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Emergency Operations Procedure Copperhead Solar/BESS (EOP)

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Author:	A.Goddin	Verified by:	R.Smith	Approved by:	G.Smith

Revision History

Date	Version #	Approved By:	Revision Description
08/24/2023	1	G.Smith	Initial Release

The latest entry supersedes the previous version

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Sworn Attestation

I attest that I am an Officer with binding authority over Copperhead Solar, LLC, an affiliate of National Grid Renewables Operations, LLC.

I attest that all activities described in TEX. Admin. Code (TAC) § 25.53 have been reviewed for Copperhead Solar, LLC. Further I attest that the following statements are true and correct:

- Applicable personnel will be familiar with and trained on the Emergency Operations Plan and will have received instructions to follow the plan with exception when deviations are required because of specific circumstances during an emergency.
- This Emergency Operations Plan has been reviewed by Senior Leadership.
- Drills will be performed per the plan as required.
- This Emergency Operations Plan will be distributed to local jurisdictions as required or upon request.
- Copperhead Solar LLC will maintain a business continuity plan, with those addresses returning to normal after an event.

Signature: _____

Print Name: Andy Cukurs

Title: Chief Executive Officer

Date: 8/24/2023

(Signature)

Print Name: _____

Title: _____

Subscribed and sworn before me Sara Paradis, a notary public of the State of Minnesota
in and for the County of Hennepin, this 24 day of August, 2023


(Notary Public Signature)

My commission expires: 1/31/2026



Executive Summary:

National Grid Renewables Development, LLC (NG Renewables) directly and wholly owns National Grid Renewables Operations, LLC. NG Renewables is repowering America by reigniting local economies and reinvesting in a sustainable, clean energy future. NG Renewables develops, constructs, and operates competitive, high performance renewable energy projects nationwide to maximize value for our customers, partners, and community members.

Copperhead Solar, LLC, an affiliate of NG Renewables, directly owns the Copperhead Solar and Storage Project, which is a 150-megawatt (MW) solar, and 100-megawatt (MW) storage development located in McLennan County, Texas. NG Renewables and its affiliates are committed to safety. NG Renewables continues to work diligently to document, prepare and when needed respond to emergencies.

This Emergency site plan outlines the sites planned responses to extraordinary emergencies related to natural disasters, human caused events, technology incidents, and security emergencies to ensure continued operations of the site during an emergency.

In cooperation with the Texas Public Utilities Commission and the Electric Reliability Council of Texas; Copperhead Solar, LLC has documented this comprehensive Emergency Operations Plan (EOP) which provides guidance to the site for preparedness and response to many of the natural hazards that can impact safe and reliable operations. The EOP seeks to mitigate and ensure that all personnel remain safe during emergency events.

Included in the EOP are emergency event driven directives to assist the site during emergency events. It also describes preparation activities to ensure that all personnel on site have all the knowledge and tools available to safely navigate through any emergency. This is a continuous effort that will continue to evolve to ensure that industry best practices are included and updated. In addition, several checklists have been developed and as new potential hazards are discovered they will be documented.

National Grid Renewables is committed to safety. The EOPs are just one of many documents used to ensure our safety culture is understood and communicated.

Andy Cukurs CEO
CC: Joe Melsha VP of Operations
CC: Gemma Smith VP SHE
CC: John Bloom Director, Field Services
CC: Rob Smith Director, ROC & Compliance

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1 Defined Terms

Access Device: Any card, key, code, or other means that can be used alone or in conjunction with another access device to obtain entry.

Accidents: Workplace Accidents, Entrapment/Rescue (Machinery, Water, Confined Space, High Angle), Transportation Accidents (Motor Vehicle, Rail, Water, Air, Pipeline), Structural Failure/Collapse, Mechanical Breakdown

Disaster: an event that results in serious harm to safety, health, welfare of people, or in widespread damage to property.

Emergency: an event, or imminent event, outside of the scope of normal operations that requires prompt coordination of resources to protect the health, safety, or welfare of people, or to limit damage to property and the environment.

Escorted Access: Access granted into a secured area to an individual, that does require accompaniment by an authorized person.

Fire/Explosion: Fire (Structure, Wildland), Explosion (Chemical, Gas, or Process failure).

Heat Illness: Exposure to heat can cause illness and death. The most serious heat illness is heat stroke. Other heat illnesses, such as heat exhaustion, heat cramps and heat rash, should also be avoided.

Lightning: A brilliant electric spark discharged in the atmosphere, occurring within a thundercloud, between clouds, or between a cloud and the ground.

Precipitation: Rain, snow, sleet, or hail that falls to the ground.

Severe weather: includes, but is not limited to strong winds, lighting, hail, ice and snowstorms, and tornadoes.

Strong Winds: Winds that exceed 10-minute average of 30 m/s

Texas Division of Emergency Management (TDEM): is responsible for the deployment of the state of Texas's emergency preparedness and response plans and deployment for disaster response.

Tornado: A mobile, destructive vortex of violently rotating winds having the appearance of a funnel-shaped cloud and advancing beneath a large storm system.

Unescorted Access: Access granted into a secured area to an individual without accompaniment.

Watch: Potential exists for inclement

Warning: Inclement weather is occurring or imminent

2 Roles and Responsibilities

2.1 VP, Operations

The VP, Operations shall:

- Enforce this procedure and hold National Grid Renewables operations personnel accountable for actions that violate any aspect of the procedure.
- Provide employees with resources to comply with this procedure.

2.2 VP, SHE, Risk & Compliance

The VP, SHE Risk & Compliance shall:

- Assist and provide technical expertise and assistance on all aspects of the procedure.
- Provide and/or coordinate training for this procedure.
- Assist in the review, update, and continual improvement of this procedure.
- Ensure the technical content of this procedure is compliant with all Federal, state, and international regulations and requirements.

2.3 Director of NERC Compliance

The NERC Compliance Officer shall:

- Make all NERC and Regional Required Regulatory Notifications

2.4 Plant Manager

The Plant Manager shall:

- Execute this procedure and any additional procedures required to safely execute work on a National Grid Renewables site.
- Site Manager is responsible for the coordination and scheduling of training and exercising the EOP.
- The Site Manager is responsible for communicating any changes to this plan as necessary and ensuring it is distributed to all applicable individuals.
- Monitor weather and alert site personnel when severe weather is occurring or likely.

2.5 Remote Operations Team

The Remote Operations Team shall:

- Monitor the site 24/7
- When alarms are detected, the Remote Operations team will notify the applicable support staff.

2.6 All personnel

All personnel shall:

- Notify Plant Management of any emergency.
- Comply with all requirements of the procedure.
- Participate in plant emergency drills.

- Follow the instructions of the Plant Management at the plant in a declared emergency.

2.7 Staffing

- Staffing consists of a Plant Manager and three site technicians during normal business hours.

2.8 Call out to Site

- If there is a need for a call out of off-duty employees during an emergency/event, the Site Manager will initiate a call out.

2.9 Call in to Site

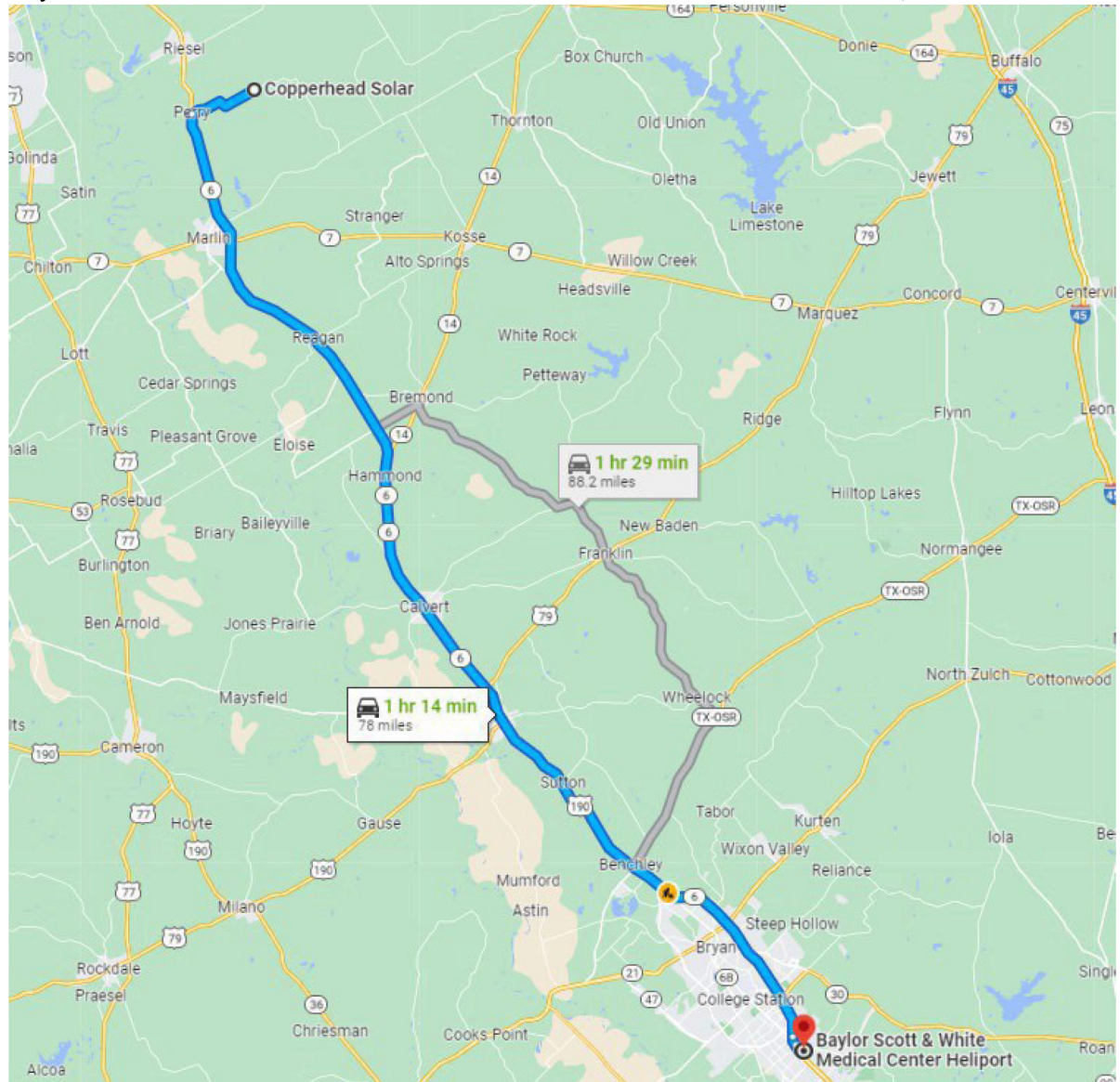
- When employees (not at the site) become aware of an emergency/disaster that may affect their worksite, they are to refrain from contacting their work location. Employees will be contacted and called onto the site only if they are needed.

3 Emergency Contacts

Plant Name: Copperhead Solar, LLC	Plant Address 149 County Road 160, Riesel, TX 76682	Plant Phone Number 830.325.8103
Inside Assembly Area: O&M Building	Plant Address 149 County Road 150, Riesel, TX 76682	Location Storm Shelter
Outside Assembly Area: Outside Fence Line O&M		Location Outside Fence line O&M
Evacuation Area: Trinity Church	Phone Number 254.896.7105	Address 264 County Road 143, Riesel, TX 76682
Plant Manager Luis Rosales	Office: 254.300.6813 Cell: 830.325.8103	E-mail: lrosales@nationalgridrenewables.com
Miller Brothers Site Lead: TBD Name:	Cell: 610-832-1000	E-mail: info@millerbros.us
Miller Brothers Lead; TBD	Cell: 610-832-1000	E-mail: info@millerbros.us
Fluence Lead: Sean Powers	Cell: 202-977-6616	Email: sean.powers@fluenceenergy.com
Fire Department: Riesel Fire Department	Phone Number 254.896.2201	Address: 104 S Hedwig St., Riesel, TX 76682
Baylor Scott & White Medical Center	Phone Number 254.202.2000	Address: 100 Hillcrest Medical Blvd. Waco, TX 76712
Hospital (burn unit): Baylor Scott & White Medical Center	Phone Number 254.202.2000	Address: 100 Hillcrest Medical Blvd. Waco, TX 76712
Hospital Baylor Scott & White Medical Center	Phone Number 254.202.2000	Address: 100 Hillcrest Medical Blvd. Waco, TX 76712
Police: Riesel Police Department City Hall	Phone Number 254.896.6501	Address: 104 Hwy 6, Riesel, TX
VP, EHS Gemma Smith	Office: 952.358.5668 Cell: 713.294.8979	E-mail gsmith@nationalgridrenewables.com
VP, Operations Joe Melsha	Office: 952.358.5660 Cell: 507.226.3593	E-mail jmelsha@nationalgridrenewables.com
NERC Compliance Officer Rob Smith	Office: 612.429.0533 Cell: 651.785.7369	E-Mail: rsmith@nationalgridrenewables.com
Miller Brothers EHS Specialist: Jeff Sampeer	Office: Office Phone Number Cell: 661.600.8373	E-mail info@millerbros.us

4 Directions to nearest hospital/clinic

Baylor Scott & White Medical Center: 100 Hillcrest Medical Blvd. Waco, TX 76712





↑ Head southwest on FM1240 W toward County Rd 151

- Follow Hwy 6 N to TX-6 in Waco. Take the exit toward I-35/Dallas/Ft Worth/Austin from Hwy 6 N/TX-340 Loop

➤ Continue on TX-6 to your destination

110 Hillcrest Medical Blvd

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5 Site overview and evacuation maps

Copperhead Solar, LLC, an affiliate of NG Renewables, directly owns the Copperhead Solar and Storage Project, which is a 150-megawatt (MW) solar, and 100-megawatt (MW) storage plant located in McLennan County, Texas.

