

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.





USNC General Meeting Agenda

- 1. USNC President's Opening Remarks
- 2. CIGRE International Update
- 3. Awards & Recognition
- 4. Nominations & Appointments
- 5. Treasurer's Report
- 6. Administrative VP Report
- 7. Membership
- 8. Women in Engineering
- 9. Next Generation Network
- 10. Technical Activities Report
- 11. Future CIGRE and USNC Meetings
- 12. Other Business & Discussion

D. Roop M. Heyeck

K. Lindsey / E. LaRose

C. Root / D. Novosel

C. Kelly

D. Russell

J. Hogan

B. LaRose

C. Mertz

J. McDonald

D. Roop

USNC Members





Business Actions

- 1. Approval of minutes from 8/6/2019 Annual meeting
- 2. Approval of Bylaw changes recommended for CIGRE USNC





CIGRE Organization 2020-2022

1. Officers

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

2. US Representative on Administrative Council & Steering Committee

Mike Heyeck





International Activities

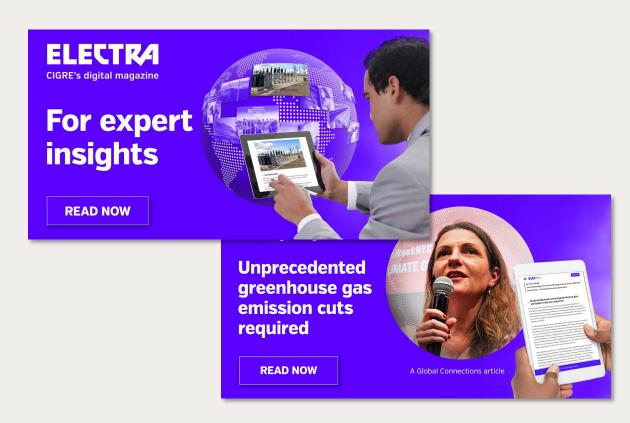
- 1. 2021 Paris Centennial Session August 20-25
 - Register for low rate at CIGRE-USNC.org until December 31, 2020; Increases in 2021
 - If Cancelled by CIGRE Full Refund
 - If Member Cancels 120 Euro fee in 2020, and 240 Euro fee in 2021
 - Hybrid MAYBE with SOME Virtual Elements
- 2. 2022 Paris Session Preferential Subjects Finalized
- 3. US #2 in Membership in 2019 behind China, but we fell to #3 in 2020 as Japan leaps ahead





ELECTIZA CIGRE's digital magazine

- Signature publication is now digital
- electra.cigre.org
- We will promote it throughout this year and next
- No login for now but from October use your e-cigre details
- Newsletters continue...
 - PowerTalk (Events, News)
 - Leadership Circle (C-Suite)
 - Future Connections (E2E Grid Visioning)



"digital delivery for our 2nd century"

Awards & Recognition Committee

- 1. Keith Lindsey Chair Lindsey Mfg. Co.
- 2. Elizabeth LaRose Vice Chair GE Power
- 3. Dick Wakefield Vice Chair Consultant
- 4. Clark Gellings Consultant
- 5. Mike Heyeck Consultant
- 6. John McDonald GE Grid Solutions
- 7. Rana Mukerji New York ISO
- 8. Chris Root VELCO
- 9. B. Don Russell Texas A&M University
- 10. Virginia Sulzberger Consultant







Citation –

"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."

