

DECEMBER 30, 2021

Industry Technical Support Leadership Committee (ITSLC) Annual Report

Overall Metrics related to IEEE PES Resource Center Downloads per Technical Activities

Although ITSLC only has 32 products on the [IEEE PES Resource Center](#), this leadership committee currently has the most downloads and revenue. This success is the result of cooperation with various organizations across IEEE, including IEEE Standards Association, IEEE USA, IEEE European Policy Committee, IEEE PES Technical Committees, Conferences, Education, Chapters, and others.

Five ITS LC-led documents are among Top-Ten Resource Center downloads (since 2017): #1, #2, #4, #7, and #10. Total number of downloads is 10,279.

Title	Type	Downloads (2017 – Nov. 2021)
1. Impact of Inverter Based Generation on Bulk Power System Dynamics and Short-Circuit Performance	Technical Report	1,758
2. Impact of IEEE 1547 Standard on Smart Inverters	Technical Report	1,497
3. Microgrid Stability Definitions, Analysis, and Modeling (PSDP Committee)	Technical Report	1,517
4. The Definition and Quantification of Resilience	Technical Report	1,214
5. Paper Tutorial Course Transient Analysis of Power Systems. Solution Techniques, Tools, and Applications (T&D Committee)	Tutorial Paper	1,185
6. Stability definitions and characterization of dynamic behavior in system with high penetration of power electronic interfaced technologies (PSDP Committee)	Technical Report	1,106
7. Energy Storage Primer	White Paper	1,052
8. Contribution to Bulk System Control and Stability by Distributed Energy Resources connected at Distribution Network (PSDP Committee)	Tutorial Paper	1,042
9. IEEE Tutorial on the Protection of Synchronous Generators (PSRC Committee)	Tutorial	1,001
10. Sharing Knowledge on Electrical Energy Industry's First Response to COVID-19	White Paper	994

Cooperation Initiatives and Accomplishments

- **IEEE PES Executive Advisory Council (EAC) Coordination**
One of the ITSLC roles is to work closely with the EAC and support its' mission to initiate and prioritize topics of executive interest.
The EAC has met twice this year and prioritized topics, including initiating the white paper on "Importance of T&D Grid Modernization to Enable Decarbonization Measures Addressing Climate Change" as their top priority.
- **White Paper on "Importance of T&D Grid Modernization to Enable Decarbonization Measures Addressing Climate Change"**
 - Global Task Force was formed in July 2021 and is due to complete this white paper by January 2022.
 - This Task Force is led by Babu Chalamala (Chair) and Juan Castaneda (Vice-Chair) and includes diverse group of global experts (academia, national labs, regulators, utilities, vendors, etc.) representing global perspectives (including contributors from Australia, Belgium, Columbia, Greece, New Zealand, U.S.)
- **E-mobility: Smart Charging position paper** by the IEEE European Public Policy Committee (EPPC) included comments from the IEEE PES through volunteers from the IEEE PES ITSLC was published online in September: <https://www.ieee.org/about/ieee-europe/publications.html>
- **IEEE USA Energy Policy Committee (EPC)** – supported position statement on **Resilience Framework** based on the IEEE PES Report on Resilience Framework, Methods, and Metrics for Electricity Sector (TR83).

Conferences and Webinars

- **ISGT North America 2021**
 - Organized a plenary session on "**Key Success Factors for Resilient and Decarbonized Grid**" and provided speakers for other plenaries.
 - Organized additional panels with NERC and DOE
- **IEEE PES GM 2021**
 - Support for organizing the Late Breaking News Super Session on "[Resilience Framework, Methods, and Metrics for the Electricity Sector](#)" and "[Texas Energy Crisis](#)"
 - Corporate Engagement Program (CEP) panel on "[Vision for the Future Grid – Industry Perspective](#)".
- **Webinars on "Resilience Framework, Methods, and Metrics for Electricity Sector"**
 - Based on ITSLC Technical Report [IEEE PES-TR83](#).
 - IEEE PES webinar in February 2021. [Access webinar recording [here](#)]
 - Two NARUC (National Association of Utility Regulatory Commissioners) webinars in January and April 2021.
 - International Energy & Sustainability Conference webinar in March 2021.

