-Feb 2014 34-43](#)
- Granstrom, P., see Mallet, P., [MPE Mar-Apr 2014 51-64](#)
- Grant, W., Edelson, D., Dumas, J., Zack, J., Ahlstrom, M., Kehler, J., Storck, P., Lerner, J., Parks, K., and Finley, C., Change in the air; [PAE-M Nov-Dec 2009 47-58](#)
- Grant, W., see Ahlstrom, M., [PAE-M Nov-Dec 2005 57-64](#)
- Grant, W., see DeMeo, E.A., [PAE-M Nov-Dec 2005 38-46](#)
- Grant, W., see Lauby, M.G., [MPE Nov-Dec 2011 75-85](#)
- Gravrakmo, H., see Leijon, M., [PAE-M Jan-Feb 2009 50-54](#)
- Gray, G., Simmins, J., Rajappan, G., Ravikumar, G., and Kharparde, S., Making Distribution Automation Work: Smart Data Is Imperative for Growth; [MPE Jan-Feb 2016 58-67](#)
- Green, I., see Quint, R., [MPE Nov-Dec 2019 35-45](#)
- Green, T., see Chaudhuri, B., [MPE Mar-Apr 2024 30-41](#)
- Green, T., see O'Malley, M., [MPE Nov-Dec 2021 45-55](#)
- Gregerson, S., and Toporek, D., The Doctor Is In; [PAE-M Nov-Dec 2010 45-47](#)
- Grenard, S., Huet, O., Devaux, O., and Carre, O., Power Steering; [MPE Sep-Oct 2011 42-51](#)
- Grice, A., see Ngo, Y., [MPE Jan-Feb 2020 34-42](#)
- Grieshaber, W., see Davidson, C., [MPE Sep-Oct 2024 87-99](#)
- Griffin, L., see Currie, R.A.F., [MPE Nov-Dec 2023 68-76](#)
- Grimit, E., see Tuohy, A., [MPE Nov-Dec 2015 50-59](#)
- Grondona, A., see Engelbrecht, T., [MPE Mar-Apr 2023 30-39](#)
- Groom, A., see Holttinen, H., [MPE Nov-Dec 2021 86-96](#)
- Groom, A., see Lew, D., [MPE Nov-Dec 2019 24-34](#)
- Groome, F., see Ackermann, T., [MPE Nov-Dec 2015 67-77](#)
- Groome, F., see Ackermann, T., [PAE-M Nov-Dec 2009 65-75](#)
- Groome, F., see Holttinen, H., [MPE Nov-Dec 2011 47-59](#)
- Grøtterud, G., see Orths, A., [MPE Nov-Dec 2013 83-95](#)
- Gruenbacher, D.M., see Pahwa, A., [PAE-M Jan-Feb 2005 53-58](#)
- Gu, C., see Li, F., [MPE May-Jun 2020 26-32](#)
- Guangyu Tu, see Yi Luo, [PAE-M Jan-Feb 2005 59-66](#)
- Guerrero, J., Personal, E., Garcia Caro, S., Parejo, A., Rossi, M., Garcia, A., Perez Sanchez, R., and Leon, C., Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project; [MPE Sep-Oct 2020 64-75](#)
- Guerrero, J.M., see Wu, Y., [MPE Jan-Feb 2024 35-42](#)
- Guibout, C., Watore, A., Carli, F., Carbonne, A., Mourier, K., and Rudolph, T., Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives; [MPE May-Jun 2024 67-78](#)
- Guillaud, X., see Bahrani, B., [MPE Mar-Apr 2024 18-29](#)
- Guillaume, C., see Huet, O., [PAE-M Nov-Dec 2010 88-93](#)
- Guillon, S., Toner, P., Gibson, L., and Boteler, D., A Colorful Blackout: The Havoc Caused by Auroral Electrojet Generated Magnetic Field Variations in 1989; [MPE Nov-Dec 2016 59-71](#)
- Guiyab, R., see Matevosyan, J., [MPE Mar-Apr 2021 18-27](#) (Erratum. [MPE May-Jun 2021 103](#))
- Gulhar, N., see Hamilton, K., [PAE-M May-Jun 2010 60-65](#)
- Guminski, A., see Kiviluoma, J., [MPE Jul-Aug 2022 55-65](#)
- Guo Jiachun, see Zuyi Li, [PAE-M May-Jun 2006 44-51](#)
- Guorui Zhang, see Schainker, R., [PAE-M Mar-Apr 2006 51-58](#)
- Gupta, A., see Sathaye, J., [PAE-M Sep-Oct 2009 59-61](#)
- Gupta, R., see Barker, C., [MPE Sep-Oct 2024 31-37](#)
- Gurney, J., see Atanackovic, D., [PAE-M Jan-Feb 2008 61-68](#)
- Gurney, J., see Chun Li, [PAE-M May-Jun 2003 24-31](#)
- Gurney, J.H. Building a case for the hydrogen economy; [PAE-M Mar-Apr 2004 35-39](#)
- Gustafsson, S., see Leijon, M., [PAE-M Jan-Feb 2009 50-54](#)
- Gutierrez, S.A., Botero, J.F., Gomez, N.G., Fletscher, L.A., and Leal, A., Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks; [MPE Sep-Oct 2023 58-67](#)
- Gutschl, C., see Belhomme, R., [MPE Jul-Aug 2021 74-85](#)
- Gyuk, I., P. Kulkarni, J.H. Sayer, J.D. Boyes, G.P. Corey, and G.H. Peek. The United States of storage [electric energy storage]; [PAE-M Mar-Apr 2005 31-39](#)

- Haacke, S., S. Border, D. Stevens, and B. Uluski. Plan ahead for substation automation; *PAE-M Mar-Apr 2003 32-41*
- Habibi-Ashrafi, F., see Glavic, M., *MPE Jul-Aug 2012 43-55*
- Hachmann, C., see Braun, M., *MPE Jul-Aug 2020 54-63*
- Hachmann, C., see Braun, M., *MPE Nov-Dec 2018 30-41*
- Hadingham, W., Rayney, K., Blaver, A., Smart, B., and Thomas, J., Distributed Energy Resources Roadmap: How the State of Western Australia Is Leading in Integration; *MPE Sep-Oct 2021 76-88*
- Haffner, L., see Mansour, Y., *PAE-M May-Jun 2005 55-61*
- Hager, U., see Wagner, T., *MPE Jan-Feb 2024 16-23*
- Haghdadi, N., see Stringer, N., *MPE Nov-Dec 2020 20-36*
- Haley, B., see Jones, R., *MPE Jul-Aug 2018 79-89*
- Halgamuge, S., see Siriwardana, J., *PAE-M Jan-Feb 2010 46-53*
- Hallberg, P., see Mallet, P., *MPE Mar-Apr 2014 51-64*
- Hamadi, V., Brosnan, U., Loftus, I., and Montgomery, G., Offshore Substation Design: High-Level Overview of the Industry Best Practices; *MPE Jul-Aug 2019 67-74*
- Hamilton, B., Chae, Y.J., Summy, M., Cutler, J., and Kolata, D., Power of Two; *MPE Jan-Feb 2011 32-39*
- Hamilton, B., see Balducci, P., *MPE Nov-Dec 2023 98-109*
- Hamilton, K., and Gulhar, N., Taking Demand Response to the Next Level; *PAE-M May-Jun 2010 60-65*
- Hampton, R.N., see Olearczyk, M., *PAE-M Nov-Dec 2010 75-84*
- Han, K., see Kim, H., *MPE Jul-Aug 2019 24-34*
- Han Yingdao, see Xiaorong Xie, *PAE-M Jan-Feb 2006 54-63*
- Hanai, K., see Ito, H., *MPE Mar-Apr 2018 46-56*
- Hand, M., see Denholm, P., *MPE Mar-Apr 2013 22-32*
- Handa, R., see Maitra, A., *MPE Jul-Aug 2017 41-49*
- Hanley, R., see De Martini, P., *MPE Jul-Aug 2022 76-84*
- Hannegan, B., see Kroposki, B., *MPE Mar-Apr 2017 61-73*
- Hansen, A., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Hansen, C., see Trueblood, C., *MPE Mar-Apr 2013 33-44*
- Hansen, D., see Waters, T., *PAE-M Jan-Feb 2006 40-46*
- Hara, R., Kita, H., Tanabe, T., Sugihara, H., Kuwayama, A., and Miwa, S., Testing the technologies; *PAE-M May-Jun 2009 77-85*
- Haralson, P., see Montoya, M., *MPE Jul-Aug 2013 33-39*
- Hardy, T., see Palensky, P., *MPE Jan-Feb 2024 52-60*
- Hargreaves, J., see Jones, R., *MPE Jul-Aug 2018 79-89*
- Hargreaves, J., see Olson, A., *MPE Jul-Aug 2015 41-52*
- Harmon, D.L., see Malcolm, J.S., *PAE-M Nov-Dec 2006 43-48*
- Harrison, J., see Dickerman, L., *PAE-M Mar-Apr 2010 55-61*
- Hart, E., see Olson, A., *MPE Jul-Aug 2015 41-52*
- Hartmann, C., see Noland, J.K., *MPE May-Jun 2024 90-103*
- Haselbauer, A., see Zhou, G., *MPE Jul-Aug 2019 35-46*
- Hassett, C., see Smith, E., *MPE Sep-Oct 2016 48-56*
- Hatziaargyriou, N., Asano, H., Irvani, R., and Marnay, C., Microgrids; *PAE-M Jul-Aug 2007 78-94*
- Hatziaargyriou, N., see Abbey, C., *MPE May-Jun 2014 67-76*
- Hatziaargyriou, N., see Katiraei, F., *PAE-M May-Jun 2008 54-65*
- Hatziaargyriou, N., see Kroposki, B., *PAE-M May-Jun 2008 40-53*
- Hatziaargyriou, N., see Lagos, D., *MPE May-Jun 2021 20-35*
- Hatziaargyriou, N., see Moreno, R., *MPE Jan-Feb 2022 78-89*
- Hatziaargyriou, N., see Strbac, G., *MPE May-Jun 2015 35-43*
- Hatziaargyriou, N., see Varela, J., *MPE May-Jun 2015 81-89*
- Hatziaargyriou, N., see Varela, J., *MPE May-Jun 2017 30-40*
- Hatziaargyriou, N., see Vu Van, T., *MPE Jan-Feb 2015 30-37*
- Haufler, J., see Desai, B., *PAE-M Nov-Dec 2010 48-52*
- Haupt, S., Garcia Casado, M., Davidson, M., Dobschinski, J., Du, P., Lange, M., Miller, T., Mohrlen, C., Motley, A., Pestana, R., and Zack, J., The Use of Probabilistic Forecasts: Applying Them in Theory and Practice; *MPE Nov-Dec 2019 46-57*
- Haupt, S., see Dobschinski, J., *MPE Nov-Dec 2017 40-49*
- Haupt, S., see Tuohy, A., *MPE Nov-Dec 2015 50-59*
- Hauser, C., see Anderson, D., *MPE Jan-Feb 2012 49-57*
- Hauser, C.H., D.E. Bakken, and A. Bose. A failure to communicate: next generation communication requirements, technologies, and architecture for the electric power grid; *PAE-M Mar-Apr 2005 47-55*
- Hauser, C.H., see Srivastava, A.K., *MPE Jan-Feb 2013 39-43*
- Hawkins, D., see Piwko, R., *PAE-M Nov-Dec 2005 47-56*
- Hawkins, D., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- He, J., see Yuan, Z., *MPE Mar-Apr 2023 61-69*
- He, Y., see Shi, D., *MPE Nov-Dec 2024 54-65*
- Head, D., see Heinen, S., *MPE Nov-Dec 2023 38-47*
- Healy, S., see MacGill, I., *PAE-M Jul-Aug 2006 63-74*
- Heckmann, W., see Braun, M., *MPE Nov-Dec 2018 30-41*
- Heidel, T.D., Kassakian, J.G., and Schmalensee, R., Forward Pass: Policy Challenges and Technical Opportunities on the U.S. Electric Grid; *MPE May-Jun 2012 30-37*
- Heidrick, T., J. Mossing, and G. Ashfaq. Calling for backup [power system reliability]; *PAE-M Jan-Feb 2004 52-58*
- Heim, D., see Vaahedi, E., *MPE Jul-Aug 2017 80-87*
- Heine, E., see Bobba, R.B., *MPE Jan-Feb 2012 67-73*
- Heinen, S., Botha, A., Head, D., Parker, R., and Richards, P., Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction; *MPE Nov-Dec 2023 38-47*
- Heinen, S., Hewicker, C., Jenkins, N., McCalley, J., O'Malley, M., Pasini, S., and Simoncini, S., Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements; *MPE Jan-Feb 2017 16-24*
- Heinen, S., Mancarella, P., O'Dwyer, C., and O'Malley, M., Heat Electrification: The Latest Research in Europe; *MPE Jul-Aug 2018 69-78*
- Heinen, S., see Kiviluoma, J., *MPE Jan-Feb 2017 25-33*
- Heiselberg, P., see Avramidis, I., *MPE Jul-Aug 2023 53-63*
- Heleno, M., see Sovacool, B.K., *MPE Jul-Aug 2024 18-25*
- Helisto, N., see Kiviluoma, J., *MPE Jul-Aug 2022 55-65*
- Helisto, N., see Strbac, G., *MPE Jul-Aug 2021 53-63*
- Helman, U., see Bloom, A., *MPE Nov-Dec 2017 22-30*
- Helmholtz, K.A., see van der Veen, A., *MPE Jan-Feb 2024 43-51*
- Hemmingsson, M., see Karlsson, D., *PAE-M Sep-Oct 2004 68-76*
- Henderson, D., see Sonderegger, R.C., *PAE-M May-Jun 2004 32-39*
- Henderson, M., Gagnon, J., Bertagnolli, D., Hosie, B., DeShazo, G., and Silverstein, B., Building a plan for HVDC; *PAE-M Mar-Apr 2007 52-60*
- Henderson, M.I., see Osborn, D., *MPE Nov-Dec 2011 60-74*
- Hendriks, R., see Feltes, J., *MPE Mar-Apr 2012 53-61*
- Henneaux, P., see De Martini, P., *MPE Jul-Aug 2022 76-84*
- Hennebury, L., and Root, C., The Power of Internships: Advice for Companies and Prospective Interns; *MPE Sep-Oct 2018 74-81*
- Henning, H., see Sterchele, P., *MPE Jul-Aug 2018 24-33*
- Henry, S., Panciatici, P., and Parisot, A., Going Green: Transmission Grids as Enablers of the Transition to a Low-Carbon European Economy; *MPE Mar-Apr 2014 26-35*
- Henry, W., see Abi-Samra, N., *MPE Mar-Apr 2011 52-58*
- Heredia, E., see Glavic, M., *MPE Jul-Aug 2012 43-55*
- Herling, S., Koza, F., and McGlynn, P., The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection; *MPE Jul-Aug 2016 65-71*
- Hernandez-Serna, R., see Strbac, G., *MPE Jan-Feb 2021 53-63*

- Herrero, I., see Gomez, T., *MPE Jan-Feb 2019 20-31*
- Herrero, I., see Usera, I., *MPE Sep-Oct 2017 42-50*
- Hervey, M., and Vujovic, P., A Common Language; *PAE-M Nov-Dec 2010 28-36*
- Hewicker, C., see Heinen, S., *MPE Jan-Feb 2017 16-24*
- Heydt, G.T., and V. Vittal. Feeding our profession [power engineering education]; *PAE-M Jan-Feb 2003 38-45*
- Heydt, G.T., see Kezunovic, M., *PAE-M Mar-Apr 2009 69-78*
- Hickox, V.M., see Worcester, A.C., *MPE Jan-Feb 2013 18-29*
- Hidalgo, J., see Holttinen, H., *MPE Nov-Dec 2011 47-59*
- Higginson, M., Payne, M., Moses, K., Curtiss, P., and Costello, S., North Bay Hydro Microgrid: Innovative Protection of a Complex System; *MPE May-Jun 2021 70-82*
- Hilger, K., see Meibom, P., *MPE Sep-Oct 2013 46-55*
- Hinkle, G., see Corbus, D., *MPE Sep-Oct 2013 65-74*
- Hjorns, A., see Orths, A., *MPE Nov-Dec 2013 83-95*
- Hirose, K., see Abbey, C., *MPE May-Jun 2014 67-76*
- Hirose, K., see Marnay, C., *MPE May-Jun 2015 44-57*
- Hirsch, P., see Schanker, R., *PAE-M Mar-Apr 2006 51-58*
- Hiry, J., see Wagner, T., *MPE Jan-Feb 2024 16-23*
- Hishida, M., see Badrzadeh, B., *MPE Mar-Apr 2024 66-77*
- Hjalmarsson, P., see Dennetiere, S., *MPE Sep-Oct 2024 73-86*
- Hjelmeland, M., see Noland, J.K., *MPE May-Jun 2024 90-103*
- Ho, J., see Hobbs, B., *MPE Jul-Aug 2016 30-40*
- Hobbs, B., and Oren, S., Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring; *MPE Jan-Feb 2019 73-81*
- Hobbs, B., see Ahlstrom, M., *MPE Nov-Dec 2015 60-66*
- Hobbs, B., see Ela, E., *MPE Nov-Dec 2017 70-82*
- Hobbs, B., see Fox, J., *MPE Nov-Dec 2021 77-85*
- Hobbs, B., Xu, Q., Ho, J., Donohoo, P., Kasina, S., Ouyang, J., Park, S., Eto, J., and Satyal, V., Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion; *MPE Jul-Aug 2016 30-40*
- Hobbs, B.F., see Sheffrin, A.Y., *PAE-M Jul-Aug 2004 58-65*
- Hobson, P., see Irving, M., *PAE-M Mar-Apr 2004 40-44*
- Hodge, B., see Kroposki, B., *MPE Mar-Apr 2017 61-73*
- Hodson, E., see Frisch, C., *MPE Jul-Aug 2018 90-98*
- Hoff, T., see Mills, A., *MPE May-Jun 2011 33-41*
- Hofmann, A., see Black, J., *MPE May-Jun 2018 43-53*
- Hoga, C., see Schumacher, M., *PAE-M May-Jun 2007 51-56*
- Hogan, M., see Ela, E., *MPE Jan-Feb 2021 41-52*
- Hohmann, M., see Vrettos, E., *MPE Mar-Apr 2021 56-68*
- Hohmann, S., see Farrokhgadi, M., *MPE Sep-Oct 2017 81-91*
- Hoke, A., Boemer, J.C., Badrzadeh, B., MacDowell, J., Kurthakoti, D., Marszalkowski, B., and Meuser, M., Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards; *MPE Mar-Apr 2024 42-54*
- Hoke, A., Giraldez, J., Palmintier, B., Ifuku, E., Asano, M., Ueda, R., and Symko-Davies, M., Setting the Smart Solar Standard: Collaborations Between Hawaiian Electric and the National Renewable Energy Laboratory; *MPE Nov-Dec 2018 18-29*
- Hoke, A., see Brundlinger, R., *MPE Mar-Apr 2015 30-42*
- Holland, S.P., and Neufeld, J.L., Brokering power; *PAE-M Sep-Oct 2009 36-43*
- Holloway, M., see Koellner, K., *MPE Sep-Oct 2015 36-40*
- Holmes, J., A More Perfect Union: Energy Systems Integration Studies from Europe; *MPE Sep-Oct 2013 36-45*
- Holttinen, H., Groom, A., Kennedy, E., Woodfin, D., Barroso, L., Orths, A., Ogimoto, K., Wang, C., Moreno, R., Parks, K., and Ackermann, T., Variable Renewable Energy Integration: Status Around the World; *MPE Nov-Dec 2021 86-96*
- Holttinen, H., Orths, A.G., Borre Eriksen, P., Hidalgo, J., Estanqueiro, A., Groome, F., Coughlan, Y., Neumann, H., Lange, B., van Hulle, F., and Dudurych, I., Currents of Change; *MPE Nov-Dec 2011 47-59*
- Holttinen, H., see Ackermann, T., *PAE-M Nov-Dec 2007 90-103*
- Holttinen, H., see Bloom, A., *MPE Nov-Dec 2017 22-30*
- Holttinen, H., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- Holttinen, H., see Piwko, R., *MPE Mar-Apr 2012 44-52*
- Holttinen, H., Tuohy, A., Milligan, M., Lannoye, E., Silva, V., Muller, S., and Soder, L., The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification; *MPE Nov-Dec 2013 53-62*
- Hong, T., and Wang, P., Artificial Intelligence for Load Forecasting: History, Illusions, and Opportunities; *MPE May-Jun 2022 14-23*
- Hong, T., Gao, D., Laing, T., Kruchten, D., and Calzada, J., Training Energy Data Scientists: Universities and Industry Need to Work Together to Bridge the Talent Gap; *MPE May-Jun 2018 66-73*
- Hong, T., see Black, J., *MPE May-Jun 2018 43-53*
- Hong, T., see Puckett, C., *MPE May-Jun 2020 61-70*
- Horner, N., see Frisch, C., *MPE Jul-Aug 2018 90-98*
- Horowitz, S., Phadke, A., and Renz, B., The Future of Power Transmission; *PAE-M Mar-Apr 2010 34-40*
- Horowitz, S.H., and A.G. Phadke. Blackouts and relaying considerations; *PAE-M Sep-Oct 2006 60-67*
- Horowitz, S.H., and A.G. Phadke. Boosting immunity to blackouts; *PAE-M Sep-Oct 2003 47-53*
- Horowitz, S.H., Novosel, D., Madani, V., and Adamiak, M., System-wide Protection; *PAE-M Sep-Oct 2008 34-42*
- Hosie, B., see Henderson, M., *PAE-M Mar-Apr 2007 52-60*
- Hossain, M., see Merrill, H., *MPE Jul-Aug 2020 64-75*
- Hossenlopp, L., Engineering perspectives on IEC 61850; *PAE-M May-Jun 2007 45-50*
- Hou, Y., and Zhong, J., Challenges Ahead: Current Status and Future Prospects for Chinese Energy; *MPE May-Jun 2012 38-47*
- Hou, Y., see Liu, S., *MPE Jan-Feb 2014 54-63*
- Houseman, D., see McGranaghan, M., *MPE Jan-Feb 2016 83-93*
- Houseman, D., see Romero Aguero, J., *MPE Jul-Aug 2019 75-84*
- Howe, B., see Gellings, C.W., *PAE-M Sep-Oct 2004 40-48*
- Howell, F., see Dudurych, I.M., *MPE Mar-Apr 2012 62-70*
- Hsu, C., see Franck, C.M., *MPE Mar-Apr 2023 18-29*
- Hu, A., see Jiang, L., *MPE Nov-Dec 2019 99-107*
- Hu, J., see Yuan, Z., *MPE Mar-Apr 2023 61-69*
- Hu, R., see Shi, D., *MPE Nov-Dec 2024 54-65*
- Hu, X., Zou, C., Zhang, C., and Li, Y., Technological Developments in Batteries: A Survey of Principal Roles, Types, and Management Needs; *MPE Sep-Oct 2017 20-31*
- Huang, J., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Huang, M., see Vankayala, V., *PAE-M Mar-Apr 2008 61-69*
- Huang, R., see Wang, S., *MPE Jan-Feb 2023 36-43*
- Huang, S., see Matevosyan, J., *MPE Mar-Apr 2021 18-27* (Erratum. *MPE May-Jun 2021 103*)
- Huang, S., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- Huang, S.H., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Huang, Y., see Jiang, L., *MPE Nov-Dec 2015 40-49*
- Huang, Y., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Huang, Z., see Wang, S., *MPE Jan-Feb 2023 36-43*
- Huang, Z., see Yuan, Z., *MPE Mar-Apr 2023 61-69*

- Hubert, T., see Maitra, A., *MPE Jul-Aug 2017 41-49*
- Huet, O., Guillaume, C., and Gaudin, C., Joint Assets; *PAE-M Nov-Dec 2010 88-93*
- Huet, O., see Grenard, S., *MPE Sep-Oct 2011 42-51*
- Hughes, B., see Chun Li, *PAE-M May-Jun 2003 24-31*
- Hull, F.V., see Corbus, D., *PAE-M Nov-Dec 2009 36-46*
- Hull, J., Khurana, H., Markham, T., and Staggs, K., Staying in Control: Cybersecurity and the Modern Electric Grid; *MPE Jan-Feb 2012 41-48*
- Hulsebosch, T., see Shahidehpour, M., *MPE May-Jun 2015 67-80*
- Humphrey, B.G., see Brown, R.E., *PAE-M May-Jun 2005 39-45*
- Hunt, R., Flynn, B., and Smith, T., The Substation of the Future: Moving Toward a Digital Solution; *MPE Jul-Aug 2019 47-55*
- Hunt, R., see Udren, E.A., *MPE May-Jun 2024 79-89*
- Hunter, K., see Osterlund, L., *MPE Jan-Feb 2016 68-82*
- Hunter, L., Sims, R., and Galloway, S., Open Data to Accelerate the Electric Mobility Revolution: Deploying Journey Electric Vehicle Chargers in Rural Scotland; *MPE Nov-Dec 2023 56-67*
- Huntington, S., see Burger, S., *MPE Mar-Apr 2019 16-24*
- Huntley, C., see Robertson, P., *MPE Sep-Oct 2023 27-37*
- Huq, I., see Badrzadeh, B., *MPE Mar-Apr 2024 66-77*
- Hur, K., see Kim, H., *MPE Jul-Aug 2019 24-34*
- Hur, K., see Kim, S., *MPE May-Jun 2019 61-72*
- Hur, K., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Hussain, M.M., see Srivastava, A., *MPE Jan-Feb 2024 61-71*
- Hydzik, R., see Lew, D., *MPE Nov-Dec 2017 50-60*
- Hyndman, R., Liu, X., and Pinson, P., Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis; *MPE May-Jun 2018 18-25*
- I
- Ibrahim, R., see Bechara, H., *MPE Nov-Dec 2024 89-99*
- IEEE Power & Energy Society Technical Council Task Force on Geomagnetic Disturbances, Geomagnetic Disturbances; *MPE Jul-Aug 2013 71-78*
- Ifuku, E., see Hoke, A., *MPE Nov-Dec 2018 18-29*
- Iliceto, A., see Cochran, J., *MPE Jul-Aug 2022 18-29*
- Iliceto, A., see Dragoon, K., *MPE Jul-Aug 2022 85-95*
- Iliceto, A., see Vu Van, T., *MPE Jan-Feb 2015 30-37*
- Imai, S., Novosel, D., Karlsson, D., and Apostolov, A., Unexpected Consequences: Global Blackout Experiences and Preventive Solutions; *MPE May-Jun 2023 16-29*
- Infield, D., see Gill, S., *MPE Jan-Feb 2013 51-57*
- Inga-Rojas, T., see Yao, Z., *MPE May-Jun 2014 77-86*
- Ingemansson, D., see Kirby, N., *MPE Mar-Apr 2016 57-65*
- Ingleson, J., see Allen, E., *MPE Nov-Dec 2016 52-58*
- Ingram, M., and Ehlers, R., Toward effective substation automation; *PAE-M May-Jun 2007 67-73*
- Ipakchi, A., and Albuyeh, F., Grid of the future; *PAE-M Mar-Apr 2009 52-62*
- Ipakchi, A., see Rahimi, F., *MPE May-Jun 2016 52-62*
- Ipakchi, A., see Vaahedi, E., *MPE Jul-Aug 2017 80-87*
- Iravani, R., see Hatziaargyriou, N., *PAE-M Jul-Aug 2007 78-94*
- Iravani, R., see Katiraei, F., *PAE-M May-Jun 2008 54-65*
- Irizarry-Rivera, A., see O'Neill-Carrillo, E., *PAE-M Jul-Aug 2003 29-36*
- Irving, M., G. Taylor, and P. Hobson. Plug in to grid computing; *PAE-M Mar-Apr 2004 40-44*
- Irwin, G., see Piwko, R., *PAE-M Nov-Dec 2009 26-35*
- Irwin, G., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Isaacs, A., see Clark, H., *PAE-M Jan-Feb 2008 30-41*
- Isaacs, A., see Engelbrecht, T., *MPE Mar-Apr 2023 30-39*
- Isaacs, A., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Isaacs, A., see Ramasubramanian, D., *MPE Mar-Apr 2024 55-65*
- Isberg, J., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Ise, T., see Kroposki, B., *PAE-M May-Jun 2008 40-53*
- Islam, S., see Nair, N., *MPE Sep-Oct 2018 64-73*
- Ito, H., Hanai, K., Saito, N., Kojima, T., Yoshiyama, S., and Fukui, S., Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control; *MPE Mar-Apr 2018 46-56*
- Ivanov, C., Saxton, T., Waight, J., Monti, M., and Robinson, G., Prescription for Interoperability: Power System Challenges and Requirements for Interoperable Solutions; *MPE Jan-Feb 2016 30-39*
- Ivanov, C., see Vu Van, T., *MPE Jan-Feb 2015 30-37*
- Iverson, B., see Osterlund, L., *MPE Jan-Feb 2016 68-82*
- J
- Jackson, J., see Ferrante, A., *MPE Jan-Feb 2015 52-59*
- Jacobson, D., see MacDowell, J., *MPE Nov-Dec 2019 79-88*
- Jacquemart, Y., see Astic, J., *MPE Mar-Apr 2018 57-66*
- Jafari, M., see Farzan, F., *MPE Jul-Aug 2013 52-58*
- Jahn, I., see Leterme, W., *MPE May-Jun 2019 73-81*
- Jahn, W., Urban, J.L., and Rein, G., Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?; *MPE Jan-Feb 2022 16-27*
- Jakob, J., see Wagner, T., *MPE Jan-Feb 2024 16-23*
- Jalali, A., see Badrzadeh, B., *MPE Sep-Oct 2021 46-55*
- Jamieson, M., see Moreno, R., *MPE Jan-Feb 2022 78-89*
- Jang, D., see Park, K., *MPE Nov-Dec 2023 28-37*
- Jang, G., see Kim, S., *MPE May-Jun 2019 61-72*
- Jang, G., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Jans, L., Bouman, T., and Fielding, K., A Part of the Energy "In Crowd": Changing People's Energy Behavior via Group-Based Approaches; *MPE Jan-Feb 2018 35-41*
- Jaskulski, G., see Munson, M., *MPE Jan-Feb 2011 50-55*
- Jedrzejewski, A., Lago, J., Marcjasz, G., and Weron, R., Electricity Price Forecasting: The Dawn of Machine Learning; *MPE May-Jun 2022 24-31*
- Jenkins, J., see Burger, S., *MPE Mar-Apr 2019 16-24*
- Jenkins, N., see Djapic, P., *PAE-M Jul-Aug 2007 68-77*
- Jenkins, N., see Heinen, S., *MPE Jan-Feb 2017 16-24*
- Jensen, M., see Key, T., *MPE Nov-Dec 2020 75-85*
- Jeon, D., see Kim, S., *MPE May-Jun 2019 61-72*
- Jewell, W., see McCalley, J., *MPE May-Jun 2011 42-54* (Corrections, *MPE Jul-Aug 2011 90*)
- Jewell, W., see Namboodiri, V., *MPE Jan-Feb 2013 44-50*
- Jiachun Guo, see Zuyi Li, *PAE-M May-Jun 2006 44-51*
- Jian Yang Resource adequacy: economic and engineering challenges and proposed solutions; *PAE-M Mar-Apr 2006 59-65*
- Jiang, C., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Jiang, H., see Zhang, N., *MPE Jul-Aug 2021 63-73*
- Jiang, L., Chi, Y., Qin, H., Pei, Z., Li, Q., Liu, M., Bai, J., Wang, W., Feng, S., Kong, W., and Wang, Q., Wind Energy in China; *MPE Nov-Dec 2011 36-46*
- Jiang, J., see Michaelson, D., *MPE Mar-Apr 2022 57-63*
- Jiang, L., see Zhang, Y., *MPE Sep-Oct 2017 51-58* (Correction, *MPE Nov-Dec 2017 108*)
- Jiang, L., Wang, C., Huang, Y., Pei, Z., Xin, S., Wang, W., Ma, S., and Brown, T., Growth in Wind and Sun: Integrating Variable Generation in China; *MPE Nov-Dec 2015 40-49*
- Jiang, L., Wang, C., Xie, G., Li, Z., Zhang, H., Pei, Z., Zeng, P., Kang, C., Zhang, N., Li, Q., and Hu, A., Variable-Generation Integration in China: An Update; *MPE Nov-Dec 2019 99-107*
- Jiang, S., see Korpas, M., *MPE Nov-Dec 2023 18-27*

- Jimenez-Estevez, G., Navarro-Espinosa, A., Palma-Behnke, R., Lanuzza, L., and Velazquez, N., Achieving Resilience at Distribution Level: Learning from Isolated Community Microgrids; *MPE May-Jun 2017 64-73*
- Jimenez-Estevez, G., Palma-Behnke, R., Ortiz-Villalba, D., Nunez Mata, O., and Silva Montes, C., It Takes a Village: Social SCADA and Approaches to Community Engagement in Isolated Microgrids; *MPE Jul-Aug 2014 60-69*
- Jimenez-Estevez, G., Palma-Behnke, R., Roman Latorre, R., and Moran, L., Heat and Dust: The Solar Energy Challenge in Chile; *MPE Mar-Apr 2015 71-77*
- Jin, J., see Goswami, B., *MPE Nov-Dec 2024 118-133*
- Jin, X., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Jin Zhong, see Wu, F.F., *PAE-M Jul-Aug 2006 20-31*
- Jing Chen, see Sheffrin, A.Y., *PAE-M Jul-Aug 2004 58-65*
- Jingtao Wu, see Xiaorong Xie, *PAE-M Jan-Feb 2006 54-63*
- Jinyu Xiao, see Xiaorong Xie, *PAE-M Jan-Feb 2006 54-63*
- Johal, H., see Schuenger, M., *MPE Nov-Dec 2013 33-44*
- John, E., see Pourbeik, P., *PAE-M Sep-Oct 2006 36-45*
- Johnson, B., see Kroposki, B., *MPE Mar-Apr 2017 61-73*
- Johnson, B., see Roberson, D., *MPE May-Jun 2019 38-47*
- Johnson, B.K., see Bahrman, M.P., *PAE-M Mar-Apr 2007 32-44*
- Johnson, J., see Brundlinger, R., *MPE Mar-Apr 2015 30-42*
- Johnson, P., see Venkataraman, S., *MPE May-Jun 2018 74-83*
- Johnson, R., An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options; *MPE Jul-Aug 2015 18-28*
- Johnson, R., and Wolf, G., Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects; *MPE Mar-Apr 2016 22-31*
- Jones, A.J., see Nock, D., *MPE Jul-Aug 2024 26-37*
- Jones, K., Cano, E., Chen, H., Robinson, F., Thomas, K., and Gardner, R., Strategies for Success with Synchrophasors: Poised to Shine in the Eastern Region of the United States; *MPE Sep-Oct 2015 29-35*
- Jones, L., see Ahlstrom, M., *PAE-M Nov-Dec 2005 57-64*
- Jones, L., see Chapman, A., *MPE Jul-Aug 2021 41-51*
- Jones, R., Haley, B., Kwok, G., Hargreaves, J., and Williams, J., **Electrification and the Future of Electricity Markets: Transitioning to a Low-Carbon Energy System**; *MPE Jul-Aug 2018 79-89*
- Jones, R., see Olson, A., *MPE Jul-Aug 2015 41-52*
- Jones, R., see Sahni, M., *MPE Jul-Aug 2012 35-42*
- Jontry, J., see Zhou, G., *MPE Jul-Aug 2019 35-46*
- Joos, G., Reilly, J., Bower, W., and Neal, R., The Need for Standardization: The Benefits to the Core Functions of the Microgrid Control System; *MPE Jul-Aug 2017 32-40*
- Joos, G. Training future power engineers; *PAE-M Jan-Feb 2005 38-47*
- Jordan, G., see Corbus, D., *PAE-M Nov-Dec 2009 36-46*
- Jordan, G., see Lew, D., *MPE Nov-Dec 2013 20-32*
- Jordan, G., see Piwko, R., *PAE-M Nov-Dec 2005 47-56*
- Jordan, G.A., see Demeo, E.A., *PAE-M Nov-Dec 2007 59-67*
- Jorgensen, P., see Lew, D., *MPE Nov-Dec 2019 24-34*
- Joseph, S., see Namboodiri, V., *MPE Jan-Feb 2013 44-50*
- Jovcic, D., Tang, G., and Pang, H., Adopting Circuit Breakers for High-Voltage dc Networks: Appropriating the Vast Advantages of dc Transmission Grids; *MPE May-Jun 2019 82-93*
- Judson, N., see Van Broekhoven, S., *MPE Jul-Aug 2013 40-45*
- Jun Zhu Web services provide the power to integrate; *PAE-M Nov-Dec 2003 40-49*
- Junco, P., see Gomez, T., *MPE Jan-Feb 2019 20-31*
- Jung, Y., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Junho Hong, see Chen-Ching Liu, *MPE Jan-Feb 2012 58-66*
- Jurasz, J., see Belhomme, R., *MPE Jul-Aug 2021 74-85*

K

- Kabel, D., see Mehos, M., *PAE-M May-Jun 2009 55-62*
- Kachinga, K., Szablya, S., and Nelson, J., Smart Village Voices in Africa, Zambia: Part 4: Gemstones to Electric Infrastructure in Zambia; *MPE Sep-Oct 2022 75-79*
- Kahrobaee, S., see Mehr, V., *MPE Jul-Aug 2021 28-40*
- Kaizuka, I., see Ogimoto, K., *MPE Mar-Apr 2013 65-74*
- Kalich, C., see Demeo, E.A., *PAE-M Nov-Dec 2007 59-67*
- Kamiab, A.E., see Yinger, R.J., *MPE Sep-Oct 2011 22-32*
- Kamwa, I., Dynamic Wide Area Situational Awareness: Propelling Future Decentralized, Decarbonized, Digitized, and Democratized Electricity Grids; *MPE Jan-Feb 2023 44-58*
- Kane, L., see Gill, S., *MPE Jan-Feb 2013 51-57*
- Kaneshiro, R., see Quint, R., *MPE Nov-Dec 2019 35-45*
- Kang, C., Chen, X., Xu, Q., Ren, D., Huang, Y., Xia, Q., Wang, W., Jiang, C., Liang, J., Xin, J., Chen, X., Peng, B., Men, K., Chen, Z., Jin, X., Li, H., and Huang, J., Balance of Power: Toward a More Environmentally Friendly, Efficient, and Effective Integration of Energy Systems in China; *MPE Sep-Oct 2013 56-64*
- Kang, C., see D'haeseleer, W., *MPE Jan-Feb 2017 61-71*
- Kang, C., see Jiang, L., *MPE Nov-Dec 2019 99-107*
- Kang, C., see Kiviluoma, J., *MPE Jan-Feb 2017 25-33*
- Kang, C., see Li, F., *MPE Jul-Aug 2015 76-86*
- Kang, C., see Zhang, N., *MPE Jul-Aug 2021 63-73*
- Kang, C., Wang, Y., Xue, Y., Mu, G., and Liao, R., Big Data Analytics in China's Electric Power Industry: Modern Information, Communication Technologies, and Millions of Smart Meters; *MPE May-Jun 2018 54-65*
- Kapur, R., see Podmore, R., *MPE Sep-Oct 2022 54-60*
- Karimi, H., see Strbac, G., *MPE Mar-Apr 2019 25-36*
- Kariniotakis, G., see Fox, J., *MPE Nov-Dec 2021 77-85*
- Karlsson, D., M. Hemmingsson, and S. Lindahl. Wide area system monitoring and control; *PAE-M Sep-Oct 2004 68-76*
- Karlsson, D., see Imai, S., *MPE May-Jun 2023 16-29*
- Karneziis, P., see Gandini, M., *MPE Sep-Oct 2024 100-110*
- Kasina, S., see Hobbs, B., *MPE Jul-Aug 2016 30-40*
- Kassakian, J.G., see Heidel, T.D., *MPE May-Jun 2012 30-37*
- Katiraei, F., and Romero Aguerro, J., Solar PV Integration Challenges; *MPE May-Jun 2011 62-71*
- Katiraei, F., Irvani, R., Hatziargyriou, N., and Dimeas, A., Microgrids management; *PAE-M May-Jun 2008 54-65*
- Katiraei, F., see Driesen, J., *PAE-M May-Jun 2008 30-40*
- Katiraei, F., Sun, C., and Enayati, B., No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems; *MPE Mar-Apr 2015 43-49*
- Kayal, S., see Schmitt, L., *MPE Jul-Aug 2013 59-70*
- Kazempour, F., see Golriz, A., *MPE Mar-Apr 2022 47-56*
- Kazempour, J., see Ostergaard, J., *MPE Mar-Apr 2021 46-55*
- Kazerani, M., see Arriaga, M., *MPE Jul-Aug 2014 50-59*
- Kean, E., Kushner, D., Paaso, A., Fioravanti, R., and Rabl, V., A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities; *MPE Sep-Oct 2022 39-45*
- Keane, A., see Ochoa, L., *MPE Sep-Oct 2016 16-28*
- Kearns, D., see Nourai, A., *PAE-M Mar-Apr 2010 49-54*
- Kedjar, B., see Bechara, H., *MPE Nov-Dec 2024 89-99*
- Keerthisinghe, C., Ahumada-Paras, M., Pozzo, L., Kirschen, D., Pontes, H., Tatum, W., and Matos, M., PV-Battery Systems for Critical Loads During Emergencies: A Case Study From Puerto Rico After Hurricane Maria; *MPE Jan-Feb 2019 82-92*
- Kehler, J., see Grant, W., *PAE-M Nov-Dec 2009 47-58*

- Keller, J., see Ellis, A., *MPE May-Jun 2011 55-61*
- Kelly, A., see Kim, C.S., *MPE Nov-Dec 2022 16-25*
- Kelly, J., and Rouse, G., The Right Combination; *PAE-M Nov-Dec 2008 60-70*
- Kelly, J., see Song, I.-K., *MPE Jan-Feb 2011 66-74*
- Kennedy, E., see Holttinen, H., *MPE Nov-Dec 2021 86-96*
- Kennedy, E., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Kersten, R., see Kohler, C., *MPE Jan-Feb 2024 72-80*
- Kessels, K., see Belhomme, R., *MPE Jul-Aug 2021 74-85*
- Key, T., Finding a bright spot; *PAE-M May-Jun 2009 34-44*
- Key, T., Kou, G., and Jensen, M., On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics; *MPE Nov-Dec 2020 75-85*
- Key, T., see Bower, W., *MPE May-Jun 2021 83-92*
- Key, T., see Trueblood, C., *MPE Mar-Apr 2013 33-44*
- Keyser, M., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Kezunovic, M., and Overbye, T., Off the Beaten Path: Resiliency and Associated Risk; *MPE Mar-Apr 2018 26-35*
- Kezunovic, M., Baembitov, R., and Mohamed, T., No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management; *MPE Nov-Dec 2024 78-88*
- Kezunovic, M., Heydt, G.T., DeMarco, C., and Mount, T., Is teamwork the smart solution?; *PAE-M Mar-Apr 2009 69-78*
- Kezunovic, M., Intelligent Design; *PAE-M Nov-Dec 2010 37-44*
- Kezunovic, M., see Popovic, T., *MPE Sep-Oct 2012 58-69*
- Kezunovic, M., Vittal, V., Meliopoulos, S., and Mount, T., The Big Picture: Smart Research for Large-Scale Integrated Smart Grid Solutions; *MPE Jul-Aug 2012 22-34*
- Khaligh, A., see Srinivasaraghavan, S., *MPE Jul-Aug 2011 46-53*
- Khan, G.M., see Khattak, A.R., *MPE Jul-Aug 2012 56-64*
- Khandekar, A., see Widergren, S., *MPE Sep-Oct 2019 47-58*
- Khaparde, S., see Gray, G., *MPE Jan-Feb 2016 58-67*
- Khaparde, S.A., and Sardana, A.K., Powering progress; *PAE-M Jul-Aug 2007 41-49*
- Khaparde, S.A., see Yadav, R.G., *PAE-M Jul-Aug 2005 39-48*
- Khattak, A.R., Mahmud, S.A., and Khan, G.M., The Power to Deliver: Trends in Smart Grid Solutions; *MPE Jul-Aug 2012 56-64*
- Khodaei, A., see Apostolopoulou, D., *MPE May-Jun 2016 46-51*
- Khodaei, A., see Romero Agüero, J., *MPE Sep-Oct 2016 29-37*
- Khodayar, M., see Che, L., *MPE Jan-Feb 2014 70-81*
- Khoi Vu, see Fioravanti, R., *PAE-M Jul-Aug 2009 48-57*
- Khoi Vu, see Novosel, D., *PAE-M Jan-Feb 2008 49-60*
- Khurana, H., see Bobba, R.B., *MPE Jan-Feb 2012 67-73*
- Khurana, H., see Hull, J., *MPE Jan-Feb 2012 41-48*
- Kiani, M., see Fahimi, B., *MPE Jul-Aug 2011 54-64*
- Kiesling, L., see Sovacool, B.K., *MPE Jul-Aug 2024 18-25*
- Kilby, P., see Stringer, N., *MPE Nov-Dec 2020 20-36*
- Kim, C., see Cho, G., *MPE Nov-Dec 2018 77-87*
- Kim, C.S., Kelly, A., Rohr, A., and Zhao, P., Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce; *MPE Nov-Dec 2022 16-25*
- Kim, H., Kim, J., Song, J., Lee, J., Han, K., Shin, J., Kim, T., and Hur, K., Smart and Green Substation: Shaping the Electric Power Grid of Korea; *MPE Jul-Aug 2019 24-34*
- Kim, H., see Kim, S., *MPE May-Jun 2019 61-72*
- Kim, H., see Roberson, D., *MPE May-Jun 2019 38-47*
- Kim, J., and Lee, J.-H., A Model of Stability; *MPE Jan-Feb 2011 75-81*
- Kim, J., and Park, H.-I., A National Vision; *MPE Jan-Feb 2011 40-49*
- Kim, J., see Cho, G., *MPE Nov-Dec 2018 77-87*
- Kim, J., see Kim, H., *MPE Jul-Aug 2019 24-34*
- Kim, K.-D., see Song, I.-K., *MPE Jan-Feb 2011 66-74*
- Kim, M., see Cho, G., *MPE Nov-Dec 2018 77-87*
- Kim, S., Kim, H., Lee, H., Lee, J., Lee, B., Jang, G., Lin, X., Kim, T., Jeon, D., Kim, Y., Lee, J., and Hur, K., Expanding Power Systems in the Republic of Korea: Feasibility Studies and Future Challenges; *MPE May-Jun 2019 61-72*
- Kim, S., see Park, K., *MPE Nov-Dec 2023 28-37*
- Kim, T., see Kim, H., *MPE Jul-Aug 2019 24-34*
- Kim, T., see Kim, S., *MPE May-Jun 2019 61-72*
- Kim, Y., see Kim, S., *MPE May-Jun 2019 61-72*
- King, J., see Demeo, E.A., *PAE-M Nov-Dec 2007 59-67*
- King, J., see Kroposki, B., *MPE Nov-Dec 2020 37-46*
- Kirby, B., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Kirby, B., see Milligan, M., *MPE Nov-Dec 2015 78-87*
- Kirby, B., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- Kirby, B., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- Kirby, B., see Zavadil, R., *PAE-M Nov-Dec 2007 47-58*
- Kirby, N., Current Trends in dc: Voltage-Source Converters; *MPE May-Jun 2019 32-37*
- Kirby, N., Marken, P., Paradis, M., Wang, P., Plowright, I., Moon, H., Ingemansson, D., Mendis, R., and Mehraban, B., Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer; *MPE Mar-Apr 2016 57-65*
- Kirschen, D., and Bouffard, F., Keeping the lights on and the information flowing; *PAE-M Jan-Feb 2009 50-60*
- Kirschen, D., see Keerthisinghe, C., *MPE Jan-Feb 2019 82-92*
- Kiseliovas, G., see Cochran, J., *MPE Jul-Aug 2022 18-29*
- Kishinevsky, Y., and S. Zelingher. Coming clean with fuel cells; *PAE-M Nov-Dec 2003 20-25*
- Kita, H., see Hara, R., *PAE-M May-Jun 2009 77-85*
- Kittl, C., see Wagner, T., *MPE Jan-Feb 2024 16-23*
- Kiviluoma, J., Heinen, S., Qazi, H., Madsen, H., Strbac, G., Kang, C., Zhang, N., Patteeuw, D., and Naegler, T., Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role; *MPE Jan-Feb 2017 25-33*
- Kiviluoma, J., Helisto, N., Putkonen, N., Smith, C., Koivisto, M., Korpas, M., Flynn, D., Soder, L., Taibi, E., and Guminski, A., Flexibility From the Electrification of Energy: How Heating, Transport, and Industries Can Support a 100% Sustainable Energy System; *MPE Jul-Aug 2022 55-65*
- Kiviluoma, J., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Kiviluoma, J., see Strbac, G., *MPE Jan-Feb 2021 53-63*
- Kjaergaard, J., see Bjorklund, H., *MPE Mar-Apr 2016 66-71*
- Kleinberg, M., see Farzan, F., *MPE Jul-Aug 2013 52-58*
- Kleissl, J., see Washom, B., *MPE Jul-Aug 2013 28-32*
- Klimaszewski, J.G., see Worcester, A.C., *MPE Jan-Feb 2013 18-29*
- Kling, W.L., see Slootweg, J.G., *PAE-M Nov-Dec 2003 26-33*
- Klinge, S., see Orths, A., *MPE Nov-Dec 2013 83-95*
- Klingmann, A., see Braun, M., *MPE Nov-Dec 2018 30-41*
- Klockl, B., see Geidl, M., *PAE-M Jan-Feb 2007 24-30*
- Knight, M., see Forfia, D., *MPE May-Jun 2016 25-33*
- Knight, M., see Widergren, S., *MPE Sep-Oct 2019 47-58*
- Koellner, K., Burks, S., Blevins, B., Nuthalapati, S., Rajagopalan, S., and Holloway, M., Synchronphasors Across Texas: The Deployment of Phasor Measurement Technology in the ERCOT Region; *MPE Sep-Oct 2015 36-40*
- Koenig, S., see Farrokhhabadi, M., *MPE Sep-Oct 2017 81-91*
- Koeppel, G., see Geidl, M., *PAE-M Jan-Feb 2007 24-30*
- Kohler, C., Kersten, R., and Schopf, M., Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today; *MPE Jan-Feb 2024 72-80*
- Kohnstam, P., see Majumder, R., *MPE Nov-Dec 2012 39-49*
- Koivisto, M., see Kiviluoma, J., *MPE Jul-Aug 2022 55-65*

- Kojima, M., see Madrigal, M., *MPE May-Jun 2012 20-29*
 Kojima, T., see Ito, H., *MPE Mar-Apr 2018 46-56*
 Kojovic, L.A., M.T. Bishop, and V. Skendzic. Coiled for protection; *PAE-M May-Jun 2003 43-48*
 Kok, K., and Widergren, S., A Society of Devices: Integrating Intelligent Distributed Resources with Transactive Energy; *MPE May-Jun 2016 34-45*
 Kok, K., see Rassa, A., *MPE Sep-Oct 2019 59-70*
 Kolata, D., see Hamilton, B., *MPE Jan-Feb 2011 32-39*
 Kolichev, D., see Briff, P., *MPE Sep-Oct 2024 49-59*
 Kolluri, S., see Romero Aguero, J., *MPE Jul-Aug 2019 75-84*
 Komendantova, N., and Battaglini, A., Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium; *MPE Jul-Aug 2016 79-87*
 Komljenovic, D., see Raymond, J., *MPE May-Jun 2024 29-41*
 Kong, W., see Jiang, L., *MPE Nov-Dec 2011 36-46*
 Konstantelos, I., see Strbac, G., *MPE Jul-Aug 2015 61-75*
 Konstantelos, I., see Strbac, G., *MPE Sep-Oct 2017 32-41*
 Konstantinidis, C., see Strbac, G., *MPE Jul-Aug 2015 61-75*
 Koralewicz, P., see Fan, L., *MPE May-Jun 2022 64-76*
 Koritarov, V., see Balducci, P., *MPE Nov-Dec 2023 98-109*
 Koritarov, V.S. Real-world market representation with agents; *PAE-M Jul-Aug 2004 39-46*
 Korpas, M., Flataker, A.F., Saele, H., Torsaeter, B.N., Lindberg, K.B., Jiang, S., Sorensen, A.L., and Botterud, A., Learning From the Norwegian Electric Vehicle Success: An Overview; *MPE Nov-Dec 2023 18-27*
 Korpas, M., see Dragoon, K., *MPE Jul-Aug 2022 85-95*
 Korpas, M., see Kiviluoma, J., *MPE Jul-Aug 2022 55-65*
 Korres, G., see Lagos, D., *MPE May-Jun 2021 20-35*
 Korytowski, M., see Gemmell, B., *MPE Mar-Apr 2016 72-79*
 Kosterev, D., see Glavic, M., *MPE Jul-Aug 2012 43-55*
 Kosterev, D., see Madani, V., *MPE Sep-Oct 2015 18-28*
 Kosterev, D., see Overholt, P., *MPE May-Jun 2014 44-51*
 Kostevc, J., see Winter, W., *MPE Jan-Feb 2015 60-74*
 Kostic, T., see Osterlund, L., *MPE Jan-Feb 2016 68-82*
 Kou, G., see Key, T., *MPE Nov-Dec 2020 75-85*
 Koval, D.O., see Chowdhury, A.A., *PAE-M Sep-Oct 2004 58-67*
 Koy, K., see Sathaye, J.A., *MPE May-Jun 2013 32-45*
 Koza, F., see Herling, S., *MPE Jul-Aug 2016 65-71*
 Krajisnik, N., see Dennetiere, S., *MPE Sep-Oct 2024 73-86*
 Krebs, R., see Brosinsky, C., *MPE Jan-Feb 2024 24-34*
 Kreiss, D.G., see Allen, D.E., *PAE-M Sep-Oct 2005 48-55*
 Krichtal, V., see Chakrabarti, B., *MPE Mar-Apr 2011 67-73*
 Krishnan, V., see McCalley, J., *MPE Sep-Oct 2013 24-35*
 Kristoffersen, J.R., see Ackermann, T., *PAE-M Nov-Dec 2007 90-103*
 Kristov, L., De Martini, P., and Taft, J., A Tale of Two Visions: Designing a Decentralized Transactive Electric System; *MPE May-Jun 2016 63-69*
 Kristov, L., The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System; *MPE Mar-Apr 2019 42-49*
 Krontiris, A., see Schonleber, K., *MPE Sep-Oct 2020 58-63*
 Kroposki, B., Bernstein, A., King, J., Vaidhyanathan, D., Zhou, X., Chang, C., and DallAnese, E., Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources; *MPE Nov-Dec 2020 37-46*
 Kroposki, B., Johnson, B., Zhang, Y., Gevorgian, V., Denholm, P., Hodge, B., and Hannegan, B., Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy; *MPE Mar-Apr 2017 61-73*
 Kroposki, B., Lassetter, R., Ise, T., Morozumi, S., Papatlianassiou, S., and Hatziaargyriou, N., Making microgrids work; *PAE-M May-Jun 2008 40-53*
 Kroposki, B., Margolis, R., and Ton, D., Harnessing the sun; *PAE-M May-Jun 2009 22-33*
 Kroposki, B., see Bahrani, B., *MPE Mar-Apr 2024 18-29*
 Kroposki, B., see Bebic, J., *PAE-M May-Jun 2009 45-54*
 Kroposki, B., see Brundlinger, R., *MPE Mar-Apr 2015 30-42*
 Kroposki, B., see Mills, A., *MPE May-Jun 2011 33-41*
 Kropp, T. System threats and vulnerabilities [power system protection]; *PAE-M Mar-Apr 2006 46-50*
 Kropp, T., see Schainker, R., *PAE-M Mar-Apr 2006 30-37*
 Kruchten, D., see Hong, T., *MPE May-Jun 2018 66-73*
 Kulikov, Y.A., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
 Kulkarni, P., see Gyuk, I., *PAE-M Mar-Apr 2005 31-39*
 Kulmala, A., see Repo, S., *MPE May-Jun 2017 41-51*
 Kumar, J., see Schmitt, L., *MPE Jul-Aug 2013 59-70*
 Kumar, J., see Uluski, R., *MPE Jul-Aug 2017 50-62*
 Kumar, K., see Fioravanti, R., *MPE Nov-Dec 2020 86-97*
 Kumar, N., see Lew, D., *MPE Nov-Dec 2013 20-32*
 Kumar M, V., see Devanand, P., *MPE Jan-Feb 2020 55-62*
 Kunder, P.S., see Pourbeik, P., *PAE-M Sep-Oct 2006 22-29*
 Kunder, P., see Dominelli, N., *PAE-M May-Jun 2006 24-35*
 Kunder, P., see Morison, K., *PAE-M Sep-Oct 2004 30-39*
 Kunder, P., see Venkata, S.S., *PAE-M Jul-Aug 2010 36-43*
 Kurte, K., see Du, Y., *MPE May-Jun 2022 42-53*
 Kurthakoti, D., see Hoke, A., *MPE Mar-Apr 2024 42-54*
 Kushner, D., see Kean, E., *MPE Sep-Oct 2022 39-45*
 Kuss, M., see Corbus, D., *MPE Sep-Oct 2013 65-74*
 Kuwayama, A., see Hara, R., *PAE-M May-Jun 2009 77-85*
 Kwangduk Lee, see Laughman, C., *PAE-M Mar-Apr 2003 56-63*
 Kwasinski, A., see Abbey, C., *MPE May-Jun 2014 67-76*
 Kwasinski, A., see Fahimi, B., *MPE Jul-Aug 2011 54-64*
 Kwasinski, A., see Marnay, C., *MPE May-Jun 2015 44-57*
 Kwek, L., see Lal, N., *MPE Sep-Oct 2021 29-45*
 Kwok, G., see Jones, R., *MPE Jul-Aug 2018 79-89*
 Kwok, G., see Olson, A., *MPE Jul-Aug 2015 41-52*
 Kwon, J., see Balducci, P., *MPE Nov-Dec 2023 98-109*
 Kyeon Hur, Boddeti, M., Sarma, N.D.R., Dumas, J., Adams, J., and Soon-Kin Chai, High-wire act; *PAE-M Jan-Feb 2010 37-45*
 Kynev, S., see Engelbrecht, T., *MPE Mar-Apr 2023 30-39*
 Kyriakides, E., see Abbey, C., *MPE May-Jun 2014 67-76*
 Kyriakides, E., see Chakrabarti, S., *PAE-M Jan-Feb 2009 41-49*

L

- L'Abbate, C., A Modern Communications Platform to Enable the Modern Grid: A Utility-Grade Wireless Broadband Network; *MPE Sep-Oct 2023 18-26*
 Lafferte, D., see Braun, M., *MPE Nov-Dec 2018 30-41*
 Lago, J., see Jedrzejewski, A., *MPE May-Jun 2022 24-31*
 Lagos, D., Papaspiliotopoulos, V., Korres, G., and Hatziaargyriou, N., Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation; *MPE May-Jun 2021 20-35*
 Lagos, T., see Moreno, R., *MPE Jul-Aug 2020 41-53*
 Laguna, A., see Strbac, G., *MPE Sep-Oct 2017 32-41*
 Lahiri, S., see Farzan, F., *MPE Jul-Aug 2013 52-58*
 Lai, L.L., and Zhang, H., Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities; *MPE Sep-Oct 2022 26-38*
 Laing, T., see Hong, T., *MPE May-Jun 2018 66-73*
 Laing, T., see Puckett, C., *MPE May-Jun 2020 61-70*
 Lal, N., Price, T., Kwek, L., Wilson, C., Billimoria, F., Morrow, T., Garbutt, M., and Sharafi, D., Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids; *MPE Sep-Oct 2021 29-45*
 Lam, B., see Feltes, J., *MPE Mar-Apr 2012 53-61*
 Lam, L., see Sergici, S., *MPE Jul-Aug 2022 66-75*

- Lambert, E., see McGranaghan, M., *MPE Jan-Feb 2016 83-93*
- Lambert, E., see Nativel, G., *MPE May-Jun 2024 59-66*
- Lambert, F.C., see Puttgen, H.B., *PAE-M Jan-Feb 2003 22-29*
- Landsberg, J., see Sharafi, D., *MPE Jan-Feb 2022 52-63*
- Lange, B., see Ernst, B., *PAE-M Nov-Dec 2007 78-89*
- Lange, B., see Holttinen, H., *MPE Nov-Dec 2011 47-59*
- Lange, M., see Ackermann, T., *PAE-M Nov-Dec 2009 65-75*
- Lange, M., see Dobschinski, J., *MPE Nov-Dec 2017 40-49*
- Lange, M., see Ernst, B., *PAE-M Nov-Dec 2007 78-89*
- Lange, M., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Lange, M., see Lew, D., *MPE Nov-Dec 2017 50-60*
- Lange, M., see Tuohy, A., *MPE Nov-Dec 2015 50-59*
- Lannoye, E., see Holttinen, H., *MPE Nov-Dec 2013 53-62*
- Lanuzza, L., see Jimenez-Estevéz, G., *MPE May-Jun 2017 64-73*
- Lanza, S., see Gomez, T., *MPE Jan-Feb 2019 20-31*
- LaRose, B., see Manz, D., *MPE May-Jun 2014 26-36*
- Larsen, P.H., see Sathaye, J.A., *MPE May-Jun 2013 32-45*
- Larson, D., see Lawhorn, J., *PAE-M Nov-Dec 2009 76-88*
- Lasher, W., see Lawhorn, J., *PAE-M Nov-Dec 2009 76-88*
- Lasher, W., see Osborn, D., *MPE Nov-Dec 2011 60-74*
- Lasher, W., see Piwko, R., *PAE-M Nov-Dec 2007 68-77*
- Lasher, W., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- Lasseter, R., see Kroposki, B., *PAE-M May-Jun 2008 40-53*
- Lauby, M., see Reeder, W., *PAE-M Jul-Aug 2010 27-35*
- Lauby, M.G., Ahlstrom, M., Brooks, D.L., Beuning, S., Caspary, J., Grant, W., Kirby, B., Milligan, M., O'Malley, M., Patel, M., Piwko, R., Pourbeik, P., Shirmohammadi, D., and Smith, J.C., Balancing Act; *MPE Nov-Dec 2011 75-85*
- Lauer, C., see Aronoff, J., *MPE Jan-Feb 2013 30-38*
- Laughman, C., Kwangduk Lee, R. Cox, S. Shaw, S. Leeb, L. Norford, and P. Armstrong. Power signature analysis; *PAE-M Mar-Apr 2003 56-63*
- Laukamp, H., see Braun, M., *PAE-M May-Jun 2009 63-76*
- Lauss, G., see Brundlinger, R., *MPE Mar-Apr 2015 30-42*
- Lawhorn, J., Osborn, D., Caspary, J., Nickell, B.M., Larson, D., Lasher, W., and Rahman, M.Ea., The view from the top; *PAE-M Nov-Dec 2009 76-88*
- Le Tang, see Santacana, E., *PAE-M Mar-Apr 2010 41-48*
- Leal, A., see Gutierrez, S.A., *MPE Sep-Oct 2023 58-67*
- Lebow, M., see Desai, B., *PAE-M Nov-Dec 2010 53-60*
- Lee, B., see Kim, S., *MPE May-Jun 2019 61-72*
- Lee, C., see Seo, J.-T., *MPE Jan-Feb 2011 82-90*
- Lee, H., see Atanackovic, D., *PAE-M Jan-Feb 2008 61-68*
- Lee, H., see Kim, S., *MPE May-Jun 2019 61-72*
- Lee, J., Jung, Y., Shin, J., Cha, S., Song, S., Min, S., Moon, J., Hur, K., Choi, J., and Jang, G., South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications; *MPE Nov-Dec 2024 28-41*
- Lee, J., see Kim, H., *MPE Jul-Aug 2019 24-34*
- Lee, J., see Kim, S., *MPE May-Jun 2019 61-72*
- Lee, J., see Kim, S., *MPE May-Jun 2019 61-72*
- Lee, J., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Lee, J., see Park, K., *MPE Nov-Dec 2023 28-37*
- Lee, J.-H., see Kim, J., *MPE Jan-Feb 2011 75-81*
- Lee Kwangduk, see Laughman, C., *PAE-M Mar-Apr 2003 56-63*
- Lee, S.T., For the Good of the Whole; *PAE-M Sep-Oct 2007 24-35*
- Leeb, S., see Laughman, C., *PAE-M Mar-Apr 2003 56-63*
- Lefton, S., see Lew, D., *MPE Nov-Dec 2013 20-32*
- Lehnhoff, S., see Brosinsky, C., *MPE Jan-Feb 2024 24-34*
- Lei Wang, and K. Morison. Implementation of online security assessment; *PAE-M Sep-Oct 2006 46-59*
- Lei Wang, see Morison, K., *PAE-M Sep-Oct 2004 30-39*
- Lei, X., see Zhang, Y., *MPE Sep-Oct 2017 51-58* (Correction, *MPE Nov-Dec 2017 108*)
- Leibfried, T., see Farrokhhabadi, M., *MPE Sep-Oct 2017 81-91*
- Leijon, M., Waters, R., Rahm, M., Svensson, O., Bostrom, C., Stromstedt, E., Engstrom, J., Tyrberg, S., Savin, A., Gravrakmo, H., Bernhoff, H., Sundberg, J., Isberg, J., Agren, O., Danielsson, O., Eriksson, M., Lejerskog, E., Bolund, B., Gustafsson, S., and Thorburn, K., Catch the wave to electricity; *PAE-M Jan-Feb 2009 50-54*
- Leithead, B., see Gill, S., *MPE Jan-Feb 2013 51-57*
- Lejerskog, E., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Lemaitre, C., see Meyer, B., *MPE Mar-Apr 2020 43-52*
- Lemus, R., Back in the Race: Achieving 100% Renewable Energy in the Canary Islands; *MPE Nov-Dec 2020 64-74*
- Lenox, C., see Mills, A., *MPE May-Jun 2011 33-41*
- Leon, C., see Guerrero, J., *MPE Sep-Oct 2020 64-75*
- Lerner, J., see Grant, W., *PAE-M Nov-Dec 2009 47-58*
- Lesieutre, B., see Overholt, P., *MPE May-Jun 2014 44-51*
- Leslie, J., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Leterme, W., Jahn, I., Ruffing, P., Sharifabadi, K., and Van Hertem, D., Designing for High-Voltage dc Grid Protection: Fault Clearing Strategies and Protection Algorithms; *MPE May-Jun 2019 73-81*
- Leterme, W., see Van Hertem, D., *MPE Jul-Aug 2019 56-66*
- Levitan, R., Wilmer, S., and Carlson, R., Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection; *MPE Nov-Dec 2014 78-88*
- Lew, D., Asano, M., Boemer, J., Ching, C., Focken, U., Hydzik, R., Lange, M., and Motley, A., The Power of Small: The Effects of Distributed Energy Resources on System Reliability; *MPE Nov-Dec 2017 50-60*
- Lew, D., Bakke, J., Bloom, A., Brown, P., Caspary, J., Clack, C., Miller, N., Orths, A., Silverstein, A., Simonelli, J., and Zavadil, R., Transmission Planning for 100% Clean Electricity: Enabling Clean, Affordable, and Reliable Electricity; *MPE Nov-Dec 2021 56-66*
- Lew, D., Bartlett, D., Groom, A., Jorgensen, P., O'Sullivan, J., Quint, R., Rew, B., Rockwell, B., Sharma, S., and Stencil, D., Secrets of Successful Integration: Operating Experience With High Levels of Variable, Inverter-Based Generation; *MPE Nov-Dec 2019 24-34*
- Lew, D., Brinkman, G., Kumar, N., Lefton, S., Jordan, G., and Venkataraman, S., Finding Flexibility: Cycling the Conventional Fleet; *MPE Nov-Dec 2013 20-32*
- Lew, D., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Lew, D., see Corbus, D., *PAE-M Nov-Dec 2009 36-46*
- Lew, D., see Milligan, M., *MPE Nov-Dec 2015 78-87*
- Lewis, S.M., see Sathaye, J.A., *MPE May-Jun 2013 32-45*
- Li, C., see Chen, Q., *MPE Nov-Dec 2024 66-77*
- Li Chun, see Chun Li, *PAE-M May-Jun 2003 24-31*
- Li, F., and Du, Y., From AlphaGo to Power System AI: What Engineers Can Learn from Solving the Most Complex Board Game; *MPE Mar-Apr 2018 76-84*
- Li, F., Gu, C., and Li, R., Flexible Network Pricing Encourages Greater Sharing: Making the Grid Work for Itself and Distributed Energy Resources; *MPE May-Jun 2020 26-32*
- Li, F., Li, R., Zhang, Z., Dale, M., Tolley, D., and Ahokangas, P., Big Data Analytics for Flexible Energy Sharing: Accelerating a Low-Carbon Future; *MPE May-Jun 2018 35-42*
- Li, F., Li, X., Sun, H., Di Ninno, F., Quaglia, F., Cunha, G., Moreno, R., Flores, W.C., Chamorro, H.R., and Min, L., The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures; *MPE Nov-Dec 2022 56-65*
- Li, F., Marangon-Lima, J., Rudnick, H., Marangon-Lima, L., Padhy, N., Brunekreeft, G., Reneses, J., and Kang, C., Distribution Pricing: Are We Ready for the Smart Grid?; *MPE Jul-Aug 2015 76-86*
- Li, F., see Du, Y., *MPE May-Jun 2022 42-53*

- Li Fangxing, see Fangxing Li, *PAE-M Jan-Feb 2003 53-57*
- Li Fangxing, see Fangxing Li, *PAE-M Jul-Aug 2003 37-41*
- Li, F., Tomsovic, K., and Cui, H., A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing; *MPE Mar-Apr 2020 60-68*
- Li, H., see Belhomme, R., *MPE Jul-Aug 2021 74-85*
- Li, H., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Li, M., see Zhang, N., *MPE Jul-Aug 2021 63-73*
- Li, Q., see Jiang, L., *MPE Nov-Dec 2011 36-46*
- Li, Q., see Jiang, L., *MPE Nov-Dec 2019 99-107*
- Li, Q., see Xin, Y., *MPE Mar-Apr 2018 36-45*
- Li, Q., see Zhang, Y., *MPE Sep-Oct 2017 51-58* (Correction, *MPE Nov-Dec 2017 108*)
- Li, R., see Li, F., *MPE May-Jun 2018 35-42*
- Li, R., see Li, F., *MPE May-Jun 2020 26-32*
- Li, V., see Wen, M., *MPE May-Jun 2014 37-43*
- Li, W., and Choudhury, P., Probabilistic Transmission Planning; *PAE-M Sep-Oct 2007 46-53*
- Li Wenyuan, see Wenyuan Li, *PAE-M May-Jun 2006 52-58*
- Li, X., see Li, F., *MPE Nov-Dec 2022 56-65*
- Li, Y., see Hu, X., *MPE Sep-Oct 2017 20-31*
- Li, Y., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Li, Y., see Zhang, N., *MPE Jul-Aug 2021 63-73*
- Li, Z., see Flueck, A., *PAE-M Nov-Dec 2008 36-47*
- Li, Z., see Jiang, L., *MPE Nov-Dec 2019 99-107*
- Li, Z., see Shahidehpour, M., *MPE Jul-Aug 2017 63-71*
- Li, Z., see Shahidehpour, M., *MPE Jul-Aug 2017 63-71*
- Li, Z., see Yao, R., *MPE Nov-Dec 2024 42-53*
- Li Zuyi, see Zuyi Li, *PAE-M May-Jun 2006 44-51*
- Liang, J., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Liao, R., see Kang, C., *MPE May-Jun 2018 54-65*
- Liebold, C., see Osborn, D., *MPE Nov-Dec 2011 60-74*
- Lim, Y., see Park, K., *MPE Nov-Dec 2023 28-37*
- Lin, H., see Zhou, G., *MPE Jul-Aug 2019 35-46*
- Lin, X., see Dudurych, I.M., *MPE Mar-Apr 2012 62-70*
- Lin, X., see Kim, S., *MPE May-Jun 2019 61-72*
- Linares, P., see Barroso, L.A., *PAE-M Sep-Oct 2010 22-35*
- Linares, P., see Chaves-Avila, J., *MPE Jul-Aug 2015 29-40*
- Lindberg, K.B., see Korpas, M., *MPE Nov-Dec 2023 18-27*
- Lindahl, S., see Karlsson, D., *PAE-M Sep-Oct 2004 68-76*
- Lindley, J., see Badrzadeh, B., *MPE Sep-Oct 2021 46-55*
- Lips, P., see Litzenberger, W., *PAE-M Mar-Apr 2007 45-51*
- Litvinov, E., Zhao, F., and Zheng, T., Electricity Markets in the United States: Power Industry Restructuring Processes for the Present and Future; *MPE Jan-Feb 2019 32-42*
- Litzenberger, W., and Lips, P., Pacific HVDC inertia; *PAE-M Mar-Apr 2007 45-51*
- Litzenberger, W., Mitsch, K., and Bhuiyan, M., When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System; *MPE Mar-Apr 2016 32-41*
- Liu, C., see Liu, S., *MPE Jan-Feb 2014 54-63*
- Liu, C., see Srivastava, A., *MPE Jan-Feb 2024 61-71*
- Liu, G., see Dai, R., *MPE Mar-Apr 2020 53-59*
- Liu, G., see Sharafi, D., *MPE Jan-Feb 2022 52-63*
- Liu, H., see Bi, T., *MPE Jan-Feb 2023 26-35*
- Liu, J., see Chen, H., *MPE Sep-Oct 2017 59-67*
- Liu, J., see Romero Aguerro, J., *MPE Jul-Aug 2019 75-84*
- Liu, J., see Shi, D., *MPE Nov-Dec 2024 54-65*
- Liu, M., Ochoa, L., Riaz, S., Mancarella, P., Ting, T., San, J., and Theunissen, J., Grid and Market Services From the Edge: Using Operating Envelopes to Unlock Network-Aware Bottom-Up Flexibility; *MPE Jul-Aug 2021 52-62*
- Liu, M., see Dubey, A., *MPE Jan-Feb 2020 63-75*
- Liu, M., see Jiang, L., *MPE Nov-Dec 2011 36-46*
- Liu, S., Hou, Y., Liu, C., and Podmore, R., The Healing Touch: Tools and Challenges for Smart Grid Restoration; *MPE Jan-Feb 2014 54-63*
- Liu, X., see Hyndman, R., *MPE May-Jun 2018 18-25*
- Liu, X., see Wang, P., *MPE May-Jun 2013 76-83*
- Liu, Y., see Dong, H., *MPE May-Jun 2020 49-60*
- Lively, M., The WOLF in pricing; *PAE-M Jan-Feb 2009 61-69*
- Lizi Zhang, see Wu, F.F., *PAE-M Jul-Aug 2006 20-31*
- Llanos, C., see Vu Van, T., *MPE Jan-Feb 2015 30-37*
- Llarenas, D., see Rudnick, H., *MPE Mar-Apr 2012 24-36*
- Llorens, M., see Gomez, T., *MPE Jan-Feb 2019 20-31*
- Loehr, G., A Fine Day for an Eclipse: It's Never Too Early to Start Planning for One; *MPE Nov-Dec 2016 72-77*
- Loftus, I., see Hamadi, V., *MPE Jul-Aug 2019 67-74*
- Logan, J., see Mai, T., *MPE Jul-Aug 2018 34-47*
- Lohmeier, D., see Braun, M., *MPE Nov-Dec 2018 30-41*
- Long, M., see Willson, J., *MPE Jul-Aug 2018 99-106*
- Long, W., and Nilsson, S., HVDC transmission: yesterday and today; *PAE-M Mar-Apr 2007 22-31*
- Loomba, P., and Bansal, J., Electricity and Livelihood in Remote India: Smart Villages Making an Impact; *MPE Sep-Oct 2022 46-53*
- Lopes, F., see Strbac, G., *MPE Jan-Feb 2021 53-63*
- Lopes, J., see Strbac, G., *MPE May-Jun 2015 35-43*
- Lopez, A., see Bloom, A., *MPE Nov-Dec 2017 22-30*
- Lorenz, G., see Mallet, P., *MPE Mar-Apr 2014 51-64*
- Lorenzo, M., Burdalo, U., Veguillas, R., Birke, A., Despouys, O., Byriel, I., Druet, C., Abart, A., Bissel, G., and Sebastian-Viana, M., The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions; *MPE Jan-Feb 2015 75-83*
- Lorubio, G., and Schlosser, P., Euro Mix: Current European Energy Developments and Policy Alternatives for 2030 and Beyond; *MPE Mar-Apr 2014 65-74*
- Louie, H., Dauenhauer, P., Wilson, M., Zomers, A., and Mutale, J., Eternal Light: Ingredients for Sustainable Off-Grid Energy Development; *MPE Jul-Aug 2014 70-78*
- Loutan, C., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Loutan, C., see Miller, N., *MPE Nov-Dec 2013 63-71*
- Loutan, C., see Vartanian, C., *MPE Nov-Dec 2018 52-63*
- Lovell, H., see Chapman, A., *MPE Jul-Aug 2021 41-51*
- Lowell, J., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- Lu, C., Shi, B., Wu, X., and Sun, H., Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System; *MPE Sep-Oct 2015 60-71*
- Lu, E., see Brooks, A., *PAE-M May-Jun 2010 20-29*
- Lu, J., see Badrzadeh, B., *MPE Sep-Oct 2021 46-55*
- Lu, N., see Wu, Y., *MPE Jan-Feb 2024 35-42*
- Lui, T.J., Stirling, W., and Marcy, H.O., Get Smart; *PAE-M May-Jun 2010 66-78*
- Luna, B., see Yates, D., *MPE Sep-Oct 2014 66-75*
- Lundberg, P., Callavik, M., Bahrman, M., and Sandeberg, P., Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration and DC Grid Expansions; *MPE Nov-Dec 2012 30-38*
- Lundberg, P., see Briff, P., *MPE Sep-Oct 2024 49-59*
- Lundberg, P., see Pan, J., *MPE May-Jun 2019 94-102*
- Lundberg, P., see Schonleber, K., *MPE Sep-Oct 2020 58-63*
- Luo Yi, see Yi Luo, *PAE-M Jan-Feb 2005 59-66*

M

- Ma, Q., see Zhou, H., *MPE Jul-Aug 2016 72-78*
- Ma, S., see Jiang, L., *MPE Nov-Dec 2015 40-49*
- Ma, X., see Balducci, P., *MPE Nov-Dec 2023 98-109*
- MacDonald, J.D. Safe and secure: Environmental effects of nuclear power plants and the nuclear fuel cycle; *PAE-M Nov-Dec 2006 49-55*
- MacDowell, J., Dutta, S., Richwine, M., Achilles, S., and Miller, N., Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services; *MPE Nov-Dec 2015 22-30*

- MacDowell, J., see Hoke, A., *MPE Mar-Apr 2024 42-54*
- MacDowell, J., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- MacDowell, J., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- MacDowell, J., see Piwko, R., *PAE-M Mar-Apr 2010 18-26*
- MacDowell, J., Wang, Y., Quint, R., Chi, Y., Ernst, B., Saylor, S., Jacobson, D., Andresen, B., Sorensen, P., Portales, R., Brake, D., Zavadil, B., and Robinson, L., A Journey Through Energy Systems Integration: Trending Grid Codes, Standards, and IEC Collaboration; *MPE Nov-Dec 2019 79-88*
- MacGill, I., S. Healy, and H. Outhred. Is there a sustainable future for nuclear power?; *PAE-M Jul-Aug 2006 63-74*
- MacGill, I., see Stringer, N., *MPE Nov-Dec 2020 20-36*
- MacGregor, P.R., see Puttgen, H.B., *PAE-M Jan-Feb 2003 22-29*
- Mackay, M., see Bouhafs, F., *MPE Jan-Feb 2012 24-32*
- Macwan, R., see Roberson, D., *MPE May-Jun 2019 38-47*
- Madani, V., Giri, J., Kosterev, D., Novosel, D., and Brancaccio, D., Challenging Changing Landscapes: Implementing Synchrophasor Technology in Grid Operations in the WECC Region; *MPE Sep-Oct 2015 18-28*
- Madani, V., see Giri, J., *MPE Sep-Oct 2012 24-39*
- Madani, V., see Horowitz, S.H., *PAE-M Sep-Oct 2008 34-42*
- Madani, V., see Novosel, D., *PAE-M Jan-Feb 2004 32-43*
- Madani, V., see Novosel, D., *PAE-M Jan-Feb 2008 49-60*
- Madani, V., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- Madrigal, M., Bhatia, M., Elizondo, G., Sarkar, A., and Kojima, M., Twin Peaks: Surmounting the Global Challenges of Energy for All and Greener, More Efficient Electricity Services; *MPE May-Jun 2012 20-29*
- Madrigal, M., see Bakovic, T., *MPE Jan-Feb 2021 74-84*
- Madsen, H., see Kiviluoma, J., *MPE Jan-Feb 2017 25-33*
- Madsen, H., see Meibom, P., *MPE Sep-Oct 2013 46-55*
- Madureira, A., see Avramidis, I., *MPE Jul-Aug 2023 53-63*
- Maeght, J., see Meyer, B., *MPE Mar-Apr 2020 43-52*
- Maggio, D., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Maggio, D., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Maghsoodlou, F., R. Masiello, and T. Ray. Energy management systems; *PAE-M Sep-Oct 2004 49-57*
- Mago, N., see Matevosyan, J., *MPE Mar-Apr 2021 18-27* (Erratum. *MPE May-Jun 2021 103*)
- Mah, E.J., and Stangl, J., Soccer Field Strategy; *PAE-M Nov-Dec 2010 69-74*
- Mahani, K., and Farzan, F., Unwiring the Country: The United States' Alternatives Today; *MPE Mar-Apr 2022 14-22*
- Mahmud, S.A., see Khattak, A.R., *MPE Jul-Aug 2012 56-64*
- Mahone, A., see Olson, A., *MPE Jul-Aug 2015 41-52*
- Mahone, A., Subin, Z., Orans, R., Miller, M., Regan, L., Calviou, M., Saenz, M., and Bacalao, N., On the Path to Decarbonization: Electrification and Renewables in California and the Northeast United States; *MPE Jul-Aug 2018 58-68*
- Mai, T., see Denholm, P., *MPE Mar-Apr 2013 22-32*
- Mai, T., Steinberg, D., Logan, J., Bielen, D., Eurek, K., and McMillan, C., An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems; *MPE Jul-Aug 2018 34-47*
- Maitra, A., Pratt, A., Hubert, T., Weng, D., Prabakar, K., Handa, R., Baggu, M., and McGranaghan, M., Microgrid Controllers: Expanding Their Role and Evaluating Their Performance; *MPE Jul-Aug 2017 41-49*
- Majumder, R., Bartzsch, C., Kohnstam, P., Fullerton, E., Finn, A., and Galli, W., Magic Bus: High-Voltage DC on the New Power Transmission Highway; *MPE Nov-Dec 2012 39-49*
- Majumder, R., see Ramasubramanian, D., *MPE Mar-Apr 2024 55-65*
- Malcolm, J.S., and D.L. Harmon. Advanced control room design: Issues for next-generation power reactors; *PAE-M Nov-Dec 2006 43-48*
- Mallet, P., Granstrom, P., Hallberg, P., Lorenz, G., and Mandatova, P., Power to the People!: European Perspectives on the Future of Electric Distribution; *MPE Mar-Apr 2014 51-64*
- Manassero, G., Di Santo, S.G., Pellini, E.L., dos Santos, M.L., Andrade Syrio, P.M., Tiferes, R.R., Rocha Albertini, A.d., Bezerra, F.E., and Santos, G.R., Bridging Industry 4.0 and Power Systems: A Conceptual Framework; *MPE Nov-Dec 2024 112-117*
- Mancarella, P., and Billimoria, F., The Fragile Grid: The Physics and Economics of Security Services in Low-Carbon Power Systems; *MPE Mar-Apr 2021 79-88*
- Mancarella, P., see Dall'Anese, E., *MPE Jan-Feb 2017 43-52*
- Mancarella, P., see Eggleston, J., *MPE Sep-Oct 2012 67-75*
- Mancarella, P., see Heinen, S., *MPE Jul-Aug 2018 69-78*
- Mancarella, P., see Liu, M., *MPE Jul-Aug 2021 52-62*
- Mancarella, P., see Moreno, R., *MPE Jan-Feb 2022 78-89*
- Mancarella, P., see Moreno, R., *MPE Jul-Aug 2020 41-53*
- Mancarella, P., see Palensky, P., *MPE Jan-Feb 2015 52-60*
- Mancarella, P., see Panteli, M., *MPE May-Jun 2015 58-66*
- Mandatova, P., see Mallet, P., *MPE Mar-Apr 2014 51-64*
- Mandelman, G., see Currie, R.A.F., *MPE Nov-Dec 2023 68-76*
- Manobianco, J., see Corbus, D., *PAE-M Nov-Dec 2009 36-46*
- Manson, S., and McCullough, E., Practical Microgrid Protection Solutions: Promises and Challenges; *MPE May-Jun 2021 58-69*
- Mansour, Y., L. Haffner, V. Vankayala, and E. Vaahedi. One asset, one view - integrated asset management at British Columbia Transmission Corporation; *PAE-M May-Jun 2005 55-61*
- Manz, D., Piwko, R., and Miller, N., Look Before You Leap: The Role of Energy Storage in the Grid; *MPE Jul-Aug 2012 75-84*
- Manz, D., Walling, R., Miller, N., LaRose, B., D'Aquila, R., and Daryanian, B., The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade; *MPE May-Jun 2014 26-36*
- Mao, Z.-H., see Reed, G.F., *MPE Nov-Dec 2012 70-79*
- Marangon-Lima, J., see Li, F., *MPE Jul-Aug 2015 76-86*
- Marangon-Lima, L., see Li, F., *MPE Jul-Aug 2015 76-86*
- Marcjasz, G., see Jedrzejewski, A., *MPE May-Jun 2022 24-31*
- Marcy, H.O., see Lui, T.J., *PAE-M May-Jun 2010 66-78*
- Margolis, R., see Brinkman, G., *MPE May-Jun 2011 24-32*
- Margolis, R., see Denholm, P., *MPE Mar-Apr 2013 22-32*
- Margolis, R., see Kroposki, B., *PAE-M May-Jun 2009 22-33*
- Marinelli, M., see Ostergaard, J., *MPE Mar-Apr 2021 46-55*
- Marken, P., see Kirby, N., *MPE Mar-Apr 2016 57-65*
- Markham, T., see Hull, J., *MPE Jan-Feb 2012 41-48*
- Markussen, P., see Dragoon, K., *MPE Jul-Aug 2022 85-95*
- Markussen, P., see Ostergaard, J., *MPE Mar-Apr 2021 46-55*
- Marnay, C., Aki, H., Hirose, K., Kwasinski, A., Ogura, S., and Shinji, T., Japan's Pivot to Resilience: How Two Microgrids Fared After the 2011 Earthquake; *MPE May-Jun 2015 44-57*
- Marnay, C., Asano, H., Papathanassiou, S., and Strbac, G., Policymaking for microgrids; *PAE-M May-Jun 2008 66-77*
- Marnay, C., see Hatzigrygiou, N., *PAE-M Jul-Aug 2007 78-94*
- Marnay, C., see Moreno, R., *MPE Jan-Feb 2022 78-89*
- Marnay, C., see Venkataramanan, G., *PAE-M May-Jun 2008 78-82*
- Marot, A., see Papadopoulos, P.N., *MPE Nov-Dec 2024 100-111*

- Marquis, M., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Marquis, M., see McCalley, J., *MPE Nov-Dec 2017 83-93*
- Marquis, M., see Tuohy, A., *MPE Nov-Dec 2015 50-59*
- Marqusee, J., see Van Broekhoven, S., *MPE Jul-Aug 2013 40-45*
- Marrero, E., see O'Neill-Carrillo, E., *PAE-M Jul-Aug 2003 29-36*
- Marshall, B., see Saad, H., *MPE Sep-Oct 2024 60-72*
- Marszalkowski, B., see Hoke, A., *MPE Mar-Apr 2024 42-54*
- Martin, B.P., see Nourai, A., *PAE-M Mar-Apr 2005 40-46*
- Martin, C., see Denetiere, S., *MPE May-Jun 2019 48-60*
- Martin, D., see Nair, N., *MPE Sep-Oct 2018 64-73*
- Martin, E., see Alonso, A.M., *MPE May-Jun 2022 54-63*
- Martin, G. Renewable energy gets the "green" light in Chicago; *PAE-M Nov-Dec 2003 34-39*
- Martin, G., see Brundlinger, R., *MPE Mar-Apr 2015 30-42*
- Martin, K.E., and Carroll, J.R., Phasing in the Technology; *PAE-M Sep-Oct 2008 24-33*
- Martínez, E., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- Maruvada, P.S., see Szechtman, M., *PAE-M Mar-Apr 2007 61-69*
- Masera, M., see Bompard, E., *MPE Mar-Apr 2014 40-50*
- Masera, M., see Fulli, G., *MPE Jan-Feb 2019 53-66*
- Masiello, R., and Agüero, J., Sharing the Ride of Power: Understanding Transactive Energy in the Ecosystem of Energy Economics; *MPE May-Jun 2016 70-78*
- Masiello, R., see Agüero, J., *MPE May-Jun 2017 74-83*
- Masiello, R., see Maghsoodlou, F., *PAE-M Sep-Oct 2004 49-57*
- Masiello, R., see Romero Agüero, J., *MPE Sep-Oct 2016 29-37*
- Massoud Amin, S., and B.F. Wollenberg. Toward a smart grid: power delivery for the 21st century; *PAE-M Sep-Oct 2005 34-41*
- Mastropietro, P., see Batlle, C., *MPE Jan-Feb 2021 20-28*
- Mastropietro, P., see Rodilla, P., *MPE Jul-Aug 2023 64-71*
- Mateo, A., see Alonso, A.M., *MPE May-Jun 2022 54-63*
- Mateo-Sanchez, L., see Rosendo-Macias, J.A., *MPE Jan-Feb 2023 73-82*
- Matevosyan, J., Badrzadeh, B., Prevost, T., Quitmann, E., Ramasubramanian, D., Urdal, H., Achilles, S., MacDowell, J., Huang, S., Vital, V., O'Sullivan, J., and Quint, R., Grid-Forming Inverters: Are They the Key for High Renewable Penetration?; *MPE Nov-Dec 2019 89-98*
- Matevosyan, J., Huang, S., Du, P., Mago, N., and Guiyab, R., Operational Security: The Case of Texas; *MPE Mar-Apr 2021 18-27* (Erratum. *MPE May-Jun 2021 103*)
- Matevosyan, J., MacDowell, J., Miller, N., Badrzadeh, B., Ramasubramanian, D., Isaacs, A., Quint, R., Quitmann, E., Pfeiffer, R., Urdal, H., Prevost, T., Vittal, V., Woodford, D., Huang, S.H., and O'Sullivan, J., A Future With Inverter-Based Resources: Finding Strength From Traditional Weakness; *MPE Nov-Dec 2021 18-28*
- Matevosyan, J., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Matevosyan, J., see Ackermann, T., *MPE Nov-Dec 2017 61-69*
- Matevosyan, J., see Chaudhuri, B., *MPE Mar-Apr 2024 30-41*
- Matevosyan, J., see Engelbrecht, T., *MPE Mar-Apr 2023 30-39*
- Matevosyan, J., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Mather, B., and Shah, S., In Divergence There Is Strength: Measuring and Mitigating Solar PV Impacts in Southern California Using Power Factors Other than One; *MPE Mar-Apr 2015 62-70*
- Matos, M., see Keerthisinghe, C., *MPE Jan-Feb 2019 82-92*
- Matsuura, M., Island breezes; *PAE-M Nov-Dec 2009 59-64*
- Matsuura, M., see Corbus, D., *MPE Sep-Oct 2013 65-74*
- Matsuura, M., see Schuerger, M., *MPE Nov-Dec 2013 33-44*
- Maxson, A., and Thimsen, D., The Future of Coal: Confronting Environmental Challenges That Threaten Its Use; *MPE May-Jun 2013 46-55*
- Mays, J., see Ahlstrom, M., *MPE Nov-Dec 2021 37-44*
- McCalley, J., Caspary, J., Clack, C., Galli, W., Marquis, M., Osborn, D., Orth, A., Sharp, J., Silva, V., and Zeng, P., Wide-Area Planning of Electric Infrastructure: Assessing Investment Options for Low-Carbon Futures; *MPE Nov-Dec 2017 83-93*
- McCalley, J., Jewell, W., Mount, T., Osborn, D., and Fleeman, J., A Wider Horizon; *MPE May-Jun 2011 42-54* (Corrections, *MPE Jul-Aug 2011 90*)
- McCalley, J., Krishnan, V., Gkritza, K., Brown, R., and Mejia-Giraldo, D., Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures; *MPE Sep-Oct 2013 24-35*
- McCalley, J., see Heinen, S., *MPE Jan-Feb 2017 16-24*
- McCalley, J., see Orth, A., *MPE Nov-Dec 2019 67-78*
- McCarthy, C., see Williams, C., *PAE-M Mar-Apr 2008 53-60*
- McComas, K., see Abrahamse, W., *MPE Jan-Feb 2018 29-34*
- McConnach, J., see Abi-Samra, N., *MPE Sep-Oct 2014 61-65*
- McConnach, J.S., see Camyab, A., *PAE-M Jul-Aug 2006 47-56*
- McCullough, E., see Manson, S., *MPE May-Jun 2021 58-69*
- McDonald, A., see Gill, S., *MPE Jan-Feb 2013 51-57*
- McDonald, J.D., Rajagopalan, S., Waizenegger, J.R., and Pardo, F., Realizing the Power of Data Marts; *PAE-M May-Jun 2007 57-66*
- McDowall, J., see Roberts, B., *PAE-M Mar-Apr 2005 24-30*
- McDowell, J., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- McElvain, F., see Zhou, G., *MPE Jul-Aug 2019 35-46*
- McGlynn, P., see Herling, S., *MPE Jul-Aug 2016 65-71*
- McGowan, D., see Cochran, J., *MPE Jul-Aug 2022 18-29*
- McGranaghan, M., Houseman, D., Schmitt, L., Cleveland, F., and Lambert, E., Enabling the Integrated Grid: Leveraging Data to Integrate Distributed Resources and Customers; *MPE Jan-Feb 2016 83-93*
- McGranaghan, M., see Dugan, R.C., *MPE Sep-Oct 2011 74-81*
- McGranaghan, M., see Maitra, A., *MPE Jul-Aug 2017 41-49*
- McMillan, C., see Mai, T., *MPE Jul-Aug 2018 34-47*
- McMorran, A., see Osterlund, L., *MPE Jan-Feb 2016 68-82*
- McMullen, M., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- McNeff, M., see Corbus, D., *MPE Sep-Oct 2013 65-74*
- Meenawat, H., see Bird, L., *MPE Jul-Aug 2024 64-74*
- Meeus, L., see Beckstedde, E., *MPE Jul-Aug 2023 45-52*
- Mehos, M., Kabel, D., and Smithers, P., Planting the seed; *PAE-M May-Jun 2009 55-62*
- Mehr, V., Kahrobaee, S., and Avendano, M., Harnessing the Full Potential of Clean Energy: The Role of Southern California's Utility Distributed Energy Resource Pilots; *MPE Jul-Aug 2021 28-40*
- Mehraban, B., see Kirby, N., *MPE Mar-Apr 2016 57-65*
- Mehrizi-Sani, A., see Uluski, R., *MPE Jul-Aug 2017 50-62*
- Meibom, P., Hilger, K., Madsen, H., and Vinther, D., Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System; *MPE Sep-Oct 2013 46-55*
- Meibom, P., see Piwko, R., *MPE Mar-Apr 2012 44-52*
- Mejia-Giraldo, D., see McCalley, J., *MPE Sep-Oct 2013 24-35*
- Melese, A., see Stoupis, J., *MPE Sep-Oct 2023 38-47*
- Meliopoulos, A.P.S., Cokkinides, G.J., Galvan, F., Fardeanesh, B., and Myrda, P., Delivering accurate and timely data to all; *PAE-M May-Jun 2007 74-86*
- Meliopoulos, S., Cokkinides, G.J., Myrda, P., Farantatos, E., Elmoudi, R., Fardanesh, B., Stefopoulos, G., Black, C., and Panciatici, P., Dynamic Estimation-Based Protection and Hidden Failure Detection and Identification: Inverter-Dominated Power Systems; *MPE Jan-Feb 2023 59-72*

- Meliopoulos, S., see Kezunovic, M., *MPE Jul-Aug 2012 22-34*
- Mello, J., Villar, J., Bessa, R.J., Antunes, A.R., and Sequeira, M.M., Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities; *MPE Jul-Aug 2024 49-63*
- Melton, R., see Forfia, D., *MPE May-Jun 2016 25-33*
- Melton, R., see Widergren, S., *MPE Sep-Oct 2019 47-58*
- Men, K., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Mendiluce, M., Risky Business: Building a Resilient Power Sector; *MPE Sep-Oct 2014 34-41*
- Mendis, R., see Kirby, N., *MPE Mar-Apr 2016 57-65*
- Menezes de Moraes, R., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- Merabti, M., see Bouhafs, F., *MPE Jan-Feb 2012 24-32*
- Meridji, T., Ceja-Gomez, F., Restrepo, J., and Azar, R., High-Voltage dc Conversion: Boosting Transmission Capacity in the Grid; *MPE May-Jun 2019 22-31*
- Merkhouf, A., see Bechara, H., *MPE Nov-Dec 2024 89-99*
- Merrill, H., Hossain, M., and Bodson, M., Nipping Blackouts in the Bud: Introducing a Novel Cascading Failure Network; *MPE Jul-Aug 2020 64-75*
- Merrill, H., see Parvania, M., *MPE Sep-Oct 2018 87-95*
- Meuser, M., see Hoke, A., *MPE Mar-Apr 2024 42-54*
- Meyer, B., Astic, J., Meyer, P., Sardou, F., Poumarede, C., Couturier, N., Fontaine, M., Lemaitre, C., Maeght, J., and Straub, C., Power Transmission Technologies and Solutions: The Latest Advances at RTE, the French Transmission System Operator; *MPE Mar-Apr 2020 43-52*
- Meyer, B., see Astic, J., *MPE Mar-Apr 2018 57-66*
- Meyer, P., see Meyer, B., *MPE Mar-Apr 2020 43-52*
- Miao, Z., see Fan, L., *MPE May-Jun 2022 64-76*
- Michaelson, D., and Jiang, J., Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective; *MPE Mar-Apr 2022 57-63*
- Migliavacca, G., see Sanchis, G., *MPE Jan-Feb 2015 38-51*
- Milberg, J., and Schlenker, A., Plug into the Future; *MPE Jan-Feb 2011 56-65*
- Miller, A., see Philpott, A., *MPE Jan-Feb 2019 43-52*
- Miller, M., see Mahone, A., *MPE Jul-Aug 2018 58-68*
- Miller, N., Keeping It Together: Transient Stability in a World of Wind and Solar Generation; *MPE Nov-Dec 2015 31-39*
- Miller, N., Loutan, C., Shao, M., and Clark, K., Emergency Response; *MPE Nov-Dec 2013 63-71*
- Miller, N., see Ackermann, T., *MPE Nov-Dec 2017 61-69*
- Miller, N., see Chaudhuri, B., *MPE Mar-Apr 2024 30-41*
- Miller, N., see Lew, D., *MPE Nov-Dec 2021 56-66*
- Miller, N., see MacDowell, J., *MPE Nov-Dec 2015 22-30*
- Miller, N., see Manz, D., *MPE Jul-Aug 2012 75-84*
- Miller, N., see Manz, D., *MPE May-Jun 2014 26-36*
- Miller, N., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Miller, N., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- Miller, N., see Mills, A., *MPE May-Jun 2011 33-41*
- Miller, N., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Miller, N., see Piwko, R., *MPE Mar-Apr 2012 44-52*
- Miller, N., see Piwko, R., *PAE-M Mar-Apr 2010 18-26*
- Miller, N., see Weisheng, W., *MPE Nov-Dec 2016 24-34*
- Miller, N., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Miller, N., see Zavadil, R., *PAE-M Nov-Dec 2005 26-37*
- Miller, N., see Zavadil, R., *PAE-M Nov-Dec 2007 47-58*
- Miller, P., see Schainker, R., *PAE-M Mar-Apr 2006 51-58*
- Miller, T., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Milligan, M., Frew, B., Kirby, B., Schuerger, M., Clark, K., Lew, D., Denholm, P., Zavadil, B., O'Malley, M., and Tsuchida, B., Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid; *MPE Nov-Dec 2015 78-87*
- Milligan, M., Porter, K., Demeo, E., Denholm, P., Holttinen, H., Kirby, B., Miller, N., Mills, A., O'Malley, M., Schuerger, M., and Soder, L., Wind power myths debunked; *PAE-M Nov-Dec 2009 89-99*
- Milligan, M., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Milligan, M., see Ahlstrom, M., *MPE Nov-Dec 2015 60-66*
- Milligan, M., see Holttinen, H., *MPE Nov-Dec 2013 53-62*
- Milligan, M., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Milligan, M., see Mills, A., *MPE May-Jun 2011 33-41*
- Milligan, M., see Stenclik, D., *MPE Nov-Dec 2021 29-36*
- Milligan, M.R., see DeMeo, E.A., *PAE-M Nov-Dec 2005 38-46*
- Milligan, M.R., see Demeo, E.A., *PAE-M Nov-Dec 2007 59-67*
- Mills, A., Ahlstrom, M., Brower, M., Ellis, A., George, R., Hoff, T., Kroposki, B., Lenox, C., Miller, N., Milligan, M., Stein, J., and Wan, Y.-H., Dark Shadows; *MPE May-Jun 2011 33-41*
- Mills, A., see Ela, E., *MPE Jan-Feb 2021 41-52*
- Mills, A., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- Mills, J., see Stringer, N., *MPE Nov-Dec 2020 20-36*
- Mills, M., Obi, M., Cody, K., Garton, K., Wisser, A.M., and Nabahani, S., Utility Planning for Distribution-Optimized Electric Vehicle Charging: A Case Study in the United States Pacific Northwest; *MPE Nov-Dec 2023 48-55*
- Mimnagh, T., see Smith, J., *MPE Mar-Apr 2017 29-39*
- Min, L., see Li, F., *MPE Nov-Dec 2022 56-65*
- Min, S., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Ming, Z., see Burdick, A., *MPE Jul-Aug 2022 30-43*
- Miquel, P., see Rudnick, H., *MPE Mar-Apr 2011 37-45*
- Miranda, V., see Ramirez-Rosado, I.J., *PAE-M Mar-Apr 2005 56-63*
- Mishra, Y., see Goswami, B., *MPE Nov-Dec 2024 118-133*
- Mistry, M., see Chakrabarti, B., *MPE Mar-Apr 2011 67-73*
- Misyris, G., see Chatzivasileiadis, S., *MPE May-Jun 2022 32-41*
- Mitolo, M., see Cirimele, V., *MPE Nov-Dec 2023 91-97*
- Mitsch, K., see Litzenberger, W., *MPE Mar-Apr 2016 32-41*
- Mitsche, J.V., see Galarza, R.J., *PAE-M Nov-Dec 2004 46-54*
- Miwa, S., see Hara, R., *PAE-M May-Jun 2009 77-85*
- Mo, W., see Zhou, H., *MPE Jul-Aug 2016 72-78*
- Mocarquer, S., Barroso, L.A., Rudnick, H., Bezerra, B., and Pereira, M.V., Balance of power; *PAE-M Sep-Oct 2009 26-35*
- Mocarquer, S., see Barroso, L.A., *PAE-M Jul-Aug 2006 32-46*
- Mocarquer, S., see Bezerra, B., *MPE May-Jun 2012 48-58*
- Mocarquer, S., see Moreno, R., *PAE-M Sep-Oct 2010 36-46*
- Mocarquer, S., see Rudnick, H., *MPE Mar-Apr 2011 37-45*
- Mocarquer, S., see Rudnick, H., *PAE-M Jul-Aug 2007 50-67*
- Mocarquer, S., see Rudnick, H., *PAE-M Jul-Aug 2008 22-35*
- Mocarquer, S., see Rudnick, H., *MPE Nov-Dec 2014 29-39*
- Modeer, T., see Davidson, C., *MPE Sep-Oct 2024 87-99*
- Modi, N., Escudero, M.V., Aramaki, K., Zhou, X., and Partinen, P., High Inverter-Based Resource Integration: The Experience of Five System Operators; *MPE Mar-Apr 2024 78-88*
- Modi, N., see Badrzadeh, B., *MPE Mar-Apr 2024 66-77*
- Modi, N., see Badrzadeh, B., *MPE Sep-Oct 2021 46-55*
- Modica, M., see Dondossola, G., *MPE May-Jun 2024 42-49*
- Moehrlen, C., see Ernst, B., *PAE-M Nov-Dec 2007 78-89*
- Mohamed, T., see Kezunovic, M., *MPE Nov-Dec 2024 78-88*
- Mohan, N., see Wollenberg, B., *PAE-M Jul-Aug 2010 44-52*
- Mohn, T., It Takes a Village: Rural Electrification in East Africa; *MPE Jul-Aug 2013 46-51*
- Mohrlen, C., see Ackermann, T., *PAE-M Nov-Dec 2009 65-75*
- Mohrlen, C., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Mohrlen, C., see Dobschinski, J., *MPE Nov-Dec 2017 40-49*
- Mohrlen, C., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Mohrlen, C., see Tuohy, A., *MPE Nov-Dec 2015 50-59*

