



Power & Energy Society®

PSCC Subcommittee WebEx Virtual Meeting Minutes - FINAL

Designation: PSCC-F0	Name: IEEE Fiber Optics Subcommittee			
Meeting Location: WebEx	Meeting Time: 10 AM-1:00 PM-EDT	Meeting Date: 2021/03/23-24	Minutes Revised: 2021/04/15	Minutes Approved: 2021/06/23 (pending one issue captured and to be resolved in Sheave Size)

Presiding Officer: Chair: Delavar Khomarlou, Vice Chair: Corrine Dimnik, Secretary: John Jones	Recorded by: John Jones, D. Khomarlou, Corrine Dimnik
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Attendance: Total attendees = 21/27, 6 Guests (M: Member, CM: Corresponding Member, G: Guest, I: IEEE					Vote On IEEE 1595 (Y/N/A)
Name	Affiliation	Attending via Phone (P) / Web (W) or Local (L)/ Absent (A)	M/CM/G/I		
Austin Farmer	AFL	W	M	A	
Jaclyn Whitehead	AFL	A	M	-	
Mark Naylor	AFL	W (second day)	M	Y	
Robert (Bob) Kluge	ATC - Retired	P (second day)	M	A	
Mike Warntjes	ATC	A	M	-	
Corrine Dimnik	Kinectrics	W (V-C, host)	M	Y	
John Jones	PLP	W (secretary)	M	Y	
Josep Martin Regalado	Prysmian	W	M	Y	
Jim Ryan	Prysmian	W	M	Y	
Felix Chen	ZTT China	A	M	-	
Jack Roughan	ZTT China	W	M	Y	
Linda Cai	ZTT China	W	M	Y	
Lemon Lu	ZTT China	W	M	Y	
Rabih Ghossein	HPS	W	M	Y	
Amnah Al-Jallad	HPS	A	M	-	
Gabriel Okafor	HPS	W	M	Y	
Tewfik Schehade	Independent Consultant	W	M	Y	
Delavar Khomarlou	Hydro One Networks	W (C)	M	Y	
Brett Boles	Southern Company	W	M	Y	
Greg Bennett	Southern Company	A	M	-	
Christopher E. Royer	AEP	W	M	Y	
Jordan Ellis	AEP	A	M	-	
Henson Toland	OFS Optics	W	M	Y	
Mike Riddle	Incab	W	M	-	
Monty Tuominen	Bonneville Power - Retired	W	M	Y	
Mike Kipness/Erin Spiewak	IEEE (liaison)	A	I	-	
Denise Frey	Fiber Planners	W	M	Y	
Chitrand Bhatnagar	DuPont	W (second day)	M	Y	
Guests (New and Old)					

Minutes of meeting (continued)

Peyton Campbell	AFL	W	G	A
Marie Henshaw	AFL	W	G	A
Dan Baggett	AFL	W	G	A
Jacob Palmer	PLP	W	G	A
Peter Weimann	OFS	A	G	-
Neal Murray	EPRI	A	G	-
Total: 25 Attendees: 21 Members, 4 Guests				

