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ASTRA WIND

Emergency Operations Plan (EOP)

Executive Summary

(Per 16 TAC Sect. 25.53)

Submitted to:

PUC of Texas, PUC Document No.: _____ ERCOT via ERCOT MIS Service Request

Date: April 22, 2025

1.0 Executive Summary

1.1 Common Operational Functions Relevant Across Emergency Types

The following Emergency Operations Plan (EOP), together with the Executive Summary and Annexes, was developed in accordance with 16 TAC Sect. 25.53 (the Rule) adopted by the PUC of Texas (the Commission) on February 25, 2022. Astra Wind LLC is subject to 16 TAC Sect. 25.53 and is, therefore, required to implement this EOP, including all components established by the Rule and to maintain the EOP, Executive Summary, and Annexes accordingly.

1.2 Record of Submittal of EOP

PUC of Texas

Project No: 57430

Filed Under Control Number:

-Redacted Version

-Unredacted Version available upon request

<u>ERCOT</u>

Filed via ERCOT MIS

-Unredacted Version

1.3 Annual Updates to EOP (N/A, first EOP Filing)

Material changes made to EOP since last Version: N/A

Updated Version Replacing EOP Submitted On (date): N/A

Description of Change: N/A

Reference Sections and Page Numbers: N/A

Record of Distribution of New EOP: N/A

Affidavit: N/A

No material changes have been made to EOP since the last Version.

Pleading Documenting Changes: N/A

Attestation: N/A

1.4 Contents and Policies (In EOF)	1.4	Contents and	Policies	(in EOP)
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	training-Note; Training is scheduled for May 2025.	
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1.5 Record of Distribution

Name	Title	Date of access to and/or training on this EOP
Alan Diaz	Director of Operations	4/15/2025
Todd Benton	Operations & Maintenance Supervisor	4/15/2025
Carlos Marquez	EHS Manager	4/15/2025

1.5 Emergency Contacts

Name	Title	Phone	Email
Alan Diaz	Director of Operations	806-999-4317	adiaz@windhq.com
Todd Benton	Operations & Maintenance Supervisor	806-670-1125	Todd.benton@ge.com
Carlos Marquez	EHS Manager	806-781-0200	cmarquez@windhq.com
Matt Urbanosky	Operations Asset Manager	806-781-0215	murbanosky@windhq.com

NIMS Certified Personnel (to be completed in May 2025)

Name	Title	Phone	Email

AFFIDAVIT

[as required by §25.53(c)(4)(C)]

STATE OF _____)

COUNTY OF _____)

PERSONALLY came and appeared before me, the undersigned Notary, the within named, President, who is a resident of Montgomery County, State of Maryland and makes this his/her statement and Affidavit upon oath and affirmation of belief and personal knowledge that the following matters, facts and things set forth are true and correct to the best of his/her knowledge with respect to Astra Wind:

- Relevant operations personnel are familiar with and have received training on the applicable contents and execution of the Emergency Operations Plan, and such personnel have been instructed to follow the applicable portions of the Emergency Operations Plan except to the extent deviations are appropriate as the result of specific circumstances during an emergency that would warrant such deviations;
- The Emergency Operations Plan has been reviewed and approved by the appropriate executives of the entity;
- 3. Drills have been conducted to the extent required per 16 TAC Sect. 25.53, or, due to the expeditious applicability and implementation requirements of 16 TAC Sect. 25.53, the initial drill has been scheduled to take place on May, 2025;
- 4. The Emergency Operations Plan has been distributed to local jurisdictions as needed;
- 5. The entity maintains a business continuity plan that addresses returning to normal operations following disruptions caused by an incident;
- 6. The entity's emergency management personnel who are designed to interact with local, state, and federal emergency management officials during an emergency event have received the latest IS-100, IS-200, IS-700, and IS-800 National Incident Management System training.

Dated this the 22nd of April 2025

Signature of Affiant

Leandro Alves

President

Sworn to subscribe before me, this 22nd of April 2025

NOTARY PUBLIC

My Commission Expires

AFFIDAVIT

[as required by §25.53(c)(4)(C)]

STATEOF District of COUNTY OF COLUMNA

PERSONALLY came and appeared before me, the undersigned Notary, the within named, President, who is a resident of Montgomery County, State of Maryland and makes this his/her statement and Affidavit upon oath and affirmation of belief and personal knowledge that the following matters, facts and things set forth are true and correct to the best of his/her knowledge with respect to Astra Wind:

- 1. Relevant operations personnel are familiar with and have received training on the applicable contents and execution of the Emergency Operations Plan, and such personnel have been instructed to follow the applicable portions of the Emergency Operations Plan except to the extent deviations are appropriate as the result of specific circumstances during an emergency that would warrant such deviations;
- 2. The Emergency Operations Plan has been reviewed and approved by the appropriate executives of the entity;
- 3. Drills have been conducted to the extent required per 16 TAC Sect. 25.53, or, due to the expeditious applicability and implementation requirements of 16 TAC Sect. 25.53, the initial drill has been scheduled to take place on May, 2025;
- 4. The Emergency Operations Plan has been distributed to local jurisdictions as needed;
- 5. The entity maintains a business continuity plan that addresses returning to normal operations following disruptions caused by an incident;
- 6. The entity's emergency management personnel who are designed to interact with local, state, and federal emergency management officials during an emergency event have received the latest IS-100, IS-200, IS-700, and IS-800 National Incident Management System training.

Dated this the 22nd of April 2025

Signature of Affiant Leandro Alves President



Sworn to subscribe before me, this 221d of April 2025

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My Commission Expires

ASTRA WIND - Emergency Operations Plan Rev. 0 Page 5

Astra Wind Emergency Operations Plan (EOP) (Per 16 TAC Sect. 25.53)

Submitted to:

PUC of Texas, PUC Document No.: _____ ERCOT via ERCOT MIS Service Request

Date: 01-April-2025

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2.0 EMERGENCY OPERATIONS PLAN (EOP)

2.1 Common Operational Functions Relevant Across Emergency Types

The purpose of this Emergency Operations Plan (EOP) is to establish a clear, coordinated strategy that serves to protect the lives of employees, contractors, and visitors; safeguard critical equipment, facilities, the environment; and ensure the rapid resumption of normal operations after an incident. The EOP sets out standardized procedures for responding to a range of emergencies such as severe weather events, fires, equipment failures and medical emergencies minimize risk and disruption at Astra Wind Farm (Astra).

This plan covers operational phases of Astra. It details procedures impacting all Astra's components: wind turbines, electrical substations, control centers, support facilities, and adjacent areas. The plan applies to all personnel on site, including full-time employees, contractors, and subcontractors, and integrates coordination with local emergency services and community stakeholders.

The table below outlines the potential hazards for Astra. The Astra site has a storm shelter that shall be utilized for environmental hazards that mandate such protection.

Hazard	Probability	Magnitude	Warning	Duration	Risk Priority
Flooding	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Hurricane Tropical Storms	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	 4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs. 	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Thunderstorm Lightning Hail	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. ≤ 3 hrs.	HighMediumLow

Table 1. Astra Hazard Mitigation Analysis (the highlighted area pertains to the Astra site)

Hazard	Probability	Magnitude	Warning	Duration	Risk Priority
Tornado	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. ≤ 3 hrs.	HighMediumLow
Winter Storms Ice Storms	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
High Winds	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. ≤ 3 hrs.	HighMediumLow
Wildfire	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. ≤ 3 hrs.	HighMediumLow
Landslide	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. ≤ 3 hrs.	HighMediumLow
Earthquake	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. ≤ 3 hrs.	HighMediumLow

Table 1.1 Astra Hazard Mitigation Analysis

Hazard	Probability	Magnitude	Warning	Duration	Risk Priority
Loss of Power (Utility)	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. ≤ 3 hrs.	HighMediumLow

Hazard	Probability	Magnitude	Warning	Duration	Risk Priority
Loss of employees (Pandemic or illness)	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Loss of equipment (Electrical failure)	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. ≤ 3 hrs.	HighMediumLow
Loss of Equipment (Mechanical failure)	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Loss of Equipment IT	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Cyber Attack	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Fire	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Injury or accident	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Environmental Hazard	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow

Hazard	Probability	Magnitude	Warning	Duration	Risk Priority
Security Threat	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Bio-Hazard	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. <u>12+ hrs.</u> 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow
Reputational Threat	 Highly Likely Likely Possible Unlikely 	 Catastrophic Critical Limited Negligible 	4. Minimal 3. 6 - 2 hrs. 2. 12-24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6-12 hrs. 2. 3 - 6 hrs. 1. < 3 hrs.	HighMediumLow

2.2 Approval and Implementation

The following Emergency Operations Plan (EOP), together with the Executive Summary and Annexes, was developed in accordance with 16 TAC Sect. 25.53 (the Rule) submitted to the PUC of Texas (the Commission) on April 22, 2025. Astra Wind is subject to 16 TAC Sect. 25.53 and is, therefore, required to implement this EOP, including all components established by the Rule and to maintain the EOP, Executive Summary, and Annexes accordingly.

2.3 Individuals Responsible for EOP Maintenance and Changes

- 1. Director of Operations (Alan Diaz)
- 2. Site Manager (Matthew Urbanosky)
- 3. HSE/Safety Manager (Carlos Marquez)

2.4 Plan Assessments

This plan is reviewed annually.

2.5 Annual Updates and Submittals

Updates or changes to the plan are reviewed by the Individuals in Section 2.3 and submitted to executive management for approval. The officers listed have equal approval and authority. Signing authority resides with the President.

Executive management includes

Company President and Chief Operating Officer (Leandro Alves)

Vice-President of Operations (Rich Rohde)

2.6 Revision Control

To update to the Emergency Operations Plan (EOP) proposed changes are submitted to the individuals in Section 2.3. To propagate a change:

Redline the subject document

Submit redline to the individual in Section 2.5 for review.

- Redline Procedure. The redline will show the exact changes that have been made between the current and the previous revision.
- Summary of Changes. The summary of changes contains a narrative that describes what changes have been made to the document. This document shall be used to update the revision history block of the EOP.