5.1 Site Overview

The Copperhead Energy Storage Facility is a system that comprises multiple lithium-ion battery modules in racks, which are located inside temperature-controlled enclosures (known as Fluence Cubes). The modules within a rack are connected in series and multiple racks within a cube are connected in parallel to a DC busbar. Multiple cubes are connected in parallel to the DC side of inverters. The AC side of the inverters are connected to step-up transformers before being connected to the grid.

The main system components are the following:

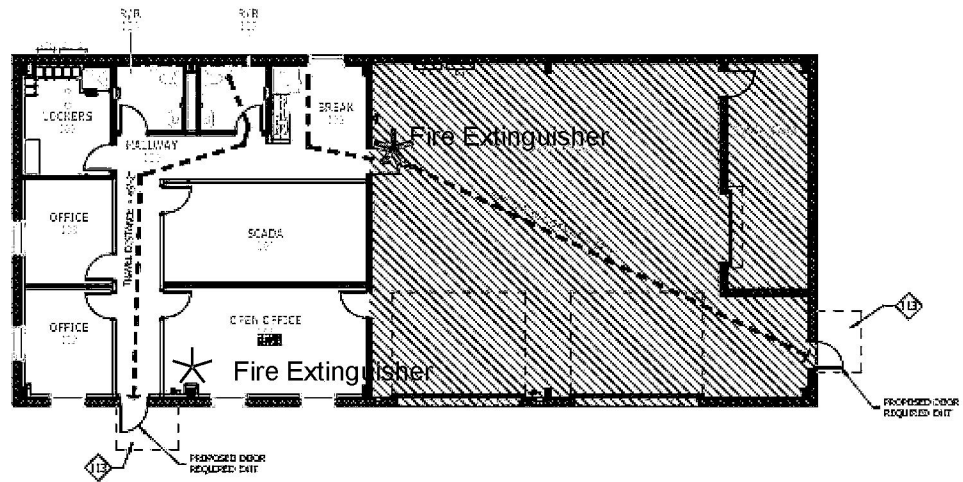
#	Equipment	Specs, Rating or Details	Qty on Site
1	Isolation Transformer	3 kVA ,Oil based	28
2	Aux Transformer	3 kVA, Oil based	2
3	Inverters	Rating of 1.096 MVA each, with a total gross capacity of 30.7 MVA	28
4	Fluence Gen6 Short Duration Cube	2.6m wide x 2.0m long x 2.5m high Metal battery enclosure with doors on both sides.	210

#	Equipment inside Fluence Cube	Specs, Rating or Details	Qty per Cube
1	Battery racks	123.2 kA per rack, 150.0 kA per cube	189
2	LFP Lithium-ion battery modules	745.4 kW	7 per rack, 16 per cube
3	Solid Aerosol Fire Suppression System	Off-gas detection, temp detection, smoke detection with central alarming	1
4	Deflagration panels	On roof	2

Communications and controls equipment, to provide system status, with input and output routed into a control building which contains telecommunications equipment and switchgear.

Copperhead Solar, LLC will provide energy and capacity for the transmission network and is expected to connect to the electric grid at the Oncor interconnection in Dallas, TX.

3	SOLAR PV SYSTEM SUMMARY		
3.01	DC System Size	197,990	MWdc
3.02	AC System Size @ POI	150	MWac
3.03	DC/AC Ratio @ POI	1.320	-
3.04	Maximum DC System Voltage	1500	Volts
3.05	Modules Per String	6	Qty.
3.06	Total PV String Circuits	70,378	Qty.
3.07	Total Modules	422,268	Qty.
3.08	Azimuth	180	Deg.
3.09	Modules Tilt Angle	0	Deg.
3.10	Pitch (Pile-Pile Spacing)	18	Feet
3.11	Ground Coverage Ratio [GCR]	36.89%	-
3.12	Effective DC Load Factor	65	%
3.13	Effective AC Load Factor	75	%
4	BESS SYSTEM SUMMARY		
4.01	DC System Size	140.881	MWdc
4.02	AC System Size @ POI	100	MWac
4.03	DC/AC Ratio @ POI	1.409	-
4.04	Maximum DC System Voltage	1500	Volts
4.05	Battery Cube DC kW	745.4	kW
4.06	Battery Cubes per Core	7	Qty.
4.07	Cores per MV Feeder	6-7	Qty.
4.08	Total Battery Cubes	189	Qty.
4.09	Effective DC Load Factor	35	%
4.10	Effective AC Load Factor	75	%
4.11	Effective AUX Load Factor	100	%



01 LIFE SAFETY PLAN
1/8" = 1'-0"

Fig 1: Life Safety and Fire Extinguishers

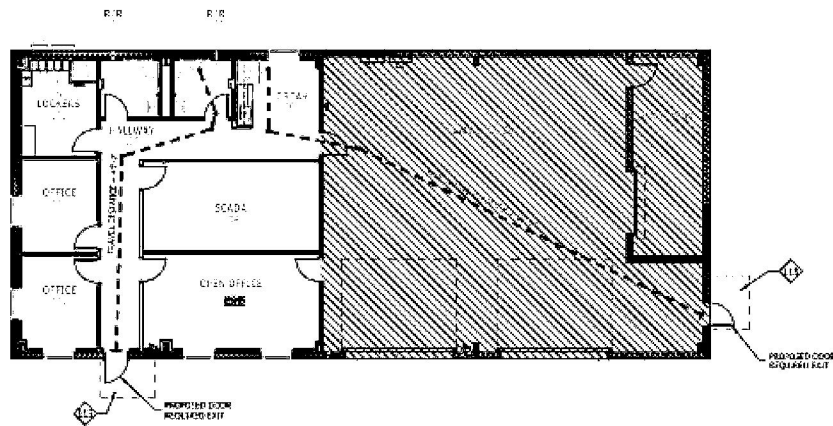


Fig 2: Evacuation Plan O&M Building & Life Safety Equipment

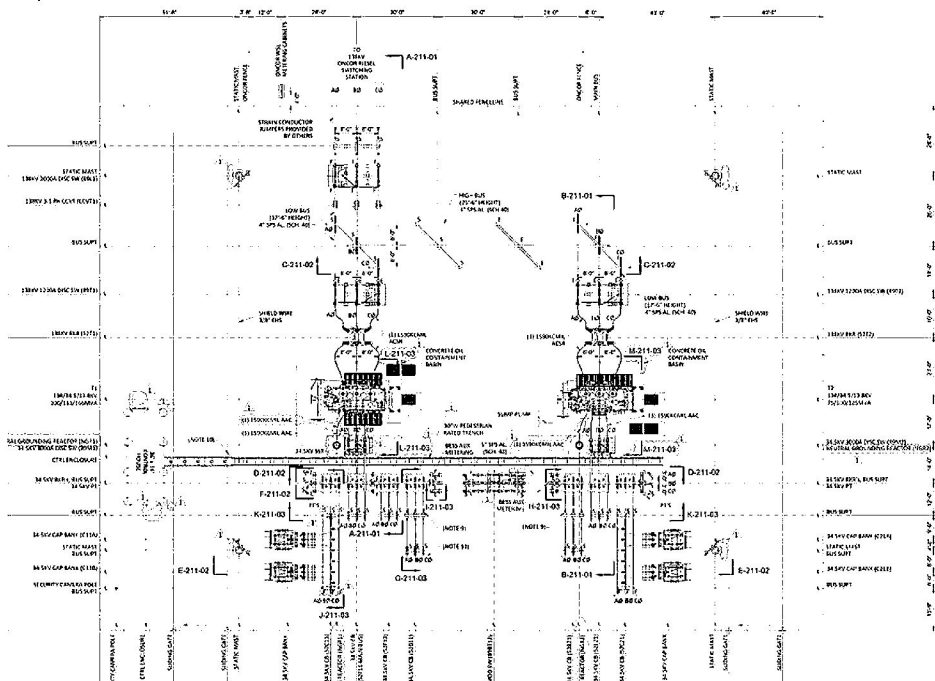
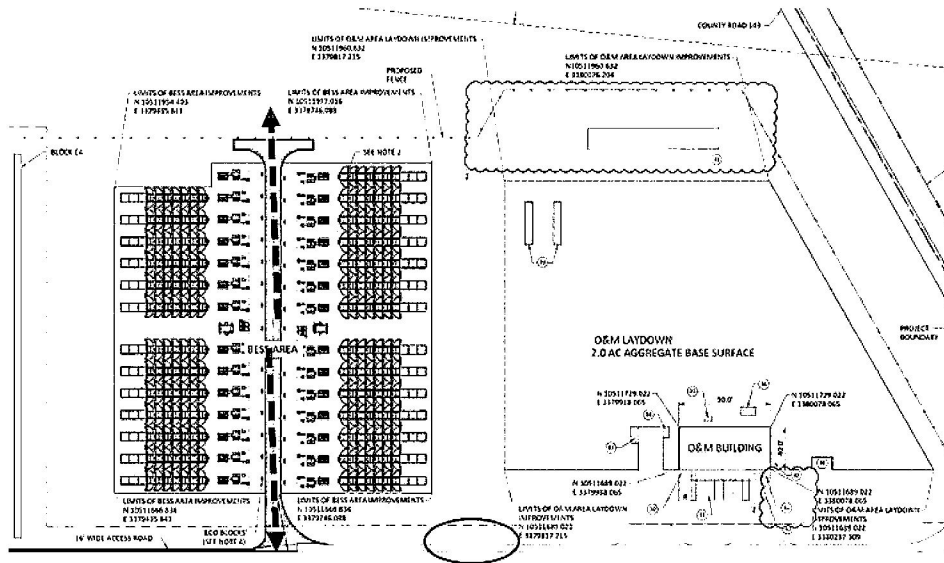
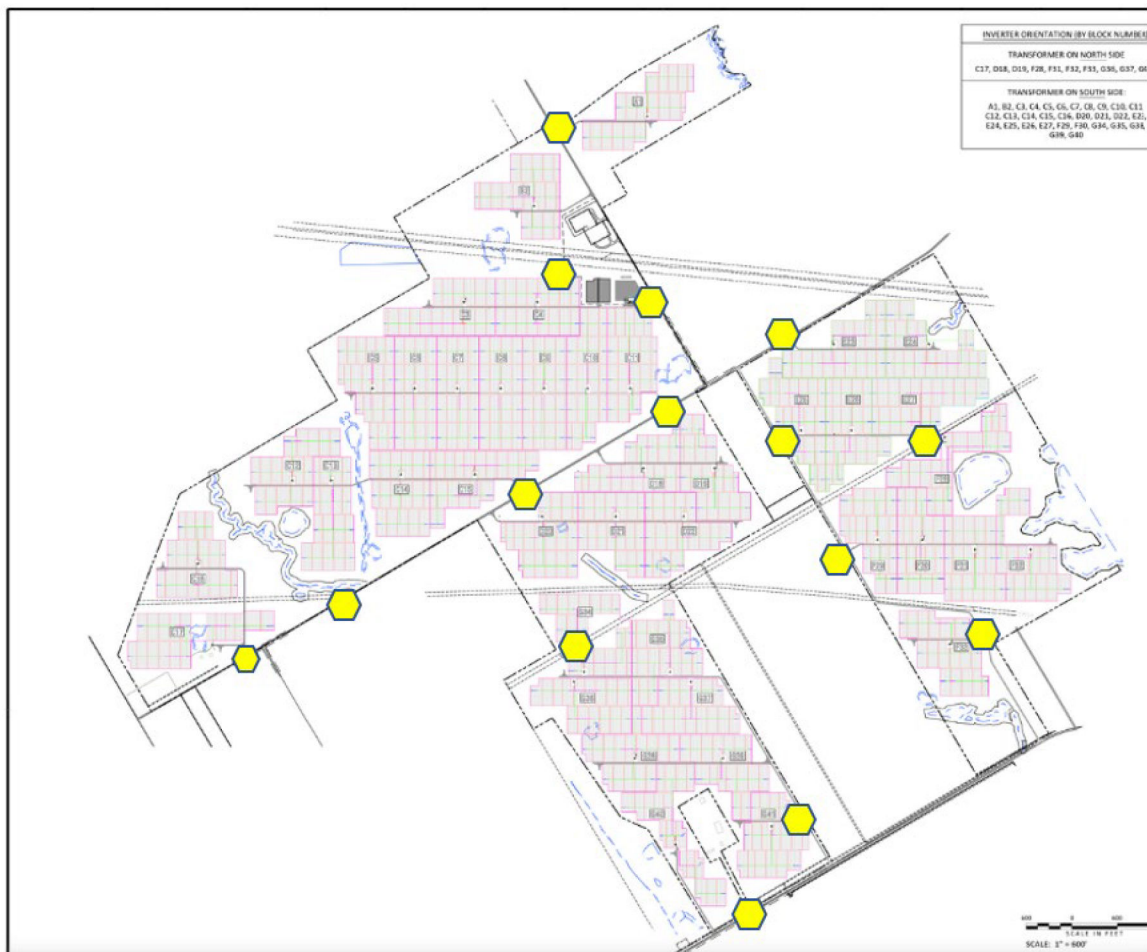


Figure 3: Substation and Control House



BESS and O&M



6 General Procedure

6.1 General Emergency Procedure

Any event requiring emergency response shall be recorded and investigated as required by the REN.EHS.007 Incident Reporting and Response Procedure. In the event of an emergency that requires assistance, all employees and contractors at the plant shall follow this procedure. Visitors shall follow instructions provided by their plant contact or other plant employees as appropriate.

