PUBLIC UTILITY COMMISSION OF TEXAS 25.55 WEATHER EMERGENCY PREPAREDNESS

DEFINITIONS

- WEATHER CRITICAL COMPONENT -- ANY COMPONENT OF A RESOURCE OR TRANSMISSION FACILITY THAT IS SUSCEPTIBLE TO FAIL AS A RESULT OF A WEATHER EMERGENCY, THE OCCURRENCE OF WHICH FAILURE IS LIKELY TO SIGNIFICANTLY HINDER THE ABILITY OF THE RESOURCE OR TRANSMISSION FACILITY TO FUNCTION AS INTENDED OR, FOR A RESOURCE, IS LIKELY TO LEAD TO A TRIP, DERATE OF MORE THAN FIVE PERCENT OF THE CAPACITY REPRESENTED IN THE RESOURCE'S SEASONAL NET MAXIMUM SUSTAINABLE RATING OR OF THE TRANSMISSION FACILITY'S RATING, OR FAILURE TO START.
- WEATHER EMERGENCY PREPARATION MEASURES -- MEASURES THAT A GENERATION ENTITY OR TSP TAKES TO SUPPORT THE FUNCTION OF A RESOURCE OR TRANSMISSION FACILITY DURING A WEATHER EMERGENCY.
- WEATHER EMERGENCY -- A SITUATION RESULTING FROM A SUMMER OR WINTER WEATHER EVENT THAT PRODUCES SIGNIFICANT RISK FOR A TSP THAT FIRM LOAD MUST BE SHED OR A SITUATION FOR WHICH ERCOT ISSUES AN EMERGENCY NOTICE TO MARKET PARTICIPANTS INVOLVING AN OPERATING CONDITION IN WHICH THE SAFETY OR RELIABILITY OF THE ERCOT SYSTEM IS COMPROMISED OR THREATENED BY SUMMER OR WINTER WEATHER.



MAJOR WEATHER-RELATED FORCED INTERRUPTION OF SERVICE OF A RESOURCE —

- THE FAILURE OF A RESOURCE TO START, FOLLOWING ONE OR MORE ATTEMPTS, FOR 12 OR MORE CONTINUOUS HOURS AS A RESULT OF A WEATHER EMERGENCY; OR
- THE LOSS OF 50% OR MORE OF THE CAPACITY REFLECTED IN A RESOURCE'S SEASONAL NET MAXIMUM SUSTAINABLE RATING FOR 12 OR MORE CONTINUOUS HOURS AS A RESULT OF A WEATHER EMERGENCY.
- REPEATED WEATHER-RELATED FORCED INTERRUPTION OF SERVICE -- THREE OR MORE OF ANY COMBINATION OF THE FOLLOWING OCCURRENCES AS A RESULT OF SEPARATE WEATHER EMERGENCIES WITHIN ANY THREE-YEAR PERIOD:
 - THE FAILURE OF A RESOURCE TO START;
 - THE LOSS OF 50% OR MORE OF THE CAPACITY REFLECTED IN A RESOURCE'S SEASONAL NET MAXIMUM SUSTAINABLE RATING FOR 30 MINUTES OR MORE; OR
 - THE LOSS OR DERATE OF 50% OR MORE OF A TRANSMISSION FACILITY'S RATING.

REQUIRED PREPARATION MEASURES - 2022

- A. IMPLEMENT WEATHER EMERGENCY PREPARATION MEASURES THAT COULD REASONABLY BE EXPECTED TO ENSURE THE SUSTAINED OPERATION OF ALL COLD WEATHER CRITICAL COMPONENTS DURING WINTER WEATHER CONDITIONS. WHERE APPROPRIATE, SUCH MEASURES MAY BE IMPLEMENTED USING EITHER PERSONNEL OR AUTOMATED SYSTEMS. SUCH MEASURES INCLUDE, AS APPROPRIATE FOR THE RESOURCE:
 - 1. INSTALLATION AND MAINTENANCE OF ADEQUATE WIND BREAKS FOR RESOURCES SUSCEPTIBLE TO OUTAGES OR DERATES CAUSED BY WIND;
 - 2. INSTALLATION AND MAINTENANCE OF INSULATION AND ENCLOSURES FOR ALL COLD WEATHER CRITICAL COMPONENTS;
 - 3. INSPECTION OF EXISTING THERMAL INSULATION AND ASSOCIATED FORMS OF WATER-PROOFING FOR DAMAGE OR DEGRADATION, AND REPAIR OF DAMAGED OR DEGRADED INSULATION AND ASSOCIATED FORMS OF WATER-PROOFING;
 - 4. ARRANGE AND PROVIDE FOR THE AVAILABILITY AND APPROPRIATE SAFEKEEPING OF SUFFICIENT CHEMICALS, AUXILIARY FUELS, AND OTHER MATERIALS NECESSARY FOR SUSTAINED OPERATIONS DURING A WINTER WEATHER EMERGENCY;
 - 5. PLAN FOR AND MAINTAIN THE OPERABILITY OF INSTRUMENT AIR MOISTURE PREVENTION SYSTEMS;
 - 6. MAINTENANCE OF FREEZE PROTECTION EQUIPMENT FOR ALL COLD WEATHER CRITICAL COMPONENTS, INCLUDING FUEL DELIVERY SYSTEMS CONTROLLED BY THE GENERATION ENTITY, AND TESTING OR VERIFYING THE FUNCTIONALITY OF FREEZE PROTECTION EQUIPMENT PRIOR TO AND ON A MONTHLY BASIS DURING THE WINTER SEASON;
 - 7. MONITORING OF ALL COLD WEATHER CRITICAL COMPONENTS, INCLUDING CIRCUITRY THAT PROVIDES FREEZE PROTECTION OR PREVENTS INSTRUMENT AIR MOISTURE;

