

**APPENDIX 16D:
EMERGENCY RESPONSE AND FIRE SAFETY PLAN**

CHINOOK SOLAR PROJECT

EMERGENCY RESPONSE & FIRE SAFETY PLAN

Chinook Solar, LLC
700 Universe Boulevard
Juno Beach, Florida 33408

Prepared in Consultation with:
Jim LaPrade, M.Arch., CPP
Senior Security Consultant
Maine State Firefighter I/II Instructor
TRC Environmental

Lyndon McKay
General Manager
NextEra Energy Resources
Solar & Battery Energy Storage Operations

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SECTION 1. PURPOSE

The Chinook Solar Project (Project) Emergency Response and Fire Safety Plan (ERFSP) describes actions to ensure the safety of Project employees, emergency service members serving the Project, and the surrounding community in the event of an emergency. This ERFSP provides emergency personnel contact information and outlines procedures to prevent, mitigate, and effectively respond to an incident should one arise at the Project.

SECTION 2. GENERAL FACILITY INFORMATION

The Project is a 30-megawatt, ground-mounted solar electric generation facility located in the Town of Fitzwilliam (the Town), Cheshire County, New Hampshire. The Project is owned by Chinook Solar, LLC (Chinook Solar), which is a wholly owned subsidiary of NextEra Energy Resources, LLC (NEER). Chinook Solar is the Operator of the Project.

The Project is located east of Route 12, south of Route 119, and west of Fullam Hill Road. Project lands consist of privately-owned parcels either under purchase option or lease agreement with Chinook Solar. The Project consists of approximately 116,766 solar panels oriented in linear rows spaced approximately 9 feet apart. Panels are connected by electrical cables hung on the underside of the panels and buried underground at various points. “Blocks” of panels are connected to an inverter. The Project contains 15 inverters that convert direct current (DC) electricity to alternating current (AC). The AC power is then routed via 34.5-kilovolt (kV) collector lines to the Project substation and utility switchyard (collectively, the Substation). Gravel roads are constructed throughout the Project to facilitate access for maintenance and repair. A Project overview is provided on Figure 1.

The primary Project access road is located off Fullam Hill Road. Following initial entrance into the Project area via the access road, each area of the Project is enclosed by chain-link fencing with locking gates to ensure public safety. Upon consultation with local first responders and fire department officials, gates will be outfitted with either a “Knox Box” or daisy-chain type locking system to allow site access by emergency personnel. All gravel access roads have been designed to facilitate access throughout the Project. Roads are 12 feet wide and have turnarounds with 50-foot radii to accommodate large truck movement (e.g. pumper or ladder type fire trucks). The approximate 9-foot spacing between each row of panels can also provide access, if needed. In addition, the site includes a 10-foot wide clear path between the fence and panels to allow for additional vehicle access (e.g. pickup truck, ATV, etc.) throughout the site. Project components, including solar panels, fencing, inverters, access roads, the Substation, and gates, are depicted on Figure 2.

2.A Fire Detection

In the event of a fire, NEER Renewable Operations Control Center (ROCC) will detect equipment faults which will then lead to dispatch of NEER site-personnel to investigate accordingly. There is no fire suppression system for the inverters located on-site.

2.B Shutoff Procedures and Locations

Entry of the Project should only be attempted at the direction of the Operator. Contact information for the Operator will be provided in Section 2.C below.