1.Paul Myrda





1.Paul Myrda2.John Randolph





- 1.Paul Myrda
- 2. John Randolph
- 3. Galen Rasche





- 1. Paul Myrda
- 2. John Randolph
- 3. Galen Rasche
- 4. David W. Roop





- 1. Paul Myrda
- 2. John Randolph
- 3. Galen Rasche
- 4. David W. Roop
- 5. Chris Root





- 1. Paul Myrda
- 2. John Randolph
- 3. Galen Rasche
- 4. David W. Roop
- **5.**Chris Root
- 6.Dr. Jason Taylor





USNC Philip Sporn Award — 2020



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 – 2020

Dale Douglass





USNC Outstanding Collective Member Award — 2020



"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 — 2020







Nominations & Appointments Committee

- Chris Root Chair VELCO
- Damir Novosel Vice Chair Quanta Technology
- Chris Kelly National Grid
- Mark McGranaghan EPRI
- John McDonald GE Grid Solutions





USNC Vice Presidents (Chairs of USNC Committees)

Nominations for Term Ending (TE) Through 2021:



- James Hogan / Allen Xi (Burns & McDonnell) VP, Marketing & Membership
- 2. Chris Mertz (Dominion Energy) Next Generation Network (NGN)



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. Chris Kelly (National Grid) 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 Engineering (WIE)







Executive Committee Members at Large - Term Ending 2021

Robert W. Bradish (American Electric Power)	Shay Bahramirad (Commonwealth Edison)
Samuel Barnes (Commonwealth Associates, Inc.)	Bill Bojorquez (Hunt Power, L.P.)
Robert Carritte (MPR Associates Inc.)	Clem Clayton (Tennessee Valley Authority)
Adrianne Collins (Southern Company Services Inc.)	Jaime De La Ree (Virginia Polytechnic Institute)
Ronald Duckstein (Sediver, USA)	Randy Grass (POWER Engineers)
Jim Hogan / Allen Xi (Burns & McDonnell)	Adam Keech (PJM Interconnection, LLC)
Chris Kelly (National Grid)	Robert D. Kirkland (Leidos)
Tomas Leander (Hitachi ABB Power Grids)	Keith E Lindsey (Lindsey Manufacturing Company)
Arron Lewis (Black & Veatch Corporation)	Mark McGranaghan (Electric Power Research Institute)
Rana Mukerji (New York Independent System Operator, Inc.)	Sean Murphy (PingThings, Inc.)
Damir Novosel (Quanta Technology)	Tim Qualheim (S&C Electric Company)
David W. Roop (DWR Associates, LLC)	Chris Root (VELCO)
Sergo Sagareli (ConEdison)	Werner Schweiger (Eversource Energy)
Richard Shaheen (Bonneville Power Administration)	Mariko Shirazi (University of Alaska – Fairbanks)
Cliff Thompson (North American Substation Services)	Demetrios Tziouvaras (Schweitzer Engineering Laboratories)
Bill Webb (CTC Global)	David Wojtczak (American Transmission Company)

Executive Committee Members at Large - Nominated for Term Ending 2022



Kevin Curtis (Dominion Energy)	Terrence Donnelly (ComEd)
Johan H. Enslin (Clemson University)	Tom Eyford (Oracle Utilities)
Mike Heyeck (CIGRE)(Grid Group LLC)	Elizabeth LaRose (GE Power)
Yilu Liu (University of Tennessee and Oak Ridge Lab)	John D. McDonald (GE Grid Solutions)
Amanda Olson (Burns & McDonnell)	John Paserba (Mitsubishi Electric Power Products)
Dave Poska (First Energy Corporation)	Stewart Ramsay (Vanry & Associates)
Gregory Reed (University of Pittsburgh)	Joe Rostron (Southern States, LLC)
Paul Roskilly (Siemens Energy Management)	B. Don Russell (Texas A&M University)
Eric Stein (PECO Energy)	Gordan Van Welie (ISO New England)

USNC – 2019 Finances



Revenues:

 Individual Memberships 	\$97,125.00
 Collective Memberships 	\$109,500.00
 Corporate Sponsorships Grid of the Future 	\$130,000.00
 Conference Income 	\$101,470.00
Annual Mtg., & Grid of the Future	\$438,095.00

• Expenses:

\$98,986.18
\$137,754.68
\$140,365.87
\$22,930.46
\$3,384.75
\$403,421.94

USNC – Financial Summary – 2019

(audited and closed)