2.7 Revision Block with Approval Dates

Rev	Date Approved	Revision Summary	By
0	4/22/2025	Initial	Rich Rohde

2.8 Reporting Requirements

Upon request by the PUC commission staff during activation of the State Operations Center by Texas Division of Emergency Management (TDEM), the updates will be provided on the status of operations, outages, and restoration efforts as required. Status updates will continue until incident-related outages are restored, unless otherwise notified by PUC commission staff.

The Facility will provide documentation of the event and/or lessons learned as required, if requested from PUC commission staff, by the date specified by the commission staff.

ERCOT may require information from Qualified Scheduling Entity (QSE) representing Resources regarding the Resources' fuel capabilities. Requests for this type of information shall be for a time period of no more than seven days from the date of the request. The specific information that may be requested shall be defined in the Operating Guide. QSEs representing Resources shall provide the requested information in a timely manner, as defined by ERCOT at the time of the request.

Astra is a renewable energy plant utilizing wind turbines. A request regarding fuel reserves is limited to wind resource history.

2.9 Drills

Emergency Operations preparedness drills are scheduled annually in May.

2.9.1 Hurricane Drills

The facility operates in a hurricane evacuation zone as defined by the Texas Division of Emergency Management (TDEM) and will conduct an annual drill of the Hurricane Preparedness and Response Annex during each calendar year.

Astra is in Region 1, District 1 for TDEM classifications. A hurricane is unlikely. Hurricane preparedness is included in the drills referenced in Section 2.9.

2.9.2 Drill Notices

At least 30 days prior to the date of at least one drill each calendar year, the facility will notify PUC commission staff (using the method and form prescribed by the commission) and TDEM District Coordinators (by email or other written form) of the date, time, and location of the drill.

2.10 Communication Plan

Astra is continuously monitored by its QSE via telemetry. The QSE manages telemetry to ERCOT regarding the Plant's status. Plant anomalies communicate directly to the QSE and the transmission provider (Oncor).

Emergency communications are affected via email, cell phones, and text messages. Astra is monitored 24/7 by a Remote Operations Center (ROC). Plant anomalies are reported by the ROC via emails, and cell phone to designated off-hours plant personnel.

2.10.1 Event Response

During the event the plant will notify the QSE and Local first responders as mandated by the event.

<u>Media</u>

Should plant personnel be contacted by any Media the following outlines the response policy.

Plant personnel can confirm that there has been an event and report the date and time. The status of the plant (operational or offline) can be shared. All other questions and inquires shall be directed to executive management as regarded in Section 2.5.

Internal Communication Procedures

Staff accountability for a facility evacuation:

If employees, customers, and guests have evacuated personnel should remain at the primary assembly point and await further instructions.

Once at the assembly point accountability must be performed by the security team at the site:

• Initiate headcount and make note of missing and/or injured employees, eustomers, and guests; and

• Report missing and/or injured employees to the Vice President of Operations or his designee. This information should be shared with emergency first responders on scene.

The Vice President of Operations or its designee should determine the best methods for disseminating communications to staff.

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Communication Plan Contacts

Contact Name	Line Detail	Phone
Qualified Scheduling Entity (QSE)	Main:	1-800-267-2562
	Cell:	1-346-204-9152
Kinder Morgan Gas Control	Main:	1-713-369-8800
PUCT Assistance	Hotlines:	1-888-782-8477
	Hotlines:	1-512-936-7120
Office of Public Utility Counsel (OPUC)	Austin:	1-512-936-7500
	Toll-free:	1-877-839-0363
	Fax:	1-512-936-7525
Emergency Management Coordinator	Office:	(281)-822-4444
Texas Division of Emergency Management (TDEM)	Main Number/Texas State Operations Center:	1-512-424-2208
	Assistant Chief:	1-281-517-1353
	Section Chiefs:	1-409-504-0390
		1-215-952-9061
	District Coordinator:	1-281-633-4827
Texas RE	Main:	1-512- 583-4900

Astra will be in compliance with RCP-NERC-EOP-004-4 Event Reporting and RCFP-NERC-CIP-003-Att E Cyber Security Incident, upon investigating and confirming a Reportable Event, Plant Manager and Operating Personnel will perform internal communications in accordance with RCP-NERC-EOP-004 (Attachment A).

Communication Reports

In accordance with incident reporting procedures, listed above, incident notifications will be made to all impacted parties. Events are reported to regulating and monitoring agencies as required by regulatory requirements or upon request.

Regulating agencies include Contracted: QSE; ERCOT; Oneor: NERC; PUCT and local authorities having jurisdiction.

2.10.2 National Incident Management (NIMS) Training

At least one member of the Astra emergency management personnel will have received training in the following NIMS Courses. The courses are available online or locally available for scheduling via the FEMA NIMS training website.

- ICS-100: Introduction to the Incident Command System
- ICS-200: ICS for Single Resources and Initial Action Incidents
- IS-700: National Incident Management System, An Introduction
- IS-800: National Response Framework, An Introduction

Certification will be maintained, and recertification will be performed per NIMS requirements.

2.11 Emergency Supplies Maintenance Plan

An inventory of emergency supplies in maintained in the Operations and Maintenance (O&M) Building. Location of emergency supplies and location noted below.

An inventory of emergency supplies in maintained in the Operations and Maintenance Building. Listing of supplies and location noted below.

Emergency Equipment - Location & Inventory

The Astra Renewable area/center is located at *Happy*, *TX*. The service area/center employees approximately

The site is co-located with Alborz Data Center.

Southwest OM gate
Alborz building
Alborz Tornado Shelter
Canyon, TX Highschool

Fire Protection Equipment

Site/Service Center Specific Fire Detection System(s):

- Pull Box to Fire Department
- ☐ Automatic to Site Alarm

□ None

Site/Service Center Specific Fire Alarm System(s):

☑ Manual Activation

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Automatic Activation

None

Site/Service Center Specific Fire Suppression System(s):

- Portable A, B, C Fire Extinguishers
- □ Sprinkler System Shop
- Emergency Lighting Office
- ☑ Emergency Lighting Shop
- Illuminated Exit Signs

□ None

Portable fire extinguishers, emergency eyewashes, safety showers, emergency first aid kits, and emergency spill response kits are in every site vehicle and throughout the site. The location of this equipment is identified on the service bulletin board.



2.12 Emergency Response Staffing Plan

Staffing levels will be adjusted according to the severity of the Event. The Plant Manager of Astra will staff the facility with personnel according to the procedures.

- <u>Command Structure during an event</u>.
 - <u>Incident Commander (IC)</u>: Holds overall responsibility for managing the emergency response. The on-site shift manager or supervisor at the time of the event will serve this role.
 - Operations Section Chief: Coordinates on-site response activities. This person will be designated by the IC during an event.

- <u>Safety Officer</u>: Monitors all aspects of on-site safety, ensuring that responders follow proper safety protocols.
- <u>Liaison Officer</u>: Acts as the main point of contact with external agencies such as local fire, police, or EMS. The role of the Liaison Officer will be assumed by the IC, Operations Section Chief or others as determined by the IC during an event.
- o Emergency Response Team (ERT)
 - Site personnel assignments during an event:
 - <u>Site (Project) Manager</u>: Responsible for emergency plan activation and overall incident management.
 - <u>Health and Safety Coordinator</u>: Oversees first-aid measures and the medical response.
 - <u>Maintenance Supervisor</u>: Provides technical evaluation and coordinated shutdown of affected turbines or equipment.
 - <u>Communications Specialist</u>: Manages dissemination of information internally and with external agencies. Communications specialist is assigned by the Site Manager during an event. On site IT personnel will typically fill this role.

2.13 Plan for Identifying Weather-Related Hazards

Reference the tables in section 2.1. The table list approximate timeline to prepare a response to specific categories of weather-related hazards.

3.0 ANNEXES

3.1 Weather Emergency Annex

The North American Electric Reliability Corporation (NERC) Reliability Guideline for Generating Unit Winter Weather Readiness – Current Industry Practices provides electric utilities and power generation companies with guidance on how to maintain facility reliability during winter weather conditions.

The Texas Administrative Code (TAC), Substantive Rules Chapter 25, Subchapter C, Article 25.53 (c) requires electric utilities and power generation companies to prepare and file an emergency operations plan. Weatherization plans and procedures are required by the emergency operations plan.

ERCOT Nodal Protocol 3.21(2) requires each Resource Entity to provide a current weatherization plan for each Generation Resource. The weatherization plan must include a description of the Generation Resource's ability to withstand extreme cold, a description of materials and devices used to ensure operation during extreme weather, and practices and procedures undertaken in preparation for winter and summer.

3.1.1 General Severe Weather

Astra Winds turbines monitor numerous data points to manage protection of the turbine. These include wind speed, temperature and tower vibration. The turbines have limits and setpoints for an automated shutdown.

3.1.2 Cold Weather - Emergency Response Operational Plan

Astra Wind has active standards for cold weather and extreme cold weather. These follow applicable ERTCOT and NERC standards. Reference the following Astra Wind reliability compliance standards and the associated evidence folders. See Attachment D.

RCP-NERC-EOP-11

RCP-NERC-EOP-12

3.1.3 Verification of Fuel Switching Equipment

Not Applicable

3.1.4 Cold Weather Emergency Response Checklists

Checklists included in RCP-NERC-EOP-11 and 12 evidence folders. All executed Checklists associated should be NERC compliance folders and maintained for future records and audit.

3.1.5 Hot Weather – Emergency Response Operational Plan

Astra Wind Turbines self-monitor all systems. If the turbine overheats, a safety chain is put in place to orderly shutdown the turbines. The same applies to all related electrical equipment.

3.1.6 Hot Weather Emergency Response Checklists

Equipment walkdowns are done routinely.

Hot Weather emergency response is generally limited to personnel. Hot weather precautions are addressed in Daily Job Hazard Analysis meetings.

3.2 Water Shortage Annex

Plant operations do not require water. Water for personnel use in maintained in O&M buildings

3.3 Restoration of Service Annex

In the event of a unit or plant trip, the priorities are to correct the cause of the trip and restart the unit/plant as soon as possible to restore generation capacity as directed by the Transmission Operator.

If the plant should trip and all power is lost from grid, it will be necessary to wait until the grid is restored to the plant and directions are received from the transmission operator before attempting restart of the gas turbine.

Once power is restored inform dispatch of the ability to restart and perform startup of plant per operating instructions.