- Mohsenian-Rad, H., and Xu, W., Synchro-Waveforms: A Window to the Future of Power Systems Data Analytics; *MPE Sep-Oct 2023 68-77*
- Mohsenian-Rad, H., Stewart, E., and Cortez, E., Distribution Synchrophasors: Pairing Big Data with Analytics to Create Actionable Information; *MPE May-Jun 2018 26-34*
- Monken, J., see Chen, H., *MPE Jul-Aug 2020 20-30*
- Monteiro, C., see Ramirez-Rosado, I.J., *PAE-M Mar-Apr 2005 56-63*
- Montgomery, G., see Hamadi, V., *MPE Jul-Aug 2019 67-74*
- Monti, A., see Dall'Anese, E., *MPE Jan-Feb 2017 43-52*
- Monti, M., see Ivanov, C., *MPE Jan-Feb 2016 30-39*
- Montoya, M., Sherick, R., Haralson, P., Neal, R., and Yinger, R., Islands in the Storm: Integrating Microgrids into the Larger Grid; *MPE Jul-Aug 2013 33-39*
- Moon, H., see Kirby, N., *MPE Mar-Apr 2016 57-65*
- Moon, J., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Moorty, S., see Ela, E., *MPE Nov-Dec 2017 70-82*
- Moorty, S., see Ela, E., *MPE Nov-Dec 2019 58-66*
- Morales-Espana, G., see Strbac, G., *MPE Jan-Feb 2021 53-63*
- Moran, L., see Jimenez-Estevéz, G., *MPE Mar-Apr 2015 71-77*
- Moran, L., see Rudnick, H., *PAE-M Sep-Oct 2003 32-40*
- Morcos, M.M., see Pahwa, A., *PAE-M Jan-Feb 2005 53-58*
- Moreira, C., see Strbac, G., *MPE May-Jun 2015 35-43*
- Moreira, R., see Strbac, G., *MPE Mar-Apr 2019 25-36*
- Moreira, R., see Strbac, G., *MPE Sep-Oct 2017 32-41*
- Moreno, R., Bezerra, B., Rudnick, H., Suazo-Martinez, C., Carvalho, M., Navarro, A., Silva, C., and Strbac, G., Distribution Network Rate Making in Latin America: An Evolving Landscape; *MPE May-Jun 2020 33-48*
- Moreno, R., Ferreira, R., Barroso, L., Rudnick, H., and Pereira, E., Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies; *MPE Sep-Oct 2017 68-80*
- Moreno, R., Panteli, M., Mancarella, P., Rudnick, H., Lagos, T., Navarro, A., Ordóñez, F., and Araneda, J., From Reliability to Resilience: Planning the Grid Against the Extremes; *MPE Jul-Aug 2020 41-53*
- Moreno, R., see Holttinen, H., *MPE Nov-Dec 2021 86-96*
- Moreno, R., see Li, F., *MPE Nov-Dec 2022 56-65*
- Moreno, R., see Serrano, R., *MPE Jan-Feb 2022 38-51*
- Moreno, R., see Strbac, G., *MPE Jul-Aug 2015 61-75*
- Moreno, R., see Strbac, G., *MPE Sep-Oct 2017 32-41*
- Moreno, R., see Strbac, G., *PAE-M Sep-Oct 2009 44-52*
- Moreno, R., Strbac, G., Porrúa, F., Mocarquer, S., and Bezerra, B., Making Room for the Boom; *PAE-M Sep-Oct 2010 36-46*
- Moreno, R., Trakas, D.N., Jamieson, M., Panteli, M., Mancarella, P., Strbac, G., Marnay, C., and Hatziaargyriou, N., Microgrids Against Wildfires: Distributed Energy Resources Enhance System Resilience; *MPE Jan-Feb 2022 78-89*
- Morison, K., Lei Wang, and P. Kundur. Power system security assessment; *PAE-M Sep-Oct 2004 30-39*
- Morison, K., see Lei Wang, *PAE-M Sep-Oct 2006 46-59*
- Morjaria, M., Anichkov, D., Chadliev, V., and Soni, S., A Grid-Friendly Plant: The Role of Utility-Scale Photovoltaic Plants in Grid Stability and Reliability; *MPE May-Jun 2014 87-95*
- Morozumi, S., see Kroposki, B., *PAE-M May-Jun 2008 40-53*
- Morrow, D.J., and Brown, R.E., Future vision - The Challenge of Effective Transmission Planning; *PAE-M Sep-Oct 2007 36-45*
- Morrow, T., see Lal, N., *MPE Sep-Oct 2021 29-45*
- Mortgage, H., see Golriz, A., *MPE Mar-Apr 2022 47-56*
- Morton, A., see Badrzadeh, B., *MPE Mar-Apr 2024 66-77*
- Moseley, J., see Britton, J., *MPE Jan-Feb 2016 48-57*
- Moses, K., see Higginson, M., *MPE May-Jun 2021 70-82*
- Mossing, J., see Heidrick, T., *PAE-M Jan-Feb 2004 52-58*
- Motley, A., see Fox, J., *MPE Nov-Dec 2021 77-85*
- Motley, A., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Motley, A., see Lew, D., *MPE Nov-Dec 2017 50-60*
- Mount, T., see Kezunovic, M., *MPE Jul-Aug 2012 22-34*
- Mount, T., see Kezunovic, M., *PAE-M Mar-Apr 2009 69-78*
- Mount, T., see McCalley, J., *MPE May-Jun 2011 42-54* (Corrections, *MPE Jul-Aug 2011 90*)
- Mountain, B., and Szuster, P., Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems; *MPE Jul-Aug 2015 53-60*
- Mourier, K., see Guibout, C., *MPE May-Jun 2024 67-78*
- Mowers, M., see Brinkman, G., *MPE May-Jun 2011 24-32*
- Mowers, M., see Denholm, P., *MPE Mar-Apr 2013 22-32*
- Mu, G., see Kang, C., *MPE May-Jun 2018 54-65*
- Muhanji, S., Schoonenberg, W., and Farid, A., Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory; *MPE Sep-Oct 2019 71-81*
- Mukhopadhyay, S., see Abi-Samra, N., *MPE Sep-Oct 2014 61-65*
- Mukhopadhyay, S., Towards Electricity for All; *PAE-M Sep-Oct 2007 71-78*
- Mulhern, J., see Orths, A., *MPE Nov-Dec 2019 67-78*
- Muljadi, E., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Muljadi, E., see Piwko, R., *PAE-M Nov-Dec 2009 26-35*
- Muljadi, E., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Muljadi, E., see Zavadil, R., *PAE-M Nov-Dec 2005 26-37*
- Muljadi, E., see Zavadil, R., *PAE-M Nov-Dec 2007 47-58*
- Muller, S., see Holttinen, H., *MPE Nov-Dec 2013 53-62*
- Munk, J., see Du, Y., *MPE May-Jun 2022 42-53*
- Munoz, F., see Barroso, L., *MPE Jan-Feb 2021 64-73*
- Munson, M., Jaskulski, G., and Thomas, C., If These Walls Could Think; *MPE Jan-Feb 2011 50-55*
- Muratovic, M., see Franck, C.M., *MPE Mar-Apr 2023 18-29*
- Murdoch, A., see Piwko, R., *PAE-M Mar-Apr 2010 18-26*
- Murley, C., see Demeo, E.A., *PAE-M Nov-Dec 2007 59-67*
- Murphy, C., see Ahlstrom, M., *MPE Nov-Dec 2021 37-44*
- Murphy, C., see Frisch, C., *MPE Jul-Aug 2018 90-98*
- Musial, W., see Orths, A., *MPE Nov-Dec 2013 83-95*
- Mutale, J., see Djapic, P., *PAE-M Jul-Aug 2007 68-77*
- Mutale, J., see Louie, H., *MPE Jul-Aug 2014 70-78*
- Mutale, J., see Rudnick, H., *MPE Jul-Aug 2014 35-41*
- Muthumuni, D., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Myrda, P., and Donahoe, K., The true vision of automation; *PAE-M May-Jun 2007 32-44*
- Myrda, P., see Meliopoulos, A.P.S., *PAE-M May-Jun 2007 74-86*
- Myrda, P., see Meliopoulos, S., *MPE Jan-Feb 2023 59-72*
- Myrda, P., see Udren, E.A., *MPE May-Jun 2024 79-89*
- Myslikova, Z., see Gallagher, K., *MPE Sep-Oct 2014 28-33*

N

- Nabahani, S., see Mills, M., *MPE Nov-Dec 2023 48-55*
- Naegler, T., see Kiviluoma, J., *MPE Jan-Feb 2017 25-33*
- Nagamani, C., Venkata Kirthiga, M., and Thomas, M., Power Engineering Education: A Description of Current Academic Developments in India; *MPE Sep-Oct 2018 42-52*
- Naglic, M., see Brosinsky, C., *MPE Jan-Feb 2024 24-34*
- Nagpal, H., see Avramidis, I., *MPE Jul-Aug 2023 53-63*
- Naidoo, P., and Bacela, P.A., A Wealth of Possibilities: Power and Energy in Africa; *MPE May-Jun 2012 67-70*
- Nair, N., Martin, D., Saha, T., Islam, S., and Watson, N., Electrical Power Engineering Education Down Under:

- Australia and New Zealand Are Adding Energy to Their University Curricula; *MPE Sep-Oct 2018 64-73*
- Nair, N., see Vittal, V., *MPE Sep-Oct 2022 16-25*
- Nakafuji, D., see Dobschinski, J., *MPE Nov-Dec 2017 40-49*
- Nakata, S., see Fioravanti, R., *MPE Nov-Dec 2020 86-97*
- Namboodiri, V., Aravinthan, V., Joseph, S., Sawan, E., and Jewell, W., Five Heads Are Better Than One: An Interdisciplinary Graduate Course on Smart Grids: Lessons, Challenges, and Opportunities; *MPE Jan-Feb 2013 44-50*
- Narang, D., see Vartanian, C., *MPE Nov-Dec 2018 52-63*
- Narasimhan, S., see Soonee, S., *MPE Sep-Oct 2015 49-59*
- Narasimhan, S.R., see Chen, H., *MPE Nov-Dec 2022 26-37*
- Narushevich, L., see Pack, E., *MPE Sep-Oct 2021 56-66*
- Nath, R., see Zhou, G., *MPE Jul-Aug 2019 35-46*
- Nativel, G., Coste, T., Lambert, E., and Dehouck-Neveu, A., Long-Term Vision: Industrial Operating Systems for Power Distribution; *MPE May-Jun 2024 59-66*
- Navarro, A., see Moreno, R., *MPE Jul-Aug 2020 41-53*
- Navarro, A., see Moreno, R., *MPE May-Jun 2020 33-48*
- Navarro-Espinosa, A., see Jimenez-Estevez, G., *MPE May-Jun 2017 64-73*
- Nayak, R.N., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- Nayak, R.N., see Szechtman, M., *PAE-M Mar-Apr 2007 61-69*
- Neal, R., see Joos, G., *MPE Jul-Aug 2017 32-40*
- Neal, R., see Montoya, M., *MPE Jul-Aug 2013 33-39*
- Neenan, B., see Smith, J., *MPE Mar-Apr 2017 29-39*
- Negash, A., see O'Neil, R., *MPE Jul-Aug 2024 85-93*
- Nehrir, H., Caisheng Wang, and S.R. Shaw. Fuel cells: promising devices for distributed generation; *PAE-M Jan-Feb 2006 47-53*
- Nehrir, M.H., see Caisheng Wang, *PAE-M Jan-Feb 2007 58-63*
- Neilson, B., see Chun Li, *PAE-M May-Jun 2003 24-31*
- Nelms, R.M. Let the games begin [solar powered homes]; *PAE-M Jul-Aug 2003 56-60*
- Nelson, J., see Kachinga, K., *MPE Sep-Oct 2022 75-79*
- Nelson, J., see Numfor, J., *MPE Sep-Oct 2022 69-74*
- Nelson, J., see Ureh, H., *MPE Sep-Oct 2022 61-68*
- Nelson, R., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Nemet, G., see Ahlstrom, M., *MPE Nov-Dec 2021 37-44*
- Neufeld, J.L., see Holland, S.P., *PAE-M Sep-Oct 2009 36-43*
- Neumann, H., see Holttinen, H., *MPE Nov-Dec 2011 47-59*
- Neumann, S., Wilhoit, F., Goodrich, M., and Balijepalli, V., Everything's Talking to Each Other: Smart Meters Generate Big Data for Utilities and Customers; *MPE Jan-Feb 2016 40-47*
- Ng, H., see Ela, E., *MPE Jan-Feb 2021 41-52*
- Ng, L., see Wiemann, M., *MPE Jul-Aug 2014 42-49*
- Ngo, Y., Arant, H., Bilby, C., and Grice, A., Investing for the Future: How Small Utilities are Finding Success With Advanced Distribution Management Systems; *MPE Jan-Feb 2020 34-42*
- Ni, M., and Yang, Z., By Leaps and Bounds: Lessons Learned from Renewable Energy Growth in China; *MPE Mar-Apr 2012 37-43*
- Nichols, C., see Yao, Z., *MPE May-Jun 2014 77-86*
- Nicholson, E., and Quinn, A., Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy; *MPE Jan-Feb 2019 67-72*
- Nickell, B.M., see Lawhorn, J., *PAE-M Nov-Dec 2009 76-88*
- Nickell, B.M., see Osborn, D., *MPE Nov-Dec 2011 60-74*
- Niebur, D., see Reder, W., *PAE-M Jul-Aug 2010 27-35*
- Niedermeyer, F., see Stetz, T., *MPE Mar-Apr 2015 50-61* (Correction, *MPE May-Jun 2015 24*)
- Niemann, B., see Engelbrecht, T., *MPE Mar-Apr 2023 30-39*
- Nilsson, S., see Long, W., *PAE-M Mar-Apr 2007 22-31*
- Nissen, T., and D. Peterchuck. Substation integration pilot project; *PAE-M Mar-Apr 2003 42-49*
- Niu, M., see Shi, D., *MPE Nov-Dec 2024 54-65*
- Nock, D., Jones, A.J., Bouzarovski, S., Thomson, H., and Bednar, D.J., Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty; *MPE Jul-Aug 2024 26-37*
- Nodehi, K., see Vaahedi, E., *MPE Jul-Aug 2017 80-87*
- Nogales, F.J., see Alonso, A.M., *MPE May-Jun 2022 54-63*
- Noland, J.K., Hjelmeland, M., Tjernberg, L.B., and Hartmann, C., The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources; *MPE May-Jun 2024 90-103*
- Noland, J.K., see Oyvang, T., *MPE Nov-Dec 2022 66-78*
- Nordell, D., see Roy, S., *MPE Sep-Oct 2011 64-73*
- Nordell, D.E., Terms of Protection: The Many Faces of Smart Grid Security; *MPE Jan-Feb 2012 18-23*
- Nordman, B., see Widergren, S., *MPE Sep-Oct 2019 47-58*
- Norford, L., see Laughman, C., *PAE-M Mar-Apr 2003 56-63*
- Norton, M., see Vu Van, T., *MPE Jan-Feb 2015 30-37*
- Nourai, A., and Kearns, D., Batteries Included; *PAE-M Mar-Apr 2010 49-54*
- Nourai, A., and Schafer, C., Changing the electricity game; *PAE-M Jul-Aug 2009 42-47*
- Nourai, A., B.P. Martin, and D.R. Fitchett. Testing the limits [electricity storage technologies]; *PAE-M Mar-Apr 2005 40-46*
- Novacheck, J., see Fox, J., *MPE Nov-Dec 2021 77-85*
- Novosel, D., M.M. Begovic, and V. Madani. Shedding light on blackouts; *PAE-M Jan-Feb 2004 32-43*
- Novosel, D., Madani, V., Bhargava, B., Khoi Vu, and Cole, J., Dawn of the grid synchronization; *PAE-M Jan-Feb 2008 49-60*
- Novosel, D., see Agüero, J., *MPE May-Jun 2017 74-83*
- Novosel, D., see Glavic, M., *MPE Jul-Aug 2012 43-55*
- Novosel, D., see Horowitz, S.H., *PAE-M Sep-Oct 2008 34-42*
- Novosel, D., see Imai, S., *MPE May-Jun 2023 16-29*
- Novosel, D., see Madani, V., *MPE Sep-Oct 2015 18-28*
- Novosel, D., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- Novosel, D., see Romero Agüero, J., *MPE Jul-Aug 2019 75-84*
- Nucci, C., see Chicco, G., *MPE Sep-Oct 2018 53-63*
- Numfor, J., and Nelson, J., Smart Village Voices in Africa, Cameroon: Part 3—Electrification of Off-Grid Villages in Cameroon; *MPE Sep-Oct 2022 69-74*
- Nunez Mata, O., see Jimenez-Estevez, G., *MPE Jul-Aug 2014 60-69*
- Nuqui, R., see Roberson, D., *MPE May-Jun 2019 38-47*
- Nuthalapati, S., see Koellner, K., *MPE Sep-Oct 2015 36-40*

O

- O'Boyle, M., see O'Connell, R., *MPE Nov-Dec 2021 67-76*
- O'Brien, K., see Bebic, J., *PAE-M May-Jun 2009 45-54*
- O'Connell, A., Taylor, J., Smith, J., and Rogers, L., Distributed Energy Resources Take Center Stage; *MPE Nov-Dec 2018 42-51*
- O'Connell, B., Davies, C., Paver, A., Taylor, E., Veijalainen, T., Ganguli, R., and Schaefer, C., Achieving World-Leading Penetration of Renewables: The Australian National Electricity Market; *MPE Sep-Oct 2021 18-28*
- O'Connell, R., Phadke, A., O'Boyle, M., Clack, C.T., Denholm, P., and Ernst, B., Carbon-Free Energy: How Much, How Soon?; *MPE Nov-Dec 2021 67-76*
- O'Dwyer, C., see Heinen, S., *MPE Jul-Aug 2018 69-78*
- O'Malley, M., Bowen, T., Bialek, J., Braun, M., Cutululis, N., Green, T., Hansen, A., Kennedy, E., Kiviluoma, J., Leslie, J., Li, Y., Matevosyan, J., McDowell, J., Miller, N., Pettingill, P., Ramasubramanian, D., Robinson, L., Schaefer, C., and Ward, J., Enabling Power System Transformation Globally: A System Operator Research

- Agenda for Bulk Power System Issues; *MPE Nov-Dec 2021 45-55*
- O'Malley, M., see Ahlstrom, M., *MPE Nov-Dec 2015 60-66*
- O'Malley, M., see Chaudhuri, B., *MPE Mar-Apr 2024 30-41*
- O'Malley, M., see Heinen, S., *MPE Jan-Feb 2017 16-24*
- O'Malley, M., see Heinen, S., *MPE Jul-Aug 2018 69-78*
- O'Malley, M., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- O'Malley, M., see Milligan, M., *MPE Nov-Dec 2015 78-87*
- O'Malley, M., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- O'Malley, M., see Orths, A., *MPE Nov-Dec 2019 67-78*
- O'Malley, M., see Piwko, R., *MPE Nov-Dec 2011 26-35*
- O'Malley, M., see Piwko, R., *PAE-M Nov-Dec 2009 26-35*
- O'Neil, R., Yoshimura, J., Negash, A., and Awara, S., Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics; *MPE Jul-Aug 2024 85-93*
- O'Neill-Carrillo, E., M. Velez-Reyes, A. Irizarry-Rivera, and E. Marrero. The power of undergraduate research; *PAE-M Jul-Aug 2003 29-36*
- O'Sullivan, J., see Ackermann, T., *MPE Nov-Dec 2015 67-77*
- O'Sullivan, J., see Ackermann, T., *PAE-M Nov-Dec 2009 65-75*
- O'Sullivan, J., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- O'Sullivan, J., see Ahlstrom, M., *MPE Nov-Dec 2015 60-66*
- O'Sullivan, J., see Ela, E., *MPE Nov-Dec 2017 70-82*
- O'Sullivan, J., see Ela, E., *MPE Nov-Dec 2019 58-66*
- O'Sullivan, J., see Lew, D., *MPE Nov-Dec 2019 24-34*
- O'Sullivan, J., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- O'Sullivan, J., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Oakleaf, B., see Demeo, E.A., *PAE-M Nov-Dec 2007 59-67*
- Oakleaf, B., see Ernst, B., *PAE-M Nov-Dec 2007 78-89*
- Obi, M., see Mills, M., *MPE Nov-Dec 2023 48-55*
- Ochoa, L., Pilo, F., Keane, A., Cuffe, P., and Pisano, G., Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles; *MPE Sep-Oct 2016 16-28*
- Ochoa, L., see Ballanti, A., *MPE May-Jun 2017 52-63*
- Ochoa, L., see Dubey, A., *MPE Jan-Feb 2020 63-75*
- Ochoa, L., see Liu, M., *MPE Jul-Aug 2021 52-62*
- Ochoa, L., see Quiros-Tortos, J., *MPE Mar-Apr 2017 48-56*
- Ochoa, L., see Quiros-Tortos, J., *MPE Nov-Dec 2018 64-76*
- Ogimoto, K., and Wani, H., Making Renewables Work: Operational Practices and Future Challenges for Renewable Energy as a Major Power Source in Japan; *MPE Nov-Dec 2020 47-63*
- Ogimoto, K., Kaizuka, I., Ueda, Y., and Oozeki, T., A Good Fit: Japan's Solar Power Program and Prospects for the New Power System; *MPE Mar-Apr 2013 65-74*
- Ogimoto, K., see Holttinen, H., *MPE Nov-Dec 2021 86-96*
- Oguah, S., and Chattopadhyay, D., A Pro-Grid Middle Path for Africa: Sub-Saharan Region Electricity Upgrades; *MPE Mar-Apr 2019 61-68*
- Ogura, S., see Marnay, C., *MPE May-Jun 2015 44-57*
- Oh, Y., see Cho, G., *MPE Nov-Dec 2018 77-87*
- Ohashi, N., Terashima, K., and Tanaka, M., A Novel Approach to Transmission Bottleneck Management in Japan: An N-1 Intertrip Scheme; *MPE Mar-Apr 2021 69-78*
- Ohja, A., see Devanand, P., *MPE Jan-Feb 2020 55-62*
- Okonski, Z., and E. Parker. Enterprise transforming initiatives; *PAE-M May-Jun 2003 32-35*
- Olearczyk, M., Hampton, R.N., Perkel, J., and Weisenfeld, N., Notes from Underground; *PAE-M Nov-Dec 2010 75-84*
- Olson, A., Mahone, A., Hart, E., Hargreaves, J., Jones, R., Schlag, N., Kwok, G., Ryan, N., Orans, R., and Frowd, R., Halfway There: Can California Achieve a 50% Renewable Grid?; *MPE Jul-Aug 2015 41-52*
- Olson, A., see Burdick, A., *MPE Jul-Aug 2022 30-43*
- Omont, N., see Astic, J., *MPE Mar-Apr 2018 57-66*
- Oozeki, T., see Ogimoto, K., *MPE Mar-Apr 2013 65-74*
- Orans, R., see Mahone, A., *MPE Jul-Aug 2018 58-68*
- Orans, R., see Olson, A., *MPE Jul-Aug 2015 41-52*
- Ordonez, F., see Moreno, R., *MPE Jul-Aug 2020 41-53*
- Oren, S., see Hobbs, B., *MPE Jan-Feb 2019 73-81*
- Orndorff, R., see Allen, E., *MPE Nov-Dec 2016 52-58*
- Orths, A., Anderson, C., Brown, T., Mulhern, J., Pudjianto, D., Ernst, B., O'Malley, M., McCalley, J., and Strbac, G., Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors; *MPE Nov-Dec 2019 67-78*
- Orths, A., Bialek, J., Callavik, M., De Decker, J., Grøtterud, G., Hiorns, A., van Hulle, F., Klinge, S., Musial, W., and Rudion, K., Connecting the Dots; *MPE Nov-Dec 2013 83-95*
- Orths, A., see Ackermann, T., *MPE Nov-Dec 2015 67-77*
- Orths, A., see Holttinen, H., *MPE Nov-Dec 2021 86-96*
- Orths, A., see Lew, D., *MPE Nov-Dec 2021 56-66*
- Orths, A., see McCalley, J., *MPE Nov-Dec 2017 83-93*
- Orths, A., see Pfeifenberger, J.P., *MPE Sep-Oct 2024 20-30*
- Orths, A.G., see Ackermann, T., *PAE-M Nov-Dec 2009 65-75*
- Orths, A.G., see Holttinen, H., *MPE Nov-Dec 2011 47-59*
- Ortiz, D., see Overholt, P., *MPE Sep-Oct 2015 14-17*
- Ortiz-Villalba, D., see Jimenez-Esteviz, G., *MPE Jul-Aug 2014 60-69*
- Osborn, D., Henderson, M.I., Nickell, B.M., Lasher, W., Liebold, C., Adams, J., and Caspary, J., Driving Forces Behind Wind; *MPE Nov-Dec 2011 60-74*
- Osborn, D., see Lawhorn, J., *PAE-M Nov-Dec 2009 76-88*
- Osborn, D., see McCalley, J., *MPE May-Jun 2011 42-54* (Corrections, *MPE Jul-Aug 2011 90*)
- Osborn, D., see McCalley, J., *MPE Nov-Dec 2017 83-93*
- Osborn, D., see Piwko, R., *PAE-M Nov-Dec 2005 47-56*
- Osborn, D., see Piwko, R., *PAE-M Nov-Dec 2007 68-77*
- Ostergaard, J., Ziras, C., Bindner, H., Kazempour, J., Marinelli, M., Markussen, P., Rosted, S., and Christensen, J., Energy Security Through Demand-Side Flexibility: The Case of Denmark; *MPE Mar-Apr 2021 46-55*
- Osterlund, L., Hunter, K., Demaree, K., Goodrich, M., McMorrin, A., Iverson, B., and Kostic, T., Under the Hood: An Overview of the Common Information Model Data Exchanges; *MPE Jan-Feb 2016 68-82*
- Otani, T., Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation; *MPE May-Jun 2024 20-28*
- Ott, A., see Coe, S., *PAE-M May-Jun 2010 55-59*
- Oudalov, A., see Schonleber, K., *MPE Sep-Oct 2020 58-63*
- Outhred, H., see MacGill, I., *PAE-M Jul-Aug 2006 63-74*
- Ouyang, J., see Hobbs, B., *MPE Jul-Aug 2016 30-40*
- Overbye, T., see Kezunovic, M., *MPE Mar-Apr 2018 26-35*
- Overbye, T.J. Fostering intuitive minds for power system design; *PAE-M Jul-Aug 2003 42-49*
- Overholt, P., Kosterev, D., Eto, J., Yang, S., and Lesieutre, B., Improving Reliability Through Better Models: Using Synchronphasor Data to Validate Power Plant Models; *MPE May-Jun 2014 44-51*
- Overholt, P., Ortiz, D., and Silverstein, A., Synchronphasor Technology and the DOE: Exciting Opportunities Lie Ahead in Development and Deployment; *MPE Sep-Oct 2015 14-17*
- Owens, A.J., see Engelbrecht, T., *MPE Mar-Apr 2023 30-39*
- Oyvang, T., and Noland, J.K., Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition; *MPE Nov-Dec 2022 66-78*
- Ozansoy, C., Turning down the heat; *PAE-M Jan-Feb 2010 29-36*

P

- Paaso, A., Burica, N., and Burg, R., Realizing the Value of DERs: A Utility Perspective; *MPE Mar-Apr 2022 39-46*
- Paaso, A., see Kean, E., *MPE Sep-Oct 2022 39-45*
- Pabi, S., see Casey, E., *MPE Jan-Feb 2017 34-42*
- Pack, E., Christison, B., Winch, D., and Narushevich, L., Renewable Energy Zones in Australia: Integrated System Planning; *MPE Sep-Oct 2021 56-66*
- Padhy, N., see Li, F., *MPE Jul-Aug 2015 76-86*
- Page, C., see Roberson, D., *MPE May-Jun 2019 38-47*
- Pahwa, A., D.M. Gruenbacher, S.K. Starrett, and M.M. Morcos. Distance learning for power professionals: virtual classrooms allow students flexibility in location and time; *PAE-M Jan-Feb 2005 53-58*
- Pahwa, A., see Aronoff, J., *MPE Jan-Feb 2013 30-38*
- Palensky, P., Mancarella, P., Hardy, T., and Cvetkovic, M., Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World; *MPE Jan-Feb 2024 52-60*
- Palma, R., see Rudnick, H., *PAE-M Jul-Aug 2010 61-74*
- Palma-Behnke, R., see Jimenez-Estevez, G., *MPE Jul-Aug 2014 60-69*
- Palma-Behnke, R., see Jimenez-Estevez, G., *MPE Mar-Apr 2015 71-77*
- Palma-Behnke, R., see Jimenez-Estevez, G., *MPE May-Jun 2017 64-73*
- Palma-Behnke, R., see Rudnick, H., *MPE Sep-Oct 2014 50-60*
- Palmintier, B., see Hoke, A., *MPE Nov-Dec 2018 18-29*
- Palombo, C. Eight steps to optimize your strategic assets; *PAE-M May-Jun 2005 46-54*
- Palzer, A., see Sterchele, P., *MPE Jul-Aug 2018 24-33*
- Pan, J., Callavik, M., Lundberg, P., and Zhang, L., A Subtransmission Metropolitan Power Grid: Using High-Voltage dc for Enhancement and Modernization; *MPE May-Jun 2019 94-102*
- Panciatici, P., Bareux, G., and Wehenkel, L., Operating in the Fog: Security Management Under Uncertainty; *MPE Sep-Oct 2012 40-49*
- Panciatici, P., see Chen-Ching Liu, *MPE Jan-Feb 2012 58-66*
- Panciatici, P., see Henry, S., *MPE Mar-Apr 2014 26-35*
- Panciatici, P., see Meliopoulos, S., *MPE Jan-Feb 2023 59-72*
- Panciatici, P., see Vu Van, T., *MPE Jan-Feb 2015 30-37*
- Pang, H., see Jovicic, D., *MPE May-Jun 2019 82-93*
- Pant, S., see Ramasubramanian, D., *MPE Mar-Apr 2024 55-65*
- Panteli, M., and Mancarella, P., The Grid: Stronger, Bigger, Smarter?: Presenting a Conceptual Framework of Power System Resilience; *MPE May-Jun 2015 58-66*
- Panteli, M., see Moreno, R., *MPE Jan-Feb 2022 78-89*
- Panteli, M., see Moreno, R., *MPE Jul-Aug 2020 41-53*
- Papadaskalopoulos, D., see Strbac, G., *MPE Jan-Feb 2021 53-63*
- Papadaskalopoulos, D., see Strbac, G., *MPE Jul-Aug 2015 61-75*
- Papadaskalopoulos, D., see Strbac, G., *MPE Mar-Apr 2019 25-36*
- Papadaskalopoulos, D., see Strbac, G., *MPE May-Jun 2015 35-43*
- Papadopoulos, P., see Strbac, G., *MPE Sep-Oct 2017 32-41*
- Papadopoulos, P.N., Chatzivasileiadis, S., and Marot, A., Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition; *MPE Nov-Dec 2024 100-111*
- Papalexopoulos, A.D. Supplying the generation to meet the demand; *PAE-M Jul-Aug 2004 66-73*
- Papaspiliotopoulos, V., see Lagos, D., *MPE May-Jun 2021 20-35*
- Papathanassiou, S., see Marnay, C., *PAE-M May-Jun 2008 66-77*
- Papatlianassiou, S., see Kroposki, B., *PAE-M May-Jun 2008 40-53*
- Paradis, M., see Kirby, N., *MPE Mar-Apr 2016 57-65*
- Parashar, M., see Giri, J., *MPE Sep-Oct 2012 24-39*
- Pardo, F., see McDonald, J.D., *PAE-M May-Jun 2007 57-66*
- Parejo, A., see Guerrero, J., *MPE Sep-Oct 2020 64-75*
- Parikh, J., and Parikh, K., Growing Pains: Meeting India's Energy Needs in the Face of Limited Fossil Fuels; *MPE May-Jun 2012 59-66*
- Parikh, K., see Parikh, J., *MPE May-Jun 2012 59-66*
- Parisot, A., see Henry, S., *MPE Mar-Apr 2014 26-35*
- Park, H.-I., see Kim, J., *MPE Jan-Feb 2011 40-49*
- Park, K., Jang, D., Kim, S., Lim, Y., and Lee, J., A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach; *MPE Nov-Dec 2023 28-37*
- Park, S., see Hobbs, B., *MPE Jul-Aug 2016 30-40*
- Parker, E., see Okonski, Z., *PAE-M May-Jun 2003 32-35*
- Parker, R., see Heinen, S., *MPE Nov-Dec 2023 38-47*
- Parks, K., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Parks, K., see Grant, W., *PAE-M Nov-Dec 2009 47-58*
- Parks, K., see Holttinen, H., *MPE Nov-Dec 2021 86-96*
- Parsons, J., see Buongiorno, J., *MPE Mar-Apr 2019 69-77*
- Partinen, P., see Modi, N., *MPE Mar-Apr 2024 78-88*
- Parvania, M., and Merrill, H., Toward a 21st Century Power Education: A Bright Future Awaits Students in Utah; *MPE Sep-Oct 2018 87-95*
- Parvania, M., see Farley, A., *MPE Jul-Aug 2024 38-48*
- Paserba, J., see Reed, G., *PAE-M Sep-Oct 2003 41-46*
- Pasini, S., see Heinen, S., *MPE Jan-Feb 2017 16-24*
- Patel, M., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Patel, N., see Shahidehpour, M., *MPE May-Jun 2015 67-80*
- Patel, V., see Vartanian, C., *MPE Nov-Dec 2018 52-63*
- Patteeuw, D., see Kiviluoma, J., *MPE Jan-Feb 2017 25-33*
- Patterson, B.T., DC, Come Home: DC Microgrids and the Birth of the "Enernet"; *MPE Nov-Dec 2012 60-69*
- Paun, M., see Sanchis, G., *MPE Jan-Feb 2015 38-51*
- Paver, A., see O'Connell, B., *MPE Sep-Oct 2021 18-28*
- Payne, M., see Higginson, M., *MPE May-Jun 2021 70-82*
- Peek, G.H., see Gyuk, I., *PAE-M Mar-Apr 2005 31-39*
- Pei, Z., see Jiang, L., *MPE Nov-Dec 2011 36-46*
- Pei, Z., see Jiang, L., *MPE Nov-Dec 2015 40-49*
- Pei, Z., see Jiang, L., *MPE Nov-Dec 2019 99-107*
- Peirano, E., see Sanchis, G., *MPE Jan-Feb 2015 38-51*
- Peisert, S., see Currie, R., *MPE Sep-Oct 2023 48-57*
- Pellini, E.L., see Manassero, G., *MPE Nov-Dec 2024 112-117*
- Peng, B., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Pentayya, P., see Yadav, R.G., *PAE-M Jul-Aug 2005 39-48*
- Pereira, E., see Moreno, R., *MPE Sep-Oct 2017 68-80*
- Pereira, L. Cascade to black [system blackouts]; *PAE-M May-Jun 2004 54-57*
- Pereira, L. New thermal governor model development: its impact on operation and planning studies on the Western Interconnection; *PAE-M May-Jun 2005 62-70*
- Pereira, M.V., see Barroso, L.A., *PAE-M Sep-Oct 2007 54-63*
- Pereira, M.V., see Mocarquer, S., *PAE-M Sep-Oct 2009 26-35*
- Perez Sanchez, R., see Guerrero, J., *MPE Sep-Oct 2020 64-75*
- Perez-Arriaga, I., see Burger, S., *MPE Mar-Apr 2019 16-24*
- Perez-Arriaga, I., The Transmission of the Future: The Impact of Distributed Energy Resources on the Network; *MPE Jul-Aug 2016 41-53*
- Perez-Arriaga, I.J., see Sierra, J., *PAE-M Sep-Oct 2009 18-25*

- Perkel, J., see Olearczyk, M., *PAE-M Nov-Dec 2010 75-84*
- Perlaviciute, G., Schuitema, G., Devine-Wright, P., and Ram, B., At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects; *MPE Jan-Feb 2018 49-55*
- Personal, E., see Guerrero, J., *MPE Sep-Oct 2020 64-75*
- Pestana, R., see Haupt, S., *MPE Nov-Dec 2019 46-57*
- Pestana, R., see Sanchis, G., *MPE Jan-Feb 2015 38-51*
- Petak, K., see Babula, M., *MPE Nov-Dec 2014 20-28*
- Peterchuck, D., see Nissen, T., *PAE-M Mar-Apr 2003 42-49*
- Petti, D., see Buongiorno, J., *MPE Mar-Apr 2019 69-77*
- Pettingill, P., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Peyron, B., see Astic, J., *MPE Mar-Apr 2018 57-66*
- Pfeifenberger, J.P., Orths, A., Wang, W., and DeLosa III, J., Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States; *MPE Sep-Oct 2024 20-30*
- Pfeiffer, R., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Pfuntner, N., see Feltes, J., *MPE Mar-Apr 2012 53-61*
- Phadke, A., see Horowitz, S., *PAE-M Mar-Apr 2010 34-40*
- Phadke, A., see O'Connell, R., *MPE Nov-Dec 2021 67-76*
- Phadke, A.G., see Horowitz, S.H., *PAE-M Sep-Oct 2003 47-53*
- Phadke, A.G., see Horowitz, S.H., *PAE-M Sep-Oct 2006 60-67*
- Phadke, A.G., The Wide World of Wide-area Measurement; *PAE-M Sep-Oct 2008 52-65*
- Phelps, N., see Currie, R.A.F., *MPE Nov-Dec 2023 68-76*
- Phillips, A., Bose, S., and Rogers, B., Sensing the Future; *PAE-M Nov-Dec 2010 61-68*
- Phillips, A., Staying in Shape; *PAE-M Mar-Apr 2010 27-33*
- Philpot, E., see Trueblood, C., *MPE Mar-Apr 2013 33-44*
- Philpott, A., Read, G., Batstone, S., and Miller, A., The New Zealand Electricity Market: Challenges of a Renewable Energy System; *MPE Jan-Feb 2019 43-52*
- Pierpoint, T., see Romero Aguero, J., *MPE Jul-Aug 2019 75-84*
- Pietribiasi, D., see Gandini, M., *MPE Sep-Oct 2024 100-110*
- Pigeon, J., see Quint, R., *MPE Nov-Dec 2019 35-45*
- Pilo, F., see Ochoa, L., *MPE Sep-Oct 2016 16-28*
- Pinson, P., see Fox, J., *MPE Nov-Dec 2021 77-85*
- Pinson, P., see Hyndman, R., *MPE May-Jun 2018 18-25*
- Pinson, P., see Qiu, D., *MPE Nov-Dec 2024 18-27*
- Pisano, G., see Ochoa, L., *MPE Sep-Oct 2016 16-28*
- Pistikopoulos, E.N., see Zheng, X., *MPE Nov-Dec 2022 47-55*
- Pivovar, B., see Dragoon, K., *MPE Jul-Aug 2022 85-95*
- Piwko, D., see Corbus, D., *MPE Sep-Oct 2013 65-74*
- Piwko, R., Bradt, M., Camm, E., Ellis, A., Walling, R., and O'Malley, M., A Blast of Activity; *MPE Nov-Dec 2011 26-35*
- Piwko, R., Camm, E., Ellis, A., Muljadi, E., Zavadil, R., Walling, R., O'Malley, M., Irwin, G., and Saylor, S., A whirl of activity; *PAE-M Nov-Dec 2009 26-35*
- Piwko, R., D. Osborn, R. Gramlich, G. Jordan, D. Hawkins, and K. Porter. Wind energy delivery issues; *PAE-M Nov-Dec 2005 47-56*
- Piwko, R., Demello, R., Gramlich, R., Lasher, W., Osborn, D., Dombek, C., and Porter, K., What Comes First?; *PAE-M Nov-Dec 2007 68-77*
- Piwko, R., Meibom, P., Holttinen, H., Shi, B., Miller, N., Chi, Y., and Wang, W., Penetrating Insights: Lessons Learned from Large-Scale Wind Power Integration; *MPE Mar-Apr 2012 44-52*
- Piwko, R., Miller, N., Girad, R., MacDowell, J., Clark, K., and Murdoch, A., Generator Fault Tolerance and Grid Codes; *PAE-M Mar-Apr 2010 18-26*
- Piwko, R., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Piwko, R., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Piwko, R., see Manz, D., *MPE Jul-Aug 2012 75-84*
- Piwko, R., see Schuerger, M., *MPE Nov-Dec 2013 33-44*
- Piwko, R., see Smith, J., *PAE-M Mar-Apr 2009 41-51*
- Platt, G., see Abbey, C., *MPE May-Jun 2014 67-76*
- Plet, C.A., HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation; *MPE Sep-Oct 2024 38-48*
- Plowright, I., see Kirby, N., *MPE Mar-Apr 2016 57-65*
- Podmore, R., and Kapur, R., Smart Village Voices in Africa, System-of-Systems Approach: Part 1: A System-of-Systems Approach for Zero Poverty; *MPE Sep-Oct 2022 54-60*
- Podmore, R., see Bose, A., *MPE May-Jun 2023 61-69*
- Podmore, R., see Liu, S., *MPE Jan-Feb 2014 54-63*
- Pokorna, Z., see Varela, J., *MPE Jan-Feb 2015 84-91*
- Polonelli, T., see Franck, C.M., *MPE Mar-Apr 2023 18-29*
- Ponci, F., see Repo, S., *MPE May-Jun 2017 41-51*
- Pontes, H., see Keerthisinghe, C., *MPE Jan-Feb 2019 82-92*
- Popovic, D., see Carden, J., *MPE Mar-Apr 2018 67-75*
- Popovic, T., and Kezunovic, M., Measures of Value: Data Analytics for Automated Fault Analysis; *MPE Sep-Oct 2012 58-69*
- Porrua, F., see Barroso, L.A., *PAE-M Sep-Oct 2007 54-63*
- Porrua, F., see Moreno, R., *PAE-M Sep-Oct 2010 36-46*
- Portales, R., see MacDowell, J., *MPE Nov-Dec 2019 79-88*
- Porter, K., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- Porter, K., see Piwko, R., *PAE-M Nov-Dec 2005 47-56*
- Porter, K., see Piwko, R., *PAE-M Nov-Dec 2007 68-77*
- Porter, K., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- Poumarede, C., see Meyer, B., *MPE Mar-Apr 2020 43-52*
- Pourbeik, P., M. Bahrman, E. John, and W. Wong. Modern countermeasures to blackouts; *PAE-M Sep-Oct 2006 36-45*
- Pourbeik, P., P.S. Kundar, and C.W. Taylor. The anatomy of a power grid blackout; *PAE-M Sep-Oct 2006 22-29*
- Pourbeik, P., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Pourbeik, P., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Pourbeik, P., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Power, M., see Roggatz, C., *MPE Jul-Aug 2020 31-40*
- Pozzi, M., see Salvati, R., *PAE-M Jan-Feb 2004 44-51*
- Pozzo, L., see Keerthisinghe, C., *MPE Jan-Feb 2019 82-92*
- Prabakar, K., see Maitra, A., *MPE Jul-Aug 2017 41-49*
- Prais, M., see Alsac, O., *PAE-M Jul-Aug 2004 47-57*
- Pratt, A., see Maitra, A., *MPE Jul-Aug 2017 41-49*
- Pratt, D., see Coe, S., *PAE-M May-Jun 2010 55-59*
- Preger, Y., see Fioravanti, R., *MPE Nov-Dec 2020 86-97*
- Prevost, T., see Ackermann, T., *MPE Nov-Dec 2017 61-69*
- Prevost, T., see Bahrani, B., *MPE Mar-Apr 2024 18-29*
- Prevost, T., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- Prevost, T., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Price, T., see Lal, N., *MPE Sep-Oct 2021 29-45*
- Priebe, T., see Dennetiere, S., *MPE Sep-Oct 2024 73-86*
- Priewasser, R., see Varela, J., *MPE May-Jun 2015 81-89*
- Pritchard, G., Reading Deeper; *PAE-M Nov-Dec 2010 85-87*
- Puckett, C., Williamson, C., Godin, C., Gifford, W., Farland, J., Laing, T., and Hong, T., Utility Load Research: The Future of Load Research Is Now; *MPE May-Jun 2020 61-70*
- Pudjianto, D., see Djapic, P., *PAE-M Jul-Aug 2007 68-77*
- Pudjianto, D., see Orths, A., *MPE Nov-Dec 2019 67-78*
- Pudjianto, D., see Strbac, G., *MPE Mar-Apr 2019 25-36*
- Pudjianto, D., see Strbac, G., *MPE Sep-Oct 2017 32-41*
- Puglisi, L., see Varela, J., *MPE Jan-Feb 2015 84-91*
- Puglisi, L., see Varela, J., *MPE May-Jun 2015 81-89*
- Puglisi, L., see Varela, J., *MPE May-Jun 2017 30-40*
- Putkonen, N., see Kiviluoma, J., *MPE Jul-Aug 2022 55-65*
- Puttgen, H.B., P.R. MacGrego, and F.C. Lambert. Distributed generation: semantic hype or the dawn of a new era?; *PAE-M Jan-Feb 2003 22-29*

Q

- Qadrdan, M., see Belhomme, R., *MPE Jul-Aug 2021 74-85*
- Qazi, H., see Kiviluoma, J., *MPE Jan-Feb 2017 25-33*
- Qin, H., see Jiang, L., *MPE Nov-Dec 2011 36-46*
- Qiu, D., Strbac, G., Wang, Y., Ye, Y., Wang, J., Pinson, P., Silva, V., and Teng, F., Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach; *MPE Nov-Dec 2024 18-27*
- Qiu, H., see Shi, D., *MPE Nov-Dec 2024 54-65*
- Quaglia, F., see Li, F., *MPE Nov-Dec 2022 56-65*
- Quaintance, B., see Quint, R., *MPE Nov-Dec 2019 35-45*
- Quinn, A., see Nicholson, E., *MPE Jan-Feb 2019 67-72*
- Quint, R., Dangelmaier, L., Green, I., Edelson, D., Ganugula, V., Kaneshiro, R., Pigeon, J., Quaintance, B., Riesz, J., and Stringer, N., Transformation of the Grid: The Impact of Distributed Energy Resources on Bulk Power Systems; *MPE Nov-Dec 2019 35-45*
- Quint, R., see Lew, D., *MPE Nov-Dec 2019 24-34*
- Quint, R., see MacDowell, J., *MPE Nov-Dec 2019 79-88*
- Quint, R., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- Quint, R., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Quiros-Tortos, J., and Victor-Gallardo, L., The Bigger Picture: Robust Decarbonization of the Transport Sector in Costa Rica; *MPE Nov-Dec 2023 77-90*
- Quiros-Tortos, J., Ochoa, L., and Butler, T., How Electric Vehicles and the Grid Work Together; *MPE Nov-Dec 2018 64-76*
- Quiros-Tortos, J., Valverde, G., Arguello, A., and Ochoa, L., Geo-Information Is Power: Using Geographical Information Systems to Assess Rooftop Photovoltaics in Costa Rica; *MPE Mar-Apr 2017 48-56*
- Quitmann, E., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Quitmann, E., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- Quitmann, E., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*

R

- Rabl, V., see Kean, E., *MPE Sep-Oct 2022 39-45*
- Rabl, V., see Romero Aguero, J., *MPE Jul-Aug 2019 75-84*
- Racey, D., see Smith, E., *MPE Sep-Oct 2016 48-56*
- Rackliffe, G., see Santacana, E., *PAE-M Mar-Apr 2010 41-48*
- Rael, S., see Thounthong, P., *PAE-M Jan-Feb 2008 69-76*
- Ragsdale, K., see Ela, E., *MPE Nov-Dec 2017 70-82*
- Ragsdale, K., see Ela, E., *MPE Nov-Dec 2019 58-66*
- Rahimi, F., Ipakchi, A., and Fletcher, F., The Changing Electrical Landscape: End-to-End Power System Operation Under the Transactive Energy Paradigm; *MPE May-Jun 2016 52-62*
- Rahimi, F., see Vaahedi, E., *MPE Jul-Aug 2017 80-87*
- Rahm, M., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Rahman, M.Ea., see Lawhorn, J., *PAE-M Nov-Dec 2009 76-88*
- Rahman, S. Green power: what is it and where can we find it?; *PAE-M Jan-Feb 2003 30-37*
- Rahman, T., see Udren, E.A., *MPE Jan-Feb 2022 64-77*
- Rahmatian, F., see Vittal, V., *MPE Sep-Oct 2022 16-25*
- Rajagopal, R., see Bergman, D., *MPE Nov-Dec 2022 38-46*
- Rajagopalan, S., see Koellner, K., *MPE Sep-Oct 2015 36-40*
- Rajagopalan, S., see McDonald, J.D., *PAE-M May-Jun 2007 57-66*
- Rajappan, G., see Gray, G., *MPE Jan-Feb 2016 58-67*
- Rajkumar, V.S., see Srivastava, A., *MPE Jan-Feb 2024 61-71*
- Ram, B., see Perlaviciute, G., *MPE Jan-Feb 2018 49-55*
- Ramasubramanian, D., see Bahrani, B., *MPE Mar-Apr 2024 18-29*
- Ramasubramanian, D., see Chaudhuri, B., *MPE Mar-Apr 2024 30-41*
- Ramasubramanian, D., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- Ramasubramanian, D., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Ramasubramanian, D., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Ramasubramanian, D., Yu, L., Cheng, Y., Majumder, R., Isaacs, A., Shattuck, A., and Pant, S., Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach; *MPE Mar-Apr 2024 55-65*
- Ramirez-Rosado, I.J., L.A. Fernandez-Jimenez, C. Monteiro, V. Miranda, E. Garcia-Garrido, and P.J. Zorzano-Santamaria. Powerful planning tools; *PAE-M Mar-Apr 2005 56-63*
- Ramsay, C., see Djapic, P., *PAE-M Jul-Aug 2007 68-77*
- Ramsay, C., see Strbac, G., *PAE-M Sep-Oct 2009 44-52*
- Randazzo, A., see Reder, W., *PAE-M Jul-Aug 2010 27-35*
- Rao, A., see Dominelli, N., *PAE-M May-Jun 2006 24-35*
- Rasmussen, R., see Yates, D., *MPE Sep-Oct 2014 66-75*
- Rassa, A., van Leeuwen, C., Spaans, R., and Kok, K., Developing Local Energy Markets: A Holistic System Approach; *MPE Sep-Oct 2019 59-70*
- Rastogi, R., see Devanand, P., *MPE Jan-Feb 2020 55-62*
- Rault, P., see Dennetiere, S., *MPE May-Jun 2019 48-60*
- Rault, P., see Dennetiere, S., *MPE Sep-Oct 2024 73-86*
- Ravanji, M.H., see Bahrani, B., *MPE Mar-Apr 2024 18-29*
- Ravi, N., see Currie, R., *MPE Sep-Oct 2023 48-57*
- Ravikumar, G., see Gray, G., *MPE Jan-Feb 2016 58-67*
- Ray, D., Ray Chaudhuri, N., and Brahma, S., Trends in Electric Power Engineering Education: An Analysis of Future Challenges; *MPE Sep-Oct 2018 32-41*
- Ray, D., see Reder, W., *PAE-M Jul-Aug 2010 27-35*
- Ray, T., see Maghsoodlou, F., *PAE-M Sep-Oct 2004 49-57*
- Ray Chaudhuri, N., see Ray, D., *MPE Sep-Oct 2018 32-41*
- Raymond, J., and Komljenovic, D., Situational Awareness: A Road Map to Generation Plant Modernization and Reliability; *MPE May-Jun 2024 29-41*
- Rayney, K., see Hadingham, W., *MPE Sep-Oct 2021 76-88*
- Razeghi-Jahromi, M., see Stoupis, J., *MPE Sep-Oct 2023 38-47*
- Razon, A., Thomas, T., and Banunarayanan, V., Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols; *MPE Jan-Feb 2020 26-33*
- Read, G., see Philpott, A., *MPE Jan-Feb 2019 43-52*
- Reddy, C., see Bjorklund, H., *MPE Mar-Apr 2016 66-71*
- Reder, W., Bose, A., Flueck, A., Lauby, M., Niebur, D., Randazzo, A., Ray, D., Reed, G., Sauer, P., and Wayno, F., Engineering the Future; *PAE-M Jul-Aug 2010 27-35*
- Reder, W.K. The technical talent challenge [workforce development]; *PAE-M Jan-Feb 2006 32-39*
- Reed, G., J. Paserba, and P. Salavantis. The FACTS on resolving transmission gridlock; *PAE-M Sep-Oct 2003 41-46*
- Reed, G., see Reder, W., *PAE-M Jul-Aug 2010 27-35*
- Reed, G.F., A Powerful Initiative at Pitt; *PAE-M Mar-Apr 2008 70-77*
- Reed, G.F., Grainger, B.M., Sparacino, A.R., and Mao, Z.-H., Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice; *MPE Nov-Dec 2012 70-79*
- Regan, L., see Mahone, A., *MPE Jul-Aug 2018 58-68*
- Reicher, D., see Brooks, A., *PAE-M May-Jun 2010 20-29*
- Reid, B., Bourg, J., and Schmidt, D., Let's Make a Deal: Non-Wires Alternatives for Traditional Transmission and Distribution?; *MPE Mar-Apr 2022 23-31*
- Reilly, J., see Joos, G., *MPE Jul-Aug 2017 32-40*

- Reilly, J., see Ton, D., *MPE Jul-Aug 2017 24-31*
- Rein, G., see Jahn, W., *MPE Jan-Feb 2022 16-27*
- Ren, D., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Reneses, J., see Li, F., *MPE Jul-Aug 2015 76-86*
- Reno, M., Brahma, S., Bidram, A., and Ropp, M., Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems; *MPE May-Jun 2021 36-46*
- Reno, M., see Ropp, M., *MPE May-Jun 2021 47-57*
- Renz, B., see Horowitz, S., *PAE-M Mar-Apr 2010 34-40*
- Repo, S., Ponci, F., Della Giustina, D., Alvarez, A., Corchero Garcia, C., Al-Jassim, Z., Amaris, H., and Kulmala, A., The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All; *MPE May-Jun 2017 41-51*
- Restrepo, J., see Meridji, T., *MPE May-Jun 2019 22-31*
- Rew, B., see Ela, E., *MPE Nov-Dec 2019 58-66*
- Rew, B., see Lew, D., *MPE Nov-Dec 2019 24-34*
- Reyes, L., see Abbey, C., *MPE May-Jun 2014 67-76*
- Reynolds, M., Stidham, D., and Alaywan, Z., The Golden Spike: Advanced Power Electronics Enables Renewable Development Across NERC Regions; *MPE Mar-Apr 2012 71-78*
- Riaz, S., see Liu, M., *MPE Jul-Aug 2021 52-62*
- Rice, M., see Skare, P., *MPE Jan-Feb 2016 94-104*
- Richards, J., see Fowler, R., *MPE Jul-Aug 2018 48-57*
- Richards, P., see Heinen, S., *MPE Nov-Dec 2023 38-47*
- Richter, C., see Washom, B., *MPE Jul-Aug 2013 28-32*
- Richwine, M., see MacDowell, J., *MPE Nov-Dec 2015 22-30*
- Riesz, J., see Ahlstrom, M., *MPE Nov-Dec 2015 60-66*
- Riesz, J., see Quint, R., *MPE Nov-Dec 2019 35-45*
- Rivera, S., see Vargas, A., *MPE Sep-Oct 2016 38-47*
- Roark, J., see Smith, J., *MPE Mar-Apr 2017 29-39*
- Roberson, D., Kim, H., Chen, B., Page, C., Nuqui, R., Valdes, A., Macwan, R., and Johnson, B., Improving Grid Resilience Using High-Voltage dc: Strengthening the Security of Power System Stability; *MPE May-Jun 2019 38-47*
- Roberts, B., and J. McDowall. Commercial successes in power storage; *PAE-M Mar-Apr 2005 24-30*
- Roberts, B., Capturing grid power; *PAE-M Jul-Aug 2009 32-41*
- Roberts, J., see Black, J., *MPE May-Jun 2018 43-53*
- Robertson, F.R., and Boston, W.T., The Utility Operational Response to the 14 August 2003 Blackout: Analysis and Case Studies; *MPE May-Jun 2023 43-50*
- Robertson, P., Fodero, K., Huntley, C., Elshafi, M., and Williams, D., Precise Time, All the Time: A Resilient Architecture for the Electric Power Industry and Beyond; *MPE Sep-Oct 2023 27-37*
- Robinson, F., see Jones, K., *MPE Sep-Oct 2015 29-35*
- Robinson, G., see Ivanov, C., *MPE Jan-Feb 2016 30-39*
- Robinson, L., see MacDowell, J., *MPE Nov-Dec 2019 79-88*
- Robinson, L., see O'Malley, M., *MPE Nov-Dec 2021 45-55*
- Robinson, M., see Thresher, R., *PAE-M Nov-Dec 2007 34-46*
- Rocha Albertini, A.d., see Manassero, G., *MPE Nov-Dec 2024 112-117*
- Rochat, E., see Gandini, M., *MPE Sep-Oct 2024 100-110*
- Rockwell, B., see Lew, D., *MPE Nov-Dec 2019 24-34*
- Rodilla, P., Mastropietro, P., and Brito-Pereira, P., The Challenge of Integrating Demand Response in Capacity Remuneration Mechanisms: Providing a Comprehensive Theoretical Framework; *MPE Jul-Aug 2023 64-71*
- Rodilla, P., see Batlle, C., *MPE Jan-Feb 2021 20-28*
- Rodilla, P., see Gomez, T., *MPE Jan-Feb 2019 20-31*
- Rodilla, P., see Usera, I., *MPE Sep-Oct 2017 42-50*
- Rodrigues, R., see Stoupsis, J., *MPE Sep-Oct 2023 38-47*
- Rodriguez, N., see Varas, P., *MPE May-Jun 2013 66-75*
- Rodriguez, R., see Vargas, A., *MPE Sep-Oct 2016 38-47*
- Rogers, A., see Dudurych, I.M., *MPE Mar-Apr 2012 62-70*
- Rogers, B., see Phillips, A., *PAE-M Nov-Dec 2010 61-68*
- Rogers, B., see Smith, J., *MPE Mar-Apr 2017 29-39*
- Rogers, L., see O'Connell, A., *MPE Nov-Dec 2018 42-51*
- Rogers, L., see Smith, J., *MPE Mar-Apr 2015 20-29*
- Rogers, L., see Trueblood, C., *MPE Mar-Apr 2013 33-44*
- Roggatz, C., Power, M., and Singh, N., Power System Restoration: Meeting the Challenge to Resiliency from Distributed Generation; *MPE Jul-Aug 2020 31-40*
- Rohr, A., see Kim, C.S., *MPE Nov-Dec 2022 16-25*
- Rohrig, K., see Ernst, B., *PAE-M Nov-Dec 2007 78-89*
- Rohrig, K., see Venayagamoorthy, G.K., *MPE Sep-Oct 2012 70-78*
- Rojas, A., and Rousan, T., Microgrid Control Strategy: Derived from Stakeholder Requirements Analysis; *MPE Jul-Aug 2017 72-79*
- Roman Latorre, R., see Jimenez-Estevez, G., *MPE Mar-Apr 2015 71-77*
- Romero Aguero, J., Khodaei, A., and Masiello, R., The Utility and Grid of the Future: Challenges, Needs, and Trends; *MPE Sep-Oct 2016 29-37*
- Romero Aguero, J., Novosel, D., Bernabeu, E., Chiu, B., Liu, J., Rabl, V., Pierpoint, T., Houseman, D., Enayati, B., and Kolluri, S., Managing the New Grid: Delivering Sustainable Electrical Energy; *MPE Jul-Aug 2019 75-84*
- Romero Aguero, J., see Katiraei, F., *MPE May-Jun 2011 62-71*
- Romero Aguero, J., Tools for Success; *MPE Sep-Oct 2011 82-93*
- Rondou, J., see Cochran, J., *MPE Jul-Aug 2022 18-29*
- Roose, L., see Corbus, D., *MPE Sep-Oct 2013 65-74*
- Roose, L., see Schuerger, M., *MPE Nov-Dec 2013 33-44*
- Root, C., see Hennebury, L., *MPE Sep-Oct 2018 74-81*
- Root, C.E. The future beckons [electric power industry]; *PAE-M Jan-Feb 2006 24-31*
- Ropp, M., and Reno, M., Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection; *MPE May-Jun 2021 47-57*
- Ropp, M., see Reno, M., *MPE May-Jun 2021 36-46*
- Roscoe, A., see Ackermann, T., *MPE Nov-Dec 2017 61-69*
- Rosendo-Macias, J.A., Gomez-Exposito, A., Bachiller-Soler, A., Gonzalez-Cagigal, M.A., Alvarez-Cordero, G., Mateo-Sanchez, L., and Useros-Garcia, A., The Spanish Experience: Squeezing Line Ampacities Through Dynamic Line Rating; *MPE Jan-Feb 2023 73-82*
- Rossetto, N., Beyond Individual Active Customers: Citizen and Renewable Energy Communities in the European Union; *MPE Jul-Aug 2023 36-44*
- Rossi, M., see Guerrero, J., *MPE Sep-Oct 2020 64-75*
- Rossi, M., see Varela, J., *MPE May-Jun 2015 81-89*
- Rossi, M., see Varela, J., *MPE May-Jun 2017 30-40*
- Rossi, S., see Chen, H., *MPE Nov-Dec 2022 26-37*
- Rosted, S., see Ostergaard, J., *MPE Mar-Apr 2021 46-55*
- Rothleder, M., see Ela, E., *MPE Nov-Dec 2017 70-82*
- Rothleder, M., see Ela, E., *MPE Nov-Dec 2019 58-66*
- Roundtree, S., see Currie, R.A.F., *MPE Nov-Dec 2023 68-76*
- Rousan, T., see Rojas, A., *MPE Jul-Aug 2017 72-79*
- Rouse, G., see Kelly, J., *PAE-M Nov-Dec 2008 60-70*
- Roy, A., see Yadav, R.G., *PAE-M Jul-Aug 2005 39-48*
- Roy, R., see Chiu, B., *MPE Jan-Feb 2022 28-37*
- Roy, S., Nordell, D., and Venkata, S.S., Lines of Communication; *MPE Sep-Oct 2011 64-73*
- Roychowdhury, R., Wu, X., Russ, M., Fleming, D., and Spalding, J., Stepping Up to the Future With Power Transformers: Power Transformer Asset Management Strategies: State of the Art and Recommendations for the Future; *MPE Mar-Apr 2023 40-50*
- Rudion, K., see Orths, A., *MPE Nov-Dec 2013 83-95*

- Rudnick, A., see Rudnick, H., *MPE Sep-Oct 2014 50-60*
- Rudnick, H., Arnau, A., Mocarquer, S., and Voscoboinik, E., Stimulating efficient distribution; *PAE-M Jul-Aug 2007 50-67*
- Rudnick, H., Barroso, L., Cunha, G., and Mocarquer, S., A Natural Fit: Electricity-Gas Integration Challenges in South America; *MPE Nov-Dec 2014 29-39*
- Rudnick, H., Barroso, L., Llaens, D., Watts, D., and Ferreira, R., Flexible Connections: Solutions and Challenges for the Integration of Renewables in South America; *MPE Mar-Apr 2012 24-36*
- Rudnick, H., Barroso, L.A., Mocarquer, S., and Bezerra, B., A delicate balance in South America; *PAE-M Jul-Aug 2008 22-35*
- Rudnick, H., J. Dixon, and L. Moran. Delivering clean and pure power; *PAE-M Sep-Oct 2003 32-40*
- Rudnick, H., L.A. Barroso, C. Skerk, and A. Blanco. South American reform lessons - twenty years of restructuring and reform in Argentina, Brazil, and Chile; *PAE-M Jul-Aug 2005 49-59*
- Rudnick, H., Mocarquer, S., Andrade, E., Vuchetich, E., and Miquel, P., Disaster Management; *MPE Mar-Apr 2011 37-45*
- Rudnick, H., Mutale, J., Chattopadhyay, D., and Saint, R., Studies in Empowerment: Approaches to Rural Electrification Worldwide; *MPE Jul-Aug 2014 35-41*
- Rudnick, H., Palma, R., Carneiro, S., Assis, T.M.L., Salazar, H., and Valencia, J., Where School Is Cool; *PAE-M Jul-Aug 2010 61-74*
- Rudnick, H., Palma-Behnke, R., Rudnick, A., and Benavides, C., Restless Waters: Fossil Fuel Emissions Conditioning a Reduction in Hydroelectric Resources in Chile; *MPE Sep-Oct 2014 50-60*
- Rudnick, H., see Barroso, L., *MPE Jan-Feb 2021 64-73*
- Rudnick, H., see Barroso, L.A., *PAE-M Jul-Aug 2006 32-46*
- Rudnick, H., see Bezerra, B., *MPE May-Jun 2012 48-58*
- Rudnick, H., see de Sa Ferreira, R., *MPE Jul-Aug 2016 54-64*
- Rudnick, H., see Ferreira, R., *MPE Mar-Apr 2019 50-60*
- Rudnick, H., see Li, F., *MPE Jul-Aug 2015 76-86*
- Rudnick, H., see Mocarquer, S., *PAE-M Sep-Oct 2009 26-35*
- Rudnick, H., see Moreno, R., *MPE Jul-Aug 2020 41-53*
- Rudnick, H., see Moreno, R., *MPE May-Jun 2020 33-48*
- Rudnick, H., see Moreno, R., *MPE Sep-Oct 2017 68-80*
- Rudnick, H., see Varas, P., *MPE May-Jun 2013 66-75*
- Rudnick, H., see Velasquez, C., *MPE Jul-Aug 2016 20-29*
- Rudolph, T., see Guibout, C., *MPE May-Jun 2024 67-78*
- Rudrick, H., see Barroso, L.A., *PAE-M Sep-Oct 2010 22-35*
- Ruffing, P., see Leterme, W., *MPE May-Jun 2019 73-81*
- Ruiming, W., see Weisheng, W., *MPE Nov-Dec 2016 24-34*
- Ruiz, C., see Alonso, A.M., *MPE May-Jun 2022 54-63*
- Ruiz, M.E., see Corredor, P.H., *MPE Mar-Apr 2011 59-66*
- Russ, M., see Roychowdhury, R., *MPE Mar-Apr 2023 40-50*
- Ruth, M., see Dragoon, K., *MPE Jul-Aug 2022 85-95*
- Ryan, L., see Schuitema, G., *MPE Jan-Feb 2017 53-60* (Correction, *MPE May-Jun 2017 6*)
- Ryan, N., see Olson, A., *MPE Jul-Aug 2015 41-52*
- Rylander, M., see Smith, J., *MPE Mar-Apr 2015 20-29*
- Saglimbene, P., see Fardanesh, B., *MPE Mar-Apr 2020 22-30*
- Saha, T., see Nair, N., *MPE Sep-Oct 2018 64-73*
- Sahni, M., Jones, R., and Cheng, Y., Beyond the Crystal Ball: Locational Marginal Price Forecasting and Predictive Operations in U.S. Power Markets; *MPE Jul-Aug 2012 35-42*
- Sahni, M.S., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Said, W., A Flight to Quality; *MPE Jul-Aug 2011 38-45*
- Saint, R., see Rudnick, H., *MPE Jul-Aug 2014 35-41*
- Saito, N., see Ito, H., *MPE Mar-Apr 2018 46-56*
- Salari, J., see Arruda, C., *MPE Mar-Apr 2020 31-42*
- Salavantis, P., see Reed, G., *PAE-M Sep-Oct 2003 41-46*
- Salazar, A., see Glavic, M., *MPE Jul-Aug 2012 43-55*
- Salazar, H., see Rudnick, H., *PAE-M Jul-Aug 2010 61-74*
- Salihu, T., see Ureh, H., *MPE Sep-Oct 2022 61-68*
- Saludjian, L., see Astic, J., *MPE Mar-Apr 2018 57-66*
- Salvati, R., M. Sforza, and M. Pozzi. Restoration project [Italian power restoration plan]; *PAE-M Jan-Feb 2004 44-51*
- Samotyj, M., see Gellings, C.W., *PAE-M Sep-Oct 2004 40-48*
- Samper, M., see Vargas, A., *MPE Sep-Oct 2016 38-47*
- Samuelsson, O., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- San, J., see Liu, M., *MPE Jul-Aug 2021 52-62*
- Sanaye-Pasand, M., Scrutiny of the Iranian National Grid; *PAE-M Jan-Feb 2007 31-39*
- Sanchis, G., Betraoui, B., Anderski, T., Peirano, E., Pestana, R., De Clercq, B., Migliavacca, G., Czernie, M., and Paun, M., The Corridors of Power: A Pan-European "Electricity Highway" System for 2050; *MPE Jan-Feb 2015 38-51*
- Sandeberg, P., see Lundberg, P., *MPE Nov-Dec 2012 30-38*
- Sanders, W.H., see Bobba, R.B., *MPE Jan-Feb 2012 67-73*
- Santacana, E., Rackliffe, G., Le Tang, and Xiaoming Feng, Getting Smart; *PAE-M Mar-Apr 2010 41-48*
- Santos, G.R., see Manassero, G., *MPE Nov-Dec 2024 112-117*
- Sardana, A.K., see Khaparde, S.A., *PAE-M Jul-Aug 2007 41-49*
- Sardou, F., see Meyer, B., *MPE Mar-Apr 2020 43-52*
- Sarkar, A., see Madrigal, M., *MPE May-Jun 2012 20-29*
- Sarma, N.D.R., see Kyeon Hur, *PAE-M Jan-Feb 2010 37-45*
- Sathaye, J., and Gupta, A., Electrifying India; *PAE-M Sep-Oct 2009 59-61*
- Sathaye, J.A., Dale, L.L., Larsen, P.H., Fitts, G.A., Koy, K., Lewis, S.M., and Frossard Pereira de Lucena, A., Rising temps, tides, and wildfires: Assessing the risk to California's energy infrastructure from projected climate change; *MPE May-Jun 2013 32-45*
- Sattinger, W., and Giannuzzi, G., Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland; *MPE Sep-Oct 2015 41-48*
- Sattinger, W., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- Satyral, V., see Hobbs, B., *MPE Jul-Aug 2016 30-40*
- Sauer, P., see Bobba, R.B., *MPE Jan-Feb 2012 67-73*
- Sauer, P., see Reder, W., *PAE-M Jul-Aug 2010 27-35*
- Sauter, P., see Farrokhbadi, M., *MPE Sep-Oct 2017 81-91*
- Savarimuthu, B.T.R., see Corbett, J., *MPE Jul-Aug 2024 94-102*
- Savin, A., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Sawan, E., see Namboodiri, V., *MPE Jan-Feb 2013 44-50*
- Saxton, T., see Ivanov, C., *MPE Jan-Feb 2016 30-39*
- Sayer, J.H., see Gyuk, I., *PAE-M Mar-Apr 2005 31-39*
- Saylors, S., see MacDowell, J., *MPE Nov-Dec 2019 79-88*
- Saylors, S., see Piwko, R., *PAE-M Nov-Dec 2009 26-35*
- Saylors, S., see Zavadil, R., *MPE Nov-Dec 2011 86-96*
- Scaglione, A., see Currie, R., *MPE Sep-Oct 2023 48-57*
- Schaefer, C., see O'Connell, B., *MPE Sep-Oct 2021 18-28*
- Schaefer, C., see O'Malley, M., *MPE Nov-Dec 2021 45-55*

S

- Schaeffer, R., Szklo, A., Frossard Pereira de Lucena, A., Soria, R., and Chavez-Rodriguez, M., The vulnerable Amazon: The impact of climate change on the untapped potential of hydropower systems; *MPE May-Jun 2013* 22-31
- Schafer, C., see Nourai, A., *PAE-M Jul-Aug 2009* 42-47
- Schainker, R., J. Douglas, and T. Kropp. Electric utility responses to grid security issues; *PAE-M Mar-Apr 2006* 30-37
- Schainker, R., P. Miller, W. Dubbelday, P. Hirsch, and Guorui Zhang. Real-time dynamic security assessment: fast simulation and modeling applied to emergency outage security of the electric grid; *PAE-M Mar-Apr 2006* 51-58
- Scheibner, G., see Stetz, T., *MPE Mar-Apr 2015* 50-61 (Correction, *MPE May-Jun 2015* 24)
- Schenk, T., and Stokes, L.C., The power of collaboration: Engaging all parties in renewable energy infrastructure development; *MPE May-Jun 2013* 56-65
- Schettler, F., see Briff, P., *MPE Sep-Oct 2024* 49-59
- Schiff, A., Ready or Not...; *MPE Mar-Apr 2011* 46-51
- Schifo, R. Got power? [power engineers recruitment]; *PAE-M Jan-Feb 2005* 48-52
- Schittekatte, T., and Batlle, C., Assuring a Sustainable Decarbonization: Affordability Options; *MPE Jul-Aug 2023* 72-79
- Schlag, N., see Burdick, A., *MPE Jul-Aug 2022* 30-43
- Schlag, N., see Olson, A., *MPE Jul-Aug 2015* 41-52
- Schlag, N., see Stenclik, D., *MPE Nov-Dec 2021* 29-36
- Schleifer, A., see Balducci, P., *MPE Nov-Dec 2023* 98-109
- Schlenker, A., see Milberg, J., *MPE Jan-Feb 2011* 56-65
- Schlosser, P., see Lorubio, G., *MPE Mar-Apr 2014* 65-74
- Schmalensee, R., see Heidel, T.D., *MPE May-Jun 2012* 30-37
- Schmid, J., see Schumacher, M., *PAE-M May-Jun 2007* 51-56
- Schmidt, D., see Reid, B., *MPE Mar-Apr 2022* 23-31
- Schmitt, L., Kumar, J., Sun, D., Kayal, S., and Venkata, S., Ecocity Upon a Hill: Microgrids and the Future of the European City; *MPE Jul-Aug 2013* 59-70
- Schmitt, L., see McGranaghan, M., *MPE Jan-Feb 2016* 83-93
- Schneider, K., see Uluski, R., *MPE Jul-Aug 2017* 50-62
- Schonleber, K., Oudalov, A., Krontiris, A., and Lundberg, P., Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid; *MPE Sep-Oct 2020* 58-63
- Schoonenberg, W., see Muhanji, S., *MPE Sep-Oct 2019* 71-81
- Schopf, M., see Kohler, C., *MPE Jan-Feb 2024* 72-80
- Schott, W., see Siriwardana, J., *PAE-M Jan-Feb 2010* 46-53
- Schuenger, M., Johal, H., Roose, L., Matsuura, M., and Piwko, R., Catching Some Rays: Variable Generation Integration on the Island of Oahu; *MPE Nov-Dec 2013* 33-44
- Schuenger, M., see Milligan, M., *MPE Nov-Dec 2015* 78-87
- Schuenger, M., see Milligan, M., *PAE-M Nov-Dec 2009* 89-99
- Schuenger, M.J., see DeMeo, E.A., *PAE-M Nov-Dec 2005* 38-46
- Schuenger, M.J., see Demeo, E.A., *PAE-M Nov-Dec 2007* 59-67
- Schuitema, G., Ryan, L., and Aravena, C., The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior; *MPE Jan-Feb 2017* 53-60 (Correction, *MPE May-Jun 2017* 6)
- Schuitema, G., see Perlaviciute, G., *MPE Jan-Feb 2018* 49-55
- Schuldt, H., see Briff, P., *MPE Sep-Oct 2024* 49-59
- Schumacher, M., Hoga, C., and Schmid, J., Get on the digital bus to substation automation; *PAE-M May-Jun 2007* 51-56
- Schuyler, K., see Ahlstrom, M., *MPE Nov-Dec 2011* 97-107
- Schuyler, K., see Smith, J.C., *PAE-M Sep-Oct 2010* 63-71
- Schwartz, F., see Shahidehpour, M., *PAE-M May-Jun 2004* 40-48
- Sciano, D., see Coddington, M., *MPE Mar-Apr 2017* 40-47
- Scott, P., see Chapman, A., *MPE Jul-Aug 2021* 41-51
- Sebastian-Viana, M., see Lorenzo, M., *MPE Jan-Feb 2015* 75-83
- Seewald, M., Thubert, P., and Wetterwald, P., Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age; *MPE May-Jun 2024* 50-58
- Sehgal, Y.K., see Phadke, A.G., *PAE-M Sep-Oct 2008* 52-65
- Seiler, K., see Chen, H., *MPE Jul-Aug 2020* 20-30
- Semmes, S.W. Nuclear renaissance; *PAE-M Nov-Dec 2006* 34-42
- Sen, S., see Phadke, A.G., *PAE-M Sep-Oct 2008* 52-65
- Sensfuss, F., see Barroso, L.A., *PAE-M Sep-Oct 2010* 22-35
- Seo, J.-T., and Lee, C., The Green Defenders; *MPE Jan-Feb 2011* 82-90
- Sequeira, M.M., see Mello, J., *MPE Jul-Aug 2024* 49-63
- Sergici, S., and Lam, L., Retail Pricing: A Low-Cost Enabler of the Clean Energy Transition; *MPE Jul-Aug 2022* 66-75
- Serrano, R., Carvalho, M.R., Araneda, J.C., Alamos, O., Barroso, L., Bayma, D., Ferreira, R., and Moreno, R., Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences; *MPE Jan-Feb 2022* 38-51
- Sforna, M., see Salvati, R., *PAE-M Jan-Feb 2004* 44-51
- Shah, S., see Badrzadeh, B., *MPE Mar-Apr 2024* 66-77
- Shah, S., see Fan, L., *MPE May-Jun 2022* 64-76
- Shah, S., see Mather, B., *MPE Mar-Apr 2015* 62-70
- Shahidehpour, M., and F. Schwartz. Don't let the sun go down on PV [photovoltaic systems]; *PAE-M May-Jun 2004* 40-48
- Shahidehpour, M., and R. Ferrero. Time management for assets: chronological strategies for power system asset management; *PAE-M May-Jun 2005* 32-38
- Shahidehpour, M., Bartucci, C., Patel, N., Hulsebosch, T., Burgess, P., and Buch, N., Streetlights Are Getting Smarter: Integrating an Intelligent Communications and Control System to the Current Infrastructure; *MPE May-Jun 2015* 67-80
- Shahidehpour, M., Li, Z., Bahramirad, S., Li, Z., and Tian, W., Networked Microgrids: Exploring the Possibilities of the IIT-Bronzeville Grid; *MPE Jul-Aug 2017* 63-71
- Shahidehpour, M., see Bulent Tor, O., *MPE Nov-Dec 2014* 49-62
- Shahidehpour, M., see Che, L., *MPE Jan-Feb 2014* 70-81
- Shao, M., see Miller, N., *MPE Nov-Dec 2013* 63-71
- Shapiro, A., see Fardanesh, B., *MPE Mar-Apr 2020* 22-30
- Sharafi, D., Dowdy, A., Landsberg, J., Bryant, P., Ward, D., Eggleston, J., and Liu, G., Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids; *MPE Jan-Feb 2022* 52-63
- Sharafi, D., see Chen, H., *MPE Nov-Dec 2022* 26-37
- Sharafi, D., see Lal, N., *MPE Sep-Oct 2021* 29-45
- Sharifabadi, K., see Denetiere, S., *MPE Sep-Oct 2024* 73-86
- Sharifabadi, K., see Leterme, W., *MPE May-Jun 2019* 73-81
- Sharma, S., and Batta, V., The Impetus for Hydropower Development in India: New Initiatives; *MPE Sep-Oct 2020* 18-26
- Sharma, S., see Lew, D., *MPE Nov-Dec 2019* 24-34
- Sharp, J., see Ahlstrom, M., *MPE Nov-Dec 2011* 97-107
- Sharp, J., see Ahlstrom, M., *MPE Nov-Dec 2013* 45-52
- Sharp, J., see Fox, J., *MPE Nov-Dec 2021* 77-85
- Sharp, J., see McCalley, J., *MPE Nov-Dec 2017* 83-93

- Sharp, J., see Tuohy, A., *MPE Nov-Dec 2015 50-59*
- Shattuck, A., see Ramasubramanian, D., *MPE Mar-Apr 2024 55-65*
- Shaw, S., see Laughman, C., *PAE-M Mar-Apr 2003 56-63*
- Shaw, S.R., see Nehrir, H., *PAE-M Jan-Feb 2006 47-53*
- Sheffrin, A.Y., Jing Chen, and B.F. Hobbs. Watching watts to prevent abuse of power; *PAE-M Jul-Aug 2004 58-65*
- Sherick, R., and Yinger, R., Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources; *MPE Mar-Apr 2017 20-28*
- Sherick, R., see Montoya, M., *MPE Jul-Aug 2013 33-39*
- Shi, B., see Lu, C., *MPE Sep-Oct 2015 60-71*
- Shi, B., see Piwko, R., *MPE Mar-Apr 2012 44-52*
- Shi, D., Hu, R., Wu, Y., Qiu, H., Yang, C., Niu, M., Xin, Y., Yang, Y., Wang, Z., He, Y., Wu, G., Fan, X., and Liu, J., Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control; *MPE Nov-Dec 2024 54-65*
- Shin, J., see Kim, H., *MPE Jul-Aug 2019 24-34*
- Shin, J., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Shinji, T., see Marnay, C., *MPE May-Jun 2015 44-57*
- Shirmohammadi, D., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Shperling, B., see Bilodeau, H., *MPE Mar-Apr 2016 42-56*
- Shue, D., see Gou, B., *MPE Jan-Feb 2023 16-25*
- Shumavon, A., see Currie, R., *MPE Sep-Oct 2023 48-57*
- Shumavon, A., see Currie, R.A.F., *MPE Nov-Dec 2023 68-76*
- Shuti Fu, see Wu, F.F., *PAE-M Jul-Aug 2005 32-38*
- Shwom, R., see Steg, L., *MPE Jan-Feb 2018 20-28*
- Siciliano, G., see Cunha, G., *MPE Jul-Aug 2023 26-35*
- Siegfried, G., see Brickhouse, B., *MPE Jul-Aug 2024 75-84*
- Sierra, J., and Perez-Arriaga, I.J., Unity for all; *PAE-M Sep-Oct 2009 18-25*
- Sijm, J., see Strbac, G., *MPE Jan-Feb 2021 53-63*
- Sikora, R., see Stetz, T., *MPE Mar-Apr 2015 50-61* (Correction, *MPE May-Jun 2015 24*)
- Silva, C., see Alsac, O., *PAE-M Jul-Aug 2004 47-57*
- Silva, C., see Moreno, R., *MPE May-Jun 2020 33-48*
- Silva, V., see Ackermann, T., *MPE Nov-Dec 2015 67-77*
- Silva, V., see Holttinen, H., *MPE Nov-Dec 2013 53-62*
- Silva, V., see McCalley, J., *MPE Nov-Dec 2017 83-93*
- Silva, V., see Qiu, D., *MPE Nov-Dec 2024 18-27*
- Silva Montes, C., see Jimenez-Estevez, G., *MPE Jul-Aug 2014 60-69*
- Silverstein, A., see Lew, D., *MPE Nov-Dec 2021 56-66*
- Silverstein, A., see Overholt, P., *MPE Sep-Oct 2015 14-17*
- Silverstein, B., see Henderson, M., *PAE-M Mar-Apr 2007 52-60*
- Simmins, J., see Gray, G., *MPE Jan-Feb 2016 58-67*
- Simoncini, S., see Heinen, S., *MPE Jan-Feb 2017 16-24*
- Simonelli, J., see Lew, D., *MPE Nov-Dec 2021 56-66*
- Sims, R., see Currie, B., *MPE May-Jun 2017 20-29*
- Sims, R., see Hunter, L., *MPE Nov-Dec 2023 56-67*
- Singh, B., see Engelbrecht, T., *MPE Mar-Apr 2023 30-39*
- Singh, N., see Roggatz, C., *MPE Jul-Aug 2020 31-40*
- Siripurapu, S., see Gandini, M., *MPE Sep-Oct 2024 100-110*
- Siriwardana, J., Schott, W., and Halgamuge, S., The power grabbers; *PAE-M Jan-Feb 2010 46-53*
- Skare, P., Falk, H., Rice, M., and Winkel, J., In the Face of Cybersecurity: How the Common Information Model Can Be Used; *MPE Jan-Feb 2016 94-104*
- Skendzic, V., see Kojovic, L.A., *PAE-M May-Jun 2003 43-48*
- Skerk, C., see Rudnick, H., *PAE-M Jul-Aug 2005 49-59*
- Slootweg, J.G., and W.L. Kling. Is the answer blowing in the wind?; *PAE-M Nov-Dec 2003 26-33*
- Smart, B., see Hadingham, W., *MPE Sep-Oct 2021 76-88*
- Smil, V., Distributed Generation and Megacities: Are Renewables the Answer?; *MPE Mar-Apr 2019 37-41*
- Smith, C., see Kiviluoma, J., *MPE Jul-Aug 2022 55-65*
- Smith, D., see Davidson, C., *MPE Sep-Oct 2024 87-99*
- Smith, E., Corzine, S., Racey, D., Dunne, P., Hassett, C., and Weiss, J., Going Beyond Cybersecurity Compliance: What Power and Utility Companies Really Need To Consider; *MPE Sep-Oct 2016 48-56*
- Smith, J., Rogers, B., Taylor, J., Roark, J., Neenan, B., Mimmagh, T., and Takayesu, E., Time and Location: What Matters Most When Valuing Distributed Energy Resources; *MPE Mar-Apr 2017 29-39*
- Smith, J., Rylander, M., Rogers, L., and Dugan, R., It's All in the Plans: Maximizing the Benefits and Minimizing the Impacts of DERs in an Integrated Grid; *MPE Mar-Apr 2015 20-29*
- Smith, J., see O'Connell, A., *MPE Nov-Dec 2018 42-51*
- Smith, J., Thresher, R., Zavadil, R., DeMeo, E., Piwko, R., Ernst, B., and Ackermann, T., A mighty wind; *PAE-M Mar-Apr 2009 41-51*
- Smith, J.C., Beuning, S., Durrwachter, H., Ela, E., Hawkins, D., Kirby, B., Lasher, W., Lowell, J., Porter, K., Schuyler, K., and Sotkiewicz, P., The Wind at Our Backs; *PAE-M Sep-Oct 2010 63-71*
- Smith, J.C., see Lauby, M.G., *MPE Nov-Dec 2011 75-85*
- Smith, M., and Ton, D., Key Connections: The U.S. Department of Energy's Microgrid Initiative; *MPE Jul-Aug 2013 22-27*
- Smith, P., see Eriksen, P.B., *PAE-M Nov-Dec 2005 65-74*
- Smith, T., see Hunt, R., *MPE Jul-Aug 2019 47-55*
- Smithers, P., see Mehos, M., *PAE-M May-Jun 2009 55-62*
- So, P.L., see Gooi, H.B., *MPE Jul-Aug 2012 65-74*
- Sobajic, D.J., and J.H. Douglas. An advanced framework for realtime market operations and monitoring; *PAE-M Mar-Apr 2004 45-49*
- Soder, L., see Amelin, M., *PAE-M Sep-Oct 2010 47-52*
- Soder, L., see Holttinen, H., *MPE Nov-Dec 2013 53-62*
- Soder, L., see Kiviluoma, J., *MPE Jul-Aug 2022 55-65*
- Soder, L., see Milligan, M., *PAE-M Nov-Dec 2009 89-99*
- Solanki, B., see Farrokhhabadi, M., *MPE Sep-Oct 2017 81-91*
- Somda, B., see Srivastava, A., *MPE Jan-Feb 2024 61-71*
- Sonderegger, R.C., D. Henderson, S. Bubb, and J. Steury. Distributed asset insight; *PAE-M May-Jun 2004 32-39*
- Song, I.-K., Kim, K.-D., Kelly, J., and Thomas, C., Local Green Teams; *MPE Jan-Feb 2011 66-74*
- Song, J., see Kim, H., *MPE Jul-Aug 2019 24-34*
- Song, J., see Yao, R., *MPE Nov-Dec 2024 42-53*
- Song, S., see Lee, J., *MPE Nov-Dec 2024 28-41*
- Soni, S., see Morjaria, M., *MPE May-Jun 2014 87-95*
- Soon-Kin Chai, see Kyeon Hur, *PAE-M Jan-Feb 2010 37-45*
- Soonee, S., Agrawal, V., Agarwal, P., Narasimhan, S., and Thomas, M., The View from the Wide Side: Wide-Area Monitoring Systems in India; *MPE Sep-Oct 2015 49-59*
- Sorensen, A.L., see Korpas, M., *MPE Nov-Dec 2023 18-27*
- Sorensen, P., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Sorensen, P., see MacDowell, J., *MPE Nov-Dec 2019 79-88*
- Sorensen, P.E., see Ackermann, T., *PAE-M Nov-Dec 2007 90-103*
- Soria, R., see Schaeffer, R., *MPE May-Jun 2013 22-31*
- Sotkiewicz, P., see Ahlstrom, M., *MPE Nov-Dec 2015 60-66*
- Sotkiewicz, P., see Ela, E., *MPE Nov-Dec 2019 58-66*
- Sotkiewicz, P., see Smith, J.C., *PAE-M Sep-Oct 2010 63-71*
- Soto, F., see Dios, R.D., *PAE-M Sep-Oct 2007 64-70* (Correction, *PAE-M Nov-Dec 2007 108*)
- Souder, D., see Ahlstrom, M., *MPE Nov-Dec 2011 97-107*
- Sovacool, B.K., Carley, S., Kiesling, L., and Heleno, M., Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States; *MPE Jul-Aug 2024 18-25*
- Spaans, R., see Rassa, A., *MPE Sep-Oct 2019 59-70*
- Spalding, J., see Roychowdhury, R., *MPE Mar-Apr 2023 40-50*

- Spanel, U., see Bose, A., *MPE May-Jun 2023 61-69*
- Sparacino, A.R., see Reed, G.F., *MPE Nov-Dec 2012 70-79*
- Spirakis, C., see Brooks, A., *PAE-M May-Jun 2010 20-29*
- Spisto, A., see Fulli, G., *MPE Jan-Feb 2019 53-66*
- Srinivasaraghavan, S., and Khaligh, A., Time Management; *MPE Jul-Aug 2011 46-53*
- Srivastava, A., Liu, C., Stefanov, A., Basumallik, S., Hussain, M.M., Somda, B., and Rajkumar, V.S., Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2; *MPE Jan-Feb 2024 61-71*
- Srivastava, A.K., Hauser, C.H., and Bakken, D.E., Study buddies: computer geeks and power freaks are learning smart systems together at Washington State; *MPE Jan-Feb 2013 39-43*
- Stadlin, W., see Fioravanti, R., *PAE-M Jul-Aug 2009 48-57*
- Staggs, K., see Hull, J., *MPE Jan-Feb 2012 41-48*
- Stamp, J., see Venkata, S.S., *PAE-M Jul-Aug 2010 36-43*
- Stangl, J., see Mah, E.J., *PAE-M Nov-Dec 2010 69-74*
- Stapleton, S., see Feltes, J., *MPE Mar-Apr 2012 53-61*
- Starling, B., see Allen, E., *MPE Nov-Dec 2016 52-58*
- Starrett, S.K., see Pahwa, A., *PAE-M Jan-Feb 2005 53-58*
- Staschus, K., see Verselle, J., *MPE Jan-Feb 2015 20-29*
- Staszsky, D.M., D. Craig, and C. Befus. Advanced feeder automation is here; *PAE-M Sep-Oct 2005 56-63*
- Steed, A., see Ziwen Yao, *PAE-M Jan-Feb 2010 54-60*
- Stefanov, A., see Chen-Ching Liu, *MPE Jan-Feb 2012 58-66*
- Stefanov, A., see Srivastava, A., *MPE Jan-Feb 2024 61-71*
- Steffel, S., and Dinkel, A., Absorbing the Rays: Advanced Inverters Help Integrate PV into Electric Utility Distribution Systems; *MPE Mar-Apr 2013 45-54*
- Stefopoulos, G., see Fardanesh, B., *MPE Mar-Apr 2020 22-30*
- Stefopoulos, G., see Meliopoulos, S., *MPE Jan-Feb 2023 59-72*
- Steg, L., Shwom, R., and Dietz, T., What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition; *MPE Jan-Feb 2018 20-28*
- Stein, D., see Varela, J., *MPE Jan-Feb 2015 84-91*
- Stein, J., see Mills, A., *MPE May-Jun 2011 33-41*
- Steinberg, D., see Mai, T., *MPE Jul-Aug 2018 34-47*
- Stenclik, D., Bloom, A., Cole, W., Stephen, G., Acevedo, A.F., Gramlich, R., Dent, C., Schlag, N., and Milligan, M., Quantifying Risk in an Uncertain Future: The Evolution of Resource Adequacy; *MPE Nov-Dec 2021 29-36*
- Stenclik, D., Denholm, P., and Chalamala, B., Maintaining Balance: The Increasing Role of Energy Storage for Renewable Integration; *MPE Nov-Dec 2017 31-39*
- Stenclik, D., see Lew, D., *MPE Nov-Dec 2019 24-34*
- Stephen, G., see Stenclik, D., *MPE Nov-Dec 2021 29-36*
- Sterchele, P., Palzer, A., and Henning, H., Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System; *MPE Jul-Aug 2018 24-33*
- Stetz, T., see von Appen, J., *MPE Mar-Apr 2013 55-64*
- Stetz, T., von Appen, J., Niedermeyer, F., Scheibner, G., Sikora, R., and Braun, M., Twilight of the Grids: The Impact of Distributed Solar on Germany's Energy Transition; *MPE Mar-Apr 2015 50-61* (Correction, *MPE May-Jun 2015 24*)
- Steuir, J., see Sonderegger, R.C., *PAE-M May-Jun 2004 32-39*
- Stevens, D., see Haacke, S., *PAE-M Mar-Apr 2003 32-41*
- Stewart, E., see Arghandeh, R., *MPE Sep-Oct 2014 76-83*
- Stewart, E., see Mohsenian-Rad, H., *MPE May-Jun 2018 26-34*
- Stiasny, J., see Chatzivasileiadis, S., *MPE May-Jun 2022 32-41*
- Stichnote, L., see Crow, M., *PAE-M Jul-Aug 2010 20-26*
- Stidham, D., see Reynolds, M., *MPE Mar-Apr 2012 71-78*
- Stiegemeier, C.L., and R. Girgis. Rapidly deployable recovery transformers; *PAE-M Mar-Apr 2006 38-45*
- Stirling, W., see Lui, T.J., *PAE-M May-Jun 2010 66-78*
- Stokes, L.C., see Schenk, T., *MPE May-Jun 2013 56-65*
- Storck, P., see Ahlstrom, M., *MPE Nov-Dec 2013 45-52*
- Storck, P., see Grant, W., *PAE-M Nov-Dec 2009 47-58*
- Stott, B., see Alsac, O., *PAE-M Jul-Aug 2004 47-57*
- Stoupis, J., Rodrigues, R., Razeghi-Jahromi, M., Melese, A., and Xavier, J.I., Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies; *MPE Sep-Oct 2023 38-47*
- Strasser, T., see Brundlinger, R., *MPE Mar-Apr 2015 30-42*
- Straub, C., see Meyer, B., *MPE Mar-Apr 2020 43-52*
- Strbac, G., Aunedi, M., Konstantelos, I., Moreira, R., Teng, F., Moreno, R., Pudjianto, D., Laguna, A., and Papadopoulos, P., Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems; *MPE Sep-Oct 2017 32-41*
- Strbac, G., Hatziargyriou, N., Lopes, J., Moreira, C., Dimeas, A., and Papadaskalopoulos, D., Microgrids: Enhancing the Resilience of the European Megagrid; *MPE May-Jun 2015 35-43*
- Strbac, G., Konstantinidis, C., Moreno, R., Konstantelos, I., and Papadaskalopoulos, D., It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables; *MPE Jul-Aug 2015 61-75*
- Strbac, G., Papadaskalopoulos, D., Chrysanthopoulos, N., Estanqueiro, A., Algarvio, H., Lopes, F., de Vries, L., Morales-Espana, G., Sijm, J., Hernandez-Serna, R., Kiviluoma, J., and Helisto, N., Decarbonization of Electricity Systems in Europe: Market Design Challenges; *MPE Jan-Feb 2021 53-63*
- Strbac, G., Pudjianto, D., Aunedi, M., Papadaskalopoulos, D., Djapic, P., Ye, Y., Moreira, R., Karimi, H., and Fan, Y., Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources; *MPE Mar-Apr 2019 25-36*
- Strbac, G., Ramsay, C., and Moreno, R., This sustainable Isle; *PAE-M Sep-Oct 2009 44-52*
- Strbac, G., see Djapic, P., *PAE-M Jul-Aug 2007 68-77*
- Strbac, G., see Kiviluoma, J., *MPE Jan-Feb 2017 25-33*
- Strbac, G., see Marnay, C., *PAE-M May-Jun 2008 66-77*
- Strbac, G., see Moreno, R., *MPE Jan-Feb 2022 78-89*
- Strbac, G., see Moreno, R., *MPE May-Jun 2020 33-48*
- Strbac, G., see Moreno, R., *PAE-M Sep-Oct 2010 36-46*
- Strbac, G., see Orths, A., *MPE Nov-Dec 2019 67-78*
- Strbac, G., see Qiu, D., *MPE Nov-Dec 2024 18-27*
- Stringer, N., Bruce, A., MacGill, I., Haghdadi, N., Kilby, P., Mills, J., Veijalainen, T., Armitage, M., and Wilmot, N., Consumer-Led Transition: Australia's World-Leading Distributed Energy Resource Integration Efforts; *MPE Nov-Dec 2020 20-36*
- Stringer, N., see Quint, R., *MPE Nov-Dec 2019 35-45*
- Stromsather, J., see Vu Van, T., *MPE Jan-Feb 2015 30-37*
- Stromstedt, E., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Strunz, K., A. Yokoyama, and R.P. Behnke. Collaboration is key internationally; *PAE-M Jul-Aug 2003 50-55*
- Stuart, R., see Allen, E., *MPE Jan-Feb 2014 24-33*
- Su, Y., see Zhou, H., *MPE Jul-Aug 2016 72-78*
- Suazo-Martinez, C., see Moreno, R., *MPE May-Jun 2020 33-48*
- Subin, Z., see Mahone, A., *MPE Jul-Aug 2018 58-68*
- Sudhoff, S.D., Currents of Change; *MPE Jul-Aug 2011 30-37*
- Sugihara, H., see Hara, R., *PAE-M May-Jun 2009 77-85*
- Summers, K., see Bloom, A., *MPE Nov-Dec 2017 22-30*
- Summy, M., see Hamilton, B., *MPE Jan-Feb 2011 32-39*