	<u>Budget</u>	<u>Actual</u>
Revenues	\$ 488,000.00	\$ 438,095.00
Expenses	\$ 443,267.00	\$ 403,421.94
Net Income	\$ 44,733.00	\$ 34,673.06



Investments:

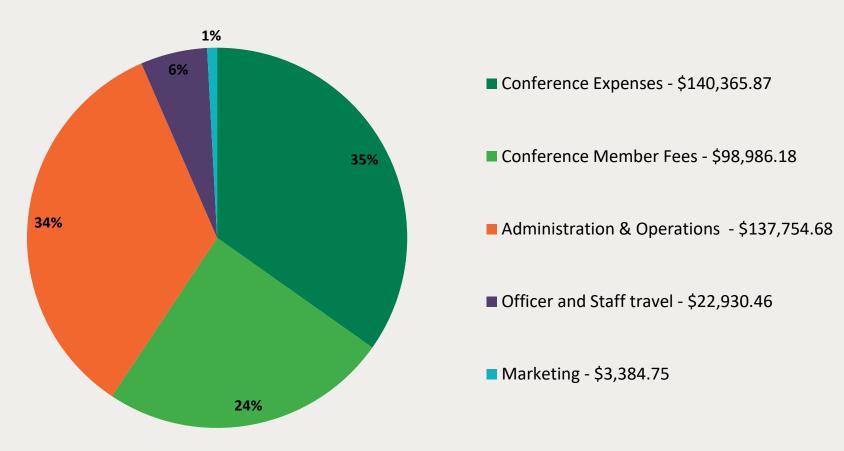
Certificates of Deposit: \$ 287,472.76







2019 Expense Breakdown



CIGIE For power system expertise

USNC Membership

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	2020*
Individual	525	608	548	622	839	840
Collective	45	57	55	51	53	48
Principal	(27)	(29)	(26)	(25)	(24)	(24)
Sustaining	(5)	(5)	(8)	(8)	(10)	(9)
Patron	(8)	(9)	(8)	(5)	(6)	(6)
Educational	(4)	(14)	(13)	(13)	(13)	(9)

^{* 2020} Data as of October 1, 2020

Collective – Members 2020 (to date)



Patron Members (6)

Hitachi ABB Power Grids AEP Service Corporation

Dominion Energy EPRI

GE Grid Solutions/ GE Power Tennessee Valley Authority

Sustaining Members (9)

Burns & McDonnell Commonwealth Associates, Inc.

ConEdison Eversource Energy

ISO New England, Inc. Lindsey Manufacturing Co.

National Grid USA New York ISO

S&C Electric Co.

Collective – Members 2020 (to date)



Principal Members (24)

American Transmission Co. (ATC)

Black & Veatch

Bonneville Power Administration Commonwealth Edison

CTC Global First Energy Corp.

Hunt Power Leidos

Mitsubishi Electric Power Products MPR Associates, Inc.

North American Substation Services PECO Energy

PingThings PJM Interconnections

POWER Engineers, Inc.

Power Systems Consultants

Quanta Services Schweitzer Engineering Laboratories

Sediver USA Siemens Energy, Inc.

Southern Company Southern States LLC

Vanry + Associates VELCO

Collective – Members 2020 (to date)



Educational Members (9)

