Wind Technical Standards Committee
Minutes
March 23, 2021
11:00 AM – 12:30 PM, Eastern
Conference Call

Minutes

1. Welcome: Brian Kramak, Kramak Enterprises
2. Roll Call: ACP Staff
    a. Quorum was met. 26 voting members attended.
3. Review and Approve Agenda: Brian Kramak, Kramak Enterprises
    a. No edits, objections.
    b. Warren Bollmeier motion, Dan Brake 2nd, all approve, no objections
4. Approval of November meeting minutes: Brian Kramak, Kramak Enterprises
    a. Warren Bollmeier motion, Mike Edds 2nd, all approve, no objections
    b. Action item: two-week ballot
5. ACP Update: ACP Staff
    a. Michele Mihelic noted that Jan 7, transfer of ANSI accreditation from AWEA to ACP with the updated scope. New SDP. Received approval of application on Feb 16 from ANSI, March 5 ANSI published new scope to SA with 30-day public comment period. Received one comment: great from IEEE, reach out if you want to partner. Week of April 5 will start moving forward with ballots.
        i. Link Diwan: any change to registration numbers/designation?
        ii. Michele Mihelic noted that we did update our designations from AWEA to ACP see the announcement in ANSI *Standards Action at* *https://share.ansi.org/Shared%20Documents/Standards%20Action/2021-PDFs/SAV5206.pdf*. For currently published standards, we did not update because they are coming up for review in a year or so. We will update the name change at that point. We will share the list of published standards and when they need to be reviewed.

Name	**ANSI Approval Date**	**5 Year** (reaffirmed, revised, or withdrawn)	**10 Year** (ANSI approval of an American National Standard automatically expires on the tenth anniversary date of its approval)
ANSI/AWEA 61400-12-1,POWER PERFORMANCE MEASUREMENTS OF ELECTRICITY PRODUCING WIND TURBINES	6/23/2016	6/23/2021	6/23/2026
ANSI/AWEA 61400-11 (2017)/61400-11 IEC:2012(E), WIND TURBINE GENERATOR SYSTEMS PART 11: ACOUSTIC NOISE MEASUREMENT TECHNIQUES	8/18/2017	8/18/2022	8/18/2027
IEC 61400-13:2015 © IEC 2015, WIND TURBINE PART 13: MEASUREMENT OF MECHANICAL LOADS	8/18/2017	8/18/2022	8/18/2027
IEC 61400-23:2014 © IEC 2014, WIND TURBINES PART 23: FULL-SCALE STRUCTURAL TESTING OF ROTOR BLADES	8/21/2017	8/21/2022	8/21/2027

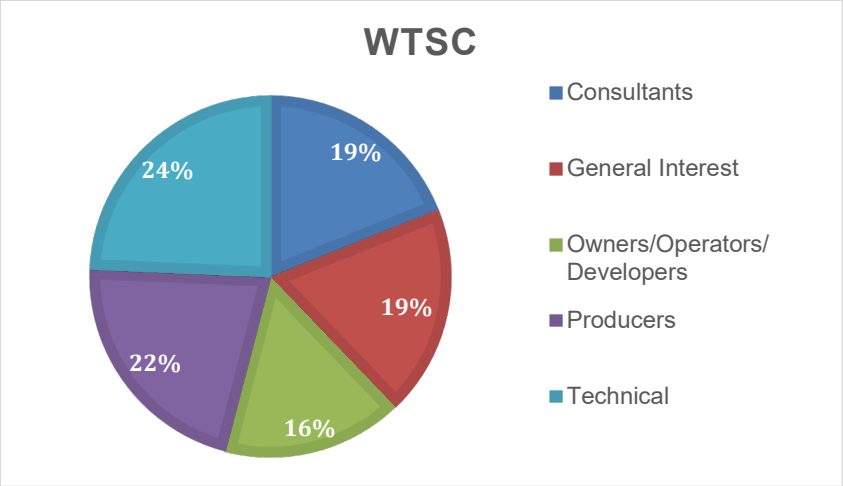
ANSI/AWEA 61400-27-1, PART 27-1: ELECTRICAL SIMULATION MODELS – WIND TURBINES	12/21/2017	12/21/2022	12/21/2027