- Sun, C., see Katiraei, F., *MPE Mar-Apr 2015 43-49*
- Sun, D., see Giri, J., *PAE-M Mar-Apr 2009 34-40*
- Sun, D., see Schmitt, L., *MPE Jul-Aug 2013 59-70*
- Sun, G., see Yuan, Z., *MPE Mar-Apr 2023 61-69*
- Sun, H., see Li, F., *MPE Nov-Dec 2022 56-65*
- Sun, H., see Lu, C., *MPE Sep-Oct 2015 60-71*
- Sun, P., see Buse, D.P., *PAE-M Mar-Apr 2003 50-55*
- Sun, T., see Bergman, D., *MPE Nov-Dec 2022 38-46*
- Sundberg, J., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Supponen, M., see Ela, E., *MPE Nov-Dec 2019 58-66*
- Suryanarayanan, S., see Abbey, C., *MPE May-Jun 2014 67-76*
- Svensson, O., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Symko-Davies, M., see Hoke, A., *MPE Nov-Dec 2018 18-29*
- Szablya, S., see Kachinga, K., *MPE Sep-Oct 2022 75-79*
- Szechtman, M., Maruvada, P.S., and Nayak, R.N., 800-kV HVDC on the Horizon; *PAE-M Mar-Apr 2007 61-69*
- Szklo, A., see Schaeffer, R., *MPE May-Jun 2013 22-31*
- Szladow, A.J., Better Warning Through Technology; *MPE May-Jun 2011 72-76*
- Szuster, P., see Mountain, B., *MPE Jul-Aug 2015 53-60*
- T
- T-Raissi, A., and D.L. Block. Hydrogen: Automotive fuel of the future; *PAE-M Nov-Dec 2004 40-45*
- Taft, J., Grid Architecture: A Core Discipline for Grid Modernization; *MPE Sep-Oct 2019 18-28*
- Taft, J., see Kristov, L., *MPE May-Jun 2016 63-69*
- Tahan, A., see Bechara, H., *MPE Nov-Dec 2024 89-99*
- Taibi, E., see Kiviluoma, J., *MPE Jul-Aug 2022 55-65*
- Takayesu, E., see Agüero, J., *MPE May-Jun 2017 74-83*
- Takayesu, E., see De Martini, P., *MPE Jul-Aug 2022 76-84*
- Takayesu, E., see Smith, J., *MPE Mar-Apr 2017 29-39*
- Tan, J., see Cochran, J., *MPE Jul-Aug 2022 18-29*
- Tanabe, T., see Hara, R., *PAE-M May-Jun 2009 77-85*
- Tanaka, M., see Ohashi, N., *MPE Mar-Apr 2021 69-78*
- Tang, G., see Jovicic, D., *MPE May-Jun 2019 82-93*
- Tang, Y., see Goswami, B., *MPE Nov-Dec 2024 118-133*
- Tarekegne, B., see Bird, L., *MPE Jul-Aug 2024 64-74*
- Tatum, W., see Keerthisinghe, C., *MPE Jan-Feb 2019 82-92*
- Taylor, C.W., see Pourbeik, P., *PAE-M Sep-Oct 2006 22-29*
- Taylor, E., see O'Connell, B., *MPE Sep-Oct 2021 18-28*
- Taylor, G., see Irving, M., *PAE-M Mar-Apr 2004 40-44*
- Taylor, J., see O'Connell, A., *MPE Nov-Dec 2018 42-51*
- Taylor, J., see Smith, J., *MPE Mar-Apr 2017 29-39*
- Taylor, T. Planning for effective distribution [The Distribution Working Group of the IEEE Power System Planning and Implementation Committee]; *PAE-M Sep-Oct 2003 54-62*
- Tellefsen, T., van Putten, J., and Gjerde, O., Norwegian Hydropower: Connecting to Continental Europe; *MPE Sep-Oct 2020 27-35*
- Teng, F., see Qiu, D., *MPE Nov-Dec 2024 18-27*
- Teng, F., see Strbac, G., *MPE Sep-Oct 2017 32-41*
- Terashima, K., see Ohashi, N., *MPE Mar-Apr 2021 69-78*
- Terruggia, R., see Dondossola, G., *MPE May-Jun 2024 42-49*
- Terry, R., see Uluski, R., *MPE Jul-Aug 2017 50-62*
- Terzija, V., see Chakrabarti, S., *PAE-M Jan-Feb 2009 41-49*
- Tesson, J.-M., Mission: Reliability; *PAE-M Jan-Feb 2008 42-48*
- Tewari, M., see Yates, D., *MPE Sep-Oct 2014 66-75*
- Thelenius, A., see Bjorklund, H., *MPE Mar-Apr 2016 66-71*
- Theunissen, J., see Liu, M., *MPE Jul-Aug 2021 52-62*
- Thiebaut, S., see Chapman, A., *MPE Jul-Aug 2021 41-51*
- Thimsen, D., see Maxson, A., *MPE May-Jun 2013 46-55*
- Thogersen, J., see van der Werff, E., *MPE Jan-Feb 2018 42-48*
- Thomas, C., see Munson, M., *MPE Jan-Feb 2011 50-55*
- Thomas, C., see Song, I.-K., *MPE Jan-Feb 2011 66-74*
- Thomas, J., see Hadingham, W., *MPE Sep-Oct 2021 76-88*
- Thomas, K., see Jones, K., *MPE Sep-Oct 2015 29-35*
- Thomas, M., see Allen, E., *MPE Nov-Dec 2016 52-58*
- Thomas, M., see Nagamani, C., *MPE Sep-Oct 2018 42-52*
- Thomas, M., see Soonee, S., *MPE Sep-Oct 2015 49-59*
- Thomas, M.S., Remote Control; *PAE-M Jul-Aug 2010 53-60*
- Thomas, R.J., Putting an action plan in place; *PAE-M Jul-Aug 2009 26-31*
- Thomas, S., Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?; *MPE Jul-Aug 2023 18-25*
- Thomas, T., see Razon, A., *MPE Jan-Feb 2020 26-33*
- Thome, L.M., see Barroso, L.A., *PAE-M Sep-Oct 2007 54-63*
- Thomson, H., see Nock, D., *MPE Jul-Aug 2024 26-37*
- Thorburn, K., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- Thorp, J.S., Abur, A., Begovic, M., Giri, J., and Avila-Rosales, R., Gaining a Wider Perspective; *PAE-M Sep-Oct 2008 43-51*
- Thounthong, P., Davat, B., and Rael, S., Drive friendly; *PAE-M Jan-Feb 2008 69-76*
- Thresher, R., Robinson, M., and Veers, P., To Capture the Wind; *PAE-M Nov-Dec 2007 34-46*
- Thresher, R., see Smith, J., *PAE-M Mar-Apr 2009 41-51*
- Thubert, P., see Seewald, M., *MPE May-Jun 2024 50-58*
- Tian, W., see Shahidehpour, M., *MPE Jul-Aug 2017 63-71*
- Tian, Y., see Goswami, B., *MPE Nov-Dec 2024 118-133*
- Tianshu Bi, see Chakrabarti, S., *PAE-M Jan-Feb 2009 41-49*
- Ticom, S., see Gomes, P., *MPE Nov-Dec 2016 40-51*
- Tierney, M.W., and Zareipour, H., Emissions Response: Efficient Decarbonization using Real-Time Data; *MPE Sep-Oct 2024 111-115*
- Tiferes, R.R., see Manassero, G., *MPE Nov-Dec 2024 112-117*
- Ting, T., see Liu, M., *MPE Jul-Aug 2021 52-62*
- Tironi, M., see Varas, P., *MPE May-Jun 2013 66-75*
- Tjernberg, L.B., see Noland, J.K., *MPE May-Jun 2024 90-103*
- Todeschini, M.G., see Dondossola, G., *MPE May-Jun 2024 42-49*
- Toh, E., see Gooi, H.B., *MPE Jul-Aug 2012 65-74*
- Tolley, D., see Li, F., *MPE May-Jun 2018 35-42*
- Tomsovic, K., see Li, F., *MPE Mar-Apr 2020 60-68*
- Ton, D., and Reilly, J., Microgrid Controller Initiatives: An Overview of R&D by the U.S. Department of Energy; *MPE Jul-Aug 2017 24-31*
- Ton, D., and Wang, W., A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan; *MPE May-Jun 2015 26-34*
- Ton, D., see Kroposki, B., *PAE-M May-Jun 2009 22-33*
- Ton, D., see Smith, M., *MPE Jul-Aug 2013 22-27*
- Toner, P., see Guillon, S., *MPE Nov-Dec 2016 59-71*
- Toporek, D., see Gregerson, S., *PAE-M Nov-Dec 2010 45-47*
- Torre, W., see Washom, B., *MPE Jul-Aug 2013 28-32*
- Torres-Soto, E., see Brickhouse, B., *MPE Jul-Aug 2024 75-84*
- Torsaeter, B.N., see Korpas, M., *MPE Nov-Dec 2023 18-27*
- Tozer, B., see Bilodeau, H., *MPE Mar-Apr 2016 42-56*
- Trakas, D.N., see Moreno, R., *MPE Jan-Feb 2022 78-89*
- Tran, T., see Chiu, B., *MPE Jan-Feb 2022 28-37*
- Trehern, J., see Giri, J., *MPE Sep-Oct 2012 24-39*
- Trevizan, R., see Bird, L., *MPE Jul-Aug 2024 64-74*
- Trolli, A., see Gandini, M., *MPE Sep-Oct 2024 100-110*
- Trondheim, H.M., see Cochran, J., *MPE Jul-Aug 2022 18-29*
- Trueblood, C., Coley, S., Key, T., Rogers, L., Ellis, A., Hansen, C., and Philpot, E., PV Measures Up for Fleet Duty: Data from a Tennessee Plant Are Used to Illustrate Metrics That Characterize Plant Performance; *MPE Mar-Apr 2013 33-44*
- Tschudi, W., see Allee, G., *MPE Nov-Dec 2012 50-59*
- Tsuchida, B., see Milligan, M., *MPE Nov-Dec 2015 78-87*

- Tu Guangyu, see Yi Luo, *PAE-M Jan-Feb 2005 59-66*
- Tuohy, A., see Holttinen, H., *MPE Nov-Dec 2013 53-62*
- Tuohy, A., Zack, J., Haupt, S., Sharp, J., Ahlstrom, M., Dise, S., Grimit, E., Mohrlen, C., Lange, M., Casado, M., Black, J., Marquis, M., and Collier, C., Solar Forecasting: Methods, Challenges, and Performance; *MPE Nov-Dec 2015 50-59*
- Tyrberg, S., see Leijon, M., *PAE-M Jan-Feb 2009 50-54*
- U
- Udren, E.A., Bolton, C., Dietmeyer, D., Rahman, T., and Flores-Castro, S., Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety; *MPE Jan-Feb 2022 64-77*
- Udren, E.A., Hunt, R., Myrda, P., and Falk, H., Introducing the Unified Grid Control Platform: A Holistic Road Map; *MPE May-Jun 2024 79-89*
- Ueda, R., see Hoke, A., *MPE Nov-Dec 2018 18-29*
- Ueda, Y., see Ogimoto, K., *MPE Mar-Apr 2013 65-74*
- Uluski, B., see Haacke, S., *PAE-M Mar-Apr 2003 32-41*
- Uluski, R., Kumar, J., Venkata, S., Vishwakarma, D., Schneider, K., Mehrizi-Sani, A., Terry, R., and Agate, W., Microgrid Controller Design, Implementation, and Deployment: A Journey from Conception to Implementation at the Philadelphia Navy Yard; *MPE Jul-Aug 2017 50-62*
- Ungar, E., and Fell, K., Plug In, Turn On, and Load Up; *PAE-M May-Jun 2010 30-35*
- Urban, J.L., see Jahn, W., *MPE Jan-Feb 2022 16-27*
- Urdal, H., see Ackermann, T., *MPE Nov-Dec 2013 72-82*
- Urdal, H., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- Urdal, H., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Ureh, H., Salihi, T., and Nelson, J., Smart Village Voices in Africa, Nigeria: Part 2—Village Entrepreneurs in Nigeria; *MPE Sep-Oct 2022 61-68*
- Usera, I., Rodilla, P., Burger, S., Herrero, I., and Batlle, C., The Regulatory Debate About Energy Storage Systems: State of the Art and Open Issues; *MPE Sep-Oct 2017 42-50*
- Useros-Garcia, A., see Rosendo-Macias, J.A., *MPE Jan-Feb 2023 73-82*
- V
- Vaahedi, E., Nodehi, K., Heim, D., Rahimi, F., and Ipakchi, A., The Emerging Transactive Microgrid Controller: Illustrating Its Concept, Functionality, and Business Case; *MPE Jul-Aug 2017 80-87*
- Vaahedi, E., see Mansour, Y., *PAE-M May-Jun 2005 55-61*
- Vaahedi, E., see Vankayala, V., *PAE-M Mar-Apr 2008 61-69*
- Vaahedi, E., see Wenyuan Li, *PAE-M May-Jun 2006 52-58*
- Vadari, M., The Future of Distribution Operations and Planning: The Electric Utility Environment Is Changing; *MPE Jan-Feb 2020 18-25*
- Vaidhynathan, D., see Kroposki, B., *MPE Nov-Dec 2020 37-46*
- Valdes, A., see Roberson, D., *MPE May-Jun 2019 38-47*
- Valencia, J., see Rudnick, H., *PAE-M Jul-Aug 2010 61-74*
- Valenzuela, P., see Cunha, G., *MPE Jul-Aug 2023 26-35*
- Vallejos, J., see Flores, D., *MPE Sep-Oct 2020 36-48*
- Valverde, G., see Quiros-Tortos, J., *MPE Mar-Apr 2017 48-56*
- Van Broekhoven, S., Judson, N., Galvin, J., and Marqusee, J., Leading the Charge: Microgrids for Domestic Military Installations; *MPE Jul-Aug 2013 40-45*
- van der Veen, A., van Leeuwen, C., and Helmholtz, K.A., Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control; *MPE Jan-Feb 2024 43-51*
- van der Werff, E., Thogersen, J., and Bruine de Bruin, W., Changing Household Energy Usage: The Downsides of Incentives and How to Overcome Them; *MPE Jan-Feb 2018 42-48*
- Van Gorp, J.C. Enterprising energy management; *PAE-M Jan-Feb 2004 59-63*
- Van Hertem, D., Leterme, W., Chaffey, G., Abedrabbo, M., Wang, M., Zerihun, F., and Barnes, M., Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements; *MPE Jul-Aug 2019 56-66*
- Van Hertem, D., see Leterme, W., *MPE May-Jun 2019 73-81*
- van Hulle, F., see Holttinen, H., *MPE Nov-Dec 2011 47-59*
- van Hulle, F., see Orths, A., *MPE Nov-Dec 2013 83-95*
- Van Kempen, S., see Venkataraman, S., *MPE May-Jun 2018 74-83*
- van Leeuwen, C., see Rassa, A., *MPE Sep-Oct 2019 59-70*
- van Leeuwen, C., see van der Veen, A., *MPE Jan-Feb 2024 43-51*
- van Nispen, H., see Brown, R., *MPE Sep-Oct 2016 57-65*
- van Putten, J., see Tellefsen, T., *MPE Sep-Oct 2020 27-35*
- Van Roy, J., Verbruggen, B., and Driesen, J., Ideas for Tomorrow: New Tools for Integrated Building and District Modeling; *MPE Sep-Oct 2013 75-81*
- Vankayala, V., see Mansour, Y., *PAE-M May-Jun 2005 55-61*
- Vankayala, V., Vaahedi, E., Cave, D., and Huang, M., Opening Up for Interoperability; *PAE-M Mar-Apr 2008 61-69*
- Varas, P., Tironi, M., Rudnick, H., and Rodriguez, N., Latin America Goes Electric: The Growing Social Challenges of Hydroelectric Development; *MPE May-Jun 2013 66-75*
- Varela, J., Hatziargyriou, N., Puglisi, L., Bissel, G., Abart, A., Rossi, M., and Priewasser, R., The Best of IGREENGrid Practices: A Distribution Network's Contribution to Resiliency; *MPE May-Jun 2015 81-89*
- Varela, J., Hatziargyriou, N., Puglisi, L., Rossi, M., Abart, A., and Bletterie, B., The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids; *MPE May-Jun 2017 30-40*
- Varela, J., Puglisi, L., Wiedemann, T., Ysberg, U., Stein, D., Pokorna, Z., Arnoult, C., Garaud-Verdier, R., and Consiglio, L., Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks; *MPE Jan-Feb 2015 84-91*
- Vargas, A., Saavedra, O., Samper, M., Rivera, S., and Rodriguez, R., Latin American Energy Markets: Investment Opportunities in Nonconventional Renewables; *MPE Sep-Oct 2016 38-47*
- Vartanian, C., Bauer, R., Casey, L., Loutan, C., Narang, D., and Patel, V., Ensuring System Reliability: Distributed Energy Resources and Bulk Power System Considerations; *MPE Nov-Dec 2018 52-63*
- Vasquez, J.C., see Wu, Y., *MPE Jan-Feb 2024 35-42*
- Veers, P., see Thresher, R., *PAE-M Nov-Dec 2007 34-46*
- Veguillas, R., see Lorenzo, M., *MPE Jan-Feb 2015 75-83*
- Veiga, A., see Alonso, A.M., *MPE May-Jun 2022 54-63*
- Veijalainen, T., see O'Connell, B., *MPE Sep-Oct 2021 18-28*
- Veijalainen, T., see Stringer, N., *MPE Nov-Dec 2020 20-36*
- Velasquez, C., Watts, D., Rudnick, H., and Bustos, C., A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty; *MPE Jul-Aug 2016 20-29*
- Velazquez, N., see Jimenez-Estevez, G., *MPE May-Jun 2017 64-73*
- Velez-Reyes, M., see O'Neill-Carrillo, E., *PAE-M Jul-Aug 2003 29-36*

- Vempati, N., see Alsac, O., *PAE-M Jul-Aug 2004 47-57*
- Venayagamoorthy, G.K., Rohrig, K., and Erlich, I., One Step Ahead: Short-Term Wind Power Forecasting and Intelligent Predictive Control Based on Data Analytics; *MPE Sep-Oct 2012 70-78*
- Venkata, S., see Schmitt, L., *MPE Jul-Aug 2013 59-70*
- Venkata, S., see Uluski, R., *MPE Jul-Aug 2017 50-62*
- Venkata, S.S., Brahma, S., Stamp, J., and Kundur, P., Continue Your Learning; *PAE-M Jul-Aug 2010 36-43*
- Venkata, S.S., see Roy, S., *MPE Sep-Oct 2011 64-73*
- Venkata Kirthiga, M., see Nagamani, C., *MPE Sep-Oct 2018 42-52*
- Venkataraman, S., see Lew, D., *MPE Nov-Dec 2013 20-32*
- Venkataraman, S., Ziesler, C., Johnson, P., and Van Kempen, S., Integrated Wind, Solar, and Energy Storage: Designing Plants with a Better Generation Profile and Lower Overall Cost; *MPE May-Jun 2018 74-83*
- Venkataraman, G., and Marnay, C., A larger role for microgrids; *PAE-M May-Jun 2008 78-82*
- Venkatasubramanian, V., see Anderson, D., *MPE Jan-Feb 2012 49-57*
- Venzke, A., see Chatzivasileiadis, S., *MPE May-Jun 2022 32-41*
- Verbic, G., see Chapman, A., *MPE Jul-Aug 2021 41-51*
- Verbruggen, B., see Van Roy, J., *MPE Sep-Oct 2013 75-81*
- Vernay, Y., see Denetiere, S., *MPE May-Jun 2019 48-60*
- Verseille, J., and Staschus, K., The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D; *MPE Jan-Feb 2015 20-29*
- Victor-Gallardo, L., see Quiros-Tortos, J., *MPE Nov-Dec 2023 77-90*
- Vilgan, I., see Golriz, A., *MPE Mar-Apr 2022 47-56*
- Villar, C.M., see Cailliau, M., *PAE-M Sep-Oct 2010 53-62*
- Villar, J., see Mello, J., *MPE Jul-Aug 2024 49-63*
- Villeneuve, P.L. Concerns generated by islanding [electric power generation]; *PAE-M May-Jun 2004 49-53*
- Vinnakota, V., see Yao, Z., *MPE May-Jun 2014 77-86*
- Vinther, D., see Meibom, P., *MPE Sep-Oct 2013 46-55*
- Virag, A., see Belhomme, R., *MPE Jul-Aug 2021 74-85*
- Vishwakarma, D., see Uluski, R., *MPE Jul-Aug 2017 50-62*
- Vital, V., see Matevosyan, J., *MPE Nov-Dec 2019 89-98*
- Vitiello, S., see Fulli, G., *MPE Jan-Feb 2019 53-66*
- Vittal, V., Nair, N., and Rahmatian, F., Smart City Energy Technology in the Face of Emergency Situations: Electric Supply, Electric Transportation, and Communication; *MPE Sep-Oct 2022 16-25*
- Vittal, V., see Ackermann, T., *MPE Nov-Dec 2017 61-69*
- Vittal, V., see Heydt, G.T., *PAE-M Jan-Feb 2003 38-45*
- Vittal, V., see Kezunovic, M., *MPE Jul-Aug 2012 22-34*
- Vittal, V., see Matevosyan, J., *MPE Nov-Dec 2021 18-28*
- Voelzke, R., see Feltes, J., *MPE Mar-Apr 2012 53-61*
- Vojdani, A., see Arghandeh, R., *MPE Sep-Oct 2014 76-83*
- Vojdani, A., Smart Integration; *PAE-M Nov-Dec 2008 71-79*
- Volskis, H., see Phadke, A.G., *PAE-M Sep-Oct 2008 52-65*
- von Appen, J., Braun, M., Stetz, T., Diwold, K., and Geibel, D., Time in the sun: the challenge of high PV penetration in the German electric grid; *MPE Mar-Apr 2013 55-64*
- von Appen, J., see Stetz, T., *MPE Mar-Apr 2015 50-61* (Correction, *MPE May-Jun 2015 24*)
- von Meier, A., see Arghandeh, R., *MPE Sep-Oct 2014 76-83*
- Vor Dem Berge, M., see Saad, H., *MPE Sep-Oct 2024 60-72*
- Voscoboinik, E., see Rudnick, H., *PAE-M Jul-Aug 2007 50-67*
- Vrettos, E., Hohmann, M., and Zima, M., A Vision to Enhance Transmission Security: The Case of Switzerland's Power System; *MPE Mar-Apr 2021 56-68*
- Vu Van, T., Norton, M., Ivanov, C., Delimar, M., Hatziaargyriou, N., Stromsather, J., Illiceto, A., Llanos, C., and Panciatici, P., Organic Growth: Toward a Holistic Approach to European Research and Innovation; *MPE Jan-Feb 2015 30-37*
- Vuchetich, E., see Rudnick, H., *MPE Mar-Apr 2011 37-45*
- Vujovic, P., see Hervey, M., *PAE-M Nov-Dec 2010 28-36*
- W
- Wagner, T., Kittl, C., Jakob, J., Hiry, J., and Hager, U., Digital Twins in Power Systems: A Proposal for a Definition; *MPE Jan-Feb 2024 16-23*
- Waight, J., see Ivanov, C., *MPE Jan-Feb 2016 30-39*
- Waizenegger, J.R., see McDonald, J.D., *PAE-M May-Jun 2007 57-66*
- Waldele, R., Tales of Power System Failures: A Look at the Unusual, Strange, and Downright Bizarre Causes; *MPE Nov-Dec 2016 18-23* (Correction, *MPE Jan-Feb 2017 88*)
- Walker, C., see Bird, L., *MPE Jul-Aug 2024 64-74*
- Wallace, R., The Service Upgrade; *PAE-M Nov-Dec 2010 24-27*
- Walling, R., see Bebic, J., *PAE-M May-Jun 2009 45-54*
- Walling, R., see Manz, D., *MPE May-Jun 2014 26-36*
- Walling, R., see Piwko, R., *MPE Nov-Dec 2011 26-35*
- Walling, R., see Piwko, R., *PAE-M Nov-Dec 2009 26-35*
- Walther, M., see Desai, B., *PAE-M Nov-Dec 2010 48-52*
- Wan, Y.-H., see Mills, A., *MPE May-Jun 2011 33-41*
- Wang, C., see Ela, E., *MPE Nov-Dec 2017 70-82*
- Wang, C., see Holttinen, H., *MPE Nov-Dec 2021 86-96*
- Wang, C., see Jiang, L., *MPE Nov-Dec 2015 40-49*
- Wang, C., see Jiang, L., *MPE Nov-Dec 2019 99-107*
- Wang Caisheng, see Nehrir, H., *PAE-M Jan-Feb 2006 47-53*
- Wang, C., see Zhang, Y., *MPE Sep-Oct 2017 51-58* (Correction, *MPE Nov-Dec 2017 108*)
- Wang, C., see Zhong, J., *PAE-M Jul-Aug 2007 33-40*
- Wang, D., see Zhou, G., *MPE Jul-Aug 2019 35-46*
- Wang, J., see Qiu, D., *MPE Nov-Dec 2024 18-27*
- Wang, L., see Dudurych, I.M., *MPE Mar-Apr 2012 62-70*
- Wang Lei, see Lei Wang, *PAE-M Sep-Oct 2006 46-59*
- Wang Lei, see Morison, K., *PAE-M Sep-Oct 2004 30-39*
- Wang, M., see Van Hertem, D., *MPE Jul-Aug 2019 56-66*
- Wang, P., Goel, L., Liu, X., and Choo, F.H., Harmonizing AC and DC: A Hybrid AC/DC Future Grid Solution; *MPE May-Jun 2013 76-83*
- Wang, P., see Black, J., *MPE May-Jun 2018 43-53*
- Wang, P., see Hong, T., *MPE May-Jun 2022 14-23*
- Wang, P., see Kirby, N., *MPE Mar-Apr 2016 57-65*
- Wang, Q., see Jiang, L., *MPE Nov-Dec 2011 36-46*
- Wang, S., Huang, Z., Huang, R., Zhou, N., and Zhao, J., Multifold Insights for Power System Dynamics From Data Assimilation: Meeting Current Challenges; *MPE Jan-Feb 2023 36-43*
- Wang, W., see Jiang, L., *MPE Nov-Dec 2011 36-46*
- Wang, W., see Jiang, L., *MPE Nov-Dec 2015 40-49*
- Wang, W., see Kang, C., *MPE Sep-Oct 2013 56-64*
- Wang, W., see Pfeifenberger, J.P., *MPE Sep-Oct 2024 20-30*
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- Air pollution control
- A delicate balance in South America. *Rudnick, H., +, PAE-M Jul-Aug 2008 22-35*
- Collective Action: Adaptation, Mitigation, Innovation: The Case of the Chinese PV Industry. *Gallagher, K., +, MPE Sep-Oct 2014 28-33*
- Get Smart. *Lui, T.J., +, PAE-M May-Jun 2010 66-78*
- Going Green: Transmission Grids as Enablers of the Transition to a Low-Carbon European Economy. *Henry, S., +, MPE Mar-Apr 2014 26-35*
- Restless Waters: Fossil Fuel Emissions Conditioning a Reduction in Hydroelectric Resources in Chile. *Rudnick, H., +, MPE Sep-Oct 2014 50-60*
- The Future of Coal: Confronting Environmental Challenges That Threaten Its Use. *Maxson, A., +, MPE May-Jun 2013 46-55*
- Zeroing In: Lessons from the European Climate Foundation's Roadmap 2050 Project. *Acke, D., MPE Sep-Oct 2014 42-49*
- Aircraft
- A Flight to Quality. *Said, W., +, MPE Jul-Aug 2011 38-45*
- Aircraft power systems
- A Flight to Quality. *Said, W., +, MPE Jul-Aug 2011 38-45*
- Alternators
- A Flight to Quality. *Said, W., +, MPE Jul-Aug 2011 38-45*
- Aluminium
- Spotlight on transformer design. *Georgilakis, P.S., +, PAE-M Jan-Feb 2007 40-50*
- Analytical models
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C., +, MPE Jan-Feb 2024 24-34*
- An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States.** *Frisch, C., +, MPE Jul-Aug 2018 90-98*
- Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. *Fan, L., +, MPE May-Jun 2022 64-76*
- Geo-Information Is Power: Using Geographical Information Systems to Assess Rooftop Photovoltaics in Costa Rica. *Quiros-Tortos, J., +, MPE Mar-Apr 2017 48-56*
- Grid Planning for Electrification Using Highly Granular Analytics: Insights Into the Transportation Distribution Infrastructure. *Currie, R.A.F., +, MPE Nov-Dec 2023 68-76*
- It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G., +, MPE Jul-Aug 2015 61-75*
- Models for Change. *Zavadil, R., +, MPE Nov-Dec 2011 86-96*
- Modernizing the Grid: Challenges and Opportunities for a Sustainable Future. *Aguero, J., +, MPE May-Jun 2017 74-83*
- Optimizing Operations with CIM: Today's Grid Relies on Network Analysis (and a Lot of Data). *Britton, J., +, MPE Jan-Feb 2016 48-57*
- The Acaray Generating Station: Life-Extension and Modernization Studies. *Flores, D., +, MPE Sep-Oct 2020 36-48*
- Under the Hood: An Overview of the Common Information Model Data Exchanges. *Osterlund, L., +, MPE Jan-Feb 2016 68-82*
- Animals
- From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States. *Cohn, J.A., MPE May-Jun 2023 70-76*
- Anxiety disorders
- I Charge, Therefore I Drive: Current State of Electric Vehicle Charging Systems. *Cirimele, V., +, MPE Nov-Dec 2023 91-97*
- Arc discharges
- On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics. *Key, T., +, MPE Nov-Dec 2020 75-85*
- Arresters
- Lightning Protection of Distribution Power Systems: Arrester Development and Application Over the Years. *Woodworth, J., MPE Mar-Apr 2023 51-60*
- Artificial intelligence
- A Society of Devices: Integrating Intelligent Distributed Resources with Transactive Energy. *Kok, K., +, MPE May-Jun 2016 34-45*
- Artificial Intelligence for Load Forecasting: History, Illusions, and Opportunities. *Hong, T., +, MPE May-Jun 2022 14-23*
- Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q., +, MPE Nov-Dec 2024 66-77*
- From AlphaGo to Power System AI: What Engineers Can Learn from Solving the Most Complex Board Game. *Li, F., +, MPE Mar-Apr 2018 76-84*
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M., +, MPE Nov-Dec 2024 78-88*
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R., +, MPE Nov-Dec 2024 42-53*
- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J., +, MPE Nov-Dec 2024 28-41*
- Spotlight on transformer design. *Georgilakis, P.S., +, PAE-M Jan-Feb 2007 40-50*
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D., +, MPE Nov-Dec 2024 54-65*
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H., +, MPE Nov-Dec 2024 89-99*
- Asset management
- A Common Language. *Hervey, M., +, PAE-M Nov-Dec 2010 28-36*
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R., +, MPE Sep-Oct 2023 48-57*
- Decisions, Decisions: An Asset Management-Based Distribution System Framework. *Dashti, R., +, MPE May-Jun 2014 96-108*
- If It Ain't Broke.... *Desai, B., +, PAE-M Nov-Dec 2010 48-52*
- Intelligent Design. *Kezunovic, M., +, PAE-M Nov-Dec 2010 37-44*
- Joint Assets. *Huet, O., +, PAE-M Nov-Dec 2010 88-93*
- Lines of Convergence: R&D for Transmission and Distribution: Coordination and the Regulatory Challenge. *Ferrante, A., +, MPE Jan-Feb 2015 52-59*
- Needed: ASAP Approach. *Desai, B., +, PAE-M Nov-Dec 2010 53-60*
- Notes from Underground. *Olearczyk, M., +, PAE-M Nov-Dec 2010 75-84*

- Organic Growth: Toward a Holistic Approach to European Research and Innovation. *Vu Van, T., +, MPE Jan-Feb 2015 30-37*
- Reading Deeper. *Pritchard, G., +, PAE-M Nov-Dec 2010 85-87*
- Sensing the Future. *Phillips, A., +, PAE-M Nov-Dec 2010 61-68*
- Soccer Field Strategy. *Mah, E.J., +, PAE-M Nov-Dec 2010 69-74*
- Stepping Up to the Future With Power Transformers: Power Transformer Asset Management Strategies: State of the Art and Recommendations for the Future. *Roychowdhury, R., +, MPE Mar-Apr 2023 40-50*
- The Doctor Is In. *Gregerson, S., +, PAE-M Nov-Dec 2010 45-47*
- The Service Upgrade. *Wallace, R., +, PAE-M Nov-Dec 2010 24-27*
- Transmission and Distribution Equipment: Providing Intelligent Maintenance. *Franck, C.M., +, MPE Mar-Apr 2023 18-29*
- Atmospheric measurements
- Uncertainty Forecasting in a Nutshell: Prediction Models Designed to Prevent Significant Errors. *Dobschinski, J., +, MPE Nov-Dec 2017 40-49*
- Atmospheric modeling
- Optimizing Operations with CIM: Today's Grid Relies on Network Analysis (and a Lot of Data). *Britton, J., +, MPE Jan-Feb 2016 48-57*
- Augmented reality
- Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M., +, MPE May-Jun 2024 50-58*
- Australia
- Achieving World-Leading Penetration of Renewables: The Australian National Electricity Market. *O'Connell, B., +, MPE Sep-Oct 2021 18-28*
- Consumer-Led Transition: Australia's World-Leading Distributed Energy Resource Integration Efforts. *Stringer, N., +, MPE Nov-Dec 2020 20-36*
- Distributed Energy Resources Roadmap: How the State of Western Australia Is Leading in Integration. *Hadingham, W., +, MPE Sep-Oct 2021 76-88*
- Electrical Power Engineering Education Down Under: Australia and New Zealand Are Adding Energy to Their University Curricula. *Nair, N., +, MPE Sep-Oct 2018 64-73*
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N., +, MPE Sep-Oct 2021 29-45*
- Future Electricity Markets: Designing for Massive Amounts of Zero-Variable-Cost Renewable Resources. *Ela, E., +, MPE Nov-Dec 2019 58-66*
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B., +, MPE Mar-Apr 2024 66-77*
- Network Congestion Management: Experiences From Bruny Island Using Residential Batteries. *Chapman, A., +, MPE Jul-Aug 2021 41-51*
- Power System Operation With a High Share of Inverter-Based Resources: The Australian Experience. *Badrzadeh, B., +, MPE Sep-Oct 2021 46-55*
- Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B., +, MPE Mar-Apr 2016 72-79*
- Renewable Energy Zones in Australia: Integrated System Planning. *Pack, E., +, MPE Sep-Oct 2021 56-66*
- Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems. *Mountain, B., +, MPE Jul-Aug 2015 53-60*
- Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids. *Sharafi, D., +, MPE Jan-Feb 2022 52-63*
- Authorization
- Intruders in the Grid. *Chen-Ching Liu, +, MPE Jan-Feb 2012 58-66*
- Automatic generation control
- Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid. *Milligan, M., +, MPE Nov-Dec 2015 78-87*
- Automatic meter reading
- Links to the Future: Communication Requirements and Challenges in the Smart Grid. *Bouhafs, F., +, MPE Jan-Feb 2012 24-32*
- Omaha Public Power District Automation Plan, substation integrat. pilot project. *Nissen, T., +, PAE-M Mar-Apr 2003 42-49*
- Automatic voltage control
- Closed-Loop Volt/Var Optimization: Addressing Peak Load Reduction. *Carden, J., +, MPE Mar-Apr 2018 67-75*
- Expanding Power Systems in the Republic of Korea: Feasibility Studies and Future Challenges. *Kim, S., +, MPE May-Jun 2019 61-72*
- In Divergence There Is Strength: Measuring and Mitigating Solar PV Impacts in Southern California Using Power Factors Other than One. *Mather, B., +, MPE Mar-Apr 2015 62-70*
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J., +, MPE May-Jun 2017 30-40*
- Automation
- Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. *Guibout, C., +, MPE May-Jun 2024 67-78*
- Five Heads Are Better Than One: An Interdisciplinary Graduate Course on Smart Grids: Lessons, Challenges, and Opportunities. *Namboodiri, V., +, MPE Jan-Feb 2013 44-50*
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J., +, MPE Sep-Oct 2023 38-47*
- Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T., MPE May-Jun 2024 20-28*
- The Emerging Transactive Microgrid Controller: Illustrating Its Concept, Functionality, and Business Case. *Vaahedi, E., +, MPE Jul-Aug 2017 80-87*
- The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All. *Repo, S., +, MPE May-Jun 2017 41-51*
- Automobiles
- hydrogen, automotive fuel of the future. *T-Raissi, A., +, PAE-M Nov-Dec 2004 40-45*
- Autonomous systems
- Artificial Intelligence for Load Forecasting: History, Illusions, and Opportunities. *Hong, T., +, MPE May-Jun 2022 14-23*
- Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. *Kroposki, B., +, MPE Nov-Dec 2020 37-46*
- B
- Batteries
- A Future With Inverter-Based Resources: Finding Strength From Traditional Weakness. *Matevosyan, J., +, MPE Nov-Dec 2021 18-28*

- Achieving Resilience at Distribution Level: Learning from Isolated Community Microgrids. *Jimenez-Estevez, G.*, +, [MPE May-Jun 2017 64-73](#)
- Aggregating Distributed Energy Storage: Cloud-Based Flexibility Services From China. *Zhang, N.*, +, [MPE Jul-Aug 2021 63-73](#)
- Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning. *Coddington, M.*, +, [MPE Mar-Apr 2017 40-47](#)
- elec. energy storage. The United States of storage. *Gyuk, I.*, +, [PAE-M Mar-Apr 2005 31-39](#)
- Energy Storage Control Capability Expansion: Achieving Better Technoeconomic Benefits at Portland General Electric's Salem Smart Power Center. *Alam, J.*, +, [MPE Mar-Apr 2020 69-80](#)
- Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services. *Farrokhhabadi, M.*, +, [MPE Sep-Oct 2017 81-91](#)
- Ensuring System Reliability: Distributed Energy Resources and Bulk Power System Considerations. *Vartanian, C.*, +, [MPE Nov-Dec 2018 52-63](#)
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J.*, +, [MPE Sep-Oct 2020 64-75](#)
- Grid and Market Services From the Edge: Using Operating Envelopes to Unlock Network-Aware Bottom-Up Flexibility. *Liu, M.*, +, [MPE Jul-Aug 2021 52-62](#)
- Grid-Level Application of Electrical Energy Storage: Example Use Cases in the United States and China. *Zhang, Y.*, +, [MPE Sep-Oct 2017 51-58](#)
- Integrated Wind, Solar, and Energy Storage: Designing **Plants with a Better Generation Profile and Lower Overall Cost**. *Venkataraman, S.*, +, [MPE May-Jun 2018 74-83](#)
- Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid. *Burdick, A.*, +, [MPE Jul-Aug 2022 30-43](#)
- Next-Generation Distribution Planning: How Do We Capture the Value of Distributed Energy Resources?. *Bystrom, O.*, [MPE Mar-Apr 2022 32-38](#)
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G.*, +, [MPE Sep-Oct 2017 32-41](#)
- PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H.*, +, [MPE Sep-Oct 2017 59-67](#)
- Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R.*, +, [MPE Nov-Dec 2020 86-97](#)
- PV-Battery Systems for Critical Loads During Emergencies: A Case Study from Puerto Rico After Hurricane Maria. *Keerthisinghe, C.*, +, [MPE Jan-Feb 2019 82-92](#)
- Secrets of Successful Integration: Operating Experience With High Levels of Variable, Inverter-Based Generation. *Lew, D.*, +, [MPE Nov-Dec 2019 24-34](#)
- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J.*, +, [MPE Jan-Feb 2015 84-91](#)
- Smart Village Voices in Africa, Cameroon: Part 3— Electrification of Off-Grid Villages in Cameroon. *Numfor, J.*, +, [MPE Sep-Oct 2022 69-74](#)
- Technological Developments in Batteries: A Survey of Principal Roles, Types, and Management Needs. *Hu, X.*, +, [MPE Sep-Oct 2017 20-31](#)
- Twilight of the Grids: The Impact of Distributed Solar on Germany's Energy Transition. *Stetz, T.*, +, [MPE Mar-Apr 2015 50-61](#)
- Battery power vehicles
electric vehicles charge forward. *Chan, C.C.*, +, [PAE-M Nov-Dec 2004 24-33](#)
new hybrid electric vehicles. *Wehrey, M.C.*, [PAE-M Nov-Dec 2004 34-39](#)
- Battery powered vehicles
A Flight to Quality. *Said, W.*, +, [MPE Jul-Aug 2011 38-45](#)
- Behavioral sciences
Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S.*, +, [MPE Nov-Dec 2023 38-47](#)
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R.*, +, [MPE Sep-Oct 2023 48-57](#)
- Grid Planning for Electrification Using Highly Granular Analytics: Insights Into the Transportation Distribution Infrastructure. *Currie, R.A.F.*, +, [MPE Nov-Dec 2023 68-76](#)
- STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T.*, +, [MPE Mar-Apr 2023 30-39](#)
- System Disturbance and Blackout Analysis: Identifying Trends in System Behavior. *Cummings, R.W.*, [MPE May-Jun 2023 30-42](#)
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, +, [MPE Mar-Apr 2024 55-65](#)
- Benchmark testing
Twilight of the Grids: The Impact of Distributed Solar on Germany's Energy Transition. *Stetz, T.*, +, [MPE Mar-Apr 2015 50-61](#)
Wind Energy in China. *Jiang, L.*, +, [MPE Nov-Dec 2011 36-46](#)
- Best practices
Offshore Substation Design: High-Level Overview of the Industry Best Practices. *Hamadi, V.*, +, [MPE Jul-Aug 2019 67-74](#)
- Bidirectional power flow
Transmission and Distribution Equipment: Providing Intelligent Maintenance. *Franck, C.M.*, +, [MPE Mar-Apr 2023 18-29](#)
- Big data
Big Data Analytics for Flexible Energy Sharing: Accelerating a Low-Carbon Future. *Li, F.*, +, [MPE May-Jun 2018 35-42](#)
Big Data Analytics in China's Electric Power Industry: Modern Information, Communication Technologies, and Millions of Smart Meters. *Kang, C.*, +, [MPE May-Jun 2018 54-65](#)
Everything's Talking to Each Other: Smart Meters Generate Big Data for Utilities and Customers. *Neumann, S.*, +, [MPE Jan-Feb 2016 40-47](#)
Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis. *Hyndman, R.*, +, [MPE May-Jun 2018 18-25](#)
Weather Data for Energy Analytics: From Modeling Outages and Reliability Indices to Simulating Distributed

- Photovoltaic Fleets. *Black, J., +, MPE May-Jun 2018 43-53*
- Bioenergy conversion
Alternative energy sources in the Amazon. *de Lima Montenegro Duarte, A.R.C., +, PAE-M Jan-Feb 2007 51-57*
Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System. *Meibom, P., +, MPE Sep-Oct 2013 46-55*
green power, defn., renewable resources. *Rahman, S., PAE-M Jan-Feb 2003 30-37*
- Biofuel
Alternative energy sources in the Amazon. *de Lima Montenegro Duarte, A.R.C., +, PAE-M Jan-Feb 2007 51-57*
Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System. *Meibom, P., +, MPE Sep-Oct 2013 46-55*
Expansion Pressure: Energy Challenges in Brazil and Chile. *Bezerra, B., +, MPE May-Jun 2012 48-58*
- Biological system modeling
Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B., +, MPE Jul-Aug 2016 30-40*
An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R., MPE Jul-Aug 2015 18-28*
Applying the Principle of Locality: How to Build a Robust, Technology-Agnostic Regulatory Model for Tomorrow's Electrical Grid. *Enslin, J., +, MPE Sep-Oct 2016 66-74*
Big Data Analytics for Flexible Energy Sharing: Accelerating a Low-Carbon Future. *Li, F., +, MPE May-Jun 2018 35-42*
Electrification in the United Kingdom: A Case Study Based on Future Energy Scenarios. *Fowler, R., +, MPE Jul-Aug 2018 48-57*
Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P., +, MPE Jul-Aug 2018 24-33*
On the Path to Decarbonization: Electrification and Renewables in California and the Northeast United States. *Mahone, A., +, MPE Jul-Aug 2018 58-68*
The Bigger Picture: Robust Decarbonization of the Transport Sector in Costa Rica. *Quiros-Tortos, J., +, MPE Nov-Dec 2023 77-90*
- Biomass
Corrections to "A Wider Horizon" [May/June 2011 42-54]. *MPE Jul-Aug 2011 90*
Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns. *D'haeseleer, W., +, MPE Jan-Feb 2017 61-71*
Planning for the Future: Optimization-Based Distribution Planning Strategies for Integrating Distributed Energy Resources. *Cho, G., +, MPE Nov-Dec 2018 77-87*
The Green Impact: How Renewable Sources Are Changing EU Electricity Prices. *Chaves-Avila, J., +, MPE Jul-Aug 2015 29-40*
- Breakdown voltage
Unlocking New Sources of Flexibility: CLASS: The World's Largest Voltage-Led Load-Management Project. *Ballanti, A., +, MPE May-Jun 2017 52-63*
- Broadband communication
A Modern Communications Platform to Enable the Modern Grid: A Utility-Grade Wireless Broadband Network. *L'Abbate, C., MPE Sep-Oct 2023 18-26*
- Broadcasting
Becoming the Utility of the Future: Risks and Opportunities. *Brown, R., +, MPE Sep-Oct 2016 57-65*
- Building management systems
Ideas for Tomorrow: New Tools for Integrated Building and District Modeling. *Van Roy, J., +, MPE Sep-Oct 2013 75-81*
If These Walls Could Think. *Munson, M., +, MPE Jan-Feb 2011 50-55*
- Buildings
From the Humble Building to the Smart Sustainable Grid: Empowering Consumers, Nurturing Bottom-Up Electricity Markets, and Building Collaborative Power Systems. *Avramidis, I., +, MPE Jul-Aug 2023 53-63*
High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N., +, MPE Mar-Apr 2024 78-88*
Same Goal, Different Pathways for Energy Transition: A More Holistic, Multisector, Community-Driven Approach. *Cochran, J., +, MPE Jul-Aug 2022 18-29*
The Emerging Transactive Microgrid Controller: Illustrating Its Concept, Functionality, and Business Case. *Vaahedi, E., +, MPE Jul-Aug 2017 80-87*
- Buildings (structures)
Teaching Old Dogs New Tricks: The Effectiveness of Community-Based Social Marketing on Energy Conservation for Sustainable University Campuses. *Aronoff, J., +, MPE Jan-Feb 2013 30-38*
- Bushings
Ready or Not.... *Schiff, A., +, MPE Mar-Apr 2011 46-51*
- Business
A Common Language. *Hervey, M., +, PAE-M Nov-Dec 2010 28-36*
Smart Village Voices in Africa, Nigeria: Part 2—Village Entrepreneurs in Nigeria. *Ureh, H., +, MPE Sep-Oct 2022 61-68*
The Future of Distribution Operations and Planning: The Electric Utility Environment Is Changing. *Vadari, M., MPE Jan-Feb 2020 18-25*
The Utility and Grid of the Future: Challenges, Needs, and Trends. *Romero Aguero, J., +, MPE Sep-Oct 2016 29-37*
- Business continuity
Powering Through the Storm: Microgrids Operation for More Efficient Disaster Recovery. *Abbey, C., +, MPE May-Jun 2014 67-76*
- Business data processing
enterprise transforming initiatives for elec. utility marketplace. *Okonski, Z., +, PAE-M May-Jun 2003 32-35*
- C
- Calibration
Multifold Insights for Power System Dynamics From Data Assimilation: Meeting Current Challenges. *Wang, S., +, MPE Jan-Feb 2023 36-43*
- Capability maturity model
In the Face of Cybersecurity: How the Common Information Model Can Be Used. *Skare, P., +, MPE Jan-Feb 2016 94-104*
- Capacitance
On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics. *Key, T., +, MPE Nov-Dec 2020 75-85*
- Capacitors
Distribution Synchrophasors: Pairing Big Data with Analytics to Create Actionable Information. *Mohsenian-Rad, H., +, MPE May-Jun 2018 26-34*
In Divergence There Is Strength: Measuring and Mitigating Solar PV Impacts in Southern California Using

- Power Factors Other than One. *Mather, B.*, +, *MPE Mar-Apr 2015 62-70*
- The New Black Start: System Restoration with Help from Voltage-Sourced Converters. *Bahrman, M.*, +, *MPE Jan-Feb 2014 44-53*
- Capacity planning
- Flexibility Is Key in New York: New Tools and Operational Solutions for Managing Distributed Energy Resources. *Currie, B.*, +, *MPE May-Jun 2017 20-29*
- Planning for the Future: Optimization-Based Distribution Planning Strategies for Integrating Distributed Energy Resources. *Cho, G.*, +, *MPE Nov-Dec 2018 77-87*
- Carbon
- Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G.*, +, *MPE Mar-Apr 2019 25-36*
- From Security to Resilience: Technical and Regulatory Options to Manage Extreme Events in Low-Carbon Grids. *Eggleston, J.*, +, *MPE Sep-Oct 2021 67-75*
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G.*, +, *MPE Sep-Oct 2017 32-41*
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N.*, +, *MPE Jul-Aug 2016 79-87*
- The Fragile Grid: The Physics and Economics of Security Services in Low-Carbon Power Systems. *Mancarella, P.*, +, *MPE Mar-Apr 2021 79-88*
- Carbon capture and storage
- Balance of Power: Toward a More Environmentally Friendly, Efficient, and Effective Integration of Energy Systems in China. *Kang, C.*, +, *MPE Sep-Oct 2013 56-64*
- Secrets of Successful Integration: Operating Experience With High Levels of Variable, Inverter-Based Generation. *Lew, D.*, +, *MPE Nov-Dec 2019 24-34*
- Carbon compounds
- Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures. *McCalley, J.*, +, *MPE Sep-Oct 2013 24-35*
- Carbon dioxide
- Aggregating Distributed Energy Storage: Cloud-Based Flexibility Services From China. *Zhang, N.*, +, *MPE Jul-Aug 2021 63-73*
- Carbon-Free Energy: How Much, How Soon?. *O'Connell, R.*, +, *MPE Nov-Dec 2021 67-76*
- Changing Household Energy Usage: The Downsides of Incentives and How to Overcome Them. *van der Werff, E.*, +, *MPE Jan-Feb 2018 42-48*
- Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G.*, +, *MPE Mar-Apr 2019 25-36*
- Electrification and the Future of Electricity Markets:** Transitioning to a Low-Carbon Energy System. *Jones, R.*, +, *MPE Jul-Aug 2018 79-89*
- Energy Security Through Demand-Side Flexibility: The Case of Denmark. *Ostergaard, J.*, +, *MPE Mar-Apr 2021 46-55*
- Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K.*, +, *MPE Jul-Aug 2022 85-95*
- Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M.*, +, *MPE Nov-Dec 2023 18-27*
- Multifold Insights for Power System Dynamics From Data Assimilation: Meeting Current Challenges. *Wang, S.*, +, *MPE Jan-Feb 2023 36-43*
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G.*, +, *MPE Sep-Oct 2017 32-41*
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, *MPE Sep-Oct 2024 100-110*
- Variable Renewable Energy Integration: Status Around the World. *Holtinen, H.*, +, *MPE Nov-Dec 2021 86-96*
- Carbon emissions
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W.*, +, *MPE Sep-Oct 2024 111-115*
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, *MPE Sep-Oct 2024 100-110*
- Carbon neutral
- Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T.*, *MPE May-Jun 2024 20-28*
- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J.*, +, *MPE Nov-Dec 2024 28-41*
- Centralized control
- Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. *Guibout, C.*, +, *MPE May-Jun 2024 67-78*
- Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P.*, +, *MPE Jan-Feb 2024 52-60*
- Chemicals
- Power Engineering Education: A Description of Current Academic Developments in India. *Nagamani, C.*, +, *MPE Sep-Oct 2018 42-52*
- China
- A Smarter Grid Operation: New Energy Management Systems in China. *Xin, Y.*, +, *MPE Mar-Apr 2018 36-45*
- China's Solar Subsidy Policy: Government Funding Yields to Open Markets. *Dong, H.*, +, *MPE May-Jun 2020 49-60*
- Growth in Wind and Sun: Integrating Variable Generation in China. *Jiang, L.*, +, *MPE Nov-Dec 2015 40-49*
- Hydropower in China. *Fu, S.*, +, *PAE-M Jul-Aug 2008 47-51*
- On the Road to Wind Power: China's Experience at Managing Disturbances with High Penetrations of Wind Generation. *Weisheng, W.*, +, *MPE Nov-Dec 2016 24-34*
- Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L.*, +, *MPE Sep-Oct 2022 26-38*
- The China Southern Power Grid: Solutions to Operation Risks and Planning Challenges. *Zhou, H.*, +, *MPE Jul-Aug 2016 72-78*
- Wind Energy in China. *Jiang, L.*, +, *MPE Nov-Dec 2011 36-46*
- Circuit breakers
- Adopting Circuit Breakers for High-Voltage dc Networks: Appropriating the Vast Advantages of dc Transmission Grids. *Jovcic, D.*, +, *MPE May-Jun 2019 82-93*
- DC Circuit Breakers for High-Voltage dc Grids: Present and Future. *Davidson, C.*, +, *MPE Sep-Oct 2024 87-99*
- Designing for High-Voltage dc Grid Protection: Fault Clearing Strategies and Protection Algorithms. *Leterme, W.*, +, *MPE May-Jun 2019 73-81*
- Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland. *Sattinger, W.*, +, *MPE Sep-Oct 2015 41-48*

- Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D.*, +, [MPE Jul-Aug 2019 56-66](#)
- Circuit faults
- Adopting Circuit Breakers for High-Voltage dc Networks: Appropriating the Vast Advantages of dc Transmission Grids. *Jovcic, D.*, +, [MPE May-Jun 2019 82-93](#)
- Designing for High-Voltage dc Grid Protection: Fault Clearing Strategies and Protection Algorithms. *Leterme, W.*, +, [MPE May-Jun 2019 73-81](#)
- Distribution Synchrophasors: Pairing Big Data with Analytics to Create Actionable Information. *Mohsenian-Rad, H.*, +, [MPE May-Jun 2018 26-34](#)
- How Brazil Aims for Gold in Reliability: From Past Blackouts to Preparedness for the 2016 Summer Olympic and Paralympic Games. *Gomes, P.*, +, [MPE Nov-Dec 2016 40-51](#)
- Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems. *Reno, M.*, +, [MPE May-Jun 2021 36-46](#)
- Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection. *Ropp, M.*, +, [MPE May-Jun 2021 47-57](#)
- Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland. *Sattinger, W.*, +, [MPE Sep-Oct 2015 41-48](#)
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, [MPE Nov-Dec 2024 78-88](#)
- On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics. *Key, T.*, +, [MPE Nov-Dec 2020 75-85](#)
- On the Road to Wind Power: China's Experience at Managing Disturbances with High Penetrations of Wind Generation. *Weisheng, W.*, +, [MPE Nov-Dec 2016 24-34](#)
- Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D.*, +, [MPE Jul-Aug 2019 56-66](#)
- Circuit stability
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, [MPE Mar-Apr 2024 30-41](#)
- Classification
- class-current transformer (CT) classification. *Doig, P.*, +, [PAE-M Nov-Dec 2006 56-60](#)
- Client-server systems
- Web tool opens up power syst. visualization. *Fangxing Li*, [PAE-M Jul-Aug 2003 37-41](#)
- Climate change
- A Modern Communications Platform to Enable the Modern Grid: A Utility-Grade Wireless Broadband Network. *L'Abbate, C.*, [MPE Sep-Oct 2023 18-26](#)
- A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E.*, +, [MPE Sep-Oct 2022 39-45](#)
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P.*, +, [MPE Sep-Oct 2024 49-59](#)
- Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?. *Thomas, S.*, [MPE Jul-Aug 2023 18-25](#)
- Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B.*, +, [MPE Jul-Aug 2024 75-84](#)
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y.*, +, [MPE Jan-Feb 2024 35-42](#)
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W.*, +, [MPE Sep-Oct 2024 111-115](#)
- Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences. *Serrano, R.*, +, [MPE Jan-Feb 2022 38-51](#)
- Harnessing the Full Potential of Clean Energy: The Role of Southern California's Utility Distributed Energy Resource Pilots. *Mehr, V.*, +, [MPE Jul-Aug 2021 28-40](#)
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, [MPE Mar-Apr 2024 78-88](#)
- HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A.*, [MPE Sep-Oct 2024 38-48](#)
- Let's Make a Deal: Non-Wires Alternatives for Traditional Transmission and Distribution?. *Reid, B.*, +, [MPE Mar-Apr 2022 23-31](#)
- Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid. *Burdick, A.*, +, [MPE Jul-Aug 2022 30-43](#)
- Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W.*, +, [MPE Jan-Feb 2022 16-27](#)
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, +, [MPE Jul-Aug 2024 85-93](#)
- Realizing the Value of DERs: A Utility Perspective. *Paaso, A.*, +, [MPE Mar-Apr 2022 39-46](#)
- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J.*, +, [MPE Nov-Dec 2024 28-41](#)
- STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T.*, +, [MPE Mar-Apr 2023 30-39](#)
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, [MPE Sep-Oct 2024 100-110](#)
- The Bigger Picture: Robust Decarbonization of the Transport Sector in Costa Rica. *Quiros-Tortos, J.*, +, [MPE Nov-Dec 2023 77-90](#)
- Transmission Planning for 100% Clean Electricity: Enabling Clean, Affordable, and Reliable Electricity. *Lew, D.*, +, [MPE Nov-Dec 2021 56-66](#)
- Wildfire Resiliency: California Case for Change. *Chiu, B.*, +, [MPE Jan-Feb 2022 28-37](#)
- Climate mitigation
- Collective Action: Adaptation, Mitigation, Innovation: The Case of the Chinese PV Industry. *Gallagher, K.*, +, [MPE Sep-Oct 2014 28-33](#)
- Euro Mix: Current European Energy Developments and Policy Alternatives for 2030 and Beyond. *Lorubio, G.*, +, [MPE Mar-Apr 2014 65-74](#)
- Restless Waters: Fossil Fuel Emissions Conditioning a Reduction in Hydroelectric Resources in Chile. *Rudnick, H.*, +, [MPE Sep-Oct 2014 50-60](#)
- Risky Business: Building a Resilient Power Sector. *Mendiluce, M.*, [MPE Sep-Oct 2014 34-41](#)
- Stormy Weather: Assessing Climate Change Hazards to Electric Power Infrastructure: A Sandy Case Study. *Yates, D.*, +, [MPE Sep-Oct 2014 66-75](#)

- The Local Team: Leveraging Distributed Resources to Improve Resilience. *Arghandeh, R., +, MPE Sep-Oct 2014 76-83*
- The power of collaboration: Engaging all parties in renewable energy infrastructure development. *Schenk, T., +, MPE May-Jun 2013 56-65*
- The vulnerable Amazon: The impact of climate change on the untapped potential of hydropower systems. *Schaeffer, R., +, MPE May-Jun 2013 22-31*
- Climatology**
- Rising temps, tides, and wildfires: Assessing the risk to California's energy infrastructure from projected climate change. *Sathaye, J.A., +, MPE May-Jun 2013 32-45*
- Cloud computing**
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C., +, MPE Jan-Feb 2024 72-80*
- Clustering algorithms**
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H., +, MPE Nov-Dec 2024 89-99*
- Coal**
- Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy. *Kroposki, B., +, MPE Mar-Apr 2017 61-73*
- cleaning up coal's second act. *Zancan, F.L., PAE-M Jul-Aug 2006 57-62*
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N., +, MPE Sep-Oct 2021 29-45*
- Growing Pains: Meeting India's Energy Needs in the Face of Limited Fossil Fuels. *Parikh, J., +, MPE May-Jun 2012 59-66*
- Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K., +, MPE Jul-Aug 2022 85-95*
- Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures. *McCalley, J., +, MPE Sep-Oct 2013 24-35*
- The Green Impact: How Renewable Sources Are Changing EU Electricity Prices. *Chaves-Avila, J., +, MPE Jul-Aug 2015 29-40*
- Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements. *Heinen, S., +, MPE Jan-Feb 2017 16-24*
- Coal industry**
- Big Data Analytics for Flexible Energy Sharing: Accelerating a Low-Carbon Future. *Li, F., +, MPE May-Jun 2018 35-42*
- Coal mining**
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R., +, MPE Nov-Dec 2014 78-88*
- Codes**
- Code Shift: Grid Specifications and Dynamic Wind Turbine Models. *Ackermann, T., +, MPE Nov-Dec 2013 72-82*
- Cogeneration**
- Balance of Power: Toward a More Environmentally Friendly, Efficient, and Effective Integration of Energy Systems in China. *Kang, C., +, MPE Sep-Oct 2013 56-64*
- Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. *Orths, A., +, MPE Nov-Dec 2019 67-78*
- Policy-making for microgrids. *Marnay, C., +, PAE-M May-Jun 2008 66-77*
- The Fragile Grid: The Physics and Economics of Security Services in Low-Carbon Power Systems. *Mancaella, P., +, MPE Mar-Apr 2021 79-88*
- The Need for Standardization: The Benefits to the Core Functions of the Microgrid Control System. *Joos, G., +, MPE Jul-Aug 2017 32-40*
- Coils**
- advanced power syst. protection syst. using Rogowski coil current sens. *Kojovic, L.A., +, PAE-M May-Jun 2003 43-48*
- I Charge, Therefore I Drive: Current State of Electric Vehicle Charging Systems. *Cirimele, V., +, MPE Nov-Dec 2023 91-97*
- Collaboration**
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J., +, MPE Jul-Aug 2024 94-102*
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P., +, MPE Sep-Oct 2024 20-30*
- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J., +, MPE Jan-Feb 2015 20-29*
- Combustion**
- Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures. *McCalley, J., +, MPE Sep-Oct 2013 24-35*
- Commerce**
- energy resources acquisition in competitive elec. market. *Welch, G.V., +, PAE-M May-Jun 2003 36-42*
- shaping future of global energy delivery. *Garrity, T.F., PAE-M Sep-Oct 2003 26-30*
- Common Information Model (electricity)**
- Enabling the Integrated Grid: Leveraging Data to Integrate Distributed Resources and Customers. *McGranaghan, M., +, MPE Jan-Feb 2016 83-93*
- Everything's Talking to Each Other: Smart Meters Generate Big Data for Utilities and Customers. *Neumann, S., +, MPE Jan-Feb 2016 40-47*
- In the Face of Cybersecurity: How the Common Information Model Can Be Used. *Skare, P., +, MPE Jan-Feb 2016 94-104*
- Making Distribution Automation Work: Smart Data Is Imperative for Growth. *Gray, G., +, MPE Jan-Feb 2016 58-67*
- Optimizing Operations with CIM: Today's Grid Relies on Network Analysis (and a Lot of Data). *Britton, J., +, MPE Jan-Feb 2016 48-57*
- Prescription for Interoperability: Power System Challenges and Requirements for Interoperable Solutions. *Ivanov, C., +, MPE Jan-Feb 2016 30-39*
- Under the Hood: An Overview of the Common Information Model Data Exchanges. *Osterlund, L., +, MPE Jan-Feb 2016 68-82*
- Communication networks**
- Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B., +, MPE Nov-Dec 2024 118-133*
- Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A., +, MPE Sep-Oct 2023 58-67*
- Communication standards**
- Advanced Distribution Management System: Improving Distribution Efficiency Through an Integrated Approach. *Devanand, P., +, MPE Jan-Feb 2020 55-62*

- Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. Goswami, B., +, [MPE Nov-Dec 2024 118-133](#)
- Communication system software
communicate, failure. Hauser, C.H., +, [PAE-M Mar-Apr 2005 47-55](#)
- Communication systems
Measures of Value: Data Analytics for Automated Fault Analysis. Popovic, T., +, [MPE Sep-Oct 2012 58-69](#)
Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. Evans, M., +, [MPE Jul-Aug 2022 44-54](#)
- Communications technology
Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. Stoupis, J., +, [MPE Sep-Oct 2023 38-47](#)
Precise Time, All the Time: A Resilient Architecture for the Electric Power Industry and Beyond. Robertson, P., +, [MPE Sep-Oct 2023 27-37](#)
Smart City Energy Technology in the Face of Emergency Situations: Electric Supply, Electric Transportation, and Communication. Vittal, V., +, [MPE Sep-Oct 2022 16-25](#)
- Companies
Balance of power. Mocarquer, S., +, [PAE-M Sep-Oct 2009 26-35](#)
Correction. [MPE Nov-Dec 2017 108](#)
Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. Heinen, S., +, [MPE Nov-Dec 2023 38-47](#)
Distribution Network Rate Making in Latin America: An Evolving Landscape. Moreno, R., +, [MPE May-Jun 2020 33-48](#)
Electric Power Engineering Education: Cultivating the Talent in the United Kingdom and Italy to Build the Low-Carbon Economy of the Future. Chicco, G., +, [MPE Sep-Oct 2018 53-63](#)
High Inverter-Based Resource Integration: The Experience of Five System Operators. Modi, N., +, [MPE Mar-Apr 2024 78-88](#)
The Power of Internships: Advice for Companies and Prospective Interns. Hennebury, L., +, [MPE Sep-Oct 2018 74-81](#)
- Complexity theory
Energy Storage Control Capability Expansion: Achieving Better Technoeconomic Benefits at Portland General Electric's Salem Smart Power Center. Alam, J., +, [MPE Mar-Apr 2020 69-80](#)
From AlphaGo to Power System AI: What Engineers Can Learn from Solving the Most Complex Board Game. Li, F., +, [MPE Mar-Apr 2018 76-84](#)
Grid Architecture: A Core Discipline for Grid Modernization. Taft, J., [MPE Sep-Oct 2019 18-28](#)
Hawaii's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. Asano, M., [MPE Sep-Oct 2019 40-46](#)
Online Power Education: Keeping Pace with the Demand for High-Quality, Flexible Education. Ahern, M., [MPE Sep-Oct 2018 82-86](#)
Prescription for Interoperability: Power System Challenges and Requirements for Interoperable Solutions. Ivanov, C., +, [MPE Jan-Feb 2016 30-39](#)
Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. Ramasubramanian, D., +, [MPE Mar-Apr 2024 55-65](#)
- The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection. Herling, S., +, [MPE Jul-Aug 2016 65-71](#)
- Component architectures
Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. Ramasubramanian, D., +, [MPE Mar-Apr 2024 55-65](#)
- Computational modeling
A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. Brosinsky, C., +, [MPE Jan-Feb 2024 24-34](#)
Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid. Bose, A., +, [MPE May-Jun 2023 61-69](#)
Models for Change. Zavadil, R., +, [MPE Nov-Dec 2011 86-96](#)
Supporting Energy Transition in Transmission Systems: An Operator's Experience Using Electromagnetic Transient Simulation. Dennetiere, S., +, [MPE May-Jun 2019 48-60](#)
- Computer aided instruction
power professionals, dist. learning. Pahwa, A., +, [PAE-M Jan-Feb 2005 53-58](#)
The New Centurions. Crow, M., +, [PAE-M Jul-Aug 2010 20-26](#)
- Computer applications
Artificial Intelligence for Load Forecasting: History, Illusions, and Opportunities. Hong, T., +, [MPE May-Jun 2022 14-23](#)
web services provide the power to integrate. Jun Zhu, [PAE-M Nov-Dec 2003 40-49](#)
- Computer architecture
Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. Guibout, C., +, [MPE May-Jun 2024 67-78](#)
Grid Architecture: A Core Discipline for Grid Modernization. Taft, J., [MPE Sep-Oct 2019 18-28](#)
Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources. Sherick, R., +, [MPE Mar-Apr 2017 20-28](#)
- Computer centers
The power grabbers. Siriwardana, J., +, [PAE-M Jan-Feb 2010 46-53](#)
- Computer crime
Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. Dondossola, G., +, [MPE May-Jun 2024 42-49](#)
Dynamic Estimation-Based Protection and Hidden Failure Detection and Identification: Inverter-Dominated Power Systems. Meliopoulos, S., +, [MPE Jan-Feb 2023 59-72](#)
Going Beyond Cybersecurity Compliance: What Power and Utility Companies Really Need To Consider. Smith, E., +, [MPE Sep-Oct 2016 48-56](#)
grid security issues, elec. utility responses. Schainker, R., +, [PAE-M Mar-Apr 2006 30-37](#)
- Computer integrated manufacturing
Under the Hood: An Overview of the Common Information Model Data Exchanges. Osterlund, L., +, [MPE Jan-Feb 2016 68-82](#)
- Computer network security
Intruders in the Grid. Chen-Ching Liu, +, [MPE Jan-Feb 2012 58-66](#)
Terms of Protection: The Many Faces of Smart Grid Security. Nordell, D.E., +, [MPE Jan-Feb 2012 18-23](#)

- Computer science
Electricity Price Forecasting: The Dawn of Machine Learning. *Jedrzejewski, A.*, +, *MPE May-Jun 2022 24-31*
- Computer security
A Smarter Grid Operation: New Energy Management Systems in China. *Xin, Y.*, +, *MPE Mar-Apr 2018 36-45*
Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, *MPE Jan-Feb 2024 61-71*
Going Beyond Cybersecurity Compliance: What Power and Utility Companies Really Need To Consider. *Smith, E.*, +, *MPE Sep-Oct 2016 48-56*
Improving Grid Resilience Using High-Voltage dc: Strengthening the Security of Power System Stability. *Roberson, D.*, +, *MPE May-Jun 2019 38-47*
In the Face of Cybersecurity: How the Common Information Model Can Be Used. *Skare, P.*, +, *MPE Jan-Feb 2016 94-104*
- Computer vision
Artificial Intelligence for Load Forecasting: History, Illusions, and Opportunities. *Hong, T.*, +, *MPE May-Jun 2022 14-23*
- Computerized monitoring
nonintrusive load monitoring in distrib. network, power signature anal. *Laughman, C.*, +, *PAE-M Mar-Apr 2003 56-63*
- Condition monitoring
Measurements get together. *Chakrabarti, S.*, +, *PAE-M Jan-Feb 2009 41-49*
Staying in Shape. *Phillips, A.*, +, *PAE-M Mar-Apr 2010 27-33*
- Conductors
Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z.*, +, *MPE Mar-Apr 2023 61-69*
High-Voltage dc Conversion: Boosting Transmission Capacity in the Grid. *Meridji, T.*, +, *MPE May-Jun 2019 22-31*
Power Transmission Technologies and Solutions: The Latest Advances at RTE, the French Transmission System Operator. *Meyer, B.*, +, *MPE Mar-Apr 2020 43-52*
Tales of Power System Failures: A Look at the Unusual, Strange, and Downright Bizarre Causes. *Waldele, R.*, *MPE Nov-Dec 2016 18-23*
The Optimization of Transmission Lines in Brazil: Proven Experience and Recent Developments in Research and Development. *Arruda, C.*, +, *MPE Mar-Apr 2020 31-42*
The Spanish Experience: Squeezing Line Ampacities Through Dynamic Line Rating. *Rosendo-Macias, J.A.*, +, *MPE Jan-Feb 2023 73-82*
Transmission Technologies and Implementations: Building a Stronger, Smarter Power Grid in China. *Dai, R.*, +, *MPE Mar-Apr 2020 53-59*
- Conformance testing
Engineering perspectives on IEC 61850. *Hossenlopp, L.*, *PAE-M May-Jun 2007 45-50*
- Construction industry
Hydropower in China. *Fu, S.*, +, *PAE-M Jul-Aug 2008 47-51*
Unrealized potential in Africa. *Blyden, B.K.*, +, *PAE-M Jul-Aug 2008 52-58*
- Consumer behavior
A Part of the Energy "In Crowd": Changing People's Energy Behavior via Group-Based Approaches. *Jans, L.*, +, *MPE Jan-Feb 2018 35-41*
Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?. *Thomas, S.*, *MPE Jul-Aug 2023 18-25*
Behavior Modification. *Braithwait, S.*, +, *PAE-M May-Jun 2010 36-45*
Smart Integration. *Vojdani, A.*, +, *PAE-M Nov-Dec 2008 71-79*
What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition. *Steg, L.*, +, *MPE Jan-Feb 2018 20-28*
- Consumer electronics
The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D.*, +, *MPE May-Jun 2014 26-36*
- Contingency management
Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R.*, +, *MPE Sep-Oct 2023 48-57*
HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A.*, *MPE Sep-Oct 2024 38-48*
- Continuing education
Five Heads Are Better Than One: An Interdisciplinary Graduate Course on Smart Grids: Lessons, Challenges, and Opportunities. *Namboodiri, V.*, +, *MPE Jan-Feb 2013 44-50*
Training Tornado: An Intensive, Cross-Curricular Ph.D. Program in Wind Engineering at the University of Strathclyde. *Gill, S.*, +, *MPE Jan-Feb 2013 51-57*
- Continuing professional development
Continue Your Learning. *Venkata, S.S.*, +, *PAE-M Jul-Aug 2010 36-43*
- Contracts
Balance of power. *Mocarquer, S.*, +, *PAE-M Sep-Oct 2009 26-35*
- Control design
Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition. *Oyvang, T.*, +, *MPE Nov-Dec 2022 66-78*
- Control engineering computing
Opening Up for Interoperability. *Vankayala, V.*, +, *PAE-M Mar-Apr 2008 61-69*
- Control facilities
I Sing the Mapboard Electric. *Clark, L.*, +, *MPE Sep-Oct 2011 33-41*
Power to the People. *Gellings, C.W.*, +, *MPE Sep-Oct 2011 52-63*
- Control systems
A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing. *Li, F.*, +, *MPE Mar-Apr 2020 60-68*
Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System. *Lu, C.*, +, *MPE Sep-Oct 2015 60-71*
Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. *Guibout, C.*, +, *MPE May-Jun 2024 67-78*
Dynamic Wide Area Situational Awareness: Propelling Future Decentralized, Decarbonized, Digitized, and Democratized Electricity Grids. *Kamwa, I.*, *MPE Jan-Feb 2023 44-58*
Energy Storage Control Capability Expansion: Achieving Better Technoeconomic Benefits at Portland General Electric's Salem Smart Power Center. *Alam, J.*, +, *MPE Mar-Apr 2020 69-80*
Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N.*, +, *MPE Mar-Apr 2016 57-65*
Flexibility Is Key in New York: New Tools and Operational Solutions for Managing Distributed Energy Resources. *Currie, B.*, +, *MPE May-Jun 2017 20-29*

- Grid-Forming Inverters: Are They the Key for High Renewable Penetration?. *Matevosyan, J.*, +, *MPE Nov-Dec 2019 89-98*
- Microgrid Controller Design, Implementation, and Deployment: A Journey from Conception to Implementation at the Philadelphia Navy Yard. *Uluski, R.*, +, *MPE Jul-Aug 2017 50-62*
- Paving the Way for Advanced Distribution Management Systems Applications: Making the Most of Models and Data. *Dubey, A.*, +, *MPE Jan-Feb 2020 63-75*
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, +, *MPE Nov-Dec 2015 22-30*
- Smart and Green Substation: Shaping the Electric Power Grid of Korea. *Kim, H.*, +, *MPE Jul-Aug 2019 24-34*
- System-wide Protection. *Horowitz, S.H.*, +, *PAE-M Sep-Oct 2008 34-42*
- The Emerging Transactive Microgrid Controller: Illustrating Its Concept, Functionality, and Business Case. *Vaahedi, E.*, +, *MPE Jul-Aug 2017 80-87*
- The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All. *Repo, S.*, +, *MPE May-Jun 2017 41-51*
- The Substation of the Future: Moving Toward a Digital Solution. *Hunt, R.*, +, *MPE Jul-Aug 2019 47-55*
- Controllers**
- Microgrid Controller Design, Implementation, and Deployment: A Journey from Conception to Implementation at the Philadelphia Navy Yard. *Uluski, R.*, +, *MPE Jul-Aug 2017 50-62*
- Cooling**
- heat, sturdy, sensitive. *Bourgault, A.*, *PAE-M Sep-Oct 2005 42-47*
- Keeping the Power Flowing: A Commitment Throughout the HVdc and FACTS Life Cycles. *Bjorklund, H.*, +, *MPE Mar-Apr 2016 66-71*
- Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada. *Bilodeau, H.*, +, *MPE Mar-Apr 2016 42-56*
- Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects. *Johnson, R.*, +, *MPE Mar-Apr 2016 22-31*
- Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E.*, +, *MPE Jan-Feb 2017 43-52*
- Copper**
- Spotlight on transformer design. *Georgilakis, P.S.*, +, *PAE-M Jan-Feb 2007 40-50*
- Cost reduction**
- Ivory Tower of Power: Microgrid Implementation at the University of California, San Diego. *Washom, B.*, +, *MPE Jul-Aug 2013 28-32*
- Cost-benefit analysis**
- business case develop. for substation automation planning. *Haacke, S.*, +, *PAE-M Mar-Apr 2003 32-41*
- Costing**
- 800-kV HVDC on the Horizon. *Szechtman, M.*, +, *PAE-M Mar-Apr 2007 61-69*
- A mighty wind. *Smith, J.*, +, *PAE-M Mar-Apr 2009 41-51*
- Flexible Connections: Solutions and Challenges for the Integration of Renewables in South America. *Rudnick, H.*, +, *MPE Mar-Apr 2012 24-36*
- Only Connect: Microgrids for Distribution System Restoration. *Che, L.*, +, *MPE Jan-Feb 2014 70-81*
- shaping future of global energy delivery. *Garrity, T.F.*, *PAE-M Sep-Oct 2003 26-30*
- wind plant integration, costs, status, and issues. *DeMeo, E.A.*, +, *PAE-M Nov-Dec 2005 38-46*
- Costs**
- Auctions for Nonwires Alternatives: Securing and Operating Dispatchable Distributed Energy Resources. *Golriz, A.*, +, *MPE Mar-Apr 2022 47-56*
- blackouts, shedding light. *Novosel, D.*, +, *PAE-M Jan-Feb 2004 32-43*
- Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B.*, +, *MPE Jul-Aug 2024 75-84*
- DC Circuit Breakers for High-Voltage dc Grids: Present and Future. *Davidson, C.*, +, *MPE Sep-Oct 2024 87-99*
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, *MPE Jul-Aug 2024 49-63*
- Enabling Power System Transformation Globally: A System Operator Research Agenda for Bulk Power System Issues. *O'Malley, M.*, +, *MPE Nov-Dec 2021 45-55*
- Forecasting and Market Design Advances: Supporting an Increasing Share of Renewable Energy. *Fox, J.*, +, *MPE Nov-Dec 2021 77-85*
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J.*, +, *MPE Sep-Oct 2023 38-47*
- HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A.*, *MPE Sep-Oct 2024 38-48*
- If It Ain't Broke.... *Desai, B.*, +, *PAE-M Nov-Dec 2010 48-52*
- Open Data to Accelerate the Electric Mobility Revolution: Deploying Journey Electric Vehicle Chargers in Rural Scotland. *Hunter, L.*, +, *MPE Nov-Dec 2023 56-67*
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P.*, +, *MPE Sep-Oct 2024 20-30*
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, +, *MPE Jul-Aug 2024 85-93*
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, *MPE Mar-Apr 2024 30-41*
- Retail Pricing: A Low-Cost Enabler of the Clean Energy Transition. *Sergici, S.*, +, *MPE Jul-Aug 2022 66-75*
- Same Goal, Different Pathways for Energy Transition: A More Holistic, Multisector, Community-Driven Approach. *Cochran, J.*, +, *MPE Jul-Aug 2022 18-29*
- The Doctor Is In. *Gregerson, S.*, +, *PAE-M Nov-Dec 2010 45-47*
- The Spanish Experience: Squeezing Line Ampacities Through Dynamic Line Rating. *Rosendo-Macias, J.A.*, +, *MPE Jan-Feb 2023 73-82*
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K.*, +, *MPE Mar-Apr 2022 14-22*
- Couplings**
- Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. *Orths, A.*, +, *MPE Nov-Dec 2019 67-78*
- The Bigger Picture: Robust Decarbonization of the Transport Sector in Costa Rica. *Quiros-Tortos, J.*, +, *MPE Nov-Dec 2023 77-90*
- COVID-19**
- Analyzing Extreme Events in Power Systems: An Open, Cross-Domain Data-Driven Approach. *Zheng, X.*, +, *MPE Nov-Dec 2022 47-55*

- Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S.*, +, [MPE Nov-Dec 2022 16-25](#)
- Operating the Power Grid During a Pandemic: COVID-19 Experiences. *Chen, H.*, +, [MPE Nov-Dec 2022 26-37](#)
- The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures. *Li, F.*, +, [MPE Nov-Dec 2022 56-65](#)
- The Grid Under Extremes: Pandemic Impacts on California Electricity Consumption. *Bergman, D.*, +, [MPE Nov-Dec 2022 38-46](#)
- Critical infrastructure**
- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, [MPE Jan-Feb 2024 61-71](#)
- Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M.*, +, [MPE May-Jun 2024 50-58](#)
- Microgrids Against Wildfires: Distributed Energy Resources Enhance System Resilience. *Moreno, R.*, +, [MPE Jan-Feb 2022 78-89](#)
- Operating the Power Grid During a Pandemic: COVID-19 Experiences. *Chen, H.*, +, [MPE Nov-Dec 2022 26-37](#)
- Critical infrastructures**
- Intruders in the Grid. *Chen-Ching Liu*, +, [MPE Jan-Feb 2012 58-66](#)
- Off the Beaten Path: Resiliency and Associated Risk. *Kezunovic, M.*, +, [MPE Mar-Apr 2018 26-35](#)
- Powering Through the Storm: Microgrids Operation for More Efficient Disaster Recovery. *Abbey, C.*, +, [MPE May-Jun 2014 67-76](#)
- Current measurement**
- Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?. *Thomas, S.*, [MPE Jul-Aug 2023 18-25](#)
- Distribution Synchrophasors: Pairing Big Data with Analytics to Create Actionable Information. *Mohsenian-Rad, H.*, +, [MPE May-Jun 2018 26-34](#)
- Synchro-Waveforms: A Window to the Future of Power Systems Data Analytics. *Mohsenian-Rad, H.*, +, [MPE Sep-Oct 2023 68-77](#)
- Current transformers**
- class-current transformer (CT) classification. *Doig, P.*, +, [PAE-M Nov-Dec 2006 56-60](#)
- Customer relationship management**
- The Challenge of Integrating Demand Response in Capacity Remuneration Mechanisms: Providing a Comprehensive Theoretical Framework. *Rodilla, P.*, +, [MPE Jul-Aug 2023 64-71](#)
- Customer satisfaction**
- Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S.*, +, [MPE Nov-Dec 2023 38-47](#)
- Cyberattack**
- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, [MPE Jan-Feb 2024 61-71](#)
- Cybernetics**
- Staying in Control: Cybersecurity and the Modern Electric Grid. *Hull, J.*, +, [MPE Jan-Feb 2012 41-48](#)
- Cyber-physical systems**
- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, [MPE Jan-Feb 2024 61-71](#)
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A.*, +, [MPE Jan-Feb 2024 43-51](#)
- D**
- Dams**
- The Acaray Generating Station: Life-Extension and Modernization Studies. *Flores, D.*, +, [MPE Sep-Oct 2020 36-48](#)
- Data acquisition**
- power syst. events, automated anal. *Allen, D.E.*, +, [PAE-M Sep-Oct 2005 48-55](#)
- Data analysis**
- Big Data Analytics for Flexible Energy Sharing: Accelerating a Low-Carbon Future. *Li, F.*, +, [MPE May-Jun 2018 35-42](#)
- Big Data Analytics in China's Electric Power Industry: Modern Information, Communication Technologies, and Millions of Smart Meters. *Kang, C.*, +, [MPE May-Jun 2018 54-65](#)
- Synchro-Waveforms: A Window to the Future of Power Systems Data Analytics. *Mohsenian-Rad, H.*, +, [MPE Sep-Oct 2023 68-77](#)
- Training Energy Data Scientists: Universities and Industry Need to Work Together to Bridge the Talent Gap. *Hong, T.*, +, [MPE May-Jun 2018 66-73](#)
- Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis. *Hyndman, R.*, +, [MPE May-Jun 2018 18-25](#)
- Weather Data for Energy Analytics: From Modeling Outages and Reliability Indices to Simulating Distributed Photovoltaic Fleets. *Black, J.*, +, [MPE May-Jun 2018 43-53](#)
- Data communication**
- communicate, failure. *Hauser, C.H.*, +, [PAE-M Mar-Apr 2005 47-55](#)
- Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B.*, +, [MPE Nov-Dec 2024 118-133](#)
- Data mining**
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, [MPE Nov-Dec 2024 42-53](#)
- Data models**
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, +, [MPE Jan-Feb 2024 24-34](#)
- Analyzing Extreme Events in Power Systems: An Open, Cross-Domain Data-Driven Approach. *Zheng, X.*, +, [MPE Nov-Dec 2022 47-55](#)
- Big Data Analytics in China's Electric Power Industry: Modern Information, Communication Technologies, and Millions of Smart Meters. *Kang, C.*, +, [MPE May-Jun 2018 54-65](#)
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T.*, +, [MPE Jan-Feb 2024 16-23](#)
- Enabling the Integrated Grid: Leveraging Data to Integrate Distributed Resources and Customers. *McGranaghan, M.*, +, [MPE Jan-Feb 2016 83-93](#)
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, +, [MPE Mar-Apr 2024 42-54](#)
- Geo-Information Is Power: Using Geographical Information Systems to Assess Rooftop Photovoltaics in Costa Rica. *Quiros-Tortos, J.*, +, [MPE Mar-Apr 2017 48-56](#)
- In the Face of Cybersecurity: How the Common Information Model Can Be Used. *Skare, P.*, +, [MPE Jan-Feb 2016 94-104](#)

- Making Distribution Automation Work: Smart Data Is Imperative for Growth. *Gray, G.*, +, [MPE Jan-Feb 2016 58-67](#)
- Multifold Insights for Power System Dynamics From Data Assimilation: Meeting Current Challenges. *Wang, S.*, +, [MPE Jan-Feb 2023 36-43](#)
- Optimizing Operations with CIM: Today's Grid Relies on Network Analysis (and a Lot of Data). *Britton, J.*, +, [MPE Jan-Feb 2016 48-57](#)
- Paving the Way for Advanced Distribution Management Systems Applications: Making the Most of Models and Data. *Dubey, A.*, +, [MPE Jan-Feb 2020 63-75](#)
- Prescription for Interoperability: Power System Challenges and Requirements for Interoperable Solutions. *Ivanov, C.*, +, [MPE Jan-Feb 2016 30-39](#)
- Under the Hood: An Overview of the Common Information Model Data Exchanges. *Osterlund, L.*, +, [MPE Jan-Feb 2016 68-82](#)
- Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis. *Hyndman, R.*, +, [MPE May-Jun 2018 18-25](#)
- Data privacy
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R.*, +, [MPE Sep-Oct 2023 48-57](#)
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D.*, +, [MPE Nov-Dec 2024 54-65](#)
- Data storage
- Measures of Value: Data Analytics for Automated Fault Analysis. *Popovic, T.*, +, [MPE Sep-Oct 2012 58-69](#)
- Data structures
- Web tool opens up power syst. visualization. *Fangxing Li*, [PAE-M Jul-Aug 2003 37-41](#)
- Data visualization
- Strategies for Success with Synchrophasors: Poised to Shine in the Eastern Region of the United States. *Jones, K.*, +, [MPE Sep-Oct 2015 29-35](#)
- Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis. *Hyndman, R.*, +, [MPE May-Jun 2018 18-25](#)
- Web tool opens up power syst. visualization. *Fangxing Li*, [PAE-M Jul-Aug 2003 37-41](#)
- DC machines
- Current Trends in dc: Voltage-Source Converters. *Kirby, N.*, [MPE May-Jun 2019 32-37](#)
- DC motors
- DC Circuit Breakers for High-Voltage dc Grids: Present and Future. *Davidson, C.*, +, [MPE Sep-Oct 2024 87-99](#)
- DC power transmission
- Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C.*, +, [MPE Sep-Oct 2024 31-37](#)
- DC technologies
- DC, Come Home: DC Microgrids and the Birth of the "Enernet". *Patterson, B.T.*, +, [MPE Nov-Dec 2012 60-69](#)
- Edison Redux: 380 Vdc Brings Reliability and Efficiency to Sustainable Data Centers. *Allee, G.*, +, [MPE Nov-Dec 2012 50-59](#)
- High-Wire Act: HVdc Technology: The State of the Art. *Adapa, R.*, +, [MPE Nov-Dec 2012 18-29](#)
- Magic Bus: High-Voltage DC on the New Power Transmission Highway. *Majumder, R.*, +, [MPE Nov-Dec 2012 39-49](#)
- Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration and DC Grid Expansions. *Lundberg, P.*, +, [MPE Nov-Dec 2012 30-38](#)
- Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F.*, +, [MPE Nov-Dec 2012 70-79](#)
- Decision making
- Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F.*, [MPE May-Jun 2023 77-86](#)
- At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects. *Perlaviciute, G.*, +, [MPE Jan-Feb 2018 49-55](#)
- First steps to wide area control. *Atanackovic, D.*, +, [PAE-M Jan-Feb 2008 61-68](#)
- Opening Up for Interoperability. *Vankayala, V.*, +, [PAE-M Mar-Apr 2008 61-69](#)
- The Bigger Picture: Robust Decarbonization of the Transport Sector in Costa Rica. *Quiros-Tortos, J.*, +, [MPE Nov-Dec 2023 77-90](#)
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D.*, +, [MPE Nov-Dec 2024 54-65](#)
- Decision support systems
- The Healing Touch: Tools and Challenges for Smart Grid Restoration. *Liu, S.*, +, [MPE Jan-Feb 2014 54-63](#)
- Decision trees
- Spotlight on transformer design. *Georgilakis, P.S.*, +, [PAE-M Jan-Feb 2007 40-50](#)
- Decomposition
- coming clean with fuel cells. *Kishinevsky, Y.*, +, [PAE-M Nov-Dec 2003 20-25](#)
- Demand forecasting
- nuclear renaissance. *Semmes, S.W.*, [PAE-M Nov-Dec 2006 34-42](#)
- transformation of the nuclear power industry. *Carter, J.P.*, [PAE-M Nov-Dec 2006 25-33](#)
- Demand response
- Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control. *Du, Y.*, +, [MPE May-Jun 2022 42-53](#)
- The Challenge of Integrating Demand Response in Capacity Remuneration Mechanisms: Providing a Comprehensive Theoretical Framework. *Rodilla, P.*, +, [MPE Jul-Aug 2023 64-71](#)
- Demand side management
- Demand Dispatch. *Brooks, A.*, +, [PAE-M May-Jun 2010 20-29](#)
- Growing Pains: Meeting India's Energy Needs in the Face of Limited Fossil Fuels. *Parikh, J.*, +, [MPE May-Jun 2012 59-66](#)
- Leading the Charge: Microgrids for Domestic Military Installations. *Van Broekhoven, S.*, +, [MPE Jul-Aug 2013 40-45](#)
- Measure Twice, Cut Once. *Goldberg, M.*, +, [PAE-M May-Jun 2010 46-54](#)
- Rising temps, tides, and wildfires: Assessing the risk to California's energy infrastructure from projected climate change. *Sathaye, J.A.*, +, [MPE May-Jun 2013 32-45](#)
- Taking Demand Response to the Next Level. *Hamilton, K.*, +, [PAE-M May-Jun 2010 60-65](#)
- Utility Load Research: The Future of Load Research Is Now. *Puckett, C.*, +, [MPE May-Jun 2020 61-70](#)
- Demography
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in

- the United States. *Sovacool, B.K., +, MPE Jul-Aug 2024 18-25*
- Density estimation robust algorithm
It's All in the Plans: Maximizing the Benefits and Minimizing the Impacts of DERs in an Integrated Grid. *Smith, J., +, MPE Mar-Apr 2015 20-29*
- Organic Growth: Toward a Holistic Approach to European Research and Innovation. *Vu Van, T., +, MPE Jan-Feb 2015 30-37*
- RE Ving Up the Energy Vision in New York: Seizing the Opportunity to Create a Cleaner, More Resilient, and Affordable Energy System. *Zibelmen, A., MPE May-Jun 2016 18-24*
- Sharing the Ride of Power: Understanding Transactive Energy in the Ecosystem of Energy Economics. *Masiello, R., +, MPE May-Jun 2016 70-78*
- Density measurement
Distributed Generation and Megacities: Are Renewables the Answer?. *Smil, V., MPE Mar-Apr 2019 37-41*
- Design engineering
Spotlight on transformer design. *Georgilakis, P.S., +, PAE-M Jan-Feb 2007 40-50*
- Design for environment
advanced control room design. *Malcolm, J.S., +, PAE-M Nov-Dec 2006 43-48*
- Design for quality
advanced control room design. *Malcolm, J.S., +, PAE-M Nov-Dec 2006 43-48*
future's smart delivery system. *Gellings, C.W., +, PAE-M Sep-Oct 2004 40-48*
- Design methodology
Microgrid Controller Design, Implementation, and Deployment: A Journey from Conception to Implementation at the Philadelphia Navy Yard. *Uluski, R., +, MPE Jul-Aug 2017 50-62*
- Diesel-electric generators
distributed generation, new technols., market penetration, network issues, public policy and stds. *Puttgen, H.B., +, PAE-M Jan-Feb 2003 22-29*
engine generator sets protection, transfer switching/equipt. grounding coord. *Castenschiold, R., PAE-M May-Jun 2003 49-55*
- Diesel-electric power stations
engine generator sets protection, transfer switching/equipt. grounding coord. *Castenschiold, R., PAE-M May-Jun 2003 49-55*
- Digital communication
Get on the digital bus to substation automation. *Schumacher, M., +, PAE-M May-Jun 2007 51-56*
- Digital signal processing
The Interface of Power: Moving Toward Distribution System Operators. *Apostolopoulou, D., +, MPE May-Jun 2016 46-51*
- Digital systems
Long-Term Vision: Industrial Operating Systems for Power Distribution. *Nativel, G., +, MPE May-Jun 2024 59-66*
Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R., +, MPE Nov-Dec 2024 42-53*
- Digital transformation
Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M., +, MPE May-Jun 2024 50-58*
- Digital twins
A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C., +, MPE Jan-Feb 2024 24-34*
- Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P., +, MPE Jan-Feb 2024 52-60*
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y., +, MPE Jan-Feb 2024 35-42*
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T., +, MPE Jan-Feb 2024 16-23*
- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A., +, MPE Jan-Feb 2024 61-71*
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A., +, MPE Jan-Feb 2024 43-51*
- Direct energy conversion
Fuel cells and load transients. *Caisheng Wang, +, PAE-M Jan-Feb 2007 58-63*
- Disasters
Disaster Management. *Rudnick, H., +, MPE Mar-Apr 2011 37-45*
Earth, Wind, and Ice. *Xie, Q., +, MPE Mar-Apr 2011 28-36*
Powering Through the Storm: Microgrids Operation for More Efficient Disaster Recovery. *Abbey, C., +, MPE May-Jun 2014 67-76*
Ready or Not.... *Schiff, A., +, MPE Mar-Apr 2011 46-51*
The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D., +, MPE May-Jun 2014 26-36*
Watch Out for Flooding: When the Power System Created a Weather Disaster. *Allen, E., MPE Nov-Dec 2016 35-39*
- Discharges (electric)
Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid. *Burdick, A., +, MPE Jul-Aug 2022 30-43*
The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E., +, MPE Jan-Feb 2017 34-42*
- Dispatching
A Smarter Grid Operation: New Energy Management Systems in China. *Xin, Y., +, MPE Mar-Apr 2018 36-45*
Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System. *Lu, C., +, MPE Sep-Oct 2015 60-71*
- Distance measurement
A Vision to Enhance Transmission Security: The Case of Switzerland's Power System. *Vrettos, E., +, MPE Mar-Apr 2021 56-68*
- Distributed databases
A Modern Communications Platform to Enable the Modern Grid: A Utility-Grade Wireless Broadband Network. *L'Abbate, C., MPE Sep-Oct 2023 18-26*
Making Distribution Automation Work: Smart Data Is Imperative for Growth. *Gray, G., +, MPE Jan-Feb 2016 58-67*
Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources. *Sherick, R., +, MPE Mar-Apr 2017 20-28*
Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. *Evans, M., +, MPE Jul-Aug 2022 44-54*
- Distributed management
Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols. *Razon, A., +, MPE Jan-Feb 2020 26-33*

Distributed power generation

- A Journey Through Energy Systems Integration: Trending Grid Codes, Standards, and IEC Collaboration. *MacDowell, J.*, +, [MPE Nov-Dec 2019 79-88](#)
- A larger role for microgrids. *Venkataramanan, G.*, +, [PAE-M May-Jun 2008 78-82](#)
- A Model of Stability. *Kim, J.*, +, [MPE Jan-Feb 2011 75-81](#)
- Absorbing the Rays: Advanced Inverters Help Integrate PV into Electric Utility Distribution Systems. *Steffel, S.*, +, [MPE Mar-Apr 2013 45-54](#)
- All Options on the Table: Energy Systems Integration on the Island of Maui. *Corbus, D.*, +, [MPE Sep-Oct 2013 65-74](#)
- Auctions for Nonwires Alternatives: Securing and Operating Dispatchable Distributed Energy Resources. *Golriz, A.*, +, [MPE Mar-Apr 2022 47-56](#)
- Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. *Kroposki, B.*, +, [MPE Nov-Dec 2020 37-46](#)
- Back in the Race: Achieving 100% Renewable Energy in the Canary Islands. *Lemus, R.*, [MPE Nov-Dec 2020 64-74](#)
- Balance of Power: Toward a More Environmentally Friendly, Efficient, and Effective Integration of Energy Systems in China. *Kang, C.*, +, [MPE Sep-Oct 2013 56-64](#)
- Consumer-Led Transition: Australia's World-Leading Distributed Energy Resource Integration Efforts. *Stringer, N.*, +, [MPE Nov-Dec 2020 20-36](#)
- Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G.*, +, [MPE Mar-Apr 2019 25-36](#)
- Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. *Dondossola, G.*, +, [MPE May-Jun 2024 42-49](#)
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R.*, +, [MPE Sep-Oct 2023 48-57](#)
- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L.*, +, [MPE Jul-Aug 2024 64-74](#)
- Distributed Energy Resources Roadmap: How the State of Western Australia Is Leading in Integration. *Hadingham, W.*, +, [MPE Sep-Oct 2021 76-88](#)
- Distributed Generation and Megacities: Are Renewables the Answer?. *Smil, V.*, [MPE Mar-Apr 2019 37-41](#)
- distributed generation, new technol., market penetration, network issues, public policy and stds. *Puttgen, H.B.*, +, [PAE-M Jan-Feb 2003 22-29](#)
- Drive friendly. *Thounthong, P.*, +, [PAE-M Jan-Feb 2008 69-76](#)
- Ecocity Upon a Hill: Microgrids and the Future of the European City. *Schmitt, L.*, +, [MPE Jul-Aug 2013 59-70](#)
- Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia. *Ferreira, R.*, +, [MPE Mar-Apr 2019 50-60](#)
- Enabling Power System Transformation Globally: A System Operator Research Agenda for Bulk Power System Issues. *O'Malley, M.*, +, [MPE Nov-Dec 2021 45-55](#)
- From Security to Resilience: Technical and Regulatory Options to Manage Extreme Events in Low-Carbon Grids. *Eggleston, J.*, +, [MPE Sep-Oct 2021 67-75](#)
- Fuel cells and load transients. *Caisheng Wang*, +, [PAE-M Jan-Feb 2007 58-63](#)
- Grid and Market Services From the Edge: Using Operating Envelopes to Unlock Network-Aware Bottom-Up Flexibility. *Liu, M.*, +, [MPE Jul-Aug 2021 52-62](#)
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J.*, +, [MPE Sep-Oct 2023 38-47](#)
- Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems. *Reno, M.*, +, [MPE May-Jun 2021 36-46](#)
- Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection. *Ropp, M.*, +, [MPE May-Jun 2021 47-57](#)
- Islands in the Storm: Integrating Microgrids into the Larger Grid. *Montoya, M.*, +, [MPE Jul-Aug 2013 33-39](#)
- It Takes a Village: Social SCADA and Approaches to Community Engagement in Isolated Microgrids. *Jimenez-Estevez, G.*, +, [MPE Jul-Aug 2014 60-69](#)
- Ivory Tower of Power: Microgrid Implementation at the University of California, San Diego. *Washom, B.*, +, [MPE Jul-Aug 2013 28-32](#)
- Key Connections: The U.S. Department of Energy's Microgrid Initiative. *Smith, M.*, +, [MPE Jul-Aug 2013 22-27](#)
- Leading the Charge: Microgrids for Domestic Military Installations. *Van Broekhoven, S.*, +, [MPE Jul-Aug 2013 40-45](#)
- Let's Make a Deal: Non-Wires Alternatives for Traditional Transmission and Distribution?. *Reid, B.*, +, [MPE Mar-Apr 2022 23-31](#)
- Making microgrids work. *Kroposki, B.*, +, [PAE-M May-Jun 2008 40-53](#)
- Making Renewables Work: Operational Practices and Future Challenges for Renewable Energy as a Major Power Source in Japan. *Ogimoto, K.*, +, [MPE Nov-Dec 2020 47-63](#)
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D.*, +, [MPE May-Jun 2021 20-35](#)
- Microgrids Against Wildfires: Distributed Energy Resources Enhance System Resilience. *Moreno, R.*, +, [MPE Jan-Feb 2022 78-89](#)
- Microgrids for Fun and Profit: The Economics of Installation Investments and Operations. *Farzan, F.*, +, [MPE Jul-Aug 2013 52-58](#)
- Microgrids management. *Katiraei, F.*, +, [PAE-M May-Jun 2008 54-65](#)
- North Bay Hydro Microgrid: Innovative Protection of a Complex System. *Higginson, M.*, +, [MPE May-Jun 2021 70-82](#)
- On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics. *Key, T.*, +, [MPE Nov-Dec 2020 75-85](#)
- Only Connect: Microgrids for Distribution System Restoration. *Che, L.*, +, [MPE Jan-Feb 2014 70-81](#)
- Operational Coordination Architecture: New Models and Approaches. *De Martini, P.*, [MPE Sep-Oct 2019 29-39](#)
- Power Steering. *Grenard, S.*, +, [MPE Sep-Oct 2011 42-51](#)
- Powering Through the Storm: Microgrids Operation for More Efficient Disaster Recovery. *Abbey, C.*, +, [MPE May-Jun 2014 67-76](#)
- Practical Microgrid Protection Solutions: Promises and Challenges. *Manson, S.*, +, [MPE May-Jun 2021 58-69](#)
- Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R.*, +, [MPE Nov-Dec 2020 86-97](#)
- Remote Access: Context, Challenges, and Obstacles in Rural Electrification. *Zomers, A.*, [MPE Jul-Aug 2014 26-34](#)
- Smart Integration. *Vojdani, A.*, +, [PAE-M Nov-Dec 2008 71-79](#)
- Solar PV Integration Challenges. *Katiraei, F.*, +, [MPE May-Jun 2011 62-71](#)

- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J.*, +, *MPE Nov-Dec 2024 28-41*
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W.*, +, *MPE May-Jun 2021 83-92*
- Stepping Up to the Future With Power Transformers: Power Transformer Asset Management Strategies: State of the Art and Recommendations for the Future. *Roychowdhury, R.*, +, *MPE Mar-Apr 2023 40-50*
- The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System. *Kristov, L.*, *MPE Mar-Apr 2019 42-49*
- The evolution of distribution. *Fan, J.*, +, *PAE-M Mar-Apr 2009 63-68*
- The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D.*, +, *MPE May-Jun 2014 26-36*
- The Local Team: Leveraging Distributed Resources to Improve Resilience. *Arghandeh, R.*, +, *MPE Sep-Oct 2014 76-83*
- The Right Combination. *Kelly, J.*, +, *PAE-M Nov-Dec 2008 60-70*
- The WOLF in pricing. *Lively, M.*, +, *PAE-M Jan-Feb 2009 61-69*
- Time Management. *Srinivasaraghavan, S.*, +, *MPE Jul-Aug 2011 46-53*
- Transformation of the Grid: The Impact of Distributed Energy Resources on Bulk Power Systems. *Quint, R.*, +, *MPE Nov-Dec 2019 35-45*
- Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services. *De Martini, P.*, +, *MPE Jul-Aug 2022 76-84*
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K.*, +, *MPE Mar-Apr 2022 14-22*
- Why Distributed?: A Critical Review of the Tradeoffs Between Centralized and Decentralized Resources. *Burger, S.*, +, *MPE Mar-Apr 2019 16-24*
- Distributed processing
- A Success Story: The Value of the Massachusetts Technical Standards Review Group. *Enayati, B.*, *MPE Mar-Apr 2017 57-60*
- Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning. *Coddington, M.*, +, *MPE Mar-Apr 2017 40-47*
- Geo-Information Is Power: Using Geographical Information Systems to Assess Rooftop Photovoltaics in Costa Rica. *Quiros-Tortos, J.*, +, *MPE Mar-Apr 2017 48-56*
- Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources. *Sherick, R.*, +, *MPE Mar-Apr 2017 20-28*
- Time and Location: What Matters Most When Valuing Distributed Energy Resources. *Smith, J.*, +, *MPE Mar-Apr 2017 29-39*
- Web-enabling apps. for outsourced computing. *Fangxing Li*, +, *PAE-M Jan-Feb 2003 53-57*
- Distribution networks
- Consumer-Led Transition: Australia's World-Leading Distributed Energy Resource Integration Efforts. *Stringer, N.*, +, *MPE Nov-Dec 2020 20-36*
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J.*, +, *MPE Sep-Oct 2020 64-75*
- Getting Smart. *Garrity, T.F.*, +, *PAE-M Mar-Apr 2008 38-45*
- Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems. *Reno, M.*, +, *MPE May-Jun 2021 36-46*
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D.*, +, *MPE May-Jun 2021 20-35*
- nonintrusive load monitoring in distrib. network, power signature anal. *Laughman, C.*, +, *PAE-M Mar-Apr 2003 56-63*
- North Bay Hydro Microgrid: Innovative Protection of a Complex System. *Higginson, M.*, +, *MPE May-Jun 2021 70-82*
- Power Steering. *Grenard, S.*, +, *MPE Sep-Oct 2011 42-51*
- Power to the People. *Gellings, C.W.*, +, *MPE Sep-Oct 2011 52-63*
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W.*, +, *MPE May-Jun 2021 83-92*
- The Future of Power Transmission. *Horowitz, S.*, +, *PAE-M Mar-Apr 2010 34-40*
- Domestic appliances
- Get Smart. *Lui, T.J.*, +, *PAE-M May-Jun 2010 66-78*
- Dynamic scheduling
- Auctions for Nonwires Alternatives: Securing and Operating Dispatchable Distributed Energy Resources. *Golriz, A.*, +, *MPE Mar-Apr 2022 47-56*
- Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. *Fan, L.*, +, *MPE May-Jun 2022 64-76*
- Synchronous Condenser Applications: Under Significant Resource Portfolio Changes. *Zhou, G.*, +, *MPE Jul-Aug 2019 35-46*
- E
- Earthing
- engine generator sets protection, transfer switching/equipmt. grounding coord. *Castenschiold, R.*, *PAE-M May-Jun 2003 49-55*
- Earthquake engineering
- Ready or Not.... *Schiff, A.*, +, *MPE Mar-Apr 2011 46-51*
- Earthquakes
- A Good Fit: Japan's Solar Power Program and Prospects for the New Power System. *Ogimoto, K.*, +, *MPE Mar-Apr 2013 65-74*
- Achieving Resilience at Distribution Level: Learning from Isolated Community Microgrids. *Jimenez-Estevez, G.*, +, *MPE May-Jun 2017 64-73*
- Correction. *MPE Jan-Feb 2017 88*
- Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H.*, +, *MPE Mar-Apr 2018 46-56*
- Japan's Pivot to Resilience: How Two Microgrids Fared After the 2011 Earthquake. *Marnay, C.*, +, *MPE May-Jun 2015 44-57*
- Eclipse
- A Fine Day for an Eclipse: It's Never Too Early to Start Planning for One. *Loehr, G.*, *MPE Nov-Dec 2016 72-77*
- Economic forecasting
- future of wind forecasting and utility operations. *Ahlstrom, M.*, +, *PAE-M Nov-Dec 2005 57-64*
- Economic indicators
- Assuring a Sustainable Decarbonization: Affordability Options. *Schittekatte, T.*, +, *MPE Jul-Aug 2023 72-79*
- Economics
- Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?. *Thomas, S.*, *MPE Jul-Aug 2023 18-25*

- Balance of power. *Mocarquer, S.*, + , *PAE-M Sep-Oct 2009 26-35*
- Driving Forces Behind Wind. *Osborn, D.*, + , *MPE Nov-Dec 2011 60-74*
- Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia. *Ferreira, R.*, + , *MPE Mar-Apr 2019 50-60*
- Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences. *Serrano, R.*, + , *MPE Jan-Feb 2022 38-51*
- Networked Microgrids: Exploring the Possibilities of the IIT-Bronzeville Grid. *Shahidehpour, M.*, + , *MPE Jul-Aug 2017 63-71*
- Putting an action plan in place. *Thomas, R.J.*, + , *PAE-M Jul-Aug 2009 26-31*
- Sharing the Ride of Power: Understanding Transactive Energy in the Ecosystem of Energy Economics. *Masiello, R.*, + , *MPE May-Jun 2016 70-78*
- Smart Village Voices in Africa, Nigeria: Part 2—Village Entrepreneurs in Nigeria. *Ureh, H.*, + , *MPE Sep-Oct 2022 61-68*
- Smart Village Voices in Africa, System-of-Systems Approach: Part 1: A System-of-Systems Approach for Zero Poverty. *Podmore, R.*, + , *MPE Sep-Oct 2022 54-60*
- The Challenge of Integrating Demand Response in Capacity Remuneration Mechanisms: Providing a Comprehensive Theoretical Framework. *Rodilla, P.*, + , *MPE Jul-Aug 2023 64-71*
- Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements. *Heinen, S.*, + , *MPE Jan-Feb 2017 16-24*
- Economies of scale
- Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles. *Ochoa, L.*, + , *MPE Sep-Oct 2016 16-28*
- Ecosystems
- Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences. *Serrano, R.*, + , *MPE Jan-Feb 2022 38-51*
- Sharing the Ride of Power: Understanding Transactive Energy in the Ecosystem of Energy Economics. *Masiello, R.*, + , *MPE May-Jun 2016 70-78*
- The Plug-and-Play Electricity Era: Interoperability to Integrate Anything, Anywhere, Anytime. *Widergren, S.*, + , *MPE Sep-Oct 2019 47-58*
- Edge computing
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J.*, + , *MPE Sep-Oct 2023 38-47*
- Education
- Online Power Education: Keeping Pace with the Demand for High-Quality, Flexible Education. *Ahern, M.*, *MPE Sep-Oct 2018 82-86*
- Teaching Old Dogs New Tricks: The Effectiveness of Community-Based Social Marketing on Energy Conservation for Sustainable University Campuses. *Aronoff, J.*, + , *MPE Jan-Feb 2013 30-38*
- The Sky's the Limit!: Designing Wind Farms: A Hands-On STEM Activity for High School Students. *Worcester, A.C.*, + , *MPE Jan-Feb 2013 18-29*
- Toward a 21st Century Power Education: A Bright Future Awaits Students in Utah. *Parvania, M.*, + , *MPE Sep-Oct 2018 87-95*
- Educational courses
- curriculum, supply and demand, faculty careers, alternative strategies. *Heydt, G.T.*, + , *PAE-M Jan-Feb 2003 38-45*
- power of undergraduate research. *O'Neill-Carrillo, E.*, + , *PAE-M Jul-Aug 2003 29-36*
- Educational institutions
- The Importance of Modern Teaching Labs. *Wollenberg, B.*, + , *PAE-M Jul-Aug 2010 44-52*
- Electric current measurement
- advanced power syst. protection syst. using Rogowski coil current sens. *Kojovic, L.A.*, + , *PAE-M May-Jun 2003 43-48*
- Electric fields
- The Optimization of Transmission Lines in Brazil: Proven Experience and Recent Developments in Research and Development. *Arruda, C.*, + , *MPE Mar-Apr 2020 31-42*
- Electric generators
- Drive friendly. *Thounthong, P.*, + , *PAE-M Jan-Feb 2008 69-76*
- Flexible Connections: Solutions and Challenges for the Integration of Renewables in South America. *Rudnick, H.*, + , *MPE Mar-Apr 2012 24-36*
- Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M.*, + , *MPE Mar-Apr 2012 62-70*
- Electric heating
- Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System. *Meibom, P.*, + , *MPE Sep-Oct 2013 46-55*
- It Takes a Village: Rural Electrification in East Africa. *Mohn, T.*, + , *MPE Jul-Aug 2013 46-51*
- Electric machine analysis computing
- Spotlight on transformer design. *Georgilakis, P.S.*, + , *PAE-M Jan-Feb 2007 40-50*
- Electric potential
- Assuring a Sustainable Decarbonization: Affordability Options. *Schittekatte, T.*, + , *MPE Jul-Aug 2023 72-79*
- Flexibility Is Key in New York: New Tools and Operational Solutions for Managing Distributed Energy Resources. *Currie, B.*, + , *MPE May-Jun 2017 20-29*
- From the Humble Building to the Smart Sustainable Grid: Empowering Consumers, Nurturing Bottom-Up Electricity Markets, and Building Collaborative Power Systems. *Avramidis, I.*, + , *MPE Jul-Aug 2023 53-63*
- Harnessing the Full Potential of Clean Energy: The Role of Southern California's Utility Distributed Energy Resource Pilots. *Mehr, V.*, + , *MPE Jul-Aug 2021 28-40*
- Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M.*, + , *MPE Nov-Dec 2023 18-27*
- New Tool Evaluates the Financial Viability of Pumped Storage Hydropower. *Balducci, P.*, + , *MPE Nov-Dec 2023 98-109*
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J.*, + , *MPE Mar-Apr 2019 69-77*
- Realizing the Value of DERs: A Utility Perspective. *Paaso, A.*, + , *MPE Mar-Apr 2022 39-46*
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, + , *MPE Sep-Oct 2024 100-110*
- Electric power generation
- Alternative energy sources in the Amazon. *de Lima Montenegro Duarte, A.R.C.*, + , *PAE-M Jan-Feb 2007 51-57*
- Brokering power. *Holland, S.P.*, + , *PAE-M Sep-Oct 2009 36-43*
- Chinese growing pains. *Zhong, J.*, + , *PAE-M Jul-Aug 2007 33-40*
- Disaster Management. *Rudnick, H.*, + , *MPE Mar-Apr 2011 37-45*
- generations, the nuclear family comes of age. *Disosway, J.*, *PAE-M Nov-Dec 2006 18-24*

- Get Smart. *Lui, T.J., + , PAE-M May-Jun 2010 66-78*
- Many states of distribution. *Bouford, J.D., + , PAE-M Jul-Aug 2007 24-32*
- Microgrids. *Hatzigiorgiou, N., + , PAE-M Jul-Aug 2007 78-94*
- modern countermeasures to blackouts. *Pourbeik, P., + , PAE-M Sep-Oct 2006 36-45*
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T., PAE-M Sep-Oct 2003 54-62*
- Powering progress. *Khparde, S.A., + , PAE-M Jul-Aug 2007 41-49*
- Stimulating efficient distribution. *Rudnick, H., + , PAE-M Jul-Aug 2007 50-67*
- Study buddies: computer geeks and power freaks are learning smart systems together at Washington State. *Srivastava, A.K., + , MPE Jan-Feb 2013 39-43*
- Taking an active approach. *Djapic, P., + , PAE-M Jul-Aug 2007 68-77*
- the answer is blowing in the wind. *Slootweg, J.G., + , PAE-M Nov-Dec 2003 26-33*
- The Importance of Modern Teaching Labs. *Wollenberg, B., + , PAE-M Jul-Aug 2010 44-52*
- Electric propulsion
- Currents of Change. *Sudhoff, S.D., + , MPE Jul-Aug 2011 30-37*
- Electric sensing devices
- advanced power syst. protection syst. using Rogowski coil current sens. *Kojovic, L.A., + , PAE-M May-Jun 2003 43-48*
- Batteries Included. *Nourai, A., + , PAE-M Mar-Apr 2010 49-54*
- Staying in Shape. *Phillips, A., + , PAE-M Mar-Apr 2010 27-33*
- Electric shock
- Analyzing Extreme Events in Power Systems: An Open, Cross-Domain Data-Driven Approach. *Zheng, X., + , MPE Nov-Dec 2022 47-55*
- Electric variables measurement
- Phasing in the Technology. *Martin, K.E., + , PAE-M Sep-Oct 2008 24-33*
- Electric vehicle charging
- A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K., + , MPE Nov-Dec 2023 28-37*
- Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S., + , MPE Nov-Dec 2023 38-47*
- The Flexibility of Domestic Electric Vehicle Charging: The Electric Nation Project. *Dudek, E., MPE Jul-Aug 2021 16-27*
- Utility Planning for Distribution-Optimized Electric Vehicle Charging: A Case Study in the United States Pacific Northwest. *Mills, M., + , MPE Nov-Dec 2023 48-55*
- Electric vehicles
- A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K., + , MPE Nov-Dec 2023 28-37*
- A New Car, a New Grid. *Dickerman, L., + , PAE-M Mar-Apr 2010 55-61*
- A Part of the Energy "In Crowd": Changing People's Energy Behavior via Group-Based Approaches. *Jans, L., + , MPE Jan-Feb 2018 35-41*
- All Options on the Table: Energy Systems Integration on the Island of Maui. *Corbus, D., + , MPE Sep-Oct 2013 65-74*
- Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. *Kroposki, B., + , MPE Nov-Dec 2020 37-46*
- Bottom-Up Flexibility in Multi-Energy Systems: Real-World Experiences From Europe. *Belhomme, R., + , MPE Jul-Aug 2021 74-85*
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C., + , MPE Jan-Feb 2024 72-80*
- Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S., + , MPE Nov-Dec 2023 38-47*
- electric vehicles charge forward. *Chan, C.C., + , PAE-M Nov-Dec 2004 24-33*
- Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q., + , MPE Nov-Dec 2024 66-77*
- Ensuring System Reliability: Distributed Energy Resources and Bulk Power System Considerations. *Vartanian, C., + , MPE Nov-Dec 2018 52-63*
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J., + , MPE Sep-Oct 2020 64-75*
- Good Vibrations. *Yinger, R.J., + , MPE Sep-Oct 2011 22-32*
- Grid Planning for Electrification Using Highly Granular Analytics: Insights Into the Transportation Distribution Infrastructure. *Currie, R.A.F., + , MPE Nov-Dec 2023 68-76*
- Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M., + , MPE Nov-Dec 2023 18-27*
- Look Before You Leap: The Role of Energy Storage in the Grid. *Manz, D., + , MPE Jul-Aug 2012 75-84*
- new hybrid electric vehicles. *Wehrey, M.C., PAE-M Nov-Dec 2004 34-39*
- Operational Coordination Architecture: New Models and Approaches. *De Martini, P., MPE Sep-Oct 2019 29-39*
- Plug In, Turn On, and Load Up. *Ungar, E., + , PAE-M May-Jun 2010 30-35*
- Plug into the Future. *Milberg, J., + , MPE Jan-Feb 2011 56-65*
- The Flexibility of Domestic Electric Vehicle Charging: The Electric Nation Project. *Dudek, E., MPE Jul-Aug 2021 16-27*
- Transportation 2.0. *Emadi, A., + , MPE Jul-Aug 2011 18-29*
- Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services. *De Martini, P., + , MPE Jul-Aug 2022 76-84*
- Electrical engineering
- Electric Power Engineering Education: Cultivating the Talent in the United Kingdom and Italy to Build the Low-Carbon Economy of the Future. *Chicco, G., + , MPE Sep-Oct 2018 53-63*
- Power Engineering Education: A Description of Current Academic Developments in India. *Nagamani, C., + , MPE Sep-Oct 2018 42-52*
- Electrical fault detection
- Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety. *Udren, E.A., + , MPE Jan-Feb 2022 64-77*
- Electrical installation
- Absorbing the Rays: Advanced Inverters Help Integrate PV into Electric Utility Distribution Systems. *Steffel, S., + , MPE Mar-Apr 2013 45-54*

- Electrical products industry
Getting Smart. *Santacana, E., + , PAE-M Mar-Apr 2010 41-48*
- Electricity
Balance of power. *Mocarquer, S., + , PAE-M Sep-Oct 2009 26-35*
Changing the electricity game. *Nourai, A., + , PAE-M Jul-Aug 2009 42-47*
coming clean with fuel cells. *Kishinevsky, Y., + , PAE-M Nov-Dec 2003 20-25*
Five Heads Are Better Than One: An Interdisciplinary Graduate Course on Smart Grids: Lessons, Challenges, and Opportunities. *Namboodiri, V., + , MPE Jan-Feb 2013 44-50*
Grid of the future. *Ipakchi, A., + , PAE-M Mar-Apr 2009 52-62*
Heat and Dust: The Solar Energy Challenge in Chile. *Jimenez-Estevez, G., + , MPE Mar-Apr 2015 71-77*
High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N., + , MPE Mar-Apr 2024 78-88*
Lines of Convergence: R&D for Transmission and Distribution: Coordination and the Regulatory Challenge. *Ferrante, A., + , MPE Jan-Feb 2015 52-59*
Organic Growth: Toward a Holistic Approach to European Research and Innovation. *Vu Van, T., + , MPE Jan-Feb 2015 30-37*
Putting an action plan in place. *Thomas, R.J., + , PAE-M Jul-Aug 2009 26-31*
Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B., + , MPE Mar-Apr 2024 30-41*
Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J., + , MPE May-Jun 2024 29-41*
Twilight of the Grids: The Impact of Distributed Solar on Germany's Energy Transition. *Stetz, T., + , MPE Mar-Apr 2015 50-61*
- Electricity distribution
Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S., + , MPE Nov-Dec 2023 38-47*
- Electricity supply industry
A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G., + , MPE Jan-Feb 2019 53-66*
A Common Language. *Hervey, M., + , PAE-M Nov-Dec 2010 28-36*
A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty. *Velasquez, C., + , MPE Jul-Aug 2016 20-29*
A More Perfect Union: Energy Systems Integration Studies from Europe. *Holmes, J., + , MPE Sep-Oct 2013 36-45*
A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D., + , MPE May-Jun 2015 26-34*
A Natural Fit: Electricity-Gas Integration Challenges in South America. *Rudnick, H., + , MPE Nov-Dec 2014 29-39*
A Novel Approach to Transmission Bottleneck Management in Japan: An N-1 Intertrip Scheme. *Ohashi, N., + , MPE Mar-Apr 2021 69-78*
A Powerful Initiative at Pitt. *Reed, G.F., + , PAE-M Mar-Apr 2008 70-77*
A Pro-Grid Middle Path for Africa: Sub-Saharan Region Electricity Upgrades. *Oguah, S., + , MPE Mar-Apr 2019 61-68*
A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E., + , MPE Sep-Oct 2022 39-45*
A Vision to Enhance Transmission Security: The Case of Switzerland's Power System. *Vrettos, E., + , MPE Mar-Apr 2021 56-68*
A Wealth of Possibilities: Power and Energy in Africa. *Naidoo, P., + , MPE May-Jun 2012 67-70*
Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy. *Kroposki, B., + , MPE Mar-Apr 2017 61-73*
Achieving Retail Liberalization in Middle-Income Countries: Challenges and Successes of the Brazilian Experience. *Cunha, G., + , MPE Jul-Aug 2023 26-35*
Achieving World-Leading Penetration of Renewables: The Australian National Electricity Market. *O'Connell, B., + , MPE Sep-Oct 2021 18-28*
Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B., + , MPE Jul-Aug 2016 30-40*
Against All Odds. *Corredor, P.H., + , MPE Mar-Apr 2011 59-66*
Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?. *Thomas, S., + , MPE Jul-Aug 2023 18-25*
An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems. *Mai, T., + , MPE Jul-Aug 2018 34-47*
An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States. *Frisch, C., + , MPE Jul-Aug 2018 90-98*
An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R., + , MPE Jul-Aug 2015 18-28*
Analyzing Extreme Events in Power Systems: An Open, Cross-Domain Data-Driven Approach. *Zheng, X., + , MPE Nov-Dec 2022 47-55*
Applying the Principle of Locality: How to Build a Robust, Technology-Agnostic Regulatory Model for Tomorrow's Electrical Grid. *Enslin, J., + , MPE Sep-Oct 2016 66-74*
Becoming the Utility of the Future: Risks and Opportunities. *Brown, R., + , MPE Sep-Oct 2016 57-65*
boosting immunity to blackouts. *Horowitz, S.H., + , PAE-M Sep-Oct 2003 47-53*
Capturing grid power. *Roberts, B., + , PAE-M Jul-Aug 2009 32-41*
Challenges Ahead: Current Status and Future Prospects for Chinese Energy. *Hou, Y., + , MPE May-Jun 2012 38-47*
Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning. *Coddington, M., + , MPE Mar-Apr 2017 40-47*
collaboration is key internat. *Strunz, K., + , PAE-M Jul-Aug 2003 50-55*
Collective Action: Adaptation, Mitigation, Innovation: The Case of the Chinese PV Industry. *Gallagher, K., + , MPE Sep-Oct 2014 28-33*
Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B., + , MPE Jul-Aug 2024 75-84*

- Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G.*, +, [MPE Mar-Apr 2019 25-36](#)
- Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O.*, +, [MPE Nov-Dec 2014 49-62](#)
- DC, Come Home: DC Microgrids and the Birth of the "Enernet". *Patterson, B.T.*, +, [MPE Nov-Dec 2012 60-69](#)
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, [MPE Jul-Aug 2024 49-63](#)
- delivering clean and pure power. *Rudnick, H.*, +, [PAE-M Sep-Oct 2003 32-40](#)
- Developing Local Energy Markets: A Holistic System Approach. *Rassa, A.*, +, [MPE Sep-Oct 2019 59-70](#)
- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, [MPE Jan-Feb 2024 61-71](#)
- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L.*, +, [MPE Jul-Aug 2024 64-74](#)
- Driving Forces Behind Wind. *Osborn, D.*, +, [MPE Nov-Dec 2011 60-74](#)
- Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P.*, +, [MPE Sep-Oct 2022 46-53](#)
- Electricity Market of the Future: Potential North American Designs Without Fuel Costs. *Ela, E.*, +, [MPE Jan-Feb 2021 41-52](#)
- Electricity Markets and Renewables: A Survey of Potential Design Changes and Their Consequences. *Ela, E.*, +, [MPE Nov-Dec 2017 70-82](#)
- Electricity Markets in the United States: Power Industry Restructuring Processes for the Present and Future. *Litvinov, E.*, +, [MPE Jan-Feb 2019 32-42](#)
- Electricity Price Forecasting: The Dawn of Machine Learning. *Jedrzejewski, A.*, +, [MPE May-Jun 2022 24-31](#)
- Electrification and the Future of Electricity Markets:** Transitioning to a Low-Carbon Energy System. *Jones, R.*, +, [MPE Jul-Aug 2018 79-89](#)
- Electrification in the United Kingdom: A Case Study** Based on Future Energy Scenarios. *Fowler, R.*, +, [MPE Jul-Aug 2018 48-57](#)
- Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P.*, +, [MPE Jul-Aug 2018 24-33](#)
- Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles. *Ochoa, L.*, +, [MPE Sep-Oct 2016 16-28](#)
- Energy Insecurity Due to Gas Supply Availability: Efforts to Coordinate Electric and Gas Systems. *Bautista Alderete, G.*, [MPE Mar-Apr 2021 28-36](#)
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K.*, +, [MPE Jul-Aug 2024 18-25](#)
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, [MPE Jul-Aug 2024 94-102](#)
- Energy Security Through Demand-Side Flexibility: The Case of Denmark. *Ostergaard, J.*, +, [MPE Mar-Apr 2021 46-55](#)
- Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S.*, +, [MPE Nov-Dec 2022 16-25](#)
- enterprise transforming initiatives for elec. utility marketplace. *Okonski, Z.*, +, [PAE-M May-Jun 2003 32-35](#)
- European Union Electricity Markets: Current Practice and Future View. *Gomez, T.*, +, [MPE Jan-Feb 2019 20-31](#)
- Everything's Talking to Each Other: Smart Meters Generate Big Data for Utilities and Customers. *Neumann, S.*, +, [MPE Jan-Feb 2016 40-47](#)
- FACTS on resolving transmission gridlock. *Reed, G.*, +, [PAE-M Sep-Oct 2003 41-46](#)
- Flexibility Is Key in New York: New Tools and Operational Solutions for Managing Distributed Energy Resources. *Currie, B.*, +, [MPE May-Jun 2017 20-29](#)
- Flexible Network Pricing Encourages Greater Sharing: Making the Grid Work for Itself and Distributed Energy Resources. *Li, F.*, +, [MPE May-Jun 2020 26-32](#)
- Forecasting and Market Design Advances: Supporting an Increasing Share of Renewable Energy. *Fox, J.*, +, [MPE Nov-Dec 2021 77-85](#)
- Future Electricity Markets: Designing for Massive Amounts of Zero-Variable-Cost Renewable Resources. *Ela, E.*, +, [MPE Nov-Dec 2019 58-66](#)
- Generation to Come: Natural Gas and Electric System Interactions in South Korea. *Choi, J.*, [MPE Nov-Dec 2014 63-77](#)
- Halfway There: Can California Achieve a 50% Renewable Grid?. *Olson, A.*, +, [MPE Jul-Aug 2015 41-52](#)
- Harnessing the Full Potential of Clean Energy: The Role of Southern California's Utility Distributed Energy Resource Pilots. *Mehr, V.*, +, [MPE Jul-Aug 2021 28-40](#)
- Hawaii's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M.*, [MPE Sep-Oct 2019 40-46](#)
- Heat Electrification: The Latest Research in Europe.** *Heinen, S.*, +, [MPE Jul-Aug 2018 69-78](#)
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, [MPE Mar-Apr 2024 78-88](#)
- High-Wire Act: HVdc Technology: The State of the Art. *Adapa, R.*, +, [MPE Nov-Dec 2012 18-29](#)
- If It Ain't Broke.... *Desai, B.*, +, [PAE-M Nov-Dec 2010 48-52](#)
- Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events. *Ackermann, T.*, +, [MPE Nov-Dec 2015 67-77](#)
- Intelligent Design. *Kezunovic, M.*, +, [PAE-M Nov-Dec 2010 37-44](#)
- It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G.*, +, [MPE Jul-Aug 2015 61-75](#)
- It's All in the Plans: Maximizing the Benefits and Minimizing the Impacts of DERs in an Integrated Grid. *Smith, J.*, +, [MPE Mar-Apr 2015 20-29](#)
- It's Indisputable: Five Facts About Planning and Operating Modern Power Systems. *Bloom, A.*, +, [MPE Nov-Dec 2017 22-30](#)
- Ivory Tower of Power: Microgrid Implementation at the University of California, San Diego. *Washom, B.*, +, [MPE Jul-Aug 2013 28-32](#)
- Joint Assets. *Huet, O.*, +, [PAE-M Nov-Dec 2010 88-93](#)
- Long-Term Vision: Industrial Operating Systems for Power Distribution. *Natvel, G.*, +, [MPE May-Jun 2024 59-66](#)
- Magic Bus: High-Voltage DC on the New Power Transmission Highway. *Majumder, R.*, +, [MPE Nov-Dec 2012 39-49](#)
- Managing the New Grid: Delivering Sustainable Electrical Energy. *Romero Aguero, J.*, +, [MPE Jul-Aug 2019 75-84](#)
- Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety. *Udren, E.A.*, +, [MPE Jan-Feb 2022 64-77](#)

- market monitoring and performance evaluation. *Galarza, R.J., + , PAE-M Nov-Dec 2004 46-54*
- Microgrids: Enhancing the Resilience of the European Megagrid. *Strbac, G., + , MPE May-Jun 2015 35-43*
- Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources. *Sherick, R., + , MPE Mar-Apr 2017 20-28*
- Modernizing the Grid: Challenges and Opportunities for a Sustainable Future. *Aguero, J., + , MPE May-Jun 2017 74-83*
- Needed: ASAP Approach. *Desai, B., + , PAE-M Nov-Dec 2010 53-60*
- NERC initiatives on power syst. security. *Gent, M.R., + , PAE-M Jan-Feb 2003 46-52*
- Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A., + , MPE Sep-Oct 2023 58-67*
- North Bay Hydro Microgrid: Innovative Protection of a Complex System. *Higginson, M., + , MPE May-Jun 2021 70-82*
- Notes from Underground. *Olearczyk, M., + , PAE-M Nov-Dec 2010 75-84*
- On the Path to Decarbonization: Electrification and Renewables in California and the Northeast United States.** *Mahone, A., + , MPE Jul-Aug 2018 58-68*
- One Step Ahead: Short-Term Wind Power Forecasting and Intelligent Predictive Control Based on Data Analytics. *Venayagamoorthy, G.K., + , MPE Sep-Oct 2012 70-78*
- Opening Up for Interoperability. *Vankayala, V., + , PAE-M Mar-Apr 2008 61-69*
- Operational Security: The Case of Texas. *Matevosyan, J., + , MPE Mar-Apr 2021 18-27*
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G., + , MPE Sep-Oct 2017 32-41*
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R., + , MPE Nov-Dec 2014 78-88*
- PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H., + , MPE Sep-Oct 2017 59-67*
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T., PAE-M Sep-Oct 2003 54-62*
- Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration and DC Grid Expansions. *Lundberg, P., + , MPE Nov-Dec 2012 30-38*
- Power Cycling: CCGTs: The Critical Link Between the Electricity and Natural Gas Markets. *Gil, J., + , MPE Nov-Dec 2014 40-48*
- Power System Operation With a High Share of Inverter-Based Resources: The Australian Experience. *Badrzadeh, B., + , MPE Sep-Oct 2021 46-55*
- Power to the People. *Gellings, C.W., + , MPE Sep-Oct 2011 52-63*
- Powering Through the Storm: Microgrids Operation for More Efficient Disaster Recovery. *Abbey, C., + , MPE May-Jun 2014 67-76*
- Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W., + , MPE Jan-Feb 2022 16-27*
- Prescription for Interoperability: Power System Challenges and Requirements for Interoperable Solutions. *Ivanov, C., + , MPE Jan-Feb 2016 30-39*
- Pushing the Limits: Europe's New Grid: Innovative Tools to Combat Transmission Bottlenecks and Reduced Inertia. *Winter, W., + , MPE Jan-Feb 2015 60-74*
- Reading Deeper. *Pritchard, G., + , PAE-M Nov-Dec 2010 85-87*
- Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty. *Nock, D., + , MPE Jul-Aug 2024 26-37*
- Remote Access: Context, Challenges, and Obstacles in Rural Electrification. *Zomers, A., MPE Jul-Aug 2014 26-34*
- renewable energy gets the "green" light in Chicago. *Martin, G., PAE-M Nov-Dec 2003 34-39*
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A., + , MPE Jul-Aug 2024 38-48*
- rights to fight price volatility. *Alsac, O., + , PAE-M Jul-Aug 2004 47-57*
- Secrets of Successful Integration: Operating Experience With High Levels of Variable, Inverter-Based Generation. *Lew, D., + , MPE Nov-Dec 2019 24-34*
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A., + , MPE Jan-Feb 2024 43-51*
- Sensing the Future. *Phillips, A., + , PAE-M Nov-Dec 2010 61-68*
- shaping future of global energy delivery. *Garrity, T.F., PAE-M Sep-Oct 2003 26-30*
- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J., + , MPE Jan-Feb 2015 84-91*
- Smart and Green Substation: Shaping the Electric Power Grid of Korea. *Kim, H., + , MPE Jul-Aug 2019 24-34*
- Smart City Energy Technology in the Face of Emergency Situations: Electric Supply, Electric Transportation, and Communication. *Vittal, V., + , MPE Sep-Oct 2022 16-25*
- Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L., + , MPE Sep-Oct 2022 26-38*
- Soccer Field Strategy. *Mah, E.J., + , PAE-M Nov-Dec 2010 69-74*
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N., + , MPE Jul-Aug 2016 79-87*
- Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems. *Mountain, B., + , MPE Jul-Aug 2015 53-60*
- Strategies for Success with Synchrophasors: Poised to Shine in the Eastern Region of the United States. *Jones, K., + , MPE Sep-Oct 2015 29-35*
- Studies in Empowerment: Approaches to Rural Electrification Worldwide. *Rudnick, H., + , MPE Jul-Aug 2014 35-41*
- System Disturbance and Blackout Analysis: Identifying Trends in System Behavior. *Cummings, R.W., MPE May-Jun 2023 30-42*
- System Restoration Readiness: The Evolution in North America. *Willson, J., + , MPE Jul-Aug 2018 99-106*
- The Challenge of Integrating Demand Response in Capacity Remuneration Mechanisms: Providing a Comprehensive Theoretical Framework. *Rodilla, P., + , MPE Jul-Aug 2023 64-71*
- The China Southern Power Grid: Solutions to Operation Risks and Planning Challenges. *Zhou, H., + , MPE Jul-Aug 2016 72-78*
- The Cold Truth: Managing Gas-Electric Integration: The ISO New England Experience. *Babula, M., + , MPE Nov-Dec 2014 20-28*

- The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G., +, MPE Jan-Feb 2015 38-51*
- The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures. *Li, F., +, MPE Nov-Dec 2022 56-65*
- The Doctor Is In. *Gregerson, S., +, PAE-M Nov-Dec 2010 45-47*
- The Evolution of the Market: Designing a Market for High Levels of Variable Generation. *Ahlstrom, M., +, MPE Nov-Dec 2015 60-66*
- The Expansion of Transmission: The Challenges Faced in South America. *de Sa Ferreira, R., +, MPE Jul-Aug 2016 54-64*
- The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification. *Holtinen, H., +, MPE Nov-Dec 2013 53-62*
- The Future of Distribution Operations and Planning: The Electric Utility Environment Is Changing. *Vadari, M., MPE Jan-Feb 2020 18-25*
- The Green Impact: How Renewable Sources Are Changing EU Electricity Prices. *Chaves-Avila, J., +, MPE Jul-Aug 2015 29-40*
- The Grid: Stronger, Bigger, Smarter?: Presenting a Conceptual Framework of Power System Resilience. *Panteli, M., +, MPE May-Jun 2015 58-66*
- The Grid Under Extremes: Pandemic Impacts on California Electricity Consumption. *Bergman, D., +, MPE Nov-Dec 2022 38-46*
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J., +, MPE May-Jun 2017 30-40*
- The Impact of Renewables on Operational Security: Operating Power Systems That Have Extremely High Penetrations of Nonsynchronous Renewable Sources. *Dudurych, I., MPE Mar-Apr 2021 37-45*
- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J., +, MPE Jan-Feb 2015 20-29*
- The New Zealand Electricity Market: Challenges of a Renewable Energy System. *Philpott, A., +, MPE Jan-Feb 2019 43-52*
- The Optimization of Transmission Lines in Brazil: Proven Experience and Recent Developments in Research and Development. *Arruda, C., +, MPE Mar-Apr 2020 31-42*
- The path of the smart grid. *Farhangi, H., +, PAE-M Jan-Feb 2010 18-28*
- The Plug-and-Play Electricity Era: Interoperability to Integrate Anything, Anywhere, Anytime. *Widergren, S., +, MPE Sep-Oct 2019 47-58*
- The Service Upgrade. *Wallace, R., +, PAE-M Nov-Dec 2010 24-27*
- The Situation Room: Control Center Analytics for Enhanced Situational Awareness. *Giri, J., +, MPE Sep-Oct 2012 24-39*
- The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection. *Herling, S., +, MPE Jul-Aug 2016 65-71*
- The Tariffs of Tomorrow: Innovations in Rate Designs. *Faruqui, A., +, MPE May-Jun 2020 18-25*
- The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I., MPE Jul-Aug 2016 41-53*
- The Utility and Grid of the Future: Challenges, Needs, and Trends. *Romero Aguero, J., +, MPE Sep-Oct 2016 29-37*
- The View from the Wide Side: Wide-Area Monitoring Systems in India. *Soonee, S., +, MPE Sep-Oct 2015 49-59*
- Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring. *Hobbs, B., +, MPE Jan-Feb 2019 73-81*
- Time and Location: What Matters Most When Valuing Distributed Energy Resources. *Smith, J., +, MPE Mar-Apr 2017 29-39*
- Tools for Success. *Romero Aguero, J., +, MPE Sep-Oct 2011 82-93*
- Turning down the heat. *Ozansoy, C., +, PAE-M Jan-Feb 2010 29-36*
- Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E., +, MPE Jan-Feb 2017 43-52*
- Utility Load Research: The Future of Load Research Is Now. *Puckett, C., +, MPE May-Jun 2020 61-70*
- Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy. *Nicholson, E., +, MPE Jan-Feb 2019 67-72*
- Wide-Area Planning of Electric Infrastructure: Assessing Investment Options for Low-Carbon Futures. *McCalley, J., +, MPE Nov-Dec 2017 83-93*
- wind energy delivery issues, trans. planning and competitive electricity market operation. *Piwko, R., +, PAE-M Nov-Dec 2005 47-56*
- wind generation challenges and progress. *Zavadil, R., +, PAE-M Nov-Dec 2005 26-37*
- Electricity supply industry deregulation
- Chinese growing pains. *Zhong, J., +, PAE-M Jul-Aug 2007 33-40*
- High-wire act. *Kyeon Hur, +, PAE-M Jan-Feb 2010 37-45*
- Many states of distribution. *Bouford, J.D., +, PAE-M Jul-Aug 2007 24-32*
- Microgrids. *Hatziargyriou, N., +, PAE-M Jul-Aug 2007 78-94*
- play to your strengths in difficult times, elec. utility strategy. *Franklin, H.A., PAE-M Jul-Aug 2003 22-28*
- Powering progress. *Khparde, S.A., +, PAE-M Jul-Aug 2007 41-49*
- Scrutiny of the Iranian National Grid. *Sanaye-Pasand, M., PAE-M Jan-Feb 2007 31-39*
- Stimulating efficient distribution. *Rudnick, H., +, PAE-M Jul-Aug 2007 50-67*
- Taking an active approach. *Djapic, P., +, PAE-M Jul-Aug 2007 68-77*
- The Right Combination. *Kelly, J., +, PAE-M Nov-Dec 2008 60-70*
- This sustainable Isle. *Strbac, G., +, PAE-M Sep-Oct 2009 44-52*
- Electrification
- Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty. *Nock, D., +, MPE Jul-Aug 2024 26-37*
- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J., +, MPE Nov-Dec 2024 28-41*
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M., +, MPE Sep-Oct 2024 100-110*
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D., +, MPE Nov-Dec 2024 54-65*
- Electrodes
- Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z., +, MPE Mar-Apr 2023 61-69*
- High-Voltage dc Conversion: Boosting Transmission Capacity in the Grid. *Meridji, T., +, MPE May-Jun 2019 22-31*

- Electromagnetic compatibility
Investing for the Future: How Small Utilities are Finding Success With Advanced Distribution Management Systems. *Ngô, Y., +, MPE Jan-Feb 2020 34-42*
- Electromagnetic transients
De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Denetiere, S., +, MPE Sep-Oct 2024 73-86*
- Emergency power supplies
Italian power restoration plan, Restoration project. *Salvati, R., +, PAE-M Jan-Feb 2004 44-51*
power syst. protection, System threats and vulnerabilities. *Kropp, T., PAE-M Mar-Apr 2006 46-50*
power syst. reliab., Calling for backup. *Heidrick, T., +, PAE-M Jan-Feb 2004 52-58*
- Emergency services
North Bay Hydro Microgrid: Innovative Protection of a Complex System. *Higginson, M., +, MPE May-Jun 2021 70-82*
Off the Beaten Path: Resiliency and Associated Risk. *Kezunovic, M., +, MPE Mar-Apr 2018 26-35*
Precise Time, All the Time: A Resilient Architecture for the Electric Power Industry and Beyond. *Robertson, P., +, MPE Sep-Oct 2023 27-37*
PV-Battery Systems for Critical Loads During Emergencies: A Case Study from Puerto Rico After Hurricane Maria. *Keerthisinghe, C., +, MPE Jan-Feb 2019 82-92*
Watch Out for Flooding: When the Power System Created a Weather Disaster. *Allen, E., MPE Nov-Dec 2016 35-39*
- Emission
coming clean with fuel cells. *Kishinevsky, Y., +, PAE-M Nov-Dec 2003 20-25*
- Emissions
Carbon-Free Energy: How Much, How Soon?. *O'Connell, R., +, MPE Nov-Dec 2021 67-76*
Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services. *Farrokhbadi, M., +, MPE Sep-Oct 2017 81-91*
Flexibility From the Electrification of Energy: How Heating, Transport, and Industries Can Support a 100% Sustainable Energy System. *Kiviluoma, J., +, MPE Jul-Aug 2022 55-65*
The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G., +, MPE Jan-Feb 2015 38-51*
- Employee welfare
Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S., +, MPE Nov-Dec 2022 16-25*
- Employment
Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T., MPE May-Jun 2024 20-28*
Smart Village Voices in Africa, Zambia: Part 4: Gemstones to Electric Infrastructure in Zambia. *Kachinga, K., +, MPE Sep-Oct 2022 75-79*
The Power of Internships: Advice for Companies and Prospective Interns. *Hennebury, L., +, MPE Sep-Oct 2018 74-81*
- Energy conservation
A delicate balance in South America. *Rudnick, H., +, PAE-M Jul-Aug 2008 22-35*
Balance of Power: Toward a More Environmentally Friendly, Efficient, and Effective Integration of Energy Systems in China. *Kang, C., +, MPE Sep-Oct 2013 56-64*
coming clean with fuel cells. *Kishinevsky, Y., +, PAE-M Nov-Dec 2003 20-25*
electric vehicles charge forward. *Chan, C.C., +, PAE-M Nov-Dec 2004 24-33*
Electrifying India. *Sathaye, J., +, PAE-M Sep-Oct 2009 59-61*
energy management systems. *Maghsoodlou, F., +, PAE-M Sep-Oct 2004 49-57*
enterprising energy mgt. *Van Gorp, J.C., PAE-M Jan-Feb 2004 59-63*
Get Smart. *Lui, T.J., +, PAE-M May-Jun 2010 66-78*
hydrogen, automotive fuel of the future. *T-Raissi, A., +, PAE-M Nov-Dec 2004 40-45*
let the games begin, solar powered homes. *Nelms, R.M., PAE-M Jul-Aug 2003 56-60*
Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures. *McCalley, J., +, MPE Sep-Oct 2013 24-35*
Teaching Old Dogs New Tricks: The Effectiveness of Community-Based Social Marketing on Energy Conservation for Sustainable University Campuses. *Aronoff, J., +, MPE Jan-Feb 2013 30-38*
The Power of Internships: Advice for Companies and Prospective Interns. *Hennebury, L., +, MPE Sep-Oct 2018 74-81*
Twin Peaks: Surmounting the Global Challenges of Energy for All and Greener, More Efficient Electricity Services. *Madrigan, M., +, MPE May-Jun 2012 20-29*
- Energy consumption
A delicate balance in South America. *Rudnick, H., +, PAE-M Jul-Aug 2008 22-35*
An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems. *Mai, T., +, MPE Jul-Aug 2018 34-47*
Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N., +, MPE Nov-Dec 2024 100-111*
Challenges Ahead: Current Status and Future Prospects for Chinese Energy. *Hou, Y., +, MPE May-Jun 2012 38-47*
Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W., +, MPE Jan-Feb 2018 29-34*
Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O., +, MPE Nov-Dec 2014 49-62*
Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J., +, MPE Jul-Aug 2024 49-63*
Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control. *Du, Y., +, MPE May-Jun 2022 42-53*
Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P., +, MPE Jul-Aug 2018 24-33*
Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System. *Meibom, P., +, MPE Sep-Oct 2013 46-55*
Flexibility From the Electrification of Energy: How Heating, Transport, and Industries Can Support a 100% Sustainable Energy System. *Kiviluoma, J., +, MPE Jul-Aug 2022 55-65*
From the Humble Building to the Smart Sustainable Grid: Empowering Consumers, Nurturing Bottom-Up

- Electricity Markets, and Building Collaborative Power Systems. *Avramidis, I., +, MPE Jul-Aug 2023 53-63*
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D., +, MPE May-Jun 2021 20-35*
- Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures. *McCalley, J., +, MPE Sep-Oct 2013 24-35*
- Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty. *Nock, D., +, MPE Jul-Aug 2024 26-37*
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R., +, MPE Nov-Dec 2024 42-53*
- The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G., +, MPE Jan-Feb 2017 53-60*
- The Green Impact: How Renewable Sources Are Changing EU Electricity Prices. *Chaves-Avila, J., +, MPE Jul-Aug 2015 29-40*
- Twin Peaks: Surmounting the Global Challenges of Energy for All and Greener, More Efficient Electricity Services. *Madrigal, M., +, MPE May-Jun 2012 20-29*
- What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition. *Steg, L., +, MPE Jan-Feb 2018 20-28*
- Energy efficiency
- An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R., MPE Jul-Aug 2015 18-28*
- Applying the Principle of Locality: How to Build a Robust, Technology-Agnostic Regulatory Model for Tomorrow's Electrical Grid. *Enslin, J., +, MPE Sep-Oct 2016 66-74*
- Bottom-Up Flexibility in Multi-Energy Systems: Real-World Experiences From Europe. *Belhomme, R., +, MPE Jul-Aug 2021 74-85*
- Changing Household Energy Usage: The Downsides of Incentives and How to Overcome Them. *van der Werff, E., +, MPE Jan-Feb 2018 42-48*
- Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W., +, MPE Jan-Feb 2018 29-34*
- Corrections. *MPE May-Jun 2017 6*
- Destination: Perfection. *Flueck, A., +, PAE-M Nov-Dec 2008 36-47*
- For the Good of the Grid. *Amin, S.M., +, PAE-M Nov-Dec 2008 48-59*
- Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K., +, MPE Jul-Aug 2022 85-95*
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D., +, MPE May-Jun 2021 20-35*
- Operational Coordination Architecture: New Models and Approaches. *De Martini, P., MPE Sep-Oct 2019 29-39*
- REVIing Up the Energy Vision in New York: Seizing the Opportunity to Create a Cleaner, More Resilient, and Affordable Energy System. *Zibelmen, A., MPE May-Jun 2016 18-24*
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A., +, MPE Jan-Feb 2024 43-51*
- Striving for Power Perfection. *Yeager, K., +, PAE-M Nov-Dec 2008 28-35*
- The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G., +, MPE Jan-Feb 2017 53-60*
- The Right Combination. *Kelly, J., +, PAE-M Nov-Dec 2008 60-70*
- Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services. *De Martini, P., +, MPE Jul-Aug 2022 76-84*
- Energy harvesting
- Charge It!. *Fahimi, B., +, MPE Jul-Aug 2011 54-64*
- Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures. *McCalley, J., +, MPE Sep-Oct 2013 24-35*
- Turning down the heat. *Ozansoy, C., +, PAE-M Jan-Feb 2010 29-36*
- Energy management
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brasinsky, C., +, MPE Jan-Feb 2024 24-34*
- A Journey Through Energy Systems Integration: Trending Grid Codes, Standards, and IEC Collaboration. *MacDowell, J., +, MPE Nov-Dec 2019 79-88*
- A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing. *Li, F., +, MPE Mar-Apr 2020 60-68*
- A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D., +, MPE May-Jun 2015 26-34*
- A Part of the Energy "In Crowd": Changing People's Energy Behavior via Group-Based Approaches. *Jans, L., +, MPE Jan-Feb 2018 35-41*
- A Smarter Grid Operation: New Energy Management Systems in China. *Xin, Y., +, MPE Mar-Apr 2018 36-45*
- A Society of Devices: Integrating Intelligent Distributed Resources with Transactive Energy. *Kok, K., +, MPE May-Jun 2016 34-45*
- A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E., +, MPE Sep-Oct 2022 39-45*
- An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems.** *Mai, T., +, MPE Jul-Aug 2018 34-47*
- An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States.** *Frisch, C., +, MPE Jul-Aug 2018 90-98*
- At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects. *Perlaviciute, G., +, MPE Jan-Feb 2018 49-55*
- Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N., +, MPE Nov-Dec 2024 100-111*
- Change in the air. *Grant, W., +, PAE-M Nov-Dec 2009 47-58*
- Changing Household Energy Usage: The Downsides of Incentives and How to Overcome Them. *van der Werff, E., +, MPE Jan-Feb 2018 42-48*
- Closed-Loop Volt/Var Optimization: Addressing Peak Load Reduction. *Carden, J., +, MPE Mar-Apr 2018 67-75*
- Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W., +, MPE Jan-Feb 2018 29-34*
- Control Center Designs: New Functions and Challenges for the Transmission System Operator. *Astic, J., +, MPE Mar-Apr 2018 57-66*
- Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P., +, MPE Jan-Feb 2024 52-60*

- Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. *Dondossola, G., +, MPE May-Jun 2024 42-49*
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J., +, MPE Jul-Aug 2024 49-63*
- Developing Local Energy Markets: A Holistic System Approach. *Rassa, A., +, MPE Sep-Oct 2019 59-70*
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y., +, MPE Jan-Feb 2024 35-42*
- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L., +, MPE Jul-Aug 2024 64-74*
- Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F., +, MPE Jul-Aug 2015 76-86*
- Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia. *Ferreira, R., +, MPE Mar-Apr 2019 50-60*
- Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P., +, MPE Sep-Oct 2022 46-53*
- Electrification and the Future of Electricity Markets:** Transitioning to a Low-Carbon Energy System. *Jones, R., +, MPE Jul-Aug 2018 79-89*
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- Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P., +, MPE Jul-Aug 2018 24-33*
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J., +, MPE Jul-Aug 2024 94-102*
- Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. *Orths, A., +, MPE Nov-Dec 2019 67-78*
- Flexibility From the Electrification of Energy: How Heating, Transport, and Industries Can Support a 100% Sustainable Energy System. *Kiviluoma, J., +, MPE Jul-Aug 2022 55-65*
- Generation to Come: Natural Gas and Electric System Interactions in South Korea. *Choi, J., MPE Nov-Dec 2014 63-77*
- Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B., +, MPE Mar-Apr 2024 18-29*
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B., +, MPE Mar-Apr 2024 66-77*
- Hawaii's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M., MPE Sep-Oct 2019 40-46*
- Heat Electrification: The Latest Research in Europe.** *Heinen, S., +, MPE Jul-Aug 2018 69-78*
- Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K., +, MPE Jul-Aug 2022 85-95*
- Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective. *Michaelson, D., +, MPE Mar-Apr 2022 57-63*
- Island breezes. *Matsuura, M., +, PAE-M Nov-Dec 2009 59-64*
- Measurements get together. *Chakrabarti, S., +, PAE-M Jan-Feb 2009 41-49*
- Microgrid Controller Initiatives: An Overview of R&D by the U.S. Department of Energy. *Ton, D., +, MPE Jul-Aug 2017 24-31*
- Networked Microgrids: Exploring the Possibilities of the IIT-Bronzeville Grid. *Shahidehpour, M., +, MPE Jul-Aug 2017 63-71*
- On the Path to Decarbonization: Electrification and Renewables** in California and the Northeast United States. *Mahone, A., +, MPE Jul-Aug 2018 58-68*
- Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T., MPE May-Jun 2024 20-28*
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R., +, MPE Jul-Aug 2024 85-93*
- Renewable Energy Zones in Australia: Integrated System Planning. *Pack, E., +, MPE Sep-Oct 2021 56-66*
- REVIing Up the Energy Vision in New York: Seizing the Opportunity to Create a Cleaner, More Resilient, and Affordable Energy System. *Zibelmen, A., MPE May-Jun 2016 18-24*
- Secrets of Successful Integration: Operating Experience With High Levels of Variable, Inverter-Based Generation. *Lew, D., +, MPE Nov-Dec 2019 24-34*
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A., +, MPE Jan-Feb 2024 43-51*
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R., +, MPE Nov-Dec 2024 42-53*
- Smart Village Voices in Africa, System-of-Systems Approach: Part 1: A System-of-Systems Approach for Zero Poverty. *Podmore, R., +, MPE Sep-Oct 2022 54-60*
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N., +, MPE Jul-Aug 2016 79-87*
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W., +, MPE May-Jun 2021 83-92*
- System Restoration Readiness: The Evolution in North America. *Willson, J., +, MPE Jul-Aug 2018 99-106*
- The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures. *Li, F., +, MPE Nov-Dec 2022 56-65*
- The Future of Distribution Operations and Planning: The Electric Utility Environment Is Changing. *Vadari, M., MPE Jan-Feb 2020 18-25*
- The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All. *Repo, S., +, MPE May-Jun 2017 41-51*
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J., +, MPE May-Jun 2017 30-40*
- The Need for Standardization: The Benefits to the Core Functions of the Microgrid Control System. *Joos, G., +, MPE Jul-Aug 2017 32-40*
- The Plug-and-Play Electricity Era: Interoperability to Integrate Anything, Anywhere, Anytime. *Widergren, S., +, MPE Sep-Oct 2019 47-58*
- The Tariffs of Tomorrow: Innovations in Rate Designs. *Faruqi, A., +, MPE May-Jun 2020 18-25*
- The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E., +, MPE Jan-Feb 2017 34-42*
- The View from the Top of the Mountain: Building a Community of Practice with the GridWise Transactive Energy Framework. *Forfia, D., +, MPE May-Jun 2016 25-33*

- The View from the Wide Side: Wide-Area Monitoring Systems in India. *Soonee, S.*, +, [MPE Sep-Oct 2015 49-59](#)
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D.*, +, [MPE Nov-Dec 2024 54-65](#)
- Transformation of the Grid: The Impact of Distributed Energy Resources on Bulk Power Systems. *Quint, R.*, +, [MPE Nov-Dec 2019 35-45](#)
- Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory. *Muhanji, S.*, +, [MPE Sep-Oct 2019 71-81](#)
- Transmission Technologies and Implementations: Building a Stronger, Smarter Power Grid in China. *Dai, R.*, +, [MPE Mar-Apr 2020 53-59](#)
- Up with wind. *Corbus, D.*, +, [PAE-M Nov-Dec 2009 36-46](#)
- What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition. *Steg, L.*, +, [MPE Jan-Feb 2018 20-28](#)
- Where the wind blows. *Ackermann, T.*, +, [PAE-M Nov-Dec 2009 65-75](#)
- Energy management systems
- energy management systems. *Maghsoodlou, F.*, +, [PAE-M Sep-Oct 2004 49-57](#)
- Ideas for Tomorrow: New Tools for Integrated Building and District Modeling. *Van Roy, J.*, +, [MPE Sep-Oct 2013 75-81](#)
- Omaha Public Power District Automation Plan, substation integrat. pilot project. *Nissen, T.*, +, [PAE-M Mar-Apr 2003 42-49](#)
- substation television system. *Yi Luo,* +, [PAE-M Jan-Feb 2005 59-66](#)
- Energy measurement
- Beyond Individual Active Customers: Citizen and Renewable Energy Communities in the European Union. *Rossetto, N.*, [MPE Jul-Aug 2023 36-44](#)
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N.*, +, [MPE Jul-Aug 2016 79-87](#)
- The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G.*, +, [MPE Jan-Feb 2017 53-60](#)
- The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures. *Li, F.*, +, [MPE Nov-Dec 2022 56-65](#)
- Energy resolution
- The Fragile Grid: The Physics and Economics of Security Services in Low-Carbon Power Systems. *Mancarella, P.*, +, [MPE Mar-Apr 2021 79-88](#)
- Energy resources
- acquisition in competitive elec. market. *Welch, G.V.*, +, [PAE-M May-Jun 2003 36-42](#)
- Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols. *Razon, A.*, +, [MPE Jan-Feb 2020 26-33](#)
- China's energy and environment. *Wu, F.F.*, +, [PAE-M Jul-Aug 2006 20-31](#)
- cleaning up coal's second act. *Zancan, F.L.*, [PAE-M Jul-Aug 2006 57-62](#)
- creating harmony in South America. *Barroso, L.A.*, +, [PAE-M Jul-Aug 2006 32-46](#)
- Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. *Dondossola, G.*, +, [MPE May-Jun 2024 42-49](#)
- Design for distributed energy resources. *Driesen, J.*, +, [PAE-M May-Jun 2008 30-40](#)
- Developing Local Energy Markets: A Holistic System Approach. *Rassa, A.*, +, [MPE Sep-Oct 2019 59-70](#)
- Flexible Network Pricing Encourages Greater Sharing: Making the Grid Work for Itself and Distributed Energy Resources. *Li, F.*, +, [MPE May-Jun 2020 26-32](#)
- From "Fit and Forget" to "Flex or Regret" in Distribution Grids: Dealing With Congestion in European Distribution Grids. *Beckstedde, E.*, +, [MPE Jul-Aug 2023 45-52](#)
- Hawai'i's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M.*, [MPE Sep-Oct 2019 40-46](#)
- more perfect energy union, European Union. *Camyab, A.*, +, [PAE-M Jul-Aug 2006 47-56](#)
- Operational Coordination Architecture: New Models and Approaches. *De Martini, P.*, [MPE Sep-Oct 2019 29-39](#)
- Retail Pricing: A Low-Cost Enabler of the Clean Energy Transition. *Sergici, S.*, +, [MPE Jul-Aug 2022 66-75](#)
- The Need for Standardization: The Benefits to the Core Functions of the Microgrid Control System. *Joos, G.*, +, [MPE Jul-Aug 2017 32-40](#)
- The Substation of the Future: Moving Toward a Digital Solution. *Hunt, R.*, +, [MPE Jul-Aug 2019 47-55](#)
- The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I.*, [MPE Jul-Aug 2016 41-53](#)
- Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services. *De Martini, P.*, +, [MPE Jul-Aug 2022 76-84](#)
- Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids. *Sharafi, D.*, +, [MPE Jan-Feb 2022 52-63](#)
- Energy security
- A More Perfect Union: Energy Systems Integration Studies from Europe. *Holmes, J.*, +, [MPE Sep-Oct 2013 36-45](#)
- Leading the Charge: Microgrids for Domestic Military Installations. *Van Broekhoven, S.*, +, [MPE Jul-Aug 2013 40-45](#)
- Energy storage
- Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. *Kroposki, B.*, +, [MPE Nov-Dec 2020 37-46](#)
- Capturing grid power. *Roberts, B.*, +, [PAE-M Jul-Aug 2009 32-41](#)
- Changing the electricity game. *Nourai, A.*, +, [PAE-M Jul-Aug 2009 42-47](#)
- Charge It!. *Fahimi, B.*, +, [MPE Jul-Aug 2011 54-64](#)
- Demanding Standards. *Coe, S.*, +, [PAE-M May-Jun 2010 55-59](#)
- Developing Local Energy Markets: A Holistic System Approach. *Rassa, A.*, +, [MPE Sep-Oct 2019 59-70](#)
- Drive friendly. *Thounthong, P.*, +, [PAE-M Jan-Feb 2008 69-76](#)
- electricity storage technol., Testing the limits. *Nourai, A.*, +, [PAE-M Mar-Apr 2005 40-46](#)
- Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services. *Farrokhbadi, M.*, +, [MPE Sep-Oct 2017 81-91](#)
- Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies. *Moreno, R.*, +, [MPE Sep-Oct 2017 68-80](#)
- Grid-Level Application of Electrical Energy Storage: Example Use Cases in the United States and China. *Zhang, Y.*, +, [MPE Sep-Oct 2017 51-58](#)
- let the games begin, solar powered homes. *Nelms, R.M.*, [PAE-M Jul-Aug 2003 56-60](#)

- Making Renewables Work: Operational Practices and Future Challenges for Renewable Energy as a Major Power Source in Japan. *Ogimoto, K.*, +, [MPE Nov-Dec 2020 47-63](#)
- Modernizing the Grid: Challenges and Opportunities for a Sustainable Future. *Aguero, J.*, +, [MPE May-Jun 2017 74-83](#)
- Only Connect: Microgrids for Distribution System Restoration. *Che, L.*, +, [MPE Jan-Feb 2014 70-81](#)
- Operational Coordination Architecture: New Models and Approaches. *De Martini, P.*, [MPE Sep-Oct 2019 29-39](#)
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G.*, +, [MPE Sep-Oct 2017 32-41](#)
- PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H.*, +, [MPE Sep-Oct 2017 59-67](#)
- Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R.*, +, [MPE Nov-Dec 2020 86-97](#)
- Pumped Storage Hydro: Then and Now. *Donalek, P.*, [MPE Sep-Oct 2020 49-57](#)
- Putting an action plan in place. *Thomas, R.J.*, +, [PAE-M Jul-Aug 2009 26-31](#)
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, [MPE Mar-Apr 2024 30-41](#)
- Same Goal, Different Pathways for Energy Transition: A More Holistic, Multisector, Community-Driven Approach. *Cochran, J.*, +, [MPE Jul-Aug 2022 18-29](#)
- Sharing the Ride of Power: Understanding Transactive Energy in the Ecosystem of Energy Economics. *Masiello, R.*, +, [MPE May-Jun 2016 70-78](#)
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- The Importance of Modern Teaching Labs. *Wollenberg, B.*, +, [PAE-M Jul-Aug 2010 44-52](#)
- The Regulatory Debate About Energy Storage Systems: State of the Art and Open Issues. *Usera, I.*, +, [MPE Sep-Oct 2017 42-50](#)
- Engineering education**
- A Powerful Initiative at Pitt. *Reed, G.F.*, +, [PAE-M Mar-Apr 2008 70-77](#)
- Power Engineering Education: A Description of Current Academic Developments in India. *Nagamani, C.*, +, [MPE Sep-Oct 2018 42-52](#)
- Training Tornado: An Intensive, Cross-Curricular Ph.D. Program in Wind Engineering at the University of Strathclyde. *Gill, S.*, +, [MPE Jan-Feb 2013 51-57](#)
- Engineering profession**
- Electric Power Engineering Education: Cultivating the Talent in the United Kingdom and Italy to Build the Low-Carbon Economy of the Future. *Chicco, G.*, +, [MPE Sep-Oct 2018 53-63](#)
- Training Energy Data Scientists: Universities and Industry Need to Work Together to Bridge the Talent Gap. *Hong, T.*, +, [MPE May-Jun 2018 66-73](#)
- Trends in Electric Power Engineering Education: An Analysis of Future Challenges. *Ray, D.*, +, [MPE Sep-Oct 2018 32-41](#)
- Engines**
- Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements. *Heinen, S.*, +, [MPE Jan-Feb 2017 16-24](#)
- Entrepreneurship**
- Smart Village Voices in Africa, Zambia: Part 4: Gemstones to Electric Infrastructure in Zambia. *Kachinga, K.*, +, [MPE Sep-Oct 2022 75-79](#)
- Environmental economics**
- A delicate balance in South America. *Rudnick, H.*, +, [PAE-M Jul-Aug 2008 22-35](#)
- China's energy and environment. *Wu, F.F.*, +, [PAE-M Jul-Aug 2006 20-31](#)
- creating harmony in South America. *Barroso, L.A.*, +, [PAE-M Jul-Aug 2006 32-46](#)
- Microgrids Against Wildfires: Distributed Energy Resources Enhance System Resilience. *Moreno, R.*, +, [MPE Jan-Feb 2022 78-89](#)
- more perfect energy union, European Union. *Camyab, A.*, +, [PAE-M Jul-Aug 2006 47-56](#)
- The Big Picture: Smart Research for Large-Scale Integrated Smart Grid Solutions. *Kezunovic, M.*, +, [MPE Jul-Aug 2012 22-34](#)
- Environmental engineering**
- renewable energy gets the "green" light in Chicago. *Martin, G.*, [PAE-M Nov-Dec 2003 34-39](#)
- the answer is blowing in the wind. *Slootweg, J.G.*, +, [PAE-M Nov-Dec 2003 26-33](#)
- Environmental factors**
- A National Vision. *Kim, J.*, +, [MPE Jan-Feb 2011 40-49](#)
- Balance of Power: Toward a More Environmentally Friendly, Efficient, and Effective Integration of Energy Systems in China. *Kang, C.*, +, [MPE Sep-Oct 2013 56-64](#)
- Canadian clean. *Fortin, P.*, +, [PAE-M Jul-Aug 2008 40-46](#)
- collaboration is key internat. *Strunz, K.*, +, [PAE-M Jul-Aug 2003 50-55](#)
- Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W.*, +, [MPE Jan-Feb 2018 29-34](#)
- delivering clean and pure power. *Rudnick, H.*, +, [PAE-M Sep-Oct 2003 32-40](#)
- Electrifying India. *Sathaye, J.*, +, [PAE-M Sep-Oct 2009 59-61](#)
- Energy hubs for the future. *Geldl, M.*, +, [PAE-M Jan-Feb 2007 24-30](#)
- Eternal Light: Ingredients for Sustainable Off-Grid Energy Development. *Louie, H.*, +, [MPE Jul-Aug 2014 70-78](#)
- Euro Mix: Current European Energy Developments and Policy Alternatives for 2030 and Beyond. *Lorubio, G.*, +, [MPE Mar-Apr 2014 65-74](#)
- Hydropower in China. *Fu, S.*, +, [PAE-M Jul-Aug 2008 47-51](#)
- Ivory Tower of Power: Microgrid Implementation at the University of California, San Diego. *Washom, B.*, +, [MPE Jul-Aug 2013 28-32](#)
- Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures. *McCalley, J.*, +, [MPE Sep-Oct 2013 24-35](#)
- renewable energy gets the "green" light in Chicago. *Martin, G.*, [PAE-M Nov-Dec 2003 34-39](#)
- Restless Waters: Fossil Fuel Emissions Conditioning a Reduction in Hydroelectric Resources in Chile. *Rudnick, H.*, +, [MPE Sep-Oct 2014 50-60](#)
- safe and secure, environmental effects of nuclear power plants and the nuclear fuel cycle. *MacDonald, J.D.*, [PAE-M Nov-Dec 2006 49-55](#)
- Stormy Weather: Assessing Climate Change Hazards to Electric Power Infrastructure: A Sandy Case Study. *Yates, D.*, +, [MPE Sep-Oct 2014 66-75](#)
- the answer is blowing in the wind. *Slootweg, J.G.*, +, [PAE-M Nov-Dec 2003 26-33](#)

- The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G.*, +, [MPE Jan-Feb 2015 38-51](#)
- The Green Defenders. *Seo, J.-T.*, +, [MPE Jan-Feb 2011 82-90](#)
- The Local Team: Leveraging Distributed Resources to Improve Resilience. *Arghandeh, R.*, +, [MPE Sep-Oct 2014 76-83](#)
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M.*, +, [MPE Jan-Feb 2015 75-83](#)
- Transportation 2.0. *Emadi, A.*, +, [MPE Jul-Aug 2011 18-29](#)
- Environmental management
- China's energy and environment. *Wu, F.F.*, +, [PAE-M Jul-Aug 2006 20-31](#)
- Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective. *Michaelson, D.*, +, [MPE Mar-Apr 2022 57-63](#)
- Planning for the Future: Optimization-Based Distribution Planning Strategies for Integrating Distributed Energy Resources. *Cho, G.*, +, [MPE Nov-Dec 2018 77-87](#)
- Environmental monitoring
- Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B.*, +, [MPE Jul-Aug 2024 75-84](#)
- Europe
- A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G.*, +, [MPE Jan-Feb 2019 53-66](#)
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, +, [MPE Jan-Feb 2024 24-34](#)
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P.*, +, [MPE Sep-Oct 2024 49-59](#)
- Assuring a Sustainable Decarbonization: Affordability Options. *Schittekatte, T.*, +, [MPE Jul-Aug 2023 72-79](#)
- Beyond Individual Active Customers: Citizen and Renewable Energy Communities in the European Union. *Rossetto, N.*, [MPE Jul-Aug 2023 36-44](#)
- Carbon-Free Energy: How Much, How Soon?. *O'Connell, R.*, +, [MPE Nov-Dec 2021 67-76](#)
- Developing Local Energy Markets: A Holistic System Approach. *Rassa, A.*, +, [MPE Sep-Oct 2019 59-70](#)
- Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles. *Ochoa, L.*, +, [MPE Sep-Oct 2016 16-28](#)
- European Union Electricity Markets: Current Practice and Future View. *Gomez, T.*, +, [MPE Jan-Feb 2019 20-31](#)
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J.*, +, [MPE Sep-Oct 2020 64-75](#)
- From "Fit and Forget" to "Flex or Regret" in Distribution Grids: Dealing With Congestion in European Distribution Grids. *Beckstedde, E.*, +, [MPE Jul-Aug 2023 45-52](#)
- Grid-Forming Inverters: Are They the Key for High Renewable Penetration?. *Matevosyan, J.*, +, [MPE Nov-Dec 2019 89-98](#)
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B.*, +, [MPE Mar-Apr 2024 66-77](#)
- Heat Electrification: The Latest Research in Europe.** *Heinen, S.*, +, [MPE Jul-Aug 2018 69-78](#)
- Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events. *Ackermann, T.*, +, [MPE Nov-Dec 2015 67-77](#)
- Joint Assets. *Huet, O.*, +, [PAE-M Nov-Dec 2010 88-93](#)
- Microgrids: Enhancing the Resilience of the European Megagrid. *Strbac, G.*, +, [MPE May-Jun 2015 35-43](#)
- Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland. *Sattinger, W.*, +, [MPE Sep-Oct 2015 41-48](#)
- Norwegian Hydropower: Connecting to Continental Europe. *Tellefsen, T.*, +, [MPE Sep-Oct 2020 27-35](#)
- Organic Growth: Toward a Holistic Approach to European Research and Innovation. *Vu Van, T.*, +, [MPE Jan-Feb 2015 30-37](#)
- Power Cycling: CCGTs: The Critical Link Between the Electricity and Natural Gas Markets. *Gil, J.*, +, [MPE Nov-Dec 2014 40-48](#)
- Power System Restoration: Meeting the Challenge to Resiliency from Distributed Generation. *Roggatz, C.*, +, [MPE Jul-Aug 2020 31-40](#)
- Pushing the Limits: Europe's New Grid: Innovative Tools to Combat Transmission Bottlenecks and Reduced Inertia. *Winter, W.*, +, [MPE Jan-Feb 2015 60-74](#)
- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J.*, +, [MPE Jan-Feb 2015 84-91](#)
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N.*, +, [MPE Jul-Aug 2016 79-87](#)
- Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition. *Oyvang, T.*, +, [MPE Nov-Dec 2022 66-78](#)
- The Challenge of Integrating Demand Response in Capacity Remuneration Mechanisms: Providing a Comprehensive Theoretical Framework. *Rodilla, P.*, +, [MPE Jul-Aug 2023 64-71](#)
- The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G.*, +, [MPE Jan-Feb 2015 38-51](#)
- The Green Impact: How Renewable Sources Are Changing EU Electricity Prices. *Chaves-Avila, J.*, +, [MPE Jul-Aug 2015 29-40](#)
- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J.*, +, [MPE Jan-Feb 2015 20-29](#)
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M.*, +, [MPE Jan-Feb 2015 75-83](#)
- Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. *Evans, M.*, +, [MPE Jul-Aug 2022 44-54](#)
- Transmission Planning for 100% Clean Electricity: Enabling Clean, Affordable, and Reliable Electricity. *Lew, D.*, +, [MPE Nov-Dec 2021 56-66](#)
- Variable Renewable Energy Integration: Status Around the World. *Holttinen, H.*, +, [MPE Nov-Dec 2021 86-96](#)
- Extended reality
- Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M.*, +, [MPE May-Jun 2024 50-58](#)
- Face recognition
- From "Fit and Forget" to "Flex or Regret" in Distribution Grids: Dealing With Congestion in European Distribution Grids. *Beckstedde, E.*, +, [MPE Jul-Aug 2023 45-52](#)

F

Facilities planning

value-based system facility planning. *Chowdhury, A.A., + , PAE-M Sep-Oct 2004 58-67*

Failure analysis

anatomy of a power grid blackout. *Pourbeik, P., + , PAE-M Sep-Oct 2006 22-29*

blackouts and relaying considerations. *Horowitz, S.H., + , PAE-M Sep-Oct 2006 60-67*

modern countermeasures to blackouts. *Pourbeik, P., + , PAE-M Sep-Oct 2006 36-45*

postmortem analysis of power grid blackouts. *Dagle, J.E., PAE-M Sep-Oct 2006 30-35*

power syst. equip. aging. *Wenyuan Li, + , PAE-M May-Jun 2006 52-58*

restoration from cascading failures. *Adibi, M.M., + , PAE-M Sep-Oct 2006 68-79*

Tales of Power System Failures: A Look at the Unusual, Strange, and Downright Bizarre Causes. *Waldele, R., MPE Nov-Dec 2016 18-23*

Fault currents

Adopting Circuit Breakers for High-Voltage dc Networks: Appropriating the Vast Advantages of dc Transmission Grids. *Jovcic, D., + , MPE May-Jun 2019 82-93*

Designing for High-Voltage dc Grid Protection: Fault Clearing Strategies and Protection Algorithms. *Leterme, W., + , MPE May-Jun 2019 73-81*

Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems. *Reno, M., + , MPE May-Jun 2021 36-46*

Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection. *Ropp, M., + , MPE May-Jun 2021 47-57*

Practical Microgrid Protection Solutions: Promises and Challenges. *Manson, S., + , MPE May-Jun 2021 58-69*

Fault diagnosis

Better Warning Through Technology. *Szladow, A.J., + , MPE May-Jun 2011 72-76*

blackouts and relaying considerations. *Horowitz, S.H., + , PAE-M Sep-Oct 2006 60-67*

implementation of online security assessment. *Lei Wang, + , PAE-M Sep-Oct 2006 46-59*

Measures of Value: Data Analytics for Automated Fault Analysis. *Popovic, T., + , MPE Sep-Oct 2012 58-69*

modern countermeasures to blackouts. *Pourbeik, P., + , PAE-M Sep-Oct 2006 36-45*

Operating in the Fog: Security Management Under Uncertainty. *Panciatici, P., + , MPE Sep-Oct 2012 40-49*

Fault location

Better Warning Through Technology. *Szladow, A.J., + , MPE May-Jun 2011 72-76*

virtual power quality troubleshooter prototype. *Chun Li, + , PAE-M May-Jun 2003 24-31*

Fault protection

Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety. *Udren, E.A., + , MPE Jan-Feb 2022 64-77*

Fault tolerance

A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C., + , MPE Jan-Feb 2024 24-34*

Microgrids Against Wildfires: Distributed Energy Resources Enhance System Resilience. *Moreno, R., + , MPE Jan-Feb 2022 78-89*

Realizing the Value of DERs: A Utility Perspective. *Paaso, A., + , MPE Mar-Apr 2022 39-46*

Feedback loop

Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W., + , MPE Jan-Feb 2022 16-27*

Feeds

De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Dennetiere, S., + , MPE Sep-Oct 2024 73-86*

Field buses

Get on the digital bus to substation automation. *Schumacher, M., + , PAE-M May-Jun 2007 51-56*

Filter banks

When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System. *Litzenberger, W., + , MPE Mar-Apr 2016 32-41*

Finance

Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia. *Ferreira, R., + , MPE Mar-Apr 2019 50-60*

Electricity Price Forecasting: The Dawn of Machine Learning. *Jedrzejewski, A., + , MPE May-Jun 2022 24-31*

Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M., + , MPE Nov-Dec 2023 18-27*

New Tool Evaluates the Financial Viability of Pumped Storage Hydropower. *Balducci, P., + , MPE Nov-Dec 2023 98-109*

wind plant integration, costs, status, and issues. *DeMeo, E.A., + , PAE-M Nov-Dec 2005 38-46*

Financial management

eight steps to optimize your strategic assets. *Palombo, C., PAE-M May-Jun 2005 46-54*

Fires

Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences. *Serrano, R., + , MPE Jan-Feb 2022 38-51*

Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety. *Udren, E.A., + , MPE Jan-Feb 2022 64-77*

Microgrids Against Wildfires: Distributed Energy Resources Enhance System Resilience. *Moreno, R., + , MPE Jan-Feb 2022 78-89*

Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W., + , MPE Jan-Feb 2022 16-27*

Wildfire Resiliency: California Case for Change. *Chiu, B., + , MPE Jan-Feb 2022 28-37*

Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids. *Sharafi, D., + , MPE Jan-Feb 2022 52-63*

Flexible AC transmission systems

Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N., + , MPE Mar-Apr 2016 57-65*

FACTS on resolving transmission gridlock. *Reed, G., + , PAE-M Sep-Oct 2003 41-46*

Harmonizing AC and DC: A Hybrid AC/DC Future Grid Solution. *Wang, P., + , MPE May-Jun 2013 76-83*

Keeping the Power Flowing: A Commitment Throughout the HVdc and FACTS Life Cycles. *Bjorklund, H., + , MPE Mar-Apr 2016 66-71*

Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada. *Bilodeau, H., + , MPE Mar-Apr 2016 42-56*

- Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects. *Johnson, R., +, MPE Mar-Apr 2016 22-31*
- Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B., +, MPE Mar-Apr 2016 72-79*
- When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System. *Litzenberger, W., +, MPE Mar-Apr 2016 32-41*
- Flexible printed circuits
- From "Fit and Forget" to "Flex or Regret" in Distribution Grids: Dealing With Congestion in European Distribution Grids. *Beckstedde, E., +, MPE Jul-Aug 2023 45-52*
- Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy. *Nicholson, E., +, MPE Jan-Feb 2019 67-72*
- Floods
- Actions Before... and After a Flood. *Abi-Samra, N., +, MPE Mar-Apr 2011 52-58*
- Hydropower in China. *Fu, S., +, PAE-M Jul-Aug 2008 47-51*
- Islands in the Storm: Integrating Microgrids into the Larger Grid. *Montoya, M., +, MPE Jul-Aug 2013 33-39*
- The Impetus for Hydropower Development in India: New Initiatives. *Sharma, S., +, MPE Sep-Oct 2020 18-26*
- Watch Out for Flooding: When the Power System Created a Weather Disaster. *Allen, E., MPE Nov-Dec 2016 35-39*
- Flow management
- Watch Out for Flooding: When the Power System Created a Weather Disaster. *Allen, E., MPE Nov-Dec 2016 35-39*
- Fluctuations
- Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q., +, MPE Nov-Dec 2024 66-77*
- Large-scale solutions. *Fioravanti, R., +, PAE-M Jul-Aug 2009 48-57*
- Sharing the Ride of Power: Understanding Transactive Energy in the Ecosystem of Energy Economics. *Masiello, R., +, MPE May-Jun 2016 70-78*
- Flywheels
- elec. energy storage, The United States of storage. *Gyuk, I., +, PAE-M Mar-Apr 2005 31-39*
- electricity storage technol., Testing the limits. *Nourai, A., +, PAE-M Mar-Apr 2005 40-46*
- Look Before You Leap: The Role of Energy Storage in the Grid. *Manz, D., +, MPE Jul-Aug 2012 75-84*
- PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H., +, MPE Sep-Oct 2017 59-67*
- power storage, commercial successes. *Roberts, B., +, PAE-M Mar-Apr 2005 24-30*
- Forecasting
- Atmospheric Pressure. *Ahlstrom, M., +, MPE Nov-Dec 2011 97-107*
- Electricity Price Forecasting: The Dawn of Machine Learning. *Jedrzejewski, A., +, MPE May-Jun 2022 24-31*
- Forecasting and Market Design Advances: Supporting an Increasing Share of Renewable Energy. *Fox, J., +, MPE Nov-Dec 2021 77-85*
- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J., +, MPE Jan-Feb 2015 84-91*
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D., +, MPE Nov-Dec 2024 54-65*
- Training Energy Data Scientists: Universities and Industry Need to Work Together to Bridge the Talent Gap. *Hong, T., +, MPE May-Jun 2018 66-73*
- Forecasting theory
- future of wind forecasting and utility operations. *Ahlstrom, M., +, PAE-M Nov-Dec 2005 57-64*
- Forward contracts
- Electricity Price Forecasting: The Dawn of Machine Learning. *Jedrzejewski, A., +, MPE May-Jun 2022 24-31*
- Fossil fuels
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P., +, MPE Sep-Oct 2024 49-59*
- Changing Household Energy Usage: The Downsides of Incentives and How to Overcome Them. *van der Werff, E., +, MPE Jan-Feb 2018 42-48*
- cleaning up coal's second act. *Zancan, F.L., PAE-M Jul-Aug 2006 57-62*
- Collective Action: Adaptation, Mitigation, Innovation: The Case of the Chinese PV Industry. *Gallagher, K., +, MPE Sep-Oct 2014 28-33*
- Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System. *Meibom, P., +, MPE Sep-Oct 2013 46-55*
- Going Green: Transmission Grids as Enablers of the Transition to a Low-Carbon European Economy. *Henry, S., +, MPE Mar-Apr 2014 26-35*
- Growing Pains: Meeting India's Energy Needs in the Face of Limited Fossil Fuels. *Parikh, J., +, MPE May-Jun 2012 59-66*
- Ideas for Tomorrow: New Tools for Integrated Building and District Modeling. *Van Roy, J., +, MPE Sep-Oct 2013 75-81*
- Latin American Energy Markets: Investment Opportunities in Nonconventional Renewables. *Vargas, A., +, MPE Sep-Oct 2016 38-47*
- Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M., +, MPE Nov-Dec 2023 18-27*
- Northern Lights: Access to Electricity in Canada's Northern and Remote Communities. *Arriaga, M., +, MPE Jul-Aug 2014 50-59*
- On the Path to Decarbonization: Electrification and Renewables in California and the Northeast United States.** *Mahone, A., +, MPE Jul-Aug 2018 58-68*
- Restless Waters: Fossil Fuel Emissions Conditioning a Reduction in Hydroelectric Resources in Chile. *Rudnick, H., +, MPE Sep-Oct 2014 50-60*
- STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T., +, MPE Mar-Apr 2023 30-39*
- What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition. *Steg, L., +, MPE Jan-Feb 2018 20-28*
- Fourth Industrial Revolution
- Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G., +, MPE Nov-Dec 2024 112-117*
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T., +, MPE Jan-Feb 2024 16-23*
- Frequency control
- Changing the electricity game. *Nourai, A., +, PAE-M Jul-Aug 2009 42-47*
- Grid-Level Application of Electrical Energy Storage: Example Use Cases in the United States and China. *Zhang, Y., +, MPE Sep-Oct 2017 51-58*
- It's Indisputable: Five Facts About Planning and Operating Modern Power Systems. *Bloom, A., +, MPE Nov-Dec 2017 22-30*
- Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. *Brundlinger, R., +, MPE Mar-Apr 2015 30-42*

- Maintaining Balance: The Increasing Role of Energy Storage for Renewable Integration. *Stenlik, D.*, +, [MPE Nov-Dec 2017 31-39](#)
- Microgrid Controller Initiatives: An Overview of R&D by the U.S. Department of Energy. *Ton, D.*, +, [MPE Jul-Aug 2017 24-31](#)
- PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H.*, +, [MPE Sep-Oct 2017 59-67](#)
- Power System Restoration: Meeting the Challenge to Resiliency from Distributed Generation. *Roggatz, C.*, +, [MPE Jul-Aug 2020 31-40](#)
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, [MPE Mar-Apr 2024 30-41](#)
- Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B.*, +, [MPE Mar-Apr 2016 72-79](#)
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, +, [MPE Nov-Dec 2015 22-30](#)
- The Future of Power System Restoration: Using Distributed Energy Resources as a Force to Get Back Online. *Braun, M.*, +, [MPE Nov-Dec 2018 30-41](#)
- Frequency conversion
- Paving the Way: A Future Without Inertia Is Closer Than You Think. *Ackermann, T.*, +, [MPE Nov-Dec 2017 61-69](#)
- Frequency measurement
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B.*, +, [MPE Mar-Apr 2024 66-77](#)
- Frequency response
- The Power of Small: The Effects of Distributed Energy Resources on System Reliability. *Lew, D.*, +, [MPE Nov-Dec 2017 50-60](#)
- Fuel
- hydrogen, automotive fuel of the future. *T-Raissi, A.*, +, [PAE-M Nov-Dec 2004 40-45](#)
- Fuel cell power plants
- coming clean with fuel cells. *Kishinevsky, Y.*, +, [PAE-M Nov-Dec 2003 20-25](#)
- Fuel cells and load transients. *Caisheng Wang*, +, [PAE-M Jan-Feb 2007 58-63](#)
- fuel cells, promising devices for distributed generation. *Nehrir, H.*, +, [PAE-M Jan-Feb 2006 47-53](#)
- Fuel cells
- coming clean with fuel cells. *Kishinevsky, Y.*, +, [PAE-M Nov-Dec 2003 20-25](#)
- distributed generation, new technols., market penetration, network issues, public policy and stds. *Puttgen, H.B.*, +, [PAE-M Jan-Feb 2003 22-29](#)
- Drive friendly. *Thounthong, P.*, +, [PAE-M Jan-Feb 2008 69-76](#)
- H future, visions. *Andrews, C.J.*, +, [PAE-M Mar-Apr 2004 26-34](#)
- Fuel economy
- Going Green: Transmission Grids as Enablers of the Transition to a Low-Carbon European Economy. *Henry, S.*, +, [MPE Mar-Apr 2014 26-35](#)
- Zeroing In: Lessons from the European Climate Foundation's Roadmap 2050 Project. *Acke, D.*, [MPE Sep-Oct 2014 42-49](#)
- Fuel systems
- safe and secure, environmental effects of nuclear power plants and the nuclear fuel cycle. *MacDonald, J.D.*, [PAE-M Nov-Dec 2006 49-55](#)
- Fuels
- An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States.** *Frisch, C.*, +, [MPE Jul-Aug 2018 90-98](#)
- Back in the Race: Achieving 100% Renewable Energy in the Canary Islands. *Lemus, R.*, [MPE Nov-Dec 2020 64-74](#)
- Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W.*, +, [MPE Jan-Feb 2018 29-34](#)
- Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O.*, +, [MPE Nov-Dec 2014 49-62](#)
- Electrification and the Future of Electricity Markets: Transitioning to a Low-Carbon Energy System.** *Jones, R.*, +, [MPE Jul-Aug 2018 79-89](#)
- Generation to Come: Natural Gas and Electric System Interactions in South Korea. *Choi, J.*, [MPE Nov-Dec 2014 63-77](#)
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Leviton, R.*, +, [MPE Nov-Dec 2014 78-88](#)
- The Fragile Grid: The Physics and Economics of Security Services in Low-Carbon Power Systems. *Mancarella, P.*, +, [MPE Mar-Apr 2021 79-88](#)
- Toward Bulk Power System Resilience: Approaches for Regional Transmission Operators. *Chen, H.*, +, [MPE Jul-Aug 2020 20-30](#)
- Furnaces
- Correction. [MPE Nov-Dec 2017 108](#)

G

Games

- Frequency Disturbances During the Super Bowl: It's More Than Just What's on the Field. *Allen, E.*, +, [MPE Nov-Dec 2016 52-58](#)

Gas blast circuit breakers

- Circuit breakers go high voltage. *Dufournet, D.*, +, [PAE-M Jan-Feb 2009 34-40](#)

Gas turbines

- distributed generation, new technols., market penetration, network issues, public policy and stds. *Puttgen, H.B.*, +, [PAE-M Jan-Feb 2003 22-29](#)

Gears

- Currents of Change. *Sudhoff, S.D.*, +, [MPE Jul-Aug 2011 30-37](#)

Generators

- Achieving Resilience at Distribution Level: Learning from Isolated Community Microgrids. *Jimenez-Estevéz, G.*, +, [MPE May-Jun 2017 64-73](#)
- Balancing Act. *Lauby, M.G.*, +, [MPE Nov-Dec 2011 75-85](#)
- Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G.*, +, [MPE Mar-Apr 2019 25-36](#)
- Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F.*, +, [MPE Jul-Aug 2015 76-86](#)
- Driving Forces Behind Wind. *Osborn, D.*, +, [MPE Nov-Dec 2011 60-74](#)
- Electricity Markets in the United States: Power Industry Restructuring Processes for the Present and Future. *Litvinov, E.*, +, [MPE Jan-Feb 2019 32-42](#)
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N.*, +, [MPE Sep-Oct 2021 29-45](#)

- Expanding Power Systems in the Republic of Korea: Feasibility Studies and Future Challenges. *Kim, S.*, +, [MPE May-Jun 2019 61-72](#)
- Finding Flexibility: Cycling the Conventional Fleet. *Lew, D.*, +, [MPE Nov-Dec 2013 20-32](#)
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, +, [MPE Mar-Apr 2024 42-54](#)
- Growth in Wind and Sun: Integrating Variable Generation in China. *Jiang, L.*, +, [MPE Nov-Dec 2015 40-49](#)
- Hybrid Resources: Challenges, Implications, Opportunities, and Innovation. *Ahlstrom, M.*, +, [MPE Nov-Dec 2021 37-44](#)
- It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G.*, +, [MPE Jul-Aug 2015 61-75](#)
- Markets for Efficient Decarbonization: Revisiting Market Regulation and Design. *Battle, C.*, +, [MPE Jan-Feb 2021 20-28](#)
- Microgrid Controllers: Expanding Their Role and Evaluating Their Performance. *Maitra, A.*, +, [MPE Jul-Aug 2017 41-49](#)
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D.*, +, [MPE May-Jun 2021 20-35](#)
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R.*, +, [MPE Nov-Dec 2014 78-88](#)
- Power System Restoration: Meeting the Challenge to Resiliency from Distributed Generation. *Roggatz, C.*, +, [MPE Jul-Aug 2020 31-40](#)
- PV-Battery Systems for Critical Loads During Emergencies: A Case Study from Puerto Rico After Hurricane Maria. *Keerthisinghe, C.*, +, [MPE Jan-Feb 2019 82-92](#)
- Secrets of Successful Integration: Operating Experience With High Levels of Variable, Inverter-Based Generation. *Lew, D.*, +, [MPE Nov-Dec 2019 24-34](#)
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, +, [MPE Nov-Dec 2015 22-30](#)
- Strategies for Success with Synchrophasors: Poised to Shine in the Eastern Region of the United States. *Jones, K.*, +, [MPE Sep-Oct 2015 29-35](#)
- Synchrophasors Across Texas: The Deployment of Phasor Measurement Technology in the ERCOT Region. *Koellner, K.*, +, [MPE Sep-Oct 2015 36-40](#)
- Tales of Power System Failures: A Look at the Unusual, Strange, and Downright Bizarre Causes. *Waldele, R.*, [MPE Nov-Dec 2016 18-23](#)
- The Emerging Transactive Microgrid Controller: Illustrating Its Concept, Functionality, and Business Case. *Vaahedi, E.*, +, [MPE Jul-Aug 2017 80-87](#)
- The Evolution of the Market: Designing a Market for High Levels of Variable Generation. *Ahlstrom, M.*, +, [MPE Nov-Dec 2015 60-66](#)
- Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring. *Hobbs, B.*, +, [MPE Jan-Feb 2019 73-81](#)
- Why Distributed?: A Critical Review of the Tradeoffs Between Centralized and Decentralized Resources. *Burger, S.*, +, [MPE Mar-Apr 2019 16-24](#)
- Geographic information systems
- Advanced Distribution Management System: Improving Distribution Efficiency Through an Integrated Approach. *Devanand, P.*, +, [MPE Jan-Feb 2020 55-62](#)
- Geo-Information Is Power: Using Geographical Information Systems to Assess Rooftop Photovoltaics in Costa Rica. *Quiros-Tortos, J.*, +, [MPE Mar-Apr 2017 48-56](#)
- powerful planning tools. *Ramirez-Rosado, I.J.*, +, [PAE-M Mar-Apr 2005 56-63](#)
- Geography
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K.*, +, [MPE Jul-Aug 2024 18-25](#)
- Geology
- Wildfire Resiliency: California Case for Change. *Chiu, B.*, +, [MPE Jan-Feb 2022 28-37](#)
- Geothermal power
- green power, defn., renewable resources. *Rahman, S.*, [PAE-M Jan-Feb 2003 30-37](#)
- Geothermal power stations
- The Green Effect. *Barroso, L.A.*, +, [PAE-M Sep-Oct 2010 22-35](#)
- Global navigation satellite system
- Precise Time, All the Time: A Resilient Architecture for the Electric Power Industry and Beyond. *Robertson, P.*, +, [MPE Sep-Oct 2023 27-37](#)
- Global Positioning System
- Measurements get together. *Chakrabarti, S.*, +, [PAE-M Jan-Feb 2009 41-49](#)
- Global warming
- Carbon-Free Energy: How Much, How Soon?. *O'Connell, R.*, +, [MPE Nov-Dec 2021 67-76](#)
- Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences. *Serrano, R.*, +, [MPE Jan-Feb 2022 38-51](#)
- Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W.*, +, [MPE Jan-Feb 2022 16-27](#)
- Risky Business: Building a Resilient Power Sector. *Mendiluce, M.*, [MPE Sep-Oct 2014 34-41](#)
- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J.*, +, [MPE Nov-Dec 2024 28-41](#)
- The Green Impact: How Renewable Sources Are Changing EU Electricity Prices. *Chaves-Avila, J.*, +, [MPE Jul-Aug 2015 29-40](#)
- Turning down the heat. *Ozansoy, C.*, +, [PAE-M Jan-Feb 2010 29-36](#)
- Globalization
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, [MPE Jul-Aug 2024 94-102](#)
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P.*, +, [MPE Sep-Oct 2024 20-30](#)
- Government
- A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K.*, +, [MPE Nov-Dec 2023 28-37](#)
- Assuring a Sustainable Decarbonization: Affordability Options. *Schittekatte, T.*, +, [MPE Jul-Aug 2023 72-79](#)
- Balance of power. *Mocarquer, S.*, +, [PAE-M Sep-Oct 2009 26-35](#)
- Beyond Individual Active Customers: Citizen and Renewable Energy Communities in the European Union. *Rossetto, N.*, [MPE Jul-Aug 2023 36-44](#)
- Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O.*, +, [MPE Nov-Dec 2014 49-62](#)

- Energy Security Through Demand-Side Flexibility: The Case of Denmark. *Ostergaard, J.*, +, [MPE Mar-Apr 2021 46-55](#)
- Euro Mix: Current European Energy Developments and Policy Alternatives for 2030 and Beyond. *Lorubio, G.*, +, [MPE Mar-Apr 2014 65-74](#)
- Generation to Come: Natural Gas and Electric System Interactions in South Korea. *Choi, J.*, [MPE Nov-Dec 2014 63-77](#)
- Island breezes. *Matsuura, M.*, +, [PAE-M Nov-Dec 2009 59-64](#)
- Open Data to Accelerate the Electric Mobility Revolution: Deploying Journey Electric Vehicle Chargers in Rural Scotland. *Hunter, L.*, +, [MPE Nov-Dec 2023 56-67](#)
- Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H.*, +, [MPE Sep-Oct 2024 60-72](#)
- Studies in Empowerment: Approaches to Rural Electrification Worldwide. *Rudnick, H.*, +, [MPE Jul-Aug 2014 35-41](#)
- Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services. *De Martini, P.*, +, [MPE Jul-Aug 2022 76-84](#)
- Utility Planning for Distribution-Optimized Electric Vehicle Charging: A Case Study in the United States Pacific Northwest. *Mills, M.*, +, [MPE Nov-Dec 2023 48-55](#)
- Variable Renewable Energy Integration: Status Around the World. *Holtinen, H.*, +, [MPE Nov-Dec 2021 86-96](#)
- Government policies
- A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G.*, +, [MPE Jan-Feb 2019 53-66](#)
- A More Perfect Union: Energy Systems Integration Studies from Europe. *Holmes, J.*, +, [MPE Sep-Oct 2013 36-45](#)
- At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects. *Perlaviciute, G.*, +, [MPE Jan-Feb 2018 49-55](#)
- Changing Household Energy Usage: The Downsides of Incentives and How to Overcome Them. *van der Werff, E.*, +, [MPE Jan-Feb 2018 42-48](#)
- China's energy and environment. *Wu, F.F.*, +, [PAE-M Jul-Aug 2006 20-31](#)
- China's Solar Subsidy Policy: Government Funding Yields to Open Markets. *Dong, H.*, +, [MPE May-Jun 2020 49-60](#)
- Chinese growing pains. *Zhong, J.*, +, [PAE-M Jul-Aug 2007 33-40](#)
- creating harmony in South America. *Barroso, L.A.*, +, [PAE-M Jul-Aug 2006 32-46](#)
- distributed generation, new technol., market penetration, network issues, public policy and stds. *Puttgen, H.B.*, +, [PAE-M Jan-Feb 2003 22-29](#)
- Electricity Markets in the United States: Power Industry Restructuring Processes for the Present and Future. *Litvinov, E.*, +, [MPE Jan-Feb 2019 32-42](#)
- Electrifying India. *Sathaye, J.*, +, [PAE-M Sep-Oct 2009 59-61](#)
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, [MPE Jul-Aug 2024 94-102](#)
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N.*, +, [MPE Sep-Oct 2021 29-45](#)
- European Union Electricity Markets: Current Practice and Future View. *Gomez, T.*, +, [MPE Jan-Feb 2019 20-31](#)
- Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events. *Ackermann, T.*, +, [MPE Nov-Dec 2015 67-77](#)
- Many states of distribution. *Bouford, J.D.*, +, [PAE-M Jul-Aug 2007 24-32](#)
- Microgrids. *Hatziargyriou, N.*, +, [PAE-M Jul-Aug 2007 78-94](#)
- more perfect energy union, European Union. *Camyab, A.*, +, [PAE-M Jul-Aug 2006 47-56](#)
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J.*, +, [MPE Mar-Apr 2019 69-77](#)
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T.*, [PAE-M Sep-Oct 2003 54-62](#)
- Planning for the Future: Optimization-Based Distribution Planning Strategies for Integrating Distributed Energy Resources. *Cho, G.*, +, [MPE Nov-Dec 2018 77-87](#)
- Power Engineering Education: A Description of Current Academic Developments in India. *Nagamani, C.*, +, [MPE Sep-Oct 2018 42-52](#)
- Powering progress. *Khaparde, S.A.*, +, [PAE-M Jul-Aug 2007 41-49](#)
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, +, [MPE Jul-Aug 2024 85-93](#)
- Renewable Energy Zones in Australia: Integrated System Planning. *Pack, E.*, +, [MPE Sep-Oct 2021 56-66](#)
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N.*, +, [MPE Jul-Aug 2016 79-87](#)
- Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems. *Mountain, B.*, +, [MPE Jul-Aug 2015 53-60](#)
- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J.*, +, [MPE Nov-Dec 2024 28-41](#)
- Stimulating efficient distribution. *Rudnick, H.*, +, [PAE-M Jul-Aug 2007 50-67](#)
- Synchrophasor Technology and the DOE: Exciting Opportunities Lie Ahead in Development and Deployment. *Overholt, P.*, +, [MPE Sep-Oct 2015 14-17](#)
- Taking an active approach. *Djapic, P.*, +, [PAE-M Jul-Aug 2007 68-77](#)
- The Future of Power Transmission. *Horowitz, S.*, +, [PAE-M Mar-Apr 2010 34-40](#)
- The Green Impact: How Renewable Sources Are Changing EU Electricity Prices. *Chaves-Avila, J.*, +, [MPE Jul-Aug 2015 29-40](#)
- The Impetus for Hydropower Development in India: New Initiatives. *Sharma, S.*, +, [MPE Sep-Oct 2020 18-26](#)
- The New Zealand Electricity Market: Challenges of a Renewable Energy System. *Philpott, A.*, +, [MPE Jan-Feb 2019 43-52](#)
- The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection. *Herling, S.*, +, [MPE Jul-Aug 2016 65-71](#)
- Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring. *Hobbs, B.*, +, [MPE Jan-Feb 2019 73-81](#)
- Unity for all. *Sierra, J.*, +, [PAE-M Sep-Oct 2009 18-25](#)
- value-based system facility planning. *Chowdhury, A.A.*, +, [PAE-M Sep-Oct 2004 58-67](#)
- Variable-Generation Integration in China: An Update. *Jiang, L.*, +, [MPE Nov-Dec 2019 99-107](#)

- Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy. *Nicholson, E.*, +, *MPE Jan-Feb 2019 67-72*
- Governmental factors
H future, visions. *Andrews, C.J.*, +, *PAE-M Mar-Apr 2004 26-34*
- Graph theory
Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory. *Muhanji, S.*, +, *MPE Sep-Oct 2019 71-81*
- Graphical user interfaces
Web tool opens up power syst. visualization. *Fangxing Li*, *PAE-M Jul-Aug 2003 37-41*
- Graphics
Online Power Education: Keeping Pace with the Demand for High-Quality, Flexible Education. *Ahern, M.*, *MPE Sep-Oct 2018 82-86*
- Green energy
Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B.*, +, *MPE Jul-Aug 2024 75-84*
Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, *MPE Jul-Aug 2024 49-63*
Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, *MPE Jul-Aug 2024 94-102*
- Green products
Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q.*, +, *MPE Nov-Dec 2024 66-77*
Smart and Green Substation: Shaping the Electric Power Grid of Korea. *Kim, H.*, +, *MPE Jul-Aug 2019 24-34*
Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L.*, +, *MPE Sep-Oct 2022 26-38*
The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G.*, +, *MPE Jan-Feb 2015 38-51*
- Greenhouse effect
Beyond Individual Active Customers: Citizen and Renewable Energy Communities in the European Union. *Rossetto, N.*, *MPE Jul-Aug 2023 36-44*
Bottom-Up Flexibility in Multi-Energy Systems: Real-World Experiences From Europe. *Belhomme, R.*, +, *MPE Jul-Aug 2021 74-85*
Decarbonization of Electricity Systems in Europe: Market Design Challenges. *Strbac, G.*, +, *MPE Jan-Feb 2021 53-63*
Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P.*, +, *MPE Jul-Aug 2018 24-33*
Flexibility From the Electrification of Energy: How Heating, Transport, and Industries Can Support a 100% Sustainable Energy System. *Kiviluoma, J.*, +, *MPE Jul-Aug 2022 55-65*
Harnessing the Full Potential of Clean Energy: The Role of Southern California's Utility Distributed Energy Resource Pilots. *Mehr, V.*, +, *MPE Jul-Aug 2021 28-40*
Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective. *Michaelson, D.*, +, *MPE Mar-Apr 2022 57-63*
Lines of Convergence: R&D for Transmission and Distribution: Coordination and the Regulatory Challenge. *Ferrante, A.*, +, *MPE Jan-Feb 2015 52-59*
- Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources. *Sherick, R.*, +, *MPE Mar-Apr 2017 20-28*
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J.*, +, *MPE Mar-Apr 2019 69-77*
- Wildfire Resiliency: California Case for Change. *Chiu, B.*, +, *MPE Jan-Feb 2022 28-37*
- Greenhouse gases
South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J.*, +, *MPE Nov-Dec 2024 28-41*
- Grid-following
Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B.*, +, *MPE Mar-Apr 2024 18-29*
- Grid-forming
Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B.*, +, *MPE Mar-Apr 2024 18-29*
Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B.*, +, *MPE Mar-Apr 2024 66-77*
Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, *MPE Mar-Apr 2024 30-41*
- Grounding
On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics. *Key, T.*, +, *MPE Nov-Dec 2020 75-85*
- Guidelines
European Union Electricity Markets: Current Practice and Future View. *Gomez, T.*, +, *MPE Jan-Feb 2019 20-31*
Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H.*, +, *MPE Sep-Oct 2024 60-72*
- H
- Hardware
Microgrid Controllers: Expanding Their Role and Evaluating Their Performance. *Maitra, A.*, +, *MPE Jul-Aug 2017 41-49*
- Hardware-in-the-loop simulation
De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Dennetiere, S.*, +, *MPE Sep-Oct 2024 73-86*
- Harmonic analysis
Supporting Energy Transition in Transmission Systems: An Operator's Experience Using Electromagnetic Transient Simulation. *Dennetiere, S.*, +, *MPE May-Jun 2019 48-60*
- Harmonic distortion
nonintrusive load monitoring in distrib. network, power signature anal. *Laughman, C.*, +, *PAE-M Mar-Apr 2003 56-63*
- Hawaii
Catching Some Rays: Variable Generation Integration on the Island of Oahu. *Schuerger, M.*, +, *MPE Nov-Dec 2013 33-44*
- Hazards
Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H.*, +, *MPE Mar-Apr 2018 46-56*

