

PSCC Main Committee Meeting Minutes

Meeting Location: WebEx	Meeting Time: 2:00PM CT	Meeting Date: 2021/05/07	Minutes Revised: --	Minutes Approved: 2021/09/24
Presiding Officer: Craig Preuss, Chair		Recorded by: Marc Benou, Secretary		
Attendance:				
Name		Affiliation		Attending via Phone (P) / Web (W) or Local (L) M/CM/G
Craig Preuss	Black & Veatch	W	M	
James Formea	Eaton	W	M	
Marc Benou	Iniven	W	M	
Galina Antonova	Hitachi/ABB	W	M	
Tony Bell	Ametek	W	M	
James Bougie	GBT	W	M	
TW Cease	Consultant	W	M	
Tom Dahlin	SEL	W	M	
Mike Dood	SEL	W	M	
Ron Farquharson	Mount Victoria Consulting	W	M	
Ken Fodero	SEL	W	M	
John Fuller	AT&T	W	M	
Dennis Holstein	OCG	W	M	
Yi Hu	Quanta Technology	W	M	
Chris Huntley	SEL	W	M	
Anthony Johnson	SCE	W	M	
Delavar Khomarlou	Hydro One	W	M	
Steve Kunsman	ABB	W	M	
Theo Laughner	PowerGrid-Rx	W	M	
Ken Martin	Electric Power Group	W	M	
Scott Mix	PNNL	W	M	
Hugo Monterrubio	Beckwith	W	M	
Dan Nordell	Xcel Energy	W	M	
Craig Palmer	PowerComm Solutions	W	M	
Roger Ray	PowerComm Solutions	W	M	
Malcolm Swanson	Iniven	W	M	
Eric Thibodeau	Hydro Quebec	W	M	
Benton Vandiver	ABB	W	M	
Nathan Wallace	Ampirical	W	M	
Jay Anderson	ComEd	W	G	
Eugenio Carvalheira	Omicrone	W	G	
Bruce Muschlitz	Novatech	W	G	
Jose Ruiz	Doble	W	G	
Brittany Chapman	CAI-Engineering	W	G	
Jay Herman	EPRI	W	G	
Harish Mehta		W	G	
Randy Brannen	Southern Company	W	G	
Gary Stoedter	MidAmerican Energy	W	G	
Yuchen Lu	EPRI	W	G	

Minutes of meeting (continued)

Farnoosh Rahmatian	Nugrid Power	W	G
Daniel Sabin		W	G
Erin Morales	IEEE SA	W	G
Tom Hofstetter	NERC	W	G
Alex Apostolov	Omicron	W	G
Yujie Yin	GE	W	G
Colin Gordon	SEL	W	G
Steve Klecker	MidAmerican Energy	W	G
Sakis Meliopoulos	Georgia Tech	W	G
Bharat Nalla	SEL	W	G
Dave McGuire	Hubbell - RFL	W	G
Jay Anderson	ComEd	W	G
Steve Klecker	Midamerican Energy	W	G
Tewfik Schehade		W	G
Deepak Maragal	NYPA	W	G
Jean-Sebastien Gagnon	Vizimax	W	G
Mickey Schultz	Black & Veatch	W	G
Kevin Donahoe		W	G
Wayne Stec		W	G
David Dolezilek	SEL	W	G
Charles Adewole	ERL Phase	W	G
Harsh Vardhan	GE	W	G
Jason Lombardo		W	G
Andrew West		W	G
Jeff Dagle	PNNL	W	G
Priyanka Nadkar	SEL	W	G
Eugenio Carvalheira	Omicrone	W	G
Faris Elhaj	Omicrone	W	G
Steffen Fries	Siemens	W	G
Tony Montoya		W	G
Austin Wade	SEL	W	G
Marcus Steel	Big Pond	W	G
Shashi Sastry	ABB	W	G
Jeff Pack	Power Engineers	W	G
Shane Haveron	Ametek	W	G
Karen Leggett Wyszczelski	SEL	W	G
Jalal Gohari		W	G
Gayle Nelms	SEL	W	G
Dave McGuire	Hubbell/RFL	W	G
Jim Michaelis	CAI	W	G
Henson Toland	OFS Optics	W	G
Mario Jardim	Schneider Electric	W	G
Herb Falk	Outside the Box Consulting Services, LLC	W	G
Bill McCoy		W	G