Anyone observing an emergency condition should immediately contact Plant Management by cell phone or radio.

Plant Management will initiate this procedure and take on or designate the role of Emergency Coordinator.

Once notified of the emergency condition, the Emergency Coordinator shall determine whether outside resources are needed.

If outside resources are required, the Emergency Coordinator will phone 911, request appropriate emergency services, and provide all pertinent information concerning the emergency as per the plant's EAP.

The Emergency Coordinator will notify all employees and contractors via phone or radio or by other means of the emergency by announcing "Initiate emergency response procedure", applicable instructions AND the assembly area, if appropriate.

Upon initiating emergency response procedure, all affected employees, contractors, and visitors will immediately stand down and assemble at the assembly area if instructed by Emergency Coordinator or respond to instructions from the Emergency Coordinator. Assembly areas that can be used in emergency response include but are not limited to the O&M building and parking lot, and company vehicle/truck.

The Emergency Coordinator will assign the following duties:

- Obtain the National Grid Renewables sign-in log
- Request the details of all contractor employees at the plant from the contractor management where applicable
- Meet emergency responders at designated location, if appropriate.
- Locate missing persons (two person teams if warranted) if necessary.
- Contact the Remote Operations Center (ROC) to inform them of the situation. The ROC will then make other internal notifications as required.
- The Emergency Coordinator will coordinate communications between the above personnel.

6.2 General Evacuation Procedure

If needed, perform the applicable steps of the "General Emergency Response Procedure" above.

In case of an emergency requiring evacuation, the Emergency Coordinator will use the radios, cell phones or other means to contact and inform all employees, contractors, and visitors to evacuate.

Upon notification, all employees, contractors, and visitors will immediately:

- Stop work
- If time permits, place equipment in a safe condition
- Evacuate from the nearest, safest exit point and report to the designated evacuation area.
- Personnel will report to the Emergency Coordinator, or designee, when they have safely reached the evacuation area.

6.3 Emergency Responders

Emergency Responders (i.e., fire department, emergency medical services) should be contacted at least once a year to provide updated information on emergency meeting locations and emergency response practices.

7 Weather Emergency

7.1 General

Weather should be always monitored.

Inclement weather should be noted on the JSA ([REN.EHS.002 JSA Procedure.pdf](#)).

When working out of hours (e.g., during emergency call outs and after normal business hours), employees and contractors are required to check weather conditions prior to responding to site.

If a Stop Work is issued, the activities shall cease and relevant crews shall acknowledge receipt of the stop work order, exit their work areas, and return to the O&M building, substation control house or other shelter as designated by the Plant Manager.

After any major weather event, a role call shall be performed to assure that all personnel are accounted for.

7.2 Strong Winds

The Plant Manager shall determine plant specific wind speed limitations based on the limitations of the site.

The Plant Manager should contact the EHS Manager for guidance if needed.

Plant Manager or designee shall monitor weather to provide advanced warning of potential strong wind conditions to employees and contractors in the field.

7.3 Lightning

Lightning shall be monitored either by National Grid Renewables using INJI Weather (or similar service).

The Plant Manager and designee shall receive advanced warning of potential lightning generating conditions from the system directly. The weather information shall be used by the Plant Manager or designee to identify the following:

Alert	Application	Lightning Distance from work	Action
Level 1 Alert	Solar/ Groundwork	10-25 miles	Prepare to stop work and seek shelter.

Level 2 Alert	Solar/ Groundwork	Less than 10 miles	Stop work and seek shelter.
All Clear	Solar/ Groundwork	Greater than 10 miles	For greater than 30 minutes, work may begin

An All-Clear message from will be given after a period of 30 minutes with no events within the Level 2 ranges. The Plant Manager or designee shall forward the All-Clear notice to all site personnel.

When lightning stands down, personnel must seek shelter and not work outside. For lighting, the shelter could be inside a vehicle such as a site truck.

Note: Often storms with lighting include additional hazards in this procedure, such as tornados. Seek shelter according to the most hazardous conditions.

If lightning is all clear but the storm is still in the area, Plant Manager or designee has the authority to maintain the lightning stand down until it is determined that it is safe to resume normal operation.

7.4 Icing

Plant Manager or designee shall monitor ice potential to provide advanced warning of potential icing conditions.

If icing conditions are detected by a worker, the worker shall notify Plant Manager or designee.

Icing conditions may be present if one or more of the following is true:

- Freezing rain occurred in the last 24 hours.
- The temperature has hovered at or around freezing during precipitation.
- The temperature was above 32°F / 0°C after icing conditions were present.
- The current temperature between -2 and +2 degrees Celsius (28.4 and 35.6 F)

Plant personnel shall evaluate the site walkways and treat common traffic areas to prevent trip and slips.

Plant personnel shall evaluate the site roadways for potential treatment to prevent vehicle accidents.

7.5 Heavy Precipitation

Plant Manager or designee shall monitor precipitation to provide advanced warning of potential heavy perception to employees and contractors in the field.

In the event of hazardous or heavy precipitation, Plant Manager or designee shall issue a rain warning to employees and contractors in the field and an instruction to stop work.

All field activities shall cease, and field crews shall acknowledge receipt of the stop work order and seek shelter in a solid structure.

Heavy precipitation is often accompanied by lightning. If employees or contractors are exiting the field due to lightning warnings and are exposed to hail or heavy rain, they

shall pull off the road and wait for the hail or heavy rain to stop. Severe hail may shatter windows which could distract a driver.

When the hail or heavy rain conditions are no longer present, Plant Manager or designee shall issue an All-Clear notice.

After a heavy precipitation event, Plant Manager or designee should consider road erosion and hazardous conditions.

7.6 Tornado

Plant Manager or designee shall monitor the weather to provide advanced warning of potential tornado generating conditions to employees and contractors.

If a tornado watch is issued, this means that a tornado is possible. Plant Manager or designee shall issue a Tornado Watch to employees and contractors in the field and further instructions. At minimum, crews should prepare to seek shelter.

If a Tornado Warning is issued this means that a funnel cloud has been spotted or is strongly indicated on radar. Plant Manager or designee shall issue an immediate instruction to move to a tornado shelter.

Weather forecasting alone cannot guarantee an accurate prediction of a tornado and some tornadoes do occur without a tornado warning. During the storm season employees, contractors and visitors shall use the following guidance to identify the potential for tornado hazards in their vicinity and should contact Plant Manager or designee if any of the indicators below are observed.

Early indicators of tornadoes in the immediate area may include:

- Strong, persistent rotation in the cloud base.
- Whirling dust or debris on the ground under a cloud base – tornadoes may not have a funnel.
- Hail or heavy rain followed by either dead calm or a fast, intense wind shift.
- Many tornadoes are wrapped in heavy precipitation and therefore not visible.
- Loud, continuous roar or rumble, this does not fade in a few seconds like thunder.
- At night, small, bright, blue green to white flashes at ground level near a thunderstorm (as opposed to silvery lightning up in the clouds). These mean power lines are being snapped by very strong wind, maybe a tornado.
- At night, persistent lowering from the cloud base, illuminated or silhouetted by lightning, especially if it is on the ground or there is a blue-green-white power flash underneath.

This should be briefed to employees and contractors during tailboard meetings in storm season.

If personnel are instructed to seek shelter the following actions shall be taken:

- If in a building with a tornado shelter, go to the tornado shelter. If the building is not equipped with a tornado shelter, go to interior rooms and halls on the lowest floor. Stay away from glass-enclosed places or areas with wide-span roofs such as warehouses. Crouch down and cover your head. Corners are often safer

than the middle of the wall. A bathroom, closet, office, or maintenance room with short walls are often the safest areas.

- If in a vehicle, do not try to out drive a tornado. Tornadoes can change direction quickly and can lift a car or truck and toss it through the air. Get out of the vehicle immediately and take shelter in a nearby building. If there is no time to get indoors, get out of the car and lie in a ditch or low-lying area away from the vehicle. Be aware of the potential for flooding.
- After a tornado warning has passed, Plant Manager or designee shall issue an All-Clear notice. Employees, contractors, and visitors will meet at the inside assembly area rollcall. All employees, contractors and visitors shall be accounted for before anyone leaves the plant.

7.7 Earthquake

If an earthquake occurs personnel in the O&M building should:

- Drop down to their hands and seek shelter under a sturdy table or desk. If there is no shelter nearby, personnel should get down near an interior wall or next to low-lying furniture that will not fall and protect their head and neck with their arms and hands.
- Hold on to the shelter until the shaking stops.
- DO NOT stand in a doorway. The doorway does not protect people from the most likely source of injury—falling or flying objects. Most earthquake-related injuries and deaths are caused by falling or flying objects (e.g., TVs, lamps, glass, log cases), or by being knocked to the ground.
- If possible, within the few seconds before shaking intensifies, quickly move away from glass and hanging objects, and log cases, china cabinets, or other large furniture that could fall. Watch for falling objects, such as bricks from fireplaces and chimneys, light fixtures, wall hangings, high shelves, and cabinets with doors that could swing open.
- If available nearby, personnel should grab something to shield their head and face from falling debris and broken glass.
- If gas appliances are on, turn them off.

If an earthquake occurs while personnel are outside, personnel should move away from buildings, utility wires, sinkholes, and fuel and gas lines. The greatest danger from falling debris is just outside doorways and close to outer walls. Once in the open, get down low (to avoid being knocked down by strong shaking) and stay there until the shaking stops.

If an earthquake occurs while driving, personnel should:

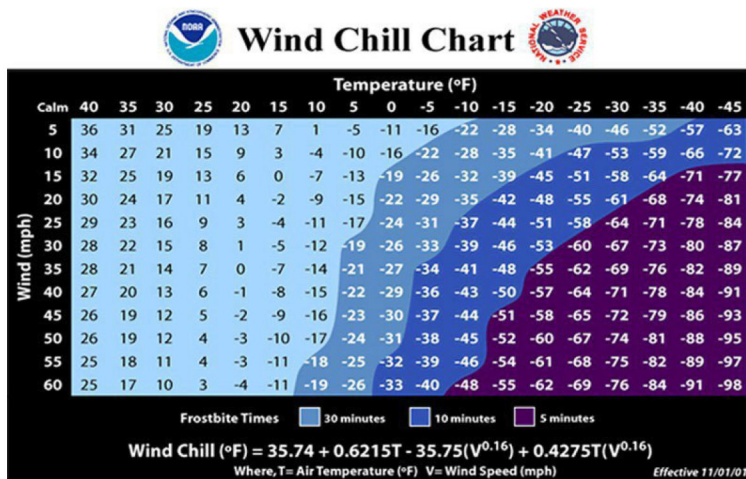
- Stop as quickly and safely as possible.
- Move the vehicle to the shoulder or curb, away from utility poles, overhead wires, and under- or overpasses.
- Stay in the car and set the parking brake. Turn on the radio for emergency broadcast information. A car may jiggle violently on its springs, but it is a good place to stay until the shaking stops. If a power line falls on the car, stay inside until a trained person removes the wire.

After an earthquake

- Inspect gas services to assure no cracks or leaks.
- Do a visual inspection of substation and collection system before re-energizing.

7.8 Cold Weather

During cold weather, refer to the following charts as a guide to recognize and prevent cold stress. The chart should only be used as a guide and can be modified to represent the climate more closely for the site.

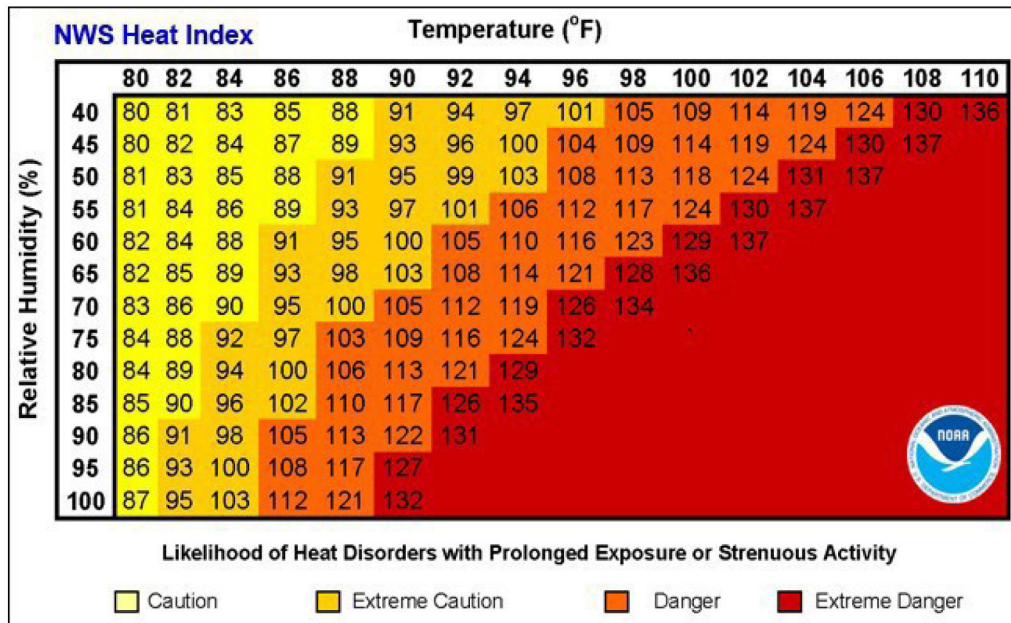


Air Temperature - Sunny Sky		No Noticeable Wind		5 mph Wind		10 mph Wind		15 mph Wind		20 mph Wind	
°C (approx)	°F (approx)	Max. work Period	No. of Breaks**	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks
-26° to -28°	-15° to -19°	(Norm breaks) 1		(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4
-29°to -31°	-20°to - 24°	(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4	30 min.	5
-32° to -34°	-25°to - 29°	75 min.	2	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease	
-35° to -37°	-30° to -34°	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease			
-38° to -39°	-35° to -39°	40 min.	4	30 min.	5	Non-emergency work should cease					
-40° to -42°	-40°to - 44°	30 min.	5	Non-emergency work should cease							
-43° & below	-45° & below	Non-emergency work should cease									

7.9 Hot Weather

During hot weather, refer to the following charts as a guide to recognize and prevent heat stress. The chart should only be used as a guide and can be modified to represent the climate more closely for the site.