Clemson University

Kansas State University

Missouri University of Science & Technology

Texas A&M University

University of Alaska-Fairbanks

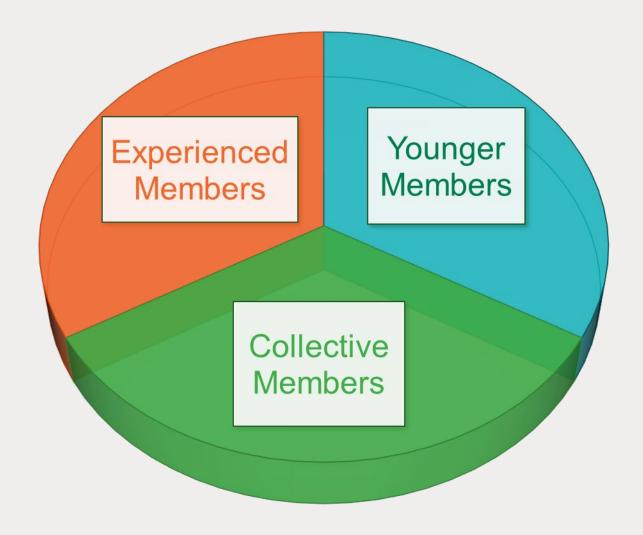
University of Pittsburgh

University of Tennessee

USACE Technical Library

Virginia Polytechnic Institute and State University

Membership Approach







Younger Member Strategy

- 1. Utilize IEEE Student Chapters
- 2. Propose CIGRE Ambassador Role
 - Promotes CIGRE at Colleges & Universities
 - Creates Leadership Positions
 - Encourages attendance at GOTF & Paris Session
 - Support from industry with Speakers, Presentations, and Tours
- 3. Engage NGN to drive initiative
- 4. Support from Collective Members





Collective Membership Strategy

- 1. Engage Executive Committee
 - Identify Companies
 - Assign Champion
- 2. Provide Collateral
- 3. Provide Talking Points

Experience Workforce Strategy

- 1. Encourage from Collective Members
- 2. Use existing network to promote membership
 - Professional Societies
 - Webinars and Conferences
 - Social Media





Marketing Strategy

- 1. Author Papers
- 2. Present Conferences
- 3. Sponsor Webinars
- 4. Promote on Social Media









US National Committee WiE

- Integrated into US Grid of The Future events:
 - 2019 Breakfast panel highlighting diversity
 - Engagement survey:
 - Focus on career challenges and retention
 - 81% of companies have organized, diversity, inclusion or affinity networks
 - Flexible work arrangements are highly desired
 - Work challenge, ability to innovate and the impact to society are why people stay in the power industry
- Promoting diversity with the Next Generation Network
 → ~45% of US NGN executive committee are women!
- US Women in CIGRE
- ~10% of US Executive Committee
- ~32 Experts hold 46 SC/WG/NGN positions; 4 WG Conveners
- Contact: Beth LaRose, Elizabeth.larose@ge.com



Adrianne Collins-Southern Company Services (right) and Mark McVey-Dominion Energy (left) moderated a panel with (I-r) Elizabeth Chu, GE Renewable Energy, Tricia Breeger, Mitsubishi Electric Power Products and Chris Root, Vermont Electric Power Co.



US NGN at CIGRE Paris 2018

Next Generation Network (NGN)





USNC NGN Executive Committee



Position	Name
Chair	Chris Mertz
Events	Alyssa Blumenthal
Grid of the Future, international colloquium	
International Collaboration	Anthony Giacomoni
	Natalie Tacka
	Cam VanLeuven
Marketing	Jenny Erwin
External Focus	Joseph (JJ) Petti
Membership	Mallory Droge
Internal Focus	Morgan Hoffmann
Mentoring	David Roop
Working group correspondence	
Professional Development	Travis Heintzelman
Paper competition	
Professional Development	Hassaan Idrees
Webinars	
Social Media	Rebecca Hilderbrand
Members-At-Large	Amanda Olson
	Deepak Ramasubramanian































Current Projects

What we are presently working on!

- Social Media Outreach
- Student Membership Initiative
- Paper Competition
- Webinars

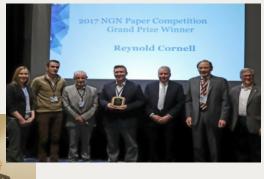
Areas for International collaboration:

Professional development events (Technical Sessions/Trainings/Webinars)









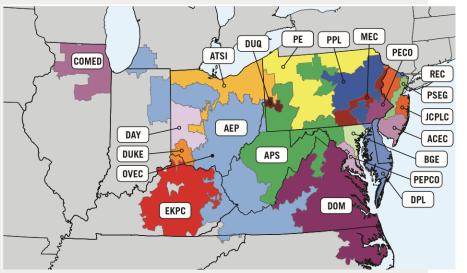


NYISO DER Value and Market Participation





Keeping members engaged.















