# PSCC Main Committee Meeting Minutes

| Meeting Location: WebEx | Meeting Time: 1:00PM CT | Meeting Date: 2021/09/24 | Minutes Revised: -- | Minutes Approved: 2022/01/13 |
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| 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 |
| Corrine Dimnik | Kinectrics | 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 |
| Vasudev Gharpure | Quanta Technology | 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 |
| Marc Lacroix | EMCREY Canada | 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 |
| Laurel Brandt | TVA | W | G |
| Jose Ruiz | Doble | W | G |
| Brittany Chapman | CAI-Engineering | W | G |
| Mani Venkata | EPRI | W | G |
| Byungtae Jang | Naver | W | G |

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| Randy Brannen | Southern Company | W | G |
| Motaz Elshafi | SEL | W | G |
| Yuchen Lu | EPRI | W | G |
| Farnoosh Rahmatian | Nugrid Power | W | G |
| Daniel Sabin | Schneider Electric | W | G |
| Erin Morales | IEEE SA | W | G |
| Tom Hofstetter | NERC | W | G |
| Alex Apostolov | Omicron | W | G |
| Marcel Geor | Tekron | W | G |
| Shashi Sastry | ABB | W | G |
| Steve Klecker | MidAmerican Energy | W | G |
| Madhab Paudel | Eaton | W | G |
| Gayle Nelms | SEL | W | G |
| Dave McGuire | Hubbell - RFL | W | G |
| Jeff Pack | Power Engineers | W | G |
| Shane Haveron | Ametek | W | G |
| Jeff Dagle | PNNL | W | G |
| Priyanka Nadkar | SEL | W | G |
| Samir Darbali | US Nuclear Regulatory Commission | W | G |
| Juan Placid | JJ Power and Energy | W | G |
| Andre Smit | Siemens | W | G |
| Austin Wade | SEL | W | G |
| Rafael Garcia | Oncor Electric Delivery | W | G |
| Brendan Gates | TRC | W | G |
| Jalal Gohari | Parsons Brinckerhoff | W | G |
| Jim Michaelis | CAI | W | G |
| Anthony Montoya | DOE | W | G |
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| Item no. | Notes | Action by |
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| **CALL TO ORDER** | Meeting called to order at 1:00PM Central time.  The agenda was presented and a motion was made by to approve the agenda.  The motion was seconded. | |
| **ROLL CALL, INTRODUCTIONS, AND QUORUM DETERMINATION** | A quorum was present and determined by a roll call by the Secretary.  30 of 38 members were present. | |
| **APPROVAL OF PREVIOUS MINUTES** | The May minutes were circulated by email and were approved by lack of objection. Theo Laughner made the motion to approve. Tony Johnson seconded the motion. | |
| **UNFINISHED BUSINESS** | No unfinished business was presented for consideration. | |
| **CHAIR REPORT** | IEEE Digital Privacy Workshop<br>• IEEE Future Directions sponsoring as part of IEEE Digital Privacy Project<br>• This 2-day workshop will facilitate discussion on the definition, scope, and common interests in the area of digital privacy for potential future IEEE collaboration<br>• Keynote speakers from outside the IEEE<br>• Policy experts to share their global insights<br>• Standards leaders to discuss privacy challenges<br>• IEEE Societies and Councils will share perspective of digital privacy and its importance to their community<br>• Registration is free<br>• https://cmte.ieee.org/futuredirections/events/digital-privacy-workshop/ | |
| **SECRETARY REPORT** | The January 2022 JTCM meeting will be held in Garden Grove, CA. An in-person event will take place but it will most likely have a hybrid option for those who cannot attend. The May 2022 meeting will be in Reno.  The September 2022 meeting may be in Orlando.<br><br>Working Group Chair Training is available from the IEEE. This training will teach Working Group Chairs what they need to know to develop a Standard. This course is strongly recommended for all WG chairs.<br>You can find the course by doing a search for: IEEE SA Standards Working Group Chair Fundamentals.<br><br>A reminder was given to keep iMeet folders up to date. Please move minutes from non-approved to approved so that Nathan will know to post them on the PSCCC website.<br><br>Sub-Group chairs were reminded to get a vice chair and possibly a secretary, if they don't have one.<br><br>There are currently 38 members in the MC.  There were 10 newcomers at the newcomers meeting. | |
| **STANDARD COORDINATOR REPORT** | | |