Before hot season starts, site shall review heat and heat stress conditions.



Heat Index	Possible heat disorders for people in higher risk groups
Extreme Danger	Heatstroke/sunstroke highly likely with continued exposure. Work only with site supervision approval.
Danger	Sunstroke, heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity.
Extreme Caution	Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.
Caution	Fatigue possible with prolonged exposure and/or physical activity.
Source: National Weather Service	

8 Hurricane

Copperhead Solar, LLC is not currently in a threat location per Texas Division of Emergency Management (TDEM).

However, IF a Hurricane event threatens, Plant Management shall notify all plant and contractors of a potential hurricane threat upon notification by the Texas Division of Emergency Management (TDEM).

Before the start of the Hurricane season staff shall review the Hurricane preparedness checklist for the site and site emergency response protocols.

Understand hurricane threat levels:

8.1 Warnings

Listen closely to instructions from local officials on TV, radio, cell phones or other computers for instructions from local officials. Evacuate immediately if told to do so.

Storm Surge Warning: There is a danger of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 36 hours. If you are under a storm surge warning, check for evacuation orders from your local officials.

Hurricane Warning: Hurricane conditions (sustained winds of 74 mph or greater) are expected somewhere within the specified area. NHC issues a hurricane warning 36 hours in advance of tropical storm-force winds to give you time to complete your preparations. All preparations should be complete. Evacuate immediately if so ordered.

Tropical Storm Warning: Tropical storm conditions (sustained winds of 39 to 73 mph) are expected within your area within 36 hours.

Extreme Wind Warning: Extreme sustained winds of a major hurricane (115 mph or greater), usually associated with the eyewall, are expected to begin within an hour. Take immediate shelter in the interior portion of a well-built structure.

Please note that hurricane and tropical storm watches and warnings for winds on land as well as storm surge watches and warnings can be issued for storms that the NWS believes will become tropical cyclones but have not yet attained all the characteristics of a tropical cyclone (i.e., a closed low-level circulation, sustained thunderstorm activity, etc.). In these cases, the forecast conditions on land warrant alerting the public. These storms are referred to as “potential tropical cyclones” by the NWS.

Hurricane, tropical storm, and storm surge watches and warnings can also be issued for storms that have lost some or all their tropical cyclone characteristics but continue to produce dangerous conditions. These storms are called “post-tropical cyclones” by the NWS.

8.2 Watches

Listen closely to instructions from local officials on TV, radio, cell phones or other computers for instructions from local officials. Evacuate if told to do so.

Storm Surge Watch: There is a possibility of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 48 hours.

Hurricane Watch: Hurricane conditions (sustained winds of 74 mph or greater) are possible within your area. Because it may not be safe to prepare for a hurricane once winds reach tropical storm force, The NHC issues hurricane watches 48 hours before it anticipates tropical storm-force winds.

Tropical Storm Watch: Tropical storm conditions (sustained winds of 39 to 73 mph) are possible within the specified area within 48 hours.

9 Load Shed Response

The site will, at the direction of the Transmission Operator (TOP) and/or Transmission Owner or Reliability Coordinator (RC) perform any load shed as directed.

10 Pandemic

All site employees will review and implement the National Grid Renewables Pandemic Plan if a pandemic declaration is made by National Grid Renewables.

The VP of Operations will be responsible for a Pandemic Declaration at a plant with the guidance from Plant Management. Upon reviewing and verifying notifications from local health services, local emergency management, FEMA, WHO and/or the CDC, Plant Management will notify personnel, their families, local emergency management agencies, the media (through National Grid Renewables' media relations personnel), and suppliers and vendors as necessary.

10.1 Pandemic Preparation

Plant Management will maintain hygiene supplies in suitable quantities to maintain an enhanced hygiene program. Supplies will be routinely rotated for general use and for exercises/drills to ensure a working shelf life. The following list may be required, but is not limited to:

- Hygienic solutions including medical grade alcohol, household bleach, anti-germ cleaners and air sprays.
- Cloth and paper cleaning towels.
- Disposable paper uniforms and slippers.
- Latex gloves.
- Drawstring trash bags.
- Bottled water
- Air/microbial masks.
- Over-the-counter drugs to reduce symptoms and promote recovery.

10.2 Pandemic Declaration Response

10.2.1 Hygiene

In response to a Pandemic Declaration, Plant Management may impose hygiene controls on all areas of the plant occupied or used by personnel. Additional attention will be given to equipment, door handles, restrooms, telephones, keyboards, keypads, file drawer handles and test equipment that are used by multiple people.

Plant Management may impose stringent hygiene rules that all personnel at the plant must follow, such as:

- All common areas will be cleaned on a regular basis with anti-germ cleaners treated with anti-germ air sprays; and
- All used cleaning supplies will be stored away from secured facilities and personnel.
- Used cleaning supplies will be removed to a qualified health handling service and safely disposed.

10.2.2 Incoming Supplies and Equipment

Incoming supplies and equipment or any other type of deliverable(s) that arrive at the plant immediately after the Pandemic Declaration may be required to be cleaned with anti-germ cleaners before being distributed. All suppliers and vendors including transportation/delivery services must provide a statement of compliance and their pandemic procedures to National Grid Renewables personnel before their goods and services will be received.

10.2.3 Continued Operations

The Plant will continue to operate during a Pandemic Declaration. Personnel who are directly affected by the Pandemic will not be expected to come to work. Personnel not affected will continue to perform maintenance and troubleshooting as normal. In the event it is unsafe for personnel to come to the plant, the plant will be operated remotely by the ROC.

11 Grid Restoration Plan

The site will, at the direction of the Transmission Operator (TOP) and/or Transmission Owner or Reliability Coordinator (RC) provide any support in response to grid restoration effort. If the Transmission Operator or the Transmission Owner incorporates the site into the restoration plan the site will participate in the required training or drills.

12 Criminal Threats**12.1 Suspicious People**

In case of suspicious people, it is the responsibility of all employees, contractors, and visitors to notify Plant Management and report the location and nature of the suspicious activity. Employees, contractors, and visitors should not confront or attempt to detain trespassers or suspicious people.

Plant Management will determine the scope of the emergency response. For reports of criminal behavior such as vandalism, shooting, or illegal vehicles the Plant Management or Emergency Coordinator shall phone 911 for assistance to summon police.

Investigation into suspicious individuals may require conversation with the individual to ascertain that person's connection with the plant. At no time should any confrontation be allowed. If suspicious individuals seem hostile or violent, employees shall leave the area and inform Plant Management to summon immediate police response.

12.2 Employee, Contractor, or Visitor

Confrontational situations between employees, contractors or visitors involving threats, harassment, confrontations or obscene acts or language shall be reported immediately to Plant Management.

If at any time an employee, contractor or visitor working at an asset is concerned about his or her safety, it is their responsibility to report the situation to appropriate management.

12.3 Third party threats to the plant

In the event there is a threat to employees or the plant, Plant Management will designate an Emergency Coordinator, initiate the Evacuation Procedure, and contact law enforcement.

Once all employees have been accounted for, the Emergency Coordinator will order the plant evacuated.

Upon All Clear notification from law enforcement, employees may return to the building.

13 Fire

All Employees and contractors shall notify the Plant Management immediately upon discovery of a fire. Plant Management will designate an Emergency Coordinator to manage the incident. Different types of fire will require different types of response.

13.1 Grass, Brush, and Forest Fire

In the event of grass and brush fires, employees and contractors shall notify Plant Management.

Plant Management will designate an Emergency Coordinator to manage the incident.

The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.

The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire brigade.

The Emergency Coordinator will contact any landowners in the area with the location and size of the fire. Employees may be directed by the Emergency Coordinator to visit any buildings/dwellings that may be in the anticipated path of a fire.

Only employees trained to fight fires may do so and only under instruction from the civil authorities. In all other events, employees shall at no time attempt to extinguish or "fight" a large brush and grass fire.

13.2 Fire at Battery Storage

In the event of a BESS fire, the worker discovering the fire shall contact Plant Management.

Plant Management will designate an Emergency Coordinator to manage the incident.

The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.

The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department.

The responder will then proceed to the designated meeting point and be available to direct fire-fighting equipment to the scene.

Employees or contractors shall at no time attempt to fight a battery fire. The employee/contractor role is to notify Plant Management, liaise with the Emergency Coordinator, and lead fire-fighting equipment to the scene. Area shall be evacuated in a calm orderly fashion to the Site Muster Point.

Adjacent landowners and workers shall be notified.

Emergency Responders shall be trained ahead of time during site meeting and fire drills on appropriate BESS response.

Lithium-ion batteries, under normal operating conditions, do not produce any gases. However, under abnormal failure conditions, such batteries can rapidly evolve flammable/explosive gases. In the event of a fire in the cube or other emergency where a battery failure in the cube is suspected, stay outside of the site.

While solid aerosols are proven highly effective at extinguishing non-battery fires, explosive conditions may still develop when fire is not present as batteries continue to off-gas until cool.

While an explosive atmosphere is unlikely, should one occur, deflagration panels will direct any pressure resulting from explosions upward. The panels are tethered to the cube.

13.2.1 Cube Fire Suppression System

Each Fluence Cube is equipped with an independent fire detection, alarm and suppression system comprising smoke detectors, heat detectors, a horn/strobe device, and a solid aerosol suppression system. The fire suppression systems in a row of cubes are addressed to a single fire alarm control panel (known as the Core Fire Panel).

13.2.2 Battery Energy Storage System E-Stop

Each Battery Energy Storage Site has a single E-stop circuit that consists of multiple E-stop pushbuttons. The purpose of the E-Stop is to shut down the entire site or a part of the site (row of cubes or entire core) during an emergency.

13.3 Fire at the Solar Facilities

All weather notifications will be sent to Plant Manager via Inji Weather App. Plant Manager shall decide on whether additional containment or mitigation practices shall be implemented as determined by specific conditions.

13.3.1 Fire containment

In the event of a fire incident, Emergency Responders and site staff shall not attempt to extinguish the fire any larger than what could be easily extinguished by a fire extinguisher. If conditions are unsafe employee shall make no attempt to extinguish fire.

In the event of a fire, follow site EAP to determine appropriate course of action. When emergency responders arrive on-site make sure to inform them of the dangers associated with the panels and that all efforts should be placed on containment versus extinguishing fire. Share the fire break map and sensitive areas with emergency responders so that they may be able to more efficiently contain fire.

Plant Manager and site staff shall inform immediately adjacent neighbors that could be impacted by the fire incident of the imminent danger. The rest of site staff not involved in notification and communication shall remain at site designated muster points until given all clear by emergency responders.

13.3.2 Exposure hazards

13.3.3 Owner/Operator Responsibilities

LOTO Procedures: Before any work to extinguish fire incident at site, NG Renewables or NovaSource shall lock out the equipment to ensure zero energy state. Anyone impacted by the LOTO will be required to sign onto the LOTO Permit. Only authorized persons shall be allowed to implement a Permit LOTO. Emergency Responders shall not initiate LOTO on any NG Renewable equipment unless receiving direction from NG Renewables.

Manual zero degree stow: To ensure that damage is mitigated in the event of a fire incident within the solar array, plant manager or designee shall place all panels which are not part of the fire incident in a zero degree stow. If placing the panels in a zero degree stow causes the employee or emergency responders to be place in immediate danger or creates additional hazards, plant manager can make decision on positioning of the panels.

13.4 Fire at the Operations Facilities

In the event of a fire in the operations facilities, the worker discovering the fire will activate the building fire alarm.

At the alarm, Plant Management will designate an Emergency Coordinator who will immediately notify 911 and request the fire department and medical assistance.

The General Emergency Response and Evacuation Procedures will then be followed.

All employees, contractors and visitors will remain clear of buildings and structures until an all-clear notice is received from fire-fighting personnel.

Employees or contractors shall at no time attempt to extinguish or “fight” a fire.

13.5 Fire at Electrical Facilities

In the event of a fire inside a substation, the worker discovering the fire will contact Plant Management.

Plant Management will designate an Emergency Coordinator to manage the incident.

The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.

The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department

The worker will then proceed to the designated meeting point and be available to direct fire-fighting equipment to the substation.

Transformers and capacitors contain flammable, combustible material and all personnel must remain in safe areas away from these potentially explosive sources.

Employees or contractors shall at no time attempt to extinguish or “fight” a fire.

14 Electrical Hazards

A Fluence Battery Energy Storage site contains electrical equipment with voltage ratings up to 34.5kV or above. Arc flash labels are present on all devices where arc flashes may occur.

The battery equipment contains stored electrical energy, even when disconnected. As such, care should be taken to not directly touch the battery equipment during the event or during overhaul operations. A subject matter expert should advise on how to handle stranded energy remaining in any of the damaged battery equipment.

The balance of plant equipment can be approached in the same way that other electrical equipment or industrial plant equipment which is under fire conditions.

15 Injury/Illness

15.1 Injury/Illness

In the event of an injury/illness requiring medical treatment, employees will contact the Plant Management immediately.

The Plant Management will designate an Emergency Coordinator who will obtain details of the exact location and severity of the injury.