Item no.	Notes	Action by
CALL TO ORDER	March 23, 2020 10:00 AM	D. Khomarlou
INTRODUCTIONS AND QUORUM	Quorum With 21 members on WebEx, no IEEE representative in this meeting.	
CHAIR'S REMARKS	<p>WebEx Meeting Welcome, COVID-19 situation, the need to have virtual meetings in place of the face-to-face meeting given the situation. Possibility of having face-to-face meeting in September in Charlotte, depending on COVID-19. Will discuss in June conference call.</p> <p>IEEE SA Copyright policy for WG/subcommittee members was presented briefly. The Copyright presentation will be attached to these minutes for future reference.</p> <p>The details of chair comments presentation has been placed in this document for your reference.</p> <p>John Jones has graciously accepted to be our new secretary. All terms are for 2 years per A0 manual.</p> <p>Need members to step up to help the subcommittee officers. Need one person to represent PSCCC-F0 in awards committee. Need one person to help Corrine, chair and secretary (John Jones) and use this experience to take one of the officers' positions in the near future.</p> <p>Corrine, John Jones and I will maintain mailing list for all members and can send documents/info. For privacy, group emails will be sent as Blind Carbon Copy (BCC).</p> <p>Bill Byrd, former chair and long standing member and one of the founders of this subcommittee has been nominated for an award from Parent Committee. Awards will only be given in face-to-face meetings.</p>	D. Khomarlou
AGENDA APPROVAL	<p>Agenda for the March 23-24, 2021 virtual meeting was sent to all members prior to the call. The agenda was approved by members on the call.</p> <p>Agenda Approval:</p>	D. Khomarlou
APPROVAL OF PREVIOUS MINUTES	<p>Draft Minutes of the December 2020 conference call have been sent to all members. Draft minutes are posted on iMeetCentral. These were approved in this meeting. These minutes will be posted in the IEEE PSCCC website for public access.</p>	D. Khomarlou
IEEE 1138 Balloting News	<p>The Ballot for IEEE 1138 closed on April 4, 2021.</p> <p>As of Tuesday, April 13, 2021, we had 39 votes for a return ballot of 90% (minimum required is 75%). With 100% approval rate, IEEE 1138 is now approved.</p>	Corrine Dimnik/ IEEE 1138 WG
IEEE 1591.3 and 1594 Wrap Cable	<p>Not Discussed in this meeting.</p> <p>Side Note: Standard is in the IEEE process for review/publication. Standards seem to have passed IEEE hurdle through Mark Naylor's effort.</p>	Mark Naylor

Item no.	Notes	Action by
<p>IEEE 1595 Standard - 1595D4 OPPC</p>	<p>OPPC Standard: Went through the Draft September D5 document. Final review of the Document</p> <p>Clause 2: Line 16 – add method F19 Line 20 – Correct IEC 61597 Remove line 21 and 22 Page 4 – Table 1 corrected Close to be determine by the designer – also change another to other. Page 7 – footnote corrected “Clause” Retest – Batch vs other term. Tewfik may provide alternative. Changed IEC 607941-219 Page 13 - Question about Current Temperature Changed to “expected to be met”</p> <p>Jack Roughan proposed to vote out of committee. DK – 2nd the motion</p> <p>IEEE 1595 D4 was voted out of the committee using Roll call. Votes were registered mainly on day ONE and for a couple of people who were missed on day TWO by chair, vice-chair and secretary as follows:</p> <p>Subcommittee has 30 members as of this meeting 21 members were present in the meeting 6 Guests 18 members voted YES to IEEE 1595 during the two day meetings 2 members voted to ABSTAIN 4 guests voted to Abstain as they didn’t have the background information 0 members voted NO</p> <p>IEEE 1595/D4 Optical Phase Conductor standard is considered to have been voted out of the subcommittee.</p> <p>Further Action: Jack Roughan to send the new draft as IEEE 1595/D5 to chair/vice-chair and secretary for initiation of the Mandatory Editorial Review (MER) through IEEE channels.</p>	<p>Josep Martin Linda Cai/ Jack Roughan</p>

