

# **HIGH RIVER ENERGY CENTER**

Case No. 17-F-0597

1001.12 Exhibit 12

Construction

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## **Appendices**

Appendix 12-1 Quality Assurance and Quality Control (QAQC) Plan

Appendix 12-2 NextEra Energy Major Duties & Accountability Matrix

Appendix 12-3 Complaint Resolution Plan

## **Exhibit 12: Construction**

This Exhibit will track the requirements of proposed Stipulation 12, dated August 26, 2019, and therefore, the requirements of 16 NYCRR § 1001.12.

## 12(a) Quality Assurance and Quality Control Plan

This Exhibit contains preliminary quality assurance and quality control (QAQC) procedures demonstrating how the Applicant will monitor and assure conformance of Project installation with all applicable design, engineering and installation standards and criteria.

The Applicant will have a construction team at the Project Area to handle materials, construction, and quality control during construction of the Project. The Engineering, Procurement, and Construction (EPC) Contractor will manage local subcontractors to complete construction. An example QAQC Plan is included at Appendix 12-1; however, the EPC Contractor, yet to be selected, will prepare a Final QAQC Plan for the Project that will be submitted to the Secretary or the Siting Board.

Throughout the construction phase, ongoing coordination will occur between the Project development and the construction teams. The Applicant will maintain a full-time construction manager to collaborate daily with the EPC Contractor. The construction manager will help to coordinate the Project activities, including ongoing communication with local officials, citizens groups, and landowners. The construction manager will also maintain the following responsibilities:

- Safety and environmental performance;
- Schedule, cost, and quality performance;
- Project Plan of the Day;
- Revenue performance;
- Monthly management meetings;
- Overall Project direction;
- Administration of contracts; and
- EPC contractor guidance and quality control.

The Applicant's construction manager will maintain full authority and responsibility for the EPC Contractor, all subcontractors, and associated quality control measures. A breakdown of responsibilities and quality assurance can be found in Appendix 12-1.

The construction manager will also maintain construction site safety under the Applicant's "ZERO Today" philosophy as described in Exhibit 18 of this Application. The Applicant will conform to the requirements of the Occupational Safety and Health Administration (OSHA), the United States Environmental Protection Agency (USEPA), and other applicable regulations in New York State to ensure the safety of personnel and the public. Safety training will be required of all personnel working on the Project.

In addition to the construction manager, there will be a number of personnel with various levels of accountability to ensure timely, safe, and efficient use of resources and labor. Each supporting personnel has specific responsibilities related to the Project. Detailed descriptions of roles and responsibilities can be found in Appendices 12-1 and 12-2. Below is a list of support personnel and a brief description of their accountabilities in relation to the Project:

- Project Engineer Provides support and quality control to the engineering team for the
  Project. Communicates requests for information and engineering change notices to the
  construction team should there be any questions with field construction. Timely resolution
  of any engineering inquiry is imperative to drive the Project schedule.
- Project Controls Tracks cost controls, risk, and capital forecasting in relation to the Project. Monitors updates to the Project schedule and reports on effects to the Project and its associated costs.
- Operations Plant Lead and Start-Up Operations Transition Typically brought in near
  the end of construction to ensure a quick, safe, and efficient transition from the
  construction team to the operations team. This ensures the end of construction and
  transition into commissioning activities are completed smoothly.
- Civil/Environmental Interfacing with permitting to ensure the requirements have been
  met. Identification and resolution of deficiencies. Oversight of compliance with
  environmental requirements. Maintaining daily coordination of the civil construction and
  activities associated with the installation of the solar panel arrays. Review and quality
  assurance of work in accordance with design standards. Monitor safety compliance,
  implement quality control, perform inspections and assurance of mechanical completion.

- Electrical Coordination and monitoring of electrical contractor's work. Monitoring and coordination of all electrical and ground testing of the solar panel arrays and inverters.
   Monitor safety compliance, assessment of deficiencies and their associated resolutions.
- Substation Coordination and monitoring of substation contractor's work. Maintain daily
  coordination of the substation construction. Monitoring and coordination of electrical and
  ground testing of the substation. Monitor safety compliance, assessment of deficiencies
  and their associated resolutions.
- Logistics and Materials Ensure the efficient delivery of Project equipment and materials on site and in accordance with the Project schedule.
- **Commissioning** Manage the testing and inspection of the electrical, mechanical, and communication systems associated with the Project.
- Site Coordinator Management of weekly performance metrics, logging or contractor documents and drawings, coordination with road contractor, and maintaining jobsite safety.
- **Site General Support** Assist and support various support personnel.
- Site Administrator Management and transmittal of Project documents. Assistance with
  the business management and administrative duties of the Project Manager and other
  associated support staff.