The Emergency Coordinator will contact 911 and coordinate meeting points with ambulance service and plant personnel.

15.2 Chemical and Toxicity Hazards

15.2.1 Lithium-Ion Batteries

Lithium-ion batteries pose chemical risks. Please read the Safety Data Sheet for more information.

Under abnormal conditions, lithium-ion batteries can produce toxic gases. However, from a toxicity perspective, the gases may be managed effectively through the appropriate Personal Protective Equipment (PPE), including Self Contained Breathing Apparatus (SCBA). The toxicity of gases released do not differ greatly from plastics fires. However, they should not be approached without SCBA, as concentrations of gases which cause immediate danger to life and health without PPE may be reached.

Sensors are present within the modules when Hydrogen, a by-product of thermal runaway is detected.

15.2.2 Fire Suppression Agent

The Fire Suppression Agent used at this facility is Solid aerosol. When discharged in the event of a fire, the byproducts are known to cause eye and skin irritation and potential toxicity risks. Please read the Safety Data Sheet for more information.

16 Security

16.1 Cybersecurity

National Grid Renewables has a comprehensive cybersecurity suite of procedures for low impact facilities. These plans and procedures include:

- CIP Master Policy
- Cyber Security Awareness
- Cyber Incident Reporting Protocols
- Physical Security Reporting Protocols

- Electronic Access Controls
- TCA and RM Malicious Code Mitigation

In the event of a suspect cybersecurity incident the plant manager shall notify the Senior CIP Manager immediately.

The Plant Management will assist the Senior CIP Manager with details of the potential incident and the Senior CIP Manager will advise on the response.

The Senior CIP Manager will direct IT resources on a response and will coordinate the appropriate notifications internally and externally. The notification will follow the protocols within the Cyber Incident Response plan.

16.2 Physical Security

National Grid Renewables has a comprehensive physical security suite of procedures for low impact facilities. These plans and procedures include:

- Site Specific Visitor Access Logs
- Site Specific Authorized Access Logs
- Site Specific Physical Security Plan

Copperhead Solar and BESS sites are comprised of solar, battery storage, substations, control houses with an operations and maintenance office.

National Grid Renewables has implemented physical security controls based on the need to protect its facilities from damage and loss. The function of these physical security controls is to: control access, reduce and/or mitigate the risk of unauthorized individuals entering the site, and protect both equipment and personnel.

16.2.1 Physical Controls

The secured rooms housing Applicable Systems inside of the operations and maintenance building shall serve as the primary physical security control.

Substation control houses are enclosed inside of perimeter fence and gate.

The control house structure shall serve as the primary physical security control for Applicable Systems.

All site structures housing Applicable Systems serve as the primary physical security control for individual resources' protection and control systems.

16.2.2 Entryways

Perimeter fence entryway to substations is equipped with multiple gates and secured by a Locking Device controlled by an Access Device.

Entryways to the substation control houses are equipped with multiple hardened doors secured by a Locking Device controlled by an Access Device.

Entryways to the secured room housing Applicable Systems inside of the operations and maintenance building are equipped with a hardened door secured by a Locking Device controlled by an Access Device.

Entryways to individual resources' protection and control systems inside of the generation are equipped with a hardened door secured by a Locking Device controlled by an Access Device.

16.2.3 Physical Security Control Condition

In the absence of operational personnel with Unescorted Access permissions in locations housing Applicable Systems, perimeter entryways and structure entryways shall be in a closed and locked state.

16.3 Physical Access Management

Copperhead Solar and BESS utilizes a single specific Access Device and process for accessing the plant and individual resource protection and control equipment. Access Devices for at sites may include metal keys.

16.4 Unescorted Access

Unescorted physical access privileges to Applicable Systems shall be granted by the Plant Supervisor or designee.

Prior to granting Unescorted Access, the Plant Supervisor or designee shall:

- Ensure completion of site orientation.
- Document the approval for Unescorted Access **NERC.CIP.0034.1 Visitor Access Log**

Visitors accessing Applicable Systems or individual protection and control systems shall receive approval based on the legitimacy of need as determined by National Grid Renewables.

Visitors shall be escorted by a designated National Grid Renewables employee or contractor familiar with the site with Unescorted Access as designated by the Plant Supervisor (henceforth: "Escort").

Prior to entering locations housing Applicable Systems, the Escort shall:

- Complete site orientation training.
- Ensure completion of the **NERC.CIP.0034.1 Visitor Access Log**
- While escorting visitors into locations housing Applicable Systems, the Escort shall have line of sight contact with Visitor.

17 Drills, Tests and Exercises

National Grid Renewables shall conduct testing and exercises to evaluate the effectiveness of the preparation and response of the plans. Testing will:

- Train personnel; clarify roles and responsibilities
- Reinforce knowledge of procedures, facilities, systems, and equipment
- Improve individual performance as well as organizational coordination and communications
- Evaluate policies, plans, procedures and the knowledge and skills of employees
- Reveal weaknesses and resource gaps

- Comply with local laws, codes, and regulations
- Gain recognition for the emergency management and business continuity program

National Grid Renewables will use a variety of methods to test and exercise the preparedness and response of the EOPs within this plan. To evaluate the program plans, procedures and capabilities National Grid Renewables may utilize:

- Walkthroughs, workshops, or orientation
- Tabletop exercises
- Functional exercises
- Full-scale exercises

Walkthroughs, workshops, and orientation are basic training for employees and contractors. They are designed to familiarize team members with emergency response, business continuity and crisis communications plans and their roles and responsibilities as defined in the plans.

Tabletop exercises are discussion-based sessions where employees and contractors meet in an informal, classroom setting to discuss their roles during an emergency and their responses to a particular emergency scenario. A facilitator guides participants through a discussion of one or more scenarios. The duration of a tabletop exercise depends on the audience, the topic being exercised and the exercise objectives.

Functional exercises allow employees and contractors to validate plans and readiness by performing their duties in a simulated operational environment. Activities for a functional exercise are scenario-driven, such as the failure of a critical business function or a specific hazard scenario. Functional exercises are designed to exercise specific team members, procedures, and resources (e.g., communications, warning, notifications, and equipment set-up).

A full-scale exercise is as close to the real thing as possible. It is a lengthy exercise which takes place on location using, as much as possible, the equipment and personnel that would be called upon in a real event.

18 Event Reporting Requirements

When an event type involving damage or destruction of its Facility or physical threats to its Facility; whether it is a suspected or intentional physical act; is recognized by personnel, the individual shall communicate the circumstances of the event to Vice President of Operations.

If any event meets any of the threshold as outlined in the Site Specific Notification Protocols (NERC.EOP.004.1), Vice President of Operations shall follow the reporting protocols from The Site Specific Notification Protocols (NERC.EOP.004.1) and then forward the factual matters pertaining to the event to the Electric Reliability Organization (ERO) and other organizations (e.g., Regional Entity, Interconnection, law enforcement, or governmental authority), using the NERC.EOP.004.2 Event Reporting Form.

Reporting must be done by the later of 24 hours of recognizing an event meeting an event type threshold for reporting or by the end of the National Grid Renewables facility's next business day (4 PM local time will be considered the end of the business day) in accordance with the sites applicable Site-Specific Notification Protocols (NERC.EOP.004.1).

19 References

REN.EHS.003.1 Emergency Action Plan Template
REN.EHS.003.2 Emergency Operation Plan Template
REN.EHS.003.3 Pandemic Plan
REN.EHS.007 Incident Reporting and Response
REN.EHS.012 Site EHS Orientation
Site Specific Visitor Access Logs
Site Specific Authorized Access Logs
Site Specific Physical Security Plan
CIP Master Policy
Cyber Security Awareness
Cyber Incident Reporting Protocols
Physical Security Reporting Protocols
Electronic Access Controls
TCA and RM Malicious Code Mitigation
EOP.004 Event Reporting
Winter Readiness and Summer Checklists
<https://www.weather.gov/>

What to Do

Plant Manager or designee shall monitor weather to provide advanced warning of potential strong wind conditions to employees and contractors in the field.

Workers shall confirm wind speed prior to commencing work at height in strong wind conditions and follow plant specific wind speed requirements.

Working during high winds can be extremely difficult and the potential for injuries is high.

Always use extreme caution and if you feel like winds are too high to continue, bring it to your supervisor's attention.

You should never put yourself or your fellow coworkers at risk on purpose.

Perform tabletop drills to review the plan.

Know the Signs

OSHA (The Occupational Safety and Health Administration) normally considers winds that are exceeding 40 miles per hour as high winds. If the work involves material handling, high winds can be considered at 30 miles per hour, unless the employer takes precautions to protect employees from the hazards of the wind.





Prepare

- Check weather reports and monitor conditions continuously. Do not schedule work at elevations on days when high winds are in the forecast.
- Take a few minutes to look over your work area and site for potential hazards due to high winds.
- Make sure you always wear a harness when working at heights over 4FT and ensure you are connected to an anchor point at all times.
- Ensure partially built structures are properly secured and always supported regardless of weather conditions and that walls are braced until the building is complete.
- Ensure scaffolding and other temporary structures are secure and cannot be blown over.
- Cut down or trim trees that may be in danger of falling



During

- Never work on towers, roofs, or other elevations during strong winds.
- Ensure that tools are packed away safely, and that cones, signage, and other loose materials are safely secured.
- Wear eye protection to keep dust, debris, and other foreign particles from blowing into the eyes.
- Ensure hard hats are securely fastened and cannot be blown off your head.
- Use extreme caution when picking up large sections of plywood or similar flat materials that can fly.
- Tag lines should be used when hoisting loads with large flat surfaces.
- Do not operate hoisting equipment in high winds without approval from your supervisor.
- Cease all crane operations until wind speeds return to acceptable levels.



After the high winds have passed

- Keep listening to Emergency Alert System or Weather Radio, and local authorities for updated information
- If you are trapped, cover your mouth with a cloth or mask to avoid breathing dust. Try to send a text, bang on a pipe or wall, or use a whistle instead of shouting.
- Stay clear of fallen power lines or broken utility lines.
- Do not enter damaged buildings until you are told that they are safe.
- Save your phone calls for emergencies. Phone systems are often down or busy after a disaster.
- Use text messaging or social media to communicate with family and friends
- Plant Manager or designee shall issue an All-Clear notice. Employees, contractors, and visitors will meet at the inside assembly area rollcall.
- All employees, contractors and visitors shall be accounted for before anyone leaves the plant.



What to Do

Lightning shall be monitored either by National Grid Renewables or the primary contractor on site, and alerts shall be given on a site-by-site basis.

The Plant Manager or designee shall receive advanced warning of potential lightning generating conditions from the system directly.

Solar gardens may be monitored on a case-by-case basis and may use simple weather phone applications such as WeatherBug.

Groundwork, work which is not at height or does not involve a lot of equipment should follow the solar guidelines.

The 30-30 rule. After you see lightning, start counting to 30. If you hear thunder before you reach 30, go indoors. Suspend activities for at least 30 minutes after the last clap of thunder.

The weather information shall be used by the Plant Manager or designee to identify the following:

Alert	Application	Lightning Distance from work	Action
Level 1 Alert	Solar/ Groundwork	10-25 miles	Prepare to stop work and seek shelter.
Level 2 Alert	Solar/ Groundwork	Less than 10 miles	Stop work and seek shelter.
All Clear	Solar/ Groundwork	Greater than 10 miles	For greater than 30 minutes, work may begin

Know the Signs

A rapidly growing cumulonimbus cloud. Increasing wind and darkening sky. Audible thunder is a sound created by lightning, so if thunder can be heard, lightning is near.





- Check weather reports and monitor conditions continuously.
- Take a few minutes to look over your work area and site for potential hazards due to lightning.
- Consider buying surge protectors, lightning rods, or a lightning protection system to protect your home, appliances, and electronic devices.
- Identify safe shelter for lightning events.
- Check site AED to ensure it is charged and in working order.

Lightning shall be monitored either by National Grid Renewables or the primary contractor on site, and alerts shall be given on a site-by-site basis. Solar gardens may be monitored on a case-by-case basis and may use simple weather phone applications such as WeatherBug. Groundwork, work which is not at height or does not involve a lot of equipment should follow the solar guidelines.



During

- Stay off and away from anything tall or high, including rooftops, scaffolding, utility poles and ladders.
- Stay off and away from large equipment such as bulldozers, cranes, backhoes, track loaders and tractors.
- Do not touch materials or surfaces that can conduct electricity, including metal scaffolding, metal equipment, utility lines, water, water pipes and plumbing.
- Stay away from exterior windows containing metal
- Do not lay or lean against concrete walls



Return

After the Lightning threat has passed

After the lightning threat has passed and the “All Clear” has been communicated by the Plant Manager or Designee:

- Keep listening to Emergency Alert System or Weather Radio, and local authorities for updated information
- Survey the site for any potential damage
- Watch for fallen power lines and trees.
- If a co-worker is struck by lightning. Lightning victims do not carry an electrical charge, are safe to touch, and need urgent medical attention. Cardiac arrest is the immediate cause of death for those who die. Some deaths can be prevented if the victim receives the proper first aid immediately. Call 9-1-1 and perform CPR if the person is unresponsive or not breathing. Use an Automatic External Defibrillator if one is available.

What to Do

Plant Manager or designee shall monitor ice potential to provide advanced warning of potential icing conditions.

If icing conditions are detected by a worker, the worker shall notify Plant Manager or designee.

Plant Manager or designee shall monitor ice potential to provide advanced warning of potential icing conditions.

If icing conditions are detected by a worker, the worker shall notify Plant Manager or designee.



Check weather reports and monitor conditions continuously.