Restart operations follow a switching procedure to energize the substation. This procedure is drafted according to the situation. Restart of the turbines is automated with the turbine control system

3.4 Pandemic and Endemic Annex

The purpose of Pandemic Response (Attachment G) is to provide a coordinated and comprehensive response to a pandemic event in order to help ensure continuation of operations.

The procedure describes potential pandemic threats, identifies and prioritizes the critical operations and business functions of this facility, and provides appropriate response guidelines.

The information in this Plan is based on generally accepted assumptions about the development, outbreak, and expected progress of an influenza pandemic. Control and survival of a pandemic will depend on the ability of thoughtful individuals to conduct a well-planned and well-organized response. The ultimate objective of this Plan is to prepare those individuals for success.

3.4.1 Facility Staffing Plan

Astra wind is staffed under a Full Service Agreement (FSA) O&M contractor (the turbine man facture). The FSA contractor staffs the site during normal business hours. A remote Operations Center monitors the site after hours and weekend. The FSA contractor has a contact list of on call support.

3.4.2 Contract Support

Astra has a fuel service O&M contractor for wind turbine O&M. Additionally, Astra has contract agreement in place for Balance of Plant support with a local contractor and for engineering services with multiple forms.

NERC compliance services are supported by a NERC Contract Specialist firm.

3.5 Hurricane Preparedness and Response Annex

Astra Wind has a Hurricane Preparedness procedure (Attachment F). This procedure establishes plant policy for actions during periods of severe weather during commercial operations.

Guidelines are developed to protect the employees, while making every attempt to continue operating the plant. It is understood that no employee is to be placed in any situation that has potential to cause injury or harm.

3.5.1 Initiation of Hurricane Procedures

See tables in Section 2 for a probable time; line to effect emergency procedures for a Hurricane.

3.5.1.1 Phase Actions

Phase 1 - Storm Watch Initiated

Based on available information concerning the size, intensity, rate and direction of travel of the disturbance, Phase I of the Hurricane Procedure should be activated as soon as the storm enters the Gulf of Mexico, but not less than 96 hours prior to the projected landfall. Phase I should be completed no less than 72 hours prior to the arrival of gale force winds (55 mph). Phase I includes daily meetings, taking inventory of supplies, and testing equipment.

Phase 2 – Site Preparation For Hurricane Conditions

Phase 2 should be started not less than 72 hours in advance of the anticipated arrival of gale force winds (55 mph) and completed 36 hours prior to the arrival of gale force winds.

Phase 2 includes the preparation of the plant to meet hurricane conditions and the purchasing, collection, and organization of all equipment and supplies. The County Local Emergency Planning Commission (CLEPC) should be contacted to find out when they will hold their hurricane planning meeting. Astra represented should attend this meeting if at all possible.

Phase 3 – Shutdown Remaining Equipment

Phase 3 should be started not less than 24 hours prior to the anticipated arrival of the storm and should be completed within that 24-hour period.

Phase 4 - Restoration

Following the hurricane, once authorization to return to the area has been received from Local Emergency Management;

3.5.5 Evacuation Procedures

- Emergency Evacuation
 - Evacuation from the Site
 - A site evacuation map is posted in commonly used locations inside the service center (i.e., lunchroom, offices, bathrooms).
 - A designated Evacuation Meeting Location is identified for the site. A Back-Up Evacuation Meeting Location is also identified in case the primary Evacuation Meeting Location is affected by the emergency (i.e., wind direction during a fire makes the original Evacuation Meeting Location unusable.)
 - All site personnel must receive training in the site's emergency evacuation procedures within the first week of employment at the Astra Site.
 - During an evacuation, the designated Emergency Coordinator shall:
 - Keep exits marked, clear and accessible always.
 - Instruct employees not to try to fight any fire (unless incipient), but simply to report it immediately.
 - Notify employees of any evacuation and then verify that all employees are safe at the Evacuation Meeting Location.

- Comply with any instructions from the Fire Department.
- Consult with the Fire Department / EHS as the situation permits and/or warrants.
- Consult with the Fire Department to determine the extent of any evacuation necessary.
- Supervise any evacuation that is ordered.
- Respond to directions from the Fire Department / EHS and maintain communication with others.
- Verify that isolated areas are checked for personnel.
- Conduct head count to ensure everyone is accounted for. The designated Emergency Coordinator will notify the fire department if any people are thought to be inside the building.
- The local fire department Fire Chief and the designated Emergency Coordinator will determine when normal operations can be resumed.
- During an evacuation Employees shall:
 - Evacuate the premises from the nearest exit.
 - Report to the designated site Muster Point Location.
- Evacuation from the Site:
 - Drills from the Service Center shall be conducted quarterly.

Muster Point is marked on the map below.

Site Evacuation Meeting Location: Southwest O&M gate

Alternate Evacuation Meeting Location: 500 feet south from O&M gate



O&M Building Evacuation Routes



Astra Wind - Emergency Operations Plan Rev. 0 Page 21 3.6 Cyber Security Annex

Astra has implemented Cyber Security Awareness in accordance with NERC-CIP-003 (Attachment H and Attachment I).

The purpose of this document is to provide a comprehensive Cyber Security Plan for Astra. Additionally, this document will serve towards compliance with NERC Standard CIP-003-7 for Cyber Security. The Cyber Security Plans detailed in this document shall remain in effect unless a CIP Exceptional Circumstance is declared.

3.6.1 Cyber Security Awareness

See Above

3.6.2 Physical Security Controls

Astra covers roughly 15,000 acre, where most of the space is on private land. The O&M building and the substation are fenced in areas. Fences are locked. The O&M building and substation control building have electronic access controls. Surveillance cameras are installed with video recording. Surveillance improvements planned for the near future include motion detection and central station monitoring.

3.6.3 Electronic Access Controls (Network Equipment)

Astra Wind shall ensure that only necessary inbound and outbound external routable communications are permitted with Cyber Assets located outside of the asset containing the Low Impact BES Cyber System.

Astra shall review each Electronic Access Point and all rules and then evaluate them for necessity. Documentation of this review shall be captured in RCP-NERC-CIP-003 evidence files.

Any changes to firewall rules must have a business justification and be documented on RCP-NERC-CIP-003 evidence file.

3.6.4 Cyber Security Incident Response

Incident response and reporting are detailed in RCP-NERC-CIP-003 and associated attachments for the RCP.

- 3.6.5 Declaring and responding to CIP Exceptional Circumstances (CEC) CEC policies and procedures are documents in Astra RCP-NERC-CIP-003
- 3.6.6 Cyber Security Incident Response Plan

Cyber security incident policies and reporting are listed in RCP-NERC-CIP-003

3.7 Physical Security Incident Annex

Astra Wind has implemented Physical Security Controls in accordance with RCP-NERC-CIP-003 (Attachment).

Physical Security Controls are addressed in RCP-NERC-CIP-003 Cyber Security

Physical Security recognition, response, and reporting to sabotage and bomb threats is addressed in- RCP-NERC-CIP-003.

3.8 Business Continuity Plan

See Attachment J

3.8.1 Purpose

The purpose of this Plan is to describe the facility's General Business Continuity Plan and to detail the steps to be taken to restore the facility's administrative infrastructure (and process systems) in the event of a failure.

3.8.2 Scope

The scope of the General Business Continuity Plan is to:

- minimize interruptions to normal operations,
- limit the extent of disruption and damage,
- minimize the economic impact of the interruption,
- establish alternative means of operation in advance, and
- provide for smooth and rapid restoration of services of the facility business process servers.

Attachment A - Event Response and contact

Attachment B - Communications Matrix for Incident Notifications

Attachment C-Emergency Response Plan

Attachment D-Winter Readiness Procedure

Attachment E - Summer Readiness Procedure

Attachment F-Hurricane Preparedness

Attachment G Pandemic Preparedness and Response Plan

Attachment H-Cyber Security - Security Management Control Plan

Attachment I - Cyber Security - Cyber Security Incident Plan

Attachment J-Business Continuity Plan

Astra Wind Emergency Operations Plan (EOP) (Per 16 TAC Sect. 25.53)

Attachment A

Event Response and Contact

Event Response and Contact

PLAN ACTIVATION PROCEDURES

The Site team will identify an emergency according to the Hazard Matrix listed in Section 2.1 of the EOP. The matrix will identify the classification of the emergency and the timeline relative to advance warnings. Some events will not have a warning.

The site team will initiate an emergency response and assign duties described.

1.1.Command Structure during an event.

- 1.1.1. **Incident Commander (IC):** Holds overall responsibility for managing the emergency response. The on-site shift manager or supervisor at the time of the event will serve this role.
- 1.1.2. **Operations Section Chief:** Coordinates on-site response activities. This person will be designated by the IC during an event.
- 1.1.3. **Safety Officer:** Monitors all aspects of on-site safety, ensuring that responders follow proper safety protocols.
- 1.1.4. Liaison Officer: Acts as the main point of contact with external agencies such as local fire, police, or EMS. The role of the Liaison Officer will be assumed by the IC, Operations Section Chief or others as determined by the IC during an event.

1.2. Emergency Response Team (ERT)

- 1.2.1. Site personnel assignments during an event:
 - 1.2.1.1.**Site (Project) Manager:** Responsible for emergency plan activation and overall incident management.
 - 1.2.1.2. **Health and Safety Coordinator:** Oversees first-aid measures and the medical response.
 - 1.2.1.3. **Maintenance Supervisor:** Provides technical evaluation and coordinated shutdown of affected turbines or equipment.
- 1.2.2. **Communications Specialist:** Manages dissemination of information internally and with external agencies. Communications specialist is assigned by the Site Manager during an event. On site IT personnel will typically fill this role.

All on-site personnel will be notified.