iii. Subcommittees and Working Groups have AWEA in their name. Do we want to change these names to ACP-1, ACP-24? If we do want to make changes we need to motion and vote.
   1. Dan Brake noted that since AWEA-1 is almost done, I say it's creating extra work, but makes sense for -24.
   2. Link Diwan suggested we change everything and move AWEA and change to ACP to help make it easier to help with the transition. I prefer uniformity.
   3. Brian Mathis agreed with Link.
   4. Kirk Morgan noted whatever the least expensive and problematic on the publications side.
   5. Michele Mihelic noted changing the subcommittee names doesn't have a cost associated with it.
   6. Link Diwan made a motion to adopt ACP name and branding in future ACP publications and subordinate group names. Warren 2nd.
      a. Aye's have it. No objections Motion passed.
      b. Action item: two-week ballot

iv. Michele Mihelic noted that after our last audit, ANSI decided to conduct a special audit. The special audit is still needed. We have a few standards that are ready for the audit phase. These documents are ready for the BSR9. We have three documents ready for the BSR9 form. Once ready, we will notify ANSI.
   1. Brent Summerville asked what they are going to audit.
   2. Michele Mihelic noted that ACP gets to pick the standard. They are looking for that we have corrected issues from first audit (calculation of consensus; ensuring resolution of all comments, making sure we have confirmation that we resolved comments, but that they responded back; recordkeeping). The two documents that are ready on WWSC, but the committee is currently if out of balance. A committee can be out of balance as long as you are making an effort to recruit. We will let everyone know as soon as we schedule the special audit.

b. New WTSC application
MotorDoc LLC application under the consultant category. Branka Stemack with MotorDoc was on the call to provide an overview of the organization. The group voted to approve the membership application.
   i. Link Diwan motion to approve application, Mike Edds, 2nd. No objections. Action item: two-week ballot

c. Membership update
   i. Balance and participation
      1. Sabrina Morelli shared the current balance. This group is in balance.



ii. Christy Lan noted that BSEE is not supposed to vote, but ok to attend meetings. BSEE will clarify on their end with their legal department.
iii. Michele Mihelic noted if BSEE can't vote, ACP many need to move BSEE to observer status.
iv. AIS membership: ACP staff to reach out to AIS and see if they have another person. Will have an update for the June meeting.

6. Closed ballots: ACP Staff
The following ballots are closed and passed. Details on each ballot is online, click here.
   a. Approval to create a new Sound Subcommittee with Mark Bastasch, JACOBS, as the Chair
   b. Approval of WTSC August Meeting
   c. Approval of Jay Prigmore, Ph.D., P.E., Exponent, as the Chair of the AWEA-24 Subcommittee
7. Subcommittee and Task Force Updates
   a. Electrical Task Force, Chair: Chris Petrola, Enel Green Power North America, and Mike Edds, Pattern Energy Group
      i. Mike Edds noted there has been a bit of a pause with Chris changing jobs. Mike provided the following update:
         1. IEEE p2800 update: Important standard in development. A lot of participants from the wind side. Open for public comment and ballot. Ballot ends April 10. Public review ends May 9. Interconnection standard, covers wind and solar. Power, capabilities the equipment should have, etc. https://publicreview.standards.ieee.org/public-review-web/public-app
            a. Michele Mihelic noted that ACP did a joint webinar with SEIA, EPRI, and IEEE, click here to view the webinar recording. Michele noted that ACP is in talks with IEEE to put together an MOU, part of this will include a stronger collaboration on standards development.
   b. AWEA-1 Subcommittee (61400-1), Chair: Dan Brake, ARESCA
      i. Dan Brake noted the draft is being formatted by ACP staff and waiting for next step.
   c. AWEA-24 Subcommittee (61400-24), Chair: Jay Prigmore
   d. Offshore Wind Subcommittee, Chair: Walt Musial, NREL

i. Walt Musial noted that he provided a full update at the Standards Summit. OCRP-1 submitted draft for BSR8. Other four working groups are in various stages of development. Probably a few more months until these are ready for public comment. Next OSW virtual meetings on April 16 and April 23, an hour each.