A copy of a sample EPC Contractor's Solar Project Construction Quality Program can be found in Appendix 12-1. The EPC Contractor will maintain all requirements or similar requirements to those listed in this document, as well as abiding by the standards of the Applicant's development and construction personnel. The EPC Contractor will provide a Quality Program with the requirements or very similar requirements listed in this section.

Refer to Appendix 12-2 for the Applicant's Major Duties & Accountability Matrix for Project personnel.

## Accountabilities and Oversight

The Applicant and its contractors and subcontractors are required to maintain the highest quality controls during the development, construction and operation of the Project. The Applicant will have a team of personnel in place as listed above and in Appendix 12-1 to maintain the daily operation and quality of the construction of the Project. Additionally, the EPC Contractor will maintain documentation, conformance, inspection, and testing of work completed at the Project to ensure that all work has been completed in accordance with Project specifications. The

comprehensive QAQC Plan through the EPC Contractor in conjunction with the quality oversight of the Applicant's team of personnel will ensure that work adheres to the highest possible quality and safety metrics.

## **Project Organization**

The EPC Contractor will provide an effective organizational structure to ensure a responsible construction team with a commitment to quality and safety. This effective structure will contain appropriate personnel to facilitate the construction of the Project including managers, engineers, superintendents, inspectors, foremen, and quality personnel. Each employee has the responsibility to implement quality processes in every aspect of the construction process. Nonconforming work with the established level of quality and Project specifications will be corrected appropriately.

#### **Process Controls**

Process controls ensure that work is completed in a safe, consistent, and quality manner. An efficient use of Project Controls such as Project meetings, daily planning meetings, and monthly management meetings help to address responsibilities and ensure the timely construction of the Project. The topics of discussion of these meetings range from daily construction activities to safety and emergency agendas to the resolution of on-site construction challenges.

## **Design Controls**

Plans and drawings shall be thoroughly reviewed to ensure completeness of construction. The engineering team shall clarify instances of construction that require further information for completion. Design deviations must first be accepted and approved by the Engineer of Record.

### **Document Control**

Project documents will be collected, stored, transmitted, and submitted in a controlled and defined manner. Project closeout documentation will be provided to the Applicant as a Project deliverable. Specific reporting and timelines will be established between the Applicant and the EPC Contractor.

## Training

Internal and external trainings for personnel to ensure the consistency and completeness of job site training efforts. Training records shall be kept for Project employees. Employees must have

safety training and abide by the regulations as set forth by OSHA and other relevant New York State Safety regulations.

#### Subcontractor Evaluations

Subcontractors will be assessed on various factors including performance, safety, capability, and quality of work. This continual information gathering can help to assess the subcontractor's suitability for present and future work. Subcontractors are subject to audit and performance review throughout the development and construction process.

## Material Management

Materials delivered or supplied for the use of construction of the Project will be in quality compliance with manufacturer and Project specifications. The handling and storage of materials shall be in accordance with manufacturer recommendations to ensure that there is no compromise in the quality of the material.

## Inspection and Testing

Inspection and testing shall be completed in a controlled manner in accordance with manufacturer, engineering, and Project specifications. Both internal and external quality checklists will be established and used as well as the potential for third-party testing contractors. Inspection and testing documentation will be generated and stored to assure the quality of all materials, systems, and Project Components.

## Calibration

The accuracy of tooling and equipment is absolutely necessary to ensure that work is performed within technical requirements. Calibrations will be completed in accordance with applicable standards and shall be documented to maintain a record of calibration results.

## *Nonconformance*

Materials, work, and products are subject to inspection and testing to determine the level of conformance with manufacturer, engineering, and Project specifications. All non-conforming Project Components shall be subject to rejection, repair, reworking, and replacement. When required, an evaluation of the resolution will be decided collaboratively with the EPC Contractor and the Applicant.

## **Auditing**

Quality audits should be performed to measure the effective application of the quality program and to drive continuous improvement efforts. Findings in the audit process shall be used to drive efficiency and further quality control efforts as the Project progresses.

## **Project Delivery**

The Project shall be constructed according to the provided plans, designs, manufacturer specifications, engineering standards, contract standards, and expectations. Constant alignment meetings with the Applicant and the EPC Contractor shall take place to assure that all expectations are being met. Additionally, testing and inspections will assure that quality standards and expectations are being met. The EPC Contractor shall deliver the Project Components taking every precaution to ensure that employees and the general public stay safe throughout construction. Public safety remains a high priority for the Applicant.

Before the Project becomes fully operational, the Operation and Maintenance (O&M) staff will be integrated into the construction phase. The construction manager and the O&M staff manager will work together continuously to ensure a smooth transition from construction through solar farm commissioning and, finally, operation.

## 12