Employee Name	Title / Responsibility	Cell Number	Email Address	Date of access or Training
Alan Diaz	Director of Operations	806-999-4317	adiaz@windhq.com	4/22/2025
Matthew Urbanosky	Hardware Manager	806-781-0215	murbanosky@windhq.com	4/22/2025
Carlos Marquez	Site Lead	806-781-0200	cmarquez@windhq.com	4/22/2025
Gilbert Hernandez	Shift Lead	806-781-0269	ghernandez@windhq.com	4/22/2025
Emmanuel Albarran	Maintenance Tech	806-782-4790	ealbarran@windhq.com	4/22/2025
Cody Craner	Maintenance Tech	806-670-4833	ccraner@windhq.com	4/22/2025
Todd Benton	Site Manager	806-670-1125	todd.benton@gevernova.com	4/22/2025
Luke Brottlund	Site Lead	435-201-4582	luke.brottlund1@gevernova.com	4/22/2025
Hayden Moeller	Turbine Tech	940-255-7716	hayden.moeller@gevernova.com	4/22/2025
Brian Diaz	Turbine Tech	806-601-1521	brian.diaz@gevemova.com	4/22/2025

Appropriate agency and first responders will be contacted

Agency/Name	Line Detail	PHONE	
Fire Department	Canyon, TX	806-655-5010	
Police Department	Canyon, TX	806-655-5005	
Ambulance Service	BSA Health System	911	
Hospital	BSA Health System	806-212-5003	
Electric Utility Company	Oncor	806-316-8603	
Spill Response Team	Talon LPE	866-742-0742	
Sewer District	N/A		
State Emergency Response Com. (US only)		1-800-832-8224	
Local Emergency Planning Com. (US only)	Potter and Randall County LEPC	806-378-3004	
National Response Center (US only)	NA	1-800-424-8802	
QSE (EDF Real Time Desk)	Real Time deak-24/7	(281) 653-5828	
Qualified Scheduling Entity	Main:	1-800-267-2562	
(QSE)	Cell:	1-346-204-9152	
Todd Benton	Main:	1-806-670-1125	
BUICT Assistance	Hotlines:	1-888-782-8477	
PUCI Assistance	Hotlines:	1-512-936-7120	
	Austin:	1-512-936-7500	
Office of Public Utility Counsel	Toll-free:	1-877-839-0363	
(0P0C)	Fax:	1-512-936-7525	
Emergency Management Coordinator	Office:	(281)-822-4444	
Texas Division of Emergency	Main Number/Texas State Operations Center:	1-512-424-2208	
wanagement (TDEW)	ASSISTANT CHIEF:	1-281-517-1353	

	SECTION CHIEFS:	1-409-504-0390
		1-215-952-9061
Texas RE	Main:	1-512- 583-4900

The IC will contact/notify Executive Management. Next steps will be detrmiend after an assessment of the situation.

Astra Wind

Emergency Operations Plan (EOP)

(Per 16 TAC Sect. 25.53)

Attachment B

Communication Matrix for emergency response

Contact Type	Agency/Name	Line Detail	PHONE	
First Responder	Fire Department	Canyon, TX	806-655-5010	
First Responder	Police Department	Canyon, TX	806-655-5005	
First Responder	Ambulance Service	BSA Health System	911	
First Responder	Hospital	BSA Health System	806-212-5003	
Critical	Electric Utility Company	Oncor	806-316-8603	
Critical	Spill Response Team	Talon LPE	866-742-0742	
Critical	State Emergency Response Com. (US only)		1-800-832-8224	
Critical	QSE (EDF Real Time Desk)	Real Time deak-24/7	(281) 653-5828	
Critical	ERCOT	Hotlines	512-248-3900	
Stakeholder	Todd Benton	Main:	1-806-670-1125	
Stakeholder	PUCT Assistance	Hotlines:	1-888-782-8477	
stakenoider		Hotlines:	1-512-936-7120	
	Office of Public Utility Counsel (OPUC)	Austin:	1-512-936-7500	
Stakeholder		Toll-free:	1-877-839-0363	
		Fax:	1-512-936-7525	
Stakeholder	Emergency Management Coordinator	Office:	(281)-822-4444	
	Texas Division of Emergency Management (TDEM)	Main Number/Texas State	1-512-424-2208	
		Operations Center:		
Stakaboldar		ASSISTANT CHIEF:	1-281-517-1353	
Stakenoluer		SECTION CHIEFS:	1-409-504-0390	
			1-215-952-9061	
Stakeholder	Texas RE	Main:	1-512- 583-4900	
Astra Wind Emergency Operations Plan (EOP) (Per 16 TAC Sect. 25.53)

Attachment C

Event Response and Procedures

• Emergency Procedures

- **o** Severe Weather Events
 - Procedures:
 - Monitor weather alerts continuously.
 - Initiate turbine shutdown protocols if wind speeds exceed safe limits or lightning is forecasted.
 - Secure loose equipment and instruct all personnel to relocate to designated safe zones.
 - Steps:
 - Activate weather alert system.
 - Communicate shutdown orders site wide.
 - Guide personnel to shelter.
- Fire and Explosion
 - Procedures:
 - Activate on-site fire suppression systems immediately.
 - Evacuate the vicinity while a designated competent team attempts to contain the fire.
 - Notify local fire departments and emergency services.
 - Steps:
 - Sound the fire alarm and begin evacuation.
 - Use nearby fire extinguishers as trained.
 - Establish a fire perimeter and ensure that the safety of all personnel is maintained.
- Equipment Failure
 - Procedures:
 - Isolate and shut down malfunctioning equipment or turbines immediately.
 - Secure the area to prevent injuries.
 - Notify technical support teams for onsite diagnostics and repair.
 - Apply LOTO as needed for a safe and secure work environment. Reference the Safety Manual for LOTO procedures.
 - Steps:
 - Command a shutdown of affected systems.
 - Assess surrounding area for risk.
 - Initiate safe work practices until repairs are completed.
- Medical Emergencies
 - Procedures:
 - Provide immediate first aid by trained personnel.

- Activate medical emergency protocols by contacting on-site staff and external EMS.
- Steps:
 - Deploy designated first responders equipped with first aid kits and AEDs.
 - Document the incident for follow-up. Detail the event in the Procore Software management system.

• Evacuation from the Site/Service Center:

- A site evacuation map must be posted in commonly used locations inside the service center. (lunchrooms, offices, bathrooms, etc.).
- A designated Evacuation Meeting Location must be identified for each service center. A Back-Up Evacuation Meeting Location must also be identified in case the primary Evacuation Meeting Location is affected by the emergency (i.e. wind direction during a fire makes the original Evacuation Meeting Location unusable.)
- All service center personnel must receive training in the site's emergency evacuation procedures within the first week of employment at the Service Site.

o During an evacuation, the designated Emergency Coordinator shall:

- Keep exits marked, clear and accessible always.
- Instruct employees not to try to fight any fire (unless incipient), but simply to report it immediately.
- Notify employees of any evacuation and then verify that all employees are safe at the Evacuation Meeting Location.
- Comply with any instructions from the Fire Department.
- Consult with the Fire Department / EHS as the situation permits and/or warrants.
- Consult with the Fire Department to determine the extent of any evacuation necessary.
- Supervise any evacuation that is ordered.
- Respond to directions from the Fire Department / EHS and maintain communication with others.
- Verify that isolated areas are checked for personnel.
- Conduct head count to ensure everyone is accounted for. The designated Emergency Coordinator will notify the fire department if any people are thought to be inside the building.
- The local fire department Fire Chief and the designated Emergency Coordinator will determine when normal operations can be resumed.

- o During an evacuation Employees shall:
 - Evacuate the building from the nearest exit.
 - Report to the designated site Muster Point Location.

Evacuation from the Site/Service Center:

Drills from the Service Center shall be conducted quarterly.

Site Maps

Muster Point is marked on the map below.

Site Evacuation Meeting Location: Southwest OM gate

Alternate Evacuation Meeting Location: Cloud HQ building



O&M Building Evacuation Routes



Astra Wind Emergency Operations Plan (EOP) (Per 16 TAC Sect. 25.53)

Attachment D

Winter Readiness Procedure

RCP-NERC-EOP-012-ATT-A NAES CORPORATION - ASTRA WIND - HAPPY, TEXAS

Referencing Documents: NERC-EOP-012

Rev. 0 Revision Date: October 1, 2024

COLD WEATHER PREPAREDNESS PLAN

1.	PURPOSE	2
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5.	NERC SPECIFIC DATA REQUIREMENTS	3
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Referencing Documents: NERC-EOP-012 Rev. 0 Revision Date: October 1, 2024

1. PURPOSE

The purpose of this attachment is to identify best practices for preparing for and responding to cold weather events and locating key data and information in preparation for communications with Reliability Coordinators, Balancing Authorities and Transmission Operators as requested. The preparedness plan consists of general tasks and checklists for plant specific actions based on geographical region, installed equipment and facility arrangement.

2. SEASONAL PREPARATIONS

Seasonal preparations not only ensure that essential equipment and materials are available, but also serve as a reminder to plant personnel that weather conditions have an impact on both equipment operations and personnel.

Plant Management and staff will meet at least once a year to hold a winter preparation meeting. Specific preparations for winter can be found in the Winterization Checklist (**Appendix A**). The checklist should be completed prior to October 31st each year. The Management Preparation Meeting and completion of Appendix A shall be associated with a CMMS preventative maintenance work order to demonstrate compliance.

Additionally, NAES Corporation - Astra Wind will conduct annual refresher training and inspection of freeze protection measures prior to the winter season on this protocol and unit-specific concerns to ensure the best possible preparations in advance of winter conditions.

3. IMPENDING WEATHER EVENTS

While weather forecasts are subject to change, predictions that severe weather is approaching should be taken with all due caution. Market forecasting, staffing and outside support all have a hand in minimizing the impact of severe weather on plant operations. The Impending Severe Winter Weather Checklist (**Appendix B**) should be utilized to account for any special conditions, preparations, or maintenance activities that may impact operations.

The checklist should be completed in advance of extreme cold weather once a "Winter Storm Watch" is issued by the National Weather Service for the area around NAES Corporation - Astra Wind or issuance of a "Cold Weather Alert" by Oncor Electric Delivery Company LLC to NAES Corporation - Astra Wind. In absence of direction from either of those authorities, for NAES Corporation - Astra Wind, *extreme cold weather is defined as ambient temperatures below 32 F for longer than 36-hours within the 7-day forecast or if temperatures are forecasted to be below 15 F for any period.*

Throughout the winter season, periodic Safety Job Briefs should occur concerning the hazards of cold weather and the status of the plant's equipment.

4. EQUIPMENT AVAILABILITY CONSIDERATIONS

During an event, consideration of the following potential limitations should be considered. Should any condition be in question, the Plant Manager, Operations Manager, and/or Maintenance Manager should be informed as soon as possible to plan for such limitations.