e. Sound Subcommittee, Chair: Mark Bastasch, JACOBS
   i. Mark Bastasch noted they have an active group. The group has had four meetings, agreement on scope of the document, the scope is ready for ballot. The group reached consensus on the main points, should be moving fast to have a draft ready. Things progressing quickly and well.
   ii. Brian Mathis ask if a national deviation of ISO document. Let's see if we can adopt it.
      1. Mark noted yes, correct, use this document with national variations.
   iii. Michele Mihelic noted that ACP can ask to adopt ISO 9053 standard. I will need to research to see who the secretariate is for this ISO standard and then see who the TAG is.
      1. It's ASA.
      2. Michele Mihelic noted that not sure ASA will grant us permission.
      3. Shawn Martin asked if we need to adopt. You can reference any standard. This is what the SWT-1 did.
      4. Michele Mihelic noted this would be easier.
   iv. Action item: standard scope will be posted for 30-day ballot.

f. Structures Subcommittee, Chairs: Kirk Morgan, Barr Engineering Company and Jomaa ben Hassine, CTE Wind USA, Inc.
   i. Kirk Morgan noted that group has completed 2nd round of comments via work sessions. They expect to have the draft ready Q2 this year for public comment.

g. TR-2 Working Group, Chair: Eric Ntambakwa, DNV Energy USA Inc
   i. Eric Ntambakwa noted they have a good group assembled, 42 people working on the draft, 28 from industry. Recruited 14 from academia to be technical review panel and hash out disagreements/contentious items that come up. Progressing well. 6 subgroups working on different aspects. We have a goal to have rough draft of their sections by end of April and then have technical group to review. The assemble everything into one draft. We had a Portuguese research group approach us to participate. They will be sharing their data; this will give real world information. We meet monthly for the full group and each subgroup meets separately.

h. SWT-1 Subcommittee, Chairs: Brent Summerville, NREL; Mike Bergey, Bergey Windpower Co.; and Jeroen van Dam, NREL
   i. Brent Summerville noted the next step is to re-ballot because of changes made during the first comment period. Gantt chart from standards summit was helpful. Would be nice to have a generic version of this.
   ii. Michele Mihelic noted that ACP staff can create this.
      1. Action item: Staff to create Gantt chart.

i. TR-1 Subcommittee, Chairs: Brian Kramak, Kramak Enterprises and Mike Optis, NREL
   i. Brian Kramak noted the group is finalizing the draft.

8. New Business Items
   a. Discussion: Broaden committee scope

b. Brian Kramak noted we are now clean power and not just wind. Not always cross over, but with electrical there is. What should this group focus on? Are there groups that want to work in other areas? Or do we set up a mirror group for solar?
   i. Mike Edds noted that Pattern is doing solar work, as many developers are. He noted they are finding the wind standards for AC applies, but for DC it doesn't apply. DC going to arrays, converters, etc. This is a whole new area that would need to be addressed. He noted he didn't think there is an applicable IEC standard for DC, it's mostly local code.
   ii. Brian Kramak asked would the same electrical task force for wind be applicable for solar. Technologies, should they be their own group?
   iii. Mike Edds noted that solar is a different animal – we need to pull in some people to help with this.
   iv. Michele Mihelic noted the current scope for this group is wind specific. Do we want to expand the scope of this group or should solar/storage/hydrogen/batteries? OR creating a different consensus body? Michele noted we don't need to make a decision now unless there's a pressing reason.
   v. Mike Edds noted there's a lot of solar development going on, so we need something soon.
   vi. Link Diwan noted we definitely do need to have best practices or guidance on how these different system interface. Functionally they are looked at as separate components.
      1. Mike Edds, agree
   vii. Brian Kramak suggested we start solar as a new subcommittee under this group. He noted he sees it like a new baby brother. Primarily to address overlaps. Each gets its own subcommittee.
   viii. Mike Edds noted instead of solar, storage, etc. how about AC and DC focus.
      1. Brian Kramak noted it's reasonable in organization of electrical.
   ix. Michele Mihelic noted if you do move forward with creating subcommittees, we will need to revisit the scope of this committee before moving forward with any standards.
   x. Brian Kramak noted relevant for electrical and structures too.
   xi. Jeroen van Dam asked has anyone asked the solar industry what they want.
      1. Michele Mihelic noted that under ACP we have been incorporating solar and storage into portfolios. From operational strategy perspective, there are no groups working on this specific issue. From a standards perspective, there are some organizations (IEEE, UL) that have various standards.
   xii. Chris Morris noted he can help reach out to solar.
   xiii. Warren Bollmeier noted you have to investigate if you need a special standard for integrated systems (solar, wind, storage). We need to hash this out more.
   xiv. Action: Update scope to change from AWEA to ACP. Agenda item at next meeting.

