1. **Welcome and Introduction**
   Chairman Tamatha Womack called the meeting to order at 1:00 PM, January 28th, 2019.

2. **Review of Membership/Attendance**

   The membership roster was reviewed and updated. See Attachment 1 for an updated list of members and guests who were in attendance. 19 of the 27 working group members were present to establish a quorum.

   Scott Sweat, Neal Simmons, Audrey Baricko were added as a working group members.

   Kevin Littrell and Tania Martinez Navedo were removed from membership of working group 4.6.

   Duane Brock and Steve Hutchins were moved to corresponding member.

3. **Review of Meeting Minutes and Agenda**
   The 19-01 agenda was reviewed and approved with changes unanimously. The agenda is attached as Attachment 2.

   Motion to approve 19-01 Agenda: John Disosway
   Second: Gene Poletto

   The Meeting Minutes for 18-02 were reviewed and approved as written. The meeting minutes of 18-02 will be sent to the webmaster to be uploaded to the website.

   Motion to approve 18-02 Minutes: Kenn Miller
   Second: John Disosway

4. **Action Items**

Item #	Assigned to	Action	Due	Status
16-1	Working Group Members	Review 1792 for possible impacts to frequency descriptions due to effects of NPIRs.	17-02	Retain for future discussion
17-3	Group Leads	Sub Groups evaluate impact of topics to 765.	19-02	In Progress – Sub Groups 1-3 presented in 18-01. Group 4 presented in 18-02 meeting. Sub Groups 1, 4 & 5 presented in 19-01. All

					groups to continue to work on scope of work. Draft markups of standard will be reviewed during 19-02 meeting.

5. Specific Items Related to Standard 765

Sub Groups 1 (Typical Station Designs), 4 (Capacity/Capability) and 5 (Open Phase) met on Sunday January 26th. Attachment 3 contains the attendance of that meeting.

Ayodele Ishoa-Salawu presented the status of sub group 1 discussions. The example figures will be revised to reflect and consider only preferred plant designs. A draft of the figures will be presented in 19-02. Dual Unit configuration will also be considered. Sub Group 1 will be meeting via webex prior to 19-02.

Sub Group 1 – Typical Station Designs
- Lead – Ayodele Ishoa-Salawu
- Jason Bellamy
- John Disosway
- Ken Fleischer

Jeff Weibelt presented status of sub group 4 discussions. A draft of the definitions of capacity and capability were presented. The working group had no comments during 19-01. The standard will be reviewed for instance of both words and there usage in 765.

Sub Group 4 – Capacity vs capability & availability
- Lead – Jeff Weibelt
- Thomas Koshy
- Roy Lyon
- Tamatha Womack
- Tim Lensmire
- Greg Reimer

Jason Bellamy presented status of sub group 5 discussions. Jason Bellamy took over as team lead for Sub Group 5. The proposed impact of section 5.3.4 was presented. It was discussed that the recommended practice 1792 may be revised during its next

PAR to include expanded discussion related to Open phase and other power quality/source degradations. A draft of the changes to 765 will be presented in 19-02. The sub group proposed for 308 to be the place to define power quality/source degradation. Working Group 4.7 will evaluate the protection for open phase and section 5.3.4 will be revised to reference that applicable standard for open phase protection.

Sub Group 5 – Benefits/Consequences Open Phase
- Lead – Jason Bellamy
- Kenn Miller
- Edvin Kovo
- John Minley
- Ayodele Ishola-Salawu
- Singh Matharu

An additional Sub Group 6 was formed to evaluate change to block diagram Figure 1 in the standard. Gregg Reimers and Tim Lensmire were assigned to lead this effort and provide a draft markup by 19-02 meeting. Comments on the figure should be sent to Gregg within one month of this meeting.

6. **Specific Items Related to Standard 1792**

As with Standard 765, Standard 1792 will have further evaluation for changes associated with relaxing the frequency requirements.

7. **General Items/New Business**

White papers will be written to give background of the basis of the changes in this revision of IEEE 765. The goal is for this white paper to be published in an IEEE transaction.

8. **Next Working Group Meeting**

Next formal working group meeting will be held in conjunction with NPEC 19-02 meeting. Team meetings and working group input sessions will be held at satellite location(s) or a webex.

9. **Meeting Closing Remarks/Adjournment**

Meeting adjourned at 2:30 PM.