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CALL TO ORDER	Meeting called to order at 5:01PM Eastern time. The agenda was presented and a motion was made by Scott Mix to approve the agenda. Ken Fodero seconded the motion.	C. Preuss
ROLL CALL, INTRODUCTIONS, AND QUORUM DETERMINATION	A quorum was present and determined by a roll call by the Secretary. 27 of 38 members were present. Theo Laughner was introduced as a new member of the main committee.	M. Benou
APPROVAL OF PREVIOUS MINUTES	The January minutes were circulated by email and were approved by lack of objection. Scott Mix made the motion to approve. Benton Vandiver seconded the motion.	C. Preuss
UNFINISHED BUSINESS	No unfinished business was presented for consideration.	
CHAIR REPORT	<p>Ralph Mackiewicz passed away April 12th due to a heart attack. Ralph graduated in 1977 with honors from Michigan Technological University with a BSEE. In 1985 he started his career at SISCO, recently the VP of sales and marketing. He was involved in UCA before the users group formed and the current Chairman of the Board for the UCAIug. He was a valued champion of IEC61850, TASE.2, and CIM standards. He served the PSRC Committee for many years and had also been very active with the PSCCC.</p> <p>Ralph enjoyed fishing and being on his boat. He loved NASCAR racing and football. He enjoyed traveling to far off places and experiencing new things. He loved to cook with his special touches. He loved sharing a good meal, glass of wine and great conversation. Like a fine wine and a good scotch, you always enjoyed him more and more. Ralph was the shining star when he walked into a room with his big smile, friendliness, and presence. He was a lovable guy.</p> <p>PES overlap between technical committees was discussed.</p> <p>Working with Tech Council and other committees as needed to identify and address areas of scope overlap. Working with fiber and wireline subcommittees first with longstanding overlaps identified. AMPS O&P manual submitted to Tech Council for review did not include cyber scope from a working group.</p> <p>Ongoing work from PES reorg: SUBS is finally balloting IEEE 1402 on substation physical security. PSRC IEEE 1613 getting close to finishing draft that includes communication performance.</p> <p>If anyone has questions regarding overlap, they should email Craig Preuss.</p>	C. Preuss
SECRETARY REPORT	<p>The September 2021 meeting will be determined if it will be virtual or in person, January 2022 will be held in Garden Grove, CA and May 2022 will be in Reno.</p> <p>SC Chairs were asked to not ask for meeting rooms unless they know a group will be meeting. We would rather add a group than drop a group. Late cancellations are to be avoided. No-shows are not allowed. Find someone to run the meeting. Special requests, such as double sessions should be made early. All groups should have at least a VC.</p> <p>There are currently 38 members in the MC. 8 newcomers were at the newcomers meeting.</p>	M. Benou

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<p>STANDARD COORDINATOR REPORT</p>	<p>4 standards have had their revisions completed.</p> <p>7 standards are set to expire by the end of 2023 that currently are not under review. 4 standards are currently in balloting. 9 PARs will expire by the end of 2022. The next REVCOM/NESCOM submission deadline is 8/13/21.</p> <p>See attached slides at the end of the minutes for details.</p>	<p>J. Formea</p>
<p>TCPC REPORT</p>	<p>The IEEE PES GM 2021 will be held virtually, July 25-29 with both live and pre-recorded sessions. PSCCC has one panel session July 26 from 1-5 pm “Security Integration and Enabling New Technologies” Thank you to those who reviewed the 21 PSCCC papers. We need a volunteer to be the chair for our transaction paper session.</p> <p>2022 PES T&D Conference & Expo is scheduled for April 25-28, 2022 in New Orleans. Paper submission expected to open 7/8/21. Panel session proposals DUE by 8/5/21. Please contact James Formea with any PSCCC panel proposals.</p> <p>2022 PES T&D Conference & Expo is scheduled for April 25-28, 2022 in New Orleans. Paper submission expected to open 7/8/21. Panel session proposals DUE by 8/5/21. Please contact James Formea with any PSCCC panel proposals</p> <p>2022 PES General Meeting is currently scheduled for July 17-21, 2022 in Denver, CO. Supersession topics have been selected and conference theme is now being determined – feedback due by May 15</p> <p>See attached slides at the end of the minutes for details.</p>	<p>C. Preuss</p>
<p>AO TASK FORCE REPORTS</p>	<p>Hugo Monterrubio gave an awards report. Rewards will be given out at the next in-person meeting at the Monday night reception.</p> <p>T.W. Cease gave a fellows report. In order to become a fellow, first you must become a senior. T.W. can give you the instructions on how to become a senior. If you would like to nominate someone to become a fellow, contact him.</p> <p>Nathan Wallace gave the website report. Nathan would like to do an update to the subgroup section of the website. Each subgroup will end up having their own page including all the information regarding that group. He encourages members to utilize social media, especially LinkedIn, to promote our work.</p> <p>Mal Swanson gave a brief terminology report and reminded the PSCCC to take advantage of terminology, especially for sections 2 and 3.</p>	