9. Proposed 2021 Meeting Schedule:
   a. March 23, 11:00 AM – 12:30 PM, Eastern, Conference Call
   b. June 22, 11:00 AM – 12:30 PM, Eastern, Conference Call
   c. August 23, during OMS Round Rock, TX (TBD) – In person or Conference Calls

d. November 16, 11:00 AM – 12:30 PM, Eastern, Conference Call
   i. Motion: Warren Bollmeier, Greg Poulos, 2nd: approved, no objections. Action item: two-week ballot

10. Adjourn

Action Items:

- Create generic Gannt chart that shows standards approval process.
- Two-week ballots:
  - Approval of November meeting minutes.
  - Approval to adopt ACP name and branding in future ACP publications and subordinate group names.
  - Approval for MotorDoc LLC membership application.
  - Approval to update WTSC scope, only change is swap AWEA for ACP.
  - Approval of 2021 meeting schedule.

Attendees:

Voting Members		
Company	**Member**	**Type**
Acciona Energy USA Global LLC	Mathis, Brian	Primary
ArcVera Renewables	Bosche, John	Primary
ArcVera Renewables	Poulos, Gregory	Alternate
ARESCA	Brake, Dan	Primary
Avangrid Renewables	Morris, Christopher	Primary
Avanti Wind Systems	Metzinger, Luke	Primary
Barr Engineering Company	Morgan, Kirk	Primary
Bergey Windpower Co. Inc.	Bergey, Mike	Primary
Bureau of Safety and Environmental Enforcement	Lan, Christy	Alternate
Clear Wind	McCabe, Matt	Primary
DNV GL	Griffin, Dayton	Primary
Energy Systems Integration Group (ESIG)	Jordan, Benjamin	Primary
Elevator Industry Work Preservation Fund	Barrett, Carisa	Primary
GE Renewable Energy	Helton, Mark	Primary
HSB - Hartford Steam Boiler	Diwan, Linkesh	Primary
National Renewable Energy Laboratory	van Dam, Jeroen	Primary
nVent	Holm, Dan	Alternate
Pattern Energy Group LP	Edds, Michael	Primary
Penn State University	Stewart, Susan W.	Primary
RE Innovations LLC	Spossey, Joseph	Primary
Siemens Gamesa Renewable Energy	Sharifi, Masoud	Primary
Small Wind Certification Council	Martin, Shawn	Primary
Spire Engineering Services LLC	Sheppard, Robert	Primary
Terra-Gen LLC	Hu, Yuanlong	Primary
University of Texas at Austin	Manuel, Lance	Primary

Vestas North America	Taylor, Trevor	Primary
WSB-Hawaii	Bollmeier, Warren	Primary

Non-Voting Attendees	
Company	**Name**
JACOBS	Bastasch, Mark
Bureau of Safety and Environmental Enforcement	Kozak, Mark
Kramak Enterprises	Kramak, Brian
AEP Renewables	Li, Brian C.
Canadian Renewable Energy Association	McKay, Phil
National Renewable Energy Laboratory	Musial, Walt
DNV GL	Ntambakwa, Eric
Bureau of Safety and Environmental Enforcement	Oliver, Christopher
EAPC Wind Energy	Sherwin, Robert
National Renewable Energy Laboratory	Summerville, Brent
MotorDoc LLC	Stemack, Branka