Governmental Organization MOU Initiatives

- **U.S. Federal Energy Regulatory Commission (FERC)**
 - FERC invited IEEE PES to provide a written testimony to Congress as part of the FERC Reliability Technical Congress – Aleksis Paaso testified to congress on Sept. 30, 2021, as the ITS LC representative. The written testimony can be found (free to all) via the IEEE PES Resource Center [linked here](#).
 - FERC participated in the July '21 IEEE PES GM via the Late Breaking News Supersession. David Ortiz, Acting Director, Office of Electric Reliability, presented on behalf of FERC. Presentation via the PES Resource Center is [linked here](#).
 - Meetings were held in February, April, June, and September (other follow-up calls held as projects required). Next remote meeting planned for January 2022.
- **U.S. Department of Energy (DOE)**
 - DOE participated in the July '21 IEEE PES GM via the Late Breaking News Supersession. Michael Pesin, Deputy Assistant Secretary presented on behalf of the DOE. Presentation in the PES Resource Center is [linked here](#).
 - Meetings were held in February, April, June, and September (other follow-up calls held as projects required). Next remote meeting planned for January 2022.
- **North America Electric Reliability Corporation (NERC)**
 - NERC participated in IEEE PES General Meeting and ISGT North America panels.
 - Meetings, led by IEEE SA, held in January and May (other follow-up calls held as projects required). Next remote meeting planned for January 2022.
- **Panama National Secretariat of Energy (NSE)**
 - MOU was signed between IEEE & NSE in Q3 2021.
 - Kick-off web-meeting took place between IEEE & NSE and cooperative initiatives were reviewed to begin work together focusing on the start of 2022.
 - Key leadership in IEEE P2800, 1547 and other related standards.
- **National Association of Utility Regulatory Commissioners (NARUC)**
 - A non-MoU collaborative committee has been formed comprising of ITS LC representatives and NARUC staff team to coordinate, participate and cross promote joint activities. An inaugural meeting was held in September 2021 with quarterly meetings planned in 2022.

Corporate Engagement Program (CEP)

- Learn more about the Corporate Engagement Program (CEP): <https://www.ieee-pes.org/about-pes/corporate-engagement>
- The CEP program has presently 7 members: Australian Energy Market Operator (AEMO), Burns & McDonnell, ComEd, ISO New England, National Grid, Quanta Technology, and VELCO. AEMO and Burns & McDonnell joined the program in 2021
- Pending Corporate MOUs:
 - Panama Canal Authority (ACP)
 - Siemens
- Continuing to review process of implementing the “Corporate Engagement Program (CEP)” within this leadership committee. The “Basic Package” offerings is the foundation of the CEP,

with many of the benefits of joining originally focused on the opportunities for panel sessions and meet and greets at in-person IEEE PES events.

- In 2020 - 2021 CEP changed the focus and benefits to fit the “virtual world” and started its webinar series for CEP participants:
 - March 31, 2021: [Coordinated GT&D Planning and Investment Prioritization](#)
 - June 22, 2021: [Intro to IEEE PES Technical Activities: How Do I Get Involved?](#)
 - October 27, 2021: [Integration of Electric Vehicles: Technology Update, Impact on Utility T&D System Current State and Future Trends](#)
 - December 8, 2021: [Addressing Extreme Weather Events](#)
- July 2021: IEEE PES General Meeting Panel Session produced by the IEEE PES CEP leads in the PES Resource Center [linked here](#)
- Web-Meetings with CEP liaisons are held 3x per year – Jan., June, and Nov/Dec.

Organization Structure Update

- ITSLC Structure & Implementation Plan Updated, including assigning more regional leads to expand global participation and collaboration – [click here to view structure document](#)
- ITSLC was restructured to assign additional regional leads to provide more global participation and collaboration
- Established the Award(s) Committee (Aleksi Paaso, Marianna Vaiman, and Nirmal Nair)
- Aleksi Paaso, Vice Chair, will move into the Chair role in 2022
- Nirmal Nair was appointed to the Vice Chair for 2022