Icing conditions may be present if one or more of the following is true:

- Freezing rain occurred in the last 24 hours.
- The temperature has hovered at or around freezing during precipitation.
- The temperature was above 32°F / 0°C after icing conditions were present.
- The current temperature between -2 and +2 degrees Celsius (28.4 and 35.6 F)



- In the event of any of these above conditions, Plant Manager or designee will issue ice watch and instructions to workers to remain clear of areas where there is potential ice hazards.

- **Note:** If any of these steps cannot be completed remotely, do not perform any work in the immediate area until the conditions & safe options have been properly evaluated, addressed and re-inspected.
- Plant personnel shall evaluate the site walkways and treat common traffic areas to prevent trip and slips.
- Plant personnel shall evaluate the site roadways for potential treatment to prevent vehicle accidents.



After the Icing Event has Passed

- Keep listening to Emergency Alert System or Weather Radio, and local authorities for updated information.
- Inspect site for any event related damages.
- Plant Manager or designee shall issue the All-Clear notice to all site personnel.
- All personnel can return to work if the conditions have returned to normal.

What to Do

Plant Manager or designee shall monitor precipitation to provide advanced warning of potential heavy perception to employees and contractors in the field.

In the event of hazardous or heavy precipitation, Plant Manager or designee shall issue a rain warning to employees and contractors in the field and an instruction to stop work.



- Prepare an emergency kit including a radio, flashlight, batteries, first-aid kit, emergency contact information, water and nonperishable food.
- Keep rain gear and warm clothing handy.
- Clear site storm drains.
- Check for potential electrical hazards such as cords or outlets that can be submerged.



- Do not walk-through flowing water. Most drownings occur during flash floods.
- Remember the phrase "Turn Around, Don't Drown®!" Don't drive through flooded roads.
- Vehicles can be swept away in only two feet of moving water.
- Do not drive around road barriers.
- If water covers the electrical outlets or if cords are submerged. If you see sparks or hear buzzing, crackling, snapping or popping noises--get out! Stay out of water that may have electricity in it!



After the heavy precipitation has passed

- Keep listening to Emergency Alert System or Weather Radio, and local authorities for updated information
- Plant Manager or designee shall issue an All-Clear notice.
- Complete a site survey to note road erosion or any hazardous conditions.

What to Do

Plant Manager or designee shall monitor the weather to provide advanced warning of potential tornado generating conditions to employees and contractors. The Site Manager will establish contact with site personnel. Ensure all notification requirements.

If a tornado **Watch** is issued, this means that a tornado is possible. Plant Manager or designee shall issue a Tornado Watch to employees and contractors in the field and further instructions. At minimum, crews should prepare to seek shelter.

If a Tornado **Warning** is issued this means that a funnel cloud has been spotted or is strongly indicated on radar. Plant Manager or designee shall issue an immediate instruction to move to a tornado shelter.

Weather forecasting alone cannot guarantee an accurate prediction of a tornado and some tornadoes do occur without a tornado warning. During the storm season employees, contractors and visitors shall use the following guidance to identify the potential for tornado hazards in their vicinity and should contact Plant Manager or designee if any of the indicators below are observed.

Early indicators of tornadoes in the immediate area may include:

- Strong, persistent rotation in the cloud base.
- Whirling dust or debris on the ground under a cloud base – tornadoes may not have a funnel.
- Hail or heavy rain followed by either dead calm or a fast, intense wind shift. Many tornadoes are wrapped in heavy precipitation and therefore not visible.
- Loud, continuous roar or rumble, this does not fade in a few seconds like thunder.
- At night, small, bright, blue green to white flashes at ground level near a thunderstorm (as opposed to silvery lightning up in the clouds). These mean power lines are being snapped by very strong wind, maybe a tornado.
- At night, persistent lowering from the cloud base, illuminated or silhouetted by lightning, especially if it is on the ground or there is a blue-green-white power flash underneath.
- This should be briefed to employees and contractors during tailboard meetings in storm season.



Prepare

- Check weather reports and monitor conditions continuously.
- Close doors if in a shelter-in-place situation.
- Identify and practice going to a safe shelter for high winds, such as a safe room or a storm shelter. The next best protection is a small, interior, windowless room in a sturdy building on the lowest level.
- Prepare an emergency kit including a radio, flashlight, batteries, first-aid kit, emergency contact information, water and nonperishable food.
- Keep rain gear and warm clothing handy.
- Know the site communication plan.



During

If personnel are instructed to seek shelter the following actions shall be taken:

- If in a building with a tornado shelter, go to the tornado shelter. If the building is not equipped with a tornado shelter, go to interior rooms and halls on the lowest floor. Stay away from glass-enclosed places or areas with wide-span roofs such as warehouses. Crouch down and cover your head. Corners are often safer than the middle of the wall. A bathroom, closet, office, or maintenance room with short walls are often the safest areas.
- If in a vehicle, do not try to out drive a tornado. Tornadoes can change direction quickly and can lift a car or truck and toss it through the air. Get out of the vehicle immediately and take shelter in a nearby building. If there is no time to get indoors, get out of the car and lie in a ditch or low-lying area away from the vehicle. Be aware of the potential for flooding.



After the Tornado has passed

- Keep listening to Emergency Alert System or Weather Radio, and local authorities for updated information
- Plant Manager or designee shall issue an All-Clear notice. Employees, contractors, and visitors will meet at the inside assembly area rollcall.
- All employees, contractors and visitors shall be accounted for before anyone leaves the plant.
- If you are trapped, cover your mouth with a cloth or mask to avoid breathing dust. Try to send a text, bang on a pipe or wall, or use a whistle instead of shouting.
- Stay clear of fallen power lines or broken utility lines. Contact local authorities if you see power lines down.
- Do not enter damaged buildings until you are told that they are safe.
- Save your phone calls for emergencies. Phone systems are often down or busy after a disaster.
- Use text messaging or social media to communicate with family and friends.
- Assess the Damage: After the threat for tornadoes has ended, check to see if the site has been damaged. When walking through storm damage, wear long pants, a long-sleeved shirt, and sturdy shoes.



What to Do

Plant Manager or designee shall monitor the weather to provide advanced warning of potential earthquake conditions to employees and contractors.

Prepare an emergency kit including a radio, flashlight, batteries, first-aid kit, emergency contact information, water and nonperishable food.

Create an evacuation plan.

Learn the site safe spots.

Practice the site response plan.

Know the Signs

During an earthquake, you may hear a roaring or rumbling sound that gradually gets louder. You may also feel a rolling sensation that starts out gently and, within a second or two, grows violent.

OR

You may first be jarred by a violent jolt. A second or two later, you may feel shaking and find it difficult to stand up or move from one room to another.



Prepare

- Check or Monitor Local reports and monitor conditions continuously.
- Practice DROP, COVER and HOLD ON in designated safe spaces.
- Know the site earthquake response plan.
- Ensure partially built structures are properly secured and always supported regardless of weather conditions and that walls are braced until the building is complete.
- Ensure scaffolding and other temporary structures are secure and cannot fall over.



During

If an earthquake occurs personnel in the O&M building should:

- Drop down to their hands and seek shelter under a sturdy table or desk. If there is no shelter nearby, personnel should get down near an interior wall or next to low-lying furniture that will not fall and protect their head and neck with their arms and hands.
- Hold on to the shelter until the shaking stops.
- DO NOT stand in a doorway. The doorway does not protect people from the most likely source of injury—falling or flying objects. Most earthquake-related injuries and deaths are caused by falling or flying objects (e.g., TVs, lamps, glass, bookcases), or by being knocked to the ground.
- If possible, within the few seconds before shaking intensifies, quickly move away from glass and hanging objects, and bookcases, China cabinets, or other large furniture that could fall. Watch for falling objects, such as bricks from fireplaces and chimneys, light fixtures, wall hangings, high shelves, and cabinets with doors that could swing open.
- If available nearby, personnel should grab something to shield their head and face from falling debris and broken glass.
- If gas appliances are on, turn them off.

If an earthquake occurs while personnel are outside, personnel should move away from buildings, utility wires, sinkholes, and fuel and gas lines. The greatest danger from falling debris is just outside doorways and close to outer walls. Once in the open, get down low (to avoid being knocked down by strong shaking) and stay there until the shaking stops.

- If an earthquake occurs while driving, personnel should:
- Stop as quickly and safely as possible.
- Move the vehicle to the shoulder or curb, away from utility poles, overhead wires, and under- or overpasses.
- Stay in the car and set the parking brake. Turn on the radio for emergency broadcast information. A car may jiggle violently on its springs, but it is a good place to stay until the shaking stops. If a power line falls on the car, stay inside until a trained person removes the wire.



After the Earthquake has passed

- Expect aftershocks to follow the largest shock of an earthquake sequence.
- Check yourself for injury.
- Inspect gas services to assure no cracks or leaks.
- Contact turbine OEM to determine if foundation inspections are necessary and procedures for those.
- Do a visual inspection of substation and collection system before re-energizing.
- Do not enter damaged buildings.
- If you are trapped, send a text or bang on a pipe or wall. Cover your mouth for protection and instead of shouting, use a whistle.
- Save phone calls for emergencies.
- Wear sturdy shoes and work gloves.

Air Temperature- SunnySky		No Noticeable Wind		5 mph Wind		10mph Wind		15 mph Wind		20mph Wind	
°C (approx)	°F (approx)	Max. work Period	No. of Breaks**	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks
-26° to -28°	-15° to -19°	(Norm breaks) 1		(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4
-29° to -31°	-20° to -24°	(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4	30 min.	5
-32° to -34°	-25° to -29°	75 min.	2	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease	
-35° to -37°	-30° to -34°	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease			
-38° to -39°	-35° to -39°	40 min.	4	30 min.	5	Non-emergency work should cease					
-40° to -42°	-40° to -44°	30 min.	5	Non-emergency work should cease							
-43° & below	-45° & below	Non-emergency work should cease									



Prepare

- Check weather reports and monitor conditions continuously.
- Complete Winter Weatherization Checklist.
- Prepare the site for freezing or blizzard conditions.
- Ensure vehicles have full emergency kits.
- Check vehicle tires for proper inflation.
- Ensure all vehicles, heaters, grill and generators have fuel.
- Ensure extra warm clothing is staged.



During

- Slow Down! Stay off the roads if possible. Black Ice is a deadly driving hazard.
- If the vehicle gets stuck, stay in the vehicle! Be visible to rescuers.
- Limit Cold Weather exposure outside; Stay Inside!
- Reduce the risk of heart attack. Avoid overexertion when shoveling snow.
- Watch for signs of frostbite and hypothermia.

NOTE: Frostbite causes loss of feeling and color around the face, fingers, and toes. Signs: Numbness, white or grayish-yellow skin, and firm or waxy skin. Actions: Go to a warm room. Soak in warm water. Use body heat to warm. Do not massage or use a heating pad.

NOTE: Hypothermia is an unusually low body temperature. A temperature below 95 degrees is an emergency. Signs: Shivering, exhaustion, confusion, fumbling hands, memory loss, slurred speech, and drowsiness. Actions: Go to a warm room. Warm the center of the body first—chest, neck, head, and groin. Keep dry and wrapped up in warm blankets, including the head and neck.

- Survey the site for any potential damage or hazards.



After the Cold Weather Event has passed

- Plant Manager or designee shall issue an All-Clear notice.
- Keep listening to Emergency Alert System or Weather Radio, and local authorities for updated information
- Monitor local road conditions. Obey all road danger signs.
- Ensure water is safe to drink and cook with after a storm.
- Before you start a vehicle be sure the tailpipe is clear of snow.
- Assess the site for any potential damage from the event. Check exposed plumbing for leaks and cracks.
- Salt Walkways to prevent slips and falls.
- Stay clear of fallen power lines or broken utility lines. Contact local authorities if you see power lines down.
- Refill all supplies.
- Prepare and make any regulatory notifications that may be required.



What to Do

Plant Manager or designee shall pay attention to weather reports and warnings of Hot weather and extreme heat.

Discuss Communication Plan.

Encourage water breaks every hour for workers.

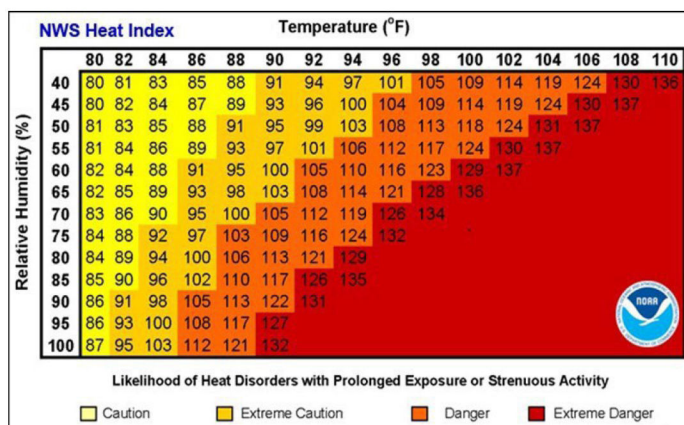
Gather Supplies (Extra water and water filters)

Know the Signs

During hot weather, refer to the following charts as a guide to recognize and prevent heat stress.

The chart should only be used as a guide and can be modified to represent the climate more closely for the site.

Before hot season starts, site shall review heat and heat stress conditions.



Heat Index	Possible heat disorders for people in higher risk groups
Extreme Danger	Heatstroke/sunstroke highly likely with continued exposure. Work only with site supervision approval.
Danger	Sunstroke, heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity.
Extreme Caution	Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.
Caution	Fatigue possible with prolonged exposure and/or physical activity.

[Source: National Weather Service](#)



Prepare

- Check weather reports and monitor conditions continuously.
- Consider shifting to earlier working schedules. Plan work accordingly.
- Have shade shelters available for employees.
- Have water supplies available.
- Ensure building air conditioning units are in good working order.
- Ensure fans are working properly.
- Monitor Coworkers conditions.