- Stormy Weather: Assessing Climate Change Hazards to Electric Power Infrastructure: A Sandy Case Study. *Yates, D.*, +, [MPE Sep-Oct 2014 66-75](#)
- Heat pumps
- An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems.** *Mai, T.*, +, [MPE Jul-Aug 2018 34-47](#)
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C.*, +, [MPE Jan-Feb 2024 72-80](#)
- Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P.*, +, [MPE Jan-Feb 2024 52-60](#)
- Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns. *D'haeseleer, W.*, +, [MPE Jan-Feb 2017 61-71](#)
- Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. *Orths, A.*, +, [MPE Nov-Dec 2019 67-78](#)
- Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role. *Kiviluoma, J.*, +, [MPE Jan-Feb 2017 25-33](#)
- The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E.*, +, [MPE Jan-Feb 2017 34-42](#)
- Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E.*, +, [MPE Jan-Feb 2017 43-52](#)
- Heat sinks
- Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role. *Kiviluoma, J.*, +, [MPE Jan-Feb 2017 25-33](#)
- Heating systems
- Aggregating Distributed Energy Storage: Cloud-Based Flexibility Services From China. *Zhang, N.*, +, [MPE Jul-Aug 2021 63-73](#)
- Auctions for Nonwires Alternatives: Securing and Operating Dispatchable Distributed Energy Resources. *Golriz, A.*, +, [MPE Mar-Apr 2022 47-56](#)
- Changing Household Energy Usage: The Downsides of Incentives and How to Overcome Them. *van der Werff, E.*, +, [MPE Jan-Feb 2018 42-48](#)
- Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W.*, +, [MPE Jan-Feb 2018 29-34](#)
- Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control. *Du, Y.*, +, [MPE May-Jun 2022 42-53](#)
- Electrification in the United Kingdom: A Case Study Based on Future Energy Scenarios.** *Fowler, R.*, +, [MPE Jul-Aug 2018 48-57](#)
- Flexibility From the Electrification of Energy: How Heating, Transport, and Industries Can Support a 100% Sustainable Energy System. *Kiviluoma, J.*, +, [MPE Jul-Aug 2022 55-65](#)
- Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W.*, +, [MPE Jan-Feb 2022 16-27](#)
- Heuristic algorithms
- A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing. *Li, F.*, +, [MPE Mar-Apr 2020 60-68](#)
- Dynamic Wide Area Situational Awareness: Propelling Future Decentralized, Decarbonized, Digitized, and Democratized Electricity Grids. *Kamwa, I.*, [MPE Jan-Feb 2023 44-58](#)
- Hierarchical systems
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J.*, +, [MPE Sep-Oct 2023 38-47](#)
- High-voltage techniques
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P.*, +, [MPE Sep-Oct 2024 49-59](#)
- Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z.*, +, [MPE Mar-Apr 2023 61-69](#)
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C.*, +, [MPE Jan-Feb 2024 72-80](#)
- Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C.*, +, [MPE Sep-Oct 2024 31-37](#)
- DC Circuit Breakers for High-Voltage dc Grids: Present and Future. *Davidson, C.*, +, [MPE Sep-Oct 2024 87-99](#)
- De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Denetiere, S.*, +, [MPE Sep-Oct 2024 73-86](#)
- Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N.*, +, [MPE Mar-Apr 2016 57-65](#)
- High-Wire Act: HVdc Technology: The State of the Art. *Adapa, R.*, +, [MPE Nov-Dec 2012 18-29](#)
- If It Ain't Broke.... *Desai, B.*, +, [PAE-M Nov-Dec 2010 48-52](#)
- Improving Grid Resilience Using High-Voltage dc: Strengthening the Security of Power System Stability. *Roberson, D.*, +, [MPE May-Jun 2019 38-47](#)
- Keeping the Power Flowing: A Commitment Throughout the HVdc and FACTS Life Cycles. *Bjorklund, H.*, +, [MPE Mar-Apr 2016 66-71](#)
- Magic Bus: High-Voltage DC on the New Power Transmission Highway. *Majumder, R.*, +, [MPE Nov-Dec 2012 39-49](#)
- Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada. *Billodeau, H.*, +, [MPE Mar-Apr 2016 42-56](#)
- Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid. *Schonleber, K.*, +, [MPE Sep-Oct 2020 58-63](#)
- Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H.*, +, [MPE Sep-Oct 2024 60-72](#)
- Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration and DC Grid Expansions. *Lundberg, P.*, +, [MPE Nov-Dec 2012 30-38](#)
- Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D.*, +, [MPE Jul-Aug 2019 56-66](#)
- History
- Artificial Intelligence for Load Forecasting: History, Illusions, and Opportunities. *Hong, T.*, +, [MPE May-Jun 2022 14-23](#)
- Becoming the Utility of the Future: Risks and Opportunities. *Brown, R.*, +, [MPE Sep-Oct 2016 57-65](#)
- DC, Come Home: DC Microgrids and the Birth of the "Enernet". *Patterson, B.T.*, +, [MPE Nov-Dec 2012 60-69](#)
- Edison Redux: 380 Vdc Brings Reliability and Efficiency to Sustainable Data Centers. *Allée, G.*, +, [MPE Nov-Dec 2012 50-59](#)
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, [MPE Jul-Aug 2024 38-48](#)

- The Utility Operational Response to the 14 August 2003 Blackout: Analysis and Case Studies. *Robertson, F.R.*, +, [MPE May-Jun 2023 43-50](#)
- Utility Load Research: The Future of Load Research Is Now. *Puckett, C.*, +, [MPE May-Jun 2020 61-70](#)
- Home appliances
- The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G.*, +, [MPE Jan-Feb 2017 53-60](#)
- Human intelligence
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, [MPE Jul-Aug 2024 94-102](#)
- Hurricanes
- PV-Battery Systems for Critical Loads During Emergencies: A Case Study from Puerto Rico After Hurricane Maria. *Keerthisinghe, C.*, +, [MPE Jan-Feb 2019 82-92](#)
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, [MPE Jul-Aug 2024 38-48](#)
- System Restoration Readiness: The Evolution in North America. *Willson, J.*, +, [MPE Jul-Aug 2018 99-106](#)
- Weather Data for Energy Analytics: From Modeling Outages and Reliability Indices to Simulating Distributed Photovoltaic Fleets. *Black, J.*, +, [MPE May-Jun 2018 43-53](#)
- HVAC
- Demanding Standards. *Coe, S.*, +, [PAE-M May-Jun 2010 55-59](#)
- Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control. *Du, Y.*, +, [MPE May-Jun 2022 42-53](#)
- HVDC power converters
- The ABCs of HVDC transmission technologies. *Bahrman, M.P.*, +, [PAE-M Mar-Apr 2007 32-44](#)
- The Golden Spike: Advanced Power Electronics Enables Renewable Development Across NERC Regions. *Reynolds, M.*, +, [MPE Mar-Apr 2012 71-78](#)
- Pacific HVDC intertie. *Litzenberger, W.*, +, [PAE-M Mar-Apr 2007 45-51](#)
- HVDC power transmission
- 800-kV HVDC on the Horizon. *Szechtman, M.*, +, [PAE-M Mar-Apr 2007 61-69](#)
- Building a plan for HVDC. *Henderson, M.*, +, [PAE-M Mar-Apr 2007 52-60](#)
- Harmonizing AC and DC: A Hybrid AC/DC Future Grid Solution. *Wang, P.*, +, [MPE May-Jun 2013 76-83](#)
- High-Wire Act: HVdc Technology: The State of the Art. *Adapa, R.*, +, [MPE Nov-Dec 2012 18-29](#)
- HVDC transmission: yesterday and today. *Long, W.*, +, [PAE-M Mar-Apr 2007 22-31](#)
- Magic Bus: High-Voltage DC on the New Power Transmission Highway. *Majumder, R.*, +, [MPE Nov-Dec 2012 39-49](#)
- Pacific HVDC intertie. *Litzenberger, W.*, +, [PAE-M Mar-Apr 2007 45-51](#)
- Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration and DC Grid Expansions. *Lundberg, P.*, +, [MPE Nov-Dec 2012 30-38](#)
- Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M.*, +, [MPE Mar-Apr 2012 62-70](#)
- Softening the Blow of Disturbances. *Clark, H.*, +, [PAE-M Jan-Feb 2008 30-41](#)
- The ABCs of HVDC transmission technologies. *Bahrman, M.P.*, +, [PAE-M Mar-Apr 2007 32-44](#)
- The New Black Start: System Restoration with Help from Voltage-Sourced Converters. *Bahrman, M.*, +, [MPE Jan-Feb 2014 44-53](#)
- HVDC transmission
- A Subtransmission Metropolitan Power Grid: Using High-Voltage dc for Enhancement and Modernization. *Pan, J.*, +, [MPE May-Jun 2019 94-102](#)
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P.*, +, [MPE Sep-Oct 2024 49-59](#)
- Adopting Circuit Breakers for High-Voltage dc Networks: Appropriating the Vast Advantages of dc Transmission Grids. *Jovcic, D.*, +, [MPE May-Jun 2019 82-93](#)
- Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z.*, +, [MPE Mar-Apr 2023 61-69](#)
- Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C.*, +, [MPE Sep-Oct 2024 31-37](#)
- Current Trends in dc: Voltage-Source Converters. *Kirby, N.*, [MPE May-Jun 2019 32-37](#)
- De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Denetiere, S.*, +, [MPE Sep-Oct 2024 73-86](#)
- Designing for High-Voltage dc Grid Protection: Fault Clearing Strategies and Protection Algorithms. *Leterme, W.*, +, [MPE May-Jun 2019 73-81](#)
- Expanding Power Systems in the Republic of Korea: Feasibility Studies and Future Challenges. *Kim, S.*, +, [MPE May-Jun 2019 61-72](#)
- Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N.*, +, [MPE Mar-Apr 2016 57-65](#)
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, +, [MPE Mar-Apr 2024 42-54](#)
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, [MPE Mar-Apr 2024 78-88](#)
- High-Voltage dc Conversion: Boosting Transmission Capacity in the Grid. *Meridji, T.*, +, [MPE May-Jun 2019 22-31](#)
- HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A.*, [MPE Sep-Oct 2024 38-48](#)
- Improving Grid Resilience Using High-Voltage dc: Strengthening the Security of Power System Stability. *Roberson, D.*, +, [MPE May-Jun 2019 38-47](#)
- Keeping the Power Flowing: A Commitment Throughout the HVdc and FACTS Life Cycles. *Bjorklund, H.*, +, [MPE Mar-Apr 2016 66-71](#)
- Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada. *Bilodeau, H.*, +, [MPE Mar-Apr 2016 42-56](#)
- Norwegian Hydropower: Connecting to Continental Europe. *Tellefsen, T.*, +, [MPE Sep-Oct 2020 27-35](#)
- Offshore Substation Design: High-Level Overview of the Industry Best Practices. *Hamadi, V.*, +, [MPE Jul-Aug 2019 67-74](#)
- Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid. *Schonleber, K.*, +, [MPE Sep-Oct 2020 58-63](#)
- Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H.*, +, [MPE Sep-Oct 2024 60-72](#)

- Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects. *Johnson, R.*, +, [MPE Mar-Apr 2016 22-31](#)
- Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B.*, +, [MPE Mar-Apr 2016 72-79](#)
- Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D.*, +, [MPE Jul-Aug 2019 56-66](#)
- Supporting Energy Transition in Transmission Systems: An Operator's Experience Using Electromagnetic Transient Simulation. *Dennetière, S.*, +, [MPE May-Jun 2019 48-60](#)
- The China Southern Power Grid: Solutions to Operation Risks and Planning Challenges. *Zhou, H.*, +, [MPE Jul-Aug 2016 72-78](#)
- When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System. *Litzenberger, W.*, +, [MPE Mar-Apr 2016 32-41](#)
- Hybrid electric vehicles
- electric vehicles charge forward. *Chan, C.C.*, +, [PAE-M Nov-Dec 2004 24-33](#)
- hydrogen, automotive fuel of the future. *T-Raissi, A.*, +, [PAE-M Nov-Dec 2004 40-45](#)
- new hybrid electric vehicles. *Wehrey, M.C.*, [PAE-M Nov-Dec 2004 34-39](#)
- The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D.*, +, [MPE May-Jun 2014 26-36](#)
- Time Management. *Srinivasaraghavan, S.*, +, [MPE Jul-Aug 2011 46-53](#)
- Hybrid power systems
- Harmonizing AC and DC: A Hybrid AC/DC Future Grid Solution. *Wang, P.*, +, [MPE May-Jun 2013 76-83](#)
- Hybrid Resources: Challenges, Implications, Opportunities, and Innovation. *Ahlstrom, M.*, +, [MPE Nov-Dec 2021 37-44](#)
- Hydraulic turbines
- Quantifying Risk in an Uncertain Future: The Evolution of Resource Adequacy. *Stenclik, D.*, +, [MPE Nov-Dec 2021 29-36](#)
- Hydroelectric power
- A delicate balance in South America. *Rudnick, H.*, +, [PAE-M Jul-Aug 2008 22-35](#)
- Canadian clean. *Fortin, P.*, +, [PAE-M Jul-Aug 2008 40-46](#)
- green power, defn., renewable resources. *Rahman, S.*, [PAE-M Jan-Feb 2003 30-37](#)
- Growing Pains: Meeting India's Energy Needs in the Face of Limited Fossil Fuels. *Parikh, J.*, +, [MPE May-Jun 2012 59-66](#)
- Keeping water in the U.S. mix. *Ciocci, L.C.*, +, [PAE-M Jul-Aug 2008 36-39](#)
- Northern Lights: Access to Electricity in Canada's Northern and Remote Communities. *Arriaga, M.*, +, [MPE Jul-Aug 2014 50-59](#)
- The vulnerable Amazon: The impact of climate change on the untapped potential of hydropower systems. *Schaeffer, R.*, +, [MPE May-Jun 2013 22-31](#)
- Hydroelectric power generation
- Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy. *Kroposki, B.*, +, [MPE Mar-Apr 2017 61-73](#)
- Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia. *Ferreira, R.*, +, [MPE Mar-Apr 2019 50-60](#)
- Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies. *Moreno, R.*, +, [MPE Sep-Oct 2017 68-80](#)
- Grid-Level Application of Electrical Energy Storage: Example Use Cases in the United States and China. *Zhang, Y.*, +, [MPE Sep-Oct 2017 51-58](#)
- Hydropower in China. *Fu, S.*, +, [PAE-M Jul-Aug 2008 47-51](#)
- Norwegian Hydropower: Connecting to Continental Europe. *Tellefsen, T.*, +, [MPE Sep-Oct 2020 27-35](#)
- Pumped Storage Hydro: Then and Now. *Donalek, P.*, [MPE Sep-Oct 2020 49-57](#)
- Soccer Field Strategy. *Mah, E.J.*, +, [PAE-M Nov-Dec 2010 69-74](#)
- Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition. *Oyvang, T.*, +, [MPE Nov-Dec 2022 66-78](#)
- Technological Developments in Batteries: A Survey of Principal Roles, Types, and Management Needs. *Hu, X.*, +, [MPE Sep-Oct 2017 20-31](#)
- The Acaray Generating Station: Life-Extension and Modernization Studies. *Flores, D.*, +, [MPE Sep-Oct 2020 36-48](#)
- The Future of Power System Restoration: Using Distributed Energy Resources as a Force to Get Back Online. *Braun, M.*, +, [MPE Nov-Dec 2018 30-41](#)
- The Impetus for Hydropower Development in India: New Initiatives. *Sharma, S.*, +, [MPE Sep-Oct 2020 18-26](#)
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)
- Unrealized potential in Africa. *Blyden, B.K.*, +, [PAE-M Jul-Aug 2008 52-58](#)
- Variable Renewable Energy Integration: Status Around the World. *Holtinen, H.*, +, [MPE Nov-Dec 2021 86-96](#)
- Hydroelectric power stations
- Expansion Pressure: Energy Challenges in Brazil and Chile. *Bezerra, B.*, +, [MPE May-Jun 2012 48-58](#)
- Latin America Goes Electric: The Growing Social Challenges of Hydroelectric Development. *Varas, P.*, +, [MPE May-Jun 2013 66-75](#)
- Restless Waters: Fossil Fuel Emissions Conditioning a Reduction in Hydroelectric Resources in Chile. *Rudnick, H.*, +, [MPE Sep-Oct 2014 50-60](#)
- Hydrogen
- Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services. *Farrokhbadi, M.*, +, [MPE Sep-Oct 2017 81-91](#)
- Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K.*, +, [MPE Jul-Aug 2022 85-95](#)
- hydrogen, automotive fuel of the future. *T-Raissi, A.*, +, [PAE-M Nov-Dec 2004 40-45](#)
- Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E.*, +, [MPE Jan-Feb 2017 43-52](#)
- Hydrogen economy
- building, case. *Gurney, J.H.*, [PAE-M Mar-Apr 2004 35-39](#)
- future, visions. *Andrews, C.J.*, +, [PAE-M Mar-Apr 2004 26-34](#)
- IEC standards
- A Journey Through Energy Systems Integration: Trending Grid Codes, Standards, and IEC Collaboration. *MacDowell, J.*, +, [MPE Nov-Dec 2019 79-88](#)

- Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. *Dondossola, G.*, +, [MPE May-Jun 2024 42-49](#)
- Engineering perspectives on IEC 61850. *Hossenlopp, L.*, [PAE-M May-Jun 2007 45-50](#)
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J.*, +, [MPE Sep-Oct 2020 64-75](#)
- Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A.*, +, [MPE Sep-Oct 2023 58-67](#)
- Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R.*, +, [MPE Nov-Dec 2020 86-97](#)
- Smart and Green Substation: Shaping the Electric Power Grid of Korea. *Kim, H.*, +, [MPE Jul-Aug 2019 24-34](#)
- The true vision of automation. *Myrda, P.*, +, [PAE-M May-Jun 2007 32-44](#)
- IEEE
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T.*, [PAE-M Sep-Oct 2003 54-62](#)
- IEEE Power & Energy Society
- A whirl of activity. *Piwko, R.*, +, [PAE-M Nov-Dec 2009 26-35](#)
- Immunity testing
- boosting immunity to blackouts. *Horowitz, S.H.*, +, [PAE-M Sep-Oct 2003 47-53](#)
- India
- Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P.*, +, [MPE Sep-Oct 2022 46-53](#)
- The View from the Wide Side: Wide-Area Monitoring Systems in India. *Soonee, S.*, +, [MPE Sep-Oct 2015 49-59](#)
- Inductive charging
- I Charge, Therefore I Drive: Current State of Electric Vehicle Charging Systems. *Cirimele, V.*, +, [MPE Nov-Dec 2023 91-97](#)
- Inductors
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J.*, +, [MPE Mar-Apr 2019 69-77](#)
- The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K.*, +, [MPE May-Jun 2024 90-103](#)
- Transmission Technologies and Implementations: Building a Stronger, Smarter Power Grid in China. *Dai, R.*, +, [MPE Mar-Apr 2020 53-59](#)
- Industrial plants
- Flexibility From the Electrification of Energy: How Heating, Transport, and Industries Can Support a 100% Sustainable Energy System. *Kiviluoma, J.*, +, [MPE Jul-Aug 2022 55-65](#)
- Watch Out for Flooding: When the Power System Created a Weather Disaster. *Allen, E.*, [MPE Nov-Dec 2016 35-39](#)
- Industrial power systems
- Long-Term Vision: Industrial Operating Systems for Power Distribution. *Nativel, G.*, +, [MPE May-Jun 2024 59-66](#)
- Industries
- Achieving Retail Liberalization in Middle-Income Countries: Challenges and Successes of the Brazilian Experience. *Cunha, G.*, +, [MPE Jul-Aug 2023 26-35](#)
- Assuring a Sustainable Decarbonization: Affordability Options. *Schittekatte, T.*, +, [MPE Jul-Aug 2023 72-79](#)
- New Tool Evaluates the Financial Viability of Pumped Storage Hydropower. *Balducci, P.*, +, [MPE Nov-Dec 2023 98-109](#)
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J.*, +, [MPE Mar-Apr 2019 69-77](#)
- Paving the Way for Advanced Distribution Management Systems Applications: Making the Most of Models and Data. *Dubey, A.*, +, [MPE Jan-Feb 2020 63-75](#)
- Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T.*, [MPE May-Jun 2024 20-28](#)
- Smart Village Voices in Africa, Zambia: Part 4: Gemstones to Electric Infrastructure in Zambia. *Kachinga, K.*, +, [MPE Sep-Oct 2022 75-79](#)
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, [MPE Sep-Oct 2024 100-110](#)
- Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring. *Hobbs, B.*, +, [MPE Jan-Feb 2019 73-81](#)
- Information age
- Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M.*, +, [MPE May-Jun 2024 50-58](#)
- Information and communication technology
- Blackouts, Restoration, and Islanding: A System Resilience Perspective. *Braun, M.*, +, [MPE Jul-Aug 2020 54-63](#)
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A.*, +, [MPE Jan-Feb 2024 43-51](#)
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, [MPE Nov-Dec 2024 42-53](#)
- Information exchange
- Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. *Dondossola, G.*, +, [MPE May-Jun 2024 42-49](#)
- Everything's Talking to Each Other: Smart Meters Generate Big Data for Utilities and Customers. *Neumann, S.*, +, [MPE Jan-Feb 2016 40-47](#)
- Under the Hood: An Overview of the Common Information Model Data Exchanges. *Osterlund, L.*, +, [MPE Jan-Feb 2016 68-82](#)
- Information management
- A Common Language. *Hervey, M.*, +, [PAE-M Nov-Dec 2010 28-36](#)
- A Smarter Grid Operation: New Energy Management Systems in China. *Xin, Y.*, +, [MPE Mar-Apr 2018 36-45](#)
- In the Face of Cybersecurity: How the Common Information Model Can Be Used. *Skare, P.*, +, [MPE Jan-Feb 2016 94-104](#)
- Information resources
- Web tool opens up power syst. visualization. *Fangxing Li*, [PAE-M Jul-Aug 2003 37-41](#)
- Information systems
- enterprising energy mgt. *Van Gorp, J.C.*, [PAE-M Jan-Feb 2004 59-63](#)
- The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All. *Repo, S.*, +, [MPE May-Jun 2017 41-51](#)
- Information technology
- A Common Language. *Hervey, M.*, +, [PAE-M Nov-Dec 2010 28-36](#)

- Innovation management
The Big Picture: Smart Research for Large-Scale Integrated Smart Grid Solutions. *Kezunovic, M., +, MPE Jul-Aug 2012 22-34*
- Inspection
life extension/condition assess. *Dominelli, N., +, PAE-M May-Jun 2006 24-35*
The Acaray Generating Station: Life-Extension and Modernization Studies. *Flores, D., +, MPE Sep-Oct 2020 36-48*
- Installation
Building a plan for HVDC. *Henderson, M., +, PAE-M Mar-Apr 2007 52-60*
- Instrument transformers
The Substation of the Future: Moving Toward a Digital Solution. *Hunt, R., +, MPE Jul-Aug 2019 47-55*
- Insulated gate bipolar transistors
The Golden Spike: Advanced Power Electronics Enables Renewable Development Across NERC Regions. *Reynolds, M., +, MPE Mar-Apr 2012 71-78*
- Insulators
Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z., +, MPE Mar-Apr 2023 61-69*
- Integrated circuit interconnections
Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C., +, MPE Sep-Oct 2024 31-37*
Flexibility Is Key in New York: New Tools and Operational Solutions for Managing Distributed Energy Resources. *Currie, B., +, MPE May-Jun 2017 20-29*
In Divergence There Is Strength: Measuring and Mitigating Solar PV Impacts in Southern California Using Power Factors Other than One. *Mather, B., +, MPE Mar-Apr 2015 62-70*
Time and Location: What Matters Most When Valuing Distributed Energy Resources. *Smith, J., +, MPE Mar-Apr 2017 29-39*
- Integrated circuit modeling
A Tale of Two Visions: Designing a Decentralized Transactive Electric System. *Kristov, L., +, MPE May-Jun 2016 63-69*
Advanced Applications in an Advanced Distribution Management System: Essentials for Implementation and Integration. *Boardman, E., MPE Jan-Feb 2020 43-54*
Geo-Information Is Power: Using Geographical Information Systems to Assess Rooftop Photovoltaics in Costa Rica. *Quiros-Tortos, J., +, MPE Mar-Apr 2017 48-56*
In Divergence There Is Strength: Measuring and Mitigating Solar PV Impacts in Southern California Using Power Factors Other than One. *Mather, B., +, MPE Mar-Apr 2015 62-70*
Microgrid Controllers: Expanding Their Role and Evaluating Their Performance. *Maitra, A., +, MPE Jul-Aug 2017 41-49*
On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics. *Key, T., +, MPE Nov-Dec 2020 75-85*
- Integrated circuits
Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C., +, MPE Sep-Oct 2024 31-37*
Going Beyond Cybersecurity Compliance: What Power and Utility Companies Really Need To Consider. *Smith, E., +, MPE Sep-Oct 2016 48-56*
- Networked Microgrids: Exploring the Possibilities of the IIT-Bronzeville Grid. *Shahidehpour, M., +, MPE Jul-Aug 2017 63-71*
- Integration
web services provide the power to integrate. *Jun Zhu, PAE-M Nov-Dec 2003 40-49*
- Intelligent control
Transmission and Distribution Equipment: Providing Intelligent Maintenance. *Franck, C.M., +, MPE Mar-Apr 2023 18-29*
- Intelligent networks
Intelligent Design" Real-Time Simulation for Smart Grid Control and Communications Design. *Anderson, D., +, MPE Jan-Feb 2012 49-57*
Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M., +, MPE May-Jun 2024 50-58*
Streetlights Are Getting Smarter: Integrating an Intelligent Communications and Control System to the Current Infrastructure. *Shahidehpour, M., +, MPE May-Jun 2015 67-80*
- Intelligent sensors
Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G., +, MPE Nov-Dec 2024 112-117*
- Intelligent transportation
Smart City Energy Technology in the Face of Emergency Situations: Electric Supply, Electric Transportation, and Communication. *Vittal, V., +, MPE Sep-Oct 2022 16-25*
- Interconnected power systems
balancing market priorities, security issues. *Amin, M., PAE-M Jul-Aug 2004 30-38*
elec. power gener., Concerns generated by islanding. *Villeneuve, P.L., PAE-M May-Jun 2004 49-53*
India's fast growing power sector, from regional develop., growth of national grid. *Yadav, R.G., +, PAE-M Jul-Aug 2005 39-48*
Italian power restoration plan, Restoration project. *Salvati, R., +, PAE-M Jan-Feb 2004 44-51*
smart grid, power delivery for 21st century. *Massoud Amin, S., +, PAE-M Sep-Oct 2005 34-41*
syst. blackouts, Cascade to black. *Pereira, L., PAE-M May-Jun 2004 54-57*
thermal governor model develop. *Pereira, L., PAE-M May-Jun 2005 62-70*
- Interconnected systems
Distributed Energy Resources Roadmap: How the State of Western Australia Is Leading in Integration. *Hadingham, W., +, MPE Sep-Oct 2021 76-88*
wind generation challenges and progress. *Zavadil, R., +, PAE-M Nov-Dec 2005 26-37*
- Interconnections
wind generation challenges and progress. *Zavadil, R., +, PAE-M Nov-Dec 2005 26-37*
- Interference
Assuring a Sustainable Decarbonization: Affordability Options. *Schittekatte, T., +, MPE Jul-Aug 2023 72-79*
- Internet
Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G., +, MPE Nov-Dec 2024 112-117*
power professionals, dist. learning. *Pahwa, A., +, PAE-M Jan-Feb 2005 53-58*
Smart Village Voices in Africa, Zambia: Part 4: Gemstones to Electric Infrastructure in Zambia. *Kachinga, K., +, MPE Sep-Oct 2022 75-79*
The New Centurions. *Crow, M., +, PAE-M Jul-Aug 2010 20-26*

- Web-enabling apps. for outsourced computing. *Fangxing Li, +, PAE-M Jan-Feb 2003 53-57*
- Internet of Things
- Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols. *Razon, A., +, MPE Jan-Feb 2020 26-33*
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J., +, MPE Sep-Oct 2023 38-47*
- Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M., +, MPE May-Jun 2024 50-58*
- Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory. *Muhanji, S., +, MPE Sep-Oct 2019 71-81*
- Interoperability
- Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols. *Razon, A., +, MPE Jan-Feb 2020 26-33*
- De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Dennetiere, S., +, MPE Sep-Oct 2024 73-86*
- Enabling the Integrated Grid: Leveraging Data to Integrate Distributed Resources and Customers. *McGranaghan, M., +, MPE Jan-Feb 2016 83-93*
- Everything's Talking to Each Other: Smart Meters Generate Big Data for Utilities and Customers. *Neumann, S., +, MPE Jan-Feb 2016 40-47*
- Investing for the Future: How Small Utilities are Finding Success With Advanced Distribution Management Systems. *Ngo, Y., +, MPE Jan-Feb 2020 34-42*
- Making Distribution Automation Work: Smart Data Is Imperative for Growth. *Gray, G., +, MPE Jan-Feb 2016 58-67*
- Optimizing Operations with CIM: Today's Grid Relies on Network Analysis (and a Lot of Data). *Britton, J., +, MPE Jan-Feb 2016 48-57*
- Prescription for Interoperability: Power System Challenges and Requirements for Interoperable Solutions. *Ivanov, C., +, MPE Jan-Feb 2016 30-39*
- The Plug-and-Play Electricity Era: Interoperability to Integrate Anything, Anywhere, Anytime. *Widergren, S., +, MPE Sep-Oct 2019 47-58*
- Under the Hood: An Overview of the Common Information Model Data Exchanges. *Osterlund, L., +, MPE Jan-Feb 2016 68-82*
- Interviews
- Smart Village Voices in Africa, Nigeria: Part 2—Village Entrepreneurs in Nigeria. *Ureh, H., +, MPE Sep-Oct 2022 61-68*
- Intserv networks
- Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J., +, MPE May-Jun 2024 29-41*
- Inverter-based resource
- Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B., +, MPE Mar-Apr 2024 18-29*
- Inverter-based resources
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A., +, MPE Mar-Apr 2024 42-54*
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B., +, MPE Mar-Apr 2024 66-77*
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N., +, MPE Mar-Apr 2024 78-88*
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B., +, MPE Mar-Apr 2024 30-41*
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D., +, MPE Mar-Apr 2024 55-65*
- Inverters
- A Success Story: The Value of the Massachusetts Technical Standards Review Group. *Enayati, B., MPE Mar-Apr 2017 57-60*
- Absorbing the Rays: Advanced Inverters Help Integrate PV into Electric Utility Distribution Systems. *Steffel, S., +, MPE Mar-Apr 2013 45-54*
- Consumer-Led Transition: Australia's World-Leading Distributed Energy Resource Integration Efforts. *Stringer, N., +, MPE Nov-Dec 2020 20-36*
- Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. *Fan, L., +, MPE May-Jun 2022 64-76*
- Dynamic Estimation-Based Protection and Hidden Failure Detection and Identification: Inverter-Dominated Power Systems. *Meliopoulos, S., +, MPE Jan-Feb 2023 59-72*
- Energy Storage Control Capability Expansion: Achieving Better Technoeconomic Benefits at Portland General Electric's Salem Smart Power Center. *Alam, J., +, MPE Mar-Apr 2020 69-80*
- Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B., +, MPE Mar-Apr 2024 18-29*
- Grid-Forming Inverters: Are They the Key for High Renewable Penetration?. *Matevosyan, J., +, MPE Nov-Dec 2019 89-98*
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B., +, MPE Mar-Apr 2024 66-77*
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N., +, MPE Mar-Apr 2024 78-88*
- HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A., MPE Sep-Oct 2024 38-48*
- In Divergence There Is Strength: Measuring and Mitigating Solar PV Impacts in Southern California Using Power Factors Other than One. *Mather, B., +, MPE Mar-Apr 2015 62-70*
- Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection. *Ropp, M., +, MPE May-Jun 2021 47-57*
- Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. *Brundlinger, R., +, MPE Mar-Apr 2015 30-42*
- Managing the New Grid: Delivering Sustainable Electrical Energy. *Romero Aguero, J., +, MPE Jul-Aug 2019 75-84*
- Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources. *Sherick, R., +, MPE Mar-Apr 2017 20-28*
- No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F., +, MPE Mar-Apr 2015 43-49*
- On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics. *Key, T., +, MPE Nov-Dec 2020 75-85*
- Practical Microgrid Protection Solutions: Promises and Challenges. *Manson, S., +, MPE May-Jun 2021 58-69*
- Setting the Smart Solar Standard: Collaborations Between Hawaiian Electric and the National Renewable

- Energy Laboratory. *Hoke, A., +, MPE Nov-Dec 2018 18-29*
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D., +, MPE Mar-Apr 2024 55-65*
- Twilight of the Grids: The Impact of Distributed Solar on Germany's Energy Transition. *Stetz, T., +, MPE Mar-Apr 2015 50-61*
- Investment
- A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G., +, MPE Jan-Feb 2019 53-66*
- A Wider Horizon. *McCalley, J., +, MPE May-Jun 2011 42-54*
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C., +, MPE Jan-Feb 2024 72-80*
- Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G., +, MPE Mar-Apr 2019 25-36*
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J., +, MPE Jul-Aug 2024 49-63*
- Distribution Network Rate Making in Latin America: An Evolving Landscape. *Moreno, R., +, MPE May-Jun 2020 33-48*
- FACTS on resolving transmission gridlock. *Reed, G., +, PAE-M Sep-Oct 2003 41-46*
- From Reliability to Resilience: Planning the Grid Against the Extremes. *Moreno, R., +, MPE Jul-Aug 2020 41-53*
- Markets for Efficient Decarbonization: Revisiting Market Regulation and Design. *Batlle, C., +, MPE Jan-Feb 2021 20-28*
- Microgrids for Fun and Profit: The Economics of Installation Investments and Operations. *Farzan, F., +, MPE Jul-Aug 2013 52-58*
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T., PAE-M Sep-Oct 2003 54-62*
- The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System. *Kristov, L., MPE Mar-Apr 2019 42-49*
- watching watts to prevent abuse of power. *Sheffrin, A.Y., +, PAE-M Jul-Aug 2004 58-65*
- Why Distributed?: A Critical Review of the Tradeoffs Between Centralized and Decentralized Resources. *Burger, S., +, MPE Mar-Apr 2019 16-24*
- Investments
- A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty. *Velasquez, C., +, MPE Jul-Aug 2016 20-29*
- Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B., +, MPE Jul-Aug 2016 30-40*
- Applying the Principle of Locality: How to Build a Robust, Technology-Agnostic Regulatory Model for Tomorrow's Electrical Grid. *Enslin, J., +, MPE Sep-Oct 2016 66-74*
- Balance of power. *Mocarquer, S., +, PAE-M Sep-Oct 2009 26-35*
- Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F., +, MPE Jul-Aug 2015 76-86*
- Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles. *Ochoa, L., +, MPE Sep-Oct 2016 16-28*
- Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies. *Moreno, R., +, MPE Sep-Oct 2017 68-80*
- Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns. *D'haeseleer, W., +, MPE Jan-Feb 2017 61-71*
- Flexible Connections: Solutions and Challenges for the Integration of Renewables in South America. *Rudnick, H., +, MPE Mar-Apr 2012 24-36*
- From "Fit and Forget" to "Flex or Regret" in Distribution Grids: Dealing With Congestion in European Distribution Grids. *Beckstedde, E., +, MPE Jul-Aug 2023 45-52*
- It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G., +, MPE Jul-Aug 2015 61-75*
- Latin American Energy Markets: Investment Opportunities in Nonconventional Renewables. *Vargas, A., +, MPE Sep-Oct 2016 38-47*
- Lines of Convergence: R&D for Transmission and Distribution: Coordination and the Regulatory Challenge. *Ferrante, A., +, MPE Jan-Feb 2015 52-59*
- Making Room for the Boom. *Moreno, R., +, PAE-M Sep-Oct 2010 36-46*
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G., +, MPE Sep-Oct 2017 32-41*
- Realizing the Power of Data Marts. *McDonald, J.D., +, PAE-M May-Jun 2007 57-66*
- REVing Up the Energy Vision in New York: Seizing the Opportunity to Create a Cleaner, More Resilient, and Affordable Energy System. *Zibelman, A., MPE May-Jun 2016 18-24*
- Risky Business: Building a Resilient Power Sector. *Mendiluce, M., MPE Sep-Oct 2014 34-41*
- Sharing the Ride of Power: Understanding Transactive Energy in the Ecosystem of Energy Economics. *Masiello, R., +, MPE May-Jun 2016 70-78*
- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J., +, MPE Jan-Feb 2015 84-91*
- Synchrophasor Technology and the DOE: Exciting Opportunities Lie Ahead in Development and Deployment. *Overholt, P., +, MPE Sep-Oct 2015 14-17*
- The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G., +, MPE Jan-Feb 2017 53-60*
- The Doctor Is In. *Gregerson, S., +, PAE-M Nov-Dec 2010 45-47*
- The Expansion of Transmission: The Challenges Faced in South America. *de Sa Ferreira, R., +, MPE Jul-Aug 2016 54-64*
- The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D., +, MPE May-Jun 2014 26-36*
- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J., +, MPE Jan-Feb 2015 20-29*
- What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition. *Steg, L., +, MPE Jan-Feb 2018 20-28*
- Wide-Area Planning of Electric Infrastructure: Assessing Investment Options for Low-Carbon Futures. *McCalley, J., +, MPE Nov-Dec 2017 83-93*
- Islanding
- Microgrid Controller Initiatives: An Overview of R&D by the U.S. Department of Energy. *Ton, D., +, MPE Jul-Aug 2017 24-31*

- No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F.*, +, [MPE Mar-Apr 2015 43-49](#)
- Iterative methods
- Beat the Heat. *Chakrabarti, B.*, +, [MPE Mar-Apr 2011 67-73](#)
- Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B.*, +, [MPE Jul-Aug 2024 75-84](#)
- J
- Japan
- Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H.*, +, [MPE Mar-Apr 2018 46-56](#)
- Japan's Pivot to Resilience: How Two Microgrids Fared After the 2011 Earthquake. *Marnay, C.*, +, [MPE May-Jun 2015 44-57](#)
- Java
- Web tool opens up power syst. visualization. *Fangxing Li*, [PAE-M Jul-Aug 2003 37-41](#)
- L
- Labor resources
- Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T.*, [MPE May-Jun 2024 20-28](#)
- Laboratories
- Electric Power Engineering Education: Cultivating the Talent in the United Kingdom and Italy to Build the Low-Carbon Economy of the Future. *Chicco, G.*, +, [MPE Sep-Oct 2018 53-63](#)
- Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. *Brundlinger, R.*, +, [MPE Mar-Apr 2015 30-42](#)
- Large-scale systems
- Large-scale solutions. *Fioravanti, R.*, +, [PAE-M Jul-Aug 2009 48-57](#)
- wind generation challenges and progress. *Zavadil, R.*, +, [PAE-M Nov-Dec 2005 26-37](#)
- Law
- Beyond Individual Active Customers: Citizen and Renewable Energy Communities in the European Union. *Rossetto, N.*, [MPE Jul-Aug 2023 36-44](#)
- Legislation
- Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. *Dondossola, G.*, +, [MPE May-Jun 2024 42-49](#)
- Life cycle assessment
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T.*, +, [MPE Jan-Feb 2024 16-23](#)
- Life estimation
- extension/condition assess. *Dominelli, N.*, +, [PAE-M May-Jun 2006 24-35](#)
- Lighting
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N.*, +, [MPE Sep-Oct 2021 29-45](#)
- Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid. *Burdick, A.*, +, [MPE Jul-Aug 2022 30-43](#)
- Streetlights Are Getting Smarter: Integrating an Intelligent Communications and Control System to the Current Infrastructure. *Shahidehpour, M.*, +, [MPE May-Jun 2015 67-80](#)
- Lightning
- Islands in the Storm: Integrating Microgrids into the Larger Grid. *Montoya, M.*, +, [MPE Jul-Aug 2013 33-39](#)
- Lightning protection
- Lightning Protection of Distribution Power Systems: Arrester Development and Application Over the Years. *Woodworth, J.*, [MPE Mar-Apr 2023 51-60](#)
- Liquefied natural gas
- Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements. *Heinen, S.*, +, [MPE Jan-Feb 2017 16-24](#)
- Load (electric)
- nonintrusive load monitoring in distrib. network, power signature anal. *Laughman, C.*, +, [PAE-M Mar-Apr 2003 56-63](#)
- Load control
- Measures of Value: Data Analytics for Automated Fault Analysis. *Popovic, T.*, +, [MPE Sep-Oct 2012 58-69](#)
- Load distribution
- Good Vibrations. *Yinger, R.J.*, +, [MPE Sep-Oct 2011 22-32](#)
- Taking Credit. *Amelin, M.*, +, [PAE-M Sep-Oct 2010 47-52](#)
- Load flow
- A Subtransmission Metropolitan Power Grid: Using High-Voltage dc for Enhancement and Modernization. *Pan, J.*, +, [MPE May-Jun 2019 94-102](#)
- Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. *Kroposki, B.*, +, [MPE Nov-Dec 2020 37-46](#)
- Beat the Heat. *Chakrabarti, B.*, +, [MPE Mar-Apr 2011 67-73](#)
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C.*, +, [MPE Jan-Feb 2024 72-80](#)
- Current Trends in dc: Voltage-Source Converters. *Kirby, N.*, [MPE May-Jun 2019 32-37](#)
- fostering intuitive minds for power syst. design. *Overbye, T.J.*, [PAE-M Jul-Aug 2003 42-49](#)
- Getting Smart. *Santacana, E.*, +, [PAE-M Mar-Apr 2010 41-48](#)
- No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F.*, +, [MPE Mar-Apr 2015 43-49](#)
- Paving the Way for Advanced Distribution Management Systems Applications: Making the Most of Models and Data. *Dubey, A.*, +, [MPE Jan-Feb 2020 63-75](#)
- Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D.*, +, [MPE Jul-Aug 2019 56-66](#)
- Synchronous Condenser Applications: Under Significant Resource Portfolio Changes. *Zhou, G.*, +, [MPE Jul-Aug 2019 35-46](#)
- The Situation Room: Control Center Analytics for Enhanced Situational Awareness. *Giri, J.*, +, [MPE Sep-Oct 2012 24-39](#)
- The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I.*, [MPE Jul-Aug 2016 41-53](#)
- Time and Location: What Matters Most When Valuing Distributed Energy Resources. *Smith, J.*, +, [MPE Mar-Apr 2017 29-39](#)
- Why Distributed?: A Critical Review of the Tradeoffs Between Centralized and Decentralized Resources. *Burger, S.*, +, [MPE Mar-Apr 2019 16-24](#)

Load forecasting

- Artificial Intelligence for Load Forecasting: History, Illusions, and Opportunities. *Hong, T.*, +, [MPE May-Jun 2022 14-23](#)
- Behavior Modification. *Braithwait, S.*, +, [PAE-M May-Jun 2010 36-45](#)
- Beyond the Crystal Ball: Locational Marginal Price Forecasting and Predictive Operations in U.S. Power Markets. *Sahni, M.*, +, [MPE Jul-Aug 2012 35-42](#)
- distrib. asset insight. *Sonderregger, R.C.*, +, [PAE-M May-Jun 2004 32-39](#)
- Plug In, Turn On, and Load Up. *Ungar, E.*, +, [PAE-M May-Jun 2010 30-35](#)
- shaping future of global energy delivery. *Garrity, T.F.*, [PAE-M Sep-Oct 2003 26-30](#)
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, [MPE Nov-Dec 2024 42-53](#)
- sustainable future for nuclear power. *MacGill, I.*, +, [PAE-M Jul-Aug 2006 63-74](#)
- The Power of Small: The Effects of Distributed Energy Resources on System Reliability. *Lew, D.*, +, [MPE Nov-Dec 2017 50-60](#)
- Utility Load Research: The Future of Load Research Is Now. *Puckett, C.*, +, [MPE May-Jun 2020 61-70](#)

Load management

- Big Data Analytics in China's Electric Power Industry: Modern Information, Communication Technologies, and Millions of Smart Meters. *Kang, C.*, +, [MPE May-Jun 2018 54-65](#)
- Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control. *Du, Y.*, +, [MPE May-Jun 2022 42-53](#)
- distrib. asset insight. *Sonderregger, R.C.*, +, [PAE-M May-Jun 2004 32-39](#)
- energy management systems. *Maghsoodlou, F.*, +, [PAE-M Sep-Oct 2004 49-57](#)
- PV-Battery Systems for Critical Loads During Emergencies: A Case Study from Puerto Rico After Hurricane Maria. *Keerthisinghe, C.*, +, [MPE Jan-Feb 2019 82-92](#)
- shaping future of global energy delivery. *Garrity, T.F.*, [PAE-M Sep-Oct 2003 26-30](#)
- The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All. *Repo, S.*, +, [MPE May-Jun 2017 41-51](#)
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J.*, +, [MPE May-Jun 2017 30-40](#)

Load modeling

- A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty. *Velasquez, C.*, +, [MPE Jul-Aug 2016 20-29](#)
- Advanced Applications in an Advanced Distribution Management System: Essentials for Implementation and Integration. *Boardman, E.*, [MPE Jan-Feb 2020 43-54](#)
- Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols. *Razon, A.*, +, [MPE Jan-Feb 2020 26-33](#)
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D.*, +, [MPE Nov-Dec 2024 18-27](#)
- Geo-Information Is Power: Using Geographical Information Systems to Assess Rooftop Photovoltaics in Costa Rica. *Quiros-Tortos, J.*, +, [MPE Mar-Apr 2017 48-56](#)

On the Path to Decarbonization: Electrification and Renewables in California and the Northeast United States. *Mahone, A.*, +, [MPE Jul-Aug 2018 58-68](#)

- Supporting Energy Transition in Transmission Systems: An Operator's Experience Using Electromagnetic Transient Simulation. *Denetiere, S.*, +, [MPE May-Jun 2019 48-60](#)
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, +, [MPE Mar-Apr 2024 55-65](#)
- The Acaray Generating Station: Life-Extension and Modernization Studies. *Flores, D.*, +, [MPE Sep-Oct 2020 36-48](#)
- The Interface of Power: Moving Toward Distribution System Operators. *Apostolopoulou, D.*, +, [MPE May-Jun 2016 46-51](#)
- The Power of Small: The Effects of Distributed Energy Resources on System Reliability. *Lew, D.*, +, [MPE Nov-Dec 2017 50-60](#)
- Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory. *Muhanji, S.*, +, [MPE Sep-Oct 2019 71-81](#)
- ## Local area networks
- Get on the digital bus to substation automation. *Schumacher, M.*, +, [PAE-M May-Jun 2007 51-56](#)
- Intruders in the Grid. *Chen-Ching Liu*, +, [MPE Jan-Feb 2012 58-66](#)
- Remote Control. *Thomas, M.S.*, +, [PAE-M Jul-Aug 2010 53-60](#)
- ## Logic gates
- Developing Local Energy Markets: A Holistic System Approach. *Rassa, A.*, +, [MPE Sep-Oct 2019 59-70](#)
- The Acaray Generating Station: Life-Extension and Modernization Studies. *Flores, D.*, +, [MPE Sep-Oct 2020 36-48](#)
- ## Loss measurement
- Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H.*, +, [MPE Mar-Apr 2018 46-56](#)
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J.*, +, [MPE Sep-Oct 2023 38-47](#)
- ## Low carbon economy
- Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B.*, +, [MPE Jul-Aug 2024 75-84](#)
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, [MPE Jul-Aug 2024 49-63](#)
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W.*, +, [MPE Sep-Oct 2024 111-115](#)
- Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q.*, +, [MPE Nov-Dec 2024 66-77](#)
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, +, [MPE Jul-Aug 2024 85-93](#)
- ## Low latency communication
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, [MPE Nov-Dec 2024 42-53](#)
- ## Low voltage
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C.*, +, [MPE Jan-Feb 2024 72-80](#)

Low-carbon economy

- A Modern Communications Platform to Enable the Modern Grid: A Utility-Grade Wireless Broadband Network. *L'Abbate, C.*, *MPE Sep-Oct 2023 18-26*
- A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E.*, *MPE Sep-Oct 2022 39-45*
- Achieving Retail Liberalization in Middle-Income Countries: Challenges and Successes of the Brazilian Experience. *Cunha, G.*, *MPE Jul-Aug 2023 26-35*
- Assuring a Sustainable Decarbonization: Affordability Options. *Schittekatte, T.*, *MPE Jul-Aug 2023 72-79*
- Beyond Individual Active Customers: Citizen and Renewable Energy Communities in the European Union. *Rossetto, N.*, *MPE Jul-Aug 2023 36-44*
- Carbon-Free Energy: How Much, How Soon?. *O'Connell, R.*, *MPE Nov-Dec 2021 67-76*
- Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P.*, *MPE Jan-Feb 2024 52-60*
- Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G.*, *MPE Mar-Apr 2019 25-36*
- Decarbonization of Electricity Systems in Europe: Market Design Challenges. *Strbac, G.*, *MPE Jan-Feb 2021 53-63*
- Developing Local Energy Markets: A Holistic System Approach. *Rassa, A.*, *MPE Sep-Oct 2019 59-70*
- Energy Security Through Demand-Side Flexibility: The Case of Denmark. *Ostergaard, J.*, *MPE Mar-Apr 2021 46-55*
- From Security to Resilience: Technical and Regulatory Options to Manage Extreme Events in Low-Carbon Grids. *Eggleston, J.*, *MPE Sep-Oct 2021 67-75*
- Harnessing the Full Potential of Clean Energy: The Role of Southern California's Utility Distributed Energy Resource Pilots. *Mehr, V.*, *MPE Jul-Aug 2021 28-40*
- Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K.*, *MPE Jul-Aug 2022 85-95*
- Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid. *Burdick, A.*, *MPE Jul-Aug 2022 30-43*
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J.*, *MPE Mar-Apr 2019 69-77*
- Open Data to Accelerate the Electric Mobility Revolution: Deploying Journey Electric Vehicle Chargers in Rural Scotland. *Hunter, L.*, *MPE Nov-Dec 2023 56-67*
- Retail Pricing: A Low-Cost Enabler of the Clean Energy Transition. *Sergici, S.*, *MPE Jul-Aug 2022 66-75*
- Same Goal, Different Pathways for Energy Transition: A More Holistic, Multisector, Community-Driven Approach. *Cochran, J.*, *MPE Jul-Aug 2022 18-29*
- The Flexibility of Domestic Electric Vehicle Charging: The Electric Nation Project. *Dudek, E.*, *MPE Jul-Aug 2021 16-27*
- The Grid Under Extremes: Pandemic Impacts on California Electricity Consumption. *Bergman, D.*, *MPE Nov-Dec 2022 38-46*
- The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K.*, *MPE May-Jun 2024 90-103*
- Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. *Evans, M.*, *MPE Jul-Aug 2022 44-54*

- Transmission Planning for 100% Clean Electricity: Enabling Clean, Affordable, and Reliable Electricity. *Lew, D.*, *MPE Nov-Dec 2021 56-66*
- Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services. *De Martini, P.*, *MPE Jul-Aug 2022 76-84*
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K.*, *MPE Mar-Apr 2022 14-22*
- Zero-Marginal-Cost Electricity Market Designs: Lessons Learned From Hydro Systems in Latin America Might Be Applicable for Decarbonization. *Barroso, L.*, *MPE Jan-Feb 2021 64-73*

M

Machine learning

- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, *MPE Jan-Feb 2024 24-34*
- Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, *MPE Nov-Dec 2024 100-111*
- Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. *Fan, L.*, *MPE May-Jun 2022 64-76*
- Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control. *Du, Y.*, *MPE May-Jun 2022 42-53*
- Electricity Price Forecasting: The Dawn of Machine Learning. *Jedrzejewski, A.*, *MPE May-Jun 2022 24-31*
- Machine Learning in Power Systems: Is It Time to Trust It?. *Chatzivasileiadis, S.*, *MPE May-Jun 2022 32-41*

Machine protection

- engine generator sets protection, transfer switching/equipt. grounding coord. *Castenschiold, R.*, *PAE-M May-Jun 2003 49-55*

Magnetic fields

- A Colorful Blackout: The Havoc Caused by Auroral Electrojet Generated Magnetic Field Variations in 1989. *Guillon, S.*, *MPE Nov-Dec 2016 59-71*

Magnetic recording

- A Colorful Blackout: The Havoc Caused by Auroral Electrojet Generated Magnetic Field Variations in 1989. *Guillon, S.*, *MPE Nov-Dec 2016 59-71*

Magnetic storms

- Geomagnetic Disturbances: Their Impact on the Power Grid. *MPE Jul-Aug 2013 71-78*

Magnetosphere

- A Colorful Blackout: The Havoc Caused by Auroral Electrojet Generated Magnetic Field Variations in 1989. *Guillon, S.*, *MPE Nov-Dec 2016 59-71*

Maintenance

- aging electricity infrastructure, Wisdom about age. *Zuyi Li*, *PAE-M May-Jun 2006 44-51*
- aging infrastructure, economics. *Brown, R.E.*, *PAE-M May-Jun 2006 36-43*
- aging, maint., reliab., approaches, preserving equipt. health and extending equipt. life. *Endrenyi, J.*, *PAE-M May-Jun 2006 59-67*
- life extension/condition assess. *Dominelli, N.*, *PAE-M May-Jun 2006 24-35*
- power syst. equipt. aging. *Wenyuan Li*, *PAE-M May-Jun 2006 52-58*

Maintenance engineering

- A Digital Transformation at New York Power Authority: Using Innovative Technologies to Create a More Efficient Power System. *Fardanesh, B.*, +, [MPE Mar-Apr 2020 22-30](#)
- A Novel Approach to Transmission Bottleneck Management in Japan: An N-1 Intertrip Scheme. *Ohashi, N.*, +, [MPE Mar-Apr 2021 69-78](#)
- Becoming the Utility of the Future: Risks and Opportunities. *Brown, R.*, +, [MPE Sep-Oct 2016 57-65](#)
- Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G.*, +, [MPE Nov-Dec 2024 112-117](#)
- Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid. *Bose, A.*, +, [MPE May-Jun 2023 61-69](#)
- delivering clean and pure power. *Rudnick, H.*, +, [PAE-M Sep-Oct 2003 32-40](#)
- Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F.*, +, [MPE Jul-Aug 2015 76-86](#)
- Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P.*, +, [MPE Sep-Oct 2022 46-53](#)
- Engineering perspectives on IEC 61850. *Hossenlopp, L.*, [PAE-M May-Jun 2007 45-50](#)
- Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N.*, +, [MPE Mar-Apr 2016 57-65](#)
- FACTS on resolving transmission gridlock. *Reed, G.*, +, [PAE-M Sep-Oct 2003 41-46](#)
- Intelligent Design. *Kezunovic, M.*, +, [PAE-M Nov-Dec 2010 37-44](#)
- Keeping the Power Flowing: A Commitment Throughout the HVdc and FACTS Life Cycles. *Bjorklund, H.*, +, [MPE Mar-Apr 2016 66-71](#)
- Making Distribution Automation Work: Smart Data Is Imperative for Growth. *Gray, G.*, +, [MPE Jan-Feb 2016 58-67](#)
- Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada. *Bilodeau, H.*, +, [MPE Mar-Apr 2016 42-56](#)
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, [MPE Nov-Dec 2024 78-88](#)
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T.*, [PAE-M Sep-Oct 2003 54-62](#)
- Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R.*, +, [MPE Nov-Dec 2020 86-97](#)
- Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects. *Johnson, R.*, +, [MPE Mar-Apr 2016 22-31](#)
- Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B.*, +, [MPE Mar-Apr 2016 72-79](#)
- Transmission and Distribution Equipment: Providing Intelligent Maintenance. *Franck, C.M.*, +, [MPE Mar-Apr 2023 18-29](#)
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)
- When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System. *Litzenberger, W.*, +, [MPE Mar-Apr 2016 32-41](#)
- Wildfire Resiliency: California Case for Change. *Chiu, B.*, +, [MPE Jan-Feb 2022 28-37](#)

Management

- energy resources acquisition in competitive elec. market. *Welch, G.V.*, +, [PAE-M May-Jun 2003 36-42](#)
- Management information systems
- 1 asset, 1 view, integr. asset mgt., British Columbia Transmission Corporation. *Mansour, Y.*, +, [PAE-M May-Jun 2005 55-61](#)
- Marine vehicles
- Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F.*, +, [MPE Nov-Dec 2012 70-79](#)
- Market opportunities
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N.*, +, [MPE Sep-Oct 2021 29-45](#)
- market monitoring and performance evaluation. *Galarza, R.J.*, +, [PAE-M Nov-Dec 2004 46-54](#)
- Market research
- A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G.*, +, [MPE Jan-Feb 2019 53-66](#)
- Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?. *Thomas, S.*, [MPE Jul-Aug 2023 18-25](#)
- An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States.** *Frisch, C.*, +, [MPE Jul-Aug 2018 90-98](#)
- Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G.*, +, [MPE Nov-Dec 2024 112-117](#)
- China's Solar Subsidy Policy: Government Funding Yields to Open Markets. *Dong, H.*, +, [MPE May-Jun 2020 49-60](#)
- Current Trends in dc: Voltage-Source Converters. *Kirby, N.*, [MPE May-Jun 2019 32-37](#)
- Electricity Markets in the United States: Power Industry Restructuring Processes for the Present and Future. *Litvinov, E.*, +, [MPE Jan-Feb 2019 32-42](#)
- European Union Electricity Markets: Current Practice and Future View. *Gomez, T.*, +, [MPE Jan-Feb 2019 20-31](#)
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, [MPE Mar-Apr 2024 78-88](#)
- It's Indisputable: Five Facts About Planning and Operating Modern Power Systems. *Bloom, A.*, +, [MPE Nov-Dec 2017 22-30](#)
- Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M.*, +, [MPE Nov-Dec 2023 18-27](#)
- Maintaining Balance: The Increasing Role of Energy Storage for Renewable Integration. *Stenlik, D.*, +, [MPE Nov-Dec 2017 31-39](#)
- Market Design in an Intermittent Renewable Future: Cost Recovery With Zero-Marginal-Cost Resources. *Wolak, F.*, [MPE Jan-Feb 2021 29-40](#)
- market monitoring and performance evaluation. *Galarza, R.J.*, +, [PAE-M Nov-Dec 2004 46-54](#)
- Markets for Efficient Decarbonization: Revisiting Market Regulation and Design. *Battle, C.*, +, [MPE Jan-Feb 2021 20-28](#)
- Renewable Energy Financing and Market Design: A View and Recommendations From Development Banking Practitioners to Developing Countries. *Bakovic, T.*, +, [MPE Jan-Feb 2021 74-84](#)
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, [MPE Nov-Dec 2024 42-53](#)
- System Disturbance and Blackout Analysis: Identifying Trends in System Behavior. *Cummings, R.W.*, [MPE May-Jun 2023 30-42](#)

- The New Zealand Electricity Market: Challenges of a Renewable Energy System. *Philpott, A.*, +, [MPE Jan-Feb 2019 43-52](#)
- Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring. *Hobbs, B.*, +, [MPE Jan-Feb 2019 73-81](#)
- Trends in Electric Power Engineering Education: An Analysis of Future Challenges. *Ray, D.*, +, [MPE Sep-Oct 2018 32-41](#)
- Weather Data for Energy Analytics: From Modeling Outages and Reliability Indices to Simulating Distributed Photovoltaic Fleets. *Black, J.*, +, [MPE May-Jun 2018 43-53](#)
- Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy. *Nicholson, E.*, +, [MPE Jan-Feb 2019 67-72](#)
- Mathematical model
- A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty. *Velasquez, C.*, +, [MPE Jul-Aug 2016 20-29](#)
- Supporting Energy Transition in Transmission Systems: An Operator's Experience Using Electromagnetic Transient Simulation. *Denetiere, S.*, +, [MPE May-Jun 2019 48-60](#)
- Mathematical models
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, +, [MPE Mar-Apr 2024 55-65](#)
- Mathematics
- The Sky's the Limit!: Designing Wind Farms: A Hands-On STEM Activity for High School Students. *Worcester, A.C.*, +, [MPE Jan-Feb 2013 18-29](#)
- Measurement
- Nipping Blackouts in the Bud: Introducing a Novel Cascading Failure Network. *Merrill, H.*, +, [MPE Jul-Aug 2020 64-75](#)
- Medical services
- Trends in Electric Power Engineering Education: An Analysis of Future Challenges. *Ray, D.*, +, [MPE Sep-Oct 2018 32-41](#)
- Medium voltage
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C.*, +, [MPE Jan-Feb 2024 72-80](#)
- Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F.*, +, [MPE Nov-Dec 2012 70-79](#)
- Meteorology
- A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D.*, +, [MPE May-Jun 2015 26-34](#)
- A Part of the Energy "In Crowd": Changing People's Energy Behavior via Group-Based Approaches. *Jans, L.*, +, [MPE Jan-Feb 2018 35-41](#)
- Analyzing Extreme Events in Power Systems: An Open, Cross-Domain Data-Driven Approach. *Zheng, X.*, +, [MPE Nov-Dec 2022 47-55](#)
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D.*, +, [MPE Nov-Dec 2024 18-27](#)
- Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles. *Ochoa, L.*, +, [MPE Sep-Oct 2016 16-28](#)
- Flexibility From the Electrification of Energy: How Heating, Transport, and Industries Can Support a 100% Sustainable Energy System. *Kiviluoma, J.*, +, [MPE Jul-Aug 2022 55-65](#)
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N.*, +, [MPE Jul-Aug 2016 79-87](#)
- Streetlights Are Getting Smarter: Integrating an Intelligent Communications and Control System to the Current Infrastructure. *Shahidehpour, M.*, +, [MPE May-Jun 2015 67-80](#)
- The Grid: Stronger, Bigger, Smarter?: Presenting a Conceptual Framework of Power System Resilience. *Panteli, M.*, +, [MPE May-Jun 2015 58-66](#)
- The Use of Probabilistic Forecasts: Applying Them in Theory and Practice. *Haupt, S.*, +, [MPE Nov-Dec 2019 46-57](#)
- Toward Bulk Power System Resilience: Approaches for Regional Transmission Operators. *Chen, H.*, +, [MPE Jul-Aug 2020 20-30](#)
- Uncertainty Forecasting in a Nutshell: Prediction Models Designed to Prevent Significant Errors. *Dobschinski, J.*, +, [MPE Nov-Dec 2017 40-49](#)
- Unexpected Consequences: Global Blackout Experiences and Preventive Solutions. *Imai, S.*, +, [MPE May-Jun 2023 16-29](#)
- Weather Data for Energy Analytics: From Modeling Outages and Reliability Indices to Simulating Distributed Photovoltaic Fleets. *Black, J.*, +, [MPE May-Jun 2018 43-53](#)
- Meter reading
- Reading Deeper. *Pritchard, G.*, +, [PAE-M Nov-Dec 2010 85-87](#)
- Smart Integration. *Vojdani, A.*, +, [PAE-M Nov-Dec 2008 71-79](#)
- Meters
- Hawaii's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M.*, [MPE Sep-Oct 2019 40-46](#)
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, [MPE Nov-Dec 2024 42-53](#)
- The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System. *Kristov, L.*, [MPE Mar-Apr 2019 42-49](#)
- Metropolitan area networks
- Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B.*, +, [MPE Nov-Dec 2024 118-133](#)
- Microgrids
- Achieving Resilience at Distribution Level: Learning from Isolated Community Microgrids. *Jimenez-Estevéz, G.*, +, [MPE May-Jun 2017 64-73](#)
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D.*, +, [MPE Nov-Dec 2024 18-27](#)
- DC, Come Home: DC Microgrids and the Birth of the "EnerNet". *Patterson, B.T.*, +, [MPE Nov-Dec 2012 60-69](#)
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y.*, +, [MPE Jan-Feb 2024 35-42](#)
- Distributed Energy Resources Roadmap: How the State of Western Australia Is Leading in Integration. *Hadingham, W.*, +, [MPE Sep-Oct 2021 76-88](#)
- Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P.*, +, [MPE Sep-Oct 2022 46-53](#)
- Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services. *Farrokhbadi, M.*, +, [MPE Sep-Oct 2017 81-91](#)

- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B.*, +, [MPE Mar-Apr 2024 66-77](#)
- Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems. *Reno, M.*, +, [MPE May-Jun 2021 36-46](#)
- Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection. *Ropp, M.*, +, [MPE May-Jun 2021 47-57](#)
- Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective. *Michaelson, D.*, +, [MPE Mar-Apr 2022 57-63](#)
- Japan's Pivot to Resilience: How Two Microgrids Fared After the 2011 Earthquake. *Marnay, C.*, +, [MPE May-Jun 2015 44-57](#)
- Microgrid Control Strategy: Derived from Stakeholder Requirements Analysis. *Rojas, A.*, +, [MPE Jul-Aug 2017 72-79](#)
- Microgrid Controller Design, Implementation, and Deployment: A Journey from Conception to Implementation at the Philadelphia Navy Yard. *Uluski, R.*, +, [MPE Jul-Aug 2017 50-62](#)
- Microgrid Controller Initiatives: An Overview of R&D by the U.S. Department of Energy. *Ton, D.*, +, [MPE Jul-Aug 2017 24-31](#)
- Microgrid Controllers: Expanding Their Role and Evaluating Their Performance. *Maitra, A.*, +, [MPE Jul-Aug 2017 41-49](#)
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D.*, +, [MPE May-Jun 2021 20-35](#)
- Microgrids Against Wildfires: Distributed Energy Resources Enhance System Resilience. *Moreno, R.*, +, [MPE Jan-Feb 2022 78-89](#)
- Microgrids: Enhancing the Resilience of the European Megagrid. *Strbac, G.*, +, [MPE May-Jun 2015 35-43](#)
- Modernizing the Grid: Challenges and Opportunities for a Sustainable Future. *Aguero, J.*, +, [MPE May-Jun 2017 74-83](#)
- Networked Microgrids: Exploring the Possibilities of the IIT-Bronzeville Grid. *Shahidehpour, M.*, +, [MPE Jul-Aug 2017 63-71](#)
- North Bay Hydro Microgrid: Innovative Protection of a Complex System. *Higginson, M.*, +, [MPE May-Jun 2021 70-82](#)
- Practical Microgrid Protection Solutions: Promises and Challenges. *Manson, S.*, +, [MPE May-Jun 2021 58-69](#)
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W.*, +, [MPE May-Jun 2021 83-92](#)
- The Emerging Transactive Microgrid Controller: Illustrating Its Concept, Functionality, and Business Case. *Vaahedi, E.*, +, [MPE Jul-Aug 2017 80-87](#)
- The Need for Standardization: The Benefits to the Core Functions of the Microgrid Control System. *Joos, G.*, +, [MPE Jul-Aug 2017 32-40](#)
- The Utility and Grid of the Future: Challenges, Needs, and Trends. *Romero Aguero, J.*, +, [MPE Sep-Oct 2016 29-37](#)
- Microorganisms
coming clean with fuel cells. *Kishinevsky, Y.*, +, [PAE-M Nov-Dec 2003 20-25](#)
- Military systems
Leading the Charge: Microgrids for Domestic Military Installations. *Van Broekhoven, S.*, +, [MPE Jul-Aug 2013 40-45](#)
- Mining
A Powerful Initiative at Pitt. *Reed, G.F.*, +, [PAE-M Mar-Apr 2008 70-77](#)
- MISO communication
Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy. *Nicholson, E.*, +, [MPE Jan-Feb 2019 67-72](#)
- Mission critical systems
DC Circuit Breakers for High-Voltage dc Grids: Present and Future. *Davidson, C.*, +, [MPE Sep-Oct 2024 87-99](#)
- Mobile computing
Omaha Public Power District Automation Plan, substation integrat. pilot project. *Nissen, T.*, +, [PAE-M Mar-Apr 2003 42-49](#)
- Mobile handsets
A Vision to Enhance Transmission Security: The Case of Switzerland's Power System. *Vrettos, E.*, +, [MPE Mar-Apr 2021 56-68](#)
- Modeling
shaping future of global energy delivery. *Garrity, T.F.*, [PAE-M Sep-Oct 2003 26-30](#)
Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, +, [MPE Mar-Apr 2024 55-65](#)
- Monitoring
A Digital Transformation at New York Power Authority: Using Innovative Technologies to Create a More Efficient Power System. *Fardanesh, B.*, +, [MPE Mar-Apr 2020 22-30](#)
Advanced Applications in an Advanced Distribution Management System: Essentials for Implementation and Integration. *Boardman, E.*, [MPE Jan-Feb 2020 43-54](#)
Advanced Distribution Management System: Improving Distribution Efficiency Through an Integrated Approach. *Devanand, P.*, +, [MPE Jan-Feb 2020 55-62](#)
Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G.*, +, [MPE Nov-Dec 2024 112-117](#)
Gaining a Wider Perspective. *Thorp, J.S.*, +, [PAE-M Sep-Oct 2008 43-51](#)
Microgrid Control Strategy: Derived from Stakeholder Requirements Analysis. *Rojas, A.*, +, [MPE Jul-Aug 2017 72-79](#)
No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, [MPE Nov-Dec 2024 78-88](#)
Power Transmission Technologies and Solutions: The Latest Advances at RTE, the French Transmission System Operator. *Meyer, B.*, +, [MPE Mar-Apr 2020 43-52](#)
Synchrophasors Across Texas: The Deployment of Phasor Measurement Technology in the ERCOT Region. *Koellner, K.*, +, [MPE Sep-Oct 2015 36-40](#)
thermal governor model develop. *Pereira, L.*, [PAE-M May-Jun 2005 62-70](#)
Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)
wide-area system monitoring and control. *Karlsson, D.*, +, [PAE-M Sep-Oct 2004 68-76](#)
- Monopoly
Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring. *Hobbs, B.*, +, [MPE Jan-Feb 2019 73-81](#)
- Motion pictures
From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States. *Cohn, J.A.*, [MPE May-Jun 2023 70-76](#)

Multi-agent systems

A Society of Devices: Integrating Intelligent Distributed Resources with Transactive Energy. *Kok, K., +, MPE May-Jun 2016 34-45*

agent-based substation automation. *Buse, D.P., +, PAE-M Mar-Apr 2003 50-55*

Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A., +, MPE Jan-Feb 2024 43-51*

Multiprocessor interconnection

Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A., +, MPE Mar-Apr 2024 42-54*

N

Nanoelectromechanical systems

Achieving World-Leading Penetration of Renewables: The Australian National Electricity Market. *O'Connell, B., +, MPE Sep-Oct 2021 18-28*

Consumer-Led Transition: Australia's World-Leading Distributed Energy Resource Integration Efforts. *Stringer, N., +, MPE Nov-Dec 2020 20-36*

Power System Operation With a High Share of Inverter-Based Resources: The Australian Experience. *Badrzadeh, B., +, MPE Sep-Oct 2021 46-55*

Natural gas

A Natural Fit: Electricity-Gas Integration Challenges in South America. *Rudnick, H., +, MPE Nov-Dec 2014 29-39*

Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O., +, MPE Nov-Dec 2014 49-62*

Generation to Come: Natural Gas and Electric System Interactions in South Korea. *Choi, J., MPE Nov-Dec 2014 63-77*

Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K., +, MPE Jul-Aug 2022 85-95*

Managing the New Grid: Delivering Sustainable Electrical Energy. *Romero Aguero, J., +, MPE Jul-Aug 2019 75-84*

Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R., +, MPE Nov-Dec 2014 78-88*

Power Cycling: CCGTs: The Critical Link Between the Electricity and Natural Gas Markets. *Gil, J., +, MPE Nov-Dec 2014 40-48*

The Cold Truth: Managing Gas-Electric Integration: The ISO New England Experience. *Babula, M., +, MPE Nov-Dec 2014 20-28*

The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D., +, MPE May-Jun 2014 26-36*

Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E., +, MPE Jan-Feb 2017 43-52*

Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy. *Nicholson, E., +, MPE Jan-Feb 2019 67-72*

Natural gas technology

Planning for the Long Haul: Investment Strategies for National Energy and Transportation Infrastructures. *McCalley, J., +, MPE Sep-Oct 2013 24-35*

Natural resources

Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J., +, MPE Jul-Aug 2024 94-102*

Net zero

Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P., +, MPE Sep-Oct 2024 49-59*

HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A., MPE Sep-Oct 2024 38-48*

Network analyzers

The Utility Operational Response to the 14 August 2003 Blackout: Analysis and Case Studies. *Robertson, F.R., +, MPE May-Jun 2023 43-50*

Neural nets

Spotlight on transformer design. *Georgilakis, P.S., +, PAE-M Jan-Feb 2007 40-50*

Neural networks

From AlphaGo to Power System AI: What Engineers Can Learn from Solving the Most Complex Board Game. *Li, F., +, MPE Mar-Apr 2018 76-84*

New Zealand

The New Zealand Electricity Market: Challenges of a Renewable Energy System. *Philpott, A., +, MPE Jan-Feb 2019 43-52*

NFWA

Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R., +, MPE Nov-Dec 2020 86-97*

Nonlinear systems

Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z., +, MPE Mar-Apr 2023 61-69*

Normal distributions

power syst. equipt. aging. *Wenyuan Li, +, PAE-M May-Jun 2006 52-58*

North America

Energy Insecurity Due to Gas Supply Availability: Efforts to Coordinate Electric and Gas Systems. *Bautista Alderete, G., MPE Mar-Apr 2021 28-36*

Nipping Blackouts in the Bud: Introducing a Novel Cascading Failure Network. *Merrill, H., +, MPE Jul-Aug 2020 64-75*

Notes from Underground. *Olearczyk, M., +, PAE-M Nov-Dec 2010 75-84*

Nuclear energy

The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K., +, MPE May-Jun 2024 90-103*

Nuclear engineering

A Powerful Initiative at Pitt. *Reed, G.F., +, PAE-M Mar-Apr 2008 70-77*

Nuclear power

generations, the nuclear family comes of age. *Disosway, J., PAE-M Nov-Dec 2006 18-24*

Growing Pains: Meeting India's Energy Needs in the Face of Limited Fossil Fuels. *Parikh, J., +, MPE May-Jun 2012 59-66*

nuclear renaissance. *Semmes, S.W., PAE-M Nov-Dec 2006 34-42*

safe and secure, environmental effects of nuclear power plants and the nuclear fuel cycle. *MacDonald, J.D., PAE-M Nov-Dec 2006 49-55*

sustainable future for nuclear power. *MacGill, I., +, PAE-M Jul-Aug 2006 63-74*

transformation of the nuclear power industry. *Carter, J.P., PAE-M Nov-Dec 2006 25-33*

Nuclear power generation

Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H., +, MPE Mar-Apr 2018 46-56*

- For the Good of the Grid. *Amin, S.M., + , PAE-M Nov-Dec 2008 48-59*
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J., + , MPE Mar-Apr 2019 69-77*
- The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K., + , MPE May-Jun 2024 90-103*
- Nuclear power stations
sustainable future for nuclear power. *MacGill, I., + , PAE-M Jul-Aug 2006 63-74*
- Nuclear reactors
advanced control room design. *Malcolm, J.S., + , PAE-M Nov-Dec 2006 43-48*
- Numerical models
Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D., + , MPE Mar-Apr 2024 55-65*
- O
- Observability
Power System Restoration: Meeting the Challenge to Resiliency from Distributed Generation. *Roggatz, C., + , MPE Jul-Aug 2020 31-40*
- Occupational health
Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S., + , MPE Nov-Dec 2022 16-25*
- Occupational safety
Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S., + , MPE Nov-Dec 2022 16-25*
- Offshore installations
By Leaps and Bounds: Lessons Learned from Renewable Energy Growth in China. *Ni, M., + , MPE Mar-Apr 2012 37-43*
- De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Dennetiere, S., + , MPE Sep-Oct 2024 73-86*
- Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System. *Meibom, P., + , MPE Sep-Oct 2013 46-55*
- HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A., MPE Sep-Oct 2024 38-48*
- Offshore Substation Design: High-Level Overview of the Industry Best Practices. *Hamadi, V., + , MPE Jul-Aug 2019 67-74*
- Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H., + , MPE Sep-Oct 2024 60-72*
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P., + , MPE Sep-Oct 2024 20-30*
- Oils
Correction. *MPE Nov-Dec 2017 108*
- Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K., + , MPE Jul-Aug 2022 85-95*
- On the job training
Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid. *Bose, A., + , MPE May-Jun 2023 61-69*
- Online front-ends
Web-enabling appls. for outsourced computing. *Fangxing Li, + , PAE-M Jan-Feb 2003 53-57*
- Online operation
implementation of online security assessment. *Lei Wang, + , PAE-M Sep-Oct 2006 46-59*
- Open systems
Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B., + , MPE Nov-Dec 2024 118-133*
- Good Vibrations. *Yinger, R.J., + , MPE Sep-Oct 2011 22-32*
- Opening Up for Interoperability. *Vankayala, V., + , PAE-M Mar-Apr 2008 61-69*
- Operating systems
Long-Term Vision: Industrial Operating Systems for Power Distribution. *Natvel, G., + , MPE May-Jun 2024 59-66*
- Operations research
Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. *Fan, L., + , MPE May-Jun 2022 64-76*
- Optical fiber cables
Power Transmission Technologies and Solutions: The Latest Advances at RTE, the French Transmission System Operator. *Meyer, B., + , MPE Mar-Apr 2020 43-52*
- Optical fiber networks
A Digital Transformation at New York Power Authority: Using Innovative Technologies to Create a More Efficient Power System. *Fardanesh, B., + , MPE Mar-Apr 2020 22-30*
- Optical fiber sensors
A Digital Transformation at New York Power Authority: Using Innovative Technologies to Create a More Efficient Power System. *Fardanesh, B., + , MPE Mar-Apr 2020 22-30*
- Power Transmission Technologies and Solutions: The Latest Advances at RTE, the French Transmission System Operator. *Meyer, B., + , MPE Mar-Apr 2020 43-52*
- Optimization
A Society of Devices: Integrating Intelligent Distributed Resources with Transactive Energy. *Kok, K., + , MPE May-Jun 2016 34-45*
- A Tale of Two Visions: Designing a Decentralized Transactive Electric System. *Kristov, L., + , MPE May-Jun 2016 63-69*
- Advanced Applications in an Advanced Distribution Management System: Essentials for Implementation and Integration. *Boardman, E., MPE Jan-Feb 2020 43-54*
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D., + , MPE Nov-Dec 2024 18-27*
- Energy Storage Control Capability Expansion: Achieving Better Technoeconomic Benefits at Portland General Electric's Salem Smart Power Center. *Alam, J., + , MPE Mar-Apr 2020 69-80*
- Going Green: Transmission Grids as Enablers of the Transition to a Low-Carbon European Economy. *Henry, S., + , MPE Mar-Apr 2014 26-35*
- Lines of Convergence: R&D for Transmission and Distribution: Coordination and the Regulatory Challenge. *Ferrante, A., + , MPE Jan-Feb 2015 52-59*
- Microgrid Control Strategy: Derived from Stakeholder Requirements Analysis. *Rojas, A., + , MPE Jul-Aug 2017 72-79*

- Paving the Way for Advanced Distribution Management Systems Applications: Making the Most of Models and Data. *Dubey, A.*, +, [MPE Jan-Feb 2020 63-75](#)
- The Emerging Transactive Microgrid Controller: Illustrating Its Concept, Functionality, and Business Case. *Vaahedi, E.*, +, [MPE Jul-Aug 2017 80-87](#)
- The Optimization of Transmission Lines in Brazil: Proven Experience and Recent Developments in Research and Development. *Arruda, C.*, +, [MPE Mar-Apr 2020 31-42](#)
- Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E.*, +, [MPE Jan-Feb 2017 43-52](#)
- Optimization methods
- distrib. asset insight. *Sonderregger, R.C.*, +, [PAE-M May-Jun 2004 32-39](#)
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, +, [MPE Jul-Aug 2024 85-93](#)
- Organizational aspects
- Eternal Light: Ingredients for Sustainable Off-Grid Energy Development. *Louie, H.*, +, [MPE Jul-Aug 2014 70-78](#)
- Oscillators
- Synchrophasors Across Texas: The Deployment of Phasor Measurement Technology in the ERCOT Region. *Koellner, K.*, +, [MPE Sep-Oct 2015 36-40](#)
- Outsourcing
- Web-enabling appls. for outsourced computing. *Fangxing Li*, +, [PAE-M Jan-Feb 2003 53-57](#)
- P
- Pandemics
- Analyzing Extreme Events in Power Systems: An Open, Cross-Domain Data-Driven Approach. *Zheng, X.*, +, [MPE Nov-Dec 2022 47-55](#)
- Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S.*, +, [MPE Nov-Dec 2022 16-25](#)
- Operating the Power Grid During a Pandemic: COVID-19 Experiences. *Chen, H.*, +, [MPE Nov-Dec 2022 26-37](#)
- The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures. *Li, F.*, +, [MPE Nov-Dec 2022 56-65](#)
- The Grid Under Extremes: Pandemic Impacts on California Electricity Consumption. *Bergman, D.*, +, [MPE Nov-Dec 2022 38-46](#)
- Parameter estimation
- smart grid, power delivery for 21st century. *Massoud Amin, S.*, +, [PAE-M Sep-Oct 2005 34-41](#)
- Particle measurements
- Clustering Electricity Consumers: Challenges and Applications for Operating Smart Grids. *Alonso, A.M.*, +, [MPE May-Jun 2022 54-63](#)
- Realizing the Value of DERs: A Utility Perspective. *Paaso, A.*, +, [MPE Mar-Apr 2022 39-46](#)
- Passive solar buildings
- let the games begin, solar powered homes. *Nelms, R.M.*, [PAE-M Jul-Aug 2003 56-60](#)
- Pattern recognition
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)
- Peer-to-peer computing
- A Tale of Two Visions: Designing a Decentralized Transactive Electric System. *Kristov, L.*, +, [MPE May-Jun 2016 63-69](#)
- Engineering perspectives on IEC 61850. *Hossenlopp, L.*, [PAE-M May-Jun 2007 45-50](#)
- Performance evaluation
- Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G.*, +, [MPE Nov-Dec 2024 112-117](#)
- Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. *Guibout, C.*, +, [MPE May-Jun 2024 67-78](#)
- market monitoring and performance evaluation. *Galarza, R.J.*, +, [PAE-M Nov-Dec 2004 46-54](#)
- Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H.*, +, [MPE Sep-Oct 2024 60-72](#)
- system operation with high wind penetration, transmission challenges of Denmark, Germany, Spain, and Ireland. *Eriksen, P.B.*, +, [PAE-M Nov-Dec 2005 65-74](#)
- Tales of Power System Failures: A Look at the Unusual, Strange, and Downright Bizarre Causes. *Waldele, R.*, [MPE Nov-Dec 2016 18-23](#)
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, +, [MPE Mar-Apr 2024 55-65](#)
- The Flexibility of Domestic Electric Vehicle Charging: The Electric Nation Project. *Dudek, E.*, [MPE Jul-Aug 2021 16-27](#)
- Periodic structures
- Distributed Generation and Megacities: Are Renewables the Answer?. *Smil, V.*, [MPE Mar-Apr 2019 37-41](#)
- Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F.*, +, [MPE Jul-Aug 2015 76-86](#)
- Personnel
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, [MPE Nov-Dec 2024 78-88](#)
- Petroleum
- Balance of power. *Mocarquer, S.*, +, [PAE-M Sep-Oct 2009 26-35](#)
- Phase locked loops
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, [MPE Mar-Apr 2024 30-41](#)
- Phase measurement
- Chinese power systs., WAMS appls. *Xiaorong Xie*, +, [PAE-M Jan-Feb 2006 54-63](#)
- Distribution Synchrophasors: Pairing Big Data with Analytics to Create Actionable Information. *Mohsenian-Rad, H.*, +, [MPE May-Jun 2018 26-34](#)
- First steps to wide area control. *Atanackovic, D.*, +, [PAE-M Jan-Feb 2008 61-68](#)
- Phase shift keying
- Operating in the Fog: Security Management Under Uncertainty. *Panciatici, P.*, +, [MPE Sep-Oct 2012 40-49](#)
- Phasor measurement
- Improving Reliability Through Better Models: Using Synchrophasor Data to Validate Power Plant Models. *Overholt, P.*, +, [MPE May-Jun 2014 44-51](#)
- Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M.*, +, [MPE Sep-Oct 2012 50-57](#)
- See It Fast to Keep Calm: Real-Time Voltage Control Under Stressed Conditions. *Glavic, M.*, +, [MPE Jul-Aug 2012 43-55](#)

Phasor measurement units

Advances in Algorithms for Power System Static State Estimators: An Improved Solution for Bad Data Management and State Estimator Convergence. *Gou, B.*, +, [MPE Jan-Feb 2023 16-25](#)

Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System. *Lu, C.*, +, [MPE Sep-Oct 2015 60-71](#)

Challenging Changing Landscapes: Implementing Synchrophasor Technology in Grid Operations in the WECC Region. *Madani, V.*, +, [MPE Sep-Oct 2015 18-28](#)

Distribution Synchrophasors: Pairing Big Data with Analytics to Create Actionable Information. *Mohsenian-Rad, H.*, +, [MPE May-Jun 2018 26-34](#)

Improving Grid Resilience Using High-Voltage dc: Strengthening the Security of Power System Stability. *Roberson, D.*, +, [MPE May-Jun 2019 38-47](#)

Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland. *Sattinger, W.*, +, [MPE Sep-Oct 2015 41-48](#)

Phasing in the Technology. *Martin, K.E.*, +, [PAE-M Sep-Oct 2008 24-33](#)

Strategies for Success with Synchrophasors: Poised to Shine in the Eastern Region of the United States. *Jones, K.*, +, [MPE Sep-Oct 2015 29-35](#)

Synchrophasor Technology and the DOE: Exciting Opportunities Lie Ahead in Development and Deployment. *Overholt, P.*, +, [MPE Sep-Oct 2015 14-17](#)

Synchrophasors Across Texas: The Deployment of Phasor Measurement Technology in the ERCOT Region. *Koellner, K.*, +, [MPE Sep-Oct 2015 36-40](#)

The View from the Wide Side: Wide-Area Monitoring Systems in India. *Soonee, S.*, +, [MPE Sep-Oct 2015 49-59](#)

The Wide World of Wide-area Measurement. *Phadke, A.G.*, +, [PAE-M Sep-Oct 2008 52-65](#)

Toward Bulk Power System Resilience: Approaches for Regional Transmission Operators. *Chen, H.*, +, [MPE Jul-Aug 2020 20-30](#)

Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis. *Hyndman, R.*, +, [MPE May-Jun 2018 18-25](#)

Phasors

System-wide Protection. *Horowitz, S.H.*, +, [PAE-M Sep-Oct 2008 34-42](#)

Photovoltaic generation

Unlocking New Sources of Flexibility: CLASS: The World's Largest Voltage-Led Load-Management Project. *Ballanti, A.*, +, [MPE May-Jun 2017 52-63](#)

Photovoltaic power systems

A Good Fit: Japan's Solar Power Program and Prospects for the New Power System. *Ogimoto, K.*, +, [MPE Mar-Apr 2013 65-74](#)

A Grid-Friendly Plant: The Role of Utility-Scale Photovoltaic Plants in Grid Stability and Reliability. *Morjaria, M.*, +, [MPE May-Jun 2014 87-95](#)

Absorbing the Rays: Advanced Inverters Help Integrate PV into Electric Utility Distribution Systems. *Steffel, S.*, +, [MPE Mar-Apr 2013 45-54](#)

Bright Future: Solar Power as a Major Contributor to the U.S. Grid. *Denholm, P.*, +, [MPE Mar-Apr 2013 22-32](#)

Dark Shadows. *Mills, A.*, +, [MPE May-Jun 2011 33-41](#)

Finding a bright spot. *Key, T.*, +, [PAE-M May-Jun 2009 34-44](#)

let the games begin, solar powered homes. *Nelms, R.M.*, [PAE-M Jul-Aug 2003 56-60](#)

Model Makers. *Ellis, A.*, +, [MPE May-Jun 2011 55-61](#)

Plugging into the Zeitgeist. *Braun, M.*, +, [PAE-M May-Jun 2009 63-76](#)

PV Measures Up for Fleet Duty: Data from a Tennessee Plant Are Used to Illustrate Metrics That Characterize Plant Performance. *Trueblood, C.*, +, [MPE Mar-Apr 2013 33-44](#)

Solar PV Integration Challenges. *Katiraei, F.*, +, [MPE May-Jun 2011 62-71](#)

sysys., Don't let the sun go down on PV. *Shahidehpour, M.*, +, [PAE-M May-Jun 2004 40-48](#)

Testing the technologies. *Hara, R.*, +, [PAE-M May-Jun 2009 77-85](#)

Time in the sun: the challenge of high PV penetration in the German electric grid. *von Appen, J.*, +, [MPE Mar-Apr 2013 55-64](#)

Photovoltaic systems

A Future With Inverter-Based Resources: Finding Strength From Traditional Weakness. *Matevosyan, J.*, +, [MPE Nov-Dec 2021 18-28](#)

A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E.*, +, [MPE Sep-Oct 2022 39-45](#)

Bottom-Up Flexibility in Multi-Energy Systems: Real-World Experiences From Europe. *Belhomme, R.*, +, [MPE Jul-Aug 2021 74-85](#)

Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, +, [MPE Nov-Dec 2024 100-111](#)

China's Solar Subsidy Policy: Government Funding Yields to Open Markets. *Dong, H.*, +, [MPE May-Jun 2020 49-60](#)

Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles. *Ochoa, L.*, +, [MPE Sep-Oct 2016 16-28](#)

Grid and Market Services From the Edge: Using Operating Envelopes to Unlock Network-Aware Bottom-Up Flexibility. *Liu, M.*, +, [MPE Jul-Aug 2021 52-62](#)

High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, [MPE Mar-Apr 2024 78-88](#)

Latin American Energy Markets: Investment Opportunities in Nonconventional Renewables. *Vargas, A.*, +, [MPE Sep-Oct 2016 38-47](#)

Next-Generation Distribution Planning: How Do We Capture the Value of Distributed Energy Resources?. *Bystrom, O.*, [MPE Mar-Apr 2022 32-38](#)

No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F.*, +, [MPE Mar-Apr 2015 43-49](#)

Realizing the Value of DERs: A Utility Perspective. *Paaso, A.*, +, [MPE Mar-Apr 2022 39-46](#)

Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, [MPE Mar-Apr 2024 30-41](#)

Smart Village Voices in Africa, Cameroon: Part 3— Electrification of Off-Grid Villages in Cameroon. *Numfor, J.*, +, [MPE Sep-Oct 2022 69-74](#)

Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems. *Mountain, B.*, +, [MPE Jul-Aug 2015 53-60](#)

Twilight of the Grids: The Impact of Distributed Solar on Germany's Energy Transition. *Stetz, T.*, +, [MPE Mar-Apr 2015 50-61](#)

- Variable Renewable Energy Integration: Status Around the World. *Holttinen, H.*, +, [MPE Nov-Dec 2021 86-96](#)
- Photovoltaics
- Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid. *Milligan, M.*, +, [MPE Nov-Dec 2015 78-87](#)
- Solar Forecasting: Methods, Challenges, and Performance. *Tuohy, A.*, +, [MPE Nov-Dec 2015 50-59](#)
- Physics
- Electricity Market of the Future: Potential North American Designs Without Fuel Costs. *Ela, E.*, +, [MPE Jan-Feb 2021 41-52](#)
- Picture archiving and communication systems
- Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A.*, +, [MPE May-Jun 2024 79-89](#)
- Pistons
- A Flight to Quality. *Said, W.*, +, [MPE Jul-Aug 2011 38-45](#)
- Planning
- Actions Before... and After a Flood. *Abi-Samra, N.*, +, [MPE Mar-Apr 2011 52-58](#)
- business case develop. for substation automation planning. *Haacke, S.*, +, [PAE-M Mar-Apr 2003 32-41](#)
- Chinese growing pains. *Zhong, J.*, +, [PAE-M Jul-Aug 2007 33-40](#)
- Correction [to "Planning to Expand" (de Dios, R., et al, vol 5, Sep-Oct 2007)]., [PAE-M Nov-Dec 2007 108](#)
- Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S.*, +, [MPE Nov-Dec 2023 38-47](#)
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R.*, +, [MPE Sep-Oct 2023 48-57](#)
- For the Good of the Whole. *Lee, S.T.*, [PAE-M Sep-Oct 2007 24-35](#)
- From Reliability to Resilience: Planning the Grid Against the Extremes. *Moreno, R.*, +, [MPE Jul-Aug 2020 41-53](#)
- Future vision - The Challenge of Effective Transmission Planning. *Morrow, D.J.*, +, [PAE-M Sep-Oct 2007 36-45](#)
- Grid Planning for Electrification Using Highly Granular Analytics: Insights Into the Transportation Distribution Infrastructure. *Currie, R.A.F.*, +, [MPE Nov-Dec 2023 68-76](#)
- Hybrid Resources: Challenges, Implications, Opportunities, and Innovation. *Ahlstrom, M.*, +, [MPE Nov-Dec 2021 37-44](#)
- Many states of distribution. *Bouford, J.D.*, +, [PAE-M Jul-Aug 2007 24-32](#)
- Microgrids. *Hatziaargyriou, N.*, +, [PAE-M Jul-Aug 2007 78-94](#)
- Planning for Big Things in Brazil. *Barroso, L.A.*, +, [PAE-M Sep-Oct 2007 54-63](#)
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T.*, [PAE-M Sep-Oct 2003 54-62](#)
- Planning to expand?. *Dios, R.D.*, +, [PAE-M Sep-Oct 2007 64-70](#)
- Power Engineering Education: A Description of Current Academic Developments in India. *Nagamani, C.*, +, [MPE Sep-Oct 2018 42-52](#)
- Powering progress. *Khaparde, S.A.*, +, [PAE-M Jul-Aug 2007 41-49](#)
- Probabilistic Transmission Planning. *Li, W.*, +, [PAE-M Sep-Oct 2007 46-53](#)
- Stimulating efficient distribution. *Rudnick, H.*, +, [PAE-M Jul-Aug 2007 50-67](#)
- Taking an active approach. *Djapic, P.*, +, [PAE-M Jul-Aug 2007 68-77](#)
- The Utility Operational Response to the 14 August 2003 Blackout: Analysis and Case Studies. *Robertson, F.R.*, +, [MPE May-Jun 2023 43-50](#)
- The view from the top. *Lawhorn, J.*, +, [PAE-M Nov-Dec 2009 76-88](#)
- Towards Electricity for All. *Mukhopadhyay, S.*, [PAE-M Sep-Oct 2007 71-78](#)
- Transmission Planning for 100% Clean Electricity: Enabling Clean, Affordable, and Reliable Electricity. *Lew, D.*, +, [MPE Nov-Dec 2021 56-66](#)
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)
- Unrealized potential in Africa. *Blyden, B.K.*, +, [PAE-M Jul-Aug 2008 52-58](#)
- Utility Planning for Distribution-Optimized Electric Vehicle Charging: A Case Study in the United States Pacific Northwest. *Mills, M.*, +, [MPE Nov-Dec 2023 48-55](#)
- wind energy delivery issues, trans. planning and competitive electricity market operation. *Piwko, R.*, +, [PAE-M Nov-Dec 2005 47-56](#)
- Poles and towers
- High-Voltage dc Conversion: Boosting Transmission Capacity in the Grid. *Meridji, T.*, +, [MPE May-Jun 2019 22-31](#)
- Ivory Tower of Power: Microgrid Implementation at the University of California, San Diego. *Washom, B.*, +, [MPE Jul-Aug 2013 28-32](#)
- The Optimization of Transmission Lines in Brazil: Proven Experience and Recent Developments in Research and Development. *Arruda, C.*, +, [MPE Mar-Apr 2020 31-42](#)
- Transmission Technologies and Implementations: Building a Stronger, Smarter Power Grid in China. *Dai, R.*, +, [MPE Mar-Apr 2020 53-59](#)
- Pollution
- Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective. *Michaelson, D.*, +, [MPE Mar-Apr 2022 57-63](#)
- Pollution control
- Rising temps, tides, and wildfires: Assessing the risk to California's energy infrastructure from projected climate change. *Sathaye, J.A.*, +, [MPE May-Jun 2013 32-45](#)
- Portfolios
- A Future With Inverter-Based Resources: Finding Strength From Traditional Weakness. *Matevosyan, J.*, +, [MPE Nov-Dec 2021 18-28](#)
- Power apparatus
- Staying in Shape. *Phillips, A.*, +, [PAE-M Mar-Apr 2010 27-33](#)
- Power cable testing
- life extension/condition assess. *Dominelli, N.*, +, [PAE-M May-Jun 2006 24-35](#)
- Power cables
- Offshore Substation Design: High-Level Overview of the Industry Best Practices. *Hamadi, V.*, +, [MPE Jul-Aug 2019 67-74](#)
- Power Transmission Technologies and Solutions: The Latest Advances at RTE, the French Transmission System Operator. *Meyer, B.*, +, [MPE Mar-Apr 2020 43-52](#)
- When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System. *Litzenberger, W.*, +, [MPE Mar-Apr 2016 32-41](#)
- Power capacitors
- Expanding Power Systems in the Republic of Korea: Feasibility Studies and Future Challenges. *Kim, S.*, +, [MPE May-Jun 2019 61-72](#)

Power consumption

Brokering power. *Holland, S.P., + , PAE-M Sep-Oct 2009 36-43*

China's energy and environment. *Wu, F.F., + , PAE-M Jul-Aug 2006 20-31*

creating harmony in South America. *Barroso, L.A., + , PAE-M Jul-Aug 2006 32-46*

Euro Mix: Current European Energy Developments and Policy Alternatives for 2030 and Beyond. *Lorubio, G., + , MPE Mar-Apr 2014 65-74*

Get Smart. *Lui, T.J., + , PAE-M May-Jun 2010 66-78*

Latin America Goes Electric: The Growing Social Challenges of Hydroelectric Development. *Varas, P., + , MPE May-Jun 2013 66-75*

market monitoring and performance evaluation. *Galarza, R.J., + , PAE-M Nov-Dec 2004 46-54*

more perfect energy union, European Union. *Camyab, A., + , PAE-M Jul-Aug 2006 47-56*

Remote Access: Context, Challenges, and Obstacles in Rural Electrification. *Zomers, A., MPE Jul-Aug 2014 26-34*

The power grabbers. *Siriwardana, J., + , PAE-M Jan-Feb 2010 46-53*

Power control

Getting Smart. *Santacana, E., + , PAE-M Mar-Apr 2010 41-48*

Power conversion

A Subtransmission Metropolitan Power Grid: Using High-Voltage dc for Enhancement and Modernization. *Pan, J., + , MPE May-Jun 2019 94-102*

Current Trends in dc: Voltage-Source Converters. *Kirby, N., MPE May-Jun 2019 32-37*

Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada. *Bilodeau, H., + , MPE Mar-Apr 2016 42-56*

Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid. *Schonleber, K., + , MPE Sep-Oct 2020 58-63*

Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects. *Johnson, R., + , MPE Mar-Apr 2016 22-31*

When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System. *Litzenberger, W., + , MPE Mar-Apr 2016 32-41*

Power converters

Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M., + , MPE Mar-Apr 2012 62-70*

The New Black Start: System Restoration with Help from Voltage-Sourced Converters. *Bahrman, M., + , MPE Jan-Feb 2014 44-53*

Power demand

DC, Come Home: DC Microgrids and the Birth of the "Enernet". *Patterson, B.T., + , MPE Nov-Dec 2012 60-69*
distrib. asset insight. *Sonderegger, R.C., + , PAE-M May-Jun 2004 32-39*

Edison Redux: 380 Vdc Brings Reliability and Efficiency to Sustainable Data Centers. *Allee, G., + , MPE Nov-Dec 2012 50-59*

enterprising energy mgt. *Van Gorp, J.C., PAE-M Jan-Feb 2004 59-63*

High-Wire Act: HVdc Technology: The State of the Art. *Adapa, R., + , MPE Nov-Dec 2012 18-29*

Magic Bus: High-Voltage DC on the New Power Transmission Highway. *Majumder, R., + , MPE Nov-Dec 2012 39-49*

Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration

and DC Grid Expansions. *Lundberg, P., + , MPE Nov-Dec 2012 30-38*

Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F., + , MPE Nov-Dec 2012 70-79*

The Impetus for Hydropower Development in India: New Initiatives. *Sharma, S., + , MPE Sep-Oct 2020 18-26*

Power distribution

A Flight to Quality. *Said, W., + , MPE Jul-Aug 2011 38-45*

A Vision to Enhance Transmission Security: The Case of Switzerland's Power System. *Vrettos, E., + , MPE Mar-Apr 2021 56-68*

Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C., + , MPE Jan-Feb 2024 72-80*

Consumer-Led Transition: Australia's World-Leading Distributed Energy Resource Integration Efforts. *Stringer, N., + , MPE Nov-Dec 2020 20-36*

DC, Come Home: DC Microgrids and the Birth of the "Enernet". *Patterson, B.T., + , MPE Nov-Dec 2012 60-69*

Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F., + , MPE Jul-Aug 2015 76-86*

Edison Redux: 380 Vdc Brings Reliability and Efficiency to Sustainable Data Centers. *Allee, G., + , MPE Nov-Dec 2012 50-59*

Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J., + , MPE Sep-Oct 2020 64-75*

Halfway There: Can California Achieve a 50% Renewable Grid?. *Olson, A., + , MPE Jul-Aug 2015 41-52*

Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J., + , MPE Sep-Oct 2023 38-47*

High-Wire Act: HVdc Technology: The State of the Art. *Adapa, R., + , MPE Nov-Dec 2012 18-29*

It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G., + , MPE Jul-Aug 2015 61-75*

Let's Make a Deal: Non-Wires Alternatives for Traditional Transmission and Distribution?. *Reid, B., + , MPE Mar-Apr 2022 23-31*

Lightning Protection of Distribution Power Systems: Arrester Development and Application Over the Years. *Woodworth, J., MPE Mar-Apr 2023 51-60*

Magic Bus: High-Voltage DC on the New Power Transmission Highway. *Majumder, R., + , MPE Nov-Dec 2012 39-49*

Measures of Value: Data Analytics for Automated Fault Analysis. *Popovic, T., + , MPE Sep-Oct 2012 58-69*

North Bay Hydro Microgrid: Innovative Protection of a Complex System. *Higginson, M., + , MPE May-Jun 2021 70-82*

Paving the Way for Advanced Distribution Management Systems Applications: Making the Most of Models and Data. *Dubey, A., + , MPE Jan-Feb 2020 63-75*

Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration and DC Grid Expansions. *Lundberg, P., + , MPE Nov-Dec 2012 30-38*

shaping future of global energy delivery. *Garrity, T.F., PAE-M Sep-Oct 2003 26-30*

Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F., + , MPE Nov-Dec 2012 70-79*

Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems. *Mountain, B., + , MPE Jul-Aug 2015 53-60*

Stepping Up to the Future With Power Transformers: Power Transformer Asset Management Strategies: State

