### **CIGRE NEWSLETTER**

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#### PRESIDENT'S CORNER

BY: CHRIS ROOT CIGRE USNC President

Welcome to the USNC Summer newsletter for 2025. This continues to be a busy time in the electric energy business. With changes to federal funding and tax policies to new large data center loads and a large European blackout, there is much to learn from our colleagues around the world. CIGRE continues to be a good place to learn about these changes and challenges through the publications from the 16 CIGRE Study Committees.

In the US, there are several upcoming events. First, if you are attending the **IEEE PES General Meeting** in Austin, Texas at the end of July, the USNC will be holding its **Annual Members Meeting and Luncheon** on Tuesday, July 29, from 11:30am-2pm in Salon 7 at the **JW Marriott**. Please note you do not have to be registered for the IEEE PES General Meeting to attend our All-Members Luncheon Meeting. However, you do need to register to attend the luncheon meeting. It has a cost to attend of \$50. If you haven't already, please register using the button below:

**REGISTER TODAY** 



#### PRESIDENT'S CORNER

At the luncheon, there will be an overview presentation of USNC updates along with a brief awards ceremony recognizing members who play an integral role in CIGRE. We hope you will consider attending. Immediately following the Luncheon, there will be a USNC Executive Committee Meeting with a guest speaker.

We continue to have a good working relationship with the IEEE Power & Energy Society with many common members. We are working together on several technical fronts.

In the fall, the annual <u>USNC Grid of the Future Symposium</u> will be held in Denver, CO from November 10-13. We have an exciting program shaping up. This year's symposium, hosted by POWER Engineers, will have several tutorials, two keynote speakers, 4 industry panels, and many technical papers written by practitioners. The topics will include discussions on blackouts, data centers and various utility projects. We hope you consider attending and submitting a paper. The deadline for paper submission is **Monday, August 25**. We are expecting close to 400 participants. If your company would like to be a sponsor for this event, please see sponsorship information using the button below:

#### **GOTF SPONSORSHIP INFORMATION**

I would like to thank all the USNC members and Collective Members. Remember to check out the most recent Technical Brochures and Green Books which you will find later in this newsletter. I hope to see you either at the Annual Luncheon & Meeting in July or at GOTF in the Fall.

Chris Root CIGRE USNC President



#### **TECHNICAL ACTIVITIES UPDATE**

BY: JOHN MCDONALD CIGRE USNC VP Technical Activities

#### **2025 Highlights To Date**

#### 1. 2026 Paris Session - Synopses Due July 7, 2025

- Synopses (abstracts) due to John McDonald (johndougmcd@gmail.com) by July 7, 2025. Note that this deadline is (for the first time) a global deadline for all National Committees from the CIGRE Central Office.
- Content must be closely aligned with one Study Committee Preferential Subject in the <u>2026 Call For Papers</u>
- Must be at least 500 words and no more than two pages long
- Must comply with **CIGRE template** for required formatting
- Avoid commercialism
- Carefully review the **2026 CIGRE Paris Session Instructions for Synopsis**
- The primary author must be a CIGRE member (Individual or Collective)
- Be of the highest technical standard, not published elsewhere, and contribute to technical progress
- For complete details, see CIGRE USNC email to USNC members dated February 18, 2025

#### 2. 2025 GOTF Symposium - Full Papers Due August 25, 2025

- No abstract step full papers only
- Full papers due to GOTF@tamu.edu by August 25, 2025
- Suggested technical topics for papers in <u>Call For Papers</u>
- Must be no more than 12 pages long
- Must comply with **CIGRE USNC template** for required formatting
- Avoid commercialism
- · Be of the highest technical standard and contribute to technical progress
- For complete details, see CIGRE USNC email to all USNC members dated February 19, 2025

#### 3. 19 new CIGRE WGs so far in 2025

Many US Subject Matter Experts Nominated

List of CIGRE Active WGs

# CISIC For power system expertise

#### **TECHNICAL ACTIVITIES UPDATE**

#### **CIGRE Publications:**

- Reference Papers
- ELECTRA (bimonthly digital magazine)
- CIGRE Science & Engineering Journal (CSE) (published three times per year)
- Green Books (listed below)
- Papers and Proceedings
- Technical Brochures (most recent listed on page 15.)
- eCIGRE (home to CIGRE's resource of 12,000+ technical publications)