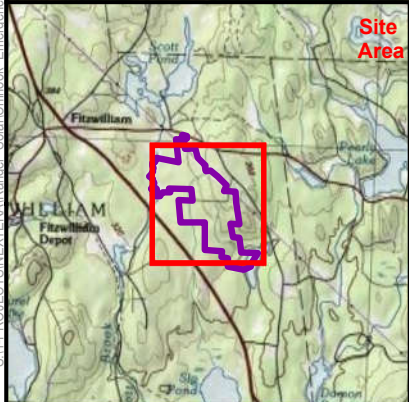
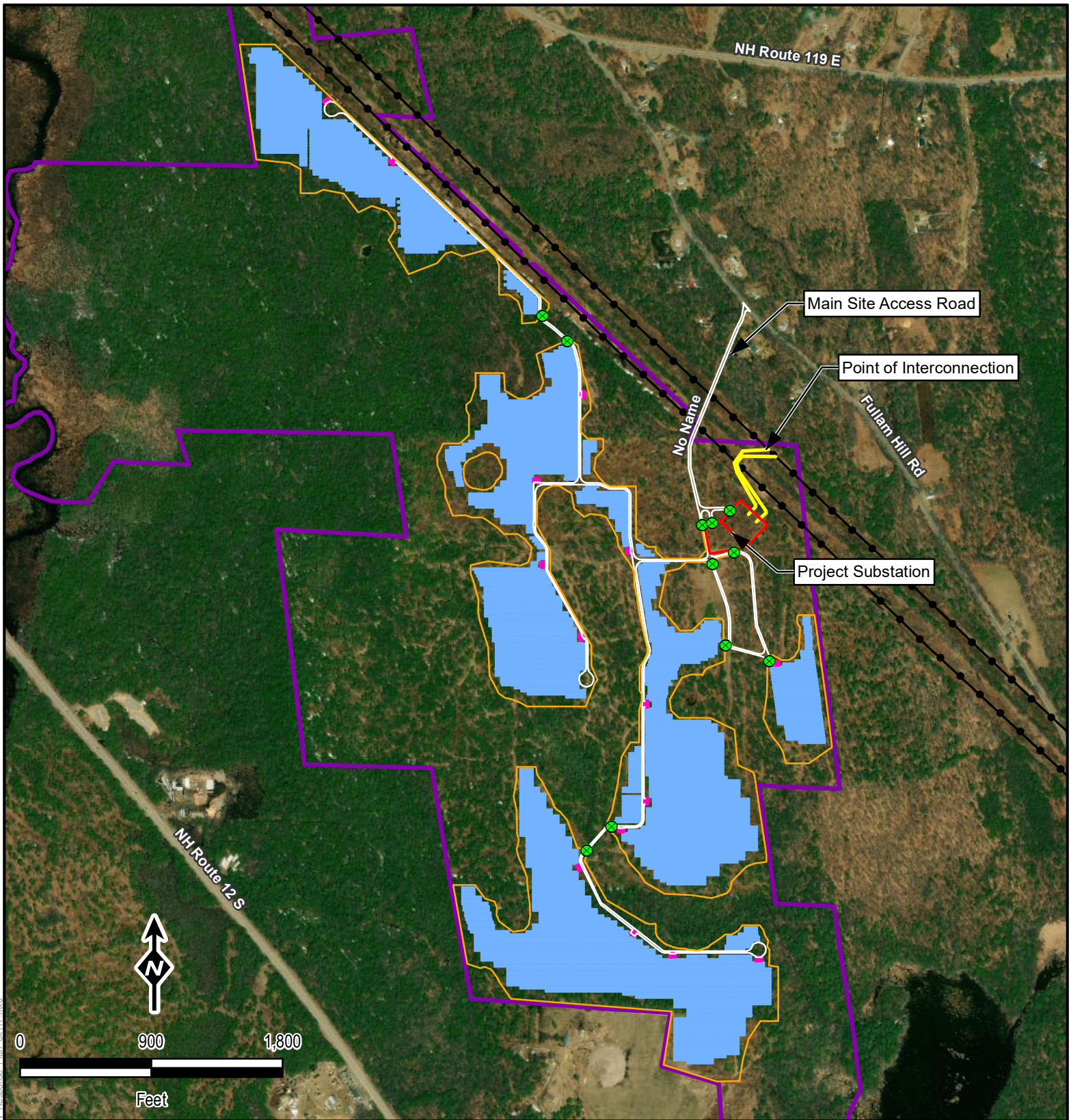
In the event of an emergency requiring shutdown, the solar system may be de-energized/isolated remotely, but local disconnects require manual operation by a qualified NEER representative to confirm breaker open. Emergency responders shall not assume the system is de-energized nor attempt to de-energize equipment due to arc flash risk. NEER Representatives should execute any Lock out tag out.

In an emergency, **only NEER representatives may disconnect power blocks within the solar arrays at each inverter** according to the following procedures:

- The ON/OFF switch on each inverter shall be manually turned to the OFF position, shutting off both the AC and DC switches inside the inverter.
- After the system has been turned off, the DC Disconnect Switch shall be turned off, and a lock placed on it to keep it from being re-energized.