Item no.	Notes	Action by
OPPC Hardware 1591.4	<p>1591.4 OPPC Hardware Draft was discussed section-by-section and comments addressed.</p> <p>1591.4 – Jack Roughan Utilizing 1591.1 for guide Definitions – adjusted include OPPC specific items Clause 4.2 same Ground connections excluded. Omitting Cable trays. Helical repair rods – TBD Excluded Closures – consider separate standard 4.3 – material same 5. tests – some 1591.1 and 1591.2 clauses used. Review the number of fibers per buffer tube. Optional test – high temperature for OPPC. Replace hardware Added High Temperature test. Stress Strain – High temperature is possible. Corrine confirmed Draft is uploaded in iMeetCentral site. There is a reference to CORONA testing. 4.3.3 – follow up required. IEC 61284, Line hardware standard referenced. The Jumpers are deleted from hardware. To include Jumper connector – for good jumper connection.</p> <p>Jack Roughan to place a draft version in iMeetCentral after the meeting. Will be send to members and further discussed in June and September meetings. Aim to have it voted out in December 2021 meeting.</p>	L. Cai/ J. Roughan/ Alex L.
IEEE 524 liaison	<p>There was a meeting of IEEE 524 as part of January JTC meeting.</p> <p>Jack Roughan presented meeting minutes from 1/12/21. Figure 19 – Bullwheel dimensions. Jack offered some information and possibly guidance based on Denise Frey’s charts for stringing blocks.</p> <p>Jack Roughan will continue to attend meetings representing PSCCC-F0 to IEEE 524. Jack and Bob Kluge will jointly work as liaison for our group.</p>	NA
IEEE 1591.x Task Force Group	<p>Jack Roughan will lead the group. The purpose of the group is to try to harmonize all 1591.x hardware standards for different types of cables. Group is still open to accepting new members – a number of people in the meeting expressed interest. Group hasn’t had time for a proper virtual meeting due to work on IEEE 1595 OPPC standard. Action: Jack Roughan will setup meeting either himself or with help from another group member to start the conversation.</p>	
IEEE 525 and PSCCC E0 Liaison	<p>Chair (Liaison) met with the newly restructured IEEE 525 group and went through our comments (our 2018 comments) to the standard.</p> <p>Discussions on Armored cable – encouraged grounding on both ends of the cable in case one end is damaged.</p>	NA
IEC Liaison ITU Liaison	Not covered in this meeting.	NA
IEEE 1222	Publication through IEEE. Standard has been nominated for an IEEE PSCCC award.	J. Ryan

Item no.	Notes	Action by
1591.1 OPGW hardware	<p>There are a number of comments that were addressed and a couple of others that require more work by John Jones. The follow up will be adding the Repair Device.</p> <p>Covered new ground section and repair devices. This standard will be discussed in the newly formed 1591.x meetings.</p> <p>Action: John to make changes and we will have a copy uploaded to iMeetCentral and be ready to discuss in June and September meeting.</p> <p>PAR is valid until Dec. 2022.</p>	J. Jones/ B. Kluge
Sheave Size Recommendation/ IEEE 524	<p>Denise Frey discussed Sheave Diameters and had a presentation which cover the technical aspects of using sheaves with liner and without.</p> <p>Denise presentation is included in this document. There are additional changes needed to the presentation as proposed by Jim Ryan. These changes include ODx 40 sheave size for OPGW with > 20 degree angle and addition of additional rows.</p> <p>Denise will work with manufacturers to refine the recommendation and present the final document in June conference call.</p> <p>Once approved by PSCCC-F0, it will be sent out to IEEE 524 for inclusion in their standard.</p>	D. Frey
New /Other Business	<p>Brett Bowles – no updates on IEEE meeting.</p> <p>New Business: Splice box, Sensing. Open for suggestions.</p>	
ITEMS REPORTED OUT OF EXECUTIVE SESSION	NA	
CLOSING	<p>iMeetCentral PSCCC-F0 site has been restructured to reflect our sub groups and standards that we work in. Members are encouraged to look at the site and add/verify files/standards in each area.</p> <p>123SignUp will be used for attendance once it is rolled out.</p>	
TIME OF FINAL ADJOURNMENT	March 24, 2021: 13:00 EDT	
NEXT MEETINGS	<p>Next Meeting will be a virtual conference call:</p> <p>WebEx: Wednesday, June 23, 2021 @ 10:00 AM -12:30 PM EDT (2 – 2.5 hours)</p> <p>Mike Riddle to have presentation</p>	
MATERIAL TO BE PLACED IN iMeetCentral And Attached	<ol style="list-style-type: none"> 1. IEEE Copyright statement (included in this document) 2. IEEE Patent and duty to inform clause (included in this document) 3. Sheave size for ADSS/OPGW/OPPC proposed recommendation–WORD document for review/comment 4. IEEE 1138 (clean version) 5. Monty Tuominen presentation (PDF) on short circuit calculation 6. IEEE 1591.1 OPGW hardware Latest draft 7. IEEE 1591.4 OPPC hardware latest draft 8. IEEE 1595 latest draft 	

