US National Committee 2021 Annual Meeting of Members



Agenda

1.	USNC President's Opening Remarks	C. Root
2.	CIGRE International Update	M. Heyeck
3.	Awards and Recognition	C. Root
4.	Nominations and Appointments	D. Novosel
5.	Treasurer's Report	C. Kelly
6.	Administrative VP Report	D. Russell
7.	Membership	A. Xi
8.	Women in Energy	A. Olson
9.	Next Generation Network	A. Giacomoni
10.	Technical Activities Report	J. McDonald
11.	Future CIGRE and USNC Meetings	C. Root
12.	Other Business and Discussion	USNC Members





History: Standing for power system expertise since 1921

Established in 1921 in Paris, France, CIGRE is a global community committed to the collaborative development and sharing of power system expertise. The community features thousands of professionals from over 90 countries and 1250 member organizations, including some of the world's leading experts. At its heart are CIGRE's 59 in country National Committees offering diverse technical perspectives and expertise from every corner of the globe.

CIGRE operates the world's foremost knowledge program, spanning 16 domains of work encompassing all the core areas of the power system. Across these domains 250+ Working Groups draw and build on practical expertise to solve existing and future challenges facing the power system.

All this means that when electricity industry professionals look for the unbiased, fact-based answers they need, they turn to CIGRE, the world's preeminent source for power system expertise.





Who Are We?

- 1. **PURPOSE** To foster engagement and knowledge sharing among power system professionals globally to enable the sustainable provision of electricity for all.
- 2. MISSION We contribute to the betterment of power systems by enhancing the expertise of the people within it.
- **3. VISION** To be universally recognized as the leading global organization for all aspects of electric power systems.





CIGRE Organization 2020-2024

Officers

- President
 - Michel Augonnet (FR)
- VP Finance (Treasurer) O Mike Heyeck (USA)
- VP Technical Council Chair
 - Marcio Szechtman (BR)
- Secretary General
 - o Philippe Adam (FR)

US Representative on Administrative Council & Steering Committee

o Mike Heyeck





International Activities

2022 Paris Session > August 28 – Sept 2, 2022

- Register at current rate in 2021 at CIGRE-USNC.org > Will Increase in 2022 > Hybrid Same Cost > Declare in 2022
- US Reception SET for August 29, 2022 (SPONSORS?)

2021 Virtual Centennial Session

• 1600 Delegates (2500 Delegates for 2020 e-session)

CIGRE (Paris) Cash Reserves LOW with Covid

- May increase fees in 2022 modestly > we benchmark low compared to like organizations
- 2022 Paris Session success is critical
- Paris (In Person) Session years CIGRE in BLACK > Without (In Person) Session CIGRE in RED > Trying to FIX that

US #1 in Membership in 2021

- Can Change as Brazil, Russia, Japan, China at our heels
- Expanded 1st Year Membership to 18 months (from 15)
- Created Membership Gateway enabling JOIN button
- CIGRE Membership Growing by 11% in revenues





Situation of CIGRE membership in August 2021



	Num		
Categories	2021	2020	2021/2020
Individual I	7552	7869	-4%
Individual II	679	821	-17%
Individual III	973	3678	-74%
Collective I	1059	1115	-5%
Collective II	165	169	-2%
Equivalent	14741	15477	-5%
All members	10428	13789	-24%

2021 CIGRE membership provisional statistics 1400 ■ Individual ■ Collective ■ Student 1200 1000 800 600 400 200 0 Switten AND CAMPOR -UNITED STATES GERMANY AUSTRALIA UNITED KINGDOM FRANCE IAPAN SWEDEN WETHERIANDS NORWAY SPAIN TALY CHILE AUSTRIA BRAZIL RUSSIA KOREA

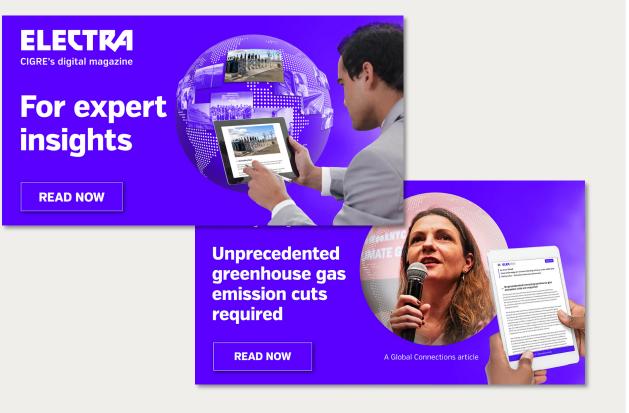
Steering Committee meeting on VCS, on August 31, 2021

