NCRTH AMERICAN ELECTRIC RELIABILITY CORPORATION

## NERC Information Resources on Cold Weather Preparation and BPS Impacts

## (as of 2/11/2021)

NERC has been collecting and sharing information on cold weather preparation and BPS impacts for years via Webinars, Special Reports, Lessons Learned, Failure Modes & Mechanisms, and other resources.

Version 3 of the <u>Generating Unit Winter Weather Readiness</u> <u>Reliability Guideline</u> was approved by the RSTC at the end of 2020. The changes between versions 2 and 3 were discussed in the 2020 <u>Winter Weather Webinar</u>.

Here are links to some cold weather resources:

## Reports on major BPS-impacting Cold Weather events

Outages and Curtailments during the Southwest Cold Weather Event of February 1-5, 2011

Winter Weather Readiness for Texas Generators, (2011)

January 2014 Polar Vortex Review

<u>The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018</u> (There are a number of 'sound practices' from the industry, starting on page 100.)

Other Cold Weather Reports and Training Materials can be found<u>on this site.</u>

## Cold weather related Lessons Learned:

LL20110902 Adequate Maintenance and Inspection of Generator Freeze Protection

LL20110903 Generating Unit Temperature Design Parameters and Extreme Winter Conditions

LL20111001 Plant Instrument & Sensing Equipment Freezing Due to Heat Trace & Insulation Failures

LL20120101 Plant Onsite Material and Personnel Needed for a Winter Weather Event

LL20120102 Plant Operator Training to Prepare for a Winter Weather Event

LL20120103 Transmission Facilities and Winter Weather Operations

LL20120901 Wind Farm Winter Storm Issues

LL20120902 Transformer Oil Level Issues During Cold Weather

LL20120903 Winter Storm Inlet Air Duct Icing

LL20120904 Capacity Awareness During an Energy Emergency Event

LL20120905 Gas and Electricity Interdependency

LL20180702 Preparing Circuit Breakers for Operation in Cold Weather (also 2018 Webinar w/FMM)

LL20200601 Unanticipated Wind Generation Cutoffs during a Cold Weather Event

LL20201101 Cold Weather Operation of SF6 Circuit Breakers

Winter Weather Webinars from 2012 – 2020 can be found on this site.

Annual Winter Reliability Assessments 2003/2004 thru 2019/2020 can be found on this site.