




Community Solar Facility - Big Timber/ Rt.72

From Curtis Kramer <CKramer@rdfpd.org>

Date Fri 9/13/2024 4:35 PM

To Robert McNeill <robertmcneill@suryapowered.com>

Cc Richard Thomas <RThomas@rdfpd.org>; Christopher Reedy <CReedy@rdfpd.org>

 1 attachment (150 KB)
community solar facility.pdf;

Good Afternoon,

Please see attached regarding the community solar facility.

If you should have any questions, please let me know.

Thank you,
Curtis Kramer
Fire Marshal
Rutland-Dundee Fire Protection District

Rutland-Dundee Townships Fire Protection District

Rollyn L. Anderson
President

John L. Gilbert
Treasurer

William A. Carbone
Secretary



Richard L. Thomas
Fire Chief

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Date: September 13, 2024

A few questions and concerns regarding the community solar facility are as follows:

Equipment

- What are your quality assurance measures? Is this in person, through computer monitoring or a combination of both?
- What is the typical maintenance procedure regarding the cleaning or inspection of components that are most likely to cause fires?
- Will solar systems be regularly tested by independent third parties?
- What are the procedures regarding the replacement of defective or prematurely aged components?

Fire Protection Systems

- Will there be any Fire Alarm or Sprinkler type systems incorporated into the community solar facility?

Water

- Will this area utilize a community water supply?
- How will water be provided should there be an incident.

Training

- Incident Action Plan established.
- Provide a qualified representative to provide training on any potential incident should they arise.

Access

- FD access with roads to all points to limit the potential spread of fire to area of origin.

Curtis Kramer

Curtis Kramer
Fire Marshal
Rutland-Dundee Fire Protection District
P.O. Box 203
11 E. Higgins Road
Gilberts, IL 60136

cc: Fire Chief Richard Thomas

September 18, 2024

Curtis Kramer, Fire Marshal
Rutland-Dundee Fire Protection District
P.O. Box 203
11 E Higgins Road
Gilberts IL 60136
Via E-Mail: ckramer@rdfpd.org

Re: Big Timber Solar Farm, LLC
Rutland Township

Mr. Kramer:

Pursuant to your letter dated September 13, 2024, Big Timber Solar Farm, LLC (BTSF) staff have prepared the following responses to your questions and/or comments, as noted below. BTSF believes these responses will clarify our system design, protocols and equipment in view of your initial questions.

Equipment

- What is your quality assurance measures? Is this in person, through computer monitoring or a combination of both?

Response: *BTSF operations and equipment will be monitored remotely 24/7/365 using SCADA technology and telemetry controls to provide routine QA/QC; decisions on specific vendors and equipment are reserved for construction permitting. In addition, onsite maintenance visits will be conducted periodically to verify the system integrity of equipment. All equipment installed will be UL-certified, with installation conducted in accordance with all applicable codes and ordinances by experienced professionals and inspected to assure full compliance with the current code.*

- What is the typical maintenance procedure regarding the cleaning or inspection of components that are most likely to cause fires?

Response: *The likelihood of fire is relatively small for solar farms; international studies have concluded that less than 1% of solar power systems have experienced a fire. As previously discussed, a combination of remote monitoring and regular maintenance is intended to guard against equipment deterioration and provide for routine assessment of inverters, controllers and transformers -particularly during periods of high temperatures. The panels themselves are not typical sources of fire. Battery storage is not being utilized as part of the BTSF.*

- Will solar systems be regularly tested by independent third parties?

Response: *The use of remote monitoring and periodic onsite maintenance provides a rigorous format to guarantee all equipment functions as designed, while providing insight into early detection of potential defects. In designing and implementing QA/QC controls, BTSF will follow industry-standard best management practices (BMPs). Several private companies offer services designed to monitor energy production and transmission, as well as site security.*

- What are the procedures regarding the replacement of defective or prematurely aged components?

Response: *Specific procedures are directly related to the specific components used in a solar facility. Should remote monitoring systems indicate component failure, a site visit would be conducted to confirm the component's status, with repair or replacement dictated on a case-by-case situation. BTSF will provide product cut sheets and MSDS reports as part of our ZBA submittal and as required during construction permitting.*

Fire Protection Systems

- Will there be any Fire Alarm or Sprinkler type systems incorporated into the community solar facility?

Response: *Fire suppression systems are available, and the need or use of a specific system would be determined during the construction permit process. In the event of an emergency requiring shutdown, the system can be deenergized remotely by the site operator. An audible fire alarm bell can be installed at the gated entrance and emergency lighting will be provided by the equipment pads.*

Water

- Will this area utilize a community water supply?

Response: *BTSF will not utilize any community utilities other than electric.*

- How will water be provided should there be an incident.

Response: *The provision of water to the BTSF site would follow the procedures typically utilized by fire protection districts fighting fires in a rural area. No onsite water service is being provided. Fire access will be provided via a 20' wide impervious access road, over 900' in length with 35' radius turnabouts immediately adjacent to our equipment pads. Emergency shutoffs, mounted on Unistrut, allow for manual override shutoff of the systems. Internal pathways (20' wide) for operations and maintenance access are provided, enabling service and fire personnel to access every corner of the solar array.*

Training

- Incident Action Plan established.

Response: *The installation and operation of electrical systems dictates having an emergency services plan (ESP) in place to ensure the safety of all personnel and minimize damage to the facility and its equipment. The ESP will outline the procedures and protocols for responding to emergencies that may occur during the operation of the facility.*

As part of the construction permitting process, BTSF will partner with the RDFPD staff to develop an ESP prior to the facility's commercial operations date (COD). This will allow all local emergency services to review locations of the Knox Box, emergency shutoff switches, voltage signage, and familiarize themselves with the facility's design. The electrical schematic for the installation will be attached to the ESP, outlining the electrical distribution system, the main electrical components, and associated protection devices. The ESP also features a Solar System Disconnect Switch - a gang-operated, air break 15kv, disconnecting the substation from the BTSF system, lockable in the off position.

- Provide a qualified representative to provide training on any potential incident should they arise.

Response: *BTSF will identify training needs with RDFPD staff and coordinate necessary training for emergency responders to be completed prior to the facility's COD.*

Access

- FD access with roads to all points to limit the potential spread of fire to area of origin

Response: *As previously discussed, the BTSF site plan will provide emergency access directly to equipment pads and transmission poles. Access to the solar array is provided via 20' pathways separating the facility into sections. During an incident, access could be provided from either of the adjacent roadways – Illinois 72 or Big Timber Road.*

Should you have additional questions or require further information please contact me via telephone at (224) 524-1830, or via e-mail at robertmcneill@suryapowered.com. Our response will be expedited.

Thank you.

Robert McNeill

Robert McNeill
Development Project Manager
Big Timber Solar Farm, LLC