Referencing Documents:	Rev. 0
NERC-EOP-012	Revision Date: October 1, 2024

- Maximum or minimum capability of the units.
- Sustained runtime of the units.
- Starting reliability of the units.
- Operational reliability of the units.
- Any current issues at the plant that these conditions could exacerbate.
- Possibility that the event could cause the total unavailability of the site.
- Safety items to protect the personnel and equipment from harm that cannot be immediately addressed by on shift personnel.

5. NERC SPECIFIC DATA REQUIREMENTS

NAES Corporation - Astra Wind will be able to provide the following information upon a request from the Transmission Operator (Oncor Electric Delivery Company LLC), Balancing Authority (ERCOT), or Reliability Coordinator (ERCOT)

- A. Capability and availability Dependent on current equipment status
- B. Environmental constraints Dependent on current weather conditions
- C. Start-up issues Dependent on current equipment status
- D. The Initial ECWT calculation was made on July 13, 2023, as per the NERC Guidance. The calculated ECWT temperature was 1 deg F.

Generating units should be prepared to provide the following unit operating minimum values:

Design Temperatures	Values
Astra Wind	-22 degrees F
Historical Operating Temperatures	Values
Astra Wind	-10 degrees F
1	-

Any engineering studies that have been conducted on the facility that determine additional performance characteristics based on temperature should be made available for inspection.

Referencing Documents: NERC-EOP-012 Rev. 0 Revision Date: October 1, 2024

6. STAFFING

Should the event have an impact on the ability to staff the plant for continuous operation the following points should be considered in advance of the event to minimize the impact on operations/.

- A. Maintain adequate supplies of the following for shift personnel who cannot be relieved:
 - Water
 - Food
 - Clothing
 - Sleeping arrangements
 - Hygiene needs
- B. Additional shift coverage or schedule durations affected in preparation of these conditions.
- C. Assess the need for outside support including contractors or staff from other facilities and, if appropriate, make arrangements for outside support personnel to travel to the facility in advance of the event.

7. UNIT AND REGIONAL FREEZE PROTECTION MEASURES

- A. COLD WEATHER STAGING AND MONITORING
 - 1. Complete annual Preparation for Winter (Appendix A).
 - 2. Monitor conditions inside the generator compartments (Appendix A).
 - Monitor conditions and verify proper heating within all buildings and equipment enclosures.
- B. COLD WEATHER PRE-START CHECKS (IF TURBINE HEATING CIRCUIT HAS BEEN OFFLINE)
 - 1. Follow Single Turbine Warm-Up Procedure
- C. COLD WEATHER STARTUP ACTIONS THESE ACTIONS ARE INCLUDED IN THE PLANT OPERATING PROCEDURE.
 - 1. Follow Single Turbine Warm-Up Procedure.

Referencing Documents: NERC-EOP-012 Rev. 0 Revision Date: October 1, 2024

- D. COLD WEATHER OPERATIONS
 - 1. Once the weather event temperatures drop below 32 degrees, increase equipment and building monitoring frequencies unless personnel safety would be compromised.
 - 2. Implement Appendix C for Cold Weather Operation Checklist.
- E. COLD WEATHER SHUTDOWN ACTIONS
 - 1. Follow the standard operating procedures for each system.
 - 2. Inspect turbines shut down for Turbine Condition Monitor (TCM) faults for Tower Vibration and Blade Vibration before restarting turbines.

8. COLD WEATHER CRITICAL COMPONENTS

The facility should evaluate its more exposed and/or sensitive pieces of equipment to determine if any qualify as a Cold Weather Critical Component. Such components should be identified, and corrective action plans developed on the Critical Components Tracking Sheet (RCP-NERC-EOP-012-ATT-C). The Cold Weather Critical Components may change over time due to changes in Extreme Cold Weather Temperatures as well as changes to freeze protection measures. Items may be added and removed as analysis demonstrates.

9. ANALYSIS POST EVENT AND SEASONAL

After any cold weather event or at the end of the cold weather seasons, the Plant Manager should conduct an analysis meeting to document the impacts and lessons learned and make appropriate changes to this protocol. Actions may include:

- Update the event protocol document.
- Begin planning for any material or equipment changes to improve reliability for future situations.
- Assess the financial impacts/concerns of the event for future planning.
- Develop a list of action items to be completed.
- Track action items through CMMS.

Referencing Documents: NERC-EOP-012

Rev. 0 Revision Date: October 1, 2024

Latest Revision Approval: (Revision History)

Written By: NAES

Date: October 1, 2024

Approved By: <u>Gil Hernandez</u>

Date: October 1, 2024

REVISION HISTORY LOG RCP-NERC-EOP-012-ATT-A				
Rev.	Date	Description	By Initials	Approval Initials
D3	12/31/2013	Initial Document Development – Template for Plant Use	SMT	
0	October 1, 2024	Issued Revision 0. Updated template with plant specific information.	SS	GH
1				
2				
3				

Referencing Documents: NERC-EOP-012 Rev. 0 Revision Date: October 1, 2024

Appendix A

Winterization Pre-Season Checklist:

General Task	Date/Initials
All building survey/inspection of louvers, doors, and windows.	
Chemicals stored outside should be moved inside for the winter season or temporary heat tracing installed and wrapped with fire blankets or surrounded by another temporary structure	
Inventory / order De-icing supplies	
Inspect snow removal equipment and stage for quick access.	
Prepare/Fill portable heater and generator fuel tanks, propane, gasoline, diesel, and kerosene.	
Inspect/Stage electric heaters/lamps	
Fill/stage fuel containers; propane, diesel, and gasoline	
Purchase/Stage snow shovels, picks, breaker bars for snow and ice removal	
Service vehicles for winter conditions; Forklifts, Skidsteer, and trucks	
Inspect outdoor power outlets for proper operation	
Inspect heaters/thermostats in all external control and instrument cabinets and equipment enclosures.	
Install thermometers/temperature indicators in equipment enclosures and instrument cabinets	
Top off Emergency Generators (EG's) fuel tanks as necessary.	
Check/Test motor space heaters	
Verify communication protocols; phone lists are up to date and primary and back up phone lines and equipment are functioning.	
Test the heaters in the yard breaker cabinets for proper operation and SF6 gas pressure.	
Food/Water storage for prolonged shift coverage.	

Referencing Documents: NERC-EOP-012

Appendix B

Impending Severe Winter Weather Checklist

General Task	Date/Initials
Install Bucket on the skid steer	
Check and monitor the turbine blades frequently for icing conditions.	
Ensure all hoses, tools and equipment that could be plowed away are properly stored.	
Ensure adequate supply of fuel on hand for vehicles and heaters	
Pre-salt roads, parking areas, and walkways 24-hours in advance of event and prior to each shift turn-over.	
Remove snow periodically and prior to shift turn-over from the areas below in the event they were obstructed by snowfall or snow removal activities:	
 egress doorways pedestrian access gates 	
 fire hydrants 	
 fire header and containment PIV's chemical unloading areas 	
Plant gate and call box	
Administration Building parking and trash dumpster area The electric space besters and HVAC systems in all buildings, concreters	
outbuildings, equipment enclosures and instrument cabinets will be inspected for proper set-point (50F-70F) and operation.	
All building doors are in the latched and "shut" position. All overhead or roll-up doors will remain "shut", unless actively being used.	
Ensure there is adequate inventory of bulk chemicals on hand for plant operations.	
Coordinate dumpster pickups with carrier	
Drain or Pump containment/secondary containment enclosures at least 8-hours ahead of event.	
Ensure emergency generator block heaters are working and batteries are charged	

Referencing Documents: NERC-EOP-012

Rev. 0 Revision Date: October 1, 2024

General Task	Date/Initials
Monitor the yard breaker cabinets for operating heaters and SF6 gas pressure.	
Stage shovels, and salt dispensers in critical plant areas	
Ensure an adequate supply of cold weather PPE is available (Gloves, hats, jackets, hand warmers, shoe spikes, etc)	

Referencing Documents: NERC-EOP-012

Rev. 0 Revision Date: October 1, 2024

Appendix C Cold Weather Operations Checklist

General Task	Date/Initials
Check all building and equipment enclosure HVAC systems are operational and maintaining inside temperatures between 50-70 Deg. F	
Check all heaters in instrument cabinets are energized and functional.	
Maintain all enclosure doors and building doors shut except during immediate access.	
Remove snow and salt roads & walkways periodically and prior to shift turn-over including:	
 All site building and enclosure walk doorways and overhead doorways pedestrian access gates fire hydrants fire header and containment PIV's chemical unloading areas Plant gate and call box 	
Administration Building parking and trash dumpster apron	
notify Plant Management of any spaces below 32F and take steps to raise enclosure temperature.	
Check emergency generator block heaters are working	
Check turbine blades for icing.	
Inspect switchyard for icing	
Monitor ambient temperature at wind turbine generators to ensure temps don't go below -15 Celsius	

Emergency Preparedness and Operations EOP-012-2 Annual NERC Training

Agenda



- Description and Applicability
- Defined Terms
- Requirements and Actions
- Compliance Roles
- Internal Controls



Description:

To address the effects of operating in extreme cold weather by ensuring each Generator Owner has developed and implemented plan(s) to mitigate the reliability impacts of extreme cold weather on its applicable generating units. Applicability:

Generator Owner Generator Operator

Effective Date:

October 1, 2024



<u>Generator Cold Weather Critical Component</u> – Any generating unit component or system, or associated Fixed Fuel Supply Component, that is under the Generator Owner's control, and is susceptible to freezing issues, the occurrence of which would likely lead to a Generator Cold Weather Reliability Event. This definition excludes any component or system or associated Fixed Fuel Supply Component located inside a permanent building with a heating source that regularly maintains the space at a temperature above 32 degrees Fahrenheit (0 degrees Celsius).

<u>Generator Cold Weather Reliability Event</u> – One of the following events for which the apparent cause(s) is due to freezing of equipment or impacts of freezing precipitation (e.g., sleet, snow, ice, and freezing rain) on equipment within the Generator Owner's control, and the dry bulb temperature at the time of the event was at or above the Extreme Cold Weather Temperature:

- a forced derate of more than 10% of the total capacity of the unit, but not less than 20 MWs for longer than four hours in duration;
- (2) A start-up failure where the unit fails to synchronize within a specified start-up time; or
- (3) A Forced Outage.