<p>SUBCOMMITTEE REPORTS</p>	<p>Craig Palmer gave the C0 report.</p> <p>PC93.5 – Standard for Power Line Carrier Transmitters/Receivers used to Transfer Discrete Teleprotection Signals Approved by NesCom on 3/25/21 Editorial Review indicated a stray table reference – a table is missing from the standard (Table 3 – Percent Uncertainty Requirements for Security Test The table is carried over, unchanged, from the 1997 ANSI version of the standard. WG agreed to pursue an amendment before publication. See new business for the motion made by C0. IEEE-643 – Guide for Power Line Carrier Applications Including content from H subcommittee reports H9 – Special Considerations for PLC and H15 – Redundancy for PLC Coupling in the guide Interest in adding more content on drain coils C93.4 – Standard for Line Tuners & Coupling Equipment SG meeting request for Sep. 2021 Agenda.</p> <p>John Fuller gave the E0 report. Highlights- current and recent activity Liaison/interface to F0, IEEE C2, and NFPA 70/780 Standard revisions and addendums in progress: Standard 820 (balloting after May 18 myProject restore) Standard 1692 (ready for ballot- requesting today) Standard 487a (new Addendum/Guide in progress) Standard 487.3a (new Addendum, MER completed) Standard 367 (revision pending, currently in Study Group)</p> <p>Del Khomarlou gave the F0 report. See the F0 minutes for details.</p> <p>Benton Vandiver gave the P0 report. See the P0 minutes for details. See new business for the motion made by P0.</p> <p>Scott Mix gave the S0 report. S1 WG: The WG discussed changes to P1686 based on MEC comments, and produced a final version of the standard ready to start the ballot process. S0 approved the action to move the standard to ballot, and requests PSCCC to do the same: See new business for the motion made by S0. S2 WG: The WG discussed the status of P1711 Serial Communication Cybersecurity and P1711.1 Serial SCADA Protection Protocol (SSPP) . This work had stalled, and will be restarted. The PAR is nearing completion, and the WG is working to ready the standards for balloting. If the WG completes the actions prior to the September meeting, an email vote to proceed to ballot may be required over the summer. S14 SG: Study Group on HTTPS and TLS Exploration. SG determined that HTTPS is a use case for TLS, and will be focusing on TLS. The SG requested to be converted to a TF to develop the report Implementation of TLS for Usage in Legacy (e.g. SCADA) and Emerging (e.g. DER) Power System Applications with Shashi Sastry as Chair, and Colin Gordon as Vice-Chair. The Report will be made available to NERC and IEC which are both looking at encryption technologies. S15 WG: Work on IEEE Guide for Securing Generic Object Oriented System Events (GOOSE) and Sampled Values (SV) Protocols of IEC 61850 using IEC 62351-6 and IEC 62351-9 was started at this meeting, with initial writing assignments made.</p>	
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	S16 SG: The first meeting of the Study Group on Application of IDS and IPS to Electric Power Systems produced an initial consensus to be a Task Force to develop a report. The SG expects to make this decision at the September meeting.	