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| **TCPC REPORT** | The IEEE PES GM 2022 will be held in Denver , CO . , July 17-21, 2022.<br>   • 2022 Supersession Topics:<br>     – Extreme Events and Their Impact on Power Systems<br>     – Energy Sustainability<br>     – Artificial Intelligence in Power Systems<br>     – Impact of Power Electronics on Electrical Infrastructure<br>   • Conference paper submissions will open October 12 and close November 10<br>   • PSCCC is allocated 3 x 4-hour panel session slots for the 2022 General Meeting<br>     – We need your panel session ideas! | |
| **A0 TASK FORCE REPORTS** | Hugo Monterrubio gave an awards report. Rewards will be given out at the next in-person meeting at the Monday night reception, hopefully at the May 2022 Reno meeting. Hugo reminded everyone that the IEEE Standards Association Working Group Awards procedure requires that the request for certificates of appreciation for completed work (Completed = Approved Standard) has to be initiated online by the WG Chair or Vice Chair. This can be done at the IEEE SA Awards website:<br>http://standards.ieee.org/develop/awards/wgchair/wgawards.html<br>Hugo advises that anyone filling in this request, wait until 6 weeks before the next in person non JTCM meeting and have them sent directly to the hotel if you don't want them sent to yourself and carry them to the meeting.<br>We are actively looking for nominees for the 2021 PSCC Young Professional Award. This PSCC award recognizes the technical contributions of young members of the PSCC that are 35yrs or younger (as of July 1 of the year of the award) and within 10 years of graduation. If you are or know of someone that meets this criteria and would like to be nominated, please reach out to any PSCC officer.<br><br>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.<br><br>Nathan Wallace gave the website and marketing report. Only approved minutes will be posted on the website. Calls to action will be located on the PSCCC Resources page. The PSCCC twitter and Linked In pages are active. If anyone has any ideas on social media or marketing, please reach out to Nathan.<br><br>Mal Swanson gave a brief terminology report and reminded the PSCCC to take advantage of terminology, especially for sections 2 and 3. Terminology is here to help. | |

