

AWEA Wind Technical Standards Committee
Minutes
Monday, June 1, 1:00 PM – 3:00 PM, Eastern
Conference Call

AGENDA ITEMS

1. Welcome: Brian Kramak, UL
2. Roll Call: AWEA Staff
3. Review and Approve Agenda: Brian Kramak, UL
4. Approval of February meeting minutes: Brian Kramak, UL
5. AWEA Update: AWEA Staff
 - a. ANSI PINS submittal
 - i. AWEA 61400-26-1
 - ii. AWEA-61400-1
 - iii. AWEA-61400-6
 - b. COVID-19 Impact
6. Welcome New Members: Brian Kramak, UL
 - a. Avangrid Renewables
 - b. nVent
7. Subcommittee and Task Force Updates
 - a. Electrical Task Force, Chair: Chris Petrola, Acciona Energy
 - b. AWEA-1 Subcommittee (61400-1), Chair: Dan Brake, NextEra Energy
 - c. AWEA-24 Subcommittee (61400-24), Chair is needed
 - d. Offshore Wind Subcommittee: Walt Musial, NREL
 - e. Structures Subcommittee, Chairs: Kirk Morgan, Barr Engineering Company and Jomaa ben Hassine, Kleinfelder, Inc.
 - f. TR-1 Subcommittee, Chairs: Brian Kramak, UL and Mike Optis, NREL
 - g. SWT-1 Subcommittee, Chairs: Brent Summerville, Small Wind Certification Council; Mike Bergey, Bergey Windpower Co.; and Jeroen van Dam, NREL
8. Remaining Meetings
 - a. Tuesday, August 11, 2020 – Teleconference
 - b. Thursday, November 5, 2020 – Teleconference
9. Additional Items
10. New Business Items
11. Adjourn

MINUTES

This meeting met quorum and two-thirds. 29 voting members were in attendance.

- Review and Approve Agenda: Brian Kramak, UL
 - Motion: Jomaa Ben Hassine; 2nd: Dan Brake
 - Approved
- Approval of February meeting minutes: Brian Kramak, UL
 - Motion: Luke Metzinger, 2nd: Robert Shepard
 - Approved
- AWEA Update: AWEA Staff
 - ANSI PINS submittal
 - AWEA 61400-26-1
 - AWEA-61400-1
 - AWEA-61400-6
 - AWEA 101-1
 - COVID-19 Impact
 - See AWEA resource page at <https://www.awea.org/covid-19>.

- Welcome New Members: Brian Kramak, UL
 - Avangrid Renewables
 - nVent
- Subcommittee and Task Force Updates
 - Electrical Task Force, Co-Chairs: Chris Petrola, Acciona Energy; Mike Edds, Pattern Energy Group
 - Scope discussion – “The task force will evaluate potential paths forward for electrical standards in the US given the known conflicts between various domestic and international standards.”
 - How broad of a scope do we want to take under this approved scope?
 - Limit to Substation and Collection System design. The WTG being a machine has its own standards and requirements (UL 6141 - WTG listing for turbines).
 - Connections to the WTG are to be covered under this review. End will be 34.5kV switchgear or connection into LV/MV cubical in the base.
 - No O&M building - flow of power focused.
 - How do you define if you are a utility? – Should this be part of the Task Force assignment? Probably not?
 - Chris proposes that maybe this topic warrants its own task force to define this.
 - Mike Edds noted that this is a legal/policy issue, not a technical issue, so outside of expertise. States have jurisdiction on regulating utilities, varies in each state.
 - The group discussed this topic and the recommendation is that it should be addressed.
 - Question posed to the group: Can the industry follow certain guidelines while the states also have theirs?
 - Yes, but there will be two sets of guidelines that can pose issues to the developer.
 - Next Step: AWEA staff to talk to relevant AWEA teams, will collect info/clarity and report back to the group.
 - Create two lists of standards - if you are a utility and not a utility
 - Main difference between the two lists initially appears to be the NEC, but there may be more.
 - Next Steps:
 - Build a list of standards that are currently being used. What is required and what is recommended.
 - Ask for large engineering firm to join the group.
 - Send recommendations to Chris and Mike.
 - Mike is also reaching out to engineering firms they work with.
 - AWEA-1 Subcommittee (61400-1), Chair: Dan Brake, NextEra Energy
 - PINS submitted. Waiting for comment period to be completed. So far, no comments received. Will work with AWEA to determine next steps.
 - AWEA-24 Subcommittee (61400-24), Chair is needed
 - Email standards@awea.org if you want to volunteer and recommend someone.
 - You don't have to be an expert to chair a subcommittee, the subcommittee members will have the expertise.
 - Offshore Wind Subcommittee, Chair: Walt Musial, NREL
 - 5 working groups writing recommended practices: OCRP, Floating, Geotech, Metocean, Submarine Cables.
 - OCRP will be the first draft ready, currently doing an international review within the subcommittee. Will submit the draft to WTSC in August or September. The remaining groups will submit drafts this year as well.
 - Goal is to have all the RP's final by the end of 2021.
 - Next meeting August 18.
 - Sandy Butterfield asked if BOEM, will they use these documents.