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<p>LIASON REPORTS</p>	<p>Dennis Holstein gave the CIGRE D2 report.</p> <p>1 - Cigre Paris FR meeting The semi-annual meeting of cigre study committees will meet in Paris FR the last week of August 2021. This may be a hybrid meeting combining on-site and virtual facilities.</p> <p>2 - Project D2.46 TB 796 – Cybersecurity: Future threats and impact on electric power utility organizations and operations This technical brochure offers an insight into the evolution of the cyber-physical security threat landscape for the next 20 years. The approach used is well-aligned with the concepts described for the “Grid Architecture of the Future.” Based on the guidance provided by a world-wide survey of stakeholders, the most important issues were addressed. The brochure is available to CIGRE members at no cost</p> <p>3 - Project B5.66 -TB 790 – Cybersecurity requirements for PACS and the resilience of PAC architectures This technical brochure offers an insight into the emerging threat landscape with attention paid to common protection, automation and control systems (PACS). Overlaid on this portrait is the imposition of emerging laws and regulations. From this assessment it was clear that a dramatic sea change will be required to modernize existing electric power utility’s policies, procedures, and organizational directives. The brochure is available to CIGRE members at no cost.</p> <p>4 - Project D2.50 – Electric Power Utilities’ cybersecurity for contingency operations Pursuant to the approved terms of reference, guidelines for situations that require consideration of cybersecurity over-rides to gain access to and use of protection, automation, and control system (PACS) assets. Enable an efficient use of emergency communications to over-ride access control and to reconstitute cyber-protection mechanisms. Develop classes of metrics to be used by others to quantify cyber-physical security (CPS) solutions. The work is complete, and the final draft has been reviewed, approved by SC D2, sent to CIGRE for publication.</p> <p>5 - Project D2.54 - Regulatory approaches to enhance EPU’s cybersecurity This is a new working group structured to identify applicable standards, guidelines, and reports that address regulatory approaches to enhance utilities cybersecurity frameworks. A global survey is planned to solicit recommendation on utility preferences and to better understand their needs for improved regulatory guidance. WG D2.54 is conducting an aggressive outreach program to involve subject matter experts with strong experience in regulatory issues. Those interested should contact Dennis Holstein (holsteindk@ocg2u.com), WG D2.54 Convenor.</p> <p>6 - Project B5 – Green Book CIGRE B5 is in the final stages of completing their Green Book focused on the recent work and lessons learned on the development and use of emerging protection, automation, and control solutions. There is an extensive chapter on cybersecurity issues and solutions. The Green Book should be available about mid-2021.</p> <p>Bill McCoy gave a National Electric Code report.</p> <p>Craig Palmer gave a Marine System report.</p> <p>Erin Morales gave a IEEE SA report.</p>	