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| **SUBCOMMITTEE REPORTS: C0** | Craig Palmer gave the C0 report.  A motion was made to take PC93.5-2021/Cor 1 – Standard for Power Line Carrier Transmitters/Receivers used to Transfer Discrete Teleprotection Signals – Corrigendum 1 to ballot.  See New business. See the C0 SC minutes for more details on the SC activities.<br><br>PC93.5 – Standard for Power Line Carrier Transmitters/Receivers used to Transfer Discrete Teleprotection Signals<br>Approved by NesCom on 3/25/21<br>Editorial Review indicated a stray table reference – a table is missing from the standard (Table 3 – Percent Uncertainty Requirements for Security Test<br>The table is carried over, unchanged, from the 1997 ANSI version of the standard.<br>WG agreed to pursue an amendment before publication.<br>See new business for the motion made by C0.<br>IEEE-643 – Guide for Power Line Carrier Applications<br>Including content from H subcommittee reports H9 – Special Considerations for PLC and H15 – Redundancy for PLC Coupling in the guide<br>Interest in adding more content on drain coils<br>C93.4 – Standard for Line Tuners & Coupling Equipment<br>SG meeting request for Sep. 2021 Agenda. | |
| **SUBCOMMITTEE REPORTS: E0** | John Fuller gave the E0 report.<br>Highlights- current and recent activity<br>Currently 16 active and 11 "Correspondence" members<br>Liaisons to F0, IEEE C2, IAS-PES JTCC (NFPA 70, NEC), NFPA 780.<br>Addressing proposed changes to Communications Utility definition<br>Standard revisions and addendums in progress:<br>    Standard 820 (in Comment Resolution, target publish by YE '21)<br>    Standard 1692 (ac isolation technology updates, target pub. 1Q '22)<br>    Standard 487a (new Addendum/Guide for 487/367, target pub. 1Q '22)<br>    Standard 487.3a (in ballot closing 10/8, target pub. 1Q '22)<br>    Standard 367 (in Study Group, PAR submitted to S.A.) | |
| **SUBCOMMITTEE REPORTS: F0** | Del Khomarlou gave the F0 report.<br>• Publication of IEEE 1138  - to be done in October 2021.<br>• Completion of the standard: IEEE 1595 OPPC standard for publication in 2021. OPPC attachment hardware standard: 1591.4 PAR is valid until 2023.<br>• Harmonization of all 1591.x standards.<br>• IEEE 1591.1 OPGW hardware PAR expires in Dec 2022, so we need to move on it.<br>• Agree upon new business/standards to tackle.<br>• Provide a recommendation to T&D IEEE 524 group on sheave and bull wheel sizes for installation of aerial fiber optic cables (OPGW, ADSS, helically Wrapped and OPPC). The recommendation must be acceptable to manufacturers as well as end users and installation service providers.  Denise has completed the recommendation to discuss.<br>• Liaison with IEEE 524 on their cable installation practices for overhead fiber cables.<br>• Find new business/standards and have regular presentations to educate ourselves. | |

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| **SUBCOMMITTEE REPORTS: P0** | Benton Vandiver gave the P0 report.<br>P1WG - C37.238a - (Amendment to add TLV for UTC Leap second event ) is now working through final comment resolution/disposition.<br>P19SG - Study Group for Universal Utility Data Exchange (IUUDEX) - had approved the request to submit their PAR. The SC reviewed and discussed the Scope and Purpose and after a lengthy debate determined there were items of concern. The SC voted to extend the SG charter to address these items and re-submit the PAR for approval at the Jan meeting.<br>P20WG - Joint Revision of IEC 61850-9-3 (PUP) Power Utility Profile - the DLMT has been meeting regularly since May and the draft stands at v1.8. Very good progress as it has incorporated the initial technical items identified at the May meeting. It continue to meet through Oct. / remaining items are TLV reviews and finalizing Informative Annex's. Next DLMT mtg is Sept 27th.<br>P21SG - Study group for system architectures supporting the virtualization of substation P&C applications.<br>Met with good attendance and high interest, action items reviewed and next steps planned.<br>IEC 23167 was discussed.<br>A definition of virtualization was constructed and future web meet dates announced. | |