- of the Art and Recommendations for the Future. *Roychowdhury, R.*, +, [MPE Mar-Apr 2023 40-50](#)
- The Cold Truth: Managing Gas-Electric Integration: The ISO New England Experience. *Babula, M.*, +, [MPE Nov-Dec 2014 20-28](#)
- The Expansion of Transmission: The Challenges Faced in South America. *de Sa Ferreira, R.*, +, [MPE Jul-Aug 2016 54-64](#)
- The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification. *Holtinen, H.*, +, [MPE Nov-Dec 2013 53-62](#)
- The Situation Room: Control Center Analytics for Enhanced Situational Awareness. *Giri, J.*, +, [MPE Sep-Oct 2012 24-39](#)
- The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I.*, [MPE Jul-Aug 2016 41-53](#)
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K.*, +, [MPE Mar-Apr 2022 14-22](#)
- Power distribution control
- A Changing Map: Four Decades of Service Restoration at Alabama Power. *Clark, G.*, [MPE Jan-Feb 2014 64-69](#)
- advanced feeder automation is here. *Staszkesy, D.M.*, +, [PAE-M Sep-Oct 2005 56-63](#)
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R.*, +, [MPE Sep-Oct 2023 48-57](#)
- fuel cells, promising devices for distributed generation. *Nehrir, H.*, +, [PAE-M Jan-Feb 2006 47-53](#)
- Good Vibrations. *Yinger, R.J.*, +, [MPE Sep-Oct 2011 22-32](#)
- I Sing the Mapboard Electric. *Clark, L.*, +, [MPE Sep-Oct 2011 33-41](#)
- Omaha Public Power District Automation Plan, substation integrat. pilot project. *Nissen, T.*, +, [PAE-M Mar-Apr 2003 42-49](#)
- Power distribution economics
- Absorbing the Rays: Advanced Inverters Help Integrate PV into Electric Utility Distribution Systems. *Steffel, S.*, +, [MPE Mar-Apr 2013 45-54](#)
- Decisions, Decisions: An Asset Management-Based Distribution System Framework. *Dashti, R.*, +, [MPE May-Jun 2014 96-108](#)
- Making Room for the Boom. *Moreno, R.*, +, [PAE-M Sep-Oct 2010 36-46](#)
- Microgrids for Fun and Profit: The Economics of Installation Investments and Operations. *Farzan, F.*, +, [MPE Jul-Aug 2013 52-58](#)
- Only Connect: Microgrids for Distribution System Restoration. *Che, L.*, +, [MPE Jan-Feb 2014 70-81](#)
- Predicting Reliability Improvements. *Williams, C.*, +, [PAE-M Mar-Apr 2008 53-60](#)
- Staying in Shape. *Phillips, A.*, +, [PAE-M Mar-Apr 2010 27-33](#)
- The WOLF in pricing. *Lively, M.*, +, [PAE-M Jan-Feb 2009 61-69](#)
- Power distribution faults
- Predicting Reliability Improvements. *Williams, C.*, +, [PAE-M Mar-Apr 2008 53-60](#)
- Power distribution lines
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K.*, +, [MPE Jul-Aug 2024 18-25](#)
- Notes from Underground. *Olearczyk, M.*, +, [PAE-M Nov-Dec 2010 75-84](#)
- Soccer Field Strategy. *Mah, E.J.*, +, [PAE-M Nov-Dec 2010 69-74](#)
- Power distribution networks
- Long-Term Vision: Industrial Operating Systems for Power Distribution. *Nativel, G.*, +, [MPE May-Jun 2024 59-66](#)
- Power distribution planning
- A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G.*, +, [MPE Jan-Feb 2019 53-66](#)
- A Fine Day for an Eclipse: It's Never Too Early to Start Planning for One. *Loehr, G.*, [MPE Nov-Dec 2016 72-77](#)
- A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D.*, +, [MPE May-Jun 2015 26-34](#)
- A Natural Fit: Electricity-Gas Integration Challenges in South America. *Rudnick, H.*, +, [MPE Nov-Dec 2014 29-39](#)
- A Pro-Grid Middle Path for Africa: Sub-Saharan Region Electricity Upgrades. *Oguah, S.*, +, [MPE Mar-Apr 2019 61-68](#)
- Advanced Applications in an Advanced Distribution Management System: Essentials for Implementation and Integration. *Boardman, E.*, [MPE Jan-Feb 2020 43-54](#)
- Advanced Distribution Management System: Improving Distribution Efficiency Through an Integrated Approach. *Devanand, P.*, +, [MPE Jan-Feb 2020 55-62](#)
- Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols. *Razon, A.*, +, [MPE Jan-Feb 2020 26-33](#)
- An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R.*, [MPE Jul-Aug 2015 18-28](#)
- Catching Some Rays: Variable Generation Integration on the Island of Oahu. *Schuerger, M.*, +, [MPE Nov-Dec 2013 33-44](#)
- Chinese growing pains. *Zhong, J.*, +, [PAE-M Jul-Aug 2007 33-40](#)
- Code Shift: Grid Specifications and Dynamic Wind Turbine Models. *Ackermann, T.*, +, [MPE Nov-Dec 2013 72-82](#)
- Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G.*, +, [MPE Mar-Apr 2019 25-36](#)
- Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O.*, +, [MPE Nov-Dec 2014 49-62](#)
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R.*, +, [MPE Sep-Oct 2023 48-57](#)
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, [MPE Jul-Aug 2024 49-63](#)
- delivering clean and pure power. *Rudnick, H.*, +, [PAE-M Sep-Oct 2003 32-40](#)
- Design for distributed energy resources. *Driesen, J.*, +, [PAE-M May-Jun 2008 30-40](#)
- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L.*, +, [MPE Jul-Aug 2024 64-74](#)
- Distributed Generation and Megacities: Are Renewables the Answer?. *Smil, V.*, [MPE Mar-Apr 2019 37-41](#)
- Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia. *Ferreira, R.*, +, [MPE Mar-Apr 2019 50-60](#)
- Electricity Markets in the United States: Power Industry Restructuring Processes for the Present and Future. *Litvinov, E.*, +, [MPE Jan-Feb 2019 32-42](#)
- Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for

- More Active Roles. *Ochoa, L., +, MPE Sep-Oct 2016 16-28*
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K., +, MPE Jul-Aug 2024 18-25*
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J., +, MPE Jul-Aug 2024 94-102*
- Eternal Light: Ingredients for Sustainable Off-Grid Energy Development. *Louie, H., +, MPE Jul-Aug 2014 70-78*
- European Union Electricity Markets: Current Practice and Future View. *Gomez, T., +, MPE Jan-Feb 2019 20-31*
- Flexibility Is Key in New York: New Tools and Operational Solutions for Managing Distributed Energy Resources. *Currie, B., +, MPE May-Jun 2017 20-29*
- Flexible Network Pricing Encourages Greater Sharing: Making the Grid Work for Itself and Distributed Energy Resources. *Li, F., +, MPE May-Jun 2020 26-32*
- Generation to Come: Natural Gas and Electric System Interactions in South Korea. *Choi, J., MPE Nov-Dec 2014 63-77*
- Good Vibrations. *Yinger, R.J., +, MPE Sep-Oct 2011 22-32*
- Investing for the Future: How Small Utilities are Finding Success With Advanced Distribution Management Systems. *Ngo, Y., +, MPE Jan-Feb 2020 34-42*
- It's All in the Plans: Maximizing the Benefits and Minimizing the Impacts of DERs in an Integrated Grid. *Smith, J., +, MPE Mar-Apr 2015 20-29*
- Japan's Pivot to Resilience: How Two Microgrids Fared After the 2011 Earthquake. *Marnay, C., +, MPE May-Jun 2015 44-57*
- Lines of Communication. *Roy, S., +, MPE Sep-Oct 2011 64-73*
- Making Room for the Boom. *Moreno, R., +, PAE-M Sep-Oct 2010 36-46*
- Many states of distribution. *Bouford, J.D., +, PAE-M Jul-Aug 2007 24-32*
- Microgrids: Enhancing the Resilience of the European Megagrid. *Strbac, G., +, MPE May-Jun 2015 35-43*
- Microgrids. *Hatzigiorgiou, N., +, PAE-M Jul-Aug 2007 78-94*
- Model Makers. *Ellis, A., +, MPE May-Jun 2011 55-61*
- Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A., +, MPE Sep-Oct 2023 58-67*
- No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F., +, MPE Mar-Apr 2015 43-49*
- Organic Growth: Toward a Holistic Approach to European Research and Innovation. *Vu Van, T., +, MPE Jan-Feb 2015 30-37*
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R., +, MPE Nov-Dec 2014 78-88*
- Power Cycling: CCGTs: The Critical Link Between the Electricity and Natural Gas Markets. *Gil, J., +, MPE Nov-Dec 2014 40-48*
- Powering progress. *Khaparde, S.A., +, PAE-M Jul-Aug 2007 41-49*
- Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty. *Nock, D., +, MPE Jul-Aug 2024 26-37*
- Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects. *Johnson, R., +, MPE Mar-Apr 2016 22-31*
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A., +, MPE Jul-Aug 2024 38-48*
- shaping future of global energy delivery. *Garrity, T.F., PAE-M Sep-Oct 2003 26-30*
- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J., +, MPE Jan-Feb 2015 84-91*
- Sim City. *Dugan, R.C., +, MPE Sep-Oct 2011 74-81*
- STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T., +, MPE Mar-Apr 2023 30-39*
- Stimulating efficient distribution. *Rudnick, H., +, PAE-M Jul-Aug 2007 50-67*
- Streetlights Are Getting Smarter: Integrating an Intelligent Communications and Control System to the Current Infrastructure. *Shahidehpour, M., +, MPE May-Jun 2015 67-80*
- Taking an active approach. *Djapic, P., +, PAE-M Jul-Aug 2007 68-77*
- The Best of IGREENGrid Practices: A Distribution Network's Contribution to Resiliency. *Varela, J., +, MPE May-Jun 2015 81-89*
- The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System. *Kristov, L., MPE Mar-Apr 2019 42-49*
- The Changing Electrical Landscape: End-to-End Power System Operation Under the Transactive Energy Paradigm. *Rahimi, F., +, MPE May-Jun 2016 52-62*
- The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G., +, MPE Jan-Feb 2015 38-51*
- The Future of Distribution Operations and Planning: The Electric Utility Environment Is Changing. *Vadari, M., MPE Jan-Feb 2020 18-25*
- The Grid: Stronger, Bigger, Smarter?: Presenting a Conceptual Framework of Power System Resilience. *Panteli, M., +, MPE May-Jun 2015 58-66*
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J., +, MPE May-Jun 2017 30-40*
- The Interface of Power: Moving Toward Distribution System Operators. *Apostolopoulou, D., +, MPE May-Jun 2016 46-51*
- The New Zealand Electricity Market: Challenges of a Renewable Energy System. *Philpott, A., +, MPE Jan-Feb 2019 43-52*
- The Utility and Grid of the Future: Challenges, Needs, and Trends. *Romero Aguero, J., +, MPE Sep-Oct 2016 29-37*
- The View from the Top of the Mountain: Building a Community of Practice with the GridWise Transactive Energy Framework. *Forfia, D., +, MPE May-Jun 2016 25-33*
- Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring. *Hobbs, B., +, MPE Jan-Feb 2019 73-81*
- Tools for Success. *Romero Aguero, J., +, MPE Sep-Oct 2011 82-93*
- Why Distributed?: A Critical Review of the Tradeoffs Between Centralized and Decentralized Resources. *Burger, S., +, MPE Mar-Apr 2019 16-24*
- Power distribution protection
Predicting Reliability Improvements. *Williams, C., +, PAE-M Mar-Apr 2008 53-60*
- Power distribution reliability
A Changing Map: Four Decades of Service Restoration at Alabama Power. *Clark, G., MPE Jan-Feb 2014 64-69*
- Design for distributed energy resources. *Driesen, J., +, PAE-M May-Jun 2008 30-40*

- Drive friendly. *Thounthong, P.*, + , *PAE-M Jan-Feb 2008 69-76*
- fuel cells, promising devices for distributed generation. *Nehrir, H.*, + , *PAE-M Jan-Feb 2006 47-53*
- Good Vibrations. *Yinger, R.J.*, + , *MPE Sep-Oct 2011 22-32*
- Microgrids for Fun and Profit: The Economics of Installation Investments and Operations. *Farzan, F.*, + , *MPE Jul-Aug 2013 52-58*
- Only Connect: Microgrids for Distribution System Restoration. *Che, L.*, + , *MPE Jan-Feb 2014 70-81*
- Powering Through the Storm: Microgrids Operation for More Efficient Disaster Recovery. *Abbey, C.*, + , *MPE May-Jun 2014 67-76*
- Predicting Reliability Improvements. *Williams, C.*, + , *PAE-M Mar-Apr 2008 53-60*
- Sim City. *Dugan, R.C.*, + , *MPE Sep-Oct 2011 74-81*
- Single-Phase Tripping. *Fahey, T.S.*, + , *PAE-M Mar-Apr 2008 46-52*
- Power electronics
- A Future With Inverter-Based Resources: Finding Strength From Traditional Weakness. *Matevosyan, J.*, + , *MPE Nov-Dec 2021 18-28*
- delivering clean and pure power. *Rudnick, H.*, + , *PAE-M Sep-Oct 2003 32-40*
- Designing for High-Voltage dc Grid Protection: Fault Clearing Strategies and Protection Algorithms. *Leterme, W.*, + , *MPE May-Jun 2019 73-81*
- The Sky's the Limit!: Designing Wind Farms: A Hands-On STEM Activity for High School Students. *Worcester, A.C.*, + , *MPE Jan-Feb 2013 18-29*
- Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. *Evans, M.*, + , *MPE Jul-Aug 2022 44-54*
- Power engineering
- A Powerful Initiative at Pitt. *Reed, G.F.*, + , *PAE-M Mar-Apr 2008 70-77*
- Electrical Power Engineering Education Down Under: Australia and New Zealand Are Adding Energy to Their University Curricula. *Nair, N.*, + , *MPE Sep-Oct 2018 64-73*
- Power Engineering Education: A Description of Current Academic Developments in India. *Nagamani, C.*, + , *MPE Sep-Oct 2018 42-52*
- Toward a 21st Century Power Education: A Bright Future Awaits Students in Utah. *Parvania, M.*, + , *MPE Sep-Oct 2018 87-95*
- Training Energy Data Scientists: Universities and Industry Need to Work Together to Bridge the Talent Gap. *Hong, T.*, + , *MPE May-Jun 2018 66-73*
- Trends in Electric Power Engineering Education: An Analysis of Future Challenges. *Ray, D.*, + , *MPE Sep-Oct 2018 32-41*
- Power engineering computing
- Power to the People!: European Perspectives on the Future of Electric Distribution. *Mallet, P.*, + , *MPE Mar-Apr 2014 51-64*
- Remote Control. *Thomas, M.S.*, + , *PAE-M Jul-Aug 2010 53-60*
- The Healing Touch: Tools and Challenges for Smart Grid Restoration. *Liu, S.*, + , *MPE Jan-Feb 2014 54-63*
- Power engineering education
- collaboration is key internat. *Strunz, K.*, + , *PAE-M Jul-Aug 2003 50-55*
- Continue Your Learning. *Venkata, S.S.*, + , *PAE-M Jul-Aug 2010 36-43*
- curriculum, supply and demand, faculty careers, alternative strategies. *Heydt, G.T.*, + , *PAE-M Jan-Feb 2003 38-45*
- Electrical Power Engineering Education Down Under: Australia and New Zealand Are Adding Energy to Their University Curricula. *Nair, N.*, + , *MPE Sep-Oct 2018 64-73*
- Engineering the Future. *Reder, W.*, + , *PAE-M Jul-Aug 2010 27-35*
- engineers recruitment, Got power?. *Schifo, R.*, *PAE-M Jan-Feb 2005 48-52*
- Five Heads Are Better Than One: An Interdisciplinary Graduate Course on Smart Grids: Lessons, Challenges, and Opportunities. *Namboodiri, V.*, + , *MPE Jan-Feb 2013 44-50*
- fostering intuitive minds for power syst. design. *Overbye, T.J.*, *PAE-M Jul-Aug 2003 42-49*
- making graduate-indust. connection. *Crow, M.*, *PAE-M Jan-Feb 2005 34-37*
- power of undergraduate research. *O'Neill-Carrillo, E.*, + , *PAE-M Jul-Aug 2003 29-36*
- professionals, dist. learning. *Pahwa, A.*, + , *PAE-M Jan-Feb 2005 53-58*
- Remote Control. *Thomas, M.S.*, + , *PAE-M Jul-Aug 2010 53-60*
- The Importance of Modern Teaching Labs. *Wollenberg, B.*, + , *PAE-M Jul-Aug 2010 44-52*
- training future power engineers. *Joos, G.*, *PAE-M Jan-Feb 2005 38-47*
- Trends in Electric Power Engineering Education: An Analysis of Future Challenges. *Ray, D.*, + , *MPE Sep-Oct 2018 32-41*
- Where School Is Cool. *Rudnick, H.*, + , *PAE-M Jul-Aug 2010 61-74*
- Power generation
- A Novel Approach to Transmission Bottleneck Management in Japan: An N-1 Intertrip Scheme. *Ohashi, N.*, + , *MPE Mar-Apr 2021 69-78*
- Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols. *Razon, A.*, + , *MPE Jan-Feb 2020 26-33*
- Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, + , *MPE Nov-Dec 2024 100-111*
- Corrections to "A Wider Horizon" [May/June 2011 42-54]. *MPE Jul-Aug 2011 90*
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T.*, + , *MPE Jan-Feb 2024 16-23*
- Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P.*, + , *MPE Jul-Aug 2018 24-33*
- Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services. *Farrokhbadi, M.*, + , *MPE Sep-Oct 2017 81-91*
- Ensuring System Reliability: Distributed Energy Resources and Bulk Power System Considerations. *Vartanian, C.*, + , *MPE Nov-Dec 2018 52-63*
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, + , *MPE Mar-Apr 2024 42-54*
- Generation to Come: Natural Gas and Electric System Interactions in South Korea. *Choi, J.*, *MPE Nov-Dec 2014 63-77*
- Grid of the future. *Ipakchi, A.*, + , *PAE-M Mar-Apr 2009 52-62*
- Heat and Dust: The Solar Energy Challenge in Chile. *Jimenez-Estevez, G.*, + , *MPE Mar-Apr 2015 71-77*
- How Brazil Aims for Gold in Reliability: From Past Blackouts to Preparedness for the 2016 Summer

- Olympic and Paralympic Games. *Gomes, P., +, MPE Nov-Dec 2016 40-51*
- Hydropower in China. *Fu, S., +, PAE-M Jul-Aug 2008 47-51*
- Norwegian Hydropower: Connecting to Continental Europe. *Tellefsen, T., +, MPE Sep-Oct 2020 27-35*
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J., +, MPE Mar-Apr 2019 69-77*
- Operating the Power Grid During a Pandemic: COVID-19 Experiences. *Chen, H., +, MPE Nov-Dec 2022 26-37*
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G., +, MPE Sep-Oct 2017 32-41*
- Planning for the Future: Optimization-Based Distribution Planning Strategies for Integrating Distributed Energy Resources. *Cho, G., +, MPE Nov-Dec 2018 77-87*
- Pumped Storage Hydro: Then and Now. *Donalek, P., MPE Sep-Oct 2020 49-57*
- Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J., +, MPE May-Jun 2024 29-41*
- Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition. *Oyvang, T., +, MPE Nov-Dec 2022 66-78*
- Synchronous Condenser Applications: Under Significant Resource Portfolio Changes. *Zhou, G., +, MPE Jul-Aug 2019 35-46*
- The Acaray Generating Station: Life-Extension and Modernization Studies. *Flores, D., +, MPE Sep-Oct 2020 36-48*
- The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures. *Li, F., +, MPE Nov-Dec 2022 56-65*
- The Grid Under Extremes: Pandemic Impacts on California Electricity Consumption. *Bergman, D., +, MPE Nov-Dec 2022 38-46*
- The Regulatory Debate About Energy Storage Systems: State of the Art and Open Issues. *Usera, I., +, MPE Sep-Oct 2017 42-50*
- The Tariffs of Tomorrow: Innovations in Rate Designs. *Faruqui, A., +, MPE May-Jun 2020 18-25*
- The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I., MPE Jul-Aug 2016 41-53*
- Wind power myths debunked. *Milligan, M., +, PAE-M Nov-Dec 2009 89-99*
- Power generation control
supplying the generation to meet the demand. *Papalexopoulos, A.D., PAE-M Jul-Aug 2004 66-73*
- Power generation demand
supplying the generation to meet the demand. *Papalexopoulos, A.D., PAE-M Jul-Aug 2004 66-73*
- Power generation dispatch
Beat the Heat. *Chakrabarti, B., +, MPE Mar-Apr 2011 67-73*
Demand Dispatch. *Brooks, A., +, PAE-M May-Jun 2010 20-29*
- Power generation economics
A larger role for microgrids. *Venkataramanan, G., +, PAE-M May-Jun 2008 78-82*
Absorbing the Rays: Advanced Inverters Help Integrate PV into Electric Utility Distribution Systems. *Steffel, S., +, MPE Mar-Apr 2013 45-54*
Balance of Power: Toward a More Environmentally Friendly, Efficient, and Effective Integration of Energy Systems in China. *Kang, C., +, MPE Sep-Oct 2013 56-64*
- Beat the Heat. *Chakrabarti, B., +, MPE Mar-Apr 2011 67-73*
- Better Warning Through Technology. *Szladow, A.J., +, MPE May-Jun 2011 72-76*
- Bright Future: Solar Power as a Major Contributor to the U.S. Grid. *Denholm, P., +, MPE Mar-Apr 2013 22-32*
- For the Good of the Grid. *Amin, S.M., +, PAE-M Nov-Dec 2008 48-59*
- Harnessing the sun. *Kroposki, B., +, PAE-M May-Jun 2009 22-33*
- Ivory Tower of Power: Microgrid Implementation at the University of California, San Diego. *Washom, B., +, MPE Jul-Aug 2013 28-32*
- Latin America Goes Electric: The Growing Social Challenges of Hydroelectric Development. *Varas, P., +, MPE May-Jun 2013 66-75*
- Microgrids for Fun and Profit: The Economics of Installation Investments and Operations. *Farzan, F., +, MPE Jul-Aug 2013 52-58*
- Penetrating Insights: Lessons Learned from Large-Scale Wind Power Integration. *Piwko, R., +, MPE Mar-Apr 2012 44-52*
- Plugging into the Zeitgeist. *Braun, M., +, PAE-M May-Jun 2009 63-76*
- Policymaking for microgrids. *Marnay, C., +, PAE-M May-Jun 2008 66-77*
- Taking Credit. *Amelin, M., +, PAE-M Sep-Oct 2010 47-52*
- Testing the technologies. *Hara, R., +, PAE-M May-Jun 2009 77-85*
- The Green Effect. *Barroso, L.A., +, PAE-M Sep-Oct 2010 22-35*
- The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D., +, MPE May-Jun 2014 26-36*
- The Service Upgrade. *Wallace, R., +, PAE-M Nov-Dec 2010 24-27*
- The sun also rises. *Bebic, J., +, PAE-M May-Jun 2009 45-54*
- The Wind at Our Backs. *Smith, J.C., +, PAE-M Sep-Oct 2010 63-71*
- watching watts to prevent abuse of power. *Sheffrin, A.Y., +, PAE-M Jul-Aug 2004 58-65*
- Winds of Change. *Cailliau, M., +, PAE-M Sep-Oct 2010 53-62*
- Power generation faults
Better Warning Through Technology. *Szladow, A.J., +, MPE May-Jun 2011 72-76*
engine generator sets protection, transfer switching/equipmt. grounding coord. *Castenschiold, R., PAE-M May-Jun 2003 49-55*
- Power generation management
Power Cycling: CCGTs: The Critical Link Between the Electricity and Natural Gas Markets. *Gil, J., +, MPE Nov-Dec 2014 40-48*
- Power generation planning
High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N., +, MPE Mar-Apr 2024 78-88*
Model Makers. *Ellis, A., +, MPE May-Jun 2011 55-61*
nuclear renaissance. *Semmes, S.W., PAE-M Nov-Dec 2006 34-42*
Policymaking for microgrids. *Marnay, C., +, PAE-M May-Jun 2008 66-77*
Renewable Energy Zones in Australia: Integrated System Planning. *Pack, E., +, MPE Sep-Oct 2021 56-66*
supplying the generation to meet the demand. *Papalexopoulos, A.D., PAE-M Jul-Aug 2004 66-73*
The Service Upgrade. *Wallace, R., +, PAE-M Nov-Dec 2010 24-27*

- The sun also rises. *Bebic, J., + , PAE-M May-Jun 2009 45-54*
- The view from the top. *Lawhorn, J., + , PAE-M Nov-Dec 2009 76-88*
- transformation of the nuclear power industry. *Carter, J.P., PAE-M Nov-Dec 2006 25-33*
- Power generation protection
 engine generator sets protection, transfer switching/equipt. grounding coord. *Castenschiold, R., PAE-M May-Jun 2003 49-55*
- Generator Fault Tolerance and Grid Codes. *Piwko, R., + , PAE-M Mar-Apr 2010 18-26*
- Power generation reliability
 A Grid-Friendly Plant: The Role of Utility-Scale Photovoltaic Plants in Grid Stability and Reliability. *Morjaria, M., + , MPE May-Jun 2014 87-95*
- Generator Fault Tolerance and Grid Codes. *Piwko, R., + , PAE-M Mar-Apr 2010 18-26*
- Harnessing the sun. *Kroposki, B., + , PAE-M May-Jun 2009 22-33*
- Microgrids for Fun and Profit: The Economics of Installation Investments and Operations. *Farzan, F., + , MPE Jul-Aug 2013 52-58*
- Plugging into the Zeitgeist. *Braun, M., + , PAE-M May-Jun 2009 63-76*
- Policymaking for microgrids. *Marnay, C., + , PAE-M May-Jun 2008 66-77*
- Taking Credit. *Amelin, M., + , PAE-M Sep-Oct 2010 47-52*
- Testing the technologies. *Hara, R., + , PAE-M May-Jun 2009 77-85*
- The sun also rises. *Bebic, J., + , PAE-M May-Jun 2009 45-54*
- Power generation scheduling
 supplying the generation to meet the demand. *Papalexopoulos, A.D., PAE-M Jul-Aug 2004 66-73*
- Power grids
 A Grid-Friendly Plant: The Role of Utility-Scale Photovoltaic Plants in Grid Stability and Reliability. *Morjaria, M., + , MPE May-Jun 2014 87-95*
- A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing. *Li, F., + , MPE Mar-Apr 2020 60-68*
- A larger role for microgrids. *Venkataramanan, G., + , PAE-M May-Jun 2008 78-82*
- A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D., + , MPE May-Jun 2015 26-34*
- A Smarter Grid Operation: New Energy Management Systems in China. *Xin, Y., + , MPE Mar-Apr 2018 36-45*
- A Subtransmission Metropolitan Power Grid: Using High-Voltage dc for Enhancement and Modernization. *Pan, J., + , MPE May-Jun 2019 94-102*
- A Success Story: The Value of the Massachusetts Technical Standards Review Group. *Enayati, B., MPE Mar-Apr 2017 57-60*
- A Tale of Two Visions: Designing a Decentralized Transactive Electric System. *Kristov, L., + , MPE May-Jun 2016 63-69*
- Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy. *Kroposki, B., + , MPE Mar-Apr 2017 61-73*
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P., + , MPE Sep-Oct 2024 49-59*
- Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System. *Lu, C., + , MPE Sep-Oct 2015 60-71*
- All Options on the Table: Energy Systems Integration on the Island of Maui. *Corbus, D., + , MPE Sep-Oct 2013 65-74*
- An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R., MPE Jul-Aug 2015 18-28*
- anatomy of a power grid blackout. *Pourbeik, P., + , PAE-M Sep-Oct 2006 22-29*
- Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F., MPE May-Jun 2023 77-86*
- Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. *Kroposki, B., + , MPE Nov-Dec 2020 37-46*
- Back in the Race: Achieving 100% Renewable Energy in the Canary Islands. *Lemus, R., MPE Nov-Dec 2020 64-74*
- blackouts and relaying considerations. *Horowitz, S.H., + , PAE-M Sep-Oct 2006 60-67*
- Bright Future: Solar Power as a Major Contributor to the U.S. Grid. *Denholm, P., + , MPE Mar-Apr 2013 22-32*
- Capturing grid power. *Roberts, B., + , PAE-M Jul-Aug 2009 32-41*
- Catch the wave to electricity. *Leijon, M., + , PAE-M Jan-Feb 2009 50-54*
- Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid. *Bose, A., + , MPE May-Jun 2023 61-69*
- Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning. *Coddington, M., + , MPE Mar-Apr 2017 40-47*
- Change in the air. *Grant, W., + , PAE-M Nov-Dec 2009 47-58*
- Changing the electricity game. *Nourai, A., + , PAE-M Jul-Aug 2009 42-47*
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C., + , MPE Jan-Feb 2024 72-80*
- Code Shift: Grid Specifications and Dynamic Wind Turbine Models. *Ackermann, T., + , MPE Nov-Dec 2013 72-82*
- Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C., + , MPE Sep-Oct 2024 31-37*
- Control Center Designs: New Functions and Challenges for the Transmission System Operator. *Astic, J., + , MPE Mar-Apr 2018 57-66*
- Correction. *MPE May-Jun 2015 24*
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R., + , MPE Sep-Oct 2023 48-57*
- Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. *Fan, L., + , MPE May-Jun 2022 64-76*
- Dawn of the grid synchronization. *Novosel, D., + , PAE-M Jan-Feb 2008 49-60*
- DC, Come Home: DC Microgrids and the Birth of the "Enernet". *Patterson, B.T., + , MPE Nov-Dec 2012 60-69*
- Delivering accurate and timely data to all. *Meliopoulos, A.P.S., + , PAE-M May-Jun 2007 74-86*
- Demand Dispatch. *Brooks, A., + , PAE-M May-Jun 2010 20-29*
- Developing Local Energy Markets: A Holistic System Approach. *Rassa, A., + , MPE Sep-Oct 2019 59-70*
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T., + , MPE Jan-Feb 2024 16-23*

- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, [MPE Jan-Feb 2024 61-71](#)
- Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F.*, +, [MPE Jul-Aug 2015 76-86](#)
- Earth, Wind, and Ice. *Xie, Q.*, +, [MPE Mar-Apr 2011 28-36](#)
- Edison Redux: 380 Vdc Brings Reliability and Efficiency to Sustainable Data Centers. *Allee, G.*, +, [MPE Nov-Dec 2012 50-59](#)
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W.*, +, [MPE Sep-Oct 2024 111-115](#)
- Energy Insecurity Due to Gas Supply Availability: Efforts to Coordinate Electric and Gas Systems. *Bautista Alderete, G.*, [MPE Mar-Apr 2021 28-36](#)
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K.*, +, [MPE Jul-Aug 2024 18-25](#)
- Enhancing Grid Measurements: Wide Area Measurement Systems, NASPInet, and Security. *Bobba, R.B.*, +, [MPE Jan-Feb 2012 67-73](#)
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N.*, +, [MPE Sep-Oct 2021 29-45](#)
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J.*, +, [MPE Sep-Oct 2020 64-75](#)
- For the Good of the Grid. *Amin, S.M.*, +, [PAE-M Nov-Dec 2008 48-59](#)
- Forewarned Is Forearmed: An Automated System for Remedial Action Schemes. *Yao, Z.*, +, [MPE May-Jun 2014 77-86](#)
- Forward Pass: Policy Challenges and Technical Opportunities on the U.S. Electric Grid. *Heidel, T.D.*, +, [MPE May-Jun 2012 30-37](#)
- Fuel cells and load transients. *Caisheng Wang*, +, [PAE-M Jan-Feb 2007 58-63](#)
- Generator Fault Tolerance and Grid Codes. *Piwko, R.*, +, [PAE-M Mar-Apr 2010 18-26](#)
- Geo-Information Is Power: Using Geographical Information Systems to Assess Rooftop Photovoltaics in Costa Rica. *Quiros-Tortos, J.*, +, [MPE Mar-Apr 2017 48-56](#)
- Geomagnetic Disturbances: Their Impact on the Power Grid. [MPE Jul-Aug 2013 71-78](#)
- Getting Smart. *Garrity, T.F.*, +, [PAE-M Mar-Apr 2008 38-45](#)
- Going Green: Transmission Grids as Enablers of the Transition to a Low-Carbon European Economy. *Henry, S.*, +, [MPE Mar-Apr 2014 26-35](#)
- Grid and Market Services From the Edge: Using Operating Envelopes to Unlock Network-Aware Bottom-Up Flexibility. *Liu, M.*, +, [MPE Jul-Aug 2021 52-62](#)
- Grid Architecture: A Core Discipline for Grid Modernization. *Taft, J.*, [MPE Sep-Oct 2019 18-28](#)
- Grid of the future. *Ipakchi, A.*, +, [PAE-M Mar-Apr 2009 52-62](#)
- Grid Planning for Electrification Using Highly Granular Analytics: Insights Into the Transportation Distribution Infrastructure. *Currie, R.A.F.*, +, [MPE Nov-Dec 2023 68-76](#)
- Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B.*, +, [MPE Mar-Apr 2024 18-29](#)
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B.*, +, [MPE Mar-Apr 2024 66-77](#)
- Growth in Wind and Sun: Integrating Variable Generation in China. *Jiang, L.*, +, [MPE Nov-Dec 2015 40-49](#)
- Halfway There: Can California Achieve a 50% Renewable Grid?. *Olson, A.*, +, [MPE Jul-Aug 2015 41-52](#)
- Harmonizing AC and DC: A Hybrid AC/DC Future Grid Solution. *Wang, P.*, +, [MPE May-Jun 2013 76-83](#)
- Hawai'i's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M.*, [MPE Sep-Oct 2019 40-46](#)
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J.*, +, [MPE Sep-Oct 2023 38-47](#)
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, [MPE Mar-Apr 2024 78-88](#)
- High-Wire Act: HVdc Technology: The State of the Art. *Adapa, R.*, +, [MPE Nov-Dec 2012 18-29](#)
- HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A.*, [MPE Sep-Oct 2024 38-48](#)
- Implementation of online security assessment. *Lei Wang*, +, [PAE-M Sep-Oct 2006 46-59](#)
- Improving Grid Resilience Using High-Voltage dc: Strengthening the Security of Power System Stability. *Roberson, D.*, +, [MPE May-Jun 2019 38-47](#)
- Improving Reliability Through Better Models: Using Synchronphasor Data to Validate Power Plant Models. *Overholt, P.*, +, [MPE May-Jun 2014 44-51](#)
- Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M.*, +, [MPE May-Jun 2024 50-58](#)
- Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A.*, +, [MPE May-Jun 2024 79-89](#)
- Intruders in the Grid. *Chen-Ching Liu*, +, [MPE Jan-Feb 2012 58-66](#)
- It's a Bird, It's a Plane, It's a...Supergrid!: Evolution, Opportunities, and Critical Issues for Pan-European Transmission. *Bompard, E.*, +, [MPE Mar-Apr 2014 40-50](#)
- It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G.*, +, [MPE Jul-Aug 2015 61-75](#)
- Japan's Pivot to Resilience: How Two Microgrids Fared After the 2011 Earthquake. *Marnay, C.*, +, [MPE May-Jun 2015 44-57](#)
- Leading the Charge: Microgrids for Domestic Military Installations. *Van Broekhoven, S.*, +, [MPE Jul-Aug 2013 40-45](#)
- Look Before You Leap: The Role of Energy Storage in the Grid. *Manz, D.*, +, [MPE Jul-Aug 2012 75-84](#)
- Magic Bus: High-Voltage DC on the New Power Transmission Highway. *Majumder, R.*, +, [MPE Nov-Dec 2012 39-49](#)
- Making microgrids work. *Kroposki, B.*, +, [PAE-M May-Jun 2008 40-53](#)
- Managing the New Grid: Delivering Sustainable Electrical Energy. *Romero Agüero, J.*, +, [MPE Jul-Aug 2019 75-84](#)
- Microgrids: Enhancing the Resilience of the European Megagrid. *Strbac, G.*, +, [MPE May-Jun 2015 35-43](#)
- Microgrids for Fun and Profit: The Economics of Installation Investments and Operations. *Farzan, F.*, +, [MPE Jul-Aug 2013 52-58](#)
- Microgrids management. *Katiraei, F.*, +, [PAE-M May-Jun 2008 54-65](#)
- modern countermeasures to blackouts. *Pourbeik, P.*, +, [PAE-M Sep-Oct 2006 36-45](#)

- Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources. *Sherick, R.*, +, [MPE Mar-Apr 2017 20-28](#)
- Modernizing the Grid: Challenges and Opportunities for a Sustainable Future. *Aguero, J.*, +, [MPE May-Jun 2017 74-83](#)
- Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland. *Sattinger, W.*, +, [MPE Sep-Oct 2015 41-48](#)
- Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A.*, +, [MPE Sep-Oct 2023 58-67](#)
- No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F.*, +, [MPE Mar-Apr 2015 43-49](#)
- No Light in August: Power System Restoration Following the 2003 North American Blackout. *Allen, E.*, +, [MPE Jan-Feb 2014 24-33](#)
- Off the Beaten Path: Resiliency and Associated Risk. *Kezunovic, M.*, +, [MPE Mar-Apr 2018 26-35](#)
- On the Road to Wind Power: China's Experience at Managing Disturbances with High Penetrations of Wind Generation. *Weisheng, W.*, +, [MPE Nov-Dec 2016 24-34](#)
- Online Power Education: Keeping Pace with the Demand for High-Quality, Flexible Education. *Ahern, M.*, [MPE Sep-Oct 2018 82-86](#)
- Operating the Power Grid During a Pandemic: COVID-19 Experiences. *Chen, H.*, +, [MPE Nov-Dec 2022 26-37](#)
- Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid. *Schonleber, K.*, +, [MPE Sep-Oct 2020 58-63](#)
- Optimizing Operations with CIM: Today's Grid Relies on Network Analysis (and a Lot of Data). *Britton, J.*, +, [MPE Jan-Feb 2016 48-57](#)
- Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H.*, +, [MPE Sep-Oct 2024 60-72](#)
- Penetrating Insights: Lessons Learned from Large-Scale Wind Power Integration. *Piwko, R.*, +, [MPE Mar-Apr 2012 44-52](#)
- Planting the seed. *Mehos, M.*, +, [PAE-M May-Jun 2009 55-62](#)
- Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration and DC Grid Expansions. *Lundberg, P.*, +, [MPE Nov-Dec 2012 30-38](#)
- Policymaking for microgrids. *Marnay, C.*, +, [PAE-M May-Jun 2008 66-77](#)
- postmortem analysis of power grid blackouts. *Dagle, J.E.*, [PAE-M Sep-Oct 2006 30-35](#)
- Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T.*, [MPE May-Jun 2024 20-28](#)
- Power to the People!: European Perspectives on the Future of Electric Distribution. *Mallet, P.*, +, [MPE Mar-Apr 2014 51-64](#)
- Precise Time, All the Time: A Resilient Architecture for the Electric Power Industry and Beyond. *Robertson, P.*, +, [MPE Sep-Oct 2023 27-37](#)
- Putting an action plan in place. *Thomas, R.J.*, +, [PAE-M Jul-Aug 2009 26-31](#)
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, +, [MPE Jul-Aug 2024 85-93](#)
- Quantifying Risk in an Uncertain Future: The Evolution of Resource Adequacy. *Stenclik, D.*, +, [MPE Nov-Dec 2021 29-36](#)
- Real-Time Grid Management: Keeping the Lights On!. *Giri, J.*, [MPE May-Jun 2023 51-60](#)
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, [MPE Mar-Apr 2024 30-41](#)
- Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects. *Johnson, R.*, +, [MPE Mar-Apr 2016 22-31](#)
- Remote Access: Context, Challenges, and Obstacles in Rural Electrification. *Zomers, A.*, [MPE Jul-Aug 2014 26-34](#)
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, [MPE Jul-Aug 2024 38-48](#)
- Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M.*, +, [MPE Mar-Apr 2012 62-70](#)
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, +, [MPE Nov-Dec 2015 22-30](#)
- Shifting Currents: Challenges and Solutions for the Planned Evolution of the German Transmission Grid. *Feix, O.*, [MPE Mar-Apr 2014 36-39](#)
- Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F.*, +, [MPE Nov-Dec 2012 70-79](#)
- Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J.*, +, [MPE May-Jun 2024 29-41](#)
- Softening the Blow of Disturbances. *Clark, H.*, +, [PAE-M Jan-Feb 2008 30-41](#)
- Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems. *Mountain, B.*, +, [MPE Jul-Aug 2015 53-60](#)
- STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T.*, +, [MPE Mar-Apr 2023 30-39](#)
- Stormy Weather: Assessing Climate Change Hazards to Electric Power Infrastructure: A Sandy Case Study. *Yates, D.*, +, [MPE Sep-Oct 2014 66-75](#)
- Strategies for Success with Synchrophasors: Poised to Shine in the Eastern Region of the United States. *Jones, K.*, +, [MPE Sep-Oct 2015 29-35](#)
- Streetlights Are Getting Smarter: Integrating an Intelligent Communications and Control System to the Current Infrastructure. *Shahidehpour, M.*, +, [MPE May-Jun 2015 67-80](#)
- Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D.*, +, [MPE Jul-Aug 2019 56-66](#)
- Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition. *Oyvang, T.*, +, [MPE Nov-Dec 2022 66-78](#)
- The Best of IGREENGrid Practices: A Distribution Network's Contribution to Resiliency. *Varela, J.*, +, [MPE May-Jun 2015 81-89](#)
- The China Southern Power Grid: Solutions to Operation Risks and Planning Challenges. *Zhou, H.*, +, [MPE Jul-Aug 2016 72-78](#)
- The evolution of distribution. *Fan, J.*, +, [PAE-M Mar-Apr 2009 63-68](#)
- The Future of Distribution Operations and Planning: The Electric Utility Environment Is Changing. *Vadari, M.*, [MPE Jan-Feb 2020 18-25](#)

- The Green Impact: How Renewable Sources Are Changing EU Electricity Prices. *Chaves-Avila, J.*, +, *MPE Jul-Aug 2015 29-40*
- The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D.*, +, *MPE May-Jun 2014 26-36*
- The Grid: Stronger, Bigger, Smarter?: Presenting a Conceptual Framework of Power System Resilience. *Panteli, M.*, +, *MPE May-Jun 2015 58-66*
- The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All. *Repo, S.*, +, *MPE May-Jun 2017 41-51*
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J.*, +, *MPE May-Jun 2017 30-40*
- The Local Team: Leveraging Distributed Resources to Improve Resilience. *Arghandeh, R.*, +, *MPE Sep-Oct 2014 76-83*
- The path of the smart grid. *Farhangi, H.*, +, *PAE-M Jan-Feb 2010 18-28*
- The Plug-and-Play Electricity Era: Interoperability to Integrate Anything, Anywhere, Anytime. *Widergren, S.*, +, *MPE Sep-Oct 2019 47-58*
- The Right Combination. *Kelly, J.*, +, *PAE-M Nov-Dec 2008 60-70*
- The Situation Room: Control Center Analytics for Enhanced Situational Awareness. *Giri, J.*, +, *MPE Sep-Oct 2012 24-39*
- The Sky's the Limit!: Designing Wind Farms: A Hands-On STEM Activity for High School Students. *Worcester, A.C.*, +, *MPE Jan-Feb 2013 18-29*
- The Substation of the Future: Moving Toward a Digital Solution. *Hunt, R.*, +, *MPE Jul-Aug 2019 47-55*
- The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I.*, *MPE Jul-Aug 2016 41-53*
- The Utility and Grid of the Future: Challenges, Needs, and Trends. *Romero Aguero, J.*, +, *MPE Sep-Oct 2016 29-37*
- The View from the Top of the Mountain: Building a Community of Practice with the GridWise Transactive Energy Framework. *Forfia, D.*, +, *MPE May-Jun 2016 25-33*
- The View from the Wide Side: Wide-Area Monitoring Systems in India. *Soonee, S.*, +, *MPE Sep-Oct 2015 49-59*
- The Wide World of Wide-area Measurement. *Phadke, A.G.*, +, *PAE-M Sep-Oct 2008 52-65*
- Time and Location: What Matters Most When Valuing Distributed Energy Resources. *Smith, J.*, +, *MPE Mar-Apr 2017 29-39*
- Time in the sun: the challenge of high PV penetration in the German electric grid. *von Appen, J.*, +, *MPE Mar-Apr 2013 55-64*
- Toward a Solar-Powered Grid. *Brinkman, G.*, +, *MPE May-Jun 2011 24-32*
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D.*, +, *MPE Nov-Dec 2024 54-65*
- Transformation of the Grid: The Impact of Distributed Energy Resources on Bulk Power Systems. *Quint, R.*, +, *MPE Nov-Dec 2019 35-45*
- Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory. *Muhanji, S.*, +, *MPE Sep-Oct 2019 71-81*
- Transmission and Distribution Equipment: Providing Intelligent Maintenance. *Franck, C.M.*, +, *MPE Mar-Apr 2023 18-29*
- Twixt Land and Sea: Cost-Effective Grid Integration of Offshore Wind Plants. *Feltes, J.*, +, *MPE Mar-Apr 2012 53-61*
- Utility Planning for Distribution-Optimized Electric Vehicle Charging: A Case Study in the United States Pacific Northwest. *Mills, M.*, +, *MPE Nov-Dec 2023 48-55*
- Wanted: A more intelligent grid. *Giri, J.*, +, *PAE-M Mar-Apr 2009 34-40*
- When the Bough Breaks: Managing Extreme Weather Events Affecting Electrical Power Grids. *Abi-Samra, N.*, +, *MPE Sep-Oct 2014 61-65*
- Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids. *Sharafi, D.*, +, *MPE Jan-Feb 2022 52-63*
- Power industry
 assets, time mgt. *Shahidehpour, M.*, +, *PAE-M May-Jun 2005 32-38*
 balancing market priorities, security issues. *Amin, M.*, *PAE-M Jul-Aug 2004 30-38*
 blackouts, shedding light. *Novosel, D.*, +, *PAE-M Jan-Feb 2004 32-43*
 Chinese power systs., WAMS appls. *Xiaorong Xie*, +, *PAE-M Jan-Feb 2006 54-63*
 Closed-Loop Volt/Var Optimization: Addressing Peak Load Reduction. *Carden, J.*, +, *MPE Mar-Apr 2018 67-75*
 elec. power indust., The future beckons. *Root, C.E.*, *PAE-M Jan-Feb 2006 24-31*
 Energy Storage Control Capability Expansion: Achieving Better Technoeconomic Benefits at Portland General Electric's Salem Smart Power Center. *Alam, J.*, +, *MPE Mar-Apr 2020 69-80*
 Erratum. *MPE Jul-Aug 2022 104*
 For the Good of the Grid. *Amin, S.M.*, +, *PAE-M Nov-Dec 2008 48-59*
 grid comput., plug. *Irving, M.*, +, *PAE-M Mar-Apr 2004 40-44*
 H economy, building, case. *Gurney, J.H.*, *PAE-M Mar-Apr 2004 35-39*
 India's fast growing power sector, from regional develop., growth of national grid. *Yadav, R.G.*, +, *PAE-M Jul-Aug 2005 39-48*
 Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A.*, +, *MPE May-Jun 2024 79-89*
 Markets for Efficient Decarbonization: Revisiting Market Regulation and Design. *Batlle, C.*, +, *MPE Jan-Feb 2021 20-28*
 Online Power Education: Keeping Pace with the Demand for High-Quality, Flexible Education. *Ahern, M.*, *MPE Sep-Oct 2018 82-86*
 Precise Time, All the Time: A Resilient Architecture for the Electric Power Industry and Beyond. *Robertson, P.*, +, *MPE Sep-Oct 2023 27-37*
 Realizing the Value of DERs: A Utility Perspective. *Paaso, A.*, +, *MPE Mar-Apr 2022 39-46*
 real-time market operations and monitoring, advanced framework. *Sobajic, D.J.*, +, *PAE-M Mar-Apr 2004 45-49*
 Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty. *Nock, D.*, +, *MPE Jul-Aug 2024 26-37*
 resource adequacy. *Jian Yang*, *PAE-M Mar-Apr 2006 59-65*
 South American reform lessons, 20 yrs. of restructuring and reform, Argentina, Brazil, Chile. *Rudnick, H.*, +, *PAE-M Jul-Aug 2005 49-59*
 Toward a 21st Century Power Education: A Bright Future Awaits Students in Utah. *Parvania, M.*, +, *MPE Sep-Oct 2018 87-95*

- Training Energy Data Scientists: Universities and Industry Need to Work Together to Bridge the Talent Gap. *Hong, T.*, +, *MPE May-Jun 2018 66-73*
- transm. and distrib., asset mgmt. *Brown, R.E.*, +, *PAE-M May-Jun 2005 39-45*
- Utility Planning for Distribution-Optimized Electric Vehicle Charging: A Case Study in the United States Pacific Northwest. *Mills, M.*, +, *MPE Nov-Dec 2023 48-55*
- utility policies, Addressing "soft system" dynamic issues. *Waters, T.*, +, *PAE-M Jan-Feb 2006 40-46*
- workforce develop., The technical talent challenge. *Reder, W.K.*, *PAE-M Jan-Feb 2006 32-39*
- Power integrated circuits
future's smart delivery system. *Gellings, C.W.*, +, *PAE-M Sep-Oct 2004 40-48*
- Power markets
A Good Fit: Japan's Solar Power Program and Prospects for the New Power System. *Ogimoto, K.*, +, *MPE Mar-Apr 2013 65-74*
- A Natural Fit: Electricity-Gas Integration Challenges in South America. *Rudnick, H.*, +, *MPE Nov-Dec 2014 29-39*
- A Pro-Grid Middle Path for Africa: Sub-Saharan Region Electricity Upgrades. *Oguah, S.*, +, *MPE Mar-Apr 2019 61-68*
- Achieving Retail Liberalization in Middle-Income Countries: Challenges and Successes of the Brazilian Experience. *Cunha, G.*, +, *MPE Jul-Aug 2023 26-35*
- Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B.*, +, *MPE Jul-Aug 2016 30-40*
- An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R.*, *MPE Jul-Aug 2015 18-28*
- Beat the Heat. *Chakrabarti, B.*, +, *MPE Mar-Apr 2011 67-73*
- Behavior Modification. *Braithwait, S.*, +, *PAE-M May-Jun 2010 36-45*
- Beyond the Crystal Ball: Locational Marginal Price Forecasting and Predictive Operations in U.S. Power Markets. *Sahni, M.*, +, *MPE Jul-Aug 2012 35-42*
- Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O.*, +, *MPE Nov-Dec 2014 49-62*
- Currents of Change. *Holttinen, H.*, +, *MPE Nov-Dec 2011 47-59*
- Driving Forces Behind Wind. *Osborn, D.*, +, *MPE Nov-Dec 2011 60-74*
- Electricity Markets and Renewables: A Survey of Potential Design Changes and Their Consequences. *Ela, E.*, +, *MPE Nov-Dec 2017 70-82*
- Electricity Price Forecasting: The Dawn of Machine Learning. *Jedrzejewski, A.*, +, *MPE May-Jun 2022 24-31*
- energy resources acquisition in competitive elec. market. *Welch, G.V.*, +, *PAE-M May-Jun 2003 36-42*
- Finding a bright spot. *Key, T.*, +, *PAE-M May-Jun 2009 34-44*
- Flexible Connections: Solutions and Challenges for the Integration of Renewables in South America. *Rudnick, H.*, +, *MPE Mar-Apr 2012 24-36*
- Forward Pass: Policy Challenges and Technical Opportunities on the U.S. Electric Grid. *Heidel, T.D.*, +, *MPE May-Jun 2012 30-37*
- fostering intuitive minds for power syst. design. *Overbye, T.J.*, *PAE-M Jul-Aug 2003 42-49*
- Harnessing the sun. *Kroposki, B.*, +, *PAE-M May-Jun 2009 22-33*
- It's a Bird, It's a Plane, It's a...Supergrid!: Evolution, Opportunities, and Critical Issues for Pan-European Transmission. *Bompard, E.*, +, *MPE Mar-Apr 2014 40-50*
- It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G.*, +, *MPE Jul-Aug 2015 61-75*
- It's Indisputable: Five Facts About Planning and Operating Modern Power Systems. *Bloom, A.*, +, *MPE Nov-Dec 2017 22-30*
- Large-scale solutions. *Fioravanti, R.*, +, *PAE-M Jul-Aug 2009 48-57*
- Leading the Charge: Microgrids for Domestic Military Installations. *Van Broekhoven, S.*, +, *MPE Jul-Aug 2013 40-45*
- Making Room for the Boom. *Moreno, R.*, +, *PAE-M Sep-Oct 2010 36-46*
- Markets for Efficient Decarbonization: Revisiting Market Regulation and Design. *Battle, C.*, +, *MPE Jan-Feb 2021 20-28*
- Measure Twice, Cut Once. *Goldberg, M.*, +, *PAE-M May-Jun 2010 46-54*
- Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M.*, +, *MPE Sep-Oct 2012 50-57*
- Microgrids management. *Katiraei, F.*, +, *PAE-M May-Jun 2008 54-65*
- One Step Ahead: Short-Term Wind Power Forecasting and Intelligent Predictive Control Based on Data Analytics. *Venayagamoorthy, G.K.*, +, *MPE Sep-Oct 2012 70-78*
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R.*, +, *MPE Nov-Dec 2014 78-88*
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, *MPE Jul-Aug 2024 38-48*
- Risky Business: Building a Resilient Power Sector. *Mendiluce, M.*, *MPE Sep-Oct 2014 34-41*
- shaping future of global energy delivery. *Garrity, T.F.*, *PAE-M Sep-Oct 2003 26-30*
- Taking Credit. *Amelin, M.*, +, *PAE-M Sep-Oct 2010 47-52*
- Taking Demand Response to the Next Level. *Hamilton, K.*, +, *PAE-M May-Jun 2010 60-65*
- The Evolution of the Market: Designing a Market for High Levels of Variable Generation. *Ahlstrom, M.*, +, *MPE Nov-Dec 2015 60-66*
- The Golden Spike: Advanced Power Electronics Enables Renewable Development Across NERC Regions. *Reynolds, M.*, +, *MPE Mar-Apr 2012 71-78*
- The Green Effect. *Barroso, L.A.*, +, *PAE-M Sep-Oct 2010 22-35*
- The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D.*, +, *MPE May-Jun 2014 26-36*
- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J.*, +, *MPE Jan-Feb 2015 20-29*
- The Right Combination. *Kelly, J.*, +, *PAE-M Nov-Dec 2008 60-70*
- The Situation Room: Control Center Analytics for Enhanced Situational Awareness. *Giri, J.*, +, *MPE Sep-Oct 2012 24-39*
- The Wind at Our Backs. *Smith, J.C.*, +, *PAE-M Sep-Oct 2010 63-71*
- The WOLF in pricing. *Lively, M.*, +, *PAE-M Jan-Feb 2009 61-69*
- Unity for all. *Sierra, J.*, +, *PAE-M Sep-Oct 2009 18-25*
- Untapped Markets: Access to Energy Lies in Business Innovation. *Wiemann, M.*, +, *MPE Jul-Aug 2014 42-49*
- watching watts to prevent abuse of power. *Sheffrin, A.Y.*, +, *PAE-M Jul-Aug 2004 58-65*

wind energy delivery issues, trans. planning and competitive electricity market operation. *Piwko, R.*, + , [PAE-M Nov-Dec 2005 47-56](#)

Winds of Change. *Cailliau, M.*, + , [PAE-M Sep-Oct 2010 53-62](#)

Zeroing In: Lessons from the European Climate Foundation's Roadmap 2050 Project. *Acke, D.*, [MPE Sep-Oct 2014 42-49](#)

Power measurement

Challenging Changing Landscapes: Implementing Synchrophasor Technology in Grid Operations in the WECC Region. *Madani, V.*, + , [MPE Sep-Oct 2015 18-28](#)

Gaining a Wider Perspective. *Thorp, J.S.*, + , [PAE-M Sep-Oct 2008 43-51](#)

System-wide Protection. *Horowitz, S.H.*, + , [PAE-M Sep-Oct 2008 34-42](#)

The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures. *Li, F.*, + , [MPE Nov-Dec 2022 56-65](#)

The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J.*, + , [MPE May-Jun 2017 30-40](#)

The Wide World of Wide-area Measurement. *Phadke, A.G.*, + , [PAE-M Sep-Oct 2008 52-65](#)

Power outages

A Colorful Blackout: The Havoc Caused by Auroral Electrojet Generated Magnetic Field Variations in 1989. *Guillon, S.*, + , [MPE Nov-Dec 2016 59-71](#)

A Fine Day for an Eclipse: It's Never Too Early to Start Planning for One. *Loehr, G.*, [MPE Nov-Dec 2016 72-77](#)

A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D.*, + , [MPE May-Jun 2015 26-34](#)

Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F.*, [MPE May-Jun 2023 77-86](#)

Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid. *Bose, A.*, + , [MPE May-Jun 2023 61-69](#)

From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States. *Cohn, J.A.*, [MPE May-Jun 2023 70-76](#)

How Brazil Aims for Gold in Reliability: From Past Blackouts to Preparedness for the 2016 Summer Olympic and Paralympic Games. *Gomes, P.*, + , [MPE Nov-Dec 2016 40-51](#)

Off the Beaten Path: Resiliency and Associated Risk. *Kezunovic, M.*, + , [MPE Mar-Apr 2018 26-35](#)

Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W.*, + , [MPE Jan-Feb 2022 16-27](#)

PV-Battery Systems for Critical Loads During Emergencies: A Case Study from Puerto Rico After Hurricane Maria. *Keerthisinghe, C.*, + , [MPE Jan-Feb 2019 82-92](#)

Real-Time Grid Management: Keeping the Lights On!. *Giri, J.*, [MPE May-Jun 2023 51-60](#)

System Disturbance and Blackout Analysis: Identifying Trends in System Behavior. *Cummings, R.W.*, [MPE May-Jun 2023 30-42](#)

The Utility Operational Response to the 14 August 2003 Blackout: Analysis and Case Studies. *Robertson, F.R.*, + , [MPE May-Jun 2023 43-50](#)

Unexpected Consequences: Global Blackout Experiences and Preventive Solutions. *Imai, S.*, + , [MPE May-Jun 2023 16-29](#)

Power overhead lines

800-kV HVDC on the Horizon. *Szechtman, M.*, + , [PAE-M Mar-Apr 2007 61-69](#)

Going Green: Transmission Grids as Enablers of the Transition to a Low-Carbon European Economy. *Henry, S.*, + , [MPE Mar-Apr 2014 26-35](#)

Power plants

advanced control room design. *Malcolm, J.S.*, + , [PAE-M Nov-Dec 2006 43-48](#)

cleaning up coal's second act. *Zancan, F.L.*, [PAE-M Jul-Aug 2006 57-62](#)

Improving Reliability Through Better Models: Using Synchrophasor Data to Validate Power Plant Models. *Overholt, P.*, + , [MPE May-Jun 2014 44-51](#)

safe and secure, environmental effects of nuclear power plants and the nuclear fuel cycle. *MacDonald, J.D.*, [PAE-M Nov-Dec 2006 49-55](#)

wind plant integration, costs, status, and issues. *DeMeo, E.A.*, + , [PAE-M Nov-Dec 2005 38-46](#)

Power quality

Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C.*, + , [MPE Jan-Feb 2024 72-80](#)

Destination: Perfection. *Flueck, A.*, + , [PAE-M Nov-Dec 2008 36-47](#)

Distribution Synchrophasors: Pairing Big Data with Analytics to Create Actionable Information. *Mohsenian-Rad, H.*, + , [MPE May-Jun 2018 26-34](#)

elec. energy, china's future. *Wu, F.F.*, + , [PAE-M Jul-Aug 2005 32-38](#)

electricity storage technol., Testing the limits. *Nourai, A.*, + , [PAE-M Mar-Apr 2005 40-46](#)

Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A.*, + , [MPE Jan-Feb 2024 43-51](#)

storage, commercial successes. *Roberts, B.*, + , [PAE-M Mar-Apr 2005 24-30](#)

Striving for Power Perfection. *Yeager, K.*, + , [PAE-M Nov-Dec 2008 28-35](#)

Power supplies

Achieving Resilience at Distribution Level: Learning from Isolated Community Microgrids. *Jimenez-Estevéz, G.*, + , [MPE May-Jun 2017 64-73](#)

De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Denetiere, S.*, + , [MPE Sep-Oct 2024 73-86](#)

Long-Term Vision: Industrial Operating Systems for Power Distribution. *Natível, G.*, + , [MPE May-Jun 2024 59-66](#)

Power supply quality

For the Good of the Whole. *Lee, S.T.*, [PAE-M Sep-Oct 2007 24-35](#)

Future vision - The Challenge of Effective Transmission Planning. *Morrow, D.J.*, + , [PAE-M Sep-Oct 2007 36-45](#)
future's smart delivery system. *Gellings, C.W.*, + , [PAE-M Sep-Oct 2004 40-48](#)

Keeping the lights on and the information flowing. *Kirschen, D.*, + , [PAE-M Jan-Feb 2009 50-60](#)

Microgrids management. *Katiraei, F.*, + , [PAE-M May-Jun 2008 54-65](#)

nonintrusive load monitoring in distrib. network, power signature anal. *Laughman, C.*, + , [PAE-M Mar-Apr 2003 56-63](#)

Planning for Big Things in Brazil. *Barroso, L.A.*, + , [PAE-M Sep-Oct 2007 54-63](#)

Planning to expand?. *Dios, R.D.*, + , [PAE-M Sep-Oct 2007 64-70](#)

- Policymaking for microgrids. *Marnay, C.*, + , [PAE-M May-Jun 2008 66-77](#)
- Probabilistic Transmission Planning. *Li, W.*, + , [PAE-M Sep-Oct 2007 46-53](#)
- Tools for Success. *Romero Aguero, J.*, + , [MPE Sep-Oct 2011 82-93](#)
- Towards Electricity for All. *Mukhopadhyay, S.*, [PAE-M Sep-Oct 2007 71-78](#)
- value-based system facility planning. *Chowdhury, A.A.*, + , [PAE-M Sep-Oct 2004 58-67](#)
- virtual power quality troubleshooter prototype. *Chun Li*, + , [PAE-M May-Jun 2003 24-31](#)
- Power system analysis computing
- Web tool opens up power syst. visualization. *Fangxing Li*, [PAE-M Jul-Aug 2003 37-41](#)
- Power system CAD
- fostering intuitive minds for power syst. design. *Overbye, T.J.*, [PAE-M Jul-Aug 2003 42-49](#)
- Power system control
- Advances in Algorithms for Power System Static State Estimators: An Improved Solution for Bad Data Management and State Estimator Convergence. *Gou, B.*, + , [MPE Jan-Feb 2023 16-25](#)
- anatomy of a power grid blackout. *Pourbeik, P.*, + , [PAE-M Sep-Oct 2006 22-29](#)
- balancing market priorities, security issues. *Amin, M.*, [PAE-M Jul-Aug 2004 30-38](#)
- Chinese power systs., WAMS appls. *Xiaorong Xie*, + , [PAE-M Jan-Feb 2006 54-63](#)
- communicate, failure. *Hauser, C.H.*, + , [PAE-M Mar-Apr 2005 47-55](#)
- grid comput., plug. *Irving, M.*, + , [PAE-M Mar-Apr 2004 40-44](#)
- Measurements get together. *Chakrabarti, S.*, + , [PAE-M Jan-Feb 2009 41-49](#)
- Microgrids management. *Katiraei, F.*, + , [PAE-M May-Jun 2008 54-65](#)
- modern countermeasures to blackouts. *Pourbeik, P.*, + , [PAE-M Sep-Oct 2006 36-45](#)
- postmortem analysis of power grid blackouts. *Dagle, J.E.*, [PAE-M Sep-Oct 2006 30-35](#)
- protection, System threats and vulnerabilities. *Kropp, T.*, [PAE-M Mar-Apr 2006 46-50](#)
- reliab., Calling for backup. *Heidrick, T.*, + , [PAE-M Jan-Feb 2004 52-58](#)
- Remote Control. *Thomas, M.S.*, + , [PAE-M Jul-Aug 2010 53-60](#)
- rights to fight price volatility. *Alsac, O.*, + , [PAE-M Jul-Aug 2004 47-57](#)
- Staying in Control: Cybersecurity and the Modern Electric Grid. *Hull, J.*, + , [MPE Jan-Feb 2012 41-48](#)
- Wanted: A more intelligent grid. *Giri, J.*, + , [PAE-M Mar-Apr 2009 34-40](#)
- web services provide the power to integrate. *Jun Zhu*, [PAE-M Nov-Dec 2003 40-49](#)
- wide area system monitoring and control. *Karlsson, D.*, + , [PAE-M Sep-Oct 2004 68-76](#)
- Power system dynamic stability
- Scrutiny of the Iranian National Grid. *Sanaye-Pasand, M.*, [PAE-M Jan-Feb 2007 31-39](#)
- Power system dynamics
- A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G.*, + , [MPE Jan-Feb 2019 53-66](#)
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, + , [MPE Jan-Feb 2024 24-34](#)
- A Powerful Tool for Power System Monitoring: Distributed Dynamic State Estimation Based on a Full-View Synchronized Measurement System. *Bi, T.*, + , [MPE Jan-Feb 2023 26-35](#)
- Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, + , [MPE Nov-Dec 2024 100-111](#)
- Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. *Fan, L.*, + , [MPE May-Jun 2022 64-76](#)
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y.*, + , [MPE Jan-Feb 2024 35-42](#)
- Dynamic Estimation-Based Protection and Hidden Failure Detection and Identification: Inverter-Dominated Power Systems. *Meliopoulos, S.*, + , [MPE Jan-Feb 2023 59-72](#)
- Dynamic Wide Area Situational Awareness: Propelling Future Decentralized, Decarbonized, Digitized, and Democratized Electricity Grids. *Kamwa, I.*, [MPE Jan-Feb 2023 44-58](#)
- Gaining a Wider Perspective. *Thorp, J.S.*, + , [PAE-M Sep-Oct 2008 43-51](#)
- Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B.*, + , [MPE Mar-Apr 2024 18-29](#)
- Models for Change. *Zavadil, R.*, + , [MPE Nov-Dec 2011 86-96](#)
- Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland. *Sattinger, W.*, + , [MPE Sep-Oct 2015 41-48](#)
- Multifold Insights for Power System Dynamics From Data Assimilation: Meeting Current Challenges. *Wang, S.*, + , [MPE Jan-Feb 2023 36-43](#)
- Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid. *Schonleber, K.*, + , [MPE Sep-Oct 2020 58-63](#)
- Pushing the Limits: Europe's New Grid: Innovative Tools to Combat Transmission Bottlenecks and Reduced Inertia. *Winter, W.*, + , [MPE Jan-Feb 2015 60-74](#)
- The Fragile Grid: The Physics and Economics of Security Services in Low-Carbon Power Systems. *Mancarella, P.*, + , [MPE Mar-Apr 2021 79-88](#)
- The Wide World of Wide-area Measurement. *Phadke, A.G.*, + , [PAE-M Sep-Oct 2008 52-65](#)
- Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services. *De Martini, P.*, + , [MPE Jul-Aug 2022 76-84](#)
- Power system economics
- A mighty wind. *Smith, J.*, + , [PAE-M Mar-Apr 2009 41-51](#)
- A Natural Fit: Electricity-Gas Integration Challenges in South America. *Rudnick, H.*, + , [MPE Nov-Dec 2014 29-39](#)
- A Novel Approach to Transmission Bottleneck Management in Japan: An N-1 Intertrip Scheme. *Ohashi, N.*, + , [MPE Mar-Apr 2021 69-78](#)
- A Wider Horizon. *McCalley, J.*, + , [MPE May-Jun 2011 42-54](#)
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P.*, + , [MPE Sep-Oct 2024 49-59](#)
- Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B.*, + , [MPE Jul-Aug 2016 30-40](#)
- Analyzing Extreme Events in Power Systems: An Open, Cross-Domain Data-Driven Approach. *Zheng, X.*, + , [MPE Nov-Dec 2022 47-55](#)

- Applying the Principle of Locality: How to Build a Robust, Technology-Agnostic Regulatory Model for Tomorrow's Electrical Grid. *Enslin, J.*, +, [MPE Sep-Oct 2016 66-74](#)
- Catching Some Rays: Variable Generation Integration on the Island of Oahu. *Schuerger, M.*, +, [MPE Nov-Dec 2013 33-44](#)
- Chinese growing pains. *Zhong, J.*, +, [PAE-M Jul-Aug 2007 33-40](#)
- Closed-Loop Volt/Var Optimization: Addressing Peak Load Reduction. *Carden, J.*, +, [MPE Mar-Apr 2018 67-75](#)
- Corrections to "A Wider Horizon" [May/June 2011 42-54]. [MPE Jul-Aug 2011 90](#)
- Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O.*, +, [MPE Nov-Dec 2014 49-62](#)
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, [MPE Jul-Aug 2024 49-63](#)
- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L.*, +, [MPE Jul-Aug 2024 64-74](#)
- Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F.*, +, [MPE Jul-Aug 2015 76-86](#)
- Electricity Markets and Renewables: A Survey of Potential Design Changes and Their Consequences. *Ela, E.*, +, [MPE Nov-Dec 2017 70-82](#)
- Electrification in the United Kingdom: A Case Study Based on Future Energy Scenarios.** *Fowler, R.*, +, [MPE Jul-Aug 2018 48-57](#)
- Energy hubs for the future. *Geidl, M.*, +, [PAE-M Jan-Feb 2007 24-30](#)
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, [MPE Jul-Aug 2024 94-102](#)
- Energy Storage Control Capability Expansion: Achieving Better Technoeconomic Benefits at Portland General Electric's Salem Smart Power Center. *Alam, J.*, +, [MPE Mar-Apr 2020 69-80](#)
- Finding Flexibility: Cycling the Conventional Fleet. *Lew, D.*, +, [MPE Nov-Dec 2013 20-32](#)
- Flexible Network Pricing Encourages Greater Sharing: Making the Grid Work for Itself and Distributed Energy Resources. *Li, F.*, +, [MPE May-June 2020 26-32](#)
- For the Good of the Whole. *Lee, S.T.*, [PAE-M Sep-Oct 2007 24-35](#)
- Forecasting and Market Design Advances: Supporting an Increasing Share of Renewable Energy. *Fox, J.*, +, [MPE Nov-Dec 2021 77-85](#)
- From AlphaGo to Power System AI: What Engineers Can Learn from Solving the Most Complex Board Game. *Li, F.*, +, [MPE Mar-Apr 2018 76-84](#)
- Future vision - The Challenge of Effective Transmission Planning. *Morrow, D.J.*, +, [PAE-M Sep-Oct 2007 36-45](#)
- Harnessing the Full Potential of Clean Energy: The Role of Southern California's Utility Distributed Energy Resource Pilots. *Mehr, V.*, +, [MPE Jul-Aug 2021 28-40](#)
- High-Wire Act: HVdc Technology: The State of the Art. *Adapa, R.*, +, [MPE Nov-Dec 2012 18-29](#)
- If It Ain't Broke.... *Desai, B.*, +, [PAE-M Nov-Dec 2010 48-52](#)
- It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G.*, +, [MPE Jul-Aug 2015 61-75](#)
- It's Indisputable: Five Facts About Planning and Operating Modern Power Systems. *Bloom, A.*, +, [MPE Nov-Dec 2017 22-30](#)
- Keeping It Together: Transient Stability in a World of Wind and Solar Generation. *Miller, N.*, [MPE Nov-Dec 2015 31-39](#)
- Latin American Energy Markets: Investment Opportunities in Nonconventional Renewables. *Vargas, A.*, +, [MPE Sep-Oct 2016 38-47](#)
- Local Green Teams. *Song, I.-K.*, +, [MPE Jan-Feb 2011 66-74](#)
- Maintaining Balance: The Increasing Role of Energy Storage for Renewable Integration. *Stenclik, D.*, +, [MPE Nov-Dec 2017 31-39](#)
- Many states of distribution. *Bouford, J.D.*, +, [PAE-M Jul-Aug 2007 24-32](#)
- Measure Twice, Cut Once. *Goldberg, M.*, +, [PAE-M May-June 2010 46-54](#)
- Microgrids. *Hatzigiorgiou, N.*, +, [PAE-M Jul-Aug 2007 78-94](#)
- Nuclear Energy in a Carbon-Constrained World: Big Challenges and Big Opportunities. *Buongiorno, J.*, +, [MPE Mar-Apr 2019 69-77](#)
- Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid. *Schonleber, K.*, +, [MPE Sep-Oct 2020 58-63](#)
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G.*, +, [MPE Sep-Oct 2017 32-41](#)
- Paving the Way: A Future Without Inertia Is Closer Than You Think. *Ackermann, T.*, +, [MPE Nov-Dec 2017 61-69](#)
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Leviton, R.*, +, [MPE Nov-Dec 2014 78-88](#)
- Planning for Big Things in Brazil. *Barroso, L.A.*, +, [PAE-M Sep-Oct 2007 54-63](#)
- Planning to expand?. *Dios, R.D.*, +, [PAE-M Sep-Oct 2007 64-70](#)
- Planting the seed. *Mehos, M.*, +, [PAE-M May-June 2009 55-62](#)
- Power to the People!: European Perspectives on the Future of Electric Distribution. *Mallet, P.*, +, [MPE Mar-Apr 2014 51-64](#)
- Powering progress. *Khaparde, S.A.*, +, [PAE-M Jul-Aug 2007 41-49](#)
- Probabilistic Transmission Planning. *Li, W.*, +, [PAE-M Sep-Oct 2007 46-53](#)
- Pushing the Limits: Europe's New Grid: Innovative Tools to Combat Transmission Bottlenecks and Reduced Inertia. *Winter, W.*, +, [MPE Jan-Feb 2015 60-74](#)
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, [MPE Jul-Aug 2024 38-48](#)
- shaping future of global energy delivery. *Garrity, T.F.*, [PAE-M Sep-Oct 2003 26-30](#)
- Soccer Field Strategy. *Mah, E.J.*, +, [PAE-M Nov-Dec 2010 69-74](#)
- Stimulating efficient distribution. *Rudnick, H.*, +, [PAE-M Jul-Aug 2007 50-67](#)
- Strait Ahead: Toward a Sustainable, Economic, and Secure Electricity Supply in Singapore. *Gooi, H.B.*, +, [MPE Jul-Aug 2012 65-74](#)
- Taking an active approach. *Djapic, P.*, +, [PAE-M Jul-Aug 2007 68-77](#)
- The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G.*, +, [MPE Jan-Feb 2015 38-51](#)
- The Doctor Is In. *Gregerson, S.*, +, [PAE-M Nov-Dec 2010 45-47](#)
- The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification. *Holtinen, H.*, +, [MPE Nov-Dec 2013 53-62](#)
- The Future of Distribution Operations and Planning: The Electric Utility Environment Is Changing. *Vadari, M.*, [MPE Jan-Feb 2020 18-25](#)

- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J.*, +, *MPE Jan-Feb 2015 20-29*
- The Regulatory Debate About Energy Storage Systems: State of the Art and Open Issues. *Usera, I.*, +, *MPE Sep-Oct 2017 42-50*
- The Tariffs of Tomorrow: Innovations in Rate Designs. *Faruqi, A.*, +, *MPE May-Jun 2020 18-25*
- The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I.*, *MPE Jul-Aug 2016 41-53*
- Towards Electricity for All. *Mukhopadhyay, S.*, *PAE-M Sep-Oct 2007 71-78*
- Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory. *Muhanji, S.*, +, *MPE Sep-Oct 2019 71-81*
- Uncertainty Forecasting in a Nutshell: Prediction Models Designed to Prevent Significant Errors. *Dobschinski, J.*, +, *MPE Nov-Dec 2017 40-49*
- Unrealized potential in Africa. *Blyden, B.K.*, +, *PAE-M Jul-Aug 2008 52-58*
- Utility Load Research: The Future of Load Research Is Now. *Puckett, C.*, +, *MPE May-Jun 2020 61-70*
- Wide-Area Planning of Electric Infrastructure: Assessing Investment Options for Low-Carbon Futures. *McCalley, J.*, +, *MPE Nov-Dec 2017 83-93*
- Power system faults
- A Fine Day for an Eclipse: It's Never Too Early to Start Planning for One. *Loehr, G.*, *MPE Nov-Dec 2016 72-77*
- Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F.*, *MPE May-Jun 2023 77-86*
- Down, but Not Out: A Brief Overview of Restoration Issues. *Feltes, J.*, +, *MPE Jan-Feb 2014 34-43*
- Frequency Disturbances During the Super Bowl: It's More Than Just What's on the Field. *Allen, E.*, +, *MPE Nov-Dec 2016 52-58*
- From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States. *Cohn, J.A.*, *MPE May-Jun 2023 70-76*
- Keeping the lights on and the information flowing. *Kirschen, D.*, +, *PAE-M Jan-Feb 2009 50-60*
- Nipping Blackouts in the Bud: Introducing a Novel Cascading Failure Network. *Merrill, H.*, +, *MPE Jul-Aug 2020 64-75*
- power system security assessment. *Morison, K.*, +, *PAE-M Sep-Oct 2004 30-39*
- restoration from cascading failures. *Adibi, M.M.*, +, *PAE-M Sep-Oct 2006 68-79*
- Scrutiny of the Iranian National Grid. *Sanaye-Pasand, M.*, *PAE-M Jan-Feb 2007 31-39*
- Unexpected Consequences: Global Blackout Experiences and Preventive Solutions. *Imai, S.*, +, *MPE May-Jun 2023 16-29*
- virtual power quality troubleshooter prototype. *Chun Li*, +, *PAE-M May-Jun 2003 24-31*
- Wanted: A more intelligent grid. *Giri, J.*, +, *PAE-M Mar-Apr 2009 34-40*
- Power system generation
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J.*, +, *MPE May-Jun 2017 30-40*
- Power system harmonics
- nonintrusive load monitoring in distrib. network, power signature anal. *Laughman, C.*, +, *PAE-M Mar-Apr 2003 56-63*
- Power system interconnection
- Building a plan for HVDC. *Henderson, M.*, +, *PAE-M Mar-Apr 2007 52-60*
- Design for distributed energy resources. *Driesen, J.*, +, *PAE-M May-Jun 2008 30-40*
- Forewarned Is Forearmed: An Automated System for Remedial Action Schemes. *Yao, Z.*, +, *MPE May-Jun 2014 77-86*
- Fuel cells and load transients. *Caisheng Wang*, +, *PAE-M Jan-Feb 2007 58-63*
- Getting Smart. *Garrity, T.F.*, +, *PAE-M Mar-Apr 2008 38-45*
- Harmonizing AC and DC: A Hybrid AC/DC Future Grid Solution. *Wang, P.*, +, *MPE May-Jun 2013 76-83*
- Intruders in the Grid. *Chen-Ching Liu*, +, *MPE Jan-Feb 2012 58-66*
- NERC initiatives on power syst. security. *Gent, M.R.*, +, *PAE-M Jan-Feb 2003 46-52*
- Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M.*, +, *MPE Mar-Apr 2012 62-70*
- Softening the Blow of Disturbances. *Clark, H.*, +, *PAE-M Jan-Feb 2008 30-41*
- Power system management
- A Common Language. *Hervey, M.*, +, *PAE-M Nov-Dec 2010 28-36*
- A Flight to Quality. *Said, W.*, +, *MPE Jul-Aug 2011 38-45*
- A model for all seasons. *Ziwen Yao*, +, *PAE-M Jan-Feb 2010 54-60*
- Decisions, Decisions: An Asset Management-Based Distribution System Framework. *Dashti, R.*, +, *MPE May-Jun 2014 96-108*
- Driving Forces Behind Wind. *Osborn, D.*, +, *MPE Nov-Dec 2011 60-74*
- Enhancing Grid Measurements: Wide Area Measurement Systems, NASPInet, and Security. *Bobba, R.B.*, +, *MPE Jan-Feb 2012 67-73*
- Intelligent Design. *Kezunovic, M.*, +, *PAE-M Nov-Dec 2010 37-44*
- Joint Assets. *Huet, O.*, +, *PAE-M Nov-Dec 2010 88-93*
- Links to the Future: Communication Requirements and Challenges in the Smart Grid. *Bouhafs, F.*, +, *MPE Jan-Feb 2012 24-32*
- Microgrids management. *Katiraei, F.*, +, *PAE-M May-Jun 2008 54-65*
- Needed: ASAP Approach. *Desai, B.*, +, *PAE-M Nov-Dec 2010 53-60*
- Only Connect: Microgrids for Distribution System Restoration. *Che, L.*, +, *MPE Jan-Feb 2014 70-81*
- Phasing in the Technology. *Martin, K.E.*, +, *PAE-M Sep-Oct 2008 24-33*
- Real-Time Grid Management: Keeping the Lights On!. *Giri, J.*, *MPE May-Jun 2023 51-60*
- See It Fast to Keep Calm: Real-Time Voltage Control Under Stressed Conditions. *Glavic, M.*, +, *MPE Jul-Aug 2012 43-55*
- Sim City. *Dugan, R.C.*, +, *MPE Sep-Oct 2011 74-81*
- Striving for Power Perfection. *Yeager, K.*, +, *PAE-M Nov-Dec 2008 28-35*
- The evolution of distribution. *Fan, J.*, +, *PAE-M Mar-Apr 2009 63-68*
- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J.*, +, *MPE Jan-Feb 2015 20-29*
- The power grabbers. *Siriwardana, J.*, +, *PAE-M Jan-Feb 2010 46-53*
- The Service Upgrade. *Wallace, R.*, +, *PAE-M Nov-Dec 2010 24-27*

- The Situation Room: Control Center Analytics for Enhanced Situational Awareness. *Giri, J.*, +, [MPE Sep-Oct 2012 24-39](#)
- Time Management. *Srinivasaraghavan, S.*, +, [MPE Jul-Aug 2011 46-53](#)
- When the Bough Breaks: Managing Extreme Weather Events Affecting Electrical Power Grids. *Abi-Samra, N.*, +, [MPE Sep-Oct 2014 61-65](#)
- Power system markets
- Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements. *Heinen, S.*, +, [MPE Jan-Feb 2017 16-24](#)
- Power system measurement
- advanced power syst. protection syst. using Rogowski coil current sens. *Kojovic, L.A.*, +, [PAE-M May-Jun 2003 43-48](#)
- Enhancing Grid Measurements: Wide Area Measurement Systems, NASPInet, and Security. *Bobba, R.B.*, +, [MPE Jan-Feb 2012 67-73](#)
- First steps to wide area control. *Atanackovic, D.*, +, [PAE-M Jan-Feb 2008 61-68](#)
- Measurements get together. *Chakrabarti, S.*, +, [PAE-M Jan-Feb 2009 41-49](#)
- nonintrusive load monitoring in distrib. network, power signature anal. *Laughman, C.*, +, [PAE-M Mar-Apr 2003 56-63](#)
- virtual power quality troubleshooter prototype. *Chun Li*, +, [PAE-M May-Jun 2003 24-31](#)
- wide area system monitoring and control. *Karlsson, D.*, +, [PAE-M Sep-Oct 2004 68-76](#)
- Power system measurements
- Chinese power systs., WAMS appls. *Xiaorong Xie*, +, [PAE-M Jan-Feb 2006 54-63](#)
- DC Circuit Breakers for High-Voltage dc Grids: Present and Future. *Davidson, C.*, +, [MPE Sep-Oct 2024 87-99](#)
- Distributed Generation and Megacities: Are Renewables the Answer?. *Smil, V.*, [MPE Mar-Apr 2019 37-41](#)
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W.*, +, [MPE Sep-Oct 2024 111-115](#)
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B.*, +, [MPE Mar-Apr 2024 66-77](#)
- Measures of Value: Data Analytics for Automated Fault Analysis. *Popovic, T.*, +, [MPE Sep-Oct 2012 58-69](#)
- Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M.*, +, [MPE Sep-Oct 2012 50-57](#)
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, +, [MPE Jul-Aug 2024 85-93](#)
- Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty. *Nock, D.*, +, [MPE Jul-Aug 2024 26-37](#)
- Synchro-Waveforms: A Window to the Future of Power Systems Data Analytics. *Mohsenian-Rad, H.*, +, [MPE Sep-Oct 2023 68-77](#)
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, +, [MPE Mar-Apr 2024 55-65](#)
- Power system planning
- A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty. *Velasquez, C.*, +, [MPE Jul-Aug 2016 20-29](#)
- A Journey Through Energy Systems Integration: Trending Grid Codes, Standards, and IEC Collaboration. *MacDowell, J.*, +, [MPE Nov-Dec 2019 79-88](#)
- A New Car, a New Grid. *Dickerman, L.*, +, [PAE-M Mar-Apr 2010 55-61](#)
- A Wider Horizon. *McCalley, J.*, +, [MPE May-Jun 2011 42-54](#)
- Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B.*, +, [MPE Jul-Aug 2016 30-40](#)
- An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R.*, [MPE Jul-Aug 2015 18-28](#)
- At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects. *Perlaviciute, G.*, +, [MPE Jan-Feb 2018 49-55](#)
- Balancing Act. *Lauby, M.G.*, +, [MPE Nov-Dec 2011 75-85](#)
- Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning. *Coddington, M.*, +, [MPE Mar-Apr 2017 40-47](#)
- Change in the air. *Grant, W.*, +, [PAE-M Nov-Dec 2009 47-58](#)
- Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B.*, +, [MPE Jul-Aug 2024 75-84](#)
- Control Center Designs: New Functions and Challenges for the Transmission System Operator. *Astic, J.*, +, [MPE Mar-Apr 2018 57-66](#)
- Corrections to "A Wider Horizon" [May/June 2011 42-54]. [MPE Jul-Aug 2011 90](#)
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, [MPE Jul-Aug 2024 49-63](#)
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y.*, +, [MPE Jan-Feb 2024 35-42](#)
- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, [MPE Jan-Feb 2024 61-71](#)
- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L.*, +, [MPE Jul-Aug 2024 64-74](#)
- Electricity Markets and Renewables: A Survey of Potential Design Changes and Their Consequences. *Ela, E.*, +, [MPE Nov-Dec 2017 70-82](#)
- energy management systems. *Maghsoodlou, F.*, +, [PAE-M Sep-Oct 2004 49-57](#)
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, [MPE Jul-Aug 2024 94-102](#)
- energy resources acquisition in competitive elec. market. *Welch, G.V.*, +, [PAE-M May-Jun 2003 36-42](#)
- Finding Flexibility: Cycling the Conventional Fleet. *Lew, D.*, +, [MPE Nov-Dec 2013 20-32](#)
- First steps to wide area control. *Atanackovic, D.*, +, [PAE-M Jan-Feb 2008 61-68](#)
- Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns. *D'haeseleer, W.*, +, [MPE Jan-Feb 2017 61-71](#)
- For the Good of the Whole. *Lee, S.T.*, [PAE-M Sep-Oct 2007 24-35](#)
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, +, [MPE Mar-Apr 2024 42-54](#)
- From AlphaGo to Power System AI: What Engineers Can Learn from Solving the Most Complex Board Game. *Li, F.*, +, [MPE Mar-Apr 2018 76-84](#)
- Future vision - The Challenge of Effective Transmission Planning. *Morrow, D.J.*, +, [PAE-M Sep-Oct 2007 36-45](#)
- future's smart delivery system. *Gellings, C.W.*, +, [PAE-M Sep-Oct 2004 40-48](#)

- grid comput., plug. *Irving, M., + , PAE-M Mar-Apr 2004 40-44*
- Grid Planning for Electrification Using Highly Granular Analytics: Insights Into the Transportation Distribution Infrastructure. *Currie, R.A.F., + , MPE Nov-Dec 2023 68-76*
- Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B., + , MPE Mar-Apr 2024 18-29*
- Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role. *Kiviluoma, J., + , MPE Jan-Feb 2017 25-33*
- Hawai'i's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M., MPE Sep-Oct 2019 40-46*
- Intelligent Design. *Kezunovic, M., + , PAE-M Nov-Dec 2010 37-44*
- Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A., + , MPE May-Jun 2024 79-89*
- Italian power restoration plan, Restoration project. *Salvati, R., + , PAE-M Jan-Feb 2004 44-51*
- Joint Assets. *Huet, O., + , PAE-M Nov-Dec 2010 88-93*
- Let's Make a Deal: Non-Wires Alternatives for Traditional Transmission and Distribution?. *Reid, B., + , MPE Mar-Apr 2022 23-31*
- Local Green Teams. *Song, I.-K., + , MPE Jan-Feb 2011 66-74*
- Maintaining Balance: The Increasing Role of Energy Storage for Renewable Integration. *Stenclik, D., + , MPE Nov-Dec 2017 31-39*
- Making Distribution Automation Work: Smart Data Is Imperative for Growth. *Gray, G., + , MPE Jan-Feb 2016 58-67*
- Measures of Value: Data Analytics for Automated Fault Analysis. *Popovic, T., + , MPE Sep-Oct 2012 58-69*
- Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M., + , MPE Sep-Oct 2012 50-57*
- Needed: ASAP Approach. *Desai, B., + , PAE-M Nov-Dec 2010 53-60*
- Next-Generation Distribution Planning: How Do We Capture the Value of Distributed Energy Resources?. *Bystrom, O., MPE Mar-Apr 2022 32-38*
- Notes from Underground. *Olearczyk, M., + , PAE-M Nov-Dec 2010 75-84*
- Off the Beaten Path: Resiliency and Associated Risk. *Kezunovic, M., + , MPE Mar-Apr 2018 26-35*
- One Step Ahead: Short-Term Wind Power Forecasting and Intelligent Predictive Control Based on Data Analytics. *Venayagamoorthy, G.K., + , MPE Sep-Oct 2012 70-78*
- Operating in the Fog: Security Management Under Uncertainty. *Panciatici, P., + , MPE Sep-Oct 2012 40-49*
- organizing Africa's emerging economy. *Blyden, B.K., + , PAE-M Jul-Aug 2005 24-31*
- Paving the Way: A Future Without Inertia Is Closer Than You Think. *Ackermann, T., + , MPE Nov-Dec 2017 61-69*
- Planning for Big Things in Brazil. *Barroso, L.A., + , PAE-M Sep-Oct 2007 54-63*
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T., PAE-M Sep-Oct 2003 54-62*
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P., + , MPE Sep-Oct 2024 20-30*
- Planning to expand?. *Dios, R.D., + , PAE-M Sep-Oct 2007 64-70*
- Power Cycling: CCGTs: The Critical Link Between the Electricity and Natural Gas Markets. *Gil, J., + , MPE Nov-Dec 2014 40-48*
- Probabilistic Transmission Planning. *Li, W., + , PAE-M Sep-Oct 2007 46-53*
- Pushing the Limits: Europe's New Grid: Innovative Tools to Combat Transmission Bottlenecks and Reduced Inertia. *Winter, W., + , MPE Jan-Feb 2015 60-74*
- PV-Battery Systems for Critical Loads During Emergencies: A Case Study from Puerto Rico After Hurricane Maria. *Keerthisinghe, C., + , MPE Jan-Feb 2019 82-92*
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R., + , MPE Jul-Aug 2024 85-93*
- Reading Deeper. *Pritchard, G., + , PAE-M Nov-Dec 2010 85-87*
- Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty. *Nock, D., + , MPE Jul-Aug 2024 26-37*
- shaping future of global energy delivery. *Garrity, T.F., PAE-M Sep-Oct 2003 26-30*
- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J., + , MPE Jan-Feb 2015 84-91*
- Smart City Energy Technology in the Face of Emergency Situations: Electric Supply, Electric Transportation, and Communication. *Vittal, V., + , MPE Sep-Oct 2022 16-25*
- Soccer Field Strategy. *Mah, E.J., + , PAE-M Nov-Dec 2010 69-74*
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N., + , MPE Jul-Aug 2016 79-87*
- Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems. *Mountain, B., + , MPE Jul-Aug 2015 53-60*
- sys. blackouts, Cascade to black. *Pereira, L., PAE-M May-Jun 2004 54-57*
- The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System. *Kristov, L., MPE Mar-Apr 2019 42-49*
- The China Southern Power Grid: Solutions to Operation Risks and Planning Challenges. *Zhou, H., + , MPE Jul-Aug 2016 72-78*
- The Cold Truth: Managing Gas-Electric Integration: The ISO New England Experience. *Babula, M., + , MPE Nov-Dec 2014 20-28*
- The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G., + , MPE Jan-Feb 2017 53-60*
- The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G., + , MPE Jan-Feb 2015 38-51*
- The Expansion of Transmission: The Challenges Faced in South America. *de Sa Ferreira, R., + , MPE Jul-Aug 2016 54-64*
- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J., + , MPE Jan-Feb 2015 20-29*
- The Power of Small: The Effects of Distributed Energy Resources on System Reliability. *Lew, D., + , MPE Nov-Dec 2017 50-60*
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M., + , MPE Jan-Feb 2015 75-83*

- The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection. *Herling, S.*, +, [MPE Jul-Aug 2016 65-71](#)
- The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I.*, [MPE Jul-Aug 2016 41-53](#)
- The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E.*, +, [MPE Jan-Feb 2017 34-42](#)
- Towards Electricity for All. *Mukhopadhyay, S.*, [PAE-M Sep-Oct 2007 71-78](#)
- Transformation of the Grid: The Impact of Distributed Energy Resources on Bulk Power Systems. *Quint, R.*, +, [MPE Nov-Dec 2019 35-45](#)
- Twin Peaks: Surmounting the Global Challenges of Energy for All and Greener, More Efficient Electricity Services. *Madrigal, M.*, +, [MPE May-Jun 2012 20-29](#)
- Uncertainty Forecasting in a Nutshell: Prediction Models Designed to Prevent Significant Errors. *Dobschinski, J.*, +, [MPE Nov-Dec 2017 40-49](#)
- Under the Hood: An Overview of the Common Information Model Data Exchanges. *Osterlund, L.*, +, [MPE Jan-Feb 2016 68-82](#)
- Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements. *Heinen, S.*, +, [MPE Jan-Feb 2017 16-24](#)
- Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E.*, +, [MPE Jan-Feb 2017 43-52](#)
- utility policies, Addressing "soft system" dynamic issues. *Waters, T.*, +, [PAE-M Jan-Feb 2006 40-46](#)
- value-based system facility planning. *Chowdhury, A.A.*, +, [PAE-M Sep-Oct 2004 58-67](#)
- wide area system monitoring and control. *Karlsson, D.*, +, [PAE-M Sep-Oct 2004 68-76](#)
- Wide-Area Planning of Electric Infrastructure: Assessing Investment Options for Low-Carbon Futures. *McCalley, J.*, +, [MPE Nov-Dec 2017 83-93](#)
- wind energy delivery issues, trans. planning and competitive electricity market operation. *Piwko, R.*, +, [PAE-M Nov-Dec 2005 47-56](#)
- Wind Energy in China. *Jiang, L.*, +, [MPE Nov-Dec 2011 36-46](#)
- Power system protection
- advanced power syst. protection syst. using Rogowski coil current sens. *Kojovic, L.A.*, +, [PAE-M May-Jun 2003 43-48](#)
- Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F.*, [MPE May-Jun 2023 77-86](#)
- blackouts, shedding light. *Novosel, D.*, +, [PAE-M Jan-Feb 2004 32-43](#)
- boosting immunity to blackouts. *Horowitz, S.H.*, +, [PAE-M Sep-Oct 2003 47-53](#)
- Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. *Guibout, C.*, +, [MPE May-Jun 2024 67-78](#)
- Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid. *Bose, A.*, +, [MPE May-Jun 2023 61-69](#)
- communicate, failure. *Hauser, C.H.*, +, [PAE-M Mar-Apr 2005 47-55](#)
- delivering clean and pure power. *Rudnick, H.*, +, [PAE-M Sep-Oct 2003 32-40](#)
- Forewarned Is Forearmed: An Automated System for Remedial Action Schemes. *Yao, Z.*, +, [MPE May-Jun 2014 77-86](#)
- From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States. *Cohn, J.A.*, [MPE May-Jun 2023 70-76](#)
- Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection. *Ropp, M.*, +, [MPE May-Jun 2021 47-57](#)
- Measurements get together. *Chakrabarti, S.*, +, [PAE-M Jan-Feb 2009 41-49](#)
- Nipping Blackouts in the Bud: Introducing a Novel Cascading Failure Network. *Merrill, H.*, +, [MPE Jul-Aug 2020 64-75](#)
- Scrutiny of the Iranian National Grid. *Sanaye-Pasand, M.*, [PAE-M Jan-Feb 2007 31-39](#)
- Unexpected Consequences: Global Blackout Experiences and Preventive Solutions. *Imai, S.*, +, [MPE May-Jun 2023 16-29](#)
- Power system relaying
- advanced power syst. protection syst. using Rogowski coil current sens. *Kojovic, L.A.*, +, [PAE-M May-Jun 2003 43-48](#)
- blackouts and relaying considerations. *Horowitz, S.H.*, +, [PAE-M Sep-Oct 2006 60-67](#)
- Scrutiny of the Iranian National Grid. *Sanaye-Pasand, M.*, [PAE-M Jan-Feb 2007 31-39](#)
- Power system reliability
- A Digital Transformation at New York Power Authority: Using Innovative Technologies to Create a More Efficient Power System. *Fardanesh, B.*, +, [MPE Mar-Apr 2020 22-30](#)
- A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty. *Velasquez, C.*, +, [MPE Jul-Aug 2016 20-29](#)
- A Journey Through Energy Systems Integration: Trending Grid Codes, Standards, and IEC Collaboration. *MacDowell, J.*, +, [MPE Nov-Dec 2019 79-88](#)
- A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D.*, +, [MPE May-Jun 2015 26-34](#)
- A Success Story: The Value of the Massachusetts Technical Standards Review Group. *Enayati, B.*, [MPE Mar-Apr 2017 57-60](#)
- A Tale of Two Visions: Designing a Decentralized Transactive Electric System. *Kristov, L.*, +, [MPE May-Jun 2016 63-69](#)
- Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B.*, +, [MPE Jul-Aug 2016 30-40](#)
- Advances in Algorithms for Power System Static State Estimators: An Improved Solution for Bad Data Management and State Estimator Convergence. *Gou, B.*, +, [MPE Jan-Feb 2023 16-25](#)
- aging electricity infrastructure, Wisdom about age. *Zuyi Li, +*, [PAE-M May-Jun 2006 44-51](#)
- aging infrastructure, economics. *Brown, R.E.*, +, [PAE-M May-Jun 2006 36-43](#)
- aging, maint., reliab., approaches, preserving equip. health and extending equip. life. *Endrenyi, J.*, +, [PAE-M May-Jun 2006 59-67](#)
- Analyzing Extreme Events in Power Systems: An Open, Cross-Domain Data-Driven Approach. *Zheng, X.*, +, [MPE Nov-Dec 2022 47-55](#)
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D.*, +, [MPE Nov-Dec 2024 18-27](#)
- Balancing Act. *Lauby, M.G.*, +, [MPE Nov-Dec 2011 75-85](#)
- Becoming the Utility of the Future: Risks and Opportunities. *Brown, R.*, +, [MPE Sep-Oct 2016 57-65](#)

- Blackouts, Restoration, and Islanding: A System Resilience Perspective. *Braun, M.*, +, *MPE Jul-Aug 2020 54-63*
- blackouts, shedding light. *Novosel, D.*, +, *PAE-M Jan-Feb 2004 32-43*
- boosting immunity to blackouts. *Horowitz, S.H.*, +, *PAE-M Sep-Oct 2003 47-53*
- Calling for backup. *Heidrick, T.*, +, *PAE-M Jan-Feb 2004 52-58*
- Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. *Guibout, C.*, +, *MPE May-Jun 2024 67-78*
- Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid. *Bose, A.*, +, *MPE May-Jun 2023 61-69*
- Challenging Changing Landscapes: Implementing Synchrophasor Technology in Grid Operations in the WECC Region. *Madani, V.*, +, *MPE Sep-Oct 2015 18-28*
- Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning. *Coddington, M.*, +, *MPE Mar-Apr 2017 40-47*
- Changing the electricity game. *Nourai, A.*, +, *PAE-M Jul-Aug 2009 42-47*
- Closed-Loop Volt/Var Optimization: Addressing Peak Load Reduction. *Carden, J.*, +, *MPE Mar-Apr 2018 67-75*
- Community Participation in the Clean Energy Transition: A Procedural Justice Perspective On Meaningful Involvement. *Brickhouse, B.*, +, *MPE Jul-Aug 2024 75-84*
- Control Center Designs: New Functions and Challenges for the Transmission System Operator. *Astic, J.*, +, *MPE Mar-Apr 2018 57-66*
- Dawn of the grid synchronization. *Novosel, D.*, +, *PAE-M Jan-Feb 2008 49-60*
- delivering clean and pure power. *Rudnick, H.*, +, *PAE-M Sep-Oct 2003 32-40*
- Destination: Perfection. *Flueck, A.*, +, *PAE-M Nov-Dec 2008 36-47*
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y.*, +, *MPE Jan-Feb 2024 35-42*
- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, *MPE Jan-Feb 2024 61-71*
- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L.*, +, *MPE Jul-Aug 2024 64-74*
- Dynamic Estimation-Based Protection and Hidden Failure Detection and Identification: Inverter-Dominated Power Systems. *Meliopoulos, S.*, +, *MPE Jan-Feb 2023 59-72*
- elec. energy storage. The United States of storage. *Gyuk, I.*, +, *PAE-M Mar-Apr 2005 31-39*
- Electricity Markets and Renewables: A Survey of Potential Design Changes and Their Consequences. *Ela, E.*, +, *MPE Nov-Dec 2017 70-82*
- Electricity Markets in the United States: Power Industry Restructuring Processes for the Present and Future. *Litvinov, E.*, +, *MPE Jan-Feb 2019 32-42*
- Enabling Power System Transformation Globally: A System Operator Research Agenda for Bulk Power System Issues. *O'Malley, M.*, +, *MPE Nov-Dec 2021 45-55*
- Energy hubs for the future. *Geidl, M.*, +, *PAE-M Jan-Feb 2007 24-30*
- Energy Insecurity Due to Gas Supply Availability: Efforts to Coordinate Electric and Gas Systems. *Bautista Alderete, G.*, *MPE Mar-Apr 2021 28-36*
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K.*, +, *MPE Jul-Aug 2024 18-25*
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, *MPE Jul-Aug 2024 94-102*
- Enhancing Grid Measurements: Wide Area Measurement Systems, NASPInet, and Security. *Bobba, R.B.*, +, *MPE Jan-Feb 2012 67-73*
- equipt. aging. *Wenyuan Li*, +, *PAE-M May-Jun 2006 52-58*
- events, automated anal. *Allen, D.E.*, +, *PAE-M Sep-Oct 2005 48-55*
- Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N.*, +, *MPE Mar-Apr 2016 57-65*
- FACTS on resolving transmission gridlock. *Reed, G.*, +, *PAE-M Sep-Oct 2003 41-46*
- Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences. *Serrano, R.*, +, *MPE Jan-Feb 2022 38-51*
- Forecasting and Market Design Advances: Supporting an Increasing Share of Renewable Energy. *Fox, J.*, +, *MPE Nov-Dec 2021 77-85*
- Forewarned Is Forearmed: An Automated System for Remedial Action Schemes. *Yao, Z.*, +, *MPE May-Jun 2014 77-86*
- Forward Pass: Policy Challenges and Technical Opportunities on the U.S. Electric Grid. *Heidel, T.D.*, +, *MPE May-Jun 2012 30-37*
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, +, *MPE Mar-Apr 2024 42-54*
- From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States. *Cohn, J.A.*, *MPE May-Jun 2023 70-76*
- From Reliability to Resilience: Planning the Grid Against the Extremes. *Moreno, R.*, +, *MPE Jul-Aug 2020 41-53*
- Future Electricity Markets: Designing for Massive Amounts of Zero-Variable-Cost Renewable Resources. *Ela, E.*, +, *MPE Nov-Dec 2019 58-66*
- Geomagnetic Disturbances: Their Impact on the Power Grid. *MPE Jul-Aug 2013 71-78*
- Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B.*, +, *MPE Mar-Apr 2024 18-29*
- Hawaii's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M.*, *MPE Sep-Oct 2019 40-46*
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, *MPE Mar-Apr 2024 78-88*
- How Brazil Aims for Gold in Reliability: From Past Blackouts to Preparedness for the 2016 Summer Olympic and Paralympic Games. *Gomes, P.*, +, *MPE Nov-Dec 2016 40-51*
- Hybrid Resources: Challenges, Implications, Opportunities, and Innovation. *Ahlstrom, M.*, +, *MPE Nov-Dec 2021 37-44*
- If It Ain't Broke.... *Desai, B.*, +, *PAE-M Nov-Dec 2010 48-52*
- implementation of online security assessment. *Lei Wang*, +, *PAE-M Sep-Oct 2006 46-59*
- Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection. *Ropp, M.*, +, *MPE May-Jun 2021 47-57*
- Investing for the Future: How Small Utilities are Finding Success With Advanced Distribution Management Systems. *Ngo, Y.*, +, *MPE Jan-Feb 2020 34-42*