During

- Wear loose, lightweight, light-colored clothing.
- Drink plenty of fluids to stay hydrated.
- Do not use electric fans when the outside temperature is above 95 degrees as fans provide a false sense of comfort and increase heat related illness.
- If you're outside, find shade!
- Avoid Strenuous activities.
- Watch for heat illness, heat cramps, exhaustion, and heat stroke.

Heat Cramps

Signs: muscle pains or spasms in the stomach, arms, or legs.

Actions: Go to a cooler location. Remove excess clothing. Take sips of cool sports drinks with salt and sugar. Get medical assistance if cramps last more than an hour.

Heat Exhaustion

Signs: Heavy sweating, paleness, muscle cramps, tiredness, weakness, dizziness, headache, nausea or vomiting, and fainting.

Actions: Go to an air-conditioned place and lie down. Loosen or remove clothing. Take a cool bath. Take sips of cool sports drinks with salt and sugar. Get medical help if symptoms get worse or last more than an hour.

Heat Stroke

Signs: Extremely high body temperature (above 103 degrees) indicated by an oral thermometer; red, hot, and dry skin with no sweat; rapid, strong pulse; dizziness; confusion; and unconsciousness.

Actions: Call 9-1-1 or get the person to a hospital immediately. Cool down with whatever methods are available until medical help arrives.



After the Extreme Heat Event has passed

- Plant Manager or designee shall issue an All-Clear notice.
- All employees, contractors and visitors shall be accounted for before anyone leaves the plant.
- Replenish all utilized supplies in preparation for the next event.

What to Do

Plant Manager or designee shall pay attention to weather reports for all watches and warnings.

Know the Signs

Hurricane season is from June 1 to November 30. Threats from hurricanes include powerful winds, heavy rainfall, storm surges, coastal and inland flooding, tornadoes and severe lightning.

- Tropical Storm Watch: Tropical storm conditions are possible in the area.
- Hurricane Watch: Hurricane conditions are possible in the area.
Watches are issued 48 hours in advance of the anticipated onset of tropical storm force winds.
- Tropical Storm Warning: Tropical storm conditions are expected in the area.
- Hurricane Warning: Hurricane conditions are expected in the area.
Warnings are issued 36 hours in advance of tropical storm force winds.
- Eye: Clear, sometimes well-defined center of the storm with calmer conditions.
- Eye Wall: Surrounding the eye, contains some of the most severe weather of the storm with the highest wind speed and largest precipitation.
- Rain Bands: Bands coming off the cyclone that produce severe weather conditions such as heavy rain, wind and tornadoes.
- Storm Surge: An often underestimated and deadly result of ocean water swelling as a result of a landfalling storm, and quickly flooding coastal and sometimes areas further inland.



Flood Map

National Flood Hazard Layer FIRMette

FEMA

7°17'43"W 33°19'47"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE)
	2001-A, V A13
OTHER AREAS OF FLOOD HAZARD	With BFE or Depth 2001-AE J10, 11, VE, AR
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.24% Annual Chance Flood Hazard, Areas of 196 annual chance flood with BFE or depth less than one foot or with drainage areas of less than one square mile 2001-AE J10, 11, VE, AR
	Return conditions 196 Annual Chance Flood Hazard 2001-AE J10, 11, VE, AR
OTHER AREAS OF FLOOD HAZARD	Area with Reduced Flood Risk due to Levee, Sea Walls, etc. 2001-AE J10, 11, VE, AR
	Area with Flood Risk due to Levee, Sea Walls, etc. 2001-AE J10, 11, VE, AR
OTHER AREAS OF FLOOD HAZARD	Area of Minimal Flood Hazard 2001-AE J10, 11, VE, AR
	Effective LOMRs 2001-AE J10, 11, VE, AR
OTHER AREAS OF FLOOD HAZARD	Area of Undetermined Flood Hazard 2001-AE J10, 11, VE, AR
	Channel, Culvert, or storm sewer Levee, Dike, or Floodwall
GENERAL STRUCTURES	Cross sections with 1% Annual Chance coastal Transverse Elevation
	Base Flood Elevation Line (BFE)
OTHER FEATURES	Limit of study
	Jurisdiction Boundary
OTHER FEATURES	coastal Transverse Baseline
	Profile Baseline
OTHER FEATURES	Hydrographic Feature
	Digital Data Available
MAP PANELS	No Digital Data Available
	unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not, as described below. The base map shown complies with FEMA's base map accuracy standard.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was extracted on 5/10/2022 at 4:24 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is valid if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map coordinate, community identifier, FIRM panel number, and ARM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Prepare

- Check weather reports and monitor conditions continuously.
- Prepare for Wind and Flooding.
- Prepare for long term power outages.
- Seven days of water and non-perishables.
- Ensure vehicles and generators are filled with fuel.
- Establish and Communicate the site evacuation plan.
- Unplug all non-essential electronics.
- Secure all Important documentation in a fire and waterproof container.
- Ensure all windows are protected (Tape, shutters closed, or plywood installed).
- Secure outside objects such as outdoor furniture, signs, barriers, trashcans that can be projectiles due to high winds.
- Sump pump with battery backup if needed.
- Prepare protective materials such as sandbags and plastic sheeting.



During

- Know the evacuation route and shelter locations.
- Know the site communication plan.
- Stay inside a safe shelter. Do not stand outside watching the storm.
- Never swim, walk or drive through flood waters.
- Stay away from glass windows and doors.
- Move to higher ground if flooding begins.
- Avoid drinking tap water until local officials say it is safe.



After the hurricane has passed

- Plant Manager or designee shall issue an All-Clear notice. Employees, contractors, and visitors will meet at the inside assembly area rollcall.
- All employees, contractors and visitors shall be accounted for before anyone leaves the plant.
- Keep listening to Emergency Alert System or Weather Radio, and local authorities for updated information
- If you are trapped, cover your mouth with a cloth or mask to avoid breathing dust. Try to send a text, bang on a pipe or wall, or use a whistle instead of shouting.
- Stay clear of fallen power lines or broken utility lines.
- Do not enter damaged buildings until you are told that they are safe.
- Save your phone calls for emergencies. Phone systems are often down or busy after a disaster.
- Use text messaging or social media to communicate with family and friends
- Wear appropriate PPE for cleanup.
- Clean and disinfect everything that got wet.
- Don't overexert during clean up, heart attack is the leading cause of deaths after a hurricane.

What to Do

The site will, at the direction of the Transmission Operator (TOP) and/or Transmission Owner or Reliability Coordinator (RC) perform any load shed as directed.

What to Do

All site employees will review and implement the National Grid Renewables Pandemic Plan if a pandemic declaration is made by National Grid Renewables.

The VP of Operations will be responsible for a Pandemic Declaration at a plant with the guidance from Plant Management. Upon reviewing and verifying notifications from local health services, local emergency management, FEMA, WHO and/or the CDC, Plant Management will notify personnel, their families, local emergency management agencies, the media (through National Grid Renewables's media relations personnel), and suppliers and vendors, as necessary.

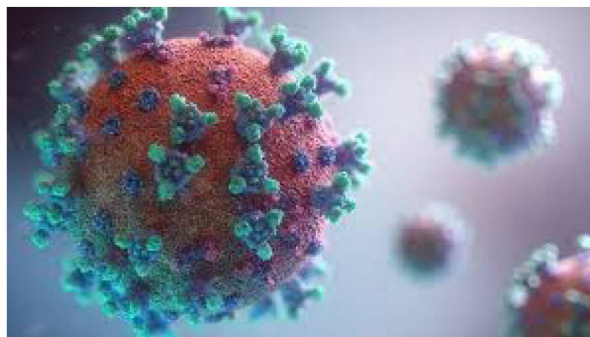
Know the Signs

Incoming supplies and equipment or any other type of deliverable(s) that arrive at the plant immediately after the Pandemic Declaration may be required to be cleaned with anti-germ cleaners before being distributed.

All suppliers and vendors including transportation/delivery services must provide a statement of compliance and their pandemic procedures to National Grid Renewables personnel before their goods and services will be received.

What is a pandemic?

A pandemic is when a disease affects the global population. Pandemics are usually caused by new infectious agents (bacteria or viruses) that spread quickly. A pandemic is a type of epidemic; however, a pandemic involves the number of people and the geographical area that the disease affects.





Plant Management will maintain hygiene supplies in suitable quantities to maintain an enhanced hygiene program. Supplies will be routinely rotated for general use and for exercises/drills to ensure a working shelf life. The following list may be required, but is not limited to:

- Hygienic solutions including medical grade alcohol, household bleach, anti-germ cleaners and air sprays.
- Cloth and paper cleaning towels.
- Disposable paper uniforms and slippers.
- Latex gloves.
- Drawstring trash bags.
- Bottled water
- Air/microbial masks.
- Over-the-counter drugs to reduce symptoms and promote recovery.



In response to a Pandemic Declaration, Plant Management may impose hygiene controls on all areas of the plant occupied or used by personnel. Additional attention will be given to equipment, door handles, restrooms, telephones, keyboards, keypads, file drawer handles and test equipment that are used by multiple people.

Plant Management may impose stringent hygiene rules that all personnel at the plant must follow, such as:

- All common areas will be cleaned on a regular basis with anti-germ cleaners
- treated with anti-germ air sprays; and
- All used cleaning supplies will be stored away from secured facilities and personnel.
- Used cleaning supplies will be removed to a qualified health handling service and safely disposed.
- Follow the latest guidelines.
- Limit close, face-to-face contact with others.
- If you may have been exposed, contact your doctor.
- Stay home if you are sick or have symptoms.

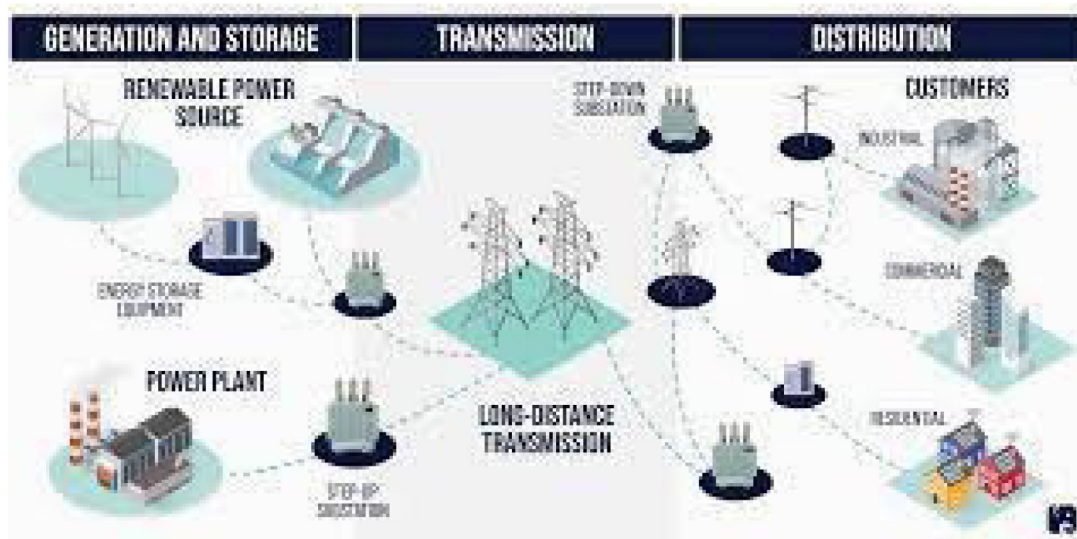


After the Pandemic has passed

The Plant will continue to operate during a Pandemic Declaration. Personnel who are directly affected by the Pandemic will not be expected to come to work. Personnel not affected will continue to perform maintenance and troubleshooting as normal. In the event it is unsafe for personnel to come to the plant, the plant will be operated remotely by the ROC.

What to Do

The site will, at the direction of the Transmission Operator (TOP) and/or Transmission Owner or Reliability Coordinator (RC) provide any support in response to grid restoration effort. If the Transmission Operator or the Transmission Owner incorporates the site into the restoration plan the site will participate in the required training or drills.



What to Do

See something, Say something! Contact Site Manager or Law Enforcement.

Report all site suspicious activity to the site manager, do not investigate suspicious activities on your own.

Have situational awareness, be vigilant and understand the exit plan, escape routes.

Survey all physical security perimeters to observe anything out of place, unusual open doors, gates or holes in fence.

Contact Law Enforcement immediately upon any threat to personnel or property.

Know the Signs

Keep in mind law enforcement's priority is to stop the threat! Upon arrival they may not know who all the parties are. Be sure to respond to all instructions from law enforcement.

Threats: a statement of an intention to inflict pain, injury, damage, or other hostile action on someone in retribution for something done or not done

-or-

a person or thing likely to cause damage or danger.





- Know the site response plan.
- Know all the exits and safe spaces in a building or work area.
- Understand the reporting protocol for Suspicious People, conflict between employee, contractor or visitors and third-party threats to the plant.



Suspicious People:

- In case of suspicious people, it is the responsibility of all employees, contractors, and visitors to notify Plant Management and report the location and nature of the suspicious activity. Employees, contractors, and visitors should not confront or attempt to detain trespassers or suspicious people.
- Plant Management will determine the scope of the emergency response. For reports of criminal behavior such as vandalism, shooting, or illegal vehicles the Plant Management or Emergency Coordinator shall phone 911 for assistance to summon police.
- Investigation into suspicious individuals may require conversation with the individual to ascertain that person's connection with the plant. At no time should any confrontation be allowed. If suspicious individuals seem hostile or violent, employees shall leave the area and inform Plant Management to summon immediate police response.