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| **SUBCOMMITTEE REPORTS: S0** | Scott Mix gave the S0 report.<br>S1: Revision of IEEE 1686 IED Cyber Security Capabilities<br>Completed initial ballot – 12 negative votes; Ballot Resolution Group formed<br>S2: P1711.1 Serial SCADA Protection Protocol (SSPP)<br>Met without quorum<br>PAR expires December of this year<br>WG and S0 Meetings scheduled for October 8 to approve PAR extension.<br>S5: Revision of IEEE C37.240 Cybersecurity Requirements for Power System Automation, Protection and Control Systems.<br>Did not achieve quorum.<br>Continues to work on the document.<br>S7: P2808 Function Designations used in Electrical Power Systems for Cyber Services and Cybersecurity.<br>Continue to work on the standard.<br>S8: P2658 Guide for Cybersecurity Testing in Electric Power Systems<br>Met without quorum.<br>Continue to work on standard.<br>S9: Task Force on Utility IT-OT Cybersecurity challenges in roles and terminology<br>Report well underway; review by executives at SCE.<br>Document prepping for review of S0.<br>Looking at outreach opportunities.<br>S10: Utility & Municipality Challenges on Analyzing and Implementing Cybersecurity Standards and Best Practices<br>Still outstanding writing assignments; Intermediate meetings scheduled to complete them.<br>S13: Review 1547.3 Guide for Cybersecurity of DERs Interface with Electric Power Systems<br>October 13 & 14 IEEE 1547.3 Dedicated meeting.<br>The plan is to go to ballot from this meeting.<br>Contact Tony Johnson for more information.<br>S14: Task Force on using TLS in Power System Applications<br>Reviewed report goals and confirmed task force assignment.<br>(Proposed request to migrate from SG to TF, but that action was complete in May).<br>S15: 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<br>Reviewed performance impacts, impact of encryption, links to IEEE 1646.<br>Intermediate meeting to start forming an outline.<br>S16: Study Group on Application of IDS and IPS to Electric Power Systems<br>Discussed task assignment.<br>Migrated from SG to TF with defined task.<br>Members requested expedited activity and development of Guide from report content.<br>NEW S17: Task Force on Software and Hardware Traceability<br>Tabled issue until January to further consider issues raised.<br>Reminder:  Virtual Meeting of S0 to approve 1711.1 PAR extension October 8 at 2:00 PM EDT. | |

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| **LIASON REPORTS: IEEE P1952 WG** | Ken Fodero gave the IEEE P1952 WG -Liaison Report. Standard for Resilient Positioning, Navigation and Timing (PNT) End-User Equipment has met. Chair: Shelby Savage, The MITRE Corporation, supported by DHS CISA Vice Chair: Steve Guendert, IBM Secretary: Patricia Larkoski, The MITRE Corporation, supported by DHS CISA Kickoff meeting was held Sept. 15 2021. Develop a conformance framework. Will be meeting Bi-weekly to get things started. 53 Members as of the first meeting. Looking into dividing into subgroups based on interest. (accuracy, availability…..). | |
| **LIASON REPORTS: CIGRE D2** | Dennis Holstein gave the CIGRE D2 report. 1 - Cigre Paris FR meeting The semi-annual meeting of CIGRE study committees met in Paris FR the last week of August 2021. This was a hybrid meeting combining on-site and virtual facilities. 2 - CIGRE SC D2 Kyoto, JP meeting D2 as a co-leading SC invites you to submit the synopsis for CIGRE Symposium 2022 "Power System transformation including active distribution": 3-8 April 2022, Kyoto. Do not miss the extended deadline - 27th September 2021. For more information, please visit: http://cigrekyoto2022.jp/ 3 - 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. Technical brochure #840 is available on the CIGRE website at no cost for members and a small cost for non-members. 4 - Project D2.54 - Regulatory approaches to enhance EPU's cybersecurity Working group D2.54 is 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. 5 - 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. Chapter 6 is an extensive discussion on cybersecurity issues and solutions. The Green Book should be available about mid-to-late 2022. | |

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| **LIASON REPORTS:**<br>**IEC TC57 WG15** | Marc Lacroix gave the IEC TC57 WG15 Report. Marc showed slides on Mapping of TC57 Communication Standards to IEC 62351 Security Standards. | |
| | Erin Morales gave an IEEE SA report.<br>IEEE SA has noted that many of the volunteers who are using iMeet Central have not consented to the IEEE Privacy Policy. If you have received such an email, please provide consent if you agree to the IEEE Privacy Policy by completing the following online form and indicating "Standards Development Activities and Tools" as the "Applicable Program": https://engagestandards.ieee.org/IEEE-SA-Privacy-Policy-Acceptance.html .<br><br>If you find that your iMeet account has been deactivated for not consenting to the IEEE Privacy Policy, please contact; standards-support@ieee.org. A Validator Tool is available to check if the volunteers have consented to the IEEE Privacy Policy. IEEE SA will provide training for the WG officers to use the validator tool as needed. Once the training session(s) are set up, we will inform the committees.<br><br>WG chair fundamentals presentations available -Consisting of modules, Standards Working Group Chair Fundamentals explores the intricacies of Working Group leadership and assists new and aspirational Working Group Chairs in navigating the complexities of the standards development process. https://iln.ieee.org/Public/ContentDetails.aspx?id=AE404C2328DA4A39AAD7AB5117681F05<br>There are also 12 modules available Working group chairs available in Mandarin. https://iln.ieee.org/Public/ContentDetails.aspx?id=C08D783819D24C5A9EF37CF41DD17DC7<br><br>Drafts sharing methods available:<br>Sharing drafts with IEEE SA working groups and IEEE standards committees<br>Sharing drafts with organizations external to IEEE<br>IEEE SA Standards Board Operations Manual<br>https://standards.ieee.org/about/policies/opman/sect6.html<br><br>Theo Laughner advised that IGET is reorganizing, so if anyone is interested in getting involved with their activities, now would be a good time to join. | |

