

# Meeting Notes

## Project 2021-07 Extreme Cold Weather Grid Operations, Preparedness, and Coordination Standard Drafting Team

April 5 - 7, 2022 | 1:00 – 3:00 p.m. Eastern

### Review NERC Antitrust Compliance Guidelines and Public Announcement

Alison Oswald, NERC staff, called attention to the NERC Antitrust Compliance Guidelines and the public meeting notice.

### Roll Call and Determination of Quorum

A team roll call was performed and quorum was determined. The member attendance sheet is attached as attachment 1.

### Chair Remarks

The chair started the meeting reminding the team that the language has to receive industry approval by two thirds, so that is the team's goal.

### Recommendation 1j

#### Winter Unit

The Facilities language was reviewed and a proposal to modify the language to say “generators that the GO operates during the winter season as determined by the BA.” The definition excludes those generators that do not typically operate during the winter season, but may be called upon by the BA to be available during Capacity Emergencies or Energy Emergencies. A question was asked about a generator that operated 1-2 days in the previous winter, and would bid in because it would be profitable to do so; would these generators be applicable under this Standard? It was suggested that the language should say regularly bid in, not just one-off kinds of situations. It was stated that even if a generator only operates during a few days during the winter, then that generator should be reliable in those situations.

The team discussed the idea that if winter is defined by x number of months on the calendar, there could be 60 degree days in the winter and single digit temperature days. A suggestion was made to have language about sometimes summer only units can run during the winter, if it's a warm day. Perhaps the problem is defining winter as x number of days, and it should be defined as weather related event. Comments were made supporting the idea of letting the BA define the winter period. In addition, the comment was made that if a planning authority winter energy assessment says they need your generator, then that generator should be applicable under the standard.

## **New Build**

The team discussed what the 'bar' should be for determining minimum temperature. Two options were presented to the team. Option A is a more conservative temperature and timeframe to consider, 50 year look back and operate for 8 hours without any forced outages. Option B is equal to the lowest actual temperature seen for lowest one day over the last 10 years.

The team discussed the timeframe for the look back on temperature. The team was asked if they like the "lowest one day over the last 10 years". The team clarified that we mean the lowest average over one day. It was stated that if you do a 10-year look back, it will capture a lot of extreme events that have happened in the last 10 years, however other commenters stated 50-year data is probably available and lowest average data is missing the intent of the recommendation. There was a proposal to change the temperature look back from one day to one hour lowest temperature. The team agreed on this change.

It was asked if the retrofit and new build language are the same. The team intends for new build to be at a higher bar. The team discussed other design criteria standards outside of the NERC standards that could be looked at. There are some industry standards about temperature requirements for building outside. Design criteria was researched and the team found ASCE Standard 7 (ASCE/SEI 7-2016; Minimum Design Loads And Associated Criteria For Buildings And Other Structures) which has maps with information about inches of ice, wind gusts, temperature, etc. Also ASHRAE Weather Data Center could be used to find the lowest temperature.

## **Retrofit**

FERC stated the intent on 'retrofit' was to 'implement new or modify existing freeze protection measures', so it was proposed that this language is used instead of the word retrofit.

A concern was raised with the Phase 2 recommendations, 1a and 1b critical components recommendation. The sequence of these recommendations may be off as generating units will have to identify critical components to know what to possibly add additional freezer protection measures to, which the retrofit requirement will target. FERC agrees with this statement and will discuss the timing of recommendations offline.

A team member stated that the team had agreed that the new build standard should be more stringent than the retrofit standard, but right now the two are reading the same. The team discussed if the review for new generation should be a 'one and done' review and then the CAP takes care of the issues that come up during operation. The only difference is that the new build language requires that the unit be built to withstand the cold weather right up front. The intent of the recommendation is a look at your facility on a periodic basis because the facility may change over time. A question was asked if the units should be designed for startup or continuous operation conditions as these may be different. This is not explicitly called out in the recommendation, so the team will not differentiate for now. The one and done approach may end up making the entities look at more data and further back in time. This would help support that entities do not need to do another review. It was proposed to have the look back by 30 or 50 years with a possible phased in approach for GOs with a large fleet of generators. Team discussed the approach to combine the new build and retrofit language into one requirement.

### **Combined Requirement Language**

Proposed language with the new build and retrofit was presented to the team. The team discussed if the design criteria is location based or extreme weather look back approach. In addition, the team discussed if the design criteria in the standard would be the only things the generators should look at or be “a minimum” and generators could look at more. The team discussed the use of consider vs. account for in the design criteria. A suggestion was made to pick a specific historically cold year and not a year period because 2021 would eventually roll off. It was noted that there would be differences across the country if we go with the specific year approach and would likely not be the lowest temperature for each geographic region. Recommendation #12 in the FERC/NERC 2021 report says to use the lowest recorded temperature at the location as far back as you can go.

The team voted on three options for temperature:

1. The lowest actual temperature seen for lowest one hour over the last (10 vs 50 years)
2. Lowest recorded ambient temperature for the nearest city for which historical data is available, factoring in accelerated heat loss due to wind speed
3. Set a specific date as a line in the sand

The details of the vote are included below; item 1 received the majority of votes.

The team continued to discuss the design parameters that should be considered in the new build language. The current proposal has temperature and wind speed but not wind chill, and a team member asked why. Wind chill by definition is a function of wind speed and temperature, so that would cover it. Wind is all about balancing the heat dissipation. The question was asked about designing a summer peaking unit and how this requirement applies. It was stated this would be covered in the Facilities section as described at the top of the standard. The team voted on which description of wind to include in the draft language with the options being:

1. Wind
2. Effects of wind
3. Wind velocity

The details of the vote are included below, item 2 received the majority.

The team discussed the precipitation parameter that should be included in the new build requirement language.

1. Precipitation
2. Precipitation (e.g. sleet, snow, ice, and freezing rain)
3. Frozen precipitation

The details of the vote are included below, item 2 received the majority.

# Attachment 1

Name	Organization	4/5	A vs B	4/6	4/7	Temp	Wind	Precipitation
Kenneth Luebbert	Eergy, Inc.	Y	B	Y	N	-	-	-
Matthew Harward	Southwest Power Pool, Inc.	Y	B	Y	Y	2	abstain	2
Venona Greaff	Oxy	Y	B	Y	Y	1	1	2
Derek Kassimer	ReliabilityFirst	Y	B	Y	Y	2	2	2
Jonathan Davidson	City Utilities of Springfield	Y	B	Y	Y	2	2	2
David McRee	Duke Energy	Y	B	Y	Y	-	-	2
Thor Angle	Puget Sound Energy	Y	A	Y	Y	2	2	2
Keith Smith	Orsted Onshore North American	Y	B	Y	Y	1	2	2
Chad Wiseman	Newfoundland & Labrador Hydro	N	-	N	Y	1	3	1
Bradley Pabian	Louisville Gas & Electric and Kentucky Utilities	Y	A	Y	Y	1	1	2
Collin Martin	Oncor Electric Delivery, LLC	N	-	N	Y	1	2	2
Jill Loewer	Utility Services	Y	B	Y	Y	2	2	2
David Kezell	Electric Reliability Council of Texas, Inc. (ERCOT)	Y	A	Y	N	-	-	-
Ryan Salisbury	Oklahoma Gas & Electric	Y	B	Y	Y	1	2	1
David Deerman	Southern Company Services	Y	A	Y	Y	1	1	2