Chair Comments

Chair attends weekly meetings with Parent Sub Committee

IEEE SA Copyright Policy

- IEEE-SA's copyright policy is described in Clause 7 of the IEEE-SA Standards Board Bylaws and Clause 6.1 of the IEEE-SA Standards Board Operations Manual;
- Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE-SA Copyright Policy;
- By participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE-SA Copyright Policy.
- Previously Published material (copyright assertion indicated) shall not be presented/ submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.
- Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE-SA.
- For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

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IEEE Fiber Optic Subcommittee Introduction

Welcome to the PSCCC-Fo subcommittee Virtual meeting.

Our subcommittee is diverse. It is made of representatives from:

- OPGW/OPPC/ADSS/WRAP/.. Cable manufacturers,
- Fiber manufacturers,
- Attachment hardware manufacturers,
- Plastic manufacturers (cable jackets)
- Present and past end-user power utilities
- Test laboratory(ies)
- Independent Consultants
- Design and Installation consulting companies

Did I miss anyone?

We also represent most of the IEEE regions.

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PSCCC-Fo Membership Guidelines

- Subcommittee (SC) members must be IEEE members.
- Need to attend meetings in order to maintain subcommittee membership. If you have a reason to miss a meeting please let one of the officers know.
- Members who are not attending meetings (without legitimate reason) or have lost interest or moved on to other positions could ask / have their membership changed to corresponding members or become "Past-Member". If SC officers' initiate the change, they will try to contact the member and give ample time.
- Members can be re-instated if they wish.
- Guests are allowed. Need to attend 2 consecutive meetings and ask on third meeting (with no more than one consecutive "unexcused" missed meeting) before eligible for membership.

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IEEE Fiber Optic Subcommittee Welcome and Introduction (2/2)

We are loosely broken into the following Working Groups as far as parent committee is concerned:

F1: IEEE 1222 All Dielectric Self Supporting Cable (1222 ADSS cable)

F2: IEEE 1138 Optical Ground Wire (responsible for 1138)

F3: IEEE 1591.1 OPGW & 1591.2: ADSS attachment Hardware

F4: IEEE 1594 Helically Applied (Wrapped) Fiber Optic Cable (1594 cable and 1591.3 attachment hardware)

F5: IEEE 1595 Optical Phase Conductor Cable (1595 cable and 1591.4 attachment hardware)

We have an ad-hoc taskforce/WG set up (January 2021) to look at all 1591.x standards and perhaps bring them all under one umbrella and harmonize them.

The delineation between SC and WG and officers' responsibilities is not as strict and formal as is prescribed in A0 P&P manual and as in other subcommittees.

We need to look at re-organizing the WG structures as we evolve.

PSCCC-Fo Officers Needed

Being an Officer of the subcommittee/working group is rewarding experience. It looks very good on resume, especially so if you are a young engineer.

Unfortunately the new IEEE administrative model is very bureaucratic and you don't get paid.

Per P&P manual, all positions are time-limited (2 years) unless you get re-elected or get re-appointed.

The chair and vice-chair are currently overloaded. PSCCC-Fo urgently needs members to step up for the following officer positions:

- Secretary
- Representative to A0 awards Committee
- Assistant to Vice-Chair (on track to become Vice-chair /Chair)

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PSCCC-Fo Membership SA Guidelines

- Standards Association (SA) membership preferred, but not mandatory.
- If a member is not an SA member, they can't participate in ballot (except as in 5 below).
- A non SA member can vote on standard within the Fo.
- An IEEE Member who is not an SA member can vote on standards ala carte if they pay a per-ballot fee.