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| **NEW BUSINESS (MOTIONS)** | Request from PC93.5-2021/Cor 1 – Standard for Power Line Carrier Transmitters/Receivers used to Transfer Discrete Teleprotection Signals – Corrigendum 1 to go to ballot.<br>PC93.5 Approved by NesCom on 3/25/21. Editorial found a table 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. The WG agreed to pursue an amendment before publication. The table has been added and the WG would like to go to ballot on the Corrigendum.<br><br>Request: The C93.5 working group of the C0 Subcommittee requests to go to BALLOT for recently approved Corrigendum to Standard C93.5-2021 as described below:<br><br>Title: Standard for Power Line Carrier Transmitter/Receiver Equipment used to Transfer Discrete Teleprotection Signals - Corrigendum 1 Corrigendum: To add Table 3 which is referenced and required but missing in IEEE Std C93.5<br><br>Output: Corrigendum to a standard: IEEE C93.5-2021<br>Need: To add Table 3 which is referenced and required but missing in IEEE Approved C93.5<br><br>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.<br><br>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.<br><br>Craig Palmer made the motion to approve the C93.5 working group go to ballot, Tony Johnson seconded the motion.<br><br>The chair called for a vote; the Secretary conducted a voice vote by roll call.<br>The motion was unanimously approved. | |

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| **NEW BUSINESS** | Call for Liaisons.<br>Renewable Systems Integration (RSICC)<br>Energy Internet Coordinating Committee (EICC)<br>Coordinating committees do not develop standards but coordinate with the relevant Technical Committees on standards and other activities.<br>Each liaison:<br>Serves for the term of the liaison requirement<br>Attends the meetings of the coordinating committee<br>Submits a written report to the appropriate Chair and Secretary of activity resulting from the liaison assignment<br>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.<br><br>PSCCC Manuals Update:<br>Committee Policy and Procedure (P&P) being worked on now and first draft is almost complete for next steps. Committee O&P and working group P&P are next in line. | |
| **VICE-CHAIR REPORT (123SIGNUP UPDATE)** | 123Signup Decommissioning:<br>123Signup should no longer be in active use by PSCCC for roster management or attendance tracking. Administrative access has been removed for all except the Main Committee officers and A0. An ad-hoc committee is working on a replacement system – vendors are preparing RFP responses/bids. More details to follow, but for now, please continue to follow GDPR guidelines as best you can…<br>Please send updated rosters to your SC chairs and they will send it to the officers to update a master list that we are maintaining. Make sure to maintain your sub-group membership until a new system is adopted. | |
| **PAST-CHAIR COMMENTS** | | |
| **CLOSING COMMENTS** | | |
| **TIME OF FINAL ADJOURNMENT** | Meeting adjourned at 1:40PM Central Time. Tony Johnson moved to adjourn and Scott Mix seconded. | |
| **FUTURE MEETING ROOM REQUIREMENTS** | The January meeting will most likely be hybrid in Garden Grove, CA. | |