#### **CIGRE Green Books:**

- SC A2 Transformer and Reactor Procurement
- SC A3 Switching Equipment
- SC B1 Accessories for HV and EHV Extruded Cables Volume 1: Components
- SC B1 Accessories for HV and EHV Extruded Cables Volume 2: Land and Submarine AC/DC Applications
- SC B2 Overhead Lines
- SC B2 Compact Overhead Line Design
- SC B2 Techniques for Protecting Overhead Lines in Winter Conditions
- SC B2 Modelling of Vibrations of Overhead Lines Conductors
- SC B3 Substations
- SC B4 Flexible AC Transmission Systems
- SC B5 IEC 61850 Principles and Applications to Electric Power Systems
- SC C1 Power System Assets Investment, Management, Methods and Practices
- SC C4 Power System Dynamic Modelling and Analysis in Evolving Networks
- SC D2 Utility Communication Networks and Services
- All SCs Electricity Supply Systems of the Future
- All SCs Handbook of Power Systems

Green Books are CIGRE's flagship reference publications. CIGRE members receive a 40% discount.



#### **NEXT GENERATION NETWORK (NGN) CORNER**

BY: LOGAN ROLLES CIGRE USNC Next Generation Network Chair

The CIGRE Next-Generation Network team has been hard at work this year scheduling events, webinars, and mentorship programs! A rapid-fire list of 5 impressive updates from the team below:

- 1. Our NGN Paper Competition is officially underway! This year, 26 young professionals submitted synopses - one of our best participations to date! This annual competition allows young professionals from around the United States to submit a synopsis and eventually a whitepaper for the opportunity to present at the Grid of the Future Symposium and win a grand-prize of a trip to CIGRE Paris to present their findings.
- 2. The Next-Generation Network Webinar team has been working hard to provide high-quality webinars and trainings. This year, we've expanded our reach, partnering with Women in Energy (WiE), IEEE, and the broader CIGRE team. Our webinar in May, "Large loads and their impact on the grid", had record attendance, with over 400 registered attendees!
- 3. The NGN Annual Mentorship program officially kicked off in May. We had over 40 mentormentee pairings sign up! Be on the lookout for more information on joint webinars, trainings, and a GOTF get-together to close out the mentorship program.
- 4. Our executive team has a goal this year of broadening CIGRE's involvement on college campuses. We've built materials like one-pagers and presentations and have started hosting virtual and in-person sessions to encourage CIGRE engagement! If you have any contacts or groups that would benefit from a CIGRE information session, please send me an email at **LRolles@burnsmcd.com** and we can work to get something set up!
- 5. This year's Grid of the Future in Denver, Colorado will be one you don't want to miss! Along with exciting panels and engaging presentations, the NGN team will be hosting a technical tutorial, mentorship session, and the annual NGN dinner. Be on the lookout for LinkedIn posts as we get closer!

#### **Next-Generation Network Executive Board**



**Logan Rolles** NGN Chair



**Jodie Lupton** Paper Competition & Social Media Co-Chair



Secilia Ho Paper Competition Co-Chair



Maigha Webinars Co-Chair



**Genesis Alvarez** Webinars Co-Chair



Zejia Jing Mentorship Chair



**Nicholas Skoff** International Collaboration Chair



**Michael Hanestad** 



**Purandhya Vij** Social Media Co-Chair Marketing & External Membership



**Brian Obermeier** Member-At-Large



#### **WOMEN IN ENERGY (WIE) CORNER**

BY: KATE GRAVES CIGRE USNC Women in Energy Committee Member

### Celebrating International Women in Engineering Day 2025

### Spotlighting the Women Shaping the Future of Our Industry

As part of **International Women in Engineering Day (INWED 2025)**, we're proud to celebrate the contributions of women engineers within our CIGRE US community and across the globe. This annual celebration recognizes the talent, innovation, and leadership that women bring to the field of engineering every day.

#### **Voices from the CIGRE US Community**

To mark the occasion, we created a short video spotlighting members of the **CIGRE US Women in Energy (WiE)** and the **CIGRE US National Committee**. Each participant reflects on what they value most about their careers in engineering. **Together, We Shape the Future**. From designing resilient energy systems to championing inclusive innovation, women engineers continue to lead and inspire across our industry. Let's recognize the stories that spark change—and encourage others to join the journey.

#### **WATCH HERE**

### Join us at our next CIGRE US WiE Keynote and Networking Event:

#### Wednesday, June 25 | 1 PM EDT / 12 PM CDT

We invite all members to attend a special **CIGRE US WiE keynote and networking session**, featuring:

- Keynote Speaker: Mandy Olson
   T&D Engineering Director, Burns & McDonnell
- Mandy will share highlights from her career journey, insights into evolving trends in the power industry, and advice for those navigating their own paths in engineering. Following the keynote, participants will break into small-group networking sessions for deeper conversation and connection.