<u>Generator Cold Weather Constraint</u> – Any condition that would preclude a Generator Owner from implementing freeze protection measures on one or more Generator Cold Weather Critical Components using the criteria below. Freeze protection measures are not intended to be limited to optimum practices, methods, or technologies, but are also intended to include acceptable practices, methods, or technologies generally implemented by the electric industry in areas that experience similar winter climate conditions.

Requirements and Actions



Requirement R1

At least once every five calendar years, each Generator Owner shall, for each of its applicable generating unit(s):

1.1 Calculate the Extreme Cold Weather Temperature for each of its applicable unit(s) and identify the calculation date and source of temperature data; and

1.1.1 If the re-calculated Extreme Cold Weather Temperature is lower than the previous Extreme Cold Weather Temperature, the entity shall review and update its cold weather preparedness plan(s) under Requirement R4 within six (6) months of the recalculation. If new corrective actions are needed to provide the required operational capability under Requirement R2 or R3, the entity shall develop a Corrective Action Plan within 6 months of the recalculation. 1.2 Identify generating unit(s) cold weather data, to include:

- 1.2.1 Generating unit(s) operating limitations in cold weather to include:
 - 1.2.1.1 Capability and availability;
 - 1.2.1.2 Fuel supply and inventory concerns;
 - 1.2.1.3 Start-up issues;
 - 1.2.1.4 Fuel switching capabilities; and
 - 1.2.1.5 Environmental constraints.

1.2.2 Generating unit(s) minimum:

- Design temperature, and if available, the concurrent wind speed and precipitation;
- Historical operating temperature at least one hour in duration, and if available, the concurrent wind speed and precipitation; or
- Current cold weather performance temperature determined by an engineering analysis, which includes the concurrent wind speed and precipitation.



Discussion and Documentation

The Extreme Cold Weather Temperature (ECWT) data shall be developed upon initial implementation and subsequently updated every five calendar years. The updated ECWT dataset shall encompass the complete temperature range dating back to January 1, 2000. If the new ECWT data reflect a lower temperature than previously recorded, it shall be revised within 6 months of recalculation. However, any new data indicating a higher temperature value for ECWT will not be accepted or permitted.

The identification of cold weather limitations for generating units shall be documented in RCP-NERC-EOP-012-ATT-A. This information shall undergo a mandatory annual review and be updated if necessary.

Recommended Documentation:

- RCP-NERC-EOP-012-ATT-A Cold Weather Preparedness Plan
- RCP-NERC-EOP-012-ATT-B Extreme Cold Weather Temperature Calculations
- Checklists



Requirement R2

Applicable to generating units with a commercial operation date <u>on or after October 1, 2027</u>: Each Generator Owner, for each generating unit that has a calculated Extreme Cold Weather Temperature at or below 32 degrees Fahrenheit (zero degrees Celsius) as determined in Requirement R1, and that self-commits or is required to operate at or below a temperature of 32 degrees Fahrenheit (zero degrees Celsius),1 shall:

- Implement freeze protection measures to protect Generator Cold Weather Critical Components that provide the capability to operate at the unit(s)' Extreme Cold Weather Temperature with sustained concurrent twenty (20) mph wind speed for (i) a period of not less than twelve (12) continuous hours, or (ii) the maximum operational duration for intermittent energy resources if less than twelve (12) continuous hours; or
- Develop a Corrective Action Plan(s) to add new or modify existing or previously planned freeze protection measures to provide the capability to operate at the unit(s)' Extreme Cold Weather Temperature with a sustained concurrent twenty (20) mph wind speed for (i) a period of not less than twelve (12) continuous hours, or (ii) the maximum operational duration for intermittent energy resources if less than twelve (12) continuous hours.



Discussion and Documentation

Facilities with a commercial operation date <u>on or after October 1, 2027</u>, must implement freeze protection measures in accordance with RCP-NERC-EOP-012-ATT-A, or alternatively, develop a Corrective Action Plan to comply with the intent of Requirement R2.

Recommended Documentation:

- RCP-NERC-EOP-012-ATT-A Cold Weather Preparedness Plan
- Checklists



Requirement R3

Applicable to generating unit(s) in commercial operation **prior to October 1, 2027**: Each Generator Owner, for each generating unit that has a calculated Extreme Cold Weather Temperature at or below 32 degrees Fahrenheit (zero degrees Celsius) as determined in Requirement R1, and that self-commits or is required to operate at or below a temperature of 32 degrees Fahrenheit (zero degrees Celsius), shall:

- Implement freeze protection measures to protect Generator Cold Weather Critical Components that provide the capability to operate at the unit(s)' Extreme Cold Weather Temperature; or
- Develop a Corrective Action Plan to add new or modify existing freeze protection measures to provide the capability to operate at the unit(s)' Extreme Cold Weather Temperature.





Discussion and Documentation

Facilities with a commercial operation date **prior to October 1, 2027**, must implement freeze protection measures in accordance with RCP-NERC-EOP-012-ATT-A, or alternatively, develop a Corrective Action Plan to comply with the intent of Requirement R3.

Recommended Documentation:

- RCP-NERC-EOP-012-ATT-A Cold Weather Preparedness Plan
- Checklists

Requirements and Actions

Requirement R4

Each Generator Owner shall implement and maintain one or more cold weather preparedness plan(s) for its generating units. The cold weather preparedness plan(s) shall include the following, at a minimum:

- 4.1. The lowest calculated Extreme Cold Weather Temperature for each unit, as determined in Requirement R1;
- 4.2. The generating unit cold weather data, as determined in Requirement R1.2;
- 4.3. Documentation identifying Generator Cold Weather Critical Components;

- 4.4. Documentation of freeze protection measures implemented on Generator Cold Weather Critical Components which includes measures used to reduce the cooling effects of wind determined necessary by the Generator Owner to protect against heat loss, and where applicable, the effects of freezing precipitation (e.g., sleet, snow, ice, and freezing rain); and
- 4.5. Annual inspection and maintenance of generating unit(s) freeze protection measures.



Discussion and Documentation

- Implement a unit specific Cold Weather Preparedness Plan such as RCP-NERC-EOP-012-ATT-A or equivalent.
- Implement a Calculated ECWT per guidance RCP-NERC-EOP-012-ATT-B Extreme Cold Weather Temperature Calculations
- Implement a Critical Components list such as RCP-NERC-EOP-012-ATT-C or equivalent.
- 4. Implement annual inspection and maintenance of generating unit(s) freeze protection measures PM or reference, into Cold Weather Preparedness plan.

Recommended Documentation:

- RCP-NERC-EOP-012-ATT-A Cold Weather Preparedness Plan
- RCP-NERC-EOP-012-ATT-B Extreme Cold Weather Temperature Calculations
- RCP-NERC-EOP-012-ATT-C Critical Components Methodology
- Checklists



Requirement R5

Each Generator Owner in conjunction with its Generator Operator shall identify the entity responsible for providing the generating unit-specific training, and that identified entity shall provide annual training to its maintenance or operations personnel responsible for implementing the cold weather preparedness plan(s) developed pursuant to Requirement R4.



Discussion and Documentation

Unit specific training will be covered by EOP-012-2 Training.pptx or equivalent documentation by the designated entity responsible.

Recommended Documentation:

- EOP-012-2 Training PPTX or Equivalent
- Training Roster(s)
- Additional training materials
- Checklists



Requirement R6

Each Generator Owner shall, for each generating unit that has a calculated Extreme Cold Weather Temperature at or below 32 degrees Fahrenheit (zero degrees Celsius) as determined in Requirement R1 and that self-commits or is required to operate at or below a temperature of 32 degrees Fahrenheit (zero degrees Celsius), develop a Corrective Action Plan when the generating unit experiences a Generator Cold Weather Reliability Event. The Corrective Action Plan shall be developed within 150 days or by July 1, whichever is earlier, and contain at a minimum:

- 6.1. A summary of the identified cause(s) for the Generator Cold Weather Reliability Event, where applicable, and any relevant associated data;
- 6.2. A review of applicability to similar equipment at generating units owned by the Generator Owner; and
- 6.3. An identification of operating limitations or impacts to the cold weather preparedness plan that would apply until execution of the corrective action(s) identified in the Corrective Action Plan.

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Discussion and Documentation

Any unit(s) that experiences an applicable Cold Weather Event shall create a Corrective Action Plan per Requirement R6 Parts 6.1-6.3 within 150 days or by July 1, whichever comes first.

Recommended Documentation:

- Generated Corrective Action Plan document
- Work orders associated with CAP.
- Updated RCP-NERC-EOP-012-ATT-A or equivalent if necessary
- Updated RCP-NERC-EOP-012-ATT-C or equivalent if necessary
- Checklists



Requirement R7

Each Generator Owner, for each Corrective Action Plan developed pursuant to Requirements R1, R2, R3, or R6, shall:

- 7.1. Include a timetable for implementing the selected corrective action(s) that shall:
 - 7.1.1. List the action(s) which address(es) existing equipment or freeze protection measures, if any, to be completed within 24 calendar months of completing development of the Corrective Action Plan;
 - 7.1.2. List the action(s) which require(s) new equipment or freeze protection measures, if any, to be completed within 48 calendar months of completing development of the Corrective Action Plan; and
 - 7.1.3. List the updates to the cold weather preparedness plan required under Requirement R4 to identify the updates or additions to the Generator Cold Weather Critical Components and their freeze protection measures;



Requirement R7 Cont.

Each Generator Owner, for each Corrective Action Plan developed pursuant to Requirements R1, R2, R3, or R6, shall:

- 7.2. Implement the Corrective Action Plan in accordance with the specified timetables in Requirement R7 Part 7.1;
- 7.3. Update the Corrective Action Plan action(s) and timetable(s), with justification, if corrective action(s) change or timetable(s) exceed the timelines in Requirement R7 Part 7.1; and
- 7.4. Document in a declaration, with justification, any Generator Cold Weather Constraint that precludes the Generator Owner from implementing selected action(s) contained within the Corrective Action Plan.


Discussion and Documentation

Any unit(s) required to create a Corrective Action Plan pursuant to Requirement R1, R2, R3, or R6 shall develop in accordance with Requirement R7 Parts 7.1-7.4.