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2 consecutive meetings –
Can this apply per company or just individual?
Chair to check

PSCCC-Fo Report From Parent Subcommittee (Ao)

Joint Meeting with PSCCC/PSRC Requested.

123SignUp Process – Should have received email. Officers have Admin rights. Supposed to be used for meeting setup / Attendance / correspondence. Will be rolled out within the next 6-9 months.

Awards Committee - Need representative. Bill Byrd Achievement award granted, not received yet.

PSCCC Website – Updated to have PSCCC-Fo and Minutes. Still not complete.

iMeetCentral – Changed the areas to match our structure. Please populate.

IEEE National Standard Adoption – discussions ongoing in Ao.

IEEE standards integration effort taken up by Ao - Need to identify all the standards that have points of overlap / interference with PSCCC-Fo standards.

Vote on Joint meeting with PSRC this September - evaluate pros and cons
123 Signup – Tool to sign up for meetings. Purpose to provide privacy such as email addresses – for now, continue to use PSCCC.
Need Award Representative to grant Bill Award

Vote on Joint meeting with PSRC this September evaluate pros and cons

iMeetCentral, Del established tabs for each area
IEEE National Standard Adoption – Can be referenced but not changed to local preferences. Our standards should not be changed without permission from the PSCCC
IEEE standards integration

PSCCC-Fo 2021 Goals

Completion of the standard: IEEE 1595 OPPC standard and its attachment hardware standard: 1591.4 for publication in 2021. 1595 is critical, but PAR for 1591.4 is 2023.

Harmonization of all 1591.x standards.

Agree upon new business/standards to tackle.

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. **This is overdue.**

Liaison with IEEE 524 on their cable installation practices for overhead fiber cables.

Find new business/standards and have regular presentations to educate ourselves.

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Denise Frey Sheave Recommendation

Disclaimer for ADSS & OPGW

"For ADSS and OPGW, the Bottom of the Groove diameter (BOG), otherwise also known as the Root Diameter, of a sheave should be 40 times the cable diameter or larger. Smaller sheaves may be permitted with written notification from the cable manufacturer. Considerations of cable design, cable diameter, and installation tension, number of angles in a segment and size of angles determine if permission is granted by the manufacturer."

Sheave dia is larger than bottom of groove. Ex: 14" is 12" bottom of groove diameter

PROPOSED IEEE SHEAVE RECOMMENDATIONS

≤ 20° angles, ≤ 300 ft spans, ≤ 0.85 dia ADSS,
≤ 600 lb max sagging tension = 14" sheave

≤ 20° angles, ≤ 300 ft spans, ≤ 0.85 dia ADSS,
≤ 1,500 lb max sagging tension = 22" sheave

>20° angles, any span length, ≤0.85" dia ADSS,
≤ 1,500 lb max sagging tension = 42" sheave

IEEE can discuss:
short span being 300' to 600'
Max sagging tension being 1,500 lbs to 1,000 lbs.
Max ADSS cable dia being 0.85" to 1.2"

Follow table requires update to show correct BOG

ADSS					
Angle (Degree)	Span Length (ft)	Max Tension (lbs)	Maximum Diameter (inches)	Sheave Size (BOG) Recommendation	Comments
< 20	< 300 ft (Short)	< 600 lbs	< 0.85"	14 "	
< 20	300 < x < 600 (medium)	< 1500 lbs	<0.85"	22 "	
< 20	300 < x < 600 (medium)	< 1500 lbs	0.85 " < x < 1.2"	22"	
> 20	Any	Any	Any	42"	
OPGW					
< 20	< 300 ft		< y	Manufacturer Recommended smaller sheave > 22 "	
>20	Any			OD x 40	
OPPC					
< 20	< 300 ft		< y	Manufacturer Recommended smaller sheave > 22 "	
>20	Any			OD x 40	

ADSS – there was no objection to <20 degree, the 300' limit for span length

OPGW – Accepted Max Diameter y = 1".