Chinook Solar will coordinate with the Town of Fitzwilliam regarding locking procedures for the inverters, and shutdown and locking procedures will be updated, as needed, in the final ERFSP. The final ERFSP will be completed prior to commencing Project operations and will be provided to the Town of Fitzwilliam Select Board, Town of Fitzwilliam Fire and Ambulance Department, Town of Fitzwilliam Police Department, Southwestern New Hampshire Fire Mutual Aid, the State Fire Marshal, and the New Hampshire Site Evaluation Committee.

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Chinook Solar, LLC
Chinook Solar Project

NEXTERA
ENERGY

RESOURCES

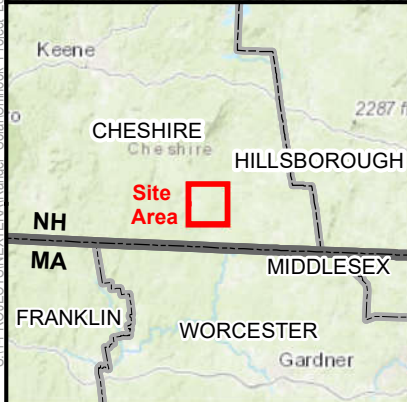
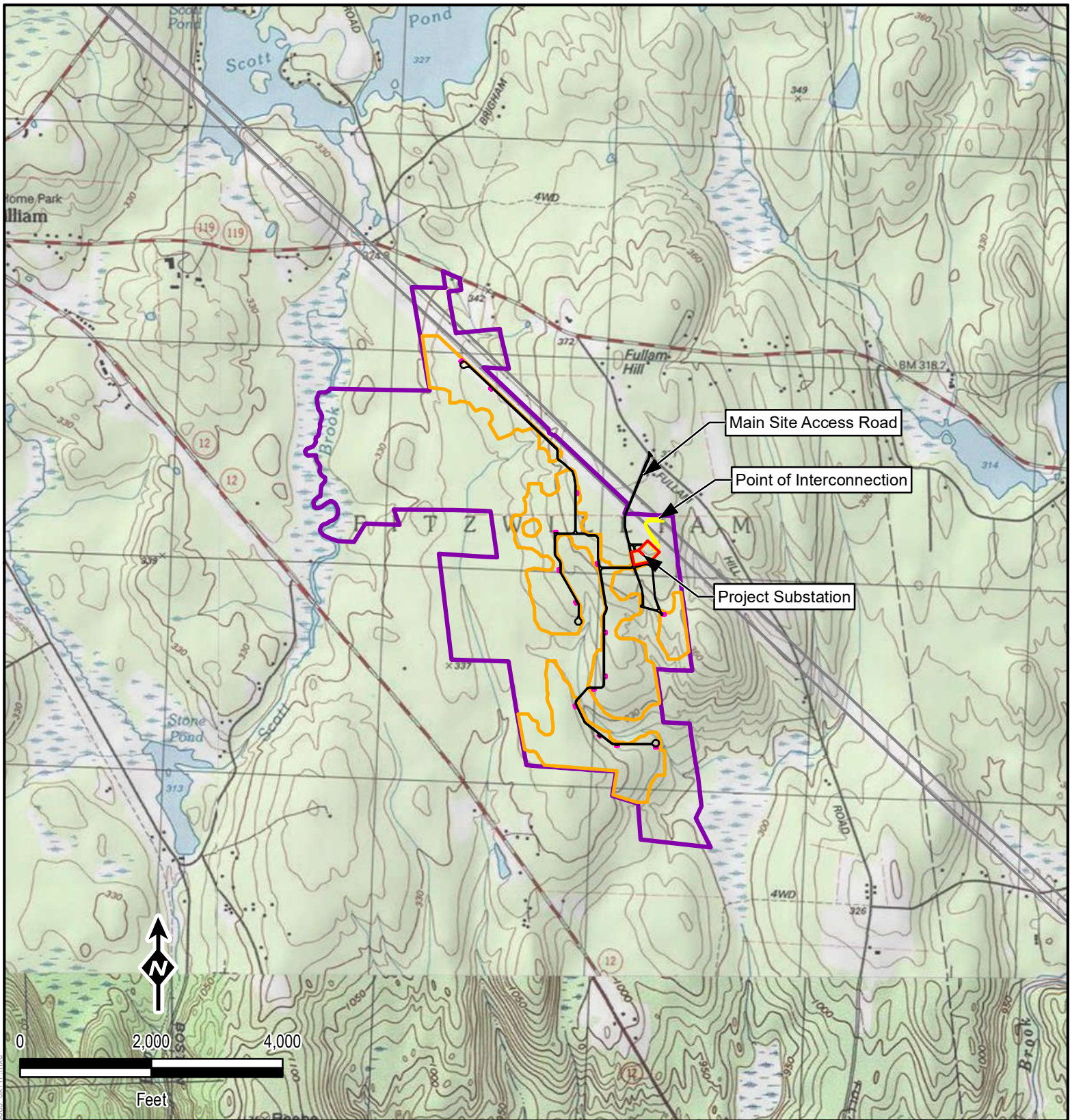
Figure 1