- Walt: not required for them to use these, but by begin ANSI standards they can legally use them and refer to them in federal register. Provide BOEM with a set of tools.
- John Cushing, BSEE, noted there are no near-term plans to formally incorporate by reference the OCRP standard into the 30 CFR 585 regulations. For BOEM and BSEE to incorporate consensus industry standards into regulations, the formal process for creating new federal regulations must be followed. Agencies must follow an open public process when they issue regulations, according to the Administrative Procedure Act (APA). This includes publishing a statement of rulemaking authority in the Federal Register for all proposed and final rules. This tends to be a long process typically involving a public comment period, economic analysis, Paperwork Reduction Act analysis, NEPA analysis, etc. Also, we are required to incorporate a specific version of an industry standard, so if that standard were to get updated a few years later, we would have to go through the same process to incorporate by reference the updated standard. We anticipate the rapidly evolving offshore wind technology may require frequent updates to the standards. The current offshore renewable energy regulations in 30 CFR 585 primarily contain performance-based requirements, which gives both the government and the industry flexibility in determining accepted engineering practices. We would expect to see current standards referenced in the operator's Safety Management System, as well as in the design basis used for the Facility Design Report (FDR) and Fabrication and Installation Report (FIR). Therefore, we already have the ability to recognize the AWEA OCRP as an accepted engineering practice without having to go through the rule-making process.
- Structures Subcommittee, Chairs: Kirk Morgan, Barr Engineering Company and Jomaa ben Hassine, Kleinfelder, Inc.
 - Making good progress, but a bit behind schedule. In 1 or 2 weeks will submit a draft for the subcommittee to review and comment. Already had one round, then broke into subgroups, and now will get back together to review.
 - Subcommittee proposes the creation of a new technical report:
 - Title: Report on Cyclic Degradation in the Geotechnical Design of Wind Turbine Foundations.
 - Motion to develop a technical report:
 - Motion Kirk Motion, 2nd Trevor Taylor
 - Approved
 - AWEA will create a two-week ballot for those that were not in attendance. After the ballot AWEA Submit PINS to ANSI.
 - Update to the minutes: a description for the technical report has been provided.
- TR-1 Subcommittee, Chairs: Brian Kramak, UL and Mike Optis, NREL
 - Due to COVID-19 the group is a bit stalled. Work is starting again and getting back on track.
- SWT-1 Subcommittee, Chairs: Brent Summerville, Small Wind Certification Council; Mike Bergey, Bergey Windpower Co.; and Jeroen van Dam, NREL
 - Draft standard available, posted on SpecBuilder.
- UL 6141 revision: Tim Zgonena, UL
 - Brian K: this standard is base for international versions.
 - Tim: UL participates in international standards arena and works on harmonization. Strong alignment of 6141 and 61400-1. Similar references to IEC standards, strong correlation between the two.
- Remaining Meetings
 - Tuesday, August 11, 2020 – Teleconference
 - Thursday, November 5, 2020 – Teleconference
- Additional Items

- New Business Items
- Adjourn
 - Motion: Sandy; Link 2nd
 - Approved

Action Items:

- Create an approval ballot for the draft February meeting minutes.
- Create an approval ballot for the creation of a technical report on Cyclic Degradation in the Geotechnical Design of Wind Turbine Foundations.

ATTENDEES

Company	Member	Type
Acciona Energy USA Global LLC	Petrola, Christopher	Primary
ArcVera Renewables	Bosche, John	Primary
Avangrid Renewables	Morris, Christopher	Primary
Avanti Wind Systems	Metzinger, Luke	Primary
Barr Engineering Company	Morgan, Kirk	Primary
Boulder Wind Consulting	Butterfield, Sandy	Primary
Bureau of Safety and Environmental Enforcement	Cushing, John	Primary
Clear Wind	McCabe, Matt	Primary
DNV GL	Griffin, Dayton	Primary
Elevator Industry Work Preservation Fund	Barrett, Carisa	Primary
Exponent	Morse, Timothy	Primary
GE Renewable Energy	Helton, Mark	Primary
Kleinfelder Inc.	Ben Hassine, Jomaa	Primary
Leeward Renewable Energy	Grife, Ronald	Primary
National Renewable Energy Laboratory	van Dam, Jeroen	Primary
NextEra Energy Inc.	Brake, Dan	Primary
NRG Systems	Cole, Rob	Primary
nVent	Bendlak, Tom	Primary
nVent	Holm, Dan	Alternate
Pattern Energy Group LP	Edds, Michael	Primary
Penn State University	Stewart, Susan W.	Primary
Siemens Gamesa Renewable Energy	Sharifi, Masoud	Primary
Small Wind Certification Council	Summerville, Brent	Primary
Spire Engineering Services LLC	Sheppard, Robert	Primary
Terra-Gen LLC	Hu, Yuanlong	Primary
The Hartford Steam Boiler Inspection & Insurance Company	Diwan, Linkesh	Primary
U.S. Department of Energy	Ahlgrimm, Jim	Primary
UL LLC	Kramak, Brian	Primary
Vestas North America	Taylor, Trevor	Primary
Wsb-Hawaii	Bollmeier, Warren	Primary

Observers

Company	Name
General Electric Power Systems	Gillespie, Toby
Elevator Safety Solutions	Koshak, John W.
UL LLC	Zgonena, Tim
Bureau of Safety and Environmental Enforcement	Oliver, Chris

Did Not Attend

Company
Advanced Insulation Systems LLC
Bergey Windpower Co. Inc.
Energy Systems Integration Group (ESIG)
Intertek
Keystone Engineering Inc.
NRG Systems
RE Innovations LLC
University of Texas at Austin
V-Air Wind Technologies