OPPC –

Stringing block – Lining's neoprene yellow, urethane black. No lining is preferred as long as it is clean.

ADSS – non-lined may be best.

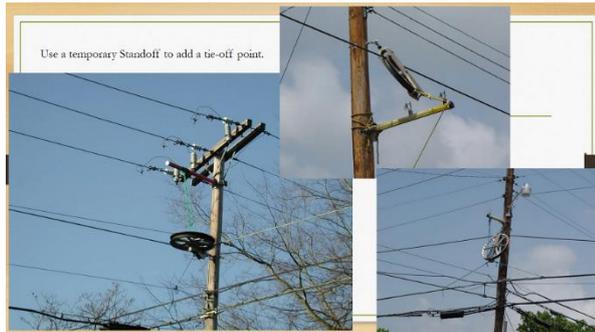
OPGW – Lined block will have the cable ride up – thus it is best for non-lined blocks.

Bottom of Groove diameter.

Normative information showing BOG

Then an informative table that shows manufacturer's sizes.

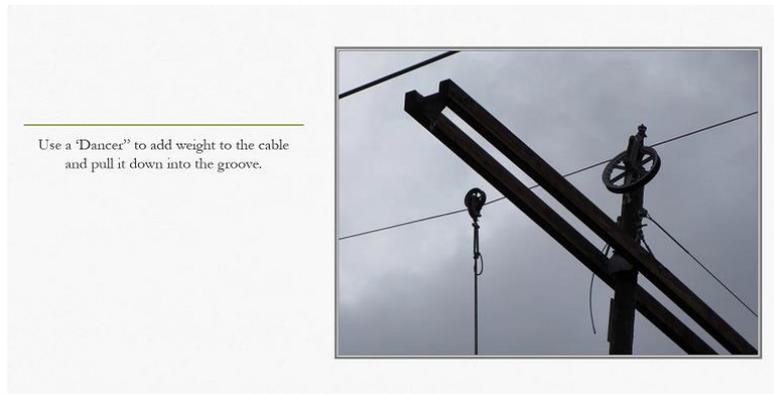
Proper support to avoid cable riding up the block



Apply disclaimer to on table about special cases.

Consider ADSS cable that is loose tube buffer tube design – not ribbon.

Uplift situations may employ a Dancer. Hold down force care must be addressed.



MAINTENANCE SCHEDULE FOR STANDARDS UNDER PSCCC-F0

PRIORITY	DUE DATE	STANDARD NUMBER	STANDARD TITLE	LAST PUBLISHED DATE	ACTION (DEV / REVISION / COMMENTS ONLY)	COMMENTS
1	New PAR submitted June 2024	IEEE-1138-2009	IEEE Standard for Testing and Performance for Optical Ground Wire (OPGW) for Use on Electric Utility Power Lines	2009	Voted out in September 23-24, 2020 meeting	PAR had expired in December 2019. New PAR with publication date in 2024 is approved Vote out of September 2020 Meeting
	Active PAR	IEEE 1222-2011	IEEE Standard for Testing and Performance for All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable for Use on Electric Utility Power Lines	2011 New Version 2020	Published 2020	Published 2020
	Active PAR Exp. Dec 2021	IEEE 1594-2008	IEEE Standard for Helically Applied Fiber Optic Cable Systems (Wrap Cable) for Use on Overhead Utility Lines	2008		April 2020: Voted out of committee and to IEEE editors
	Active PAR Exp. Dec. 2021	IEEE 1595-DRAFT	Draft Standard for Testing and Performance for Optical Phase Conductor (OPPC) for Use on Electrical Utility Power Lines			Standard is voted out of the committee, next step is Mandatory Editorial Review (MER) and then ballot group formation.
	Active PAR Exp. Dec. 2022	IEEE 1591.1-2012	IEEE Standard for Testing and Performance of Hardware for Optical Ground Wire (OPGW)	2012		
	Active PAR Exp. Dec. 2021	IEEE 1591.3-2011	IEEE Standard for Qualifying Hardware for Helically-Applied Fiber Optic Cable Systems (WRAP Cable)	2011		April 2020: Voted out of committee and to IEEE editors
	PAR Approval May 2019 Exp. Dec. 2023	IEEE 1591.4-DRAFT	Standard for Testing and Performance of Hardware for Optical Fiber Composite Overhead Phase Conductor (OPPC)			Standard under development. Target end of 2021.
		IEEE 1591.2-2017	IEEE Standard for Testing and Performance of Hardware for All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable			
	Nor ours Published Date: Apr.	IEEE 524-2016	IEEE Guide for the Installation of Overhead Transmission Line Conductors		For comment only	Liaison Report