REQUIRED PREPARATION MEASURES - 2023

- B. BEGINNING IN 2023, IMPLEMENT WEATHER EMERGENCY PREPARATION MEASURES BY DECEMBER 1 EACH YEAR, IN ADDITION TO THE WEATHER EMERGENCY PREPARATION MEASURES REQUIRED BY SUBPARAGRAPH (A) OF THIS PARAGRAPH, THAT COULD REASONABLY BE EXPECTED TO ENSURE SUSTAINED OPERATION OF THE RESOURCE AT THE 95TH PERCENTILE MINIMUM AVERAGE 72-HOUR WIND CHILL TEMPERATURE REPORTED IN ERCOT'S HISTORICAL WEATHER STUDY, REQUIRED UNDER SUBSECTION (I) OF THIS SECTION, FOR THE WEATHER ZONE IN WHICH THE RESOURCE IS LOCATED.
 - 1. REVIEW THE ADEQUACY OF STAFFING PLANS TO BE USED DURING A WINTER WEATHER EMERGENCY AND REVISE THE STAFFING PLANS, AS APPROPRIATE.
 - 2. TRAIN RELEVANT OPERATIONAL PERSONNEL ON WINTER WEATHER PREPARATIONS AND OPERATIONS.
 - **3. BEGINNING IN 2023**, CREATE A LIST OF ALL COLD WEATHER CRITICAL COMPONENTS, REVIEW THE LIST AT LEAST ANNUALLY PRIOR TO THE BEGINNING OF THE WINTER SEASON, AND UPDATE THE LIST AS NECESSARY.

ANNUAL AND ONGOING ACTIVITIES

- BY DECEMBER 1 EACH YEAR, A GENERATION ENTITY MUST COMPLETE THE WINTER WEATHER EMERGENCY PREPARATION MEASURES FOR EACH RESOURCE UNDER ITS CONTROL.
- A GENERATION ENTITY MUST MAINTAIN THESE MEASURES THROUGHOUT THE WINTER SEASON AND COMPLETE ANY ONGOING OR MONTHLY REQUIREMENTS AT THE APPROPRIATE TIME.
- IF NECESSARY TO COME INTO COMPLIANCE, A GENERATION ENTITY MUST UPDATE ITS WINTER WEATHER EMERGENCY PREPARATION MEASURES NO LATER THAN ONE YEAR AFTER ERCOT FILES A HISTORICAL WEATHER STUDY REPORT UNDER SUBSECTION (I) OF THIS SECTION.



RESOURCES

- PUBLIC UTILITY COMMISSION OF TEXAS
 - 25.55 HTTPS://WWW.PUC.TEXAS.GOV/AGENCY/RULESNLAWS/SUBRULES/ELECTRIC/25.55/25.55EI.ASPX
- NERC RESOURCES
 - COMPLIANCE GUIDANCE HTTPS://WWW.NERC.COM/COMM/RSTC RELIABILITY GUIDELINES/RELIABILITY GUIDELINE GENERATING UNIT
 WINTER WEATHER READINESS V3 FINAL.PDF
 - VIDEO LEARNING SERIES HTTPS://VIMEOPRO.COM/NERCLEARNING/LESSONS-LEARNED
 - PREPARATION FOR SEVERE COLD WEATHER WEBINARS -HTTPS://WWW.NERC.COM/PA/RRM/PAGES/WEBINARS.ASPX
 - COLD WEATHER TRAINING MATERIALS <u>HTTPS://WWW.NERC.COM/PA/RRM/EA/PAGES/COLD-WEATHER-TRAINING-MATERIALS.ASPX</u>



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