ELECTRA CIGRE's digital magazine

GROWING OTHER REVENUES

- ELECTRA is digital and mature
- Sponsorship slots filled for 2021; Now selling 2022 slots
- CSE will be digital as well with similar sponsorship slots
- e-CIGRE is our best opportunity for sponsors with very high web traffic at 1.5 Million/Year (19% over 2020)
- Newsletters continue..
 - PowerTalk (Events, News)
 - Leadership Circle (C-Suite)
 - Future Connections (E2E Grid Visioning)

"digital delivery for our 2nd century"





2021 Centennial Session



Oh! To be In Person BUT our Virtual CENTENNIAL Session inaugurated CIGRE TV & HYBRID Platform

REGISTER for the 2022 Paris Session in 2021 with TODAY's rates – In Person & HYBRID at SAME rates

>> GO TO CIGRE-USNC.org <<

Awards & Recognition Committee

- 1. Elizabeth LaRose Chair GE Power
- 2. Keith Lindsey past Chair Lindsey Mfg. Co.
- 3. Clark Gellings Consultant
- 4. Mike Heyeck Consultant
- 5. Travis Heintzelman Burns and McDonnell
- 6. John McDonald GE Grid Solutions
- 7. Rana Mukerji New York ISO
- 8. Chris Root VELCO
- 9. B. Don Russell Texas A&M University







USNC Attwood Associate Award - 2021



"To honor the contributions and memory of Frederic Attwood of the USA, who, with J. Tribot Laspiere of France, foresaw the need for an international organization in the field of power engineering and who became the first Chairman of the U.S. National Committee upon the founding of CIGRÉ in the year 1921."

USNC Attwood Associate Awards – 2021

Jennifer Havel, BPA





USNC NEW Dale Douglass Award for Technical Achievement - 2021



– Citation –

"For leadership and participation in CIGRE technical activities internationally at the Study Committee or Working Group levels aspiring to the level of dedication exhibited by Dale Douglass."

USNC Dale Douglass Award for Technical Achievement – 2021

Dr. Mladen Kezunovic, Texas A&M University





USNC Philip Sporn Award — 2021

– Citation –

"For career contributions advancing electric power systems in theory, design and/or operation for the benefit of society in the United States, and for aspiring to Philip Sporn's "Locus of Discontent" approach; i.e. always challenging the status quo to advance technology for the betterment of society."

USNC Philip Sporn Award – 2021

Nicholas Miller, Hickoryledge LLC



USNC Philip Sporn Award – 2021



Nicholas Miller, Hickoryledge LLC Mark Reynolds, Power Engineers, Inc.





USNC Outstanding Collective Member Award — 2021

"For outstanding leadership and continuing managerial, technical, and financial support of the activities of the U.S. National Committee and CIGRE over an extended period of time."

USNC Outstanding Collective Member Award — 2021

CÉR POWER ENGINEERS



USNC cigre awards - 2021



CIGRE Medal Dr. Anjan Bose, Washington State University

Honorary Member John McDonald, GE Grid Solutions

Next Generation Network Significant Contribution Christopher Mertz, Dominion Energy

2022 Nominations & Appointments Committee

- 1. Damir Novosel, Chair Quanta Technology
- 2. Mukerji, Rana NYISO
- 3. Yilu Liu University of Tennessee
- 4. John Paserba Mitsubishi









- Stewart Ramsey, VP Treasurer Vanry & Associates
- Travis Heintzelman, Chair of NGN Burns & McDonnell



USNC Officers

Term Ending (TE) Through 2022:

- 1. Chris Root (VELCO) President
- 2. David Roop (DWR Associates LLC) Immediate Past President USNC
- 3. Mike Heyeck (Grid Group LLC) USNC Administrative Council Rep & CIGRE Steering Committee, CIGRE International Finance (Treasurer), Past President USNC
- 4. Don Russell (TAMU) Secretary; VP, Administration Secretariat
- 5. Stewart Ramsey VP, Treasurer
- 6. John McDonald (GE Grid Solutions) VP, Technical Activities
- 7. Beth LaRose (GE Power) VP, Awards & Recognition
- 8. Damir Novosel (Quanta Technology) VP, Nominations
- 9. Amanda Olson (Burns & McDonnell) Women In Energy (WIE)