<p>NEW BUSINESS (MOTIONS)</p>	<p>Request from the C93.5 working group of the C0 Subcommittee to submit a PAR for an AMENDMENT to recently approved Standard C93.5-2021, IEEE Approved Draft Standard for Power Line Carrier Transmitter/Receiver Equipment used to Transfer Discrete Teleprotection Signals Amendment.</p> <p>Request: The C93.5 working group of the C0 Subcommittee requests to submit a PAR for an AMENDMENT to recently approved Standard C93.5-2021 as described below:</p> <p>Proposed Title: IEEE Approved Draft Standard for Power Line Carrier Transmitter/Receiver Equipment used to Transfer Discrete Teleprotection Signals Amendment:</p> <p>Output: Amendment to a standard: IEEE C93.5-2021 Need: To add Table 3 which is referenced and required but missing in IEEE Approved C93.5</p> <p>Scope: This standard describes the requirements for power line carrier transmitter/receiver equipment used to transfer discrete teleprotection signals at power line carrier frequencies (30 kHz to 500 kHz). Test requirements and conditions for determining performance, as well as manufacturing requirements, are defined. This standard does not include broadband or single sideband (SSB) power line carrier equipment used for data transmission, nor does it include terminal equipment used on distribution circuits for the purpose of load management of automation.</p> <p>Purpose: This standard establishes requirements for power line carrier transmitters/receivers so that their interaction with the power system is known and performance can be predicated.</p> <p>Tony Bell made the motion, Tony Johnson seconded the motion.</p> <p>The chair called for a vote; the Secretary conducted a voice vote by roll call. The motion was approved.</p> <p>*****</p> <p>S0 made a motion to authorize WG S1 to form a ballot pool and proceed to Sponsor Ballot for Standard P1686 IEEE Standard for Intelligent Electronic Devices Cyber Security Capabilities.</p> <p>Motion: Subcommittee S0 moves to authorize WG S1 to form a ballot pool and proceed to Sponsor Ballot for Standard P1686 IEEE Standard for Intelligent Electronic Devices Cyber Security Capabilities.</p> <p>Scope: The standard defines the functions and features to be provided in intelligent electronic devices (IEDs) to accommodate cybersecurity programs. The standard addresses security regarding the access, operation, configuration, firmware revision and data retrieval from an IED. Confidentiality, integrity and availability of external interfaces of the IED is also addressed.</p> <p>Purpose: The standard defines the functions and features to be provided in IEDs to support cybersecurity programs. Specifically, the standard states what safeguards, audit mechanisms, and alarm indications shall be provided by the vendor of the IED with regard to all activities associated with access, operation, configuration, firmware revision, and data retrieval from an IED. The standard</p>	
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	<p>also allows the user to define a security program around these features, and alert the user if an IED does not meet this standard as to the need for other defensive measures (technical and/or procedural) that may need to be taken. The encryption for the secure transmission of data both within and external to the IED secure perimeter is also part of this standard.</p> <p>Scott Mix made the motion and James Formea seconded it.</p> <p>The chair called for a roll call vote; the Secretary conducted a voice vote by roll call.</p> <p>The motion was approved.</p>	
<p>NEW BUSINESS</p>	<p>Subcommittee strategic planning – S0 has benefited from the work done in the S11 TF to develop a roadmap of future work to be considered by the subcommittee. Other subcommittees may benefit from establishing a similar road-mapping Task Force to plan future work. Subcommittees are encouraged to continuously recruit interested members for officer positions.</p> <p>PSCCC Satellite Committees - “IEEE PES China Chapters PSCC Satellite Committee” (PSCCC-CCSC). Further coordination may yield more interaction with participants from China.</p> <p>There is a new PES PowerPoint Template. It can be found at https://www.ieee-pes.org/pes-powerpoint-templates. Due to pictures in the template, the file size is about 13 MB. Headers are different than a typical template</p> <p>Call for Liaisons –</p> <ul style="list-style-type: none"> • Intelligent Grid & Emerging Technologies (iGET) (last met at 2019 PES GM) • Renewable Systems Integration (RSICC) • Energy Internet Coordinating Committee (EICC) • Coordinating committees do not develop standards but coordinate with the relevant Technical Committees on standards and other activities • Each liaison <ul style="list-style-type: none"> – Serves for the term of the liaison requirement – Attends the meetings of the coordinating committee – Submits a written report to the appropriate Chair and Secretary of activity resulting from the liaison assignment – Provides bidirectional communication and coordination in areas in which there is mutual interest, in areas of possible jurisdictional conflict, and in areas where joint efforts might be advisable. <p>PSCCC Manuals Update - Committee Policy and Procedure (P&P) are being worked on now and the first draft is almost complete. The next steps will include a review by the members of the main committee, then a vote by the main committee per existing P&P. Committee O&P and working group P&P are next in line.</p>	<p>C. Preuss</p>

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<p>VICE-CHAIR REPORT (123SIGNUP UPDATE)</p>	<p>123Signup is live. Please contact James Formea with names/email addresses/affiliations (if you have them) of individuals that you cannot find in the system to add to your rosters. All subcommittee and sub-group officers should now have administrative access to PSCCC’s 123Signup; if not, contact James Formea. If in doubt on how to log in to PSCCC’s 123Signup system for profile management, start from the PSCCC web page. Profile logins require the correct starting point while administrative login is done from the main 123Signup website for any committee. Training was delivered this week but with far less in attendance than have administrative rights – we will look for another date/time to present the training when it can be recorded for future viewing. If in doubt on anything, PLEASE contact someone for help before “trying” something if you are having trouble....</p> <p>NOTE: Since the May meeting, 123Signup has been discontinued. The above notes are for the accuracy of these minutes. 123Signup should only be used to download rosters before the data disappears.</p>	<p>J. Formea</p>
<p>PAST-CHAIR COMMENTS</p>		<p>K. Fodero</p>
<p>CLOSING COMMENTS</p>		
<p>TIME OF FINAL ADJOURNMENT</p>	<p>Meeting adjourned at 4:00PM Central Time.</p>	
<p>FUTURE MEETING ROOM REQUIREMENTS</p>	<p>The September meeting will be virtual and we will need the capacity of approximately 80 people</p>	