Employee, Contractor, Visitor:

- Confrontational situations between employees, contractors or visitors involving threats, harassment, confrontations or obscene acts or language shall be reported immediately to Plant Management.
- If at any time an employee, contractor or visitor working at an asset is concerned about his or her safety, it is their responsibility to report the situation to appropriate management.

Third Party Threats:

- In the event there is a threat to employees or the plant, Plant Management will designate an Emergency Coordinator, initiate the Evacuation Procedure, and contact law enforcement.
- Once all employees have been accounted for, the Emergency Coordinator will order the plant evacuated.

Active Shooter:

- RUN or Retreat. Do not engage with any criminal threats. Contact site Manager and Local Law Enforcement.
- Hide! If you can't get away safely, find a place to hide. Wait until help arrives.
- Fight, as a last resort defend yourself if you are in immediate danger.



After the Active threat has passed

Upon All Clear notification from law enforcement, site management employees may return to the work site or building.

What to Do

All Employees and contractors shall notify the Plant Management immediately upon discovery of a fire. Plant Management will designate an Emergency Coordinator to manage the incident. Different types of fire will require different types of response.

Ensure all fire prevention equipment are operational and inspected regularly.

Know evacuation procedures for building and work sites.





- Understand current weather conditions. Lightning or other weather events can cause fires.
- Ensure site has operational fire extinguishing equipment.
- Keep important documents in fireproof safe.
- Plan for a fire-resistant location on-site.

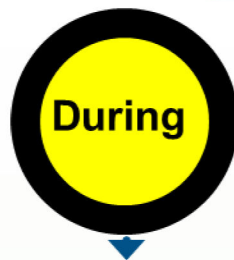


Grass, Brush, and Forest Fire:

- In the event of grass and brush fires, employees and contractors shall notify Plant Management.
- Plant Management will designate an Emergency Coordinator to manage the incident.
- The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.
- The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire brigade.
- The Emergency Coordinator will contact any landowners in the area with the location and size of the fire. Employees may be directed by the Emergency Coordinator to visit any buildings/dwellings that may be in the anticipated path of a fire.
- Only employees trained to fight fires may do so and only under instruction from the civil authorities. In all other events, employees shall at no time attempt to extinguish or “fight” a large brush and grass fire.

Fire at Operational Facilities:

- In the event of a fire in the operations facilities, the worker discovering the fire will activate the building fire alarm.
- At the alarm, Plant Management will designate an Emergency Coordinator who will immediately notify 911 and request the fire department and medical assistance.
- The General Emergency Response and Evacuation Procedures will then be followed.
- All employees, contractors and visitors will remain clear of buildings and structures until an all-clear notice is received from fire-fighting personnel.
- Employees or contractors shall at no time attempt to extinguish or “fight” a fire.



Fire at Battery Storage:

- In the event of a BESS fire, the worker discovering the fire shall contact Plant Management.
- Plant Management will designate an Emergency Coordinator to manage the incident.
- The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.
- The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department.
- The responder will then proceed to the designated meeting point and be available to direct fire-fighting equipment to the scene.
- Employees or contractors shall at no time attempt to fight a battery fire. The employee/contractor role is to notify Plant Management, liaise with the Emergency Coordinator, and lead fire-fighting equipment to the scene. Area shall be evacuated in a calm orderly fashion to the Site Muster Point .
- Adjacent landowners and workers shall be notified.
- Emergency Responders shall be trained ahead of time during site meeting and fire drills on appropriate BESS response.
- Lithium-ion batteries, under normal operating conditions, do not produce any gases. However, under abnormal failure conditions, such batteries can rapidly evolve flammable/explosive gases. In the event of a fire in the cube or other emergency where a battery failure in the cube is suspected, stay outside of the site.
- While solid aerosols are proven highly effective at extinguishing non-battery fires, explosive conditions may still develop when fire is not present as batteries continue to off-gas until cool.
- While an explosive atmosphere is unlikely, should one occur, deflagration panels will direct any pressure resulting from explosions upward. The panels are tethered to the cube.



Cube Fire Suppression System:

Each Fluence Cube is equipped with an independent fire detection, alarm and suppression system comprising smoke detectors, heat detectors, a horn/strobe device, and a solid aerosol suppression system. The fire suppression systems in a row of cubes are addressed to a single fire alarm control panel (known as the Core Fire Panel).

Battery Energy Storage System E-Stop:

Each Battery Energy Storage Site has a single E-stop circuit that consists of multiple E stop pushbuttons. The purpose of the E-Stop is to shut down the entire site or a part of the site (row of cubes or entire core) during an emergency.

Fire at Electrical Facilities:

- In the event of a fire inside a substation, the worker discovering the fire will contact Plant Management.
- Plant Management will designate an Emergency Coordinator to manage the incident.
- The Emergency Coordinator will obtain details of the exact location and size of the fire from the notifier.
- The Emergency Coordinator will contact 911 and coordinate with the notifier to lead fire-fighting equipment to the scene. The designated responder will be notified by the Emergency Coordinator by radio of the location at which to meet with the fire department
- The worker will then proceed to the designated meeting point and be available to direct fire-fighting equipment to the substation.
- Transformers and capacitors contain flammable, combustible material and all personnel must remain in safe areas away from these potentially explosive sources.
- Employees or contractors shall at no time attempt to extinguish or “fight” a fire.



After the Fire Danger has passed

Upon All Clear notification from site management employees may return to the work site or building.

What to Do

A Fluence Battery Energy Storage site contains electrical equipment with voltage ratings up to 34.5kV or above. Arc flash labels are present on all devices where arc flashes may occur.

The battery equipment contains stored electrical energy, even when disconnected. As such, care should be taken to not directly touch the battery equipment during the event or during overhaul operations. A subject matter expert should advise on how to handle stranded energy remaining in any of the damaged battery equipment.

The balance of plant equipment can be approached in the same way that other electrical equipment or industrial plant equipment which is under fire conditions.

Know the Signs

Five Common electrical hazards:

- Working on live circuits. There are times when working on or around a live circuit is unavoidable, but most of the time, that isn't the case. ...
- Skipping lockout/tagout. ...
- Forgetting PPE. ...
- Improper grounding. ...
- Damaged extension cords





- Perform JSA
- Know the electrical boundaries.
- Understand Lock Out and Tag Out procedures
- Inspect all equipment prior to use.
- Wear proper PPE for the job task.
- Understand the hazards.

What to Do

In the event of an injury/illness requiring medical treatment, employees will contact the Plant Management immediately.

The Plant Management will designate an Emergency Coordinator who will obtain details of the exact location and severity of the injury.

The Emergency Coordinator will contact 911 and coordinate meeting points with ambulance service and plant personnel.

Monitor and replenish First Aid kits as needed.

Inspect site AED to ensure it is charged and operational.

Know the Signs

Recognize the emergency. Does someone look like they may be having an emergency?

Remain kind and calm.

Always Assess a Scene before rendering aid.

Know the common medical conditions in the workplace (heat related illness, choking, heart attack etc..)

Always protect yourself.





Prepare

First Aid General Checklist:

- Bandages (All Types)
- Skin Tape
- Gauze swabs
- Dressing Pads
- Sterile eye pad
- Alcohol swabs
- Scissors
- Disposable gloves
- Tweezers
- Safety Pin
- Sterile saline
- Antiseptic skin swabs
- Stop itch cream
- Burn cream
- First aid booklet

OTC Meds:

- Allergy medicine
- Nausea/diarrhea meds
- Cold medicine
- Antacid
- Cough Drops

Fever / Pain:

- Thermometer
- Aspirin, Ibuprofen, Tylenol, Excedrin
- Pain relieving spray
- Oral pain gel
- Icy hot
- Cooling Towel

Sprain / Break:

- Flexible Splint
- Finger Splint
- Cold packs
- Elastic Bandages

Other creams / sprays / ointments:

- Sting/bite relief
- Hydrocortisone
- Antibiotic ointment
- Povidone-iodine pads
- Antiseptic pads
- Antiseptic hand wipes
- Chapstick/lip ointment
- Sunscreen
- Bug spray

Other:

- CPR Shield
- Nitrile Gloves
- EMT Shears
- Waterproof Tape
- Moleskin
- Pink Eye Relief
- Zip Lock Bags
- Hand Sanitizer
- Rubbing Alcohol

IF AED is on-site check to ensure it is Charged and Operations during Monthly Safety Inspection



Lithium and Toxicity Hazards:

- Lithium-ion batteries pose chemical risks. Please read the Safety Data Sheet for more information.
- Under abnormal conditions, lithium-ion batteries can produce toxic gases. However, from a toxicity perspective, the gases may be managed effectively through the appropriate Personal Protective Equipment (PPE), including Self Contained Breathing Apparatus (SCBA). The toxicity of gases released do not differ greatly from plastics fires. However, they should not be approached without SCBA, as concentrations of gases which cause immediate danger to life and health without PPE may be reached.
- Sensors are present within the modules when Hydrogen, a by-product of thermal runaway is detected.

Fire Suppression Agent:

- The Fire Suppression Agent used at this facility is Solid aerosol. When discharged in the event of a fire, the byproducts are known to cause eye and skin irritation and potential toxicity risks. Please read the Safety Data Sheet for more information

Site First Aid Response (5 principles):

- Preserve Life
- Prevent the escalation of illness or injury
- Promote recovery
- Provide pain relief
- Protect the unconscious

When in Doubt CALL 911 Immediately



After the Illness/Injury Emergency has passed

- Secure the scene until Site Management has approved clean up and re-entry.
- Ensure all internal and external required notifications are completed.
- Complete all required documentation of the incident.
- Assess the scene for bio clean up.
- Use proper PPE for biohazard clean up.

What to Do

National Grid Renewables has a comprehensive cybersecurity suite of procedures for low impact facilities. These plans and procedures include:

- CIP Master Policy
- Cyber Security Awareness
- Cyber Incident Reporting Protocols
- Physical Security Reporting Protocols
- Electronic Access Controls
- TCA and RM Malicious Code Mitigation

In the event of a suspect cybersecurity incident the plant manager shall notify the Senior CIP Manager immediately.

The Plant Management will assist the Senior CIP Manager with details of the potential incident and the Senior CIP Manager will advise on the response.

The Senior CIP Manager will direct IT resources on a response and will coordinate the appropriate notifications internally and externally. The notification will follow the protocols within the Cyber Incident Response plan.



Prepare

- Keep Software and Operating System Updated
- Use Strong Passwords
- Watch for suspicious activity. When in doubt don't click.
- Use encryption, when possible, for sensitive data.
- Use Antivirus, malware, and firewalls.
- Know internal CIP Security Protocols



During

- If suspicious activity is present change all passwords.
- Contact SR. CIP Manager or designee (help desk)
- Do not click links or open additional applications.



After the Cyber Event has passed

- Follow CIP Program reporting guidelines.
- Do not use the suspected application or hardware until cleared by IT.
- Provide all internal and external reporting as required.

What to Do

National Grid Renewables has a comprehensive physical security suite of procedures for low impact facilities. These plans and procedures include:

- Site Specific Visitor Access Logs
- Site Specific Authorized Access Logs
- Site Specific Physical Security Plan

Nobles Solar and BESS sites are comprised of solar, battery storage, substations, control houses with an operations and maintenance office.

National Grid Renewables has implemented physical security controls based on the need to protect its facilities from damage and loss. The function of these physical security controls is to: control access, reduce and/or mitigate the risk of unauthorized individuals entering the site, and protect both equipment and personnel.



- Monitor Entryways and Gates for Authorized Personnel
- Maintain site situational awareness
- Inspect physical security perimeter on a regular basis

Physical Controls

- The secured rooms housing Applicable Systems inside of the operations and maintenance building shall serve as the primary physical security control.
- Substation control houses are enclosed inside of perimeter fence and gate.
- The control house structure shall serve as the primary physical security control for Applicable Systems.
- All site structures housing Applicable Systems serve as the primary physical security control for individual resources' protection and control systems.

Entryways

- Perimeter fence entryway to substations is equipped with multiple gates and secured by a Locking Device controlled by an Access Device.
- Entryways to the substation control houses are equipped with multiple hardened doors secured by a Locking Device controlled by an Access Device.
- Entryways to the secured room housing Applicable Systems inside of the operations and maintenance building are equipped with a hardened door secured by a Locking Device controlled by an Access Device.
- Entryways to individual resources' protection and control systems inside of the generation are equipped with a hardened door secured by a Locking Device controlled by an Access Device.

Physical Security Control Condition

- In the absence of operational personnel with Unescorted Access permissions in locations housing Applicable Systems, perimeter entryways and structure entryways shall be in a closed and locked state.

Report any suspected physical security breach to Site Management

What to Do

Noble Solar and BESS utilizes a single specific Access Device and process for accessing the plant and individual resource protection and control equipment.

Unescorted Access

- Unescorted physical access privileges to Applicable Systems shall be granted by the Plant Supervisor or designee.
- Prior to granting Unescorted Access, the Plant Supervisor or designee shall:
 - Ensure completion of site orientation.
 - Document the approval for Unescorted Access NERC.CIP.0034.1 Visitor Access Log
 - Visitors accessing Applicable Systems or individual protection and control systems shall receive approval based on the legitimacy of need as determined by National Grid Renewables.

Visitors shall be escorted by a designated National Grid Renewables employee or contractor familiar with the site with Unescorted Access as designated by the Plant Supervisor (henceforth: "Escort")

Prior to entering locations housing Applicable Systems, the Escort shall:

- Complete site orientation training.
- Ensure completion of the NERC.CIP.0034.1 Visitor Access Log
- While escorting visitors into locations housing Applicable Systems, the Escort shall have line of sight contact with Visitor.