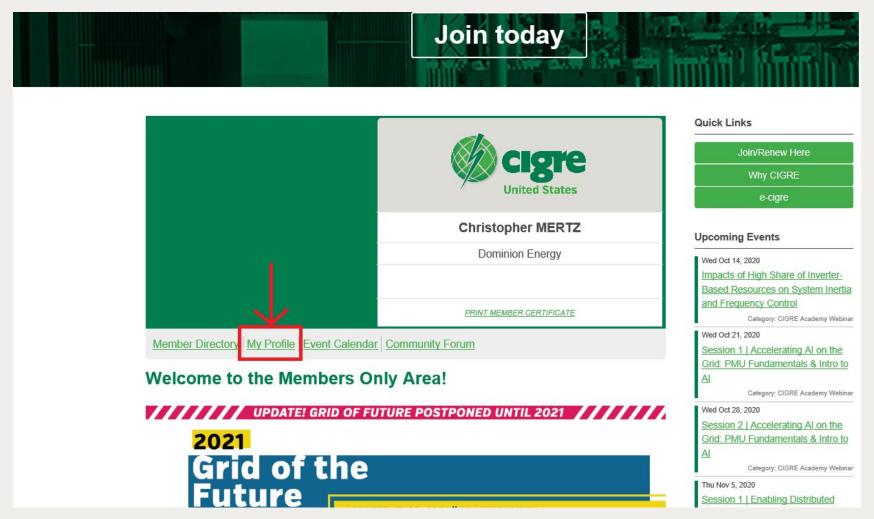






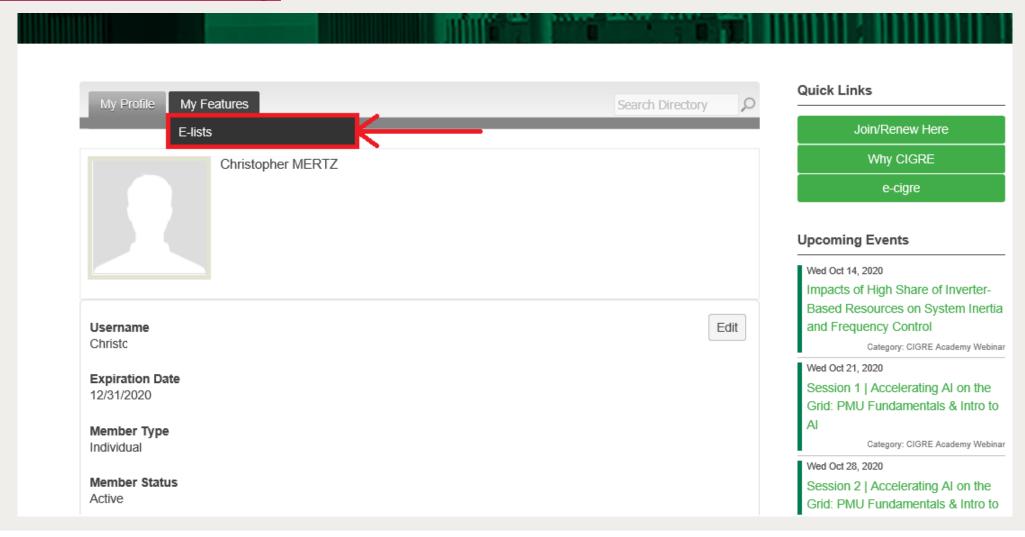
CIGIE For power system expertise

NGN member tracking.