- It's Indisputable: Five Facts About Planning and Operating Modern Power Systems. *Bloom, A.*, +, *MPE Nov-Dec 2017 22-30*
- Japan's Pivot to Resilience: How Two Microgrids Fared After the 2011 Earthquake. *Marnay, C.*, +, *MPE May-Jun 2015 44-57*
- Keeping the lights on and the information flowing. *Kirschen, D.*, +, *PAE-M Jan-Feb 2009 50-60*
- Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid. *Burdick, A.*, +, *MPE Jul-Aug 2022 30-43*
- Maintaining Balance: The Increasing Role of Energy Storage for Renewable Integration. *Stenclik, D.*, +, *MPE Nov-Dec 2017 31-39*
- Managing the New Grid: Delivering Sustainable Electrical Energy. *Romero Agüero, J.*, +, *MPE Jul-Aug 2019 75-84*
- Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety. *Udren, E.A.*, +, *MPE Jan-Feb 2022 64-77*
- Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M.*, +, *MPE Sep-Oct 2012 50-57*
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D.*, +, *MPE May-Jun 2021 20-35*
- Microgrids Against Wildfires: Distributed Energy Resources Enhance System Resilience. *Moreno, R.*, +, *MPE Jan-Feb 2022 78-89*
- Microgrids: Enhancing the Resilience of the European Megagrid. *Strbac, G.*, +, *MPE May-Jun 2015 35-43*
- Modernizing the Grid: Challenges and Opportunities for a Sustainable Future. *Agüero, J.*, +, *MPE May-Jun 2017 74-83*
- NERC initiatives on power syst. security. *Gent, M.R.*, +, *PAE-M Jan-Feb 2003 46-52*
- Network Congestion Management: Experiences From Bruny Island Using Residential Batteries. *Chapman, A.*, +, *MPE Jul-Aug 2021 41-51*
- No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F.*, +, *MPE Mar-Apr 2015 43-49*
- No Light in August: Power System Restoration Following the 2003 North American Blackout. *Allen, E.*, +, *MPE Jan-Feb 2014 24-33*
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, *MPE Nov-Dec 2024 78-88*
- Off the Beaten Path: Resiliency and Associated Risk. *Kezunovic, M.*, +, *MPE Mar-Apr 2018 26-35*
- Operating in the Fog: Security Management Under Uncertainty. *Panciatici, P.*, +, *MPE Sep-Oct 2012 40-49*
- Operational Coordination Architecture: New Models and Approaches. *De Martini, P.*, +, *MPE Sep-Oct 2019 29-39*
- Optimizing Operations with CIM: Today's Grid Relies on Network Analysis (and a Lot of Data). *Britton, J.*, +, *MPE Jan-Feb 2016 48-57*
- PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H.*, +, *MPE Sep-Oct 2017 59-67*
- Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W.*, +, *MPE Jan-Feb 2022 16-27*
- Practical Microgrid Protection Solutions: Promises and Challenges. *Manson, S.*, +, *MPE May-Jun 2021 58-69*
- Pushing the Limits: Europe's New Grid: Innovative Tools to Combat Transmission Bottlenecks and Reduced Inertia. *Winter, W.*, +, *MPE Jan-Feb 2015 60-74*
- PV-Battery Systems for Critical Loads During Emergencies: A Case Study from Puerto Rico After Hurricane Maria. *Keerthisinghe, C.*, +, *MPE Jan-Feb 2019 82-92*
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, +, *MPE Jul-Aug 2024 85-93*
- Quantifying Risk in an Uncertain Future: The Evolution of Resource Adequacy. *Stenclik, D.*, +, *MPE Nov-Dec 2021 29-36*
- rapidly deployable recovery transformers. *Stiegemeier, C.L.*, +, *PAE-M Mar-Apr 2006 38-45*
- real-time dyn. security assess. *Schinker, R.*, +, *PAE-M Mar-Apr 2006 51-58*
- Real-Time Grid Management: Keeping the Lights On!. *Giri, J.*, *MPE May-Jun 2023 51-60*
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, *MPE Mar-Apr 2024 30-41*
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, *MPE Jul-Aug 2024 38-48*
- resource adequacy. *Jian Yang*, *PAE-M Mar-Apr 2006 59-65*
- Same Goal, Different Pathways for Energy Transition: A More Holistic, Multisector, Community-Driven Approach. *Cochran, J.*, +, *MPE Jul-Aug 2022 18-29*
- Sensing the Future. *Phillips, A.*, +, *PAE-M Nov-Dec 2010 61-68*
- shaping future of global energy delivery. *Garrity, T.F.*, *PAE-M Sep-Oct 2003 26-30*
- smart grid, power delivery for 21st century. *Massoud Amin, S.*, +, *PAE-M Sep-Oct 2005 34-41*
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, *MPE Nov-Dec 2024 42-53*
- Soccer Field Strategy. *Mah, E.J.*, +, *PAE-M Nov-Dec 2010 69-74*
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W.*, +, *MPE May-Jun 2021 83-92*
- Strait Ahead: Toward a Sustainable, Economic, and Secure Electricity Supply in Singapore. *Gooi, H.B.*, +, *MPE Jul-Aug 2012 65-74*
- Streetlights Are Getting Smarter: Integrating an Intelligent Communications and Control System to the Current Infrastructure. *Shahidehpour, M.*, +, *MPE May-Jun 2015 67-80*
- Synchronous Condenser Applications: Under Significant Resource Portfolio Changes. *Zhou, G.*, +, *MPE Jul-Aug 2019 35-46*
- syst. blackouts, Cascade to black. *Pereira, L.*, *PAE-M May-Jun 2004 54-57*
- System Restoration Readiness: The Evolution in North America. *Willson, J.*, +, *MPE Jul-Aug 2018 99-106*
- Tales of Power System Failures: A Look at the Unusual, Strange, and Downright Bizarre Causes. *Waldele, R.*, *MPE Nov-Dec 2016 18-23*
- Terms of Protection: The Many Faces of Smart Grid Security. *Nordell, D.E.*, +, *MPE Jan-Feb 2012 18-23*
- The Best of IGREENGrid Practices: A Distribution Network's Contribution to Resiliency. *Varela, J.*, +, *MPE May-Jun 2015 81-89*
- The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System. *Kristov, L.*, *MPE Mar-Apr 2019 42-49*

- The Changing Electrical Landscape: End-to-End Power System Operation Under the Transactive Energy Paradigm. *Rahimi, F.*, +, [MPE May-Jun 2016 52-62](#)
- The China Southern Power Grid: Solutions to Operation Risks and Planning Challenges. *Zhou, H.*, +, [MPE Jul-Aug 2016 72-78](#)
- The Evolution of the Market: Designing a Market for High Levels of Variable Generation. *Ahlstrom, M.*, +, [MPE Nov-Dec 2015 60-66](#)
- The Grid: Stronger, Bigger, Smarter?: Presenting a Conceptual Framework of Power System Resilience. *Pantelli, M.*, +, [MPE May-Jun 2015 58-66](#)
- The Grid Under Extremes: Pandemic Impacts on California Electricity Consumption. *Bergman, D.*, +, [MPE Nov-Dec 2022 38-46](#)
- The Impetus for Hydropower Development in India: New Initiatives. *Sharma, S.*, +, [MPE Sep-Oct 2020 18-26](#)
- The Interface of Power: Moving Toward Distribution System Operators. *Apostolopoulou, D.*, +, [MPE May-Jun 2016 46-51](#)
- The Plug-and-Play Electricity Era: Interoperability to Integrate Anything, Anywhere, Anytime. *Widergren, S.*, +, [MPE Sep-Oct 2019 47-58](#)
- The Power of Small: The Effects of Distributed Energy Resources on System Reliability. *Lew, D.*, +, [MPE Nov-Dec 2017 50-60](#)
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M.*, +, [MPE Jan-Feb 2015 75-83](#)
- The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection. *Herling, S.*, +, [MPE Jul-Aug 2016 65-71](#)
- The Utility and Grid of the Future: Challenges, Needs, and Trends. *Romero Aguero, J.*, +, [MPE Sep-Oct 2016 29-37](#)
- The Utility Operational Response to the 14 August 2003 Blackout: Analysis and Case Studies. *Robertson, F.R.*, +, [MPE May-Jun 2023 43-50](#)
- The View from the Top of the Mountain: Building a Community of Practice with the GridWise Transactive Energy Framework. *Forfia, D.*, +, [MPE May-Jun 2016 25-33](#)
- Time and Location: What Matters Most When Valuing Distributed Energy Resources. *Smith, J.*, +, [MPE Mar-Apr 2017 29-39](#)
- Toward Bulk Power System Resilience: Approaches for Regional Transmission Operators. *Chen, H.*, +, [MPE Jul-Aug 2020 20-30](#)
- Transformation of the Grid: The Impact of Distributed Energy Resources on Bulk Power Systems. *Quint, R.*, +, [MPE Nov-Dec 2019 35-45](#)
- Unexpected Consequences: Global Blackout Experiences and Preventive Solutions. *Imai, S.*, +, [MPE May-Jun 2023 16-29](#)
- Wanted: A more intelligent grid. *Giri, J.*, +, [PAE-M Mar-Apr 2009 34-40](#)
- web services provide the power to integrate. *Jun Zhu*, [PAE-M Nov-Dec 2003 40-49](#)
- When the Bough Breaks: Managing Extreme Weather Events Affecting Electrical Power Grids. *Abi-Samra, N.*, +, [MPE Sep-Oct 2014 61-65](#)
- Why Distributed?: A Critical Review of the Tradeoffs Between Centralized and Decentralized Resources. *Burger, S.*, +, [MPE Mar-Apr 2019 16-24](#)
- Wildfire Resiliency: California Case for Change. *Chiu, B.*, +, [MPE Jan-Feb 2022 28-37](#)
- Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids. *Sharafi, D.*, +, [MPE Jan-Feb 2022 52-63](#)
- Power system restoration
- A Changing Map: Four Decades of Service Restoration at Alabama Power. *Clark, G.*, [MPE Jan-Feb 2014 64-69](#)
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D.*, +, [MPE Nov-Dec 2024 18-27](#)
- blackouts, shedding light. *Novosel, D.*, +, [PAE-M Jan-Feb 2004 32-43](#)
- Down, but Not Out: A Brief Overview of Restoration Issues. *Feltes, J.*, +, [MPE Jan-Feb 2014 34-43](#)
- Frequency Disturbances During the Super Bowl: It's More Than Just What's on the Field. *Allen, E.*, +, [MPE Nov-Dec 2016 52-58](#)
- Italian power restoration plan, Restoration project. *Salvati, R.*, +, [PAE-M Jan-Feb 2004 44-51](#)
- Mission: Reliability. *Tesseron, J.-M.*, +, [PAE-M Jan-Feb 2008 42-48](#)
- No Light in August: Power System Restoration Following the 2003 North American Blackout. *Allen, E.*, +, [MPE Jan-Feb 2014 24-33](#)
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, [MPE Nov-Dec 2024 78-88](#)
- Only Connect: Microgrids for Distribution System Restoration. *Che, L.*, +, [MPE Jan-Feb 2014 70-81](#)
- Power System Restoration: Meeting the Challenge to Resiliency from Distributed Generation. *Roggatz, C.*, +, [MPE Jul-Aug 2020 31-40](#)
- Powering Through the Storm: Microgrids Operation for More Efficient Disaster Recovery. *Abbey, C.*, +, [MPE May-Jun 2014 67-76](#)
- reliab., Calling for backup. *Heidrick, T.*, +, [PAE-M Jan-Feb 2004 52-58](#)
- restoration from cascading failures. *Adibi, M.M.*, +, [PAE-M Sep-Oct 2006 68-79](#)
- The Future of Power System Restoration: Using Distributed Energy Resources as a Force to Get Back Online. *Braun, M.*, +, [MPE Nov-Dec 2018 30-41](#)
- The Healing Touch: Tools and Challenges for Smart Grid Restoration. *Liu, S.*, +, [MPE Jan-Feb 2014 54-63](#)
- The New Black Start: System Restoration with Help from Voltage-Sourced Converters. *Bahrman, M.*, +, [MPE Jan-Feb 2014 44-53](#)
- Watch Out for Flooding: When the Power System Created a Weather Disaster. *Allen, E.*, [MPE Nov-Dec 2016 35-39](#)
- Power system security
- Against All Odds. *Corredor, P.H.*, +, [MPE Mar-Apr 2011 59-66](#)
- balancing market priorities, security issues. *Amin, M.*, [PAE-M Jul-Aug 2004 30-38](#)
- Enhancing Grid Measurements: Wide Area Measurement Systems, NASPInet, and Security. *Bobba, R.B.*, +, [MPE Jan-Feb 2012 67-73](#)
- Flexible Connections: Solutions and Challenges for the Integration of Renewables in South America. *Rudnick, H.*, +, [MPE Mar-Apr 2012 24-36](#)
- For the Good of the Grid. *Amin, S.M.*, +, [PAE-M Nov-Dec 2008 48-59](#)
- future's smart delivery system. *Gellings, C.W.*, +, [PAE-M Sep-Oct 2004 40-48](#)
- grid security issues, elec. utility responses. *Schlinker, R.*, +, [PAE-M Mar-Apr 2006 30-37](#)

- implementation of online security assessment. *Lei Wang, +, PAE-M Sep-Oct 2006 46-59*
- Keeping the lights on and the information flowing. *Kirschen, D., +, PAE-M Jan-Feb 2009 50-60*
- Links to the Future: Communication Requirements and Challenges in the Smart Grid. *Bouhafs, F., +, MPE Jan-Feb 2012 24-32*
- Measurements get together. *Chakrabarti, S., +, PAE-M Jan-Feb 2009 41-49*
- NERC initiatives on power syst. security. *Gent, M.R., +, PAE-M Jan-Feb 2003 46-52*
- power system security assessment. *Morison, K., +, PAE-M Sep-Oct 2004 30-39*
- protection, System threats and vulnerabilities. *Kropp, T., PAE-M Mar-Apr 2006 46-50*
- rapidly deployable recovery transformers. *Stiegemeier, C.L., +, PAE-M Mar-Apr 2006 38-45*
- real-time dyn. security assess. *Schinker, R., +, PAE-M Mar-Apr 2006 51-58*
- Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M., +, MPE Mar-Apr 2012 62-70*
- See It Fast to Keep Calm: Real-Time Voltage Control Under Stressed Conditions. *Glavic, M., +, MPE Jul-Aug 2012 43-55*
- Shifting Currents: Challenges and Solutions for the Planned Evolution of the German Transmission Grid. *Feix, O., MPE Mar-Apr 2014 36-39*
- smart grid, power delivery for 21st century. *Massoud Amin, S., +, PAE-M Sep-Oct 2005 34-41*
- Smart Grid, Safe Grid. *Amin, S.M., +, MPE Jan-Feb 2012 33-40*
- Softening the Blow of Disturbances. *Clark, H., +, PAE-M Jan-Feb 2008 30-41*
- Staying in Control: Cybersecurity and the Modern Electric Grid. *Hull, J., +, MPE Jan-Feb 2012 41-48*
- Strait Ahead: Toward a Sustainable, Economic, and Secure Electricity Supply in Singapore. *Goal, H.B., +, MPE Jul-Aug 2012 65-74*
- syst. blackouts, Cascade to black. *Pereira, L., PAE-M May-Jun 2004 54-57*
- Terms of Protection: The Many Faces of Smart Grid Security. *Nordell, D.E., +, MPE Jan-Feb 2012 18-23*
- The Green Defenders. *Seo, J.-T., +, MPE Jan-Feb 2011 82-90*
- Winds of Change. *Cailliau, M., +, PAE-M Sep-Oct 2010 53-62*
- Power system stability**
- A Colorful Blackout: The Havoc Caused by Auroral Electrojet Generated Magnetic Field Variations in 1989. *Guillon, S., +, MPE Nov-Dec 2016 59-71*
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C., +, MPE Jan-Feb 2024 24-34*
- A Grid-Friendly Plant: The Role of Utility-Scale Photovoltaic Plants in Grid Stability and Reliability. *Morjaria, M., +, MPE May-Jun 2014 87-95*
- A Model of Stability. *Kim, J., +, MPE Jan-Feb 2011 75-81*
- Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid. *Milligan, M., +, MPE Nov-Dec 2015 78-87*
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D., +, MPE Nov-Dec 2024 18-27*
- Balancing Act. *Lauby, M.G., +, MPE Nov-Dec 2011 75-85*
- Blackouts, Restoration, and Islanding: A System Resilience Perspective. *Braun, M., +, MPE Jul-Aug 2020 54-63*
- Dynamic Wide Area Situational Awareness: Propelling Future Decentralized, Decarbonized, Digitized, and Democratized Electricity Grids. *Kamwa, I., MPE Jan-Feb 2023 44-58*
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W., +, MPE Sep-Oct 2024 111-115*
- Expanding Power Systems in the Republic of Korea: Feasibility Studies and Future Challenges. *Kim, S., +, MPE May-Jun 2019 61-72*
- Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies. *Moreno, R., +, MPE Sep-Oct 2017 68-80*
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A., +, MPE Mar-Apr 2024 42-54*
- Generator Fault Tolerance and Grid Codes. *Piwko, R., +, PAE-M Mar-Apr 2010 18-26*
- Grid-Forming Inverters: Are They the Key for High Renewable Penetration?. *Matevosyan, J., +, MPE Nov-Dec 2019 89-98*
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B., +, MPE Mar-Apr 2024 66-77*
- Harnessing the sun. *Kroposki, B., +, PAE-M May-Jun 2009 22-33*
- Heat and Dust: The Solar Energy Challenge in Chile. *Jimenez-Estevez, G., +, MPE Mar-Apr 2015 71-77*
- Improving Grid Resilience Using High-Voltage dc: Strengthening the Security of Power System Stability. *Roberson, D., +, MPE May-Jun 2019 38-47*
- Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems. *Reno, M., +, MPE May-Jun 2021 36-46*
- Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events. *Ackermann, T., +, MPE Nov-Dec 2015 67-77*
- Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. *Brundlinger, R., +, MPE Mar-Apr 2015 30-42*
- Planning for the Future: Optimization-Based Distribution Planning Strategies for Integrating Distributed Energy Resources. *Cho, G., +, MPE Nov-Dec 2018 77-87*
- Pushing the Limits: Europe's New Grid: Innovative Tools to Combat Transmission Bottlenecks and Reduced Inertia. *Winter, W., +, MPE Jan-Feb 2015 60-74*
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B., +, MPE Mar-Apr 2024 30-41*
- Same Goal, Different Pathways for Energy Transition: A More Holistic, Multisector, Community-Driven Approach. *Cochran, J., +, MPE Jul-Aug 2022 18-29*
- See It Fast to Keep Calm: Real-Time Voltage Control Under Stressed Conditions. *Glavic, M., +, MPE Jul-Aug 2012 43-55*
- Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J., +, MPE May-Jun 2024 29-41*
- Smart and Green Substation: Shaping the Electric Power Grid of Korea. *Kim, H., +, MPE Jul-Aug 2019 24-34*
- STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T., +, MPE Mar-Apr 2023 30-39*

- storage, commercial successes. *Roberts, B., + , PAE-M Mar-Apr 2005 24-30*
- System-wide Protection. *Horowitz, S.H., + , PAE-M Sep-Oct 2008 34-42*
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D., + , MPE Mar-Apr 2024 55-65*
- The China Southern Power Grid: Solutions to Operation Risks and Planning Challenges. *Zhou, H., + , MPE Jul-Aug 2016 72-78*
- The Future of Power System Restoration: Using Distributed Energy Resources as a Force to Get Back Online. *Braun, M., + , MPE Nov-Dec 2018 30-41*
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M., + , MPE Jan-Feb 2015 75-83*
- The View from the Wide Side: Wide-Area Monitoring Systems in India. *Soonee, S., + , MPE Sep-Oct 2015 49-59*
- Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. *Evans, M., + , MPE Jul-Aug 2022 44-54*
- Transformation of the Grid: The Impact of Distributed Energy Resources on Bulk Power Systems. *Quint, R., + , MPE Nov-Dec 2019 35-45*
- Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory. *Muhanji, S., + , MPE Sep-Oct 2019 71-81*
- Uncertainty Forecasting in a Nutshell: Prediction Models Designed to Prevent Significant Errors. *Dobschinski, J., + , MPE Nov-Dec 2017 40-49*
- Wanted: A more intelligent grid. *Giri, J., + , PAE-M Mar-Apr 2009 34-40*
- Power system state estimation
- First steps to wide area control. *Atanackovic, D., + , PAE-M Jan-Feb 2008 61-68*
- Power systems
- A Future With Inverter-Based Resources: Finding Strength From Traditional Weakness. *Matevosyan, J., + , MPE Nov-Dec 2021 18-28*
- A Novel Approach to Transmission Bottleneck Management in Japan: An N-1 Intertrip Scheme. *Ohashi, N., + , MPE Mar-Apr 2021 69-78*
- A Vision to Enhance Transmission Security: The Case of Switzerland's Power System. *Vrettos, E., + , MPE Mar-Apr 2021 56-68*
- Accommodating Wind's Natural Behavior. *DeMeo, E.A., + , PAE-M Nov-Dec 2007 59-67*
- Advances in Algorithms for Power System Static State Estimators: An Improved Solution for Bad Data Management and State Estimator Convergence. *Gou, B., + , MPE Jan-Feb 2023 16-25*
- Aggregating Distributed Energy Storage: Cloud-Based Flexibility Services From China. *Zhang, N., + , MPE Jul-Aug 2021 63-73*
- Big Data Analytics in China's Electric Power Industry: Modern Information, Communication Technologies, and Millions of Smart Meters. *Kang, C., + , MPE May-Jun 2018 54-65*
- boosting immunity to blackouts. *Horowitz, S.H., + , PAE-M Sep-Oct 2003 47-53*
- Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G., + , MPE Nov-Dec 2024 112-117*
- Continue Your Learning. *Venkata, S.S., + , PAE-M Jul-Aug 2010 36-43*
- Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P., + , MPE Jan-Feb 2024 52-60*
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T., + , MPE Jan-Feb 2024 16-23*
- Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia. *Ferreira, R., + , MPE Mar-Apr 2019 50-60*
- Electrical Power Engineering Education Down Under: Australia and New Zealand Are Adding Energy to Their University Curricula. *Nair, N., + , MPE Sep-Oct 2018 64-73*
- Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q., + , MPE Nov-Dec 2024 66-77*
- European Balancing Act. *Ackermann, T., + , PAE-M Nov-Dec 2007 90-103*
- FACTS on resolving transmission gridlock. *Reed, G., + , PAE-M Sep-Oct 2003 41-46*
- Grid Architecture: A Core Discipline for Grid Modernization. *Taft, J., MPE Sep-Oct 2019 18-28*
- Grid of the future. *Ipakchi, A., + , PAE-M Mar-Apr 2009 52-62*
- Making Renewables Work: Operational Practices and Future Challenges for Renewable Energy as a Major Power Source in Japan. *Ogimoto, K., + , MPE Nov-Dec 2020 47-63*
- Markets for Efficient Decarbonization: Revisiting Market Regulation and Design. *Batlle, C., + , MPE Jan-Feb 2021 20-28*
- Opportunities for Energy Storage: Assessing Whole-System Economic Benefits of Energy Storage in Future Electricity Systems. *Strbac, G., + , MPE Sep-Oct 2017 32-41*
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T., PAE-M Sep-Oct 2003 54-62*
- Predicting the Wind. *Ernst, B., + , PAE-M Nov-Dec 2007 78-89*
- Putting an action plan in place. *Thomas, R.J., + , PAE-M Jul-Aug 2009 26-31*
- Queuing Up. *Zavadil, R., + , PAE-M Nov-Dec 2007 47-58*
- Renewable Energy Financing and Market Design: A View and Recommendations From Development Banking Practitioners to Developing Countries. *Bakovic, T., + , MPE Jan-Feb 2021 74-84*
- shaping future of global energy delivery. *Garrity, T.F., PAE-M Sep-Oct 2003 26-30*
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D., + , MPE Mar-Apr 2024 55-65*
- The Challenge of Integrating Demand Response in Capacity Remuneration Mechanisms: Providing a Comprehensive Theoretical Framework. *Rodilla, P., + , MPE Jul-Aug 2023 64-71*
- The Power of Internships: Advice for Companies and Prospective Interns. *Hennebury, L., + , MPE Sep-Oct 2018 74-81*
- The Regulatory Debate About Energy Storage Systems: State of the Art and Open Issues. *Usera, I., + , MPE Sep-Oct 2017 42-50*
- The Wide World of Wide-area Measurement. *Phadke, A.G., + , PAE-M Sep-Oct 2008 52-65*
- Three Waves of U.S. Reforms: Following the Path of Wholesale Electricity Market Restructuring. *Hobbs, B., + , MPE Jan-Feb 2019 73-81*

- To Capture the Wind. *Thresher, R.*, + , *PAE-M Nov-Dec 2007 34-46*
- Toward a 21st Century Power Education: A Bright Future Awaits Students in Utah. *Parvania, M.*, + , *MPE Sep-Oct 2018 87-95*
- Trends in Electric Power Engineering Education: An Analysis of Future Challenges. *Ray, D.*, + , *MPE Sep-Oct 2018 32-41*
- Variable-Generation Integration in China: An Update. *Jiang, L.*, + , *MPE Nov-Dec 2019 99-107*
- web services provide the power to integrate. *Jun Zhu*, *PAE-M Nov-Dec 2003 40-49*
- What Comes First?. *Piwko, R.*, + , *PAE-M Nov-Dec 2007 68-77*
- Where the wind blows. *Ackermann, T.*, + , *PAE-M Nov-Dec 2009 65-75*
- Power systems planning
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, + , *MPE Jan-Feb 2024 24-34*
- Achieving World-Leading Penetration of Renewables: The Australian National Electricity Market. *O'Connell, B.*, + , *MPE Sep-Oct 2021 18-28*
- Currents of Change. *Holttinen, H.*, + , *MPE Nov-Dec 2011 47-59*
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N.*, + , *MPE Sep-Oct 2021 29-45*
- From Security to Resilience: Technical and Regulatory Options to Manage Extreme Events in Low-Carbon Grids. *Eggleston, J.*, + , *MPE Sep-Oct 2021 67-75*
- It's Indisputable: Five Facts About Planning and Operating Modern Power Systems. *Bloom, A.*, + , *MPE Nov-Dec 2017 22-30*
- Lightning Protection of Distribution Power Systems: Arrester Development and Application Over the Years. *Woodworth, J.*, *MPE Mar-Apr 2023 51-60*
- Power System Operation With a High Share of Inverter-Based Resources: The Australian Experience. *Badrzadeh, B.*, + , *MPE Sep-Oct 2021 46-55*
- Renewable Energy Zones in Australia: Integrated System Planning. *Pack, E.*, + , *MPE Sep-Oct 2021 56-66*
- Setting the Smart Solar Standard: Collaborations Between Hawaiian Electric and the National Renewable Energy Laboratory. *Hoke, A.*, + , *MPE Nov-Dec 2018 18-29*
- The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification. *Holttinen, H.*, + , *MPE Nov-Dec 2013 53-62*
- Transmission and Distribution Equipment: Providing Intelligent Maintenance. *Franck, C.M.*, + , *MPE Mar-Apr 2023 18-29*
- Power systems reliability
- Operating the Power Grid During a Pandemic: COVID-19 Experiences. *Chen, H.*, + , *MPE Nov-Dec 2022 26-37*
- Operational Security: The Case of Texas. *Matevosyan, J.*, + , *MPE Mar-Apr 2021 18-27*
- Power systems testing
- A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing. *Li, F.*, + , *MPE Mar-Apr 2020 60-68*
- Power transformer insulation
- Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z.*, + , *MPE Mar-Apr 2023 61-69*
- heat, sturdy, sensitive. *Bourgault, A.*, *PAE-M Sep-Oct 2005 42-47*
- Synchronous Condenser Applications: Under Significant Resource Portfolio Changes. *Zhou, G.*, + , *MPE Jul-Aug 2019 35-46*
- Power transformer protection
- Geomagnetic Disturbances: Their Impact on the Power Grid. *MPE Jul-Aug 2013 71-78*
- heat, sturdy, sensitive. *Bourgault, A.*, *PAE-M Sep-Oct 2005 42-47*
- Power transformer testing
- life extension/condition assess. *Dominelli, N.*, + , *PAE-M May-Jun 2006 24-35*
- Power transformers
- A Colorful Blackout: The Havoc Caused by Auroral Electrojet Generated Magnetic Field Variations in 1989. *Guillon, S.*, + , *MPE Nov-Dec 2016 59-71*
- rapidly deployable recovery transformers. *Stiegemeier, C.L.*, + , *PAE-M Mar-Apr 2006 38-45*
- Ready or Not.... *Schiff, A.*, + , *MPE Mar-Apr 2011 46-51*
- Spotlight on transformer design. *Georgilakis, P.S.*, + , *PAE-M Jan-Feb 2007 40-50*
- Stepping Up to the Future With Power Transformers: Power Transformer Asset Management Strategies: State of the Art and Recommendations for the Future. *Roychowdhury, R.*, + , *MPE Mar-Apr 2023 40-50*
- Power transmission
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, + , *MPE Jan-Feb 2024 24-34*
- A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty. *Velasquez, C.*, + , *MPE Jul-Aug 2016 20-29*
- Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B.*, + , *MPE Jul-Aug 2016 30-40*
- Against All Odds. *Corredor, P.H.*, + , *MPE Mar-Apr 2011 59-66*
- Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. *Guibout, C.*, + , *MPE May-Jun 2024 67-78*
- Control Center Designs: New Functions and Challenges for the Transmission System Operator. *Astic, J.*, + , *MPE Mar-Apr 2018 57-66*
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, + , *MPE Jul-Aug 2024 49-63*
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K.*, + , *MPE Jul-Aug 2024 18-25*
- FACTS on resolving transmission gridlock. *Reed, G.*, + , *PAE-M Sep-Oct 2003 41-46*
- Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences. *Serrano, R.*, + , *MPE Jan-Feb 2022 38-51*
- Let's Make a Deal: Non-Wires Alternatives for Traditional Transmission and Distribution?. *Reid, B.*, + , *MPE Mar-Apr 2022 23-31*
- Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety. *Udren, E.A.*, + , *MPE Jan-Feb 2022 64-77*
- Microgrid Protection Against Internal Faults: Challenges in Isolated and Interconnected Operation. *Lagos, D.*, + , *MPE May-Jun 2021 20-35*
- Model Makers. *Ellis, A.*, + , *MPE May-Jun 2011 55-61*
- Operational Security: The Case of Texas. *Matevosyan, J.*, + , *MPE Mar-Apr 2021 18-27*

- Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid. *Schonleber, K.*, +, [MPE Sep-Oct 2020 58-63](#)
- Platforms for Change: High-Voltage DC Converters and Cable Technologies for Offshore Renewable Integration and DC Grid Expansions. *Lundberg, P.*, +, [MPE Nov-Dec 2012 30-38](#)
- Sensing the Future. *Phillips, A.*, +, [PAE-M Nov-Dec 2010 61-68](#)
- Supporting Energy Transition in Transmission Systems: An Operator's Experience Using Electromagnetic Transient Simulation. *Dennetiere, S.*, +, [MPE May-Jun 2019 48-60](#)
- The Expansion of Transmission: The Challenges Faced in South America. *de Sa Ferreira, R.*, +, [MPE Jul-Aug 2016 54-64](#)
- The Impact of Renewables on Operational Security: Operating Power Systems That Have Extremely High Penetrations of Nonsynchronous Renewable Sources. *Dudurych, I.*, [MPE Mar-Apr 2021 37-45](#)
- transm. and distrib., asset mgt. *Brown, R.E.*, +, [PAE-M May-Jun 2005 39-45](#)
- Up with wind. *Corbus, D.*, +, [PAE-M Nov-Dec 2009 36-46](#)
- Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids. *Sharafi, D.*, +, [MPE Jan-Feb 2022 52-63](#)
- Power transmission control
- First steps to wide area control. *Atanackovic, D.*, +, [PAE-M Jan-Feb 2008 61-68](#)
- Opening Up for Interoperability. *Vankayala, V.*, +, [PAE-M Mar-Apr 2008 61-69](#)
- Power transmission economics
- 800-kV HVDC on the Horizon. *Szechtman, M.*, +, [PAE-M Mar-Apr 2007 61-69](#)
- Flexible Connections: Solutions and Challenges for the Integration of Renewables in South America. *Rudnick, H.*, +, [MPE Mar-Apr 2012 24-36](#)
- Going Green: Transmission Grids as Enablers of the Transition to a Low-Carbon European Economy. *Henry, S.*, +, [MPE Mar-Apr 2014 26-35](#)
- It's a Bird, It's a Plane, It's a...Supergrid!: Evolution, Opportunities, and Critical Issues for Pan-European Transmission. *Bompard, E.*, +, [MPE Mar-Apr 2014 40-50](#)
- Making Room for the Boom. *Moreno, R.*, +, [PAE-M Sep-Oct 2010 36-46](#)
- Staying in Shape. *Phillips, A.*, +, [PAE-M Mar-Apr 2010 27-33](#)
- Power transmission faults
- boosting immunity to blackouts. *Horowitz, S.H.*, +, [PAE-M Sep-Oct 2003 47-53](#)
- FACTS on resolving transmission gridlock. *Reed, G.*, +, [PAE-M Sep-Oct 2003 41-46](#)
- Power transmission lines
- Correction. [MPE Nov-Dec 2017 108](#)
- FACTS on resolving transmission gridlock. *Reed, G.*, +, [PAE-M Sep-Oct 2003 41-46](#)
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, [MPE Mar-Apr 2024 78-88](#)
- High-Voltage dc Conversion: Boosting Transmission Capacity in the Grid. *Meridji, T.*, +, [MPE May-Jun 2019 22-31](#)
- How Brazil Aims for Gold in Reliability: From Past Blackouts to Preparedness for the 2016 Summer Olympic and Paralympic Games. *Gomes, P.*, +, [MPE Nov-Dec 2016 40-51](#)
- Lightning Protection of Distribution Power Systems: Arrester Development and Application Over the Years. *Woodworth, J.*, [MPE Mar-Apr 2023 51-60](#)
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, [MPE Jul-Aug 2024 38-48](#)
- System-wide Protection. *Horowitz, S.H.*, +, [PAE-M Sep-Oct 2008 34-42](#)
- Tales of Power System Failures: A Look at the Unusual, Strange, and Downright Bizarre Causes. *Waldele, R.*, [MPE Nov-Dec 2016 18-23](#)
- The Future of Power Transmission. *Horowitz, S.*, +, [PAE-M Mar-Apr 2010 34-40](#)
- The Optimization of Transmission Lines in Brazil: Proven Experience and Recent Developments in Research and Development. *Arruda, C.*, +, [MPE Mar-Apr 2020 31-42](#)
- The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection. *Herling, S.*, +, [MPE Jul-Aug 2016 65-71](#)
- Transmission Technologies and Implementations: Building a Stronger, Smarter Power Grid in China. *Dai, R.*, +, [MPE Mar-Apr 2020 53-59](#)
- Unexpected Consequences: Global Blackout Experiences and Preventive Solutions. *Imai, S.*, +, [MPE May-Jun 2023 16-29](#)
- Power transmission planning
- Building a plan for HVDC. *Henderson, M.*, +, [PAE-M Mar-Apr 2007 52-60](#)
- For the Good of the Whole. *Lee, S.T.*, [PAE-M Sep-Oct 2007 24-35](#)
- Future vision - The Challenge of Effective Transmission Planning. *Morrow, D.J.*, +, [PAE-M Sep-Oct 2007 36-45](#)
- HVDC transmission: yesterday and today. *Long, W.*, +, [PAE-M Mar-Apr 2007 22-31](#)
- Making Room for the Boom. *Moreno, R.*, +, [PAE-M Sep-Oct 2010 36-46](#)
- Mission: Reliability. *Tesseron, J.-M.*, +, [PAE-M Jan-Feb 2008 42-48](#)
- Planning for Big Things in Brazil. *Barroso, L.A.*, +, [PAE-M Sep-Oct 2007 54-63](#)
- Planning to expand?. *Dios, R.D.*, +, [PAE-M Sep-Oct 2007 64-70](#)
- Probabilistic Transmission Planning. *Li, W.*, +, [PAE-M Sep-Oct 2007 46-53](#)
- Shifting Currents : Challenges and Solutions for the Planned Evolution of the German Transmission Grid. *Feix, O.*, [MPE Mar-Apr 2014 36-39](#)
- The Golden Spike: Advanced Power Electronics Enables Renewable Development Across NERC Regions. *Reynolds, M.*, +, [MPE Mar-Apr 2012 71-78](#)
- Towards Electricity for All. *Mukhopadhyay, S.*, [PAE-M Sep-Oct 2007 71-78](#)
- Power transmission reliability
- High-wire act. *Kyeon Hur*, +, [PAE-M Jan-Feb 2010 37-45](#)
- Mission: Reliability. *Tesseron, J.-M.*, +, [PAE-M Jan-Feb 2008 42-48](#)
- Softening the Blow of Disturbances. *Clark, H.*, +, [PAE-M Jan-Feb 2008 30-41](#)
- Power utilization
- When the Bough Breaks: Managing Extreme Weather Events Affecting Electrical Power Grids. *Abi-Samra, N.*, +, [MPE Sep-Oct 2014 61-65](#)
- Prediction methods
- Change in the air. *Grant, W.*, +, [PAE-M Nov-Dec 2009 47-58](#)
- Predictive models
- Next-Generation Distribution Planning: How Do We Capture the Value of Distributed Energy Resources?. *Bystrom, O.*, [MPE Mar-Apr 2022 32-38](#)

- Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R.*, +, [MPE Nov-Dec 2020 86-97](#)
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, [MPE Nov-Dec 2024 42-53](#)
- Solar Forecasting: Methods, Challenges, and Performance. *Tuohy, A.*, +, [MPE Nov-Dec 2015 50-59](#)
- The Power of Small: The Effects of Distributed Energy Resources on System Reliability. *Lew, D.*, +, [MPE Nov-Dec 2017 50-60](#)
- The Use of Probabilistic Forecasts: Applying Them in Theory and Practice. *Haupt, S.*, +, [MPE Nov-Dec 2019 46-57](#)
- Uncertainty Forecasting in a Nutshell: Prediction Models Designed to Prevent Significant Errors. *Dobschinski, J.*, +, [MPE Nov-Dec 2017 40-49](#)
- Wildfire Resiliency: California Case for Change. *Chiu, B.*, +, [MPE Jan-Feb 2022 28-37](#)
- Prevention and mitigation
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, [MPE Nov-Dec 2024 78-88](#)
- Pricing
- A Tale of Two Visions: Designing a Decentralized Transactive Electric System. *Kristov, L.*, +, [MPE May-Jun 2016 63-69](#)
- Behavior Modification. *Braithwait, S.*, +, [PAE-M May-Jun 2010 36-45](#)
- Beyond the Crystal Ball: Locational Marginal Price Forecasting and Predictive Operations in U.S. Power Markets. *Sahni, M.*, +, [MPE Jul-Aug 2012 35-42](#)
- Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W.*, +, [MPE Jan-Feb 2018 29-34](#)
- Electricity Markets in the United States: Power Industry Restructuring Processes for the Present and Future. *Litvinov, E.*, +, [MPE Jan-Feb 2019 32-42](#)
- Electricity Price Forecasting: The Dawn of Machine Learning. *Jedrzejewski, A.*, +, [MPE May-Jun 2022 24-31](#)
- Flexible Network Pricing Encourages Greater Sharing: Making the Grid Work for Itself and Distributed Energy Resources. *Li, F.*, +, [MPE May-Jun 2020 26-32](#)
- Large-scale solutions. *Fioravanti, R.*, +, [PAE-M Jul-Aug 2009 48-57](#)
- Markets for Efficient Decarbonization: Revisiting Market Regulation and Design. *Battle, C.*, +, [MPE Jan-Feb 2021 20-28](#)
- Measure Twice, Cut Once. *Goldberg, M.*, +, [PAE-M May-Jun 2010 46-54](#)
- Retail Pricing: A Low-Cost Enabler of the Clean Energy Transition. *Sergici, S.*, +, [MPE Jul-Aug 2022 66-75](#)
- rights to fight price volatility. *Alsac, O.*, +, [PAE-M Jul-Aug 2004 47-57](#)
- Smart Integration. *Vojdani, A.*, +, [PAE-M Nov-Dec 2008 71-79](#)
- The Changing Electrical Landscape: End-to-End Power System Operation Under the Transactive Energy Paradigm. *Rahimi, F.*, +, [MPE May-Jun 2016 52-62](#)
- The Interface of Power: Moving Toward Distribution System Operators. *Apostolopoulou, D.*, +, [MPE May-Jun 2016 46-51](#)
- The New Zealand Electricity Market: Challenges of a Renewable Energy System. *Philpott, A.*, +, [MPE Jan-Feb 2019 43-52](#)
- The Tariffs of Tomorrow: Innovations in Rate Designs. *Faruqui, A.*, +, [MPE May-Jun 2020 18-25](#)
- The WOLF in pricing. *Lively, M.*, +, [PAE-M Jan-Feb 2009 61-69](#)
- Utility Load Research: The Future of Load Research Is Now. *Puckett, C.*, +, [MPE May-Jun 2020 61-70](#)
- Principal component analysis
- Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis. *Hyndman, R.*, +, [MPE May-Jun 2018 18-25](#)
- Privatization
- Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?. *Thomas, S.*, [MPE Jul-Aug 2023 18-25](#)
- Probabilistic logic
- Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F.*, [MPE May-Jun 2023 77-86](#)
- From Reliability to Resilience: Planning the Grid Against the Extremes. *Moreno, R.*, +, [MPE Jul-Aug 2020 41-53](#)
- The Use of Probabilistic Forecasts: Applying Them in Theory and Practice. *Haupt, S.*, +, [MPE Nov-Dec 2019 46-57](#)
- Probability density function
- Grid of the future. *Ipakchi, A.*, +, [PAE-M Mar-Apr 2009 52-62](#)
- Probability distribution
- Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis. *Hyndman, R.*, +, [MPE May-Jun 2018 18-25](#)
- Process control
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, +, [MPE Jan-Feb 2024 24-34](#)
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A.*, +, [MPE Jan-Feb 2024 43-51](#)
- The Substation of the Future: Moving Toward a Digital Solution. *Hunt, R.*, +, [MPE Jul-Aug 2019 47-55](#)
- Procurement
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P.*, +, [MPE Sep-Oct 2024 20-30](#)
- Product life cycle management
- Keeping the Power Flowing: A Commitment Throughout the HVdc and FACTS Life Cycles. *Bjorklund, H.*, +, [MPE Mar-Apr 2016 66-71](#)
- Production
- An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R.*, [MPE Jul-Aug 2015 18-28](#)
- Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F.*, [MPE May-Jun 2023 77-86](#)
- From the Humble Building to the Smart Sustainable Grid: Empowering Consumers, Nurturing Bottom-Up Electricity Markets, and Building Collaborative Power Systems. *Avramidis, I.*, +, [MPE Jul-Aug 2023 53-63](#)
- Heat and Dust: The Solar Energy Challenge in Chile. *Jimenez-Estevez, G.*, +, [MPE Mar-Apr 2015 71-77](#)
- It's All in the Plans: Maximizing the Benefits and Minimizing the Impacts of DERs in an Integrated Grid. *Smith, J.*, +, [MPE Mar-Apr 2015 20-29](#)

- Production facilities
The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E.*, +, [MPE Jan-Feb 2017 34-42](#)
- Productivity
Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J.*, +, [MPE May-Jun 2024 29-41](#)
- Project engineering
Omaha Public Power District Automation Plan, substation integrat. pilot project. *Nissen, T.*, +, [PAE-M Mar-Apr 2003 42-49](#)
- Project management
Eternal Light: Ingredients for Sustainable Off-Grid Energy Development. *Louie, H.*, +, [MPE Jul-Aug 2014 70-78](#)
Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B.*, +, [MPE Mar-Apr 2024 66-77](#)
- Propagation losses
Unexpected Consequences: Global Blackout Experiences and Preventive Solutions. *Imai, S.*, +, [MPE May-Jun 2023 16-29](#)
Why Distributed?: A Critical Review of the Tradeoffs Between Centralized and Decentralized Resources. *Burger, S.*, +, [MPE Mar-Apr 2019 16-24](#)
- Protection
Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G.*, +, [MPE Nov-Dec 2024 112-117](#)
HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A.*, [MPE Sep-Oct 2024 38-48](#)
- Protective relaying
Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A.*, +, [MPE May-Jun 2024 79-89](#)
Measures of Value: Data Analytics for Automated Fault Analysis. *Popovic, T.*, +, [MPE Sep-Oct 2012 58-69](#)
Practical Microgrid Protection Solutions: Promises and Challenges. *Manson, S.*, +, [MPE May-Jun 2021 58-69](#)
- Protocols
Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B.*, +, [MPE Nov-Dec 2024 118-133](#)
Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y.*, +, [MPE Jan-Feb 2024 35-42](#)
Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J.*, +, [MPE Sep-Oct 2023 38-47](#)
Long-Term Vision: Industrial Operating Systems for Power Distribution. *Nativel, G.*, +, [MPE May-Jun 2024 59-66](#)
- Psychology
A Part of the Energy "In Crowd": Changing People's Energy Behavior via Group-Based Approaches. *Jans, L.*, +, [MPE Jan-Feb 2018 35-41](#)
- Public healthcare
At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects. *Perlaviciute, G.*, +, [MPE Jan-Feb 2018 49-55](#)
- Public infrastructure
A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K.*, +, [MPE Nov-Dec 2023 28-37](#)
A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E.*, +, [MPE Sep-Oct 2022 39-45](#)
Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S.*, +, [MPE Nov-Dec 2023 38-47](#)
Smart City Energy Technology in the Face of Emergency Situations: Electric Supply, Electric Transportation, and Communication. *Vittal, V.*, +, [MPE Sep-Oct 2022 16-25](#)
Smart Village Voices in Africa, Zambia: Part 4: Gemstones to Electric Infrastructure in Zambia. *Kachinga, K.*, +, [MPE Sep-Oct 2022 75-79](#)
- Public policy
The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection. *Herling, S.*, +, [MPE Jul-Aug 2016 65-71](#)
- Public utilities
energy management systems. *Maghsoodlou, F.*, +, [PAE-M Sep-Oct 2004 49-57](#)
future of wind forecasting and utility operations. *Ahlstrom, M.*, +, [PAE-M Nov-Dec 2005 57-64](#)
- Pumped storage power generation
electricity storage technol., Testing the limits. *Nourai, A.*, +, [PAE-M Mar-Apr 2005 40-46](#)
power storage, commercial successes. *Roberts, B.*, +, [PAE-M Mar-Apr 2005 24-30](#)
- Pumped-storage power stations
Look Before You Leap: The Role of Energy Storage in the Grid. *Manz, D.*, +, [MPE Jul-Aug 2012 75-84](#)
Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M.*, +, [MPE Mar-Apr 2012 62-70](#)
- Pumps
Pumped Storage Hydro: Then and Now. *Donalek, P.*, [MPE Sep-Oct 2020 49-57](#)
- Purchasing
Taking Credit. *Amelin, M.*, +, [PAE-M Sep-Oct 2010 47-52](#)
- Q
- Quality of service
Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N.*, +, [MPE Mar-Apr 2016 57-65](#)
Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective. *Michaelson, D.*, +, [MPE Mar-Apr 2022 57-63](#)
Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A.*, +, [MPE Sep-Oct 2023 58-67](#)
- R
- Rain
Islands in the Storm: Integrating Microgrids into the Larger Grid. *Montoya, M.*, +, [MPE Jul-Aug 2013 33-39](#)
- Reactive power
A Grid-Friendly Plant: The Role of Utility-Scale Photovoltaic Plants in Grid Stability and Reliability. *Morjaria, M.*, +, [MPE May-Jun 2014 87-95](#)
Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C.*, +, [MPE Sep-Oct 2024 31-37](#)
In Divergence There Is Strength: Measuring and Mitigating Solar PV Impacts in Southern California Using Power Factors Other than One. *Mather, B.*, +, [MPE Mar-Apr 2015 62-70](#)
Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. *Brundlinger, R.*, +, [MPE Mar-Apr 2015 30-42](#)

- No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F.*, +, *MPE Mar-Apr 2015 43-49*
- Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B.*, +, *MPE Mar-Apr 2016 72-79*
- Setting the Smart Solar Standard: Collaborations Between Hawaiian Electric and the National Renewable Energy Laboratory. *Hoke, A.*, +, *MPE Nov-Dec 2018 18-29*
- Synchronous Condenser Applications: Under Significant Resource Portfolio Changes. *Zhou, G.*, +, *MPE Jul-Aug 2019 35-46*
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, +, *MPE Mar-Apr 2024 55-65*
- Real-time systems**
- Advanced Distribution Management System: Improving Distribution Efficiency Through an Integrated Approach. *Devanand, P.*, +, *MPE Jan-Feb 2020 55-62*
- Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System. *Lu, C.*, +, *MPE Sep-Oct 2015 60-71*
- Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G.*, +, *MPE Nov-Dec 2024 112-117*
- Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, +, *MPE Nov-Dec 2024 100-111*
- Challenging Changing Landscapes: Implementing Synchrophasor Technology in Grid Operations in the WECC Region. *Madani, V.*, +, *MPE Sep-Oct 2015 18-28*
- Control Center Designs: New Functions and Challenges for the Transmission System Operator. *Astic, J.*, +, *MPE Mar-Apr 2018 57-66*
- Currents of Change. *Holttinen, H.*, +, *MPE Nov-Dec 2011 47-59*
- De-Risking the First Multivendor HVdc Project using Real-Time Hardware-in-the-Loop Simulation: Electromagnetic Transient and Real-Time Simulations are Crucial. *Dennetiere, S.*, +, *MPE Sep-Oct 2024 73-86*
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W.*, +, *MPE Sep-Oct 2024 111-115*
- Energy Insecurity Due to Gas Supply Availability: Efforts to Coordinate Electric and Gas Systems. *Bautista Alderete, G.*, *MPE Mar-Apr 2021 28-36*
- Flexibility Is Key in New York: New Tools and Operational Solutions for Managing Distributed Energy Resources. *Currie, B.*, +, *MPE May-Jun 2017 20-29*
- From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States. *Cohn, J.A.*, *MPE May-Jun 2023 70-76*
- Gaining a Wider Perspective. *Thorp, J.S.*, +, *PAE-M Sep-Oct 2008 43-51*
- Large-scale solutions. *Fioravanti, R.*, +, *PAE-M Jul-Aug 2009 48-57*
- Maintaining Balance: The Increasing Role of Energy Storage for Renewable Integration. *Stenlik, D.*, +, *MPE Nov-Dec 2017 31-39*
- Measurements get together. *Chakrabarti, S.*, +, *PAE-M Jan-Feb 2009 41-49*
- Microgrid Controllers: Expanding Their Role and Evaluating Their Performance. *Maitra, A.*, +, *MPE Jul-Aug 2017 41-49*
- Multifold Insights for Power System Dynamics From Data Assimilation: Meeting Current Challenges. *Wang, S.*, +, *MPE Jan-Feb 2023 36-43*
- Real-Time Grid Management: Keeping the Lights On!. *Giri, J.*, *MPE May-Jun 2023 51-60*
- Solar Forecasting: Methods, Challenges, and Performance. *Tuohy, A.*, +, *MPE Nov-Dec 2015 50-59*
- Strategies for Success with Synchrophasors: Poised to Shine in the Eastern Region of the United States. *Jones, K.*, +, *MPE Sep-Oct 2015 29-35*
- Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition. *Oyvang, T.*, +, *MPE Nov-Dec 2022 66-78*
- Supporting Energy Transition in Transmission Systems: An Operator's Experience Using Electromagnetic Transient Simulation. *Dennetiere, S.*, +, *MPE May-Jun 2019 48-60*
- Synchrophasor Technology and the DOE: Exciting Opportunities Lie Ahead in Development and Deployment. *Overholt, P.*, +, *MPE Sep-Oct 2015 14-17*
- Synchrophasors Across Texas: The Deployment of Phasor Measurement Technology in the ERCOT Region. *Koellner, K.*, +, *MPE Sep-Oct 2015 36-40*
- Technological Developments in Batteries: A Survey of Principal Roles, Types, and Management Needs. *Hu, X.*, +, *MPE Sep-Oct 2017 20-31*
- The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G.*, +, *MPE Jan-Feb 2017 53-60*
- The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All. *Repo, S.*, +, *MPE May-Jun 2017 41-51*
- The Substation of the Future: Moving Toward a Digital Solution. *Hunt, R.*, +, *MPE Jul-Aug 2019 47-55*
- The Utility and Grid of the Future: Challenges, Needs, and Trends. *Romero Aguero, J.*, +, *MPE Sep-Oct 2016 29-37*
- The Wide World of Wide-area Measurement. *Phadke, A.G.*, +, *PAE-M Sep-Oct 2008 52-65*
- Transforming the Grid's Architecture: Enterprise Control, the Energy Internet of Things, and Heterofunctional Graph Theory. *Muhanji, S.*, +, *MPE Sep-Oct 2019 71-81*
- Transmission Technologies and Implementations: Building a Stronger, Smarter Power Grid in China. *Dai, R.*, +, *MPE Mar-Apr 2020 53-59*
- Recording**
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, *MPE Nov-Dec 2024 78-88*
- Recruitment**
- The New Centurions. *Crow, M.*, +, *PAE-M Jul-Aug 2010 20-26*
- Redundancy**
- Influence of Inverter-Based Resources on Microgrid Protection: Part 2: Secondary Networks and Microgrid Protection. *Ropp, M.*, +, *MPE May-Jun 2021 47-57*
- Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L.*, +, *MPE Sep-Oct 2022 26-38*
- Regulation**
- Allowing British Electricity Consumers to Choose Their Supplier: Was it Worth It?. *Thomas, S.*, *MPE Jul-Aug 2023 18-25*
- Back in the Race: Achieving 100% Renewable Energy in the Canary Islands. *Lemus, R.*, *MPE Nov-Dec 2020 64-74*
- Chinese growing pains. *Zhong, J.*, +, *PAE-M Jul-Aug 2007 33-40*

- Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. *Dondossola, G.*, +, [MPE May-Jun 2024 42-49](#)
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J.*, +, [MPE Sep-Oct 2020 64-75](#)
- Many states of distribution. *Bouford, J.D.*, +, [PAE-M Jul-Aug 2007 24-32](#)
- Microgrids. *Hatziargyriou, N.*, +, [PAE-M Jul-Aug 2007 78-94](#)
- planning for effective distribution (The Distribution Working Group of the IEEE Power System Planning and Implementation Committee). *Taylor, T.*, [PAE-M Sep-Oct 2003 54-62](#)
- Powering progress. *Khparde, S.A.*, +, [PAE-M Jul-Aug 2007 41-49](#)
- rights to fight price volatility. *Alsac, O.*, +, [PAE-M Jul-Aug 2004 47-57](#)
- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J.*, +, [MPE Nov-Dec 2024 28-41](#)
- Stimulating efficient distribution. *Rudnick, H.*, +, [PAE-M Jul-Aug 2007 50-67](#)
- Taking an active approach. *Djapic, P.*, +, [PAE-M Jul-Aug 2007 68-77](#)
- Regulators**
- Auctions for Nonwires Alternatives: Securing and Operating Dispatchable Distributed Energy Resources. *Golriz, A.*, +, [MPE Mar-Apr 2022 47-56](#)
- Becoming the Utility of the Future: Risks and Opportunities. *Brown, R.*, +, [MPE Sep-Oct 2016 57-65](#)
- Closed-Loop Volt/Var Optimization: Addressing Peak Load Reduction. *Carden, J.*, +, [MPE Mar-Apr 2018 67-75](#)
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T.*, +, [MPE Jan-Feb 2024 16-23](#)
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- New Tool Evaluates the Financial Viability of Pumped Storage Hydropower. *Balducci, P.*, +, [MPE Nov-Dec 2023 98-109](#)
- The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K.*, +, [MPE May-Jun 2024 90-103](#)
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K.*, +, [MPE Mar-Apr 2022 14-22](#)
- Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy. *Nicholson, E.*, +, [MPE Jan-Feb 2019 67-72](#)
- Reinforcement learning**
- Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control. *Du, Y.*, +, [MPE May-Jun 2022 42-53](#)
- Relational databases**
- Technological Developments in Batteries: A Survey of Principal Roles, Types, and Management Needs. *Hu, X.*, +, [MPE Sep-Oct 2017 20-31](#)
- Relay protection**
- advanced power syst. protection syst. using Rogowski coil current sens. *Kojovic, L.A.*, +, [PAE-M May-Jun 2003 43-48](#)
- Relays**
- Correction. [MPE Nov-Dec 2017 108](#)
- Dynamic Estimation-Based Protection and Hidden Failure Detection and Identification: Inverter-Dominated Power Systems. *Meliopoulos, S.*, +, [MPE Jan-Feb 2023 59-72](#)
- Nipping Blackouts in the Bud: Introducing a Novel Cascading Failure Network. *Merrill, H.*, +, [MPE Jul-Aug 2020 64-75](#)
- Off the Beaten Path: Resiliency and Associated Risk. *Kezunovic, M.*, +, [MPE Mar-Apr 2018 26-35](#)
- System-wide Protection. *Horowitz, S.H.*, +, [PAE-M Sep-Oct 2008 34-42](#)
- Reliability**
- Adopting Circuit Breakers for High-Voltage dc Networks: Appropriating the Vast Advantages of dc Transmission Grids. *Jovcic, D.*, +, [MPE May-Jun 2019 82-93](#)
- Blackouts, Restoration, and Islanding: A System Resilience Perspective. *Braun, M.*, +, [MPE Jul-Aug 2020 54-63](#)
- Circuit breakers go high voltage. *Dufournet, D.*, +, [PAE-M Jan-Feb 2009 34-40](#)
- Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S.*, +, [MPE Nov-Dec 2023 38-47](#)
- Data Privacy for the Grid: Toward a Data Privacy Standard for Inverter-Based and Distributed Energy Resources. *Currie, R.*, +, [MPE Sep-Oct 2023 48-57](#)
- Distribution Network Rate Making in Latin America: An Evolving Landscape. *Moreno, R.*, +, [MPE May-Jun 2020 33-48](#)
- Enabling Power System Transformation Globally: A System Operator Research Agenda for Bulk Power System Issues. *O'Malley, M.*, +, [MPE Nov-Dec 2021 45-55](#)
- Expanding Power Systems in the Republic of Korea: Feasibility Studies and Future Challenges. *Kim, S.*, +, [MPE May-Jun 2019 61-72](#)
- From Reliability to Resilience: Planning the Grid Against the Extremes. *Moreno, R.*, +, [MPE Jul-Aug 2020 41-53](#)
- heat, sturdy, sensitive. *Bourgault, A.*, [PAE-M Sep-Oct 2005 42-47](#)
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, [MPE Mar-Apr 2024 78-88](#)
- If It Ain't Broke.... *Desai, B.*, +, [PAE-M Nov-Dec 2010 48-52](#)
- Microgrid Controller Initiatives: An Overview of R&D by the U.S. Department of Energy. *Ton, D.*, +, [MPE Jul-Aug 2017 24-31](#)
- Networked Microgrids: Exploring the Possibilities of the IIT-Bronzeville Grid. *Shahidehpour, M.*, +, [MPE Jul-Aug 2017 63-71](#)
- Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L.*, +, [MPE Sep-Oct 2022 26-38](#)
- Staying in Shape. *Phillips, A.*, +, [PAE-M Mar-Apr 2010 27-33](#)
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, [MPE Sep-Oct 2024 100-110](#)
- The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K.*, +, [MPE May-Jun 2024 90-103](#)
- The Regulatory Debate About Energy Storage Systems: State of the Art and Open Issues. *Usera, I.*, +, [MPE Sep-Oct 2017 42-50](#)
- Toward Bulk Power System Resilience: Approaches for Regional Transmission Operators. *Chen, H.*, +, [MPE Jul-Aug 2020 20-30](#)

- Transmission Planning for 100% Clean Electricity: Enabling Clean, Affordable, and Reliable Electricity. *Lew, D.*, +, *MPE Nov-Dec 2021 56-66*
- Utility Planning for Distribution-Optimized Electric Vehicle Charging: A Case Study in the United States Pacific Northwest. *Mills, M.*, +, *MPE Nov-Dec 2023 48-55*
- Reliability engineering
- Electricity Market of the Future: Potential North American Designs Without Fuel Costs. *Ela, E.*, +, *MPE Jan-Feb 2021 41-52*
- Forecasting and Market Design Advances: Supporting an Increasing Share of Renewable Energy. *Fox, J.*, +, *MPE Nov-Dec 2021 77-85*
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, +, *MPE Mar-Apr 2024 42-54*
- Hybrid Resources: Challenges, Implications, Opportunities, and Innovation. *Ahlstrom, M.*, +, *MPE Nov-Dec 2021 37-44*
- Reliability theory
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K.*, +, *MPE Mar-Apr 2022 14-22*
- Remuneration
- Distribution Network Rate Making in Latin America: An Evolving Landscape. *Moreno, R.*, +, *MPE May-Jun 2020 33-48*
- The Challenge of Integrating Demand Response in Capacity Remuneration Mechanisms: Providing a Comprehensive Theoretical Framework. *Rodilla, P.*, +, *MPE Jul-Aug 2023 64-71*
- Renewable energy resources
- A Model of Stability. *Kim, J.*, +, *MPE Jan-Feb 2011 75-81*
- A Success Story: The Value of the Massachusetts Technical Standards Review Group. *Enayati, B.*, *MPE Mar-Apr 2017 57-60*
- Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy. *Kroposki, B.*, +, *MPE Mar-Apr 2017 61-73*
- Balancing Act. *Lauby, M.G.*, +, *MPE Nov-Dec 2011 75-85*
- Bright Future: Solar Power as a Major Contributor to the U.S. Grid. *Denholm, P.*, +, *MPE Mar-Apr 2013 22-32*
- By Leaps and Bounds: Lessons Learned from Renewable Energy Growth in China. *Ni, M.*, +, *MPE Mar-Apr 2012 37-43*
- Catching Some Rays: Variable Generation Integration on the Island of Oahu. *Schuerger, M.*, +, *MPE Nov-Dec 2013 33-44*
- Challenges Ahead: Current Status and Future Prospects for Chinese Energy. *Hou, Y.*, +, *MPE May-Jun 2012 38-47*
- Charge It!. *Fahimi, B.*, +, *MPE Jul-Aug 2011 54-64*
- Code Shift: Grid Specifications and Dynamic Wind Turbine Models. *Ackermann, T.*, +, *MPE Nov-Dec 2013 72-82*
- Driving Forces Behind Wind. *Osborn, D.*, +, *MPE Nov-Dec 2011 60-74*
- Electrifying India. *Sathaye, J.*, +, *PAE-M Sep-Oct 2009 59-61*
- Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns. *D'haeseleer, W.*, +, *MPE Jan-Feb 2017 61-71*
- Flexible Connections: Solutions and Challenges for the Integration of Renewables in South America. *Rudnick, H.*, +, *MPE Mar-Apr 2012 24-36*
- For the Good of the Grid. *Amin, S.M.*, +, *PAE-M Nov-Dec 2008 48-59*
- Good Vibrations. *Yinger, R.J.*, +, *MPE Sep-Oct 2011 22-32*
- Harmonizing AC and DC: A Hybrid AC/DC Future Grid Solution. *Wang, P.*, +, *MPE May-Jun 2013 76-83*
- Island breezes. *Matsuura, M.*, +, *PAE-M Nov-Dec 2009 59-64*
- It Takes a Village: Rural Electrification in East Africa. *Mohn, T.*, +, *MPE Jul-Aug 2013 46-51*
- Maintaining Balance: The Increasing Role of Energy Storage for Renewable Integration. *Stenclik, D.*, +, *MPE Nov-Dec 2017 31-39*
- Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F.*, +, *MPE Nov-Dec 2012 70-79*
- Solar PV Integration Challenges. *Katiraei, F.*, +, *MPE May-Jun 2011 62-71*
- STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T.*, +, *MPE Mar-Apr 2023 30-39*
- The Golden Spike: Advanced Power Electronics Enables Renewable Development Across NERC Regions. *Reynolds, M.*, +, *MPE Mar-Apr 2012 71-78*
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J.*, +, *MPE May-Jun 2017 30-40*
- The power of collaboration: Engaging all parties in renewable energy infrastructure development. *Schenk, T.*, +, *MPE May-Jun 2013 56-65*
- The Regulatory Debate About Energy Storage Systems: State of the Art and Open Issues. *Usura, I.*, +, *MPE Sep-Oct 2017 42-50*
- The view from the top. *Lawhorn, J.*, +, *PAE-M Nov-Dec 2009 76-88*
- Transmission and Distribution Equipment: Providing Intelligent Maintenance. *Franck, C.M.*, +, *MPE Mar-Apr 2023 18-29*
- Where the wind blows. *Ackermann, T.*, +, *PAE-M Nov-Dec 2009 65-75*
- Wind Energy in China. *Jiang, L.*, +, *MPE Nov-Dec 2011 36-46*
- Renewable energy sources
- A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, +, *MPE Jan-Feb 2024 24-34*
- A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K.*, +, *MPE Nov-Dec 2023 28-37*
- A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing. *Li, F.*, +, *MPE Mar-Apr 2020 60-68*
- A Modern Communications Platform to Enable the Modern Grid: A Utility-Grade Wireless Broadband Network. *L'Abbate, C.*, *MPE Sep-Oct 2023 18-26*
- A Novel Approach to Transmission Bottleneck Management in Japan: An N-1 Intertrip Scheme. *Ohashi, N.*, +, *MPE Mar-Apr 2021 69-78*
- A Part of the Energy "In Crowd": Changing People's Energy Behavior via Group-Based Approaches. *Jans, L.*, +, *MPE Jan-Feb 2018 35-41*
- A Powerful Tool for Power System Monitoring: Distributed Dynamic State Estimation Based on a Full-View Synchronized Measurement System. *Bi, T.*, +, *MPE Jan-Feb 2023 26-35*
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P.*, +, *MPE Sep-Oct 2024 49-59*
- Achieving World-Leading Penetration of Renewables: The Australian National Electricity Market. *O'Connell, B.*, +, *MPE Sep-Oct 2021 18-28*

- Aggregating Distributed Energy Storage: Cloud-Based Flexibility Services From China. *Zhang, N.*, +, *MPE Jul-Aug 2021 63-73*
- Alternative energy sources in the Amazon. *de Lima Montenegro Duarte, A.R.C.*, +, *PAE-M Jan-Feb 2007 51-57*
- Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid. *Milligan, M.*, +, *MPE Nov-Dec 2015 78-87*
- An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R.*, *MPE Jul-Aug 2015 18-28*
- Applying the Principle of Locality: How to Build a Robust, Technology-Agnostic Regulatory Model for Tomorrow's Electrical Grid. *Enslin, J.*, +, *MPE Sep-Oct 2016 66-74*
- At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects. *Perlaviciute, G.*, +, *MPE Jan-Feb 2018 49-55*
- Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. *Kroposki, B.*, +, *MPE Nov-Dec 2020 37-46*
- Back in the Race: Achieving 100% Renewable Energy in the Canary Islands. *Lemus, R.*, *MPE Nov-Dec 2020 64-74*
- Beyond Individual Active Customers: Citizen and Renewable Energy Communities in the European Union. *Rossetto, N.*, *MPE Jul-Aug 2023 36-44*
- Big Data Analytics in China's Electric Power Industry: Modern Information, Communication Technologies, and Millions of Smart Meters. *Kang, C.*, +, *MPE May-Jun 2018 54-65*
- Bottom-Up Flexibility in Multi-Energy Systems: Real-World Experiences From Europe. *Belhomme, R.*, +, *MPE Jul-Aug 2021 74-85*
- Carbon-Free Energy: How Much, How Soon?. *O'Connell, R.*, +, *MPE Nov-Dec 2021 67-76*
- Challenges in Operator Training: Avoiding Blackouts in the Evolving Power Grid. *Bose, A.*, +, *MPE May-Jun 2023 61-69*
- China's Solar Subsidy Policy: Government Funding Yields to Open Markets. *Dong, H.*, +, *MPE May-Jun 2020 49-60*
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C.*, +, *MPE Jan-Feb 2024 72-80*
- Clustering Electricity Consumers: Challenges and Applications for Operating Smart Grids. *Alonso, A.M.*, +, *MPE May-Jun 2022 54-63*
- Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W.*, +, *MPE Jan-Feb 2018 29-34*
- Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P.*, +, *MPE Jan-Feb 2024 52-60*
- Crossroads of Power: Coordinating Electricity and Natural Gas Infrastructures in Turkey. *Bulent Tor, O.*, +, *MPE Nov-Dec 2014 49-62*
- Customer-Centric Electric Vehicle Orchestration in New Zealand: How Residential Smart Charging Can Deliver Affordability and Customer Satisfaction. *Heinen, S.*, +, *MPE Nov-Dec 2023 38-47*
- Decarbonization of Electricity Systems in Europe: Market Design Challenges. *Strbac, G.*, +, *MPE Jan-Feb 2021 53-63*
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, *MPE Jul-Aug 2024 49-63*
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T.*, +, *MPE Jan-Feb 2024 16-23*
- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L.*, +, *MPE Jul-Aug 2024 64-74*
- Distributed Energy Resources Roadmap: How the State of Western Australia Is Leading in Integration. *Hadingham, W.*, +, *MPE Sep-Oct 2021 76-88*
- Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H.*, +, *MPE Mar-Apr 2018 46-56*
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W.*, +, *MPE Sep-Oct 2024 111-115*
- Enabling Power System Transformation Globally: A System Operator Research Agenda for Bulk Power System Issues. *O'Malley, M.*, +, *MPE Nov-Dec 2021 45-55*
- Energy Security Through Demand-Side Flexibility: The Case of Denmark. *Ostergaard, J.*, +, *MPE Mar-Apr 2021 46-55*
- Essential System Services Reform: Australian Market Design for Renewable-Dominated Grids. *Lal, N.*, +, *MPE Sep-Oct 2021 29-45*
- Euro Mix: Current European Energy Developments and Policy Alternatives for 2030 and Beyond. *Lorubio, G.*, +, *MPE Mar-Apr 2014 65-74*
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J.*, +, *MPE Sep-Oct 2020 64-75*
- Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. *Orths, A.*, +, *MPE Nov-Dec 2019 67-78*
- Forecasting and Market Design Advances: Supporting an Increasing Share of Renewable Energy. *Fox, J.*, +, *MPE Nov-Dec 2021 77-85*
- From Security to Resilience: Technical and Regulatory Options to Manage Extreme Events in Low-Carbon Grids. *Eggleston, J.*, +, *MPE Sep-Oct 2021 67-75*
- From the Humble Building to the Smart Sustainable Grid: Empowering Consumers, Nurturing Bottom-Up Electricity Markets, and Building Collaborative Power Systems. *Avramidis, I.*, +, *MPE Jul-Aug 2023 53-63*
- Future Electricity Markets: Designing for Massive Amounts of Zero-Variable-Cost Renewable Resources. *Ela, E.*, +, *MPE Nov-Dec 2019 58-66*
- Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B.*, +, *MPE Mar-Apr 2024 18-29*
- Growth in Wind and Sun: Integrating Variable Generation in China. *Jiang, L.*, +, *MPE Nov-Dec 2015 40-49*
- Halfway There: Can California Achieve a 50% Renewable Grid?. *Olson, A.*, +, *MPE Jul-Aug 2015 41-52*
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, +, *MPE Mar-Apr 2024 78-88*
- Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. *Dragoon, K.*, +, *MPE Jul-Aug 2022 85-95*
- Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective. *Michaelson, D.*, +, *MPE Mar-Apr 2022 57-63*
- Latin American Energy Markets: Investment Opportunities in Nonconventional Renewables. *Vargas, A.*, +, *MPE Sep-Oct 2016 38-47*
- Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M.*, +, *MPE Nov-Dec 2023 18-27*

- Let's Make a Deal: Non-Wires Alternatives for Traditional Transmission and Distribution?. *Reid, B.*, +, *MPE Mar-Apr 2022 23-31*
- Making Renewables Work: Operational Practices and Future Challenges for Renewable Energy as a Major Power Source in Japan. *Ogimoto, K.*, +, *MPE Nov-Dec 2020 47-63*
- Market Design in an Intermittent Renewable Future: Cost Recovery With Zero-Marginal-Cost Resources. *Wolak, F.*, *MPE Jan-Feb 2021 29-40*
- Multifold Insights for Power System Dynamics From Data Assimilation: Meeting Current Challenges. *Wang, S.*, +, *MPE Jan-Feb 2023 36-43*
- No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F.*, +, *MPE Mar-Apr 2015 43-49*
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R.*, +, *MPE Nov-Dec 2014 78-88*
- Planning for the Future: Optimization-Based Distribution Planning Strategies for Integrating Distributed Energy Resources. *Cho, G.*, +, *MPE Nov-Dec 2018 77-87*
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P.*, +, *MPE Sep-Oct 2024 20-30*
- Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T.*, *MPE May-Jun 2024 20-28*
- Practical Microgrid Protection Solutions: Promises and Challenges. *Manson, S.*, +, *MPE May-Jun 2021 58-69*
- Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R.*, +, *MPE Nov-Dec 2020 86-97*
- Quantifying Risk in an Uncertain Future: The Evolution of Resource Adequacy. *Stenlik, D.*, +, *MPE Nov-Dec 2021 29-36*
- Renewable Energy Financing and Market Design: A View and Recommendations From Development Banking Practitioners to Developing Countries. *Bakovic, T.*, +, *MPE Jan-Feb 2021 74-84*
- renewable energy gets the "green" light in Chicago. *Martin, G.*, *PAE-M Nov-Dec 2003 34-39*
- Renewable Energy Zones in Australia: Integrated System Planning. *Pack, E.*, +, *MPE Sep-Oct 2021 56-66*
- Retail Pricing: A Low-Cost Enabler of the Clean Energy Transition. *Sergici, S.*, +, *MPE Jul-Aug 2022 66-75*
- Same Goal, Different Pathways for Energy Transition: A More Holistic, Multisector, Community-Driven Approach. *Cochran, J.*, +, *MPE Jul-Aug 2022 18-29*
- Secrets of Successful Integration: Operating Experience With High Levels of Variable, Inverter-Based Generation. *Lew, D.*, +, *MPE Nov-Dec 2019 24-34*
- Setting the Smart Solar Standard: Collaborations Between Hawaiian Electric and the National Renewable Energy Laboratory. *Hoke, A.*, +, *MPE Nov-Dec 2018 18-29*
- Shifting Currents: Challenges and Solutions for the Planned Evolution of the German Transmission Grid. *Feix, O.*, *MPE Mar-Apr 2014 36-39*
- Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L.*, +, *MPE Sep-Oct 2022 26-38*
- Smart Village Voices in Africa, Cameroon: Part 3—Electrification of Off-Grid Villages in Cameroon. *Numfor, J.*, +, *MPE Sep-Oct 2022 69-74*
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N.*, +, *MPE Jul-Aug 2016 79-87*
- Solar, Solar Everywhere: Opportunities and Challenges for Australia's Rooftop PV Systems. *Mountain, B.*, +, *MPE Jul-Aug 2015 53-60*
- South Korean Power System Operation and Renewable Integration: Using Artificial Intelligence Applications. *Lee, J.*, +, *MPE Nov-Dec 2024 28-41*
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, *MPE Sep-Oct 2024 100-110*
- Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D.*, +, *MPE Jul-Aug 2019 56-66*
- Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition. *Oyvang, T.*, +, *MPE Nov-Dec 2022 66-78*
- Synchronous Condenser Applications: Under Significant Resource Portfolio Changes. *Zhou, G.*, +, *MPE Jul-Aug 2019 35-46*
- The Bigger Picture: Robust Decarbonization of the Transport Sector in Costa Rica. *Quiros-Tortos, J.*, +, *MPE Nov-Dec 2023 77-90*
- The Cold Truth: Managing Gas-Electric Integration: The ISO New England Experience. *Babula, M.*, +, *MPE Nov-Dec 2014 20-28*
- The COVID-19 Boost for Clean Electricity: Accelerating Clean Energy Development Through Pandemic-Era Measures. *Li, F.*, +, *MPE Nov-Dec 2022 56-65*
- The Evolution of the Market: Designing a Market for High Levels of Variable Generation. *Ahlstrom, M.*, +, *MPE Nov-Dec 2015 60-66*
- The Fragile Grid: The Physics and Economics of Security Services in Low-Carbon Power Systems. *Mancarella, P.*, +, *MPE Mar-Apr 2021 79-88*
- The Impact of Renewables on Operational Security: Operating Power Systems That Have Extremely High Penetrations of Nonsynchronous Renewable Sources. *Dudurych, I.*, *MPE Mar-Apr 2021 37-45*
- The Impetus for Hydropower Development in India: New Initiatives. *Sharma, S.*, +, *MPE Sep-Oct 2020 18-26*
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M.*, +, *MPE Jan-Feb 2015 75-83*
- The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K.*, +, *MPE May-Jun 2024 90-103*
- Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. *Evans, M.*, +, *MPE Jul-Aug 2022 44-54*
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K.*, +, *MPE Mar-Apr 2022 14-22*
- Variable Renewable Energy Integration: Status Around the World. *Holtinen, H.*, +, *MPE Nov-Dec 2021 86-96*
- Variable-Generation Integration in China: An Update. *Jiang, L.*, +, *MPE Nov-Dec 2019 99-107*
- What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition. *Steg, L.*, +, *MPE Jan-Feb 2018 20-28*
- Zero-Marginal-Cost Electricity Market Designs: Lessons Learned From Hydro Systems in Latin America Might Be Applicable for Decarbonization. *Barroso, L.*, +, *MPE Jan-Feb 2021 64-73*
- Research and development
A Good Fit: Japan's Solar Power Program and Prospects for the New Power System. *Ogimoto, K.*, +, *MPE Mar-Apr 2013 65-74*

- A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D.*, +, [MPE May-Jun 2015 26-34](#)
- generations, the nuclear family comes of age. *Disosway, J.*, [PAE-M Nov-Dec 2006 18-24](#)
- Key Connections: The U.S. Department of Energy's Microgrid Initiative. *Smith, M.*, +, [MPE Jul-Aug 2013 22-27](#)
- Strait Ahead: Toward a Sustainable, Economic, and Secure Electricity Supply in Singapore. *Gooi, H.B.*, +, [MPE Jul-Aug 2012 65-74](#)
- The Mesh-Up: ENTSO-E and European TSO Cooperation in Operations, Planning, and R&D. *Verseille, J.*, +, [MPE Jan-Feb 2015 20-29](#)
- Research and development management collaboration is key internat. *Strunz, K.*, +, [PAE-M Jul-Aug 2003 50-55](#)
- power of undergraduate research. *O'Neill-Carrillo, E.*, +, [PAE-M Jul-Aug 2003 29-36](#)
- Research initiatives
- A Powerful Initiative at Pitt. *Reed, G.F.*, +, [PAE-M Mar-Apr 2008 70-77](#)
- Destination: Perfection. *Flueck, A.*, +, [PAE-M Nov-Dec 2008 36-47](#)
- Reservoirs
- Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies. *Moreno, R.*, +, [MPE Sep-Oct 2017 68-80](#)
- Norwegian Hydropower: Connecting to Continental Europe. *Tellefsen, T.*, +, [MPE Sep-Oct 2020 27-35](#)
- Pumped Storage Hydro: Then and Now. *Donalek, P.*, [MPE Sep-Oct 2020 49-57](#)
- Superflexible Hydropower for the Nordic Grid: Accelerating the Energy Transition. *Oyvang, T.*, +, [MPE Nov-Dec 2022 66-78](#)
- Unrealized potential in Africa. *Blyden, B.K.*, +, [PAE-M Jul-Aug 2008 52-58](#)
- Resilience
- A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D.*, +, [MPE May-Jun 2015 26-34](#)
- Achieving Resilience at Distribution Level: Learning from Isolated Community Microgrids. *Jimenez-Estevez, G.*, +, [MPE May-Jun 2017 64-73](#)
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D.*, +, [MPE Nov-Dec 2024 18-27](#)
- Blackouts, Restoration, and Islanding: A System Resilience Perspective. *Braun, M.*, +, [MPE Jul-Aug 2020 54-63](#)
- Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q.*, +, [MPE Nov-Dec 2024 66-77](#)
- From Reliability to Resilience: Planning the Grid Against the Extremes. *Moreno, R.*, +, [MPE Jul-Aug 2020 41-53](#)
- Grid Architecture: A Core Discipline for Grid Modernization. *Taft, J.*, [MPE Sep-Oct 2019 18-28](#)
- Improving Grid Resilience Using High-Voltage dc: Strengthening the Security of Power System Stability. *Roberson, D.*, +, [MPE May-Jun 2019 38-47](#)
- Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems. *Reno, M.*, +, [MPE May-Jun 2021 36-46](#)
- Investing for the Future: How Small Utilities are Finding Success With Advanced Distribution Management Systems. *Ngo, Y.*, +, [MPE Jan-Feb 2020 34-42](#)
- Japan's Pivot to Resilience: How Two Microgrids Fared After the 2011 Earthquake. *Marnay, C.*, +, [MPE May-Jun 2015 44-57](#)
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D.*, +, [MPE May-Jun 2021 20-35](#)
- Microgrids: Enhancing the Resilience of the European Megagrid. *Strbac, G.*, +, [MPE May-Jun 2015 35-43](#)
- Operating the Power Grid During a Pandemic: COVID-19 Experiences. *Chen, H.*, +, [MPE Nov-Dec 2022 26-37](#)
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W.*, +, [MPE May-Jun 2021 83-92](#)
- The Best of IGREENGrid Practices: A Distribution Network's Contribution to Resiliency. *Varela, J.*, +, [MPE May-Jun 2015 81-89](#)
- The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System. *Kristov, L.*, [MPE Mar-Apr 2019 42-49](#)
- The Grid: Stronger, Bigger, Smarter?: Presenting a Conceptual Framework of Power System Resilience. *Panteli, M.*, +, [MPE May-Jun 2015 58-66](#)
- Toward Bulk Power System Resilience: Approaches for Regional Transmission Operators. *Chen, H.*, +, [MPE Jul-Aug 2020 20-30](#)
- Resistance
- Lightning Protection of Distribution Power Systems: Arrester Development and Application Over the Years. *Woodworth, J.*, [MPE Mar-Apr 2023 51-60](#)
- Resistance heating
- An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems.** *Mai, T.*, +, [MPE Jul-Aug 2018 34-47](#)
- An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States.** *Frisch, C.*, +, [MPE Jul-Aug 2018 90-98](#)
- Electrification and the Future of Electricity Markets: Transitioning to a Low-Carbon Energy System.** *Jones, R.*, +, [MPE Jul-Aug 2018 79-89](#)
- Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P.*, +, [MPE Jul-Aug 2018 24-33](#)
- Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services. *Farrokhhabadi, M.*, +, [MPE Sep-Oct 2017 81-91](#)
- Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns. *D'haeseleer, W.*, +, [MPE Jan-Feb 2017 61-71](#)
- Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. *Orths, A.*, +, [MPE Nov-Dec 2019 67-78](#)
- Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role. *Kiviluoma, J.*, +, [MPE Jan-Feb 2017 25-33](#)
- Heat Electrification: The Latest Research in Europe.** *Heinen, S.*, +, [MPE Jul-Aug 2018 69-78](#)
- Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E.*, +, [MPE Jan-Feb 2017 43-52](#)
- Resource management
- A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G.*, +, [MPE Jan-Feb 2019 53-66](#)
- Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q.*, +, [MPE Nov-Dec 2024 66-77](#)

- European Union Electricity Markets: Current Practice and Future View. *Gomez, T., +, MPE Jan-Feb 2019 20-31*
- Microgrid Protection Against Internal Faults: Challenges in Islanded and Interconnected Operation. *Lagos, D., +, MPE May-Jun 2021 20-35*
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W., +, MPE May-Jun 2021 83-92*
- The Impetus for Hydropower Development in India: New Initiatives. *Sharma, S., +, MPE Sep-Oct 2020 18-26*
- Transformation of the Grid: The Impact of Distributed Energy Resources on Bulk Power Systems. *Quint, R., +, MPE Nov-Dec 2019 35-45*
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K., +, MPE Mar-Apr 2022 14-22*
- Retailing
- Behavior Modification. *Braithwait, S., +, PAE-M May-Jun 2010 36-45*
- Reviews
- The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K., +, MPE May-Jun 2024 90-103*
- Risk analysis
- power system security assessment. *Morison, K., +, PAE-M Sep-Oct 2004 30-39*
- Predicting Reliability Improvements. *Williams, C., +, PAE-M Mar-Apr 2008 53-60*
- Risky Business: Building a Resilient Power Sector. *Mendiluce, M., MPE Sep-Oct 2014 34-41*
- Stormy Weather: Assessing Climate Change Hazards to Electric Power Infrastructure: A Sandy Case Study. *Yates, D., +, MPE Sep-Oct 2014 66-75*
- Winds of Change. *Cailliau, M., +, PAE-M Sep-Oct 2010 53-62*
- Risk management
- Needed: ASAP Approach. *Desai, B., +, PAE-M Nov-Dec 2010 53-60*
- Off the Beaten Path: Resiliency and Associated Risk. *Kezunovic, M., +, MPE Mar-Apr 2018 26-35*
- Rising temps, tides, and wildfires: Assessing the risk to California's energy infrastructure from projected climate change. *Sathaye, J.A., +, MPE May-Jun 2013 32-45*
- Wildfire Resiliency: California Case for Change. *Chiu, B., +, MPE Jan-Feb 2022 28-37*
- Rivers
- Hydropower in China. *Fu, S., +, PAE-M Jul-Aug 2008 47-51*
- Pumped Storage Hydro: Then and Now. *Donalek, P., MPE Sep-Oct 2020 49-57*
- Rising temps, tides, and wildfires: Assessing the risk to California's energy infrastructure from projected climate change. *Sathaye, J.A., +, MPE May-Jun 2013 32-45*
- Road transportation
- The Corridors of Power: A Pan-European "Electricity Highway" System for 2050. *Sanchis, G., +, MPE Jan-Feb 2015 38-51*
- Roads
- A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K., +, MPE Nov-Dec 2023 28-37*
- Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A., +, MPE May-Jun 2024 79-89*
- Lines of Convergence: R&D for Transmission and Distribution: Coordination and the Regulatory Challenge. *Ferrante, A., +, MPE Jan-Feb 2015 52-59*
- Open Data to Accelerate the Electric Mobility Revolution: Deploying Journey Electric Vehicle Chargers in Rural Scotland. *Hunter, L., +, MPE Nov-Dec 2023 56-67*
- Organic Growth: Toward a Holistic Approach to European Research and Innovation. *Vu Van, T., +, MPE Jan-Feb 2015 30-37*
- Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J., +, MPE May-Jun 2024 29-41*
- Robustness
- Advances in Algorithms for Power System Static State Estimators: An Improved Solution for Bad Data Management and State Estimator Convergence. *Gou, B., +, MPE Jan-Feb 2023 16-25*
- The Utility Operational Response to the 14 August 2003 Blackout: Analysis and Case Studies. *Robertson, F.R., +, MPE May-Jun 2023 43-50*
- Rural areas
- Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P., +, MPE Sep-Oct 2022 46-53*
- Smart Village Voices in Africa, System-of-Systems Approach: Part 1: A System-of-Systems Approach for Zero Poverty. *Podmore, R., +, MPE Sep-Oct 2022 54-60*
- S
- Safety
- Advanced Applications in an Advanced Distribution Management System: Essentials for Implementation and Integration. *Boardman, E., MPE Jan-Feb 2020 43-54*
- Going Beyond Cybersecurity Compliance: What Power and Utility Companies Really Need To Consider. *Smith, E., +, MPE Sep-Oct 2016 48-56*
- Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety. *Udren, E.A., +, MPE Jan-Feb 2022 64-77*
- Predictive-Maintenance Practices: For Operational Safety of Battery Energy Storage Systems. *Fioravanti, R., +, MPE Nov-Dec 2020 86-97*
- Satellites
- Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W., +, MPE Jan-Feb 2022 16-27*
- Solar Forecasting: Methods, Challenges, and Performance. *Tuohy, A., +, MPE Nov-Dec 2015 50-59*
- Saturation magnetization
- A Colorful Blackout: The Havoc Caused by Auroral Electrojet Generated Magnetic Field Variations in 1989. *Guillon, S., +, MPE Nov-Dec 2016 59-71*
- SCADA systems
- A Changing Map: Four Decades of Service Restoration at Alabama Power. *Clark, G., MPE Jan-Feb 2014 64-69*
- communicate, failure. *Hauser, C.H., +, PAE-M Mar-Apr 2005 47-55*
- Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J., +, MPE Sep-Oct 2023 38-47*
- Intruders in the Grid. *Chen-Ching Liu, +, MPE Jan-Feb 2012 58-66*
- Investing for the Future: How Small Utilities are Finding Success With Advanced Distribution Management Systems. *Ngo, Y., +, MPE Jan-Feb 2020 34-42*
- It Takes a Village: Social SCADA and Approaches to Community Engagement in Isolated Microgrids. *Jimenez-Estevez, G., +, MPE Jul-Aug 2014 60-69*
- power syst. protection, System threats and vulnerabilities. *Kropp, T., PAE-M Mar-Apr 2006 46-50*

- power syst. reliab., Calling for backup. *Heidrick, T.*, + , [PAE-M Jan-Feb 2004 52-58](#)
- Realizing the Power of Data Marts. *McDonald, J.D.*, + , [PAE-M May-Jun 2007 57-66](#)
- Remote Control. *Thomas, M.S.*, + , [PAE-M Jul-Aug 2010 53-60](#)
- thermal governor model develop. *Pereira, L.*, [PAE-M May-Jun 2005 62-70](#)
- Toward effective substation automation. *Ingram, M.*, + , [PAE-M May-Jun 2007 67-73](#)
- Wanted: A more intelligent grid. *Giri, J.*, + , [PAE-M Mar-Apr 2009 34-40](#)
- Scalability
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P.*, + , [MPE Sep-Oct 2024 49-59](#)
- Schedules
- Online Power Education: Keeping Pace with the Demand for High-Quality, Flexible Education. *Ahern, M.*, [MPE Sep-Oct 2018 82-86](#)
- Scheduling
- Time Management. *Srinivasaraghavan, S.*, + , [MPE Jul-Aug 2011 46-53](#)
- Scholarships
- The Power of Internships: Advice for Companies and Prospective Interns. *Hennebury, L.*, + , [MPE Sep-Oct 2018 74-81](#)
- Trends in Electric Power Engineering Education: An Analysis of Future Challenges. *Ray, D.*, + , [MPE Sep-Oct 2018 32-41](#)
- Sea measurements
- Harnessing the Full Potential of Clean Energy: The Role of Southern California's Utility Distributed Energy Resource Pilots. *Mehr, V.*, + , [MPE Jul-Aug 2021 28-40](#)
- Secondary cells
- Batteries Included. *Nourai, A.*, + , [PAE-M Mar-Apr 2010 49-54](#)
- The sun also rises. *Bebic, J.*, + , [PAE-M May-Jun 2009 45-54](#)
- Security
- Advances in Algorithms for Power System Static State Estimators: An Improved Solution for Bad Data Management and State Estimator Convergence. *Gou, B.*, + , [MPE Jan-Feb 2023 16-25](#)
- Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F.*, [MPE May-Jun 2023 77-86](#)
- Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, + , [MPE Nov-Dec 2024 100-111](#)
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y.*, + , [MPE Jan-Feb 2024 35-42](#)
- Erratum. [MPE May-Jun 2021 103](#)
- High Inverter-Based Resource Integration: The Experience of Five System Operators. *Modi, N.*, + , [MPE Mar-Apr 2024 78-88](#)
- Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M.*, + , [MPE Sep-Oct 2012 50-57](#)
- Networked Microgrids: Exploring the Possibilities of the IIT-Bronzeville Grid. *Shahidehpour, M.*, + , [MPE Jul-Aug 2017 63-71](#)
- Operating in the Fog: Security Management Under Uncertainty. *Panciatici, P.*, + , [MPE Sep-Oct 2012 40-49](#)
- power system security assessment. *Morison, K.*, + , [PAE-M Sep-Oct 2004 30-39](#)
- Quantifying Energy Justice Goals in the Power Sector: Developing and Using Metrics. *O'Neil, R.*, + , [MPE Jul-Aug 2024 85-93](#)
- Renewable Energy Financing and Market Design: A View and Recommendations From Development Banking Practitioners to Developing Countries. *Bakovic, T.*, + , [MPE Jan-Feb 2021 74-84](#)
- The Emerging Transactive Microgrid Controller: Illustrating Its Concept, Functionality, and Business Case. *Vaahedi, E.*, + , [MPE Jul-Aug 2017 80-87](#)
- The Plug-and-Play Electricity Era: Interoperability to Integrate Anything, Anywhere, Anytime. *Widergren, S.*, + , [MPE Sep-Oct 2019 47-58](#)
- Toward Bulk Power System Resilience: Approaches for Regional Transmission Operators. *Chen, H.*, + , [MPE Jul-Aug 2020 20-30](#)
- Self-organizing networks
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A.*, + , [MPE Jan-Feb 2024 43-51](#)
- Semantics
- Making Distribution Automation Work: Smart Data Is Imperative for Growth. *Gray, G.*, + , [MPE Jan-Feb 2016 58-67](#)
- Sensitivity
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D.*, + , [MPE Nov-Dec 2024 54-65](#)
- Sensor systems
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, + , [MPE Nov-Dec 2024 42-53](#)
- Watch Out for Flooding: When the Power System Created a Weather Disaster. *Allen, E.*, [MPE Nov-Dec 2016 35-39](#)
- Sensor systems and applications
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D.*, + , [MPE Nov-Dec 2024 54-65](#)
- Sensors
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A.*, + , [MPE Jan-Feb 2024 43-51](#)
- Servers
- A Large-Scale Testbed as a Virtual Power Grid: For Closed-Loop Controls in Research and Testing. *Li, F.*, + , [MPE Mar-Apr 2020 60-68](#)
- Shafts
- Pumped Storage Hydro: Then and Now. *Donalek, P.*, [MPE Sep-Oct 2020 49-57](#)
- Shock absorbers
- Softening the Blow of Disturbances. *Clark, H.*, + , [PAE-M Jan-Feb 2008 30-41](#)
- Shunts (electrical)
- Transmission Technologies and Implementations: Building a Stronger, Smarter Power Grid in China. *Dai, R.*, + , [MPE Mar-Apr 2020 53-59](#)
- Silicon carbide
- Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies. *Moreno, R.*, + , [MPE Sep-Oct 2017 68-80](#)
- Simulation
- Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, + , [MPE Mar-Apr 2024 55-65](#)

Smart buildings

Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P.*, +, [MPE Jan-Feb 2024 52-60](#)

The Bottom-Up (R)Evolution of the Electric Power System: The Pathway to the Integrated-Decentralized System. *Kristov, L.*, [MPE Mar-Apr 2019 42-49](#)

Smart cities

A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E.*, +, [MPE Sep-Oct 2022 39-45](#)

Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P.*, +, [MPE Sep-Oct 2022 46-53](#)

Smart City Energy Technology in the Face of Emergency Situations: Electric Supply, Electric Transportation, and Communication. *Vittal, V.*, +, [MPE Sep-Oct 2022 16-25](#)

Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L.*, +, [MPE Sep-Oct 2022 26-38](#)

Smart Village Voices in Africa, System-of-Systems Approach: Part 1: A System-of-Systems Approach for Zero Poverty. *Podmore, R.*, +, [MPE Sep-Oct 2022 54-60](#)

Smart grid

Links to the Future: Communication Requirements and Challenges in the Smart Grid. *Bouhafs, F.*, +, [MPE Jan-Feb 2012 24-32](#)

Smart Grid, Safe Grid. *Amin, S.M.*, +, [MPE Jan-Feb 2012 33-40](#)

Staying in Control: Cybersecurity and the Modern Electric Grid. *Hull, J.*, +, [MPE Jan-Feb 2012 41-48](#)

The Situation Room: Control Center Analytics for Enhanced Situational Awareness. *Giri, J.*, +, [MPE Sep-Oct 2012 24-39](#)

Terms of Protection: The Many Faces of Smart Grid Security. *Nordell, D.E.*, +, [MPE Jan-Feb 2012 18-23](#)

The Big Picture: Smart Research for Large-Scale Integrated Smart Grid Solutions. *Kezunovic, M.*, +, [MPE Jul-Aug 2012 22-34](#)

The Power to Deliver: Trends in Smart Grid Solutions. *Khattak, A.R.*, +, [MPE Jul-Aug 2012 56-64](#)

Smart grids

A Journey Through Energy Systems Integration: Trending Grid Codes, Standards, and IEC Collaboration. *MacDowell, J.*, +, [MPE Nov-Dec 2019 79-88](#)

A Modern Communications Platform to Enable the Modern Grid: A Utility-Grade Wireless Broadband Network. *L'Abbate, C.*, [MPE Sep-Oct 2023 18-26](#)

A National Vision. *Kim, J.*, +, [MPE Jan-Feb 2011 40-49](#)

A Smarter Grid Operation: New Energy Management Systems in China. *Xin, Y.*, +, [MPE Mar-Apr 2018 36-45](#)

A Society of Devices: Integrating Intelligent Distributed Resources with Transactive Energy. *Kok, K.*, +, [MPE May-Jun 2016 34-45](#)

Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System. *Lu, C.*, +, [MPE Sep-Oct 2015 60-71](#)

Charge It!. *Fahimi, B.*, +, [MPE Jul-Aug 2011 54-64](#)

Clustering Electricity Consumers: Challenges and Applications for Operating Smart Grids. *Alonso, A.M.*, +, [MPE May-Jun 2022 54-63](#)

Code Shift: Grid Specifications and Dynamic Wind Turbine Models. *Ackermann, T.*, +, [MPE Nov-Dec 2013 72-82](#)

Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B.*, +, [MPE Nov-Dec 2024 118-133](#)

Correction. [MPE Jan-Feb 2017 88](#)

Corrections. [MPE May-Jun 2017 6](#)

Developing Local Energy Markets: A Holistic System Approach. *Rassa, A.*, +, [MPE Sep-Oct 2019 59-70](#)

Distribution Network Rate Making in Latin America: An Evolving Landscape. *Moreno, R.*, +, [MPE May-Jun 2020 33-48](#)

Distribution Pricing: Are We Ready for the Smart Grid?. *Li, F.*, +, [MPE Jul-Aug 2015 76-86](#)

Dynamic Estimation-Based Protection and Hidden Failure Detection and Identification: Inverter-Dominated Power Systems. *Meliopoulos, S.*, +, [MPE Jan-Feb 2023 59-72](#)

Ecocity Upon a Hill: Microgrids and the Future of the European City. *Schmitt, L.*, +, [MPE Jul-Aug 2013 59-70](#)

Electric Power Engineering Education: Cultivating the Talent in the United Kingdom and Italy to Build the Low-Carbon Economy of the Future. *Chicco, G.*, +, [MPE Sep-Oct 2018 53-63](#)

Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles. *Ochoa, L.*, +, [MPE Sep-Oct 2016 16-28](#)

Enabling the Integrated Grid: Leveraging Data to Integrate Distributed Resources and Customers. *McGranaghan, M.*, +, [MPE Jan-Feb 2016 83-93](#)

Everything's Talking to Each Other: Smart Meters Generate Big Data for Utilities and Customers. *Neumann, S.*, +, [MPE Jan-Feb 2016 40-47](#)

Five Heads Are Better Than One: An Interdisciplinary Graduate Course on Smart Grids: Lessons, Challenges, and Opportunities. *Namboodiri, V.*, +, [MPE Jan-Feb 2013 44-50](#)

Good Vibrations. *Yinger, R.J.*, +, [MPE Sep-Oct 2011 22-32](#)

Grid Architecture: A Core Discipline for Grid Modernization. *Taft, J.*, [MPE Sep-Oct 2019 18-28](#)

I Sing the Mapboard Electric. *Clark, L.*, +, [MPE Sep-Oct 2011 33-41](#)

If These Walls Could Think. *Munson, M.*, +, [MPE Jan-Feb 2011 50-55](#)

Key Connections: The U.S. Department of Energy's Microgrid Initiative. *Smith, M.*, +, [MPE Jul-Aug 2013 22-27](#)

Lines of Communication. *Roy, S.*, +, [MPE Sep-Oct 2011 64-73](#)

Lines of Convergence: R&D for Transmission and Distribution: Coordination and the Regulatory Challenge. *Ferrante, A.*, +, [MPE Jan-Feb 2015 52-59](#)

Local Green Teams. *Song, I.-K.*, +, [MPE Jan-Feb 2011 66-74](#)

Multifold Insights for Power System Dynamics From Data Assimilation: Meeting Current Challenges. *Wang, S.*, +, [MPE Jan-Feb 2023 36-43](#)

Needed: ASAP Approach. *Desai, B.*, +, [PAE-M Nov-Dec 2010 53-60](#)

Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A.*, +, [MPE Sep-Oct 2023 58-67](#)

Power of Two. *Hamilton, B.*, +, [MPE Jan-Feb 2011 32-39](#)

Power to the People. *Gellings, C.W.*, +, [MPE Sep-Oct 2011 52-63](#)

Prescription for Interoperability: Power System Challenges and Requirements for Interoperable Solutions. *Ivanov, C.*, +, [MPE Jan-Feb 2016 30-39](#)

Reading Deeper. *Pritchard, G.*, +, [PAE-M Nov-Dec 2010 85-87](#)

Realizing the Value of DERs: A Utility Perspective. *Paaso, A.*, +, [MPE Mar-Apr 2022 39-46](#)

- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J.*, +, [MPE Jan-Feb 2015 84-91](#)
- Sim City. *Dugan, R.C.*, +, [MPE Sep-Oct 2011 74-81](#)
- Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L.*, +, [MPE Sep-Oct 2022 26-38](#)
- Smart Integration. *Vojdani, A.*, +, [PAE-M Nov-Dec 2008 71-79](#)
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W.*, +, [MPE May-Jun 2021 83-92](#)
- Streetlights Are Getting Smarter: Integrating an Intelligent Communications and Control System to the Current Infrastructure. *Shahidehpour, M.*, +, [MPE May-Jun 2015 67-80](#)
- Study buddies: computer geeks and power freaks are learning smart systems together at Washington State. *Srivastava, A.K.*, +, [MPE Jan-Feb 2013 39-43](#)
- Synchrophasor Technology and the DOE: Exciting Opportunities Lie Ahead in Development and Deployment. *Overholt, P.*, +, [MPE Sep-Oct 2015 14-17](#)
- The Best of IGREENGrid Practices: A Distribution Network's Contribution to Resiliency. *Varela, J.*, +, [MPE May-Jun 2015 81-89](#)
- The Future of Distribution Operations and Planning: The Electric Utility Environment Is Changing. *Vadari, M.*, [MPE Jan-Feb 2020 18-25](#)
- The Green Defenders. *Seo, J.-T.*, +, [MPE Jan-Feb 2011 82-90](#)
- Tools for Success. *Romero Aguero, J.*, +, [MPE Sep-Oct 2011 82-93](#)
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D.*, +, [MPE Nov-Dec 2024 54-65](#)
- Smart meters**
- Clustering Electricity Consumers: Challenges and Applications for Operating Smart Grids. *Alonso, A.M.*, +, [MPE May-Jun 2022 54-63](#)
- Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B.*, +, [MPE Nov-Dec 2024 118-133](#)
- Everything's Talking to Each Other: Smart Meters Generate Big Data for Utilities and Customers. *Neumann, S.*, +, [MPE Jan-Feb 2016 40-47](#)
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M.*, +, [MPE Nov-Dec 2024 78-88](#)
- Smart Meter Data Sharing for AI-Enhanced Energy Systems: A Review of Relevant Techniques and Detailed Case Studies. *Yao, R.*, +, [MPE Nov-Dec 2024 42-53](#)
- The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G.*, +, [MPE Jan-Feb 2017 53-60](#)
- Visualizing Big Energy Data: Solutions for This Crucial Component of Data Analysis. *Hyndman, R.*, +, [MPE May-Jun 2018 18-25](#)
- Smart power grids**
- A New Car, a New Grid. *Dickerman, L.*, +, [PAE-M Mar-Apr 2010 55-61](#)
- A Road Map to Integration: Perspectives on Smart Grid Development. *Farhangi, H.*, [MPE May-Jun 2014 52-66](#)
- Engineering the Future. *Reder, W.*, +, [PAE-M Jul-Aug 2010 27-35](#)
- Form Follows Function: Designing Smart Grid Communication Systems Using a Framework Approach. *Wen, M.*, +, [MPE May-Jun 2014 37-43](#)
- Get Smart. *Lui, T.J.*, +, [PAE-M May-Jun 2010 66-78](#)
- Getting Smart. *Santacana, E.*, +, [PAE-M Mar-Apr 2010 41-48](#)
- Only Connect: Microgrids for Distribution System Restoration. *Che, L.*, +, [MPE Jan-Feb 2014 70-81](#)
- Taking Demand Response to the Next Level. *Hamilton, K.*, +, [PAE-M May-Jun 2010 60-65](#)
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- Social factors**
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- Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A.*, +, [MPE Jan-Feb 2024 61-71](#)
- Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P.*, +, [MPE Sep-Oct 2022 46-53](#)
- Power Grids Achieving Carbon Neutrality With a Reduced Labor Force: Energy Management and Automation Systems Cooperation. *Otani, T.*, [MPE May-Jun 2024 20-28](#)
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N.*, +, [MPE Jul-Aug 2016 79-87](#)
- Social network services**
- The New Centurions. *Crow, M.*, +, [PAE-M Jul-Aug 2010 20-26](#)
- Social networking (online)**
- Clustering Electricity Consumers: Challenges and Applications for Operating Smart Grids. *Alonso, A.M.*, +, [MPE May-Jun 2022 54-63](#)
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- Distributed Energy Resources as an Equity Asset: Lessons Learned from Deployments in Disadvantaged Communities. *Bird, L.*, +, [MPE Jul-Aug 2024 64-74](#)
- Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K.*, +, [MPE Jul-Aug 2024 18-25](#)
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, [MPE Jul-Aug 2024 38-48](#)
- Sociology**
- A Pro-Grid Middle Path for Africa: Sub-Saharan Region Electricity Upgrades. *Oguah, S.*, +, [MPE Mar-Apr 2019 61-68](#)
- Distributed Generation and Megacities: Are Renewables the Answer?. *Smil, V.*, [MPE Mar-Apr 2019 37-41](#)
- Erratum. [MPE Jul-Aug 2022 104](#)
- Open Data to Accelerate the Electric Mobility Revolution: Deploying Journey Electric Vehicle Chargers in Rural Scotland. *Hunter, L.*, +, [MPE Nov-Dec 2023 56-67](#)
- Teaching Old Dogs New Tricks: The Effectiveness of Community-Based Social Marketing on Energy Conservation for Sustainable University Campuses. *Aronoff, J.*, +, [MPE Jan-Feb 2013 30-38](#)
- Software**
- Auctions for Nonwires Alternatives: Securing and Operating Dispatchable Distributed Energy Resources. *Golriz, A.*, +, [MPE Mar-Apr 2022 47-56](#)

- Software engineering
- Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C., +, MPE Jan-Feb 2024 72-80*
 - Developing Local Energy Markets: A Holistic System Approach. *Rassa, A., +, MPE Sep-Oct 2019 59-70*
- Software reliability
- Advanced Distribution Management System: Improving Distribution Efficiency Through an Integrated Approach. *Devanand, P., +, MPE Jan-Feb 2020 55-62*
- Software systems
- Advanced Distribution Management Systems: Connectivity Through Standardized Interoperability Protocols. *Razon, A., +, MPE Jan-Feb 2020 26-33*
- Solar cell arrays
- Let the games begin, solar powered homes. *Nelms, R.M., PAE-M Jul-Aug 2003 56-60*
- Solar cells
- Collective Action: Adaptation, Mitigation, Innovation: The Case of the Chinese PV Industry. *Gallagher, K., +, MPE Sep-Oct 2014 28-33*
- Solar energy
- A Powerful Tool for Power System Monitoring: Distributed Dynamic State Estimation Based on a Full-View Synchronized Measurement System. *Bi, T., +, MPE Jan-Feb 2023 26-35*
 - Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid. *Milligan, M., +, MPE Nov-Dec 2015 78-87*
 - Halfway There: Can California Achieve a 50% Renewable Grid?. *Olson, A., +, MPE Jul-Aug 2015 41-52*
 - Heat and Dust: The Solar Energy Challenge in Chile. *Jimenez-Estevez, G., +, MPE Mar-Apr 2015 71-77*
 - Solar Forecasting: Methods, Challenges, and Performance. *Tuohy, A., +, MPE Nov-Dec 2015 50-59*
 - Variable-Generation Integration in China: An Update. *Jiang, L., +, MPE Nov-Dec 2019 99-107*
- Solar energy concentrators
- Bright Future: Solar Power as a Major Contributor to the U.S. Grid. *Denholm, P., +, MPE Mar-Apr 2013 22-32*
- Solar energy conversion
- Renewable energy gets the "green" light in Chicago. *Martin, G., PAE-M Nov-Dec 2003 34-39*
- Solar heating
- Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. *Orths, A., +, MPE Nov-Dec 2019 67-78*
 - Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role. *Kiviluoma, J., +, MPE Jan-Feb 2017 25-33*
- Solar panels
- Changing Household Energy Usage: The Downsides of Incentives and How to Overcome Them. *van der Werff, E., +, MPE Jan-Feb 2018 42-48*
 - Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J., +, MPE Jul-Aug 2024 49-63*
 - Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q., +, MPE Nov-Dec 2024 66-77*
- Solar power
- Catching Some Rays: Variable Generation Integration on the Island of Oahu. *Schuerger, M., +, MPE Nov-Dec 2013 33-44*
 - Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies. *Moreno, R., +, MPE Sep-Oct 2017 68-80*
 - Green power, defn., renewable resources. *Rahman, S., PAE-M Jan-Feb 2003 30-37*
 - Growing Pains: Meeting India's Energy Needs in the Face of Limited Fossil Fuels. *Parikh, J., +, MPE May-Jun 2012 59-66*
 - Harnessing the sun. *Kroposki, B., +, PAE-M May-Jun 2009 22-33*
 - Hawaii's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M., MPE Sep-Oct 2019 40-46*
 - Northern Lights: Access to Electricity in Canada's Northern and Remote Communities. *Arriaga, M., +, MPE Jul-Aug 2014 50-59*
 - Renewable energy gets the "green" light in Chicago. *Martin, G., PAE-M Nov-Dec 2003 34-39*
 - The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D., +, MPE May-Jun 2014 26-36*
 - The sun also rises. *Bebic, J., +, PAE-M May-Jun 2009 45-54*
 - Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids. *Sharafi, D., +, MPE Jan-Feb 2022 52-63*
- Solar power generation
- Carbon-Free Energy: How Much, How Soon?. *O'Connell, R., +, MPE Nov-Dec 2021 67-76*
 - China's Solar Subsidy Policy: Government Funding Yields to Open Markets. *Dong, H., +, MPE May-Jun 2020 49-60*
 - Decarbonization of Electricity Systems in Europe: Market Design Challenges. *Strbac, G., +, MPE Jan-Feb 2021 53-63*
 - Ensuring System Reliability: Distributed Energy Resources and Bulk Power System Considerations. *Vartanian, C., +, MPE Nov-Dec 2018 52-63*
 - Integrated Wind, Solar, and Energy Storage: Designing Plants with a Better Generation Profile and Lower Overall Cost. *Venkataraman, S., +, MPE May-Jun 2018 74-83*
 - Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid. *Burdick, A., +, MPE Jul-Aug 2022 30-43*
 - Norwegian Hydropower: Connecting to Continental Europe. *Tellefsen, T., +, MPE Sep-Oct 2020 27-35*
 - Setting the Smart Solar Standard: Collaborations Between Hawaiian Electric and the National Renewable Energy Laboratory. *Hoke, A., +, MPE Nov-Dec 2018 18-29*
 - Smart Village Voices in Africa, Cameroon: Part 3—Electrification of Off-Grid Villages in Cameroon. *Numfor, J., +, MPE Sep-Oct 2022 69-74*
 - Variable-Generation Integration in China: An Update. *Jiang, L., +, MPE Nov-Dec 2019 99-107*
 - Zero-Marginal-Cost Electricity Market Designs: Lessons Learned From Hydro Systems in Latin America Might Be Applicable for Decarbonization. *Barroso, L., +, MPE Jan-Feb 2021 64-73*
- Solar power stations
- A Good Fit: Japan's Solar Power Program and Prospects for the New Power System. *Ogimoto, K., +, MPE Mar-Apr 2013 65-74*
 - Absorbing the Rays: Advanced Inverters Help Integrate PV into Electric Utility Distribution Systems. *Steffel, S., +, MPE Mar-Apr 2013 45-54*
 - All Options on the Table: Energy Systems Integration on the Island of Maui. *Corbus, D., +, MPE Sep-Oct 2013 65-74*

- Bright Future: Solar Power as a Major Contributor to the U.S. Grid. *Denholm, P.*, +, [MPE Mar-Apr 2013 22-32](#)
- Expansion Pressure: Energy Challenges in Brazil and Chile. *Bezerra, B.*, +, [MPE May-Jun 2012 48-58](#)
- Harnessing the sun. *Kroposki, B.*, +, [PAE-M May-Jun 2009 22-33](#)
- Planting the seed. *Mehos, M.*, +, [PAE-M May-Jun 2009 55-62](#)
- The Green Effect. *Barroso, L.A.*, +, [PAE-M Sep-Oct 2010 22-35](#)
- The sun also rises. *Bebic, J.*, +, [PAE-M May-Jun 2009 45-54](#)
- Toward a Solar-Powered Grid. *Brinkman, G.*, +, [MPE May-Jun 2011 24-32](#)
- Solar radiation
- Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H.*, +, [MPE Mar-Apr 2018 46-56](#)
- Solid modeling
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T.*, +, [MPE Jan-Feb 2024 16-23](#)
- Solid oxide fuel cell
- fuel cells, promising devices for distributed generation. *Nehrir, H.*, +, [PAE-M Jan-Feb 2006 47-53](#)
- South America
- A Natural Fit: Electricity-Gas Integration Challenges in South America. *Rudnick, H.*, +, [MPE Nov-Dec 2014 29-39](#)
- Fighting Against Wildfires in Power Systems: Lessons and Resilient Practices From the Chilean and Brazilian Experiences. *Serrano, R.*, +, [MPE Jan-Feb 2022 38-51](#)
- Heat and Dust: The Solar Energy Challenge in Chile. *Jimenez-Estevez, G.*, +, [MPE Mar-Apr 2015 71-77](#)
- How Brazil Aims for Gold in Reliability: From Past Blackouts to Preparedness for the 2016 Summer Olympic and Paralympic Games. *Gomes, P.*, +, [MPE Nov-Dec 2016 40-51](#)
- The Expansion of Transmission: The Challenges Faced in South America. *de Sa Ferreira, R.*, +, [MPE Jul-Aug 2016 54-64](#)
- The Optimization of Transmission Lines in Brazil: Proven Experience and Recent Developments in Research and Development. *Arruda, C.*, +, [MPE Mar-Apr 2020 31-42](#)
- South Korea
- Generation to Come: Natural Gas and Electric System Interactions in South Korea. *Choi, J.*, [MPE Nov-Dec 2014 63-77](#)
- Space cooling
- An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems.** *Mai, T.*, +, [MPE Jul-Aug 2018 34-47](#)
- Heat Electrification: The Latest Research in Europe.** *Heinen, S.*, +, [MPE Jul-Aug 2018 69-78](#)
- Space heating
- An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems.** *Mai, T.*, +, [MPE Jul-Aug 2018 34-47](#)
- An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States.** *Frisch, C.*, +, [MPE Jul-Aug 2018 90-98](#)
- Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P.*, +, [MPE Jul-Aug 2018 24-33](#)
- Energy Storage in Microgrids: Compensating for Generation and Demand Fluctuations While Providing Ancillary Services. *Farrokhhabadi, M.*, +, [MPE Sep-Oct 2017 81-91](#)
- Flexibility From Energy Systems Integration: Supporting Synergies Among Sectors. *Orths, A.*, +, [MPE Nov-Dec 2019 67-78](#)
- Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role. *Kiviluoma, J.*, +, [MPE Jan-Feb 2017 25-33](#)
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- Speech recognition
- Artificial Intelligence for Load Forecasting: History, Illusions, and Opportunities. *Hong, T.*, +, [MPE May-Jun 2022 14-23](#)
- Machine Learning in Power Systems: Is It Time to Trust It?. *Chatzivasileiadis, S.*, +, [MPE May-Jun 2022 32-41](#)
- Stability analysis
- Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D.*, +, [MPE Nov-Dec 2024 18-27](#)
- Keeping It Together: Transient Stability in a World of Wind and Solar Generation. *Miller, N.*, [MPE Nov-Dec 2015 31-39](#)
- Synchrophasors Across Texas: The Deployment of Phasor Measurement Technology in the ERCOT Region. *Koellner, K.*, +, [MPE Sep-Oct 2015 36-40](#)
- Stability criteria
- Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J.*, +, [MPE May-Jun 2024 29-41](#)
- Stakeholders
- A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E.*, +, [MPE Sep-Oct 2022 39-45](#)
- Bottom-Up Flexibility in Multi-Energy Systems: Real-World Experiences From Europe. *Belhomme, R.*, +, [MPE Jul-Aug 2021 74-85](#)
- Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C.*, +, [MPE Sep-Oct 2024 31-37](#)
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T.*, +, [MPE Jan-Feb 2024 16-23](#)
- Electrification in the United Kingdom: A Case Study Based on Future Energy Scenarios.** *Fowler, R.*, +, [MPE Jul-Aug 2018 48-57](#)
- Electricity Market of the Future: Potential North American Designs Without Fuel Costs. *Ela, E.*, +, [MPE Jan-Feb 2021 41-52](#)
- Enabling the Integrated Grid: Leveraging Data to Integrate Distributed Resources and Customers. *McGranaghan, M.*, +, [MPE Jan-Feb 2016 83-93](#)
- Emissions Response: Efficient Decarbonization using Real-Time Data. *Tierney, M.W.*, +, [MPE Sep-Oct 2024 111-115](#)
- Evaluating Distribution System Operators: Automated Demand Response and Distributed Energy Resources in the Flexibility4Chile Project. *Guerrero, J.*, +, [MPE Sep-Oct 2020 64-75](#)
- Grid Architecture: A Core Discipline for Grid Modernization. *Taft, J.*, [MPE Sep-Oct 2019 18-28](#)
- Microgrid Control Strategy: Derived from Stakeholder Requirements Analysis. *Rojas, A.*, +, [MPE Jul-Aug 2017 72-79](#)
- New Tool Evaluates the Financial Viability of Pumped Storage Hydropower. *Balducci, P.*, +, [MPE Nov-Dec 2023 98-109](#)
- Open Data to Accelerate the Electric Mobility Revolution: Deploying Journey Electric Vehicle Chargers in Rural Scotland. *Hunter, L.*, +, [MPE Nov-Dec 2023 56-67](#)
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-

- Supported Voltage Control. *van der Veen, A., +, MPE Jan-Feb 2024 43-51*
- Social Challenges of Electricity Transmission: Grid Deployment in Germany, the United Kingdom, and Belgium. *Komendantova, N., +, MPE Jul-Aug 2016 79-87*
- Status of Microgrid Protection and Related Standards and Codes: Protection Supports Integration. *Bower, W., +, MPE May-Jun 2021 83-92*
- The Regulatory Debate About Energy Storage Systems: State of the Art and Open Issues. *Usera, I., +, MPE Sep-Oct 2017 42-50*
- The Sponsorship Model: Competitive Construction of Transmission Facilities in PJM Interconnection. *Herling, S., +, MPE Jul-Aug 2016 65-71*
- Wholesale Electricity Markets in the United States: Identifying Future Challenges Facing Commercial Energy. *Nicholson, E., +, MPE Jan-Feb 2019 67-72*
- Standardization**
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- Standards**
- Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B., +, MPE Nov-Dec 2024 118-133*
- Cybersecurity-Enabling Technologies: Digital Applications in the Energy Transition. *Dondossola, G., +, MPE May-Jun 2024 42-49*
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A., +, MPE Mar-Apr 2024 42-54*
- Long-Term Vision: Industrial Operating Systems for Power Distribution. *Nativel, G., +, MPE May-Jun 2024 59-66*
- Twilight of the Grids: The Impact of Distributed Solar on Germany's Energy Transition. *Stetz, T., +, MPE Mar-Apr 2015 50-61*
- Standards development**
- Synchrophasor Technology and the DOE: Exciting Opportunities Lie Ahead in Development and Deployment. *Overholt, P., +, MPE Sep-Oct 2015 14-17*
- State estimation**
- Gaining a Wider Perspective. *Thorp, J.S., +, PAE-M Sep-Oct 2008 43-51*
- Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M., +, MPE Sep-Oct 2012 50-57*
- The Utility Operational Response to the 14 August 2003 Blackout: Analysis and Case Studies. *Robertson, F.R., +, MPE May-Jun 2023 43-50*
- Static VAR compensators**
- Operating in the Fog: Security Management Under Uncertainty. *Panciatici, P., +, MPE Sep-Oct 2012 40-49*
- Statistical analysis**
- Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M., +, MPE Sep-Oct 2012 50-57*
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- Distributed Generation and Megacities: Are Renewables the Answer?. *Smil, V., MPE Mar-Apr 2019 37-41*
- Erratum. *MPE Jul-Aug 2022 104*
- Steam power stations**
- The Future of Coal: Confronting Environmental Challenges That Threaten Its Use. *Maxson, A., +, MPE May-Jun 2013 46-55*
- The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D., +, MPE May-Jun 2014 26-36*
- Steering systems**
- Power Steering. *Grenard, S., +, MPE Sep-Oct 2011 42-51*
- Stochastic processes**
- A Framework for Transmission Expansion Planning: A Complex Problem Clouded by Uncertainty. *Velasquez, C., +, MPE Jul-Aug 2016 20-29*
- Adaptive Transmission Planning: Implementing a New Paradigm for Managing Economic Risks in Grid Expansion. *Hobbs, B., +, MPE Jul-Aug 2016 30-40*
- Next-Generation Distribution Planning: How Do We Capture the Value of Distributed Energy Resources?. *Bystrom, O., MPE Mar-Apr 2022 32-38*
- Storms**
- A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E., +, MPE Sep-Oct 2022 39-45*
- From "Animal Crackers" to Winter Storm Uri: Reflecting on Blackouts in the United States. *Cohn, J.A., MPE May-Jun 2023 70-76*
- Islands in the Storm: Integrating Microgrids into the Larger Grid. *Montoya, M., +, MPE Jul-Aug 2013 33-39*
- Managing Wildfire Risks: Protection System Technical Developments Combined With Operational Advances to Improve Public Safety. *Udren, E.A., +, MPE Jan-Feb 2022 64-77*
- Powering Through the Storm: Microgrids Operation for More Efficient Disaster Recovery. *Abbey, C., +, MPE May-Jun 2014 67-76*
- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A., +, MPE Jul-Aug 2024 38-48*
- Stormy Weather: Assessing Climate Change Hazards to Electric Power Infrastructure: A Sandy Case Study. *Yates, D., +, MPE Sep-Oct 2014 66-75*
- Training Tornado: An Intensive, Cross-Curricular Ph.D. Program in Wind Engineering at the University of Strathclyde. *Gill, S., +, MPE Jan-Feb 2013 51-57*
- When the Bough Breaks: Managing Extreme Weather Events Affecting Electrical Power Grids. *Abi-Samra, N., +, MPE Sep-Oct 2014 61-65*
- Strategic planning**
- H future, visions. *Andrews, C.J., +, PAE-M Mar-Apr 2004 26-34*
- Lines of Communication. *Roy, S., +, MPE Sep-Oct 2011 64-73*
- organizing Africa's emerging economy. *Blyden, B.K., +, PAE-M Jul-Aug 2005 24-31*
- play to your strengths in difficult times, elec. utility strategy. *Franklin, H.A., PAE-M Jul-Aug 2003 22-28*
- Stress**
- Nipping Blackouts in the Bud: Introducing a Novel Cascading Failure Network. *Merrill, H., +, MPE Jul-Aug 2020 64-75*

Substation automation

agent-based substation automation. *Buse, D.P., + , PAE-M Mar-Apr 2003 50-55*

business case develop. for substation automation planning. *Haacke, S., + , PAE-M Mar-Apr 2003 32-41*

Centralized Protection and Control for Transmission System Operations: Practical Applications and Perspectives. *Guibout, C., + , MPE May-Jun 2024 67-78*

Delivering accurate and timely data to all. *Meliopoulos, A.P.S., + , PAE-M May-Jun 2007 74-86*

Engineering perspectives on IEC 61850. *Hossenlopp, L., PAE-M May-Jun 2007 45-50*

Get on the digital bus to substation automation. *Schumacher, M., + , PAE-M May-Jun 2007 51-56*

Omaha Public Power District Automation Plan, substation integrat. pilot project. *Nissen, T., + , PAE-M Mar-Apr 2003 42-49*

Realizing the Power of Data Marts. *McDonald, J.D., + , PAE-M May-Jun 2007 57-66*

The IDE4L Project: Defining, Designing, and Demonstrating the Ideal Grid for All. *Repo, S., + , MPE May-Jun 2017 41-51*

The true vision of automation. *Myrda, P., + , PAE-M May-Jun 2007 32-44*

Toward effective substation automation. *Ingram, M., + , PAE-M May-Jun 2007 67-73*

Substation protection

Get on the digital bus to substation automation. *Schumacher, M., + , PAE-M May-Jun 2007 51-56*

substation television system. *Yi Luo, + , PAE-M Jan-Feb 2005 59-66*

Toward effective substation automation. *Ingram, M., + , PAE-M May-Jun 2007 67-73*

Substations

A Digital Transformation at New York Power Authority: Using Innovative Technologies to Create a More Efficient Power System. *Fardanesh, B., + , MPE Mar-Apr 2020 22-30*

A Subtransmission Metropolitan Power Grid: Using High-Voltage dc for Enhancement and Modernization. *Pan, J., + , MPE May-Jun 2019 94-102*

A Success Story: The Value of the Massachusetts Technical Standards Review Group. *Enayati, B., MPE Mar-Apr 2017 57-60*

Actions Before... and After a Flood. *Abi-Samra, N., + , MPE Mar-Apr 2011 52-58*

Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System. *Lu, C., + , MPE Sep-Oct 2015 60-71*

Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G., + , MPE Nov-Dec 2024 112-117*

Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning. *Coddington, M., + , MPE Mar-Apr 2017 40-47*

Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B., + , MPE Nov-Dec 2024 118-133*

Control Center Designs: New Functions and Challenges for the Transmission System Operator. *Astic, J., + , MPE Mar-Apr 2018 57-66*

Digital Twins Serving Cybersecurity: More Than a Model: Cybersecurity as a Future Benefit of Digital Twins 2. *Srivastava, A., + , MPE Jan-Feb 2024 61-71*

Erratum. *MPE Jul-Aug 2022 104*

Hawaii's Grid Architecture for High Renewables: Developing the State's Modernization Strategy. *Asano, M., MPE Sep-Oct 2019 40-46*

Hierarchical Distribution Grid Intelligence: Using Edge Compute, Communications, and IoT Technologies. *Stoupis, J., + , MPE Sep-Oct 2023 38-47*

How Brazil Aims for Gold in Reliability: From Past Blackouts to Preparedness for the 2016 Summer Olympic and Paralympic Games. *Gomes, P., + , MPE Nov-Dec 2016 40-51*

Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A., + , MPE May-Jun 2024 79-89*

Italian power restoration plan, Restoration project. *Salvati, R., + , PAE-M Jan-Feb 2004 44-51*

It's All in the Plans: Maximizing the Benefits and Minimizing the Impacts of DERs in an Integrated Grid. *Smith, J., + , MPE Mar-Apr 2015 20-29*

Long-Term Vision: Industrial Operating Systems for Power Distribution. *Nativel, G., + , MPE May-Jun 2024 59-66*

Measures of Value: Data Analytics for Automated Fault Analysis. *Papovic, T., + , MPE Sep-Oct 2012 58-69*

Next-Generation Distribution Planning: How Do We Capture the Value of Distributed Energy Resources?. *Bystrom, O., MPE Mar-Apr 2022 32-38*

Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A., + , MPE Sep-Oct 2023 58-67*

No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M., + , MPE Nov-Dec 2024 78-88*

Offshore Substation Design: High-Level Overview of the Industry Best Practices. *Hamadi, V., + , MPE Jul-Aug 2019 67-74*

On the Road to Wind Power: China's Experience at Managing Disturbances with High Penetrations of Wind Generation. *Weisheng, W., + , MPE Nov-Dec 2016 24-34*

Precise Time, All the Time: A Resilient Architecture for the Electric Power Industry and Beyond. *Robertson, P., + , MPE Sep-Oct 2023 27-37*

Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B., + , MPE Mar-Apr 2016 72-79*

Smart and Green Substation: Shaping the Electric Power Grid of Korea. *Kim, H., + , MPE Jul-Aug 2019 24-34*

Stepping Up to the Future With Power Transformers: Power Transformer Asset Management Strategies: State of the Art and Recommendations for the Future. *Roychowdhury, R., + , MPE Mar-Apr 2023 40-50*

Strategies for Success with Synchrophasors: Poised to Shine in the Eastern Region of the United States. *Jones, K., + , MPE Sep-Oct 2015 29-35*

Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D., + , MPE Jul-Aug 2019 56-66*

Synchronous Condenser Applications: Under Significant Resource Portfolio Changes. *Zhou, G., + , MPE Jul-Aug 2019 35-46*

Tales of Power System Failures: A Look at the Unusual, Strange, and Downright Bizarre Causes. *Waldele, R., MPE Nov-Dec 2016 18-23*

The Substation of the Future: Moving Toward a Digital Solution. *Hunt, R., + , MPE Jul-Aug 2019 47-55*

The Transmission of the Future: The Impact of Distributed Energy Resources on the Network. *Perez-Arriaga, I., MPE Jul-Aug 2016 41-53*

- Twilight of the Grids: The Impact of Distributed Solar on Germany's Energy Transition. *Stetz, T.*, +, [MPE Mar-Apr 2015 50-61](#)
- Unlocking New Sources of Flexibility: CLASS: The World's Largest Voltage-Led Load-Management Project. *Ballanti, A.*, +, [MPE May-Jun 2017 52-63](#)
- Supercapacitors
Drive friendly. *Thounthong, P.*, +, [PAE-M Jan-Feb 2008 69-76](#)
- Superconducting transmission lines
Designing for High-Voltage dc Grid Protection: Fault Clearing Strategies and Protection Algorithms. *Leterme, W.*, +, [MPE May-Jun 2019 73-81](#)
- Supervised learning
From AlphaGo to Power System AI: What Engineers Can Learn from Solving the Most Complex Board Game. *Li, F.*, +, [MPE Mar-Apr 2018 76-84](#)
- Supply and demand
Big Data Analytics for Flexible Energy Sharing: Accelerating a Low-Carbon Future. *Li, F.*, +, [MPE May-Jun 2018 35-42](#)
- One Step Ahead: Short-Term Wind Power Forecasting and Intelligent Predictive Control Based on Data Analytics. *Venayagamoorthy, G.K.*, +, [MPE Sep-Oct 2012 70-78](#)
- Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R.*, +, [MPE Nov-Dec 2014 78-88](#)
- Retail Pricing: A Low-Cost Enabler of the Clean Energy Transition. *Sergici, S.*, +, [MPE Jul-Aug 2022 66-75](#)
- Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A.*, +, [MPE Jan-Feb 2024 43-51](#)
- Technological Developments in Batteries: A Survey of Principal Roles, Types, and Management Needs. *Hu, X.*, +, [MPE Sep-Oct 2017 20-31](#)
- The Expansion of Transmission: The Challenges Faced in South America. *de Sa Ferreira, R.*, +, [MPE Jul-Aug 2016 54-64](#)
- The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification. *Holtinen, H.*, +, [MPE Nov-Dec 2013 53-62](#)
- Supply chains
A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K.*, +, [MPE Nov-Dec 2023 28-37](#)
- Achieving Interoperability for Multiterminal Multivendor HVdc Systems: Exploring the Main Challenges. *Briff, P.*, +, [MPE Sep-Oct 2024 49-59](#)
- Renewable Energy Zones in Australia: Integrated System Planning. *Pack, E.*, +, [MPE Sep-Oct 2021 56-66](#)
- Surge protection
DC Circuit Breakers for High-Voltage dc Grids: Present and Future. *Davidson, C.*, +, [MPE Sep-Oct 2024 87-99](#)
- Surveys
Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B.*, +, [MPE Nov-Dec 2024 118-133](#)
- Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M.*, +, [MPE Nov-Dec 2023 18-27](#)
- Reducing Energy Burden in the Power Sector: Metrics for Assessing Energy Poverty. *Nock, D.*, +, [MPE Jul-Aug 2024 26-37](#)
- Sustainable development
A delicate balance in South America. *Rudnick, H.*, +, [PAE-M Jul-Aug 2008 22-35](#)
- A More Perfect Union: Energy Systems Integration Studies from Europe. *Holmes, J.*, +, [MPE Sep-Oct 2013 36-45](#)
- A Part of the Energy "In Crowd": Changing People's Energy Behavior via Group-Based Approaches. *Jans, L.*, +, [MPE Jan-Feb 2018 35-41](#)
- At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects. *Perlaviciute, G.*, +, [MPE Jan-Feb 2018 49-55](#)
- Decarbonized and Inclusive Energy: A Two-Fold Strategy for Renewable Energy Communities. *Mello, J.*, +, [MPE Jul-Aug 2024 49-63](#)
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y.*, +, [MPE Jan-Feb 2024 35-42](#)
- Energy Poor No More: Intelligent Approaches to Realizing Energy Well-Being. *Corbett, J.*, +, [MPE Jul-Aug 2024 94-102](#)
- Engineering the Future. *Reder, W.*, +, [PAE-M Jul-Aug 2010 27-35](#)
- Eternal Light: Ingredients for Sustainable Off-Grid Energy Development. *Louie, H.*, +, [MPE Jul-Aug 2014 70-78](#)
- It Takes a Village: Rural Electrification in East Africa. *Mohn, T.*, +, [MPE Jul-Aug 2013 46-51](#)
- Risky Business: Building a Resilient Power Sector. *Mendiluce, M.*, [MPE Sep-Oct 2014 34-41](#)
- Smart Grids to Revolutionize Chinese Cities: Challenges and Opportunities. *Lai, L.L.*, +, [MPE Sep-Oct 2022 26-38](#)
- Smart Village Voices in Africa, System-of-Systems Approach: Part 1: A System-of-Systems Approach for Zero Poverty. *Podmore, R.*, +, [MPE Sep-Oct 2022 54-60](#)
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, [MPE Sep-Oct 2024 100-110](#)
- The Green Effect. *Barroso, L.A.*, +, [PAE-M Sep-Oct 2010 22-35](#)
- The power of collaboration: Engaging all parties in renewable energy infrastructure development. *Schenk, T.*, +, [MPE May-Jun 2013 56-65](#)
- Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D.*, +, [MPE Nov-Dec 2024 54-65](#)
- Transportation 2.0. *Emadi, A.*, +, [MPE Jul-Aug 2011 18-29](#)
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)
- Untapped Markets: Access to Energy Lies in Business Innovation. *Wiemann, M.*, +, [MPE Jul-Aug 2014 42-49](#)
- What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition. *Steg, L.*, +, [MPE Jan-Feb 2018 20-28](#)
- Switches
Batteries Included. *Nourai, A.*, +, [PAE-M Mar-Apr 2010 49-54](#)
- Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G.*, +, [MPE Nov-Dec 2024 112-117](#)
- Dynamic Wide Area Situational Awareness: Propelling Future Decentralized, Decarbonized, Digitized, and Democratized Electricity Grids. *Kamwa, I.*, [MPE Jan-Feb 2023 44-58](#)
- Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B.*, +, [MPE Mar-Apr 2016 72-79](#)
- Synchro-Waveforms: A Window to the Future of Power Systems Data Analytics. *Mohsenian-Rad, H.*, +, [MPE Sep-Oct 2023 68-77](#)

When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System. *Litzenberger, W., +, MPE Mar-Apr 2016 32-41*

Switchgear

Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T., +, MPE Jan-Feb 2024 16-23*

Offshore Substation Design: High-Level Overview of the Industry Best Practices. *Hamadi, V., +, MPE Jul-Aug 2019 67-74*

Switching

engine generator sets protection, transfer switching/equipt. grounding coord. *Castenschiold, R., PAE-M May-Jun 2003 49-55*

Synchronization

Advancing China's Smart Grid: Phasor Measurement Units in a Wide-Area Management System. *Lu, C., +, MPE Sep-Oct 2015 60-71*

Challenging Changing Landscapes: Implementing Synchrophasor Technology in Grid Operations in the WECC Region. *Madani, V., +, MPE Sep-Oct 2015 18-28*

Dawn of the grid synchronization. *Novosel, D., +, PAE-M Jan-Feb 2008 49-60*

Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B., +, MPE Mar-Apr 2024 66-77*

Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A., +, MPE May-Jun 2024 79-89*

Measures of Value: Data Analytics for Automated Fault Analysis. *Popovic, T., +, MPE Sep-Oct 2012 58-69*

Metrics for Success: Performance Metrics for Power System State Estimators and Measurement Designs. *Gol, M., +, MPE Sep-Oct 2012 50-57*

The View from the Wide Side: Wide-Area Monitoring Systems in India. *Soonee, S., +, MPE Sep-Oct 2015 49-59*

Web-enabling appls. for outsourced computing. *Fangxing Li, +, PAE-M Jan-Feb 2003 53-57*

Synchronous generators

Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy. *Kroposki, B., +, MPE Mar-Apr 2017 61-73*

Grid-Forming Inverter-Based Resource Research Landscape: Understanding the Key Assets for Renewable-Rich Power Systems. *Bahrani, B., +, MPE Mar-Apr 2024 18-29*

Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B., +, MPE Mar-Apr 2024 66-77*

Influence of Inverter-Based Resources on Microgrid Protection: Part 1: Microgrids in Radial Distribution Systems. *Reno, M., +, MPE May-Jun 2021 36-46*

Practical Microgrid Protection Solutions: Promises and Challenges. *Manson, S., +, MPE May-Jun 2021 58-69*

STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T., +, MPE Mar-Apr 2023 30-39*

Synchronous machines

Grid-Forming Inverters: Are They the Key for High Renewable Penetration?. *Matevosyan, J., +, MPE Nov-Dec 2019 89-98*

Paving the Way: A Future Without Inertia Is Closer Than You Think. *Ackermann, T., +, MPE Nov-Dec 2017 61-69*

Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B., +, MPE Mar-Apr 2024 30-41*

System dynamics

Dynamic Wide Area Situational Awareness: Propelling Future Decentralized, Decarbonized, Digitized, and

Democratized Electricity Grids. *Kamwa, I., MPE Jan-Feb 2023 44-58*

Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H., +, MPE Sep-Oct 2024 60-72*

Synchro-Waveforms: A Window to the Future of Power Systems Data Analytics. *Mohsenian-Rad, H., +, MPE Sep-Oct 2023 68-77*

System integration

Cosimulating Integrated Energy Systems With Heterogeneous Digital Twins: Matching a Connected World. *Palensky, P., +, MPE Jan-Feb 2024 52-60*

Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns. *D'haeseleer, W., +, MPE Jan-Feb 2017 61-71*

Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role. *Kiviluoma, J., +, MPE Jan-Feb 2017 25-33*

Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J., +, MPE May-Jun 2024 29-41*

The Consumer's Role in Flexible Energy Systems: An Interdisciplinary Approach to Changing Consumers' Behavior. *Schuitema, G., +, MPE Jan-Feb 2017 53-60*

The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E., +, MPE Jan-Feb 2017 34-42*

Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements. *Heinen, S., +, MPE Jan-Feb 2017 16-24*

System performance

Blackouts, Restoration, and Islanding: A System Resilience Perspective. *Braun, M., +, MPE Jul-Aug 2020 54-63*

Systematics

Unwiring the Country: The United States' Alternatives Today. *Mahani, K., +, MPE Mar-Apr 2022 14-22*

Systems architecture

Grid Architecture: A Core Discipline for Grid Modernization. *Taft, J., MPE Sep-Oct 2019 18-28*

Systems engineering and theory

Electricity Market of the Future: Potential North American Designs Without Fuel Costs. *Ela, E., +, MPE Jan-Feb 2021 41-52*

Systems operation

A Tale of Two Visions: Designing a Decentralized Transactive Electric System. *Kristov, L., +, MPE May-Jun 2016 63-69*

Energy Storage Control Capability Expansion: Achieving Better Technoeconomic Benefits at Portland General Electric's Salem Smart Power Center. *Alam, J., +, MPE Mar-Apr 2020 69-80*

European Union Electricity Markets: Current Practice and Future View. *Gomez, T., +, MPE Jan-Feb 2019 20-31*

From the Humble Building to the Smart Sustainable Grid: Empowering Consumers, Nurturing Bottom-Up Electricity Markets, and Building Collaborative Power Systems. *Avramidis, I., +, MPE Jul-Aug 2023 53-63*

The Changing Electrical Landscape: End-to-End Power System Operation Under the Transactive Energy Paradigm. *Rahimi, F., +, MPE May-Jun 2016 52-62*

The Grid Under Extremes: Pandemic Impacts on California Electricity Consumption. *Bergman, D., +, MPE Nov-Dec 2022 38-46*

Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D., +, MPE Nov-Dec 2024 54-65*

Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. *Evans, M.*, +, *MPE Jul-Aug 2022 44-54*

T

Tariffs

A Good Fit: Japan's Solar Power Program and Prospects for the New Power System. *Ogimoto, K.*, +, *MPE Mar-Apr 2013 65-74*

A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K.*, +, *MPE Nov-Dec 2023 28-37*

The Tariffs of Tomorrow: Innovations in Rate Designs. *Faruqui, A.*, +, *MPE May-Jun 2020 18-25*

Task analysis

Power System Restoration: Meeting the Challenge to Resiliency from Distributed Generation. *Roggatz, C.*, +, *MPE Jul-Aug 2020 31-40*

Taxonomy

Energy Justice and Equity: Applying a Critical Perspective to the Electrical Power Grid for a More Just Transition in the United States. *Sovacool, B.K.*, +, *MPE Jul-Aug 2024 18-25*

TCPIP

Communication Solutions for the Last Mile of Smart Grid: Neighborhood Area Networks in Smart Grid Communications: Standards and Challenges. *Goswami, B.*, +, *MPE Nov-Dec 2024 118-133*

Teaching

power of undergraduate research. *O'Neill-Carrillo, E.*, +, *PAE-M Jul-Aug 2003 29-36*

The Importance of Modern Teaching Labs. *Wollenberg, B.*, +, *PAE-M Jul-Aug 2010 44-52*

Technical requirements

Microgrid Control Strategy: Derived from Stakeholder Requirements Analysis. *Rojas, A.*, +, *MPE Jul-Aug 2017 72-79*

Technological forecasting

generations, the nuclear family comes of age. *Disosway, J.*, *PAE-M Nov-Dec 2006 18-24*

Technological innovation

A Change Is Coming: How Regulation and Innovation Are Reshaping the European Union's Electricity Markets. *Fulli, G.*, +, *MPE Jan-Feb 2019 53-66*

An Era of Many Options: Future Energy Planning Must Take into Account Unprecedented Numbers of Options. *Johnson, R.*, *MPE Jul-Aug 2015 18-28*

Destination: Perfection. *Flueck, A.*, +, *PAE-M Nov-Dec 2008 36-47*

Electricity Market of the Future: Potential North American Designs Without Fuel Costs. *Ela, E.*, +, *MPE Jan-Feb 2021 41-52*

Embracing an Adaptable, Flexible Posture: Ensuring That Future European Distribution Networks Are Ready for More Active Roles. *Ochoa, L.*, +, *MPE Sep-Oct 2016 16-28*

Grid-Level Application of Electrical Energy Storage: Example Use Cases in the United States and China. *Zhang, Y.*, +, *MPE Sep-Oct 2017 51-58*

Hybrid Resources: Challenges, Implications, Opportunities, and Innovation. *Ahlstrom, M.*, +, *MPE Nov-Dec 2021 37-44*

I Charge, Therefore I Drive: Current State of Electric Vehicle Charging Systems. *Cirimele, V.*, +, *MPE Nov-Dec 2023 91-97*

Organic Growth: Toward a Holistic Approach to European Research and Innovation. *Vu Van, T.*, +, *MPE Jan-Feb 2015 30-37*

REVIing Up the Energy Vision in New York: Seizing the Opportunity to Create a Cleaner, More Resilient, and Affordable Energy System. *Zibelmen, A.*, *MPE May-Jun 2016 18-24*

Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J.*, +, *MPE May-Jun 2024 29-41*

Smart Integration. *Vojdani, A.*, +, *PAE-M Nov-Dec 2008 71-79*

Striving for Power Perfection. *Yeager, K.*, +, *PAE-M Nov-Dec 2008 28-35*

Technology forecasting

European Union Electricity Markets: Current Practice and Future View. *Gomez, T.*, +, *MPE Jan-Feb 2019 20-31*

Telecommunication congestion control

Network Congestion Management: Experiences From Bruny Island Using Residential Batteries. *Chapman, A.*, +, *MPE Jul-Aug 2021 41-51*

Telecommunication control

"Intelligent Design" Real-Time Simulation for Smart Grid Control and Communications Design. *Anderson, D.*, +, *MPE Jan-Feb 2012 49-57*

Telecommunication network topology

"Intelligent Design" Real-Time Simulation for Smart Grid Control and Communications Design. *Anderson, D.*, +, *MPE Jan-Feb 2012 49-57*

Telecommunication networks

Lines of Communication. *Roy, S.*, +, *MPE Sep-Oct 2011 64-73*

Telecommunication power supplies

Links to the Future: Communication Requirements and Challenges in the Smart Grid. *Bouhafs, F.*, +, *MPE Jan-Feb 2012 24-32*

Telecontrol

Five Heads Are Better Than One: An Interdisciplinary Graduate Course on Smart Grids: Lessons, Challenges, and Opportunities. *Namboodiri, V.*, +, *MPE Jan-Feb 2013 44-50*

Remote Control. *Thomas, M.S.*, +, *PAE-M Jul-Aug 2010 53-60*

substation television system. *Yi Luo,* +, *PAE-M Jan-Feb 2005 59-66*

Telemetry

Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A.*, +, *MPE Sep-Oct 2023 58-67*

Teleworking

Clustering Electricity Consumers: Challenges and Applications for Operating Smart Grids. *Alonso, A.M.*, +, *MPE May-Jun 2022 54-63*

Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S.*, +, *MPE Nov-Dec 2022 16-25*

Temperature measurement

Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H.*, +, *MPE Mar-Apr 2018 46-56*

Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland. *Sattinger, W.*, +, *MPE Sep-Oct 2015 41-48*

Power Transmission Technologies and Solutions: The Latest Advances at RTE, the French Transmission System Operator. *Meyer, B.*, +, *MPE Mar-Apr 2020 43-52*

- The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification. *Holttinen, H.*, +, [MPE Nov-Dec 2013 53-62](#)
- Temperature sensors
- Power Transmission Technologies and Solutions: The Latest Advances at RTE, the French Transmission System Operator. *Meyer, B.*, +, [MPE Mar-Apr 2020 43-52](#)
- The Spanish Experience: Squeezing Line Ampacities Through Dynamic Line Rating. *Rosendo-Macias, J.A.*, +, [MPE Jan-Feb 2023 73-82](#)
- Terrorism
- Smart Grid, Safe Grid. *Amin, S.M.*, +, [MPE Jan-Feb 2012 33-40](#)
- Testing
- Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. *Brundlinger, R.*, +, [MPE Mar-Apr 2015 30-42](#)
- Making microgrids work. *Kroposki, B.*, +, [PAE-M May-Jun 2008 40-53](#)
- Microgrid Controller Initiatives: An Overview of R&D by the U.S. Department of Energy. *Ton, D.*, +, [MPE Jul-Aug 2017 24-31](#)
- Microgrid Controllers: Expanding Their Role and Evaluating Their Performance. *Maitra, A.*, +, [MPE Jul-Aug 2017 41-49](#)
- Thermal loading
- Electrification and the Future of Electricity Markets:** Transitioning to a Low-Carbon Energy System. *Jones, R.*, +, [MPE Jul-Aug 2018 79-89](#)
- The Future of Power System Restoration: Using Distributed Energy Resources as a Force to Get Back Online. *Braun, M.*, +, [MPE Nov-Dec 2018 30-41](#)
- Thermal power generation
- governor model develop. *Pereira, L.*, [PAE-M May-Jun 2005 62-70](#)
- Thermal power stations
- Planting the seed. *Mehos, M.*, +, [PAE-M May-Jun 2009 55-62](#)
- Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M.*, +, [MPE Mar-Apr 2012 62-70](#)
- Thermal stability
- The Future of Power System Restoration: Using Distributed Energy Resources as a Force to Get Back Online. *Braun, M.*, +, [MPE Nov-Dec 2018 30-41](#)
- The View from the Wide Side: Wide-Area Monitoring Systems in India. *Soonee, S.*, +, [MPE Sep-Oct 2015 49-59](#)
- Thermostats
- Communication Is Key: How to Discuss Energy and Environmental Issues with Consumers. *Abrahamse, W.*, +, [MPE Jan-Feb 2018 29-34](#)
- Thyristor converters
- The Golden Spike: Advanced Power Electronics Enables Renewable Development Across NERC Regions. *Reynolds, M.*, +, [MPE Mar-Apr 2012 71-78](#)
- Thyristors
- Expanding Power Systems in the Republic of Korea: Feasibility Studies and Future Challenges. *Kim, S.*, +, [MPE May-Jun 2019 61-72](#)
- Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N.*, +, [MPE Mar-Apr 2016 57-65](#)
- Keeping the Power Flowing: A Commitment Throughout the HVdc and FACTS Life Cycles. *Bjorklund, H.*, +, [MPE Mar-Apr 2016 66-71](#)
- Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada. *Bilodeau, H.*, +, [MPE Mar-Apr 2016 42-56](#)
- Refurbish Rather Than Replace: Resuscitating Aging HVdc and FACTS Projects. *Johnson, R.*, +, [MPE Mar-Apr 2016 22-31](#)
- Refurbishments in Australasia: Upgrades of HVdc in New Zealand and FACTS in Australia. *Gemmell, B.*, +, [MPE Mar-Apr 2016 72-79](#)
- When It's Time to Upgrade: HVdc and FACTS Renovation in the Western Power System. *Litzenberger, W.*, +, [MPE Mar-Apr 2016 32-41](#)
- Tidal power stations
- The Green Effect. *Barroso, L.A.*, +, [PAE-M Sep-Oct 2010 22-35](#)
- Tides
- Rising temps, tides, and wildfires: Assessing the risk to California's energy infrastructure from projected climate change. *Sathaye, J.A.*, +, [MPE May-Jun 2013 32-45](#)
- Time factors
- Digital Twins in Power Systems: A Proposal for a Definition. *Wagner, T.*, +, [MPE Jan-Feb 2024 16-23](#)
- Dynamic Estimation-Based Protection and Hidden Failure Detection and Identification: Inverter-Dominated Power Systems. *Meliopoulos, S.*, +, [MPE Jan-Feb 2023 59-72](#)
- Time measurement
- Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. *Fan, L.*, +, [MPE May-Jun 2022 64-76](#)
- Introducing the Unified Grid Control Platform: A Holistic Road Map. *Udren, E.A.*, +, [MPE May-Jun 2024 79-89](#)
- Time series analysis
- Clustering Electricity Consumers: Challenges and Applications for Operating Smart Grids. *Alonso, A.M.*, +, [MPE May-Jun 2022 54-63](#)
- Time-domain analysis
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)
- Time-frequency analysis
- Ensuring System Reliability: Distributed Energy Resources and Bulk Power System Considerations. *Vartanian, C.*, +, [MPE Nov-Dec 2018 52-63](#)
- Frequency Disturbances During the Super Bowl: It's More Than Just What's on the Field. *Allen, E.*, +, [MPE Nov-Dec 2016 52-58](#)
- Grid-Forming Inverters: Project Demonstrations and Pilots. *Badrzadeh, B.*, +, [MPE Mar-Apr 2024 66-77](#)
- Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)
- Timing
- Quantifying Risk in an Uncertain Future: The Evolution of Resource Adequacy. *Stenclik, D.*, +, [MPE Nov-Dec 2021 29-36](#)
- Topology
- Adopting Circuit Breakers for High-Voltage dc Networks: Appropriating the Vast Advantages of dc Transmission Grids. *Jovcic, D.*, +, [MPE May-Jun 2019 82-93](#)
- Advances in Algorithms for Power System Static State Estimators: An Improved Solution for Bad Data Management and State Estimator Convergence. *Gou, B.*, +, [MPE Jan-Feb 2023 16-25](#)
- Designing for High-Voltage dc Grid Protection: Fault Clearing Strategies and Protection Algorithms. *Leterme, W.*, +, [MPE May-Jun 2019 73-81](#)

- Next-Generation Power Substation Communication Networks: IEC 61850 Meets Programmable Networks. *Gutierrez, S.A., +, MPE Sep-Oct 2023 58-67*
- Utility Planning for Distribution-Optimized Electric Vehicle Charging: A Case Study in the United States Pacific Northwest. *Mills, M., +, MPE Nov-Dec 2023 48-55*
- Town and country planning
renewable energy gets the "green" light in Chicago. *Martin, G., PAE-M Nov-Dec 2003 34-39*
- Training
Electric Power Engineering Education: Cultivating the Talent in the United Kingdom and Italy to Build the Low-Carbon Economy of the Future. *Chicco, G., +, MPE Sep-Oct 2018 53-63*
- future power engineers. *Joos, G., PAE-M Jan-Feb 2005 38-47*
- Investing for the Future: How Small Utilities are Finding Success With Advanced Distribution Management Systems. *Ngo, Y., +, MPE Jan-Feb 2020 34-42*
- No Silver Bullet: Artificial Intelligence Is Not a Panacea, but It Works for Fault Analysis and Outage Management. *Kezunovic, M., +, MPE Nov-Dec 2024 78-88*
- Training Energy Data Scientists: Universities and Industry Need to Work Together to Bridge the Talent Gap. *Hong, T., +, MPE May-Jun 2018 66-73*
- Trajectory
Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A., +, MPE Mar-Apr 2024 42-54*
- Transactive energy
A Society of Devices: Integrating Intelligent Distributed Resources with Transactive Energy. *Kok, K., +, MPE May-Jun 2016 34-45*
- A Tale of Two Visions: Designing a Decentralized Transactive Electric System. *Kristov, L., +, MPE May-Jun 2016 63-69*
- The Changing Electrical Landscape: End-to-End Power System Operation Under the Transactive Energy Paradigm. *Rahimi, F., +, MPE May-Jun 2016 52-62*
- The View from the Top of the Mountain: Building a Community of Practice with the GridWise Transactive Energy Framework. *Forfia, D., +, MPE May-Jun 2016 25-33*
- Transfer learning
Toward Artificial-Intelligence-Empowered Smarter Power Grid: Forecasting, Dispatch, and Control. *Shi, D., +, MPE Nov-Dec 2024 54-65*
- Transformer windings
heat, sturdy, sensitive. *Bourgault, A., PAE-M Sep-Oct 2005 42-47*
- Spotlight on transformer design. *Georgilakis, P.S., +, PAE-M Jan-Feb 2007 40-50*
- Transformers
class-current transformer (CT) classification. *Doig, P., +, PAE-M Nov-Dec 2006 56-60*
- Next-Generation Distribution Planning: How Do We Capture the Value of Distributed Energy Resources?. *Bystrom, O., MPE Mar-Apr 2022 32-38*
- Operating in the Fog: Security Management Under Uncertainty. *Panciatici, P., +, MPE Sep-Oct 2012 40-49*
- Transforms
Autonomous Energy Grids: Controlling the Future Grid With Large Amounts of Distributed Energy Resources. *Kroposki, B., +, MPE Nov-Dec 2020 37-46*
- Transient analysis
Keeping It Together: Transient Stability in a World of Wind and Solar Generation. *Miller, N., MPE Nov-Dec 2015 31-39*
- Transmission line measurements
The Optimization of Transmission Lines in Brazil: Proven Experience and Recent Developments in Research and Development. *Arruda, C., +, MPE Mar-Apr 2020 31-42*
- Transmission networks
Getting Smart. *Garrity, T.F., +, PAE-M Mar-Apr 2008 38-45*
- Study buddies: computer geeks and power freaks are learning smart systems together at Washington State. *Srivastava, A.K., +, MPE Jan-Feb 2013 39-43*
- Transmitters
I Charge, Therefore I Drive: Current State of Electric Vehicle Charging Systems. *Cirimele, V., +, MPE Nov-Dec 2023 91-97*
- Transport protocols
Intruders in the Grid. *Chen-Ching Liu, +, MPE Jan-Feb 2012 58-66*
- Transportation
A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E., +, MPE Sep-Oct 2022 39-45*
- An Electrified Nation: A Review of Study Scenarios and Future Analysis Needs for the United States.** *Frisch, C., +, MPE Jul-Aug 2018 90-98*
- Auctions for Nonwires Alternatives: Securing and Operating Dispatchable Distributed Energy Resources. *Golriz, A., +, MPE Mar-Apr 2022 47-56*
- Flexibility Challenges for Energy Markets: Fragmented Policies and Regulations Lead to Significant Concerns. *D'haeseleer, W., +, MPE Jan-Feb 2017 61-71*
- Grid Planning for Electrification Using Highly Granular Analytics: Insights Into the Transportation Distribution Infrastructure. *Currie, R.A.F., +, MPE Nov-Dec 2023 68-76*
- Integration of Small Modular Reactors Into Renewable Energy-Based Standalone Microgrids: An Energy Management Perspective. *Michaelson, D., +, MPE Mar-Apr 2022 57-63*
- Precise Time, All the Time: A Resilient Architecture for the Electric Power Industry and Beyond. *Robertson, P., +, MPE Sep-Oct 2023 27-37*
- Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F., +, MPE Nov-Dec 2012 70-79*
- Smart City Energy Technology in the Face of Emergency Situations: Electric Supply, Electric Transportation, and Communication. *Vittal, V., +, MPE Sep-Oct 2022 16-25*
- Smart Village Voices in Africa, Zambia: Part 4: Gemstones to Electric Infrastructure in Zambia. *Kachinga, K., +, MPE Sep-Oct 2022 75-79*
- The Spanish Experience: Squeezing Line Ampacities Through Dynamic Line Rating. *Rosendo-Macias, J.A., +, MPE Jan-Feb 2023 73-82*
- Transportation 2.0. *Emadi, A., +, MPE Jul-Aug 2011 18-29*
- Unwiring the Country: The United States' Alternatives Today. *Mahani, K., +, MPE Mar-Apr 2022 14-22*
- Tsunami
A Good Fit: Japan's Solar Power Program and Prospects for the New Power System. *Ogimoto, K., +, MPE Mar-Apr 2013 65-74*
- Digital Twins for Microgrids: Opening a New Dimension in the Power System. *Wu, Y., +, MPE Jan-Feb 2024 35-42*

Turbines

Correction. [MPE Nov-Dec 2017 108](#)

Unleashing the Flexibility of Gas: Innovating Gas Systems to Meet the Electricity System's Flexibility Requirements. *Heinen, S.*, +, [MPE Jan-Feb 2017 16-24](#)

Tutorials

New Tool Evaluates the Financial Viability of Pumped Storage Hydropower. *Balducci, P.*, +, [MPE Nov-Dec 2023 98-109](#)

TV

Frequency Disturbances During the Super Bowl: It's More Than Just What's on the Field. *Allen, E.*, +, [MPE Nov-Dec 2016 52-58](#)

U

Uncertain systems

The Spanish Experience: Squeezing Line Ampacities Through Dynamic Line Rating. *Rosendo-Macias, J.A.*, +, [MPE Jan-Feb 2023 73-82](#)

Uncertainty

A Fortunate Decision That You Can Trust: Digital Twins as Enablers for the Next Generation of Energy Management Systems and Sophisticated Operator Assistance Systems. *Brosinsky, C.*, +, [MPE Jan-Feb 2024 24-34](#)

Artificial Intelligence for Microgrid Resilience: A Data-Driven and Model-Free Approach. *Qiu, D.*, +, [MPE Nov-Dec 2024 18-27](#)

Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, +, [MPE Nov-Dec 2024 100-111](#)

Dynamic Wide Area Situational Awareness: Propelling Future Decentralized, Decarbonized, Digitized, and Democratized Electricity Grids. *Kamwa, I.*, [MPE Jan-Feb 2023 44-58](#)

Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q.*, +, [MPE Nov-Dec 2024 66-77](#)

From the Humble Building to the Smart Sustainable Grid: Empowering Consumers, Nurturing Bottom-Up Electricity Markets, and Building Collaborative Power Systems. *Avramidis, I.*, +, [MPE Jul-Aug 2023 53-63](#)

The Bigger Picture: Robust Decarbonization of the Transport Sector in Costa Rica. *Quiros-Tortos, J.*, +, [MPE Nov-Dec 2023 77-90](#)

Underground power cables

Notes from Underground. *Olearczyk, M.*, +, [PAE-M Nov-Dec 2010 75-84](#)

Underwater cables

Adopting Circuit Breakers for High-Voltage dc Networks: Appropriating the Vast Advantages of dc Transmission Grids. *Jovcic, D.*, +, [MPE May-Jun 2019 82-93](#)

Network Congestion Management: Experiences From Bruny Island Using Residential Batteries. *Chapman, A.*, +, [MPE Jul-Aug 2021 41-51](#)

Underwater communication

Network Congestion Management: Experiences From Bruny Island Using Residential Batteries. *Chapman, A.*, +, [MPE Jul-Aug 2021 41-51](#)

Unified modeling language

In the Face of Cybersecurity: How the Common Information Model Can Be Used. *Skare, P.*, +, [MPE Jan-Feb 2016 94-104](#)

Under the Hood: An Overview of the Common Information Model Data Exchanges. *Osterlund, L.*, +, [MPE Jan-Feb 2016 68-82](#)

Uninterruptible power systems

power storage, commercial successes. *Roberts, B.*, +, [PAE-M Mar-Apr 2005 24-30](#)

Urban areas

A Fine Day for an Eclipse: It's Never Too Early to Start Planning for One. *Loehr, G.*, [MPE Nov-Dec 2016 72-77](#)

A Tale of Smart Cities: How Collaboration Between Utilities and Communities Is Essential to Building Smart Cities. *Kean, E.*, +, [MPE Sep-Oct 2022 39-45](#)

Change in Brooklyn and Queens: How New York's Reforming the Energy Vision Program and Con Edison Are Reshaping Electric Distribution Planning. *Coddington, M.*, +, [MPE Mar-Apr 2017 40-47](#)

Distributed Generation and Megacities: Are Renewables the Answer?. *Smil, V.*, [MPE Mar-Apr 2019 37-41](#)

Distribution Network Rate Making in Latin America: An Evolving Landscape. *Moreno, R.*, +, [MPE May-Jun 2020 33-48](#)

Electricity and Livelihood in Remote India: Smart Villages Making an Impact. *Loomba, P.*, +, [MPE Sep-Oct 2022 46-53](#)

Erratum. [MPE Jul-Aug 2022 104](#)

Modernizing the Grid: Challenges and Opportunities for a Sustainable Future. *Aguero, J.*, +, [MPE May-Jun 2017 74-83](#)

North Bay Hydro Microgrid: Innovative Protection of a Complex System. *Higginson, M.*, +, [MPE May-Jun 2021 70-82](#)

Open Data to Accelerate the Electric Mobility Revolution: Deploying Journey Electric Vehicle Chargers in Rural Scotland. *Hunter, L.*, +, [MPE Nov-Dec 2023 56-67](#)

Technological Developments in Batteries: A Survey of Principal Roles, Types, and Management Needs. *Hu, X.*, +, [MPE Sep-Oct 2017 20-31](#)

Transmission Planning for 100% Clean Electricity: Enabling Clean, Affordable, and Reliable Electricity. *Lew, D.*, +, [MPE Nov-Dec 2021 56-66](#)

US Department of Energy

A More Resilient Grid: The U.S. Department of Energy Joins with Stakeholders in an R&D Plan. *Ton, D.*, +, [MPE May-Jun 2015 26-34](#)

Pipeline to Reliability: Unraveling Gas and Electric Interdependencies Across the Eastern Interconnection. *Levitan, R.*, +, [MPE Nov-Dec 2014 78-88](#)

PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H.*, +, [MPE Sep-Oct 2017 59-67](#)

Sensing the Future. *Phillips, A.*, +, [PAE-M Nov-Dec 2010 61-68](#)

Synchrophasor Technology and the DOE: Exciting Opportunities Lie Ahead in Development and Deployment. *Overholt, P.*, +, [MPE Sep-Oct 2015 14-17](#)

V

Value engineering

value-based system facility planning. *Chowdhury, A.A.*, +, [PAE-M Sep-Oct 2004 58-67](#)

Valves

Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z.*, +, [MPE Mar-Apr 2023 61-69](#)

Extending Their Lifetimes: Keeping HVdc and FACTS Installations in Service Longer. *Kirby, N.*, +, [MPE Mar-Apr 2016 57-65](#)

Vegetable oils

Alternative energy sources in the Amazon. *de Lima Montenegro Duarte, A.R.C.*, +, [PAE-M Jan-Feb 2007 51-57](#)

Vegetation

Islands in the Storm: Integrating Microgrids into the Larger Grid. *Montoya, M.*, +, [MPE Jul-Aug 2013 33-39](#)

Vehicle dynamics

Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, +, [MPE Nov-Dec 2024 100-111](#)

Unlocking Consumer DER Potential: Consumer-Centric Approaches for Grid Services. *De Martini, P.*, +, [MPE Jul-Aug 2022 76-84](#)

Vehicles

electric vehicles charge forward. *Chan, C.C.*, +, [PAE-M Nov-Dec 2004 24-33](#)

new hybrid electric vehicles. *Wehrey, M.C.*, [PAE-M Nov-Dec 2004 34-39](#)

Vehicle-to-grid

A Grid-Friendly Electric Vehicle Infrastructure: The Korean Approach. *Park, K.*, +, [MPE Nov-Dec 2023 28-37](#)

Cost-Effective Decarbonization in a Decentralized Market: The Benefits of Using Flexible Technologies and Resources. *Strbac, G.*, +, [MPE Mar-Apr 2019 25-36](#)

Ventilation

Demonstration of Intelligent HVAC Load Management With Deep Reinforcement Learning: Real-World Experience of Machine Learning in Demand Control. *Du, Y.*, +, [MPE May-Jun 2022 42-53](#)

Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S.*, +, [MPE Nov-Dec 2022 16-25](#)

Vibration measurement

Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)

Vibrations

Unleashing Artificial Intelligence: Monitoring and Diagnosing Large Hydrogenerators. *Bechara, H.*, +, [MPE Nov-Dec 2024 89-99](#)

Video conferencing

Ensuring Utility Workers' Health and Safety: Keeping the Lights On and Protecting the Workforce. *Kim, C.S.*, +, [MPE Nov-Dec 2022 16-25](#)

Virtual assistants

Machine Learning in Power Systems: Is It Time to Trust It?. *Chatzivasileiadis, S.*, +, [MPE May-Jun 2022 32-41](#)

Virtual instrumentation

virtual power quality troubleshooter prototype. *Chun Li,* +, [PAE-M May-Jun 2003 24-31](#)

Virtual power plants

Bridging Industry 4.0 and Power Systems: A Conceptual Framework. *Manassero, G.*, +, [MPE Nov-Dec 2024 112-117](#)

Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q.*, +, [MPE Nov-Dec 2024 66-77](#)

Virtual reality

power professionals, dist. learning. *Pahwa, A.*, +, [PAE-M Jan-Feb 2005 53-58](#)

Voltage control

A Subtransmission Metropolitan Power Grid: Using High-Voltage dc for Enhancement and Modernization. *Pan, J.*, +, [MPE May-Jun 2019 94-102](#)

A Success Story: The Value of the Massachusetts Technical Standards Review Group. *Enayati, B.*, [MPE Mar-Apr 2017 57-60](#)

Advances in HVdc Bushing Using Nonlinear Materials: Theory, Materials, Structure, and Realization. *Yuan, Z.*, +, [MPE Mar-Apr 2023 61-69](#)

Cloud-Based Digital Twin for Distribution Grids: What Is Already Available Today. *Kohler, C.*, +, [MPE Jan-Feb 2024 72-80](#)

Ensuring System Reliability: Distributed Energy Resources and Bulk Power System Considerations. *Vartanian, C.*, +, [MPE Nov-Dec 2018 52-63](#)

Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, +, [MPE Mar-Apr 2024 42-54](#)

Grid-Forming Inverters: Are They the Key for High Renewable Penetration?. *Matevosyan, J.*, +, [MPE Nov-Dec 2019 89-98](#)

It's All in the Plans: Maximizing the Benefits and Minimizing the Impacts of DERs in an Integrated Grid. *Smith, J.*, +, [MPE Mar-Apr 2015 20-29](#)

Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. *Brundlinger, R.*, +, [MPE Mar-Apr 2015 30-42](#)

Modernizing the California Grid: Preparing for a Future with High Penetrations of Distributed Energy Resources. *Sherick, R.*, +, [MPE Mar-Apr 2017 20-28](#)

No Inverter Left Behind: Protection, Controls, and Testing for High Penetrations of PV Inverters on Distribution Systems. *Katiraei, F.*, +, [MPE Mar-Apr 2015 43-49](#)

On Good Behavior: Inverter-Grid Protections for Integrating Distributed Photovoltaics. *Key, T.*, +, [MPE Nov-Dec 2020 75-85](#)

Opportunities for Embedded High-Voltage Direct Current: Evaluating the Benefits for the Legacy ac Grid. *Schonleber, K.*, +, [MPE Sep-Oct 2020 58-63](#)

Paving the Way: A Future Without Inertia Is Closer Than You Think. *Ackermann, T.*, +, [MPE Nov-Dec 2017 61-69](#)

Paving the Way for Advanced Distribution Management Systems Applications: Making the Most of Models and Data. *Dubey, A.*, +, [MPE Jan-Feb 2020 63-75](#)

Power System Restoration: Meeting the Challenge to Resiliency from Distributed Generation. *Roggatz, C.*, +, [MPE Jul-Aug 2020 31-40](#)

Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, [MPE Mar-Apr 2024 30-41](#)

Self-Organization in Cyberphysical Energy Systems: Seven Practical Steps to Agent-Based and Digital Twin-Supported Voltage Control. *van der Veen, A.*, +, [MPE Jan-Feb 2024 43-51](#)

Setting the Smart Solar Standard: Collaborations Between Hawaiian Electric and the National Renewable Energy Laboratory. *Hoke, A.*, +, [MPE Nov-Dec 2018 18-29](#)

Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J.*, +, [MPE Jan-Feb 2015 84-91](#)

Substations for Future HVdc Grids: Equipment and Configurations for Connection of HVdc Network Elements. *Van Hertem, D.*, +, [MPE Jul-Aug 2019 56-66](#)

Synchro-Waveforms: A Window to the Future of Power Systems Data Analytics. *Mohsenian-Rad, H.*, +, [MPE Sep-Oct 2023 68-77](#)

Techniques and Methods for Validation of Inverter-Based Resource Unit and Plant Simulation Models Across Multiple Simulation Domains: An Engineering Judgment-Based Approach. *Ramasubramanian, D.*, +, [MPE Mar-Apr 2024 55-65](#)

- the answer is blowing in the wind. *Slootweg, J.G., + , PAE-M Nov-Dec 2003 26-33*
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M., + , MPE Jan-Feb 2015 75-83*
- The Situation Room: Control Center Analytics for Enhanced Situational Awareness. *Giri, J., + , MPE Sep-Oct 2012 24-39*
- The Spanish Experience: Squeezing Line Ampacities Through Dynamic Line Rating. *Rosendo-Macias, J.A., + , MPE Jan-Feb 2023 73-82*
- Transmission and Distribution Equipment: Providing Intelligent Maintenance. *Franck, C.M., + , MPE Mar-Apr 2023 18-29*
- Unlocking New Sources of Flexibility: CLASS: The World's Largest Voltage-Led Load-Management Project. *Ballanti, A., + , MPE May-Jun 2017 52-63*
- Voltage measurement**
- Challenging Changing Landscapes: Implementing Synchrophasor Technology in Grid Operations in the WECC Region. *Madani, V., + , MPE Sep-Oct 2015 18-28*
- Distribution Synchrophasors: Pairing Big Data with Analytics to Create Actionable Information. *Mohsenian-Rad, H., + , MPE May-Jun 2018 26-34*
- Gaining a Wider Perspective. *Thorp, J.S., + , PAE-M Sep-Oct 2008 43-51*
- It's All in the Plans: Maximizing the Benefits and Minimizing the Impacts of DERs in an Integrated Grid. *Smith, J., + , MPE Mar-Apr 2015 20-29*
- Magic Bus: High-Voltage DC on the New Power Transmission Highway. *Majumder, R., + , MPE Nov-Dec 2012 39-49*
- Measurements get together. *Chakrabarti, S., + , PAE-M Jan-Feb 2009 41-49*
- Monitoring Continental Europe: An Overview of WAM Systems Used in Italy and Switzerland. *Sattinger, W., + , MPE Sep-Oct 2015 41-48*
- Ship to Grid: Medium-Voltage DC Concepts in Theory and Practice. *Reed, G.F., + , MPE Nov-Dec 2012 70-79*
- Show Me!: Large-Scale Smart Grid Demonstrations for European Distribution Networks. *Varela, J., + , MPE Jan-Feb 2015 84-91*
- The IGREENGrid Project: Increasing Hosting Capacity in Distribution Grids. *Varela, J., + , MPE May-Jun 2017 30-40*
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M., + , MPE Jan-Feb 2015 75-83*
- Unlocking New Sources of Flexibility: CLASS: The World's Largest Voltage-Led Load-Management Project. *Ballanti, A., + , MPE May-Jun 2017 52-63*
- Voltage transformers**
- Making Old New Again: HVdc and FACTS in the Northeastern United States and Canada. *Bilodeau, H., + , MPE Mar-Apr 2016 42-56*
- Voltage-source converters**
- Current Trends in dc: Voltage-Source Converters. *Kirby, N., MPE May-Jun 2019 32-37*
- W
- Waste management**
- The Race to Realize Small Modular Reactors: Rapid Deployment of Clean Dispatchable Energy Sources. *Noland, J.K., + , MPE May-Jun 2024 90-103*
- Wastewater**
- The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E., + , MPE Jan-Feb 2017 34-42*
- Water conservation**
- The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E., + , MPE Jan-Feb 2017 34-42*
- Water heating**
- An Electrified Future: Initial Scenarios and Future Research for U.S. Energy and Electricity Systems.** *Mai, T., + , MPE Jul-Aug 2018 34-47*
- Are We Prepared Against Blackouts During the Energy Transition?: Probabilistic Risk-Based Decision Making Encompassing Jointly Security and Resilience. *Capitanescu, F., MPE May-Jun 2023 77-86*
- Electrification and the Future of Electricity Markets:** Transitioning to a Low-Carbon Energy System. *Jones, R., + , MPE Jul-Aug 2018 79-89*
- Electrify Everything?: Exploring the Role of the Electric Sector in a Nearly CO₂-Neutral National Energy System. *Sterchele, P., + , MPE Jul-Aug 2018 24-33*
- Harnessing Flexibility from Hot and Cold: Heat Storage and Hybrid Systems Can Play a Major Role. *Kiviluoma, J., + , MPE Jan-Feb 2017 25-33*
- Heat Electrification: The Latest Research in Europe.** *Heinen, S., + , MPE Jul-Aug 2018 69-78*
- PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H., + , MPE Sep-Oct 2017 59-67*
- The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E., + , MPE Jan-Feb 2017 34-42*
- Unlocking Flexibility: Integrated Optimization and Control of Multienergy Systems. *Dall'Anese, E., + , MPE Jan-Feb 2017 43-52*
- What Drives Energy Consumers?: Engaging People in a Sustainable Energy Transition. *Steg, L., + , MPE Jan-Feb 2018 20-28*
- Water resources**
- Hydropower in China. *Fu, S., + , PAE-M Jul-Aug 2008 47-51*
- PJM Integrates Energy Storage: Their Technologies and Wholesale Products. *Chen, H., + , MPE Sep-Oct 2017 59-67*
- The Triple Bottom Line for Efficiency: Integrating Systems Within Water and Energy Networks. *Casey, E., + , MPE Jan-Feb 2017 34-42*
- Unrealized potential in Africa. *Blyden, B.K., + , PAE-M Jul-Aug 2008 52-58*
- Wave power generation**
- Catch the wave to electricity. *Leijon, M., + , PAE-M Jan-Feb 2009 50-54*
- Waveform analysis**
- nonintrusive load monitoring in distrib. network, power signature anal. *Laughman, C., + , PAE-M Mar-Apr 2003 56-63*
- Weather forecasting**
- Electricity System Reform Requirements: A Novel Implementation to Grid Management and Control. *Ito, H., + , MPE Mar-Apr 2018 46-56*
- Making Renewables Work: Operational Practices and Future Challenges for Renewable Energy as a Major Power Source in Japan. *Ogimoto, K., + , MPE Nov-Dec 2020 47-63*

- Resilience Hubs: Bolstering the Grid and Empowering Communities. *Farley, A.*, +, [MPE Jul-Aug 2024 38-48](#)
- The Spanish Experience: Squeezing Line Ampacities Through Dynamic Line Rating. *Rosendo-Macias, J.A.*, +, [MPE Jan-Feb 2023 73-82](#)
- Web conferencing
- New Tool Evaluates the Financial Viability of Pumped Storage Hydropower. *Balducci, P.*, +, [MPE Nov-Dec 2023 98-109](#)
- Web design
- web services provide the power to integrate. *Jun Zhu*, [PAE-M Nov-Dec 2003 40-49](#)
- Web servers
- web services provide the power to integrate. *Jun Zhu*, [PAE-M Nov-Dec 2003 40-49](#)
- Weibull distributions
- power syst. equipt. aging. *Wenyuan Li*, +, [PAE-M May-Jun 2006 52-58](#)
- Wide area measurements
- Gaining a Wider Perspective. *Thorp, J.S.*, +, [PAE-M Sep-Oct 2008 43-51](#)
- System-wide Protection. *Horowitz, S.H.*, +, [PAE-M Sep-Oct 2008 34-42](#)
- The Wide World of Wide-area Measurement. *Phadke, A.G.*, +, [PAE-M Sep-Oct 2008 52-65](#)
- Wide area networks
- Remote Control. *Thomas, M.S.*, +, [PAE-M Jul-Aug 2010 53-60](#)
- wide area system monitoring and control. *Karlsson, D.*, +, [PAE-M Sep-Oct 2004 68-76](#)
- Wildfires
- Rising temps, tides, and wildfires: Assessing the risk to California's energy infrastructure from projected climate change. *Sathaye, J.A.*, +, [MPE May-Jun 2013 32-45](#)
- Wind
- A Powerful Tool for Power System Monitoring: Distributed Dynamic State Estimation Based on a Full-View Synchronized Measurement System. *Bi, T.*, +, [MPE Jan-Feb 2023 26-35](#)
- Foundations for the Future Power System: Inverter-Based Resource Interconnection Standards. *Hoke, A.*, +, [MPE Mar-Apr 2024 42-54](#)
- Rebalancing Needs and Services for Future Grids: System Needs and Service Provisions With Increasing Shares of Inverter-Based Resources. *Chaudhuri, B.*, +, [MPE Mar-Apr 2024 30-41](#)
- the answer is blowing in the wind. *Slootweg, J.G.*, +, [PAE-M Nov-Dec 2003 26-33](#)
- Wind energy
- A Future With Inverter-Based Resources: Finding Strength From Traditional Weakness. *Matevosyan, J.*, +, [MPE Nov-Dec 2021 18-28](#)
- A Powerful Tool for Power System Monitoring: Distributed Dynamic State Estimation Based on a Full-View Synchronized Measurement System. *Bi, T.*, +, [MPE Jan-Feb 2023 26-35](#)
- Back in the Race: Achieving 100% Renewable Energy in the Canary Islands. *Lemus, R.*, [MPE Nov-Dec 2020 64-74](#)
- Balancing Act. *Lauby, M.G.*, +, [MPE Nov-Dec 2011 75-85](#)
- Carbon-Free Energy: How Much, How Soon?. *O'Connell, R.*, +, [MPE Nov-Dec 2021 67-76](#)
- Catching Some Rays: Variable Generation Integration on the Island of Oahu. *Schuerger, M.*, +, [MPE Nov-Dec 2013 33-44](#)
- Decarbonization of Electricity Systems in Europe: Market Design Challenges. *Strbac, G.*, +, [MPE Jan-Feb 2021 53-63](#)
- Driving Forces Behind Wind. *Osborn, D.*, +, [MPE Nov-Dec 2011 60-74](#)
- Electrical Expansion in South America: Centralized or Distributed Generation for Brazil and Colombia. *Ferreira, R.*, +, [MPE Mar-Apr 2019 50-60](#)
- Finding Flexibility: Cycling the Conventional Fleet. *Lew, D.*, +, [MPE Nov-Dec 2013 20-32](#)
- Future Electricity Markets: Designing for Massive Amounts of Zero-Variable-Cost Renewable Resources. *Ela, E.*, +, [MPE Nov-Dec 2019 58-66](#)
- High-Voltage dc Conversion: Boosting Transmission Capacity in the Grid. *Meridji, T.*, +, [MPE May-Jun 2019 22-31](#)
- Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events. *Ackermann, T.*, +, [MPE Nov-Dec 2015 67-77](#)
- Islands in the Storm: Integrating Microgrids into the Larger Grid. *Montoya, M.*, +, [MPE Jul-Aug 2013 33-39](#)
- Keeping It Together: Transient Stability in a World of Wind and Solar Generation. *Miller, N.*, [MPE Nov-Dec 2015 31-39](#)
- Market Design in an Intermittent Renewable Future: Cost Recovery With Zero-Marginal-Cost Resources. *Wolak, F.*, [MPE Jan-Feb 2021 29-40](#)
- Quantifying Risk in an Uncertain Future: The Evolution of Resource Adequacy. *Stenlik, D.*, +, [MPE Nov-Dec 2021 29-36](#)
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, +, [MPE Nov-Dec 2015 22-30](#)
- the answer is blowing in the wind. *Slootweg, J.G.*, +, [PAE-M Nov-Dec 2003 26-33](#)
- Wind Energy in China. *Jiang, L.*, +, [MPE Nov-Dec 2011 36-46](#)
- Wind energy generation
- A Powerful Tool for Power System Monitoring: Distributed Dynamic State Estimation Based on a Full-View Synchronized Measurement System. *Bi, T.*, +, [MPE Jan-Feb 2023 26-35](#)
- Bottom-Up Flexibility in Multi-Energy Systems: Real-World Experiences From Europe. *Belhomme, R.*, +, [MPE Jul-Aug 2021 74-85](#)
- Catching Some Rays: Variable Generation Integration on the Island of Oahu. *Schuerger, M.*, +, [MPE Nov-Dec 2013 33-44](#)
- Currents of Change. *Holtinen, H.*, +, [MPE Nov-Dec 2011 47-59](#)
- Decarbonization of Electricity Systems in Europe: Market Design Challenges. *Strbac, G.*, +, [MPE Jan-Feb 2021 53-63](#)
- Finding Flexibility: Cycling the Conventional Fleet. *Lew, D.*, +, [MPE Nov-Dec 2013 20-32](#)
- Halfway There: Can California Achieve a 50% Renewable Grid?. *Olson, A.*, +, [MPE Jul-Aug 2015 41-52](#)
- Integrated Wind, Solar, and Energy Storage: Designing Plants with a Better Generation Profile and Lower Overall Cost. *Venkataraman, S.*, +, [MPE May-Jun 2018 74-83](#)
- Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events. *Ackermann, T.*, +, [MPE Nov-Dec 2015 67-77](#)
- Keeping It Together: Transient Stability in a World of Wind and Solar Generation. *Miller, N.*, [MPE Nov-Dec 2015 31-39](#)
- Latin American Energy Markets: Investment Opportunities in Nonconventional Renewables. *Vargas, A.*, +, [MPE Sep-Oct 2016 38-47](#)
- Making Renewables Work: Operational Practices and Future Challenges for Renewable Energy as a Major

- Power Source in Japan. *Ogimoto, K.*, +, [MPE Nov-Dec 2020 47-63](#)
- Paving the Way: A Future Without Inertia Is Closer Than You Think. *Ackermann, T.*, +, [MPE Nov-Dec 2017 61-69](#)
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, +, [MPE Nov-Dec 2015 22-30](#)
- The Evolution of the Market: Designing a Market for High Levels of Variable Generation. *Ahlstrom, M.*, +, [MPE Nov-Dec 2015 60-66](#)
- Zero-Marginal-Cost Electricity Market Designs: Lessons Learned From Hydro Systems in Latin America Might Be Applicable for Decarbonization. *Barroso, L.*, +, [MPE Jan-Feb 2021 64-73](#)
- Wind farms
- Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C.*, +, [MPE Sep-Oct 2024 31-37](#)
- Empowering the Grid Edge to Think: Applications of Artificial Intelligence for Virtual Power Plants in China. *Chen, Q.*, +, [MPE Nov-Dec 2024 66-77](#)
- Growth in Wind and Sun: Integrating Variable Generation in China. *Jiang, L.*, +, [MPE Nov-Dec 2015 40-49](#)
- It's All About Grids: The Importance of Transmission Pricing and Investment Coordination in Integrating Renewables. *Strbac, G.*, +, [MPE Jul-Aug 2015 61-75](#)
- Offshore Substation Design: High-Level Overview of the Industry Best Practices. *Hamadi, V.*, +, [MPE Jul-Aug 2019 67-74](#)
- On the Road to Wind Power: China's Experience at Managing Disturbances with High Penetrations of Wind Generation. *Weisheng, W.*, +, [MPE Nov-Dec 2016 24-34](#)
- Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H.*, +, [MPE Sep-Oct 2024 60-72](#)
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P.*, +, [MPE Sep-Oct 2024 20-30](#)
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, [MPE Sep-Oct 2024 100-110](#)
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M.*, +, [MPE Jan-Feb 2015 75-83](#)
- Wind forecasting
- Atmospheric Pressure. *Ahlstrom, M.*, +, [MPE Nov-Dec 2011 97-107](#)
- Currents of Change. *Holttinen, H.*, +, [MPE Nov-Dec 2011 47-59](#)
- Finding Flexibility: Cycling the Conventional Fleet. *Lew, D.*, +, [MPE Nov-Dec 2013 20-32](#)
- Integrated Wind, Solar, and Energy Storage: Designing **Plants with a Better Generation Profile and Lower Overall Cost**. *Venkataraman, S.*, +, [MPE May-Jun 2018 74-83](#)
- Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events. *Ackermann, T.*, +, [MPE Nov-Dec 2015 67-77](#)
- Secrets of Successful Integration: Operating Experience With High Levels of Variable, Inverter-Based Generation. *Lew, D.*, +, [MPE Nov-Dec 2019 24-34](#)
- Solar Forecasting: Methods, Challenges, and Performance. *Tuohy, A.*, +, [MPE Nov-Dec 2015 50-59](#)
- The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification. *Holttinen, H.*, +, [MPE Nov-Dec 2013 53-62](#)
- The Use of Probabilistic Forecasts: Applying Them in Theory and Practice. *Haupt, S.*, +, [MPE Nov-Dec 2019 46-57](#)
- Uncertainty Forecasting in a Nutshell: Prediction Models Designed to Prevent Significant Errors. *Dobschinski, J.*, +, [MPE Nov-Dec 2017 40-49](#)
- Wind power
- Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System. *Meibom, P.*, +, [MPE Sep-Oct 2013 46-55](#)
- future of wind forecasting and utility operations. *Ahlstrom, M.*, +, [PAE-M Nov-Dec 2005 57-64](#)
- green power, defn., renewable resources. *Rahman, S.*, [PAE-M Jan-Feb 2003 30-37](#)
- Growing Pains: Meeting India's Energy Needs in the Face of Limited Fossil Fuels. *Parikh, J.*, +, [MPE May-Jun 2012 59-66](#)
- Northern Lights: Access to Electricity in Canada's Northern and Remote Communities. *Arriaga, M.*, +, [MPE Jul-Aug 2014 50-59](#)
- system operation with high wind penetration, transmission challenges of Denmark, Germany, Spain, and Ireland. *Eriksen, P.B.*, +, [PAE-M Nov-Dec 2005 65-74](#)
- the answer is blowing in the wind. *Slootweg, J.G.*, +, [PAE-M Nov-Dec 2003 26-33](#)
- The Grid of the Future: Ten Trends That Will Shape the Grid Over the Next Decade. *Manz, D.*, +, [MPE May-Jun 2014 26-36](#)
- To Capture the Wind. *Thresher, R.*, +, [PAE-M Nov-Dec 2007 34-46](#)
- Training Tornado: An Intensive, Cross-Curricular Ph.D. Program in Wind Engineering at the University of Strathclyde. *Gill, S.*, +, [MPE Jan-Feb 2013 51-57](#)
- wind energy delivery issues, trans. planning and competitive electricity market operation. *Piwko, R.*, +, [PAE-M Nov-Dec 2005 47-56](#)
- wind generation challenges and progress. *Zavadil, R.*, +, [PAE-M Nov-Dec 2005 26-37](#)
- wind plant integration, costs, status, and issues. *DeMeo, E.A.*, +, [PAE-M Nov-Dec 2005 38-46](#)
- Wind power generation
- A mighty wind. *Smith, J.*, +, [PAE-M Mar-Apr 2009 41-51](#)
- A Powerful Tool for Power System Monitoring: Distributed Dynamic State Estimation Based on a Full-View Synchronized Measurement System. *Bi, T.*, +, [MPE Jan-Feb 2023 26-35](#)
- A whirl of activity. *Piwko, R.*, +, [PAE-M Nov-Dec 2009 26-35](#)
- Achieving a 100% Renewable Grid: Operating Electric Power Systems with Extremely High Levels of Variable Renewable Energy. *Kroposki, B.*, +, [MPE Mar-Apr 2017 61-73](#)
- Achieving World-Leading Penetration of Renewables: The Australian National Electricity Market. *O'Connell, B.*, +, [MPE Sep-Oct 2021 18-28](#)
- Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid. *Milligan, M.*, +, [MPE Nov-Dec 2015 78-87](#)
- Atmospheric Pressure. *Ahlstrom, M.*, +, [MPE Nov-Dec 2011 97-107](#)
- Big Data Analytics in China's Electric Power Industry: Modern Information, Communication Technologies, and Millions of Smart Meters. *Kang, C.*, +, [MPE May-Jun 2018 54-65](#)
- Carbon-Free Energy: How Much, How Soon?. *O'Connell, R.*, +, [MPE Nov-Dec 2021 67-76](#)

- Catching Some Rays: Variable Generation Integration on the Island of Oahu. *Schuerger, M.*, +, *MPE Nov-Dec 2013 33-44*
- Change in the air. *Grant, W.*, +, *PAE-M Nov-Dec 2009 47-58*
- Code Shift: Grid Specifications and Dynamic Wind Turbine Models. *Ackermann, T.*, +, *MPE Nov-Dec 2013 72-82*
- Completing the Circuit: Integration of Offshore Wind Farms into the Grid using High Voltage dc Technology. *Barker, C.*, +, *MPE Sep-Oct 2024 31-37*
- Currents of Change. *Holttinen, H.*, +, *MPE Nov-Dec 2011 47-59*
- Electrification and the Future of Electricity Markets: Transitioning to a Low-Carbon Energy System.** *Jones, R.*, +, *MPE Jul-Aug 2018 79-89*
- Electrification in the United Kingdom: A Case Study Based on Future Energy Scenarios.** *Fowler, R.*, +, *MPE Jul-Aug 2018 48-57*
- Facilitating the Integration of Renewables in Latin America: The Role of Hydropower Generation and Other Energy Storage Technologies. *Moreno, R.*, +, *MPE Sep-Oct 2017 68-80*
- Finding Flexibility: Cycling the Conventional Fleet. *Lew, D.*, +, *MPE Nov-Dec 2013 20-32*
- Future Electricity Markets: Designing for Massive Amounts of Zero-Variable-Cost Renewable Resources. *Ela, E.*, +, *MPE Nov-Dec 2019 58-66*
- Grid of the future. *Ipakchi, A.*, +, *PAE-M Mar-Apr 2009 52-62*
- Grid-Level Application of Electrical Energy Storage: Example Use Cases in the United States and China. *Zhang, Y.*, +, *MPE Sep-Oct 2017 51-58*
- Growth in Wind and Sun: Integrating Variable Generation in China. *Jiang, L.*, +, *MPE Nov-Dec 2015 40-49*
- Halfway There: Can California Achieve a 50% Renewable Grid?. *Olson, A.*, +, *MPE Jul-Aug 2015 41-52*
- HVdc Grids for Large-Scale Offshore Wind Integration: Coordinating Offshore HVdc Grid Design with Onshore ac Grid Operation. *Plet, C.A.*, *MPE Sep-Oct 2024 38-48*
- Integrated Wind, Solar, and Energy Storage: Designing **Plants with a Better Generation Profile and Lower Overall Cost.** *Venkataraman, S.*, +, *MPE May-Jun 2018 74-83*
- Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events. *Ackermann, T.*, +, *MPE Nov-Dec 2015 67-77*
- Island breezes. *Matsuura, M.*, +, *PAE-M Nov-Dec 2009 59-64*
- It's Indisputable: Five Facts About Planning and Operating Modern Power Systems. *Bloom, A.*, +, *MPE Nov-Dec 2017 22-30*
- Keeping It Together: Transient Stability in a World of Wind and Solar Generation. *Miller, N.*, *MPE Nov-Dec 2015 31-39*
- Learning From the Norwegian Electric Vehicle Success: An Overview. *Korpas, M.*, +, *MPE Nov-Dec 2023 18-27*
- Lighting a Reliable Path to 100% Clean Electricity: Evolving Resource Adequacy Practices for a Decarbonizing Grid. *Burdick, A.*, +, *MPE Jul-Aug 2022 30-43*
- Making Renewables Work: Operational Practices and Future Challenges for Renewable Energy as a Major Power Source in Japan. *Ogimoto, K.*, +, *MPE Nov-Dec 2020 47-63*
- Market Design in an Intermittent Renewable Future: Cost Recovery With Zero-Marginal-Cost Resources. *Wolak, F.*, *MPE Jan-Feb 2021 29-40*
- Models for Change. *Zavadil, R.*, +, *MPE Nov-Dec 2011 86-96*
- Norwegian Hydropower: Connecting to Continental Europe. *Tellefsen, T.*, +, *MPE Sep-Oct 2020 27-35*
- On the Road to Wind Power: China's Experience at Managing Disturbances with High Penetrations of Wind Generation. *Weisheng, W.*, +, *MPE Nov-Dec 2016 24-34*
- One Step Ahead: Short-Term Wind Power Forecasting and Intelligent Predictive Control Based on Data Analytics. *Venayagamoorthy, G.K.*, +, *MPE Sep-Oct 2012 70-78*
- Overview on Dynamic Studies, Tools, and Models for High-Voltage dc-Offshore Wind Farm Systems: Dynamic Studies Guidelines for Offshore High-Voltage dc Systems. *Saad, H.*, +, *MPE Sep-Oct 2024 60-72*
- Paving the Way: A Future Without Inertia Is Closer Than You Think. *Ackermann, T.*, +, *MPE Nov-Dec 2017 61-69*
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P.*, +, *MPE Sep-Oct 2024 20-30*
- power storage, commercial successes. *Roberts, B.*, +, *PAE-M Mar-Apr 2005 24-30*
- Power System Operation With a High Share of Inverter-Based Resources: The Australian Experience. *Badrzadeh, B.*, +, *MPE Sep-Oct 2021 46-55*
- Powerlines and Wildfires: Overview, Perspectives, and Climate Change: Could There Be More Electricity Blackouts in the Future?. *Jahn, W.*, +, *MPE Jan-Feb 2022 16-27*
- Retail Pricing: A Low-Cost Enabler of the Clean Energy Transition. *Sergici, S.*, +, *MPE Jul-Aug 2022 66-75*
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, +, *MPE Nov-Dec 2015 22-30*
- Situational Awareness: A Road Map to Generation Plant Modernization and Reliability. *Raymond, J.*, +, *MPE May-Jun 2024 29-41*
- Solar Forecasting: Methods, Challenges, and Performance. *Tuohy, A.*, +, *MPE Nov-Dec 2015 50-59*
- STATCOM Technology Evolution for Tomorrow's Grid: E-STATCOM, STATCOM With Supercapacitor-Based Active Power Capability. *Engelbrecht, T.*, +, *MPE Mar-Apr 2023 30-39*
- Submarine Power Connections: A Key Element in Unlocking the Energy Transition to a More Sustainable Future. *Gandini, M.*, +, *MPE Sep-Oct 2024 100-110*
- The Evolution of the Market: Designing a Market for High Levels of Variable Generation. *Ahlstrom, M.*, +, *MPE Nov-Dec 2015 60-66*
- The Flexibility Workout: Managing Variable Resources and Assessing the Need for Power System Modification. *Holttinen, H.*, +, *MPE Nov-Dec 2013 53-62*
- The Impact of Renewables on Operational Security: Operating Power Systems That Have Extremely High Penetrations of Nonsynchronous Renewable Sources. *Dudurych, I.*, *MPE Mar-Apr 2021 37-45*
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M.*, +, *MPE Jan-Feb 2015 75-83*
- The Substation of the Future: Moving Toward a Digital Solution. *Hunt, R.*, +, *MPE Jul-Aug 2019 47-55*
- Toward Net-Zero Electricity in Europe: What Are the Challenges for the Power System?. *Evans, M.*, +, *MPE Jul-Aug 2022 44-54*
- Unlocking New Sources of Flexibility: CLASS: The World's Largest Voltage-Led Load-Management Project. *Ballanti, A.*, +, *MPE May-Jun 2017 52-63*

- Up with wind. *Corbus, D.*, + , [PAE-M Nov-Dec 2009 36-46](#)
- Variable Renewable Energy Integration: Status Around the World. *Holtinen, H.*, + , [MPE Nov-Dec 2021 86-96](#)
- Variable-Generation Integration in China: An Update. *Jiang, L.*, + , [MPE Nov-Dec 2019 99-107](#)
- Where the wind blows. *Ackermann, T.*, + , [PAE-M Nov-Dec 2009 65-75](#)
- Wide-Area Planning of Electric Infrastructure: Assessing Investment Options for Low-Carbon Futures. *McCalley, J.*, + , [MPE Nov-Dec 2017 83-93](#)
- Wildfires Down Under: Impacts and Mitigation Strategies for Australian Electricity Grids. *Sharafi, D.*, + , [MPE Jan-Feb 2022 52-63](#)
- Wind Energy in China. *Jiang, L.*, + , [MPE Nov-Dec 2011 36-46](#)
- Wind power myths debunked. *Milligan, M.*, + , [PAE-M Nov-Dec 2009 89-99](#)
- Wind power plants
- Accommodating Wind's Natural Behavior. *DeMeo, E.A.*, + , [PAE-M Nov-Dec 2007 59-67](#)
- All Options on the Table: Energy Systems Integration on the Island of Maui. *Corbus, D.*, + , [MPE Sep-Oct 2013 65-74](#)
- Balance of Power: Toward a More Environmentally Friendly, Efficient, and Effective Integration of Energy Systems in China. *Kang, C.*, + , [MPE Sep-Oct 2013 56-64](#)
- By Leaps and Bounds: Lessons Learned from Renewable Energy Growth in China. *Ni, M.*, + , [MPE Mar-Apr 2012 37-43](#)
- Energy Comes Together in Denmark: The Key to a Future Fossil-Free Danish Power System. *Meibom, P.*, + , [MPE Sep-Oct 2013 46-55](#)
- European Balancing Act. *Ackermann, T.*, + , [PAE-M Nov-Dec 2007 90-103](#)
- Expansion Pressure: Energy Challenges in Brazil and Chile. *Bezerra, B.*, + , [MPE May-Jun 2012 48-58](#)
- Generator Fault Tolerance and Grid Codes. *Piwko, R.*, + , [PAE-M Mar-Apr 2010 18-26](#)
- Penetrating Insights: Lessons Learned from Large-Scale Wind Power Integration. *Piwko, R.*, + , [MPE Mar-Apr 2012 44-52](#)
- Predicting the Wind. *Ernst, B.*, + , [PAE-M Nov-Dec 2007 78-89](#)
- Queuing Up. *Zavadil, R.*, + , [PAE-M Nov-Dec 2007 47-58](#)
- Safety in Numbers: Online Security Analysis of Power Grids with High Wind Penetration. *Dudurych, I.M.*, + , [MPE Mar-Apr 2012 62-70](#)
- Taking Credit. *Amelin, M.*, + , [PAE-M Sep-Oct 2010 47-52](#)
- the answer is blowing in the wind. *Slootweg, J.G.*, + , [PAE-M Nov-Dec 2003 26-33](#)
- The Green Effect. *Barroso, L.A.*, + , [PAE-M Sep-Oct 2010 22-35](#)
- The Sky's the Limit!: Designing Wind Farms: A Hands-On STEM Activity for High School Students. *Worcester, A.C.*, + , [MPE Jan-Feb 2013 18-29](#)
- To Capture the Wind. *Thresher, R.*, + , [PAE-M Nov-Dec 2007 34-46](#)
- Twist Land and Sea: Cost-Effective Grid Integration of Offshore Wind Plants. *Feltes, J.*, + , [MPE Mar-Apr 2012 53-61](#)
- What Comes First?. *Piwko, R.*, + , [PAE-M Nov-Dec 2007 68-77](#)
- Wind speed
- Atmospheric Pressure. *Ahlstrom, M.*, + , [MPE Nov-Dec 2011 97-107](#)
- Growth in Wind and Sun: Integrating Variable Generation in China. *Jiang, L.*, + , [MPE Nov-Dec 2015 40-49](#)
- Keeping It Together: Transient Stability in a World of Wind and Solar Generation. *Miller, N.*, [MPE Nov-Dec 2015 31-39](#)
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, + , [MPE Nov-Dec 2015 22-30](#)
- Solar Forecasting: Methods, Challenges, and Performance. *Tuohy, A.*, + , [MPE Nov-Dec 2015 50-59](#)
- Wind turbines
- A Journey Through Energy Systems Integration: Trending Grid Codes, Standards, and IEC Collaboration. *MacDowell, J.*, + , [MPE Nov-Dec 2019 79-88](#)
- Achieving Resilience at Distribution Level: Learning from Isolated Community Microgrids. *Jimenez-Estevez, G.*, + , [MPE May-Jun 2017 64-73](#)
- Alternatives No More: Wind and Solar Power Are Mainstays of a Clean, Reliable, Affordable Grid. *Milligan, M.*, + , [MPE Nov-Dec 2015 78-87](#)
- At the Heart of a Sustainable Energy Transition: The Public Acceptability of Energy Projects. *Perlaviciute, G.*, + , [MPE Jan-Feb 2018 49-55](#)
- Can Machine Learning Help Keep the System Secure?: Power Systems and Change Addressing the Increasing Complexity and Uncertainty During the Energy Transition. *Papadopoulos, P.N.*, + , [MPE Nov-Dec 2024 100-111](#)
- Integrated Wind, Solar, and Energy Storage: Designing **Plants with a Better Generation Profile and Lower Overall Cost**. *Venkataraman, S.*, + , [MPE May-Jun 2018 74-83](#)
- Models for Change. *Zavadil, R.*, + , [MPE Nov-Dec 2011 86-96](#)
- On the Road to Wind Power: China's Experience at Managing Disturbances with High Penetrations of Wind Generation. *Weisheng, W.*, + , [MPE Nov-Dec 2016 24-34](#)
- Planning for the Winds of Change: Coordinated and Proactive Offshore Wind Transmission Planning in Europe, China, and the United States. *Pfeifenberger, J.P.*, + , [MPE Sep-Oct 2024 20-30](#)
- Serving the Future: Advanced Wind Generation Technology Supports Ancillary Services. *MacDowell, J.*, + , [MPE Nov-Dec 2015 22-30](#)
- The Proof Is in the Putting: Large-Scale Demonstrations of Renewables Integration Showcase Real-World Solutions. *Lorenzo, M.*, + , [MPE Jan-Feb 2015 75-83](#)
- Training Tornado: An Intensive, Cross-Curricular Ph.D. Program in Wind Engineering at the University of Strathclyde. *Gill, S.*, + , [MPE Jan-Feb 2013 51-57](#)
- Wind Energy in China. *Jiang, L.*, + , [MPE Nov-Dec 2011 36-46](#)
- Wireless communication
- I Charge, Therefore I Drive: Current State of Electric Vehicle Charging Systems. *Cirimele, V.*, + , [MPE Nov-Dec 2023 91-97](#)
- Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. *Seewald, M.*, + , [MPE May-Jun 2024 50-58](#)
- Wireless LAN
- The true vision of automation. *Myrda, P.*, + , [PAE-M May-Jun 2007 32-44](#)
- Wireless sensor networks
- A Modern Communications Platform to Enable the Modern Grid: A Utility-Grade Wireless Broadband Network. *L'Abbate, C.*, [MPE Sep-Oct 2023 18-26](#)

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Intelligent Network Supporting the Digital Transformation of the Electrical Grid: Reinventing Networks for the Digital Age. Seewald, M., +, [MPE May-Jun 2024 50-58](#)