Executive Committee Members at Large - Term Ending 2022



Terence Donnelly (ComEd)	B. Don Russell (Texas A&M University)
Johan H. Enslin (Clemson University)	Eric Stein (PECO Energy)
Tom Eyford (Oracle Utilities)	Eric Bosze (CTC Global Corporation)
Regina Guifang Gao (Hitachi ABB Power Grids)	Gordon van Welie (ISO New England, Inc.)
Mike Heyeck	Allen Xi (Burns & McDonnell)
Elizabeth LaRose (GE Power)	Travis Heintzelman (Burns and McDonnell)
John McDonald (GE Grid Solutions)	Alex Lindner (Power Systems Consultants, Inc.)
Amanda Olson (Burns & McDonnell)	Efrain O'Neill-Carrillo (University of Puerto Rico-Mayaguez)
John Paserba (Mitsubishe Electric Power Products, Inc.)	Dr. R. Ramakumar (Oklahoma State University)
David Poska (First Energy Corporation)	Khalid Al-Olimat (Ohio Northern University)
Stewart Ramsay (Varny & Associates)	Kristin Spearman (Tennessee Valley Authority)
Gregory Reed (University of Pittsburgh)	Longya Xu (Ohio State University)
Paul Roskilly (Siemens Energy Management)	Yilu Liu (University of Tennessee)

Executive Committee Members at Large - Nominated for Term Ending 2023



Samuel Barnes (Commonwealth Associates, Inc.)	Robert O'Connell (University of Missouri)
Bill Bojorquez (Hunt Power, L.P.)	Michael Ennis (S&C Electric Company)
Robert Carritte (MPR Associates Inc.)	David W. Roop (DWR Associates, LLC)
Adrianne Collins (Southern Company Services Inc.)	Chris Root (VELCO)
Jaime De La Ree (Virginia Polytechnic Institute)	Sergo Sagareli (ConEdison)
Ron Duckstein (Sediver USA)	Werner Schweiger (Eversource Energy)
Randy Grass (POWER Engineers)	Richard Shaheen (Bonneville Power Administration)
Adam Keech (PJM Interconnection, LLC)	Mariko Shirazi (University of Alaska – Fairbanks)
Chris Kelly (National Grid)	Cliff Thompson (North American Substation Services, LLC)
Robert Kirkland (Leidos)	Demetrios A. Tziouvaras (Schweitzer Engineering Laboratories)
Aaron Lewis (Black & Veatch Corporation)	Brad Williams (Oracle Utilities)
Keith E. Lindsey (Lindsey Systems)	Peng Zhang (University of Connecticut)
Mark McGranaghan (Electric Power Research Institute)	Mike Lamb (Dominion Energy Virginia)
Rana Mukerji (New York Independent System Operator, Inc.)	Jory Cheng (American Transmission Company)
Sean Murphy (PingThings, Inc.)	Andrew Phillips (Electric Power Research Institute)
Damil Novosel (Quanta Technology)	

USNC – 2020 Finances

Cigre For power system expertise

- Revenues:
 - Individual Memberships
 - Collective Memberships
 - Corporate Sponsorships Grid of the Future & Paris
 - Conference Income Paris registration fees*
- Expenses:
 - Dues to Paris Office
 - Administration/Operations
 - Conference Expenditures
 - Travel
 - Marketing

\$100,350.00 \$103,000.00 \$67,500.00 \$41,925.00 \$312,775.00 \$93,496.87 \$137,944.56 \$117,040.88 -\$3,863.95 \$5,015.99 \$349,634.35

* Paris session delayed until 2021/2022



USNC – Financial Summary – 2020

(audited and closed)

	Budget	Actual*	
Revenues	\$ 804,950.00	\$ 312,775.00	
Expenses	\$773,404.15	\$ 349,634.35	
Net Income	\$ 31,545.85	\$ -36,859.35	

Investments:

Certificates of Deposit:

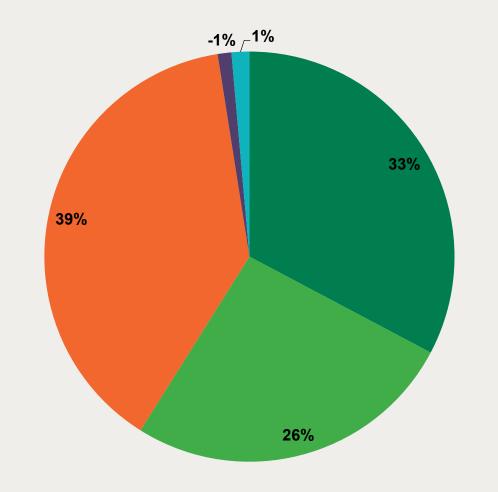
\$297,092.14



* Consequence of postponement of Paris Session and Grid of the Future

2020 Expense Breakdown





- Conference Expenses \$117.040.88
- Conference Member Fees \$93,496.87
- Administration & Operations \$137,944.56
- Officer and Staff travel \$-3,863.95
- Marketing \$5,015.99



USNC Membership

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021*</u>
Individual	608	548	622	839	943	946
Collective	57	55	51	53	49	54
Principal	(29)	(26)	(25)	(24)	(24)	(23)
Sustaining	(5)	(8)	(8)	(10)	(9)	(10)
Patron	(9)	(8)	(5)	(6)	(6)	(8)
Educational	(14)	(13)	(13)	(13)	(10)	(13)

* 2021 Data as of August 1, 2021

Collective – Members 2021 (to date)



Patron Members (8)

Hitachi ABB Power Grids

Commonwealth Edison

EPRI

Oracle

AEP Service Corporation Dominion Energy GE Grid Solutions / GE Power Tennessee Valley Authority

Sustaining Members (10)

Burns & McDonnell ConEdison ISO New England, Inc. National Grid USA S&C Electric Co. Commonwealth Associates, Inc. Eversource Energy Lindsey Manufacturing Co. New York ISO Southern States LLC

Collective – Members 2021 (to date) Principal Members (23)



American Transmission Co. (ATC)

Bonneville Power Administration

First Energy Corp.

Leidos

MPR Associates, Inc.

PECO Energy

PJM Interconnections

Power Systems Consultants

Schweitzer Engineering Laboratories

Siemens Energy, Inc.

Southern Company

VELCO

Black & Veatch CTC Global Hunt Power Mitsubishi Electric Power Products North American Substation Services PingThings POWER Engineers, Inc. **Quanta Services** Sediver USA Southern California Edison Vanry + Associates



Collective – Members 2021 (to date) Educational Members (13)

Clemson University (sponsored by Dominion) Kansas State University (sponsored by Burns & McDonnell) Missouri University of Science & Technology (sponsored by Burns & McDonnell) Ohio Northern University (sponsored by AEP) Ohio State University (sponsored by AEP) Oklahoma State University (sponsored by AEP) **Texas A&M University** (Sponsored by USNC Cigre) University of Alaska-Fairbanks University of Pittsburgh (sponsored by Dominion) University of Puerto Rico-Mayaguez (sponsored by AEP) University of Tennessee (sponsored by Dominion) **USACE** Technical Library Virginia Polytechnic Institute and State University (sponsored by Dominion)

Membership: Sales & Marketing



Individual Members Growth



Grow from 943 individual members to 1,000 by 2022

- Accomplished by...
 ✓ Seminar on ERCOT February Outage
 ✓ Develop student
- membership groupthrough university liaisons✓ The outreach for GOTF

Collective Members Growth

10% growth in... 2021: 49 to 54 2022: retain all 54 members and grow to 60

Accomplished by...

- Maintaining contacts with existing collective membership
- Subcommittee to develop collective members with personalized materials and existing USNC members relationships







UPDATE AND CALL TO ACTION



History



2016

UK Hosted first WiE Workshop

I had the privilege to attend the kickoff of the United Kingdom's first Women in Energy kickoff session. This session marked the beginning of WiE worldwide as well.

2018

CIGRE US Hosted First WiE Event

The United States hosted their first Women in Energy breakfast during the annual Grid of the Future Symposium. Beth Larose organized and was the first chair for CIGRE US Women in Energy

2021

CIGRE US Continues Focus

In 2021, we continue to think through how we can embrace diversity in CIGRE and support more diverse groups towards becoming involved with the CIGRE working groups and conferences.