**General Layout of
Chinook Solar Project**

Fitzwilliam, NH

September 2019

Sources: ESRI, NEER, TRC.



- Project Land Control
- Access Roads
- Fence
- Project Substation
- Interconnection Underground Conductors
- Existing Electric Transmission
- Inverters

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NEXTERA
ENERGY

RESOURCES

Figure 2
Emergency Vehicle
Access and Circulation
Fitzwilliam, NH



September 2019

Sources: ESRI, NEER, TRC.

2.C Operational Contacts

The following people are responsible for the operation, maintenance and safety of the Chinook Solar Project. The Operator conducts local monitoring of the site on a regular basis. In addition, NEER has 24/7/365 remote monitoring and operating capabilities from their central control center in Florida. Should issues arise, central control will dispatch local operations personnel to the site, as necessary.

Chinook Solar/NEER

Renewable Operations Control Center (ROCC)	(561) 694-3636
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Energy Resources Control Center (ERCC)	(888) 202-6337
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The ROCC is the primary contact for notification in the event of an emergency. The ERCC is the primary contact for remote isolation of power to the site in the event of an emergency.

Additional contacts that may require coordination regarding this plan and operation of the Project include the following departments and agencies.

Fitzwilliam Fire and Ambulance

Nancy Carney	Chief	6 Church Street Fitzwilliam, New Hampshire 03447	Office: (603) 585-6561 Emergency: (603) 352-1100
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Fitzwilliam Police Department

Leonard DiSalvo	Chief	6 Church Street Fitzwilliam, New Hampshire 03447	Office: (603) 585-9047 Emergency: (603) 585-6565
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Southwestern New Hampshire Fire Mutual Aid

Joe Sangermano	Chief Coordinator	32 Vernon Street Keene, New Hampshire 03431	Office: (603) 352-1291 Emergency: (603) 352-1100
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Tom Redin	Deputy Chief	See above	See above
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Kassie Lunderville	Deputy Chief	See above	See above
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New Hampshire Division of Fire Safety, State Fire Marshal

Paul Parisi	Director	33 Hazen Drive Concord, New Hampshire 03305	Office: (603) 223-4289
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2.D Emergency Contacts

In the event of an emergency dial 911

All 911 calls in New Hampshire go directly to a dispatch center in Concord, where calls are sorted by type of emergency. Police-related calls from the Town of Fitzwilliam are transferred to the Cheshire County Sheriff's Office, where dispatchers relay calls to the Fitzwilliam Police Department.

SECTION 3. GENERAL SAFETY AND OPERATIONAL INFORMATION

Solar panels, located throughout the Project, convert sunlight to electricity. The process involves solid-state technology that consumes no materials and is completely self-contained. As such, the primary concern for first responders is exposure to electrical components that present a hazard to electric shock. During a response, it should be assumed that:

- **All solar equipment on site contains lethal AC and DC voltages;**
- All inverters contain energy storage devices that require 15 minutes to safely discharge **lethal voltages;**
- Electricity is supplied from multiple sources; and
- The site should only be accessed by personnel or emergency responders under the direction of the Operator.

The following are the most hazardous locations within the Project:

- Inverters and disconnects;
- Vicinity of the solar electric photovoltaic panels;
- Field wiring, collection lines, and all electrical boxes associated with the system; and
- Substation.