PRIORITY	DUE DATE	STANDARD NUMBER	STANDARD TITLE	LAST PUBLISHED DATE	ACTION (DEV / REVISION / COMMENTS ONLY)	COMMENTS
	2017					
		IEEE 525-2016	IEEE Guide for the Design and Installation of Cable Systems in Substations		For comment only	Liaison Report

* * *

Participants, Patents, and Duty to Inform

All participants in this meeting have certain obligations under the IEEE-SA Patent Policy.

- Participants [**Note: Quoted text excerpted from IEEE-SA Standards Board Bylaws subclause 6.2**]:
 - “Shall inform the IEEE (or cause the IEEE to be informed)” of the identity of each “holder of any potential Essential Patent Claims of which they are personally aware” if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
 - “Should inform the IEEE (or cause the IEEE to be informed)” of the identity of “any other holders of potential Essential Patent Claims” (that is, third parties that are not affiliated with the participant, with the participant’s employer, or with anyone else that the participant is from or otherwise represents)
- The above does not apply if the patent claim is already the subject of an Accepted Letter of Assurance that applies to the proposed standard(s) under consideration by this group
- Early identification of holders of potential Essential Patent Claims is strongly encouraged
- No duty to perform a patent search

Patent Related Links

All participants should be familiar with their obligations under the IEEE-SA Policies & Procedures for standards development. Patent Policy is stated in these sources:

- IEEE-SA Standards Boards Bylaws (Clause 6) <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html>
- IEEE-SA Standards Board Operations Manual (Clause 6.3) <http://standards.ieee.org/develop/policies/opman/sect6.html>
- Material about the patent policy is available at <http://standards.ieee.org/about/sasb/patcom/materials.html>

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit" <http://standards.ieee.org/about/sasb/patcom/index.html>

This patent information (slide set) is available at: <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt>

Call for Potentially Essential Patents

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance (LOA): • Either speak up now, or

Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible, or Cause an LOA to be submitted

Don't discuss the interpretation, validity, or essentiality of patents/patent claims.

Don't discuss specific license rates, terms, or conditions. • Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings. • Technical considerations remain primary focus

Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.

Don't discuss the status or substance of ongoing or threatened litigation.

Don't be silent if inappropriate topics are discussed ... do formally object.

Other Guidelines for IEEE Meetings

All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.

See *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy" for more details.

* * *

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- If the Contribution was **not** previously Published and there are restrictions on it.
 - Participants are responsible for determining whether they can disclose information and for obtaining consent/authorization to submit the Contribution
 - Check with your employer/affiliation whether you are permitted to submit Contributions if your employment contract or consultant contract stipulates that materials you create in the standards development activity are owned by your employer/affiliation
 - Determine whether there are regulatory restrictions on the material
 - Consult with parties to obtain consent for the submission if the material is under nondisclosure (Contributions **cannot** be marked as Confidential)
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