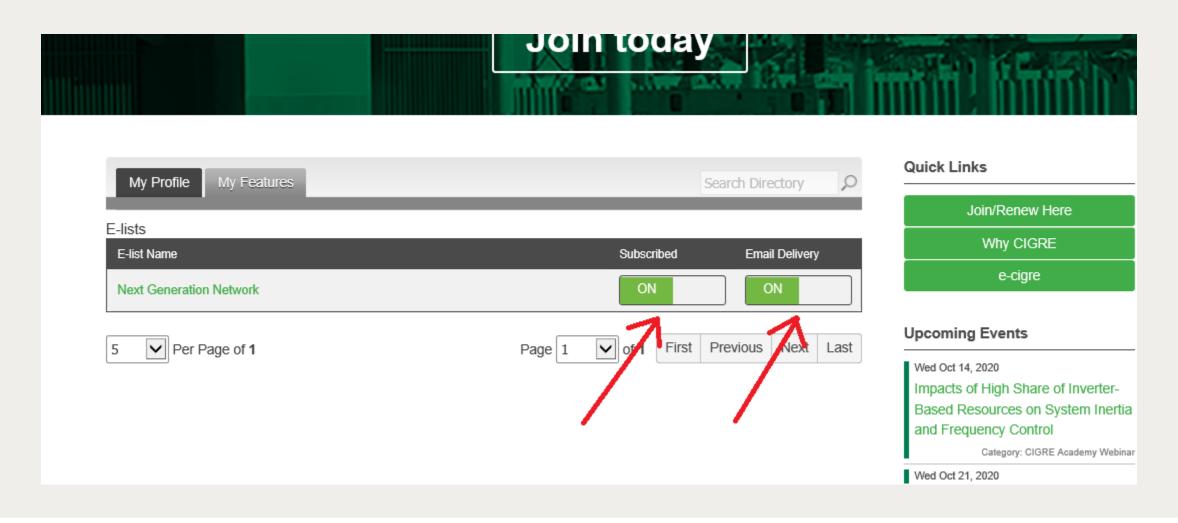
CIGTE For power system expertise

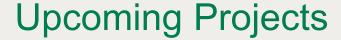
NGN member tracking.



CIBIE For power system expertise

NGN member tracking.







In the project pipeline!

- Two Webinar Series
 - -Focus on Professional Development
 - -Focus on Technical Development
- Explore Conventional Mentorship Program
- USNC Leading Effort on Coordinating the 2021 NGN Presentation Showcase for the 2021 CIGRE Centennial Session

Technical Activities Committee



- USNC Representatives 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. Representatives 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, Inc.) 2020
- B3-George Becker (POWER Engineers, Inc.) 2020
- B4-Neil Kirby (GE Grid Solutions) 2018
- B5-Rich Hunt (GE Grid Solutions) 2016

U.S. Representatives 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 (PowerGrid-RX Inc.) 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. Additional Members to CIGRE Study Committees & Appointment Dates



- A1-Hugh Zhu (Consultant) 2018
- A2-None
- A3-Brian O'Neil (RMS Energy Co., LLC) 2020
- B1-Mohammad Pasha (United Illuminating) 2014
- B2-Doug Proctor (Proctor Engineering) 2018
- B3-None
- B4-David Roop (MEPPI) 2020
- B5-Mladen Kezunovic (Texas A&M University) 2018

U.S. 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 (GE Power) 2018
- D1-Bill Larzelere (Evergreen High Voltage) 2018
- D2-None

2020 Synopses Selection Process



- 1. 75 Abstracts Received and Forwarded to USNC Study Committee Reps for their Advisory Committee Review (47 Received for 2018; 48 Received for 2016)
- 2. Abstracts Reviewed and Scored with Following Criteria:
 - Relevance to SC Preferential Subjects
 - Technical Content
 - Clarity of Synopsis
 - Avoid Commercialism
- 3. Abstract Recommendations Combined and Overall Ranking Created with the Following Criteria:
 - Balance Between SCs and Preferential Subjects
 - Highest Recommendations of Reviewers
 - International, National and Additional Commitment Allotments Requirements
- 4. 60 Synopses Submitted to Paris (Acceptance Notification on October 15)
- 5. Historical Acceptance Rate: 27/30 (90%) Accepted 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
- Use Paper Preparation Template