#### **REGISTER HERE**

#### **WOMEN IN ENERGY (WIE) CORNER**



#### **Looking Ahead: Save the Date**

Our next WiE event is scheduled for later this summer and will feature:

#### Farnaz Farzan, PhD

Principal Advisor, Distribution, Quanta Technology

Stay tuned for event details and registration information.



### **Powering CIGRE's 2nd Century**

BY: MICHAEL HEYECK CIGRE VP Finance & Treasurer



As Administrative Council member for the United States since 2016, I have been elected as your VP Finance (Treasurer) from August 2020 through August 2026. It is an honor to serve CIGRE as continuity with the newly elected officers in August 2024 and to assure continuity with CIGRE's Strategic Plan to 2030 for the Energy Transition. My experience includes engineering, business, financial, and senior executive experience to grow CIGRE's proud tradition.

I have had the pleasure to dedicate my passion, time, and experience to CIGRE since 2006, at the United States National Committee level (USNC President 2011-2016), and at the international level as member of the Steering Committee and Administrative Council since 2016. In semi-retired role since 2013, I have dedicated substantial time to CIGRE to foster its traditions, growth, and technical foundation.

#### Advancing CIGRE in its 2nd Century

I have worked as a team with other officers, the Secretary General, Philippe Adam, the Steering Committee, and the Administrative Council to continue the excellent advancements made by the administrations of Konstantin Papailiou, Michel Augonnet, Rob Stephen, and Klaus Fröhlich. Those advancements include:

- Maintaining the traditions of CIGRE, its technical foundation, and its unbiased ethical approach to advancing power system expertise.
- Advancing CIGRE revenues and membership fostering greater technical participation with a marketing and communications strategy of end-to-end (E2E) power system expertise.
- Assuring resources and excellent services to National Committees (NCs) in keeping with our strong decentralized approach, and further the digital ability of language translations for CIGRE.
- Providing resources in support of advancing diverse membership growth in areas of the world not served as well, with NGN and WiE, and with student membership.
- Advancing the Treasurer's role to include marketing and membership leadership, assuring financial sustainability and risk management for revenues and cash reserves to assure CIGRE's future.

#### Dedicated Service to CIGRE Since 2006

#### The CIGRE Journey Started at American Electric Power (AEP)

My CIGRE journey started with AEP as Collective Member in the United States National Committee (USNC). AEP is one of the largest electric power companies in the United States, and the largest transmission owner. My Individual Membership journey began in 2006 joining the Executive Committee of the US National Committee (USNC) as AEP representative.

#### **President, CIGRE US National Committee**

In January 2011, I was elected President of the USNC and served for six years through 2016. US CIGRE membership was not at full potential for a country well over 300 million people. The business model relied on charitable Collective Member sponsorships without strong benefits for their interests. Member fees were targeted to remain low to continue to attract members, but cash reserves were low. In 2012, the business model was improved with introduction of an annual CIGRE conference in the United States, called Grid of the Future (GOTF). The resulting annual GOTF conferences have been so popular, the USNC filed a Trademark in the United States with exclusive rights to the name "Grid of the Future." This branding has helped CIGRE in the US to grow to number one for several years with the leadership of USNC presidents.

#### **CIGRE Steering Committee Member**

In 2016 as Steering Committee member, with the prior work of Clark Gellings from the USNC, I was listening to the conversation on marketing in my first meeting led by President Rob Stephen and uttered the phrase based on all the input "sustainable electricity for all." I was then appointed convener for the Marketing and Communications Task Force (TF). The objective was to increase membership and advance member benefits and technical participation. The Steering Committee approved the plan that quickly developed in early 2017 and led to the hiring of a marketing firm, Aspire, led by Colin Knox.

#### **CIGRE Branding and Communications**

At the Administrative Council meeting in September 2017, the TF obtained approval to implement a new brand and communications strategy. This was inaugurated in Paris at the 2018 Session and included extensive materials and tutorials to support the NCs. The new brand advanced the ideas from the September 2017 Administrative Council creative breakout sessions (CIGRE at its best), such as end-to-end (E2E) power system expertise. CIGRE followed the brand release with an E2E campaign in 2019 as the foremost technical organization fulfilling power system expertise needs of the industry.

#### **Digital ELECTRA for CIGRE's 2nd Century**

At a joint meeting of the Steering Committee and Technical Council in 2017, I introduced the TF plan for digital ELECTRA and enhanced newsletter channels. The Administrative Council approved this strategy in 2018 noting annual 300,000-euro savings (printing and delivery costs) and allowing delivery of CIGRE communications responsive for smart phones, tablets, and computers. ELECTRA moving to a digital platform eliminated an enormous carbon footprint of printing and delivery.