Vision

CIGRE WiE is a forum for women working in energy to interact, develop their careers, increase self-confidence, improve professional skills, and accomplish their dreams.

Mission

CIGRE WiE inspires and motivates women in energy by helping to provide links to global thought leaders and role models as well as demonstrates the influence and functions of female professional communities.

Goals

- Identify winning strategies to drive career success for women in the power & energy industry
- Understand the knowledge, skills and experience needed to reach goals
- Design action plans to grow women's professional careers



Recent International Events

2021 CIGRE Paris Session

2 Hour Session aiming to forge advancement and success for women in energy while increasing active participation within CIGRE activities





CIGRE Women in Energy Centennial Celebrations Theme: Energy transition over the next 100 years Date & Time: 23 August 2021 14:00 - 16:00 CEST

Activity	Time	Speaker Details
Opening Address		Moderator: Ms Claire Lajoie-Mazenc - France Studio Moderator: Dr Britta Buchholz - Germany Online question moderator (SparkUp Interactivity): Ms Maddy Binet - Australia
	14:05 - 14:15	CIGRE WiE Chair: Khayakazi Dioka
	14:15 - 14:20	CIGRE President: Michel Augonnet
	14:20 - 14:25	CIGRE Secretary General: Philippe Adam
Keynote Address - Energy Industry Perspective	14:30 - 14:40 14:40 - 14:50 14:50 - 15:00 15:00 - 15:10	Moderator - Dr Britta Buchholz Ms Anastasia Bondarenko - Russia Dr Vera Silva - France Ms Pranvera Dobruna-Kryeziu - Kosovo Q&A
Panel Discussion	15:10 - 15:50	Moderator: Dr Tal Katz <i>- Israel</i> Panelists: Dr Solange David - Brazil Dr. Eirini Leonidaki - Greece Dr Anthony Giacomoni - USA
Closing and Way Forward	15:50 - 16:00	Ms Arianna Guarneri - Italy Ms Khayakazi Dioka - SA



Upcoming US WiE Dress lafe et

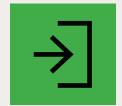


Breakfast

Speaker: Carol Sedewitz National Grid VP Electric Asset Management & Engineering



Networking



Opportunity to input and shape CIGRE US WiE



Call to Action





Help us improve!

Use the QR code to provide survey input for:

- Future events/activities
- Identification of Interested Participants



Survey and all WiE activities are for EVERYONE. It takes all of us working together to make a difference.













Next Generation Network (NGN)



USNC NGN Executive Committee

























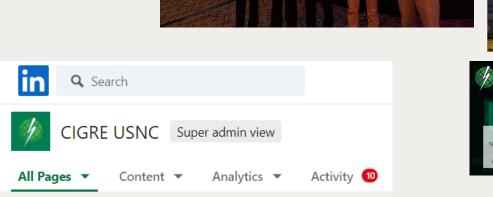
Position	Name	
Chair	Travis Heintzelman	
Communications	Alvese Riumonthal	
Secretary, newsletter, website	Alyssa Blumenthal	
Events	James Perger	
Grid of the Future, international colloquium	James Berger	
International Collaboration	Anthony Giacomoni	
	Chris Mertz	
Marketing	Colton Russell	
External Focus	Clay Meyer	
Membership	Margan Hoffmann	
Internal Focus	Morgan Hoffmann	
Mentoring	Mollon/Drogo	
Working group correspondence	Mallory Droge	
Professional Development		
Paper competition	Logan Lillis	
Professional Development	Hassaan Idrees	
Webinars		
Social Media	Rebecca Hilderbrand	
Mombors At Largo	Amanda Olson	
Members-At-Large	David Roop	
	Deepak Ramasubramanian	



Current Projects

What we are presently working on!

- Mentor/Mentee KMS Collaboration Space
- •Webpage Update
- •Social Media Outreach
- •Student Membership Initiative
- Paper Competition
- •Webinars







Hybrid Resources as Power Plants Role and Value of Hybrid Resources in the Energy Mi

Aark Ahlstrom, ESIG and NextEra Energy Res

Areas for International collaboration:

 Professional development events (Technical Sessions/Trainings/Webinars)
 NGN Presentation Showcase





Technical Activities Committee



- USNC Regular Members and Regular Additional Members to CIGRE Study Committees & Appointment Dates
- USNC Synopses Selection Process
- GOTF Paper Submission and Evaluation
- Working Groups/Task Forces Member Selection Process
- CIGRE WG and Convener Origins
- Ladies in CIGRE WGs Origins
- Ladies WG Convener Origins

U.S. Regular Members to CIGRE Study Committees & Appointment Dates



- A1-Bill Moore (EPRI) 2014
- A2-Mike Lamb (Dominion Energy) 2018
- A3-Albert Livshitz (CE Power) 2018
- B1-Rusty Bascom (Electrical Consulting Engineers, P.C.) 2020
- B2-Erik Ruggeri (POWER Engineers) 2020
- B3-George Becker (POWER Engineers) 2020
- B4-Neil Kirby (GE Grid Solutions) 2018
- B5-Rich Hunt (Quanta Technology, LLC) 2016



U.S. Regular Members to CIGRE Study Committees & Appointment Dates

- C1-Jeff Palermo (PJP Consulting) 2016
- C2-Todd Ramey (MISO) 2018
- C3-Randy Grass (POWER Engineers) 2020
- C4-Theo Laughner (LifeScale Analytics) 2014
- C5-Adam Keech (PJM Interconnection) 2014
- C6-Jason Taylor (EPRI) 2016
- D1-Luke Van der Zel (EPRI) 2018
- D2-Chen-Ching Liu (Virginia Tech) 2020

U.S. Regular Additional Members to CIGRE Study Committees & Appointment Dates



- A2-None
- A3-Brian O'Neil (RMS Energy Co., LLC) 2020
- B1-Tom Zhao (EPRI) 2022
- B2-Doug Proctor (Proctor Engineering) 2018
- B3-None
- B4-David Roop (MEPPI) 2020
- B5-Mladen Kezunovic (Texas A&M University) 2018





U.S. Regular Additional Members to CIGRE Study Committees & Appointment Dates

- C1-None
- C2-None
- C3-None
- C4-Gaurav Singh (EPRI) 2020
- C5-Jeff Bladen (MISO) 2020
- C6-Sundar Venkataraman (Nexant) 2018
- D1-Bill Larzelere (Evergreen High Voltage) 2018
- D2-None

2022 Synopses Selection Process



- 1. 80 Abstracts Received and Forwarded to USNC Study Committee Reps for their Advisory Committee Review (75 Received for 2020; 47 for 2018; 48 for 2016)
- 2. Abstracts Reviewed and Scored with Following Criteria:
 - Relevance to SC Preferential Subjects
 - Technical Content
 - Clarity of Synopsis
 - Avoid Commercialism
- 3. 80 Synopses Submitted to Paris (Acceptance Notification on September 24, 2021)
- **4.** Historical Acceptance Rate: 57/60 (95%) Accepted for 2020, 27/30 (90%) for 2018, 93% for 2016, 87% for 2014, 83% for 2012



CIGRE USNC 2021 Grid of the Future (GOTF) Paper Process

- Call For Papers
 - Theme: Technology for the 21st Century Electric Utility
- No Abstract Step Full Papers Only Submitted by August 27, 2021
- Use Paper Preparation Template
- Papers Reviewed in First Half of September
- Reviewer's Comments Incorporated in Second Half of September
- 20 Paper Sessions Created for GOTF Technical Program

GOTF Paper Evaluation Process



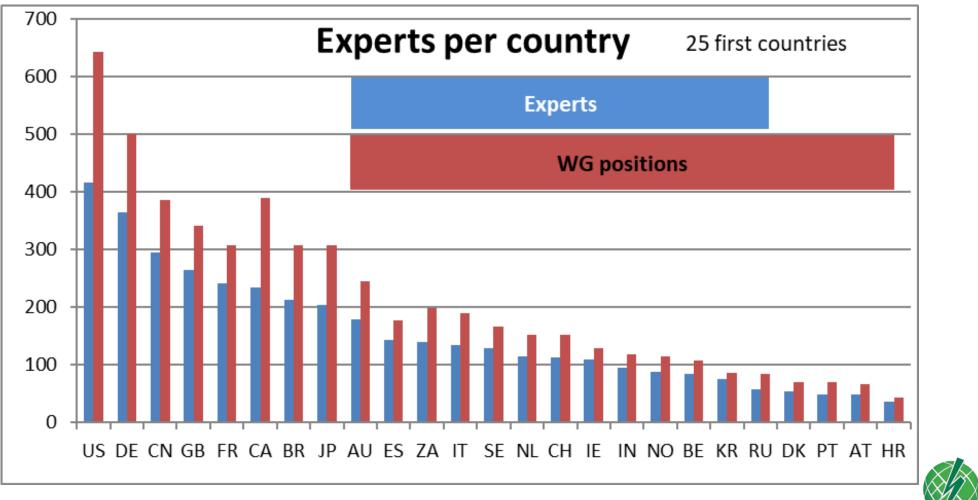
- Submitted Papers Forwarded to USNC Study Committee Reps for their Advisory Committee Review
- Evaluation Criteria
 - Novel and Innovative Technical Content (Concept with Implementation Results)
 - Clarity of Paper
 - No Commercialism
 - Adherence to Required Formatting (Use Paper Preparation Template)

Working Groups/Task Forces Member Selection Process



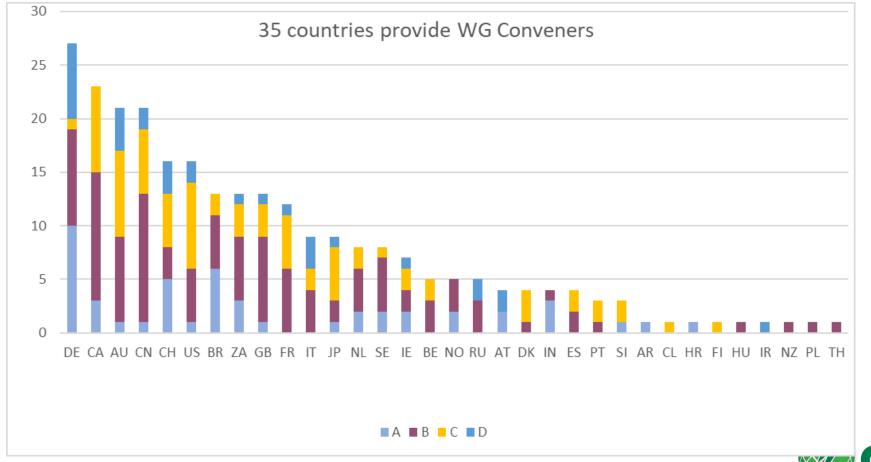
- Interested candidates must have Individual Member dues paid and send CV
- Obtain email address for new WG Convener and submit candidates' CVs directly to Convener
- Request Convener to confirm candidates' membership
- If no USNC candidates interested in a new WG, will ask new WG Convener for knowledge of US experts, and will contact them to see if they are interested in joining
- If more candidates are interested in same WG than CIGRE policy allows, set up a "Shadow WG" within the USNC

Number of experts / positions per Country



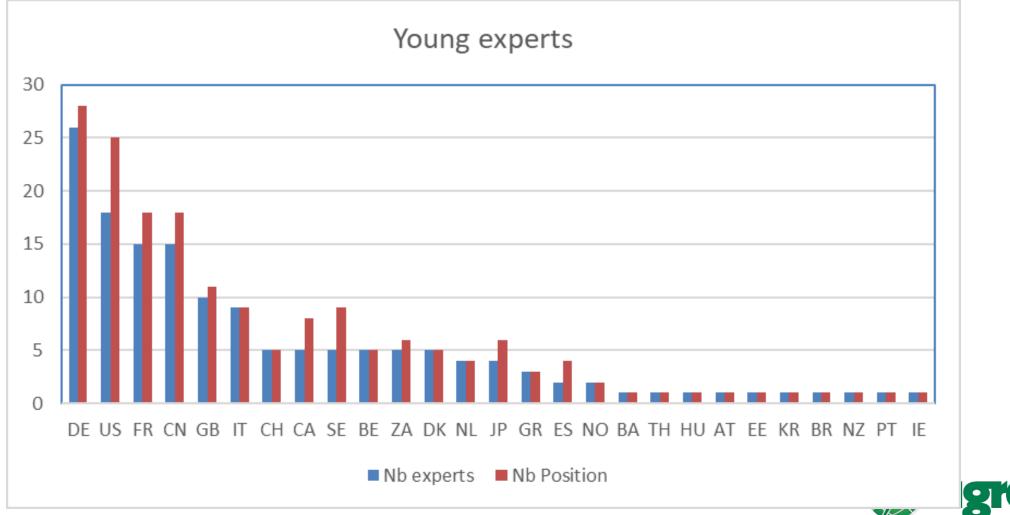
Cigre For power system expertise

Country of the conveners





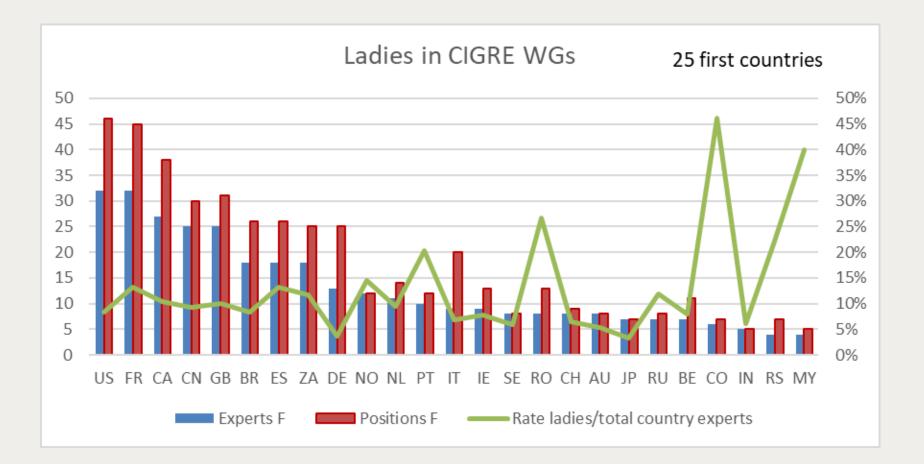
Number of Young Experts per Country



For power system expertis

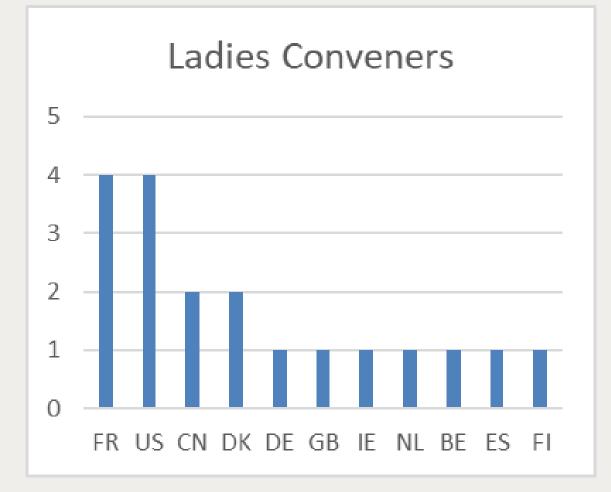
Place of Women in CIGRE





Place of Women in CIGRE





V

Paris Meeting for 2022

- 1. CIGRE held a Virtual Centennial Meeting in 2021.
- 2. It is expected that in August, 2022 will be a normal Paris in person meeting with all committees sponsoring sessions and paper being presented.
- **3**. There will be a CEO session there as we as a virtual CEO meeting in October of 2021.
- 4. Since the Paris event has not been held since 2018, we hope for a large turnout.





2022 Annual Meeting and Luncheon

- The USNC Executive Committee has decided to hold the 2022 Annual Meeting during the IEEE PES General Meeting in Denver, Colorado on
 - Tuesday, July 19, 2022



We are excited to hold this event as we have in past in person!





Grid of the Future

OCTOBER 17-20, 2021

NOW A HYBRID EVENT

Technology for the 21st Century Electric Utility

Register Book Your Stay Sponsorship Opportunities

The Grid of the Future Symposium, sponsored by the *CIGRE US National Committee* (USNC) and *Electric Power Research Institute* (EPRI), with the theme Technology for the 21st Century Electric Utility, will be held October 17–20, 2021 in Providence, RI.

The Symposium, hosted by *National Grid*, will be a forum for the participants to discuss state-of-the-art innovations in generation, transmission, distribution, and innovative smart grid technologies.

Grid of the Future 2021 will feature plenary sessions, technical paper sessions, and tutorials by international experts. Contributions from Next Generation Network (NGN) young engineers are encouraged.

Grid of the Future 2021 is hosted by

nationalgrid

Grid of the Future 2021 is sponsored by





leidos





MITSUBISHI ELECTRIC POWER PRODUCTS, INC.