Motion to Adjourn: Kenn Miller
Second: Jason Bellamy

Attachments

Attachment 1 – Membership

Attachment 2 – Agenda

Attachment 3 – IEEE Patent Slides

Attachment 4 – Attendance for Breakout Sunday Session

Member #	Member Name	In Attendance
1	Jason Bellamy	Yes
2	Mark Bowman	No
3	John Disosway	Yes
4	Ken Fleischer	Yes
5	Evan Heacock	No
6	Ayodele Ishola-Salawu	Yes
7	Edvin Kozo	Yes
8	Harvey Leake	Yes
9	Tim Lensmire	Yes
10	Roy Lyon	No
11	Singh Matharu	Yes
12	Kenn Miller	Yes
13	John Minley	Yes
14	Gene Poletto	Yes
15	Gregg Reimers	Yes
16	Shawn Simon	No
17	Tom Solinsky	Yes
18	Sudhir Thakur	No
19	Jeff Weibelt	Yes
20	Tamatha Womack	Yes
21	James Reddy	Yes
22	Dave Pederson	No
23	Shinji Kawanago	Yes
24	Hideki Tanaka	Yes
25	Scott Sweat	Yes
26	Neal Simmons	Yes
27	Audrey Baricko	Yes

Guests in Attendance
DeCarlo Peele
Hector Leon
Hever Rendon
Jinsuk Lee
Malia Zaman
Marty Flynn
Masashi Sugiyama
Michael Sykes
Nadim Khan

ATTACHMENT 1
Attendance/Membership

Guests in Attendance
Park Jin Hwi
Sheila Ray
Thomas Koshi
Timothy O'Leary
Waverly Futrell
Wayne Johnson
Wesley Kijowski
Bob Arritt
Brad Miller
David Runowski
Jim Sharkey
Keith Bush
Ken Kawaguchi
Ken Netzel
Mark Oconnell
Mr. Merando
Nader Eldeiry
RG Reddy
Roy Mathew
Tiffany Hicks
Wayne Johnson

AGENDA
Working Group 4.6 - Preferred Power Supply
IEEE Stds. 765 and 1792
MEETING: Charlotte, NC (19-01)
Sunday & Monday January 27-28, 2019

Sunday January 27, 2019 1:00 PM – 4:00 PM *Location:* Holiday Inn Charlotte, NC	Time / Location
1. Kickoff - Tamatha Womack	1:00 – 1:30 / SC-4 Room 1
2. Team 1 (One-Line) - Ayodele Ishola-Salawu	1:30 – 2:30 / SC-4 Room 1
3. Team 4 (Capacity/Capability) – Jeff Weibelt	2:00 – 4:00 / SC-4 Room 2
4. Team 5 (Open Phase) – Kenn Miller	3:00 – 4:00 / SC-4 Room 1

Monday January 28, 2019 2:00 PM – 3:30 PM *Location:* Holiday Inn Charlotte, NC	
1. Welcome and Introductions	Tamatha Womack
2. Identification of Members and Quorum	Tamatha Womack
3. Opening Remarks and Approval of Agenda	
4. Review and Approval of Previous Meeting Minutes	
5. Status of Action Items	
6. Team 1 Presentation – Recommended Figures for Standard	Ayodele Ishola-Salawu
7. Team 4 Presentation – Update on Progress	Jeff Weibelt
8. Team 5 Presentation – Update on Progress	Kenn Miller
9. New Action Items	Jason Bellamy
10 Closing Remarks	Tamatha Womack
ADJOURN	

Instructions for the WG Chair

The IEEE-SA strongly recommends that at each WG meeting the chair or a designee:

- **Show slides #1 through #4 of this presentation**
- **Advise the WG attendees that:**
  - The IEEE's patent policy is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
  - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
  - There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.

- **Instruct the WG Secretary to record in the minutes of the relevant WG meeting:**
  - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
  - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
  - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.

- The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
- It is recommended that the WG chair review the guidance in *IEEE-SA Standards Board Operations Manual* 6.3.5 and in FAQs 14 and 15 on inclusion of potential Essential Patent Claims by incorporation or by reference.

Note: **WG** includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE-SA Standards Board.

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15 March 2015

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**

15 March 2015

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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

http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6

IEEE-SA Standards Board Operations Manual

http://standards.ieee.org/develop/policies/opman/sect6.html#6.3

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 slide set is available at https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt

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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:
  - 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

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Other Guidelines for IEEE WG Meetings

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

  - **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.**

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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Attendance for Sunday Sub Group meetings

1. Edvin Kozo
2. Jason Bellamy
3. Singh Matharu
4. Nadim Khan
5. Sheila Ray
6. Martin Flynn
7. Hector Leon
8. Alexander Duchac
9. Masashi Sugiyama
10. Hideki Tanaka
11. Tom Solinsky
12. Jim Reddy
13. Ayodele Ishola-Salawa
14. Kenn Miller
15. Harvey Leake
16. Tamatha Womack
17. Greg Reimers