3.A Precautions While in the Vicinity of the Solar Electric System

- Only trained personnel should work near the solar arrays, modules, electrical boxes, or wiring.
- It is recommended to always have at least two persons present when working on the array or handling modules. Do not attempt to service or respond to an emergency unless another person capable of rendering first aid and cardiopulmonary resuscitation (CPR) is also present.
- Any accidents should be immediately reported to the Operator, as soon as it is safe to do so.
- Photovoltaic panels are made of glass and may break. If any cracks occur in the modules, touching a crack may expose a person to the full voltage and current of the array. **Do not touch the modules without wearing electrical insulating gloves.**

3.B Orientation

Appropriate training of first responders is key to their understanding of the hazards that are present within the Project area and to mitigate potential risks to their life during a response. As such, first responders that could be dispatched to the Project in the event of an emergency will be trained prior to commencement of operation and on a periodic basis thereafter. The Operator will work with Fire and

other Town Departments, as well as county and state safety officials, as appropriate, to provide biennial site-specific orientation to emergency response leadership and their assigned staff.

SECTION 4. EMERGENCY SITUATIONS

Emergency situation critical points:

- In the event of an emergency, dial 911.
- Entry and shutdown of the Project should only be attempted at the direction of the Operator.
- Solar and substation components are always hot and should always be considered electrically energized. DC voltage is always present (even at night).
- All inverters contain energy storage devices that require 15 minutes to safely discharge lethal voltages.
- Do not touch the modules without wearing electrical insulating gloves.

4.A Fire Response

In the event of a fire, the individual discovering the emergency shall:

1. Assess the situation to determine potential safety concerns to life and the environment, with life safety as the priority.
2. Notify the appropriate local authorities by dialing 911 and direct them to the entry point identified on Figures 1 and 2.
3. Local authorities should contact the Operator to determine the appropriate response.

Upon arrival to the Project, responders shall:

1. Evacuate and secure the area and keep people a minimum of 300 feet away, provided there are no immediate threats to people or non-solar property.
2. Let the facility burn. Burning electrical equipment is already damaged and must be replaced.
3. Protect adjacent exposures, such as homes and forested areas, as needed, to limit the potential of the fire spreading.
4. If fire must be suppressed within the array fence line, the Operator will direct local authorities on how to proceed.

The following are the most important considerations when responding to a fire or other emergency at the Project:

- Solar and substation components are always hot and should always be considered electrically energized. DC voltage is always present, even at night.
- Identify and validate the hazard in order to minimize injury.
- Electrical components produce gas during combustion. All responders should use a self-contained breathing apparatus (SCBA).
- Before committing apparatus to the access roads within any of the fenced panel array enclosures, understand that turn arounds will often be well over 1,000 feet away.
- Under the direction of the Operator, isolate or shutdown the electrical power at the site of the fire, if possible.
- Do not assume the system is de-energized and do not attempt to de-energize any equipment.

- Do not open any inverter doors until at least 48 hours have passed since the initiation of the event or conditions are verified safe and entry is approved by the Operator.
- Leave the scene in a safe condition after mitigating hazards.

4.B Natural Disasters

Severe weather events such as snowstorms, hurricanes, and tornadoes are possible at the Project. Although much less common, there is also the potential for minor earthquakes, flooding or high wind events (e.g., microbursts). These events should have limited impact on the Project site. The Project is designed and constructed to withstand the extreme weather likely to occur at the Project site (e.g. high winds, hail, lightning, snowstorms, etc.). After an extreme weather event, the Operator will evaluate all equipment for damages and repair, as necessary, to restore full Project operations.

4.C Public Safety

Access to the Project is limited to trained staff and maintenance personnel only.

Solar panel arrays and the Substation are surrounded by a seven-foot-tall chain link fence per requirements of the National Electric Safety Code (NESC). Additionally, fencing around the Substation includes an additional foot of barbed wire along the top of the fence. Access to the Project site occurs through gates in the chain-link fence that are secured with a padlock, and only Operator personnel have access to the Project (as previously noted, Knox Box or daisy chain type locks may be installed at each gate).

In the event of personnel injury from electric shock or if personnel should become incapacitated while within the Project site, the following procedures should be followed:

1. Assess the area for hazards and secure the area to protect additional life from injury.
2. Notify the appropriate local authorities by dialing 911 and direct them to the Project access point identified on Figures 1 and 2.
3. Local authorities should contact the Operator, as found in Section 2.C, to determine the appropriate response procedures and methods for shutting down the nearest components to ensure safe access.