Recommended Documentation:

- Generated Corrective Action Plan document
- Work orders associated with CAP.
- Updated RCP-NERC-EOP-012-ATT-A or equivalent if necessary
- Updated RCP-NERC-EOP-012-ATT-C or equivalent if necessary
- Checklists



Requirement R8

Each Generator Owner that creates a Generator Cold Weather Constraint declaration shall:

- 8.1. Review the Generator Cold Weather Constraint declaration at least every five calendar years or as needed when a change of status to the Generator Cold Weather Constraint occurs; and
- 8.2. Update the operating limitations associated with capability and availability under Requirement R1 Part R1.2 if applicable.



Discussion and Documentation

If a Generator Cold Weather Constrain was developed, it shall be reviewed every 5 Calendar years, or upon status change. If change is required, then program documentation shall be updated to reflect accordingly.

Recommended Documentation:

- Generated Corrective Action Plan document
- Work orders associated with CAP.
- Updated RCP-NERC-EOP-012-ATT-A or equivalent if necessary
- Updated RCP-NERC-EOP-012-ATT-C or equivalent if necessary
- Checklists



Seasonal Preparations

Seasonal preparations not only ensure that essential equipment and materials are available, but also serve as a reminder to plant personnel that weather conditions have an impact on both equipment and personnel operations. Intention is to ensure that plant personnel meet to prepare for cold weather and complete a winterization checklist, tracked via CMMS/Gensuite.

Impending Weather Events

Care should be taken to predictions of inclement weather changes. A Severe Winter Weather Checklist should be prepared for special conditions, preparations, or maintenance activities that may impact operations. The checklist should be completed in advance of extreme cold weather. Once a "Winter Storm Watch" is issued there should be a follow-up "Cold Weather Alert" from the transmission operator. Periodic safety briefs should be held concerning the hazards of cold weather and the status of the plant's equipment.



NERC Specific Data Requirements

Facilities will be required to submit, based on applicability, the following data:

- Capability and Availability
- Fuel supply inventory Concerns
- Start-up Issues
- Fuel Switching capabilities (Single or Dual)
- Constraints based of Equipment design:

Design Temperatures	Values
Prime Mover	
Generator	
Other Equipment	
Historical Operating Temperatures	Values
Prime Mover	
Generator	
Other Equipment	



Unit and Regional Specific Preparations



- Determine which maintenance and operating personnel will be required to complete the cold weather preparedness plan
- Verify systems that had maintenance were properly heat traced and insulated following work
- Supervisor/Manager should conduct annual training
- Operator should be familiar with Plant and Regional protection measures
- Operators should be familiar with the cold weather checklists and when to use them.



General Controls:

- Ensure event protocol documentation is up to date.
- Begin planning for any material or equipment changes to improve reliability for future situations.
- Assess the financial results of the event.
- Track program and training through CMMS.

Annual Review:

- Review documentation in the compliance files
 - Verify standard version is current
 - Review attachments/forms to ensure they are
 - Complete
 - No follow up actions are outstanding
- Review associated policies/procedures
 - Document any updates
 - Communicate those updates to the appropriate personnel



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Training Attendance Roster

COURSE: NERC Annual Training

DATE: September 18, 2024

INSTRUCTOR: NAES

FACILITY: Astra Wind

TOPICS:

1. COM-002-4 – Operating Personnel Communications Protocols

2. PER-006-1 - Protection System Training

3. EOP-004-4 – Event Reporting

4. VAR-002-4.1 – Generator Operation for Maintaining Network Voltage Schedules

5. EOP-012-2 – Emergency Preparedness and Operations

Attendees

1. Gil Hernandez	
2. Alan Diaz	
3. Rich Rohde	
4. Matt Urbanosky	
5. Carlos Marquez	
6. Randy Pesina	
7. Manny Alaran	
8. Cody Craner	

Astra Wind Emergency Operations Plan (EOP) (Per 16 TAC Sect. 25.53)

Attachment E

Hot Weather - Emergency Response Operational Plan

Astra Wind Turbines self-monitor all systems. If the turbine overheats, a safety chain is put in place to orderly shutdown the turbines. The same applies to all related electrical equipment.

Hot Weather Emergency Response Checklists

Equipment walkdowns are done routinely. Equipment checklists for the Turbines are maintained by the FSA Contractor (The turbine manufacturer GE). All other equipment checklists are maintained in an asset management software program (FIIX)

Hot Weather emergency responses are generally limited to personnel. Hot weather precautions are addressed in Daily Job Hazard Analysis meetings.

Astra Wind Emergency Operations Plan (EOP) (Per 16 TAC Sect. 25.53)

Attachment F



Hurricane Response

- **1.0** Hurricanes near the Astra Wind Site are unlikely. Fringe or edge effects from a Hurricane in the form of a Tropical storm are possible.
 - 1.1 Astra is in the Texas Department of Emergency Management Region 1, District 1.
- 2.0 Upon awareness of an impending Hurricane the site will connect to the FEMA Website at http://www.fema.gov/fema/trop.htm. This site will be active during the Hurricane season and will have up-to-the-minute hurricane information. The Astra Wind Farm Site Manager will determine if evacuation is necessary.
 - 2.1 The National Weather Service will issue a hurricane watch when there is a threat to coastal areas of hurricane conditions within 24-36 hours. With advance notification management will review the risk and activate the applicable sections of the Operation Business Continuity Plan (OBCP)
 - 2.1.1 Site Evacuation
 - 2.1.1.1 When calling for the evacuation of the site the site manager must assure that all personnel on site are accounted for and all off site personnel are made aware of the site evacuation/closure.
 - 2.1.1.2 Procedures for evacuation are detailed in the Safety Manual and the Emergency Operations Plan (EOP).
 - 2.1.2 Access to the plant after the event passes will be according to the procedures outlined in the OBCP.

Astra Wind Emergency Operations Plan (EOP) (Per 16 TAC Sect. 25.53)

Attachment G



Continuity of Operations Pandemic Response Plan

Continuity of Operations Pandemic Response Plan

Revision History				
Version	Date	Description of Changes	Revised by	
1.0	3/3/2020	Finalized	CBS	
1.1	3/13/2020	Inserted history table changed italics font	CBS	
1.2	3/17/2020	Revised name changes WindHQ	CBS	

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I. INTRODUCTION

Organizations across the Nation perform essential functions and services that may be adversely affected in the event of a natural or man-made disaster. Continuing to perform essential functions and provide essential services is vital to an organization's ability to remain a viable entity during times of increased threats from all hazards, manmade or natural. Since the threat to an organization's continuity of operations is great during a Pandemic or Epidemic outbreak; it is important for organizations, particularly **WindHQ**, to have a Continuity of Operations – Pandemic or Epidemic Response Plan in place to ensure it can carry out its essential functions and services. For the purposes of this response plan, Pandemic and Epidemic responses are managed in the same manner. WindHQ may be forced to suspend some operations due to the severity of a Pandemic outbreak, an effective response plan will assist in its efforts to remain operational, as well as strengthen the ability to resume operations.

II. PURPOSE

This plan provides guidance to WindHQ and may serve as the plan for maintaining essential functions and services during a declared Pandemic. This guidance bridges the gap between the traditional, all-hazards planning and the specialized continuity planning required for a Pandemic by addressing additional considerations, challenges, and elements specific to the dynamic nature of a Pandemic illness transmission.

This guidance stresses that essential functions can be maintained during a Pandemic outbreak through mitigation strategies, such as social distancing, increased hygiene practices, the vaccination of employees and their families (when applicable), and similar approaches.

III. CONCEPT OF OPERATIONS

The WindHQ Operations team will monitor the severity of the Pandemic and establish continuity activation triggers to address the unique nature of the Pandemic threat. The Continuity of Operations Pandemic Response Plan will be implemented as needed to support the continued performance of essential functions. This plan is to be read in conjunction with the employee handbook and business continuity plans as appropriate. It supplements the above plans by addressing considerations and elements specific to Pandemic events and emerging infectious diseases.

IV. CONTINUITY PLANNING

All organization personnel are to be informed regarding protective actions and/or modifications related to this plan. Messaging and risk communications during an emerging infectious disease or Pandemic will be coordinated by WindHQ Operations Management. Guidance and instructions on established infection control measures such as social distancing, personnel hygiene and offsite work polices are provided by EH&S department and WindHQ EVP to assist in limiting the spread of the infection at the primary and alternate worksite.

Within the workplace, social distancing measures could take the form of: modifying the frequency and type of face-to-face employee encounters (e.g., placing moratoriums on hand-shaking,

substituting teleconferences for face-to-face meetings, staggering breaks, posting infection control guidelines); establishing flexible work hours or worksite, (e.g., telecommuting); promoting social distancing between employees and customers to maintain three-feet spatial separation between individuals; and implementing strategies that request and enable employees with influenza to stay home at the first sign of symptoms.

Frequent, daily contact is important to keep employees informed about developments in the organization's response, impacts on the workforce, and to reassure employees that the organization is continuing to function as usual.

The Pandemic response team will include deliberate methods to measure, monitor, and adjust actions to changing conditions and improved protection strategies.

- Implement a formal worker and workplace protection strategy with metrics for assessing worker conformance and workplace cleanliness.
- Monitor and periodically test protection methods.
- Track and implement changes in approved or recommended protection measures.
- Pre-position material and equipment onsite.
- Ensure essential personnel are at the primary worksite.
- Reaffirm that essential suppliers have their material and personnel on-hand and are able to respond and support as planned.
- Monitor local public health and emergency response points of contact to ensure open, adequate communications.

A. PANDEMIC PLANNING ASSUMPTIONS

Below are the Pandemic assumptions

- Susceptibility to the Pandemic influenza virus will be universal.
- Efficient and sustained person-to-person transmission signals an imminent Pandemic.
- The clinical disease attack rate will likely be 30 percent or higher in the overall population during the Pandemic. Illness rates will be highest among school-aged children (about 40 percent) and decline with age. Among working adults, an average of 20 percent will become ill during a community outbreak.
- Some persons will become infected but not develop clinically significant symptoms. Asymptomatic or minimally symptomatic individuals can transmit infection and develop immunity to subsequent infection.
- While the number of patients seeking medical care cannot be predicted with certainty, in previous Pandemic about half of those who become ill sought care. With the availability of effective antiviral drugs for treatment, this proportion may be higher in the next Pandemic.
- Rates of serious illness, hospitalization, and deaths will depend on the virulence of the Pandemic virus and differ by an order of magnitude between more and less severe scenarios.