- 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

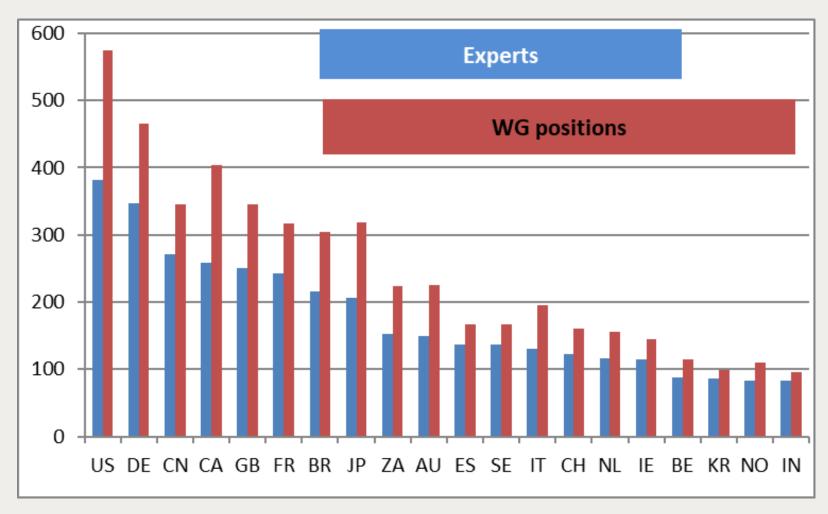


- Interested candidates must have Individual Member dues paid and send CV
- Obtain email address for new WG Convener and submit candidates' CVs directly to Convener
- Request Convener to confirm candidates' membership
- If no USNC candidates interested in a new WG, will ask new WG
 Convener for knowledge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