#### **ELECTRA Editorial Board and New Communications Channels**

In 2018 as first convener of the new ELECTRA Editorial Board, a new ELECTRA section for invited authors "Global Connections" began. The board also assisted the development of the new Leadership Circle newsletters for CEOs and peers led by our President, the new Future Connections newsletter led by the Technical Council, and the renewed PowerTalk newsletter replacing the General Newsletter for news and events. All are in support of CIGRE's technical unbiased foundation.

#### **CENTENNIAL Pandemic**

The 2020 Paris Session and the 2021 Centennial Session were accomplished virtually due to the forethought of advancing CIGRE since 2018 to a digital platform. Thankfully, Treasurers from the past, Richard Bevan, and Michel Augonnet, developed cash reserves to sustain the loss of a Paris Session. Fortunately, the 2022 Paris Session (in person) was a success with approximately 3700 delegates just below the peak in 2018 at 3800. For 2024, the delegates numbered nearly 4500!

#### CIGRE Strategic Plan for the Energy Transition to 2030

As convenor of the Strategic Task Force, in coordination with Marcio Szechtman's leadership from the Technical Council Strategic Advisory Group, a Strategic Plan was developed for CIGRE to 2030 for full adoption of E2E for the Energy Transition, and to assure finances are secure for CIGRE's future.

#### **CIGRE Strategic Plan for the Energy Transition to 2030**

With the leadership group of Konstantin Papailiou as President, Rannveig Loken as VP Technical, myself as VP Finance, and Philippe Adam as Secretary General, there will be exciting news ahead for CIGRE. We are at the early stages of development of a CIGRE Fund (name to be determined) in alignment with CIGRE's vision and mission. We have sound cash reserves for risk mitigation, and we will not just sit and look at bank accounts. We intend to further CIGRE's mission across the globe with our Fund, attracting proposals and donors, with the full support of the Steering Committee and the Administrative Council. Stay tuned for developments ahead!

#### Biography of Michael Heyeck

Michael Heyeck's technical career began in 1976 at American Electric Power (AEP) in transmission planning and operations with two electrical engineering degrees and is a licensed Professional Engineer in the State of Ohio. He spent several years in AEP's Finance Department as AEP's Budget Director managing billions USD after attaining his Master's in Business Administration (MBA) degree focusing on marketing and finance.

In 2005, he was appointed Senior Vice President – Transmission, responsible for AEP's 11-state transmission system (largest in US), including nearly 65,000 kilometers of transmission and over 3500 T&D substations. Responsibilities included business development, engineering, project management, construction, maintenance, operations, dispatching, technology development, and reliability compliance. He also served as Chair of EPRI's Power Delivery and Utilization Council for a few years during the period.

Heyeck proposed the development of the separate and new AEP Transmission Company (2006), which now operates in several states in the US with excellent revenue growth. He has published technical papers and numerous articles in international publications. His top technical initiative as young engineer with other colleagues was the development of Probabilistic Transfer Capability for use in enhancing deterministic transmission planning studies (1985).

In 2013, Heyeck retired from AEP and started The Grid Group, LLC to provide strategic advisory and business development services for executives and boards related to the electric utility industry. He served as Chair for the United States Department of Energy Electricity Advisory Committee for over a decade, having been appointed to this committee by the Administrations of Presidents Bush, Obama, Trump, and Biden.

Heyeck is a strong advocate for the NGN having spent many years mentoring young professionals in their career. For these efforts, he was honored with IEEE's Power & Energy Society Leadership in Power Award (2013) and the National Society of Professional Engineers Industry Engineer of the Year Award (2013). For CIGRE, he holds CIGRE's Distinguished Member Award and the CIGRE USNC's Sporn and Attwood Awards. As 50+ year member of IEEE, he attained the level of IEEE Life Fellow.

Heyeck is also an elected official in Ohio serving since 1993 on Westerville City Council and is currently Chair (for 14 years). Westerville has a population of nearly 40,000 people with all services, including public safety (police and fire services), water, and electricity, with a total annual City budget today nearing \$300 million (USD).



### CIGRE Innovation & Education Fund Proposal

BY: MICHAEL HEYECK CIGRE VP Finance & Treasurer

The Fund is proposed by the CIGRE Steering Committee to the CIGRE Administrative Council for consideration in September. If approved, it will be recommended to the membership for inauguration in 2026. Stay tuned.



# CIGRE Innovation & Education Fund Proposal

### CIGRE Innovation and Education Fund Opportunity

- The CIGRE Innovation and Education Fund with separation from CIGRE operations provides an opportunity to invite donations by industry and individuals with scope relevant to CIGRE's mission.
- CIGRE's strategy for the energy transition, our technical foundation, and maintaining relevance during the pandemic has blessed us with cash reserves exceeding forecasted expectations.
- CIGRE is a non-profit in French Law that has achieved lower rates and fees than similar global organizations, and has tripled annual NC Funding from 50k to 150k euros in recent years.
- The CIGRE Innovation and Education Fund is an opportunity to provide strategy to move the funds in excess of cash reserve forecasts to further CIGRE's mission. This proposal requests 1.5M euros from cash reserves to seed the Innovation and Education Fund irrevocably.
- The CIGRE Innovation and Education Fund shall be a non-profit per French Law legally separate from CIGRE but wholly in alignment with CIGRE.
   Investments can be made with moderately higher risks than CIGRE, given remaining CIGRE cash reserves anticipate probable risks.

# CIGRE Innovation & Education Fund Proposal

### CIGRE Innovation and Education Fund Purpose

- The Innovation and Education Fund shall consider Projects & Programs and shall not consider CIGRE ordinary overheads or individual personal initiatives.
   The Innovation and Education Fund does not subsidize CIGRE nor does CIGRE subsidize the Innovation and Education Fund.
- Grants proposals are made by CIGRE Groups, such as CIGRE National Committees or other CIGRE Committees (e.g., Regional Councils, Technical Council, CIGRE Groups per the CIGRE Steering Committee) with funding proposed, including:
  - Research & Development Projects & Programs and potential funding graduate scholarships under those Projects & Programs.
  - Educational Projects & Programs focusing on future growth for power systems expertise in STEM (Science, Technology, Engineering, Mathematics).
  - Humanitarian Projects & Programs to enable sustainable electricity for all.
  - A Project or Program is defined as a documented proposal initiated or sponsored by a CIGRE Group, covering specific and defined objectives that are auditable, and accompanied by time schedule, outcomes, and relevance to CIGRE and the purpose of the Innovation and Education Fund.

#### **PUBLICATIONS**

#### The latest Technical Brochures are now available on eCIGRE:

- **TB 964:** Increasing the Strength Capacity of Existing Overhead Transmission Line Structures
- TB 963: Finite Element Analysis for Cable Rating Calculations
- TB 962: Guide for Transformer Maintenance
- TB 961: Interoperability in HVDC Systems Based on Partially Open Software
- TB 960: Certification of the Electricity Used to Produce Hydrogen

There are over 940 technical brochures available on e-cigre.org at no charge for CIGRE members. Nearly 40 are added every year.



#### **READ ON eCIGRE**

### **ELECTRA**CIGRE's Digital Magazine



#### **ELECTRA N°340 June 2025**

Featured in this edition:

#### **GLOBAL CONNECTIONS**

- Unity 3.0 Part 2: The Cosmic Operating System and Energy's Fundamental Role
- Empowering Tanzania's Energy Future: Smart and Eco-Friendly T&D Equipment Workshop
- You Are an Artist: Art and Science Drive Innovative Partnerships

#### **TECHNOLOGY E2E**

- The Al Debate Needs Balance The Power Systems Industry Should Help
- Regulation and Market Design to Foster Decarbonation Through Industry Electrification
- DSO (Distribution System Operator) Customer Interfaces for Efficient System Operations

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**ADDITIONAL** 

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Fabricio Beltram • Mats Bernesjo • Gautami Bhatt • Garrett Bradshaw • Stephen Callahan
Daniel Carreno • Atlanta Chakraborty • Lucas Cook • Christian Daehler • Aleksandar Damjanovic
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Peter Van Calligan • Joe White • Jeswin Wilson • Alan Young

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Ampacimon, Inc. • Avangrid Service Company • Black & Veatch • Bonneville Power Administration
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Electric Reliability Council of Texas [ERCOT] • Epsilon Americas • Eversource Energy • Florida Power & Light
GE Vernova • G&W Electric • HICO America Sales & Technology, Inc. • Hitachi Energy • ISO New England Inc.
ITC • LCRA Transmission Services Corporation • Lindsey Systems • LineVision • LUMA Energy
MidContinent ISO • Mitsubishi Electric Power Products, Inc. • MOXA Inc. • MPR Associates Inc.
National Grid USA • New York Independent System Operator Inc. • OMICRON Electronics • Oracle • PG&E
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Quanta Services • S&C Electric Company • Sargent & Lundy • Schweitzer Engineering Laboratories Inc. (SEL)
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George Mason University • Kansas State University • North Carolina State University • Texas A&M University University of Illinois at Urbana Champaign • University of Missouri • University of Puerto Rico-Mayaguez University of Tennessee • Virginia Tech