Risk groups for severe and fatal infection cannot be predicted with certainty but are likely to include infants, the elderly, pregnant women, and persons with chronic or immunosuppressive medical conditions.

- Rates of absenteeism will depend on the severity of the Pandemic. In a severe Pandemic, absenteeism attributable to illness, the need to care for ill family members and fear of infection may reach 40 percent during the peak weeks of a community outbreak, with lower rates of absenteeism during the weeks before and after the peak. Certain public health measures (closing organizations, quarantining household contacts of infected individuals, "snow days") are likely to increase rates of absenteeism.
- The typical incubation period (interval between infection and onset of symptoms) for influenza is approximately two days.
- Persons who become ill may shed virus and can transmit infection for up to one day before the onset of symptoms. Viral shedding and the risk of transmission will be greatest during the first two days of illness. Children usually shed the greatest amount of virus and therefore are likely to post the greatest risk for transmission.
- On average, infected persons will transmit infection to approximately two other people.
- A Pandemic outbreak in any given community will last about six to eight weeks for each wave of the Pandemic.
- Multiple waves (periods during which community outbreaks occur across the country) of illness could occur with each wave lasting two-three months. Historically, the largest waves have occurred in the fall and winter, but the seasonality of a Pandemic cannot be predicted with certainty.

B. ORGANIZATIONAL ASSUMPTIONS

- WindHQ will be provided with guidance and/or direction by Federal, State, local governments regarding current Pandemic status in its area.
- WindHQ will have actionable plans and procedures to assist in the ability to remain operational during a Pandemic. Plans and procedures may include social distancing protocols, good hygiene practices and temporary suspension of some nonessential activities.
- WindHQ Property Management will review its continuity communications programs to ensure they are fully capable of supporting Pandemic and other related emergencies, and give full consideration to supporting social distancing operations, including telework and other virtual office options.
- Contracted energy sites will be accessible, but right of entry may be limited to approved permanent badge essential personnel.

- Essential functions, operations, and support requirements will continue to be people dependent. However, human interactions may be remote or virtual, resulting in the employment of appropriate teleworking and other approved social distancing protocols.
- Travel restrictions, such as limitations on mass transit, implemented at the Federal, State, and local levels may affect the ability of some staff to report to work.

VI. PANDEMIC RESPONSE

A. PANDEMIC COORDINATORS AND PANDEMIC RESPONSE TEAMS:

The WindHQ Pandemic Coordinator will oversee a Pandemic Response Team (PRT) to anticipate the impacts of a Pandemic on WindHQ and to assist with developing strategies to manage the effects of a Pandemic outbreak.

Positiken	Responstbilling	Ideal Candhlais
Pandemic Coordinator	Oversees the Pandemic Response Team (PRT) to anticipate the impacts of a Pandemic on WindHQ and assists with developing strategies to manage the effects of a Pandemic outbreak	EVP level employee or authorized designee
Pandemic Response Team	Employee and family wellbeing advocate, coordinates messaging and resources for employees	Human Resources
Pandemic Response Team	Coordinates internal and external messaging for clients and support contractors	Operations Management
Pandemic Response Team	Existing infrastructure information, resources and support	EH&S
Pandemic Response Team	Development infrastructure information, resources and support	VP Development or designee
Pandemic Response Team	Financial and Sales information, resources and support	VP of Finance or designee

B. RISK COMMUNICATIONS:

The Pandemic response team will develop Pandemic risk communications procedures for communicating with all internal and external stakeholders. This includes the use of existing notification rosters, client bulletins and semi-technical training sessions on how to engage colleagues using approved social distancing protocol.

VII. ELEMENTS OF A VIABLE PANDEMIC RESPONSE PLAN

A. ESSENTIAL FUNCTIONS

WindHQ has identified essential functions and services needed to sustain its mission and operations during a Pandemic. WindHQ Essential Functions are:

- Flawlessly execute contractual energy delivery operations and future development plans without impact to the client operations, employee resources or construction schedules
- Provide additional focus on Employee and Contract staff well-being and concerns
- Leverage financial resources to maximize existing operational efficiencies with potential increased risk. Pandemic fear may create opportunities (short and longer term)

B. ORDERS OF SUCCESSION

Since the Pandemic may affect regions differently in terms of timing, severity, and duration, WindHQ has identified orders of succession that are at least three deep per position while considering dispersing successors to various geographically separated locations, as appropriate. The WindHQ's Orders of Succession are:



C. DELEGATION OF AUTHORITY

At the height of a Pandemic wave, absenteeism maybe significant, as such, WindHQ has established delegations of authority that are at least *three deep* to take into account the expected rate of absenteeism and regional nature of the outbreak to help assure continuity of operations over an extended time period. The Delegations of Authority for the senior leadership are:



D. CONTINUITY FACILITIES

Safe work practices, which include social distancing and transmission interventions, reduce the likelihood of contacts with other people that could lead to disease transmission. WindHQ promotes preventative practices such as social distancing procedures, hygiene etiquette, and cancellation of organizations non-essential activities to reduce the spread of the Pandemic.

E. COMMUNICATIONS

Workplace risk can be minimized through implementation of systems and technologies that facilitate communication without person to-person contact (phone, email, text and online meetings via MS Teams). WindHQ's IT infrastructure includes investments in communication systems needed to perform essential functions.

F. RECORDS MANAGEMENT

WindHQ shall identify, protect, and ensure the ready availability of electronic and hardcopy documents, references, records, and information systems needed to support essential functions during a Pandemic outbreak. WindHQ has databases, and files that are needed to ensure essential functions remain operational on an internet based a share drive system that can be accessed remotely and is backed up daily.

G. HUMAN RESOURCES

Although a Pandemic outbreak may not directly affect the physical infrastructure of an organization, a Pandemic will ultimately threaten all operations by its impact on an organization's human resources. The health threat to personnel is the primary threat to maintaining essential functions and

services during a Pandemic outbreak. WindHQ has established plans to protect the entire employee population with additional guidance for key personnel, and other essential personnel, should a Pandemic outbreak occur.

H. TEST, TRAINING AND EXERCISES

Testing, training, and exercising are essential to assessing, demonstrating, and improving an organization's ability to maintain its essential functions and services. WindHQ conducts annual tests, training, and exercises to ensure sustainable social distancing techniques, and to assess the impacts of reduced staff on the performance of essential functions.

I. RECONSTITUTION

Reconstitution is the process whereby an organization has regained the capability and physical resources necessary to return to normal (pre-disaster) operations. The objective during reconstitution is to effectively manage, control, and, with safety in mind, expedite the return to normal operations. WindHQ will develop reconstitution plans and procedures, in conjunction with local public health authorities, to ensure facilities/buildings are safe to return.

VIII. CONCLUSION

Maintaining WindHQ essential functions and services in the event of Pandemic requires additional considerations beyond traditional planning. Unlike other hazards that necessitate the relocation of staff performing essential functions to an alternate operating facility, a Pandemic may not directly affect the physical infrastructure of the data center. As such, a traditional "continuity activation" may not be required during a Pandemic outbreak. However, a Pandemic outbreak threatens an organization's human resources by potentially removing essential personnel from the workplace for extended periods of time. Accordingly, WindHQ's plan addresses the threat of a Pandemic outbreak by implementing procedures such as social distancing, infection control, personal hygiene, and cross-training (to ease personnel absenteeism in a critical skill set). Protecting the health and safety of key personnel, and other essential personnel is necessary to provide our clients with a world class data center experience.

APPENDIX 1: WORLD HEALTH ORGANIZATION PHASES

The World Health Organizations (WHO) developed an alert system to help inform the world about the seriousness of a Pandemic. The alert system has six phases, with Phase 1 having the lowest risk of human cases and Phase 6 posing the greatest risk of Pandemic. Organizations are encouraged to monitor the WHO phases and establish continuity "triggers" as deemed appropriate.

The phases are applicable globally and provide a framework to aid countries in Pandemic preparedness and response planning. The use of a six-phased approach has been retained. However, the Pandemic phases have been re-defined (Table 1). In addition, the time after the first Pandemic wave has been elaborated into post peak and post Pandemic periods.

Phase 1	No animal influenza virus circulating among animals has been reported to cause infection in humans.
Phase 2	An animal influenza virus circulating in domesticated or wild animals is known to have caused infection in humans and is therefore considered a specific potential Pandemic threat.
Phase 3	An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks.
Phase 4	Human-to-human transmission (H2H) of an animal or human-animal influenza reassortant virus able to sustain community-level outbreaks has been verified.
Phase 5	The same identified virus has caused sustained community level outbreaks in two or more countries in one WHO region.
Phase 6	In addition to the criteria defined in Phase 5, the same virus has caused sustained community level outbreaks in at least one other country in another WHO region.
Post-Peak Period	Levels of Pandemic in most countries with adequate surveillance have dropped below peak levels.
Possible New Wave	Level of Pandemic activity in most countries with adequate surveillance rising again.
Post- Pandemic Period	Levels of activity have returned to the levels seen for seasonal influenza in most countries with adequate surveillance.

Table 1: World Health Organization Pandemic Influenza Phases

APPENDIX 2: WEBSITES FOR PLANNING AND PREPAREDNESS

- <u>https://www.cdc.gov/</u>
- <u>https://www.who.int/</u>
- <u>https://dshs.texas.qov/coronavirus/</u>
- <u>https://www.nerc.com/Pages/default.aspx</u>
- <u>http://www.ercot.com/</u>

Astra Wind Emergency Operations Plan (EOP) (Per 16 TAC Sect. 25.53)

Attachment H

Cyber Security – Security Management Plan

This attachment includes selected files from Astra Wind's RCP-NERC-CIP-003 compliance standard.

RCP-NERC-CIP-003-ATT-A ASTRA WIND, LLC - HAPPY, TX

Referencing Documents: NERC-RCP-CIP-003 R1.2

Rev. 0 Revision Date: March 31, 2017

CYBER SECURITY POLICY

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