Synthesis of the 2018 Review

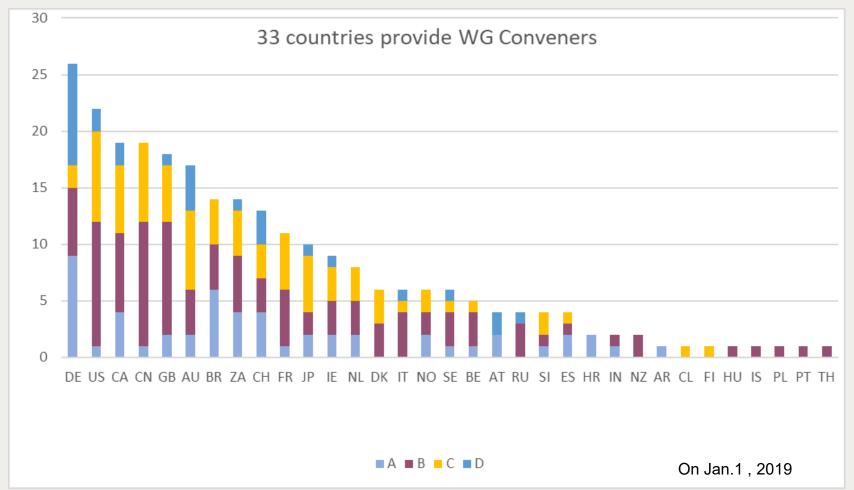


20 first countries



Working Group Conveners' Origins

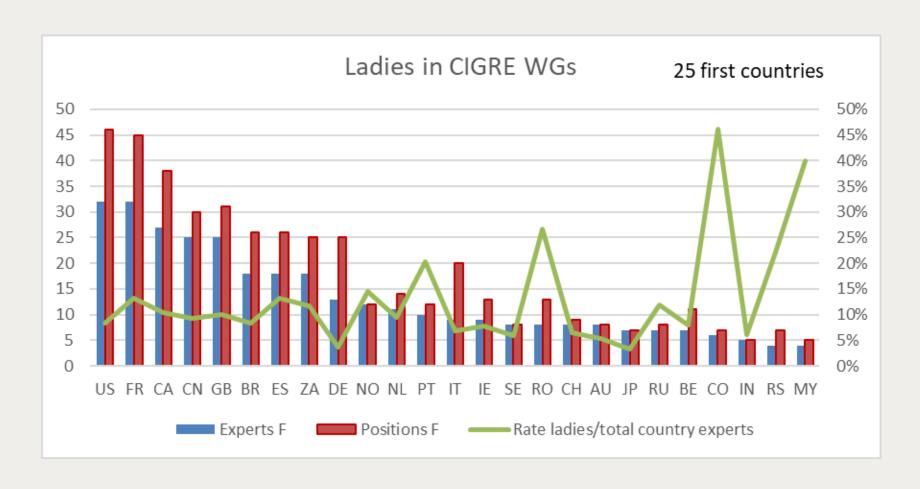






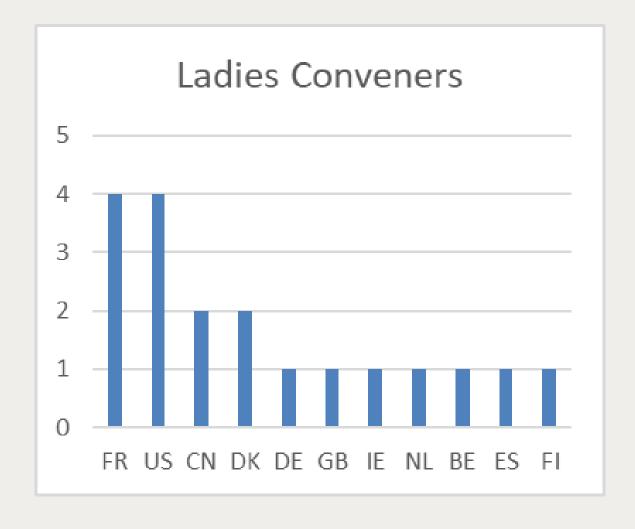
Place of Women in CIGRE





Place of Women in CIGRE











2020 Webinar Academy Events USNC

- CIGRE Academy Webinar, October 14, 2020, Impact of High Penetration of Inverter-based Generation on System Inertia of Networks, 11a.m. 1 p.m. (CDT)
- CIGRE Academy Webinar, October 21, 2020, Part I, Accelerating AI on the Grid: *PMU Fundamentals*, noon 2 p.m. (EDT)
- CIGRE Academy Webinar, October 28, 2020, Part II, Accelerating AI on the Grid: *Intro to AI*, Noon 2 p.m. (EDT)
- CIGRE Academy Webinar, November 5, 2020, Session 1, Enabling Distributed Intelligence with the Open Field Message Bus (OpenFMB) Framework, *Introduction to Standards, Business Drivers, and Industry Landscape*, Noon 2 p.m. (ET)
- CIGRE Academy Webinar, November 12, 2020, Session 2, Enabling Distributed Intelligence with the Open Field Message Bus (OpenFMB) Framework, *OpenFMB Implementation Approach: Current Developments and Technology Stack*, Noon 2 p.m. (ET)

REGISTER AT cigre-usnc.org
Free to USNC members!!





REGISTER AT cigre-usnc.org





Grid of the Future

October 17 – 20, 2021 Providence, Rhode Island

hosted by national grid

Technology for the 21st Century Electric Utility

REGISTER AT cigre-usnc.org

What Can You Do?

- 1. Become active in Working Groups!
 - Need Distribution Expertise as we expand in this area
- 2. Invite a colleague to Join!
- 3. Join us for Webinars!
- 4. Become a Collective Member
- 5. Become a SPONSOR
 - GOTF
 - Paris





Big thank you!

Sharon Loe
Jessica Meadors
Krista Beams



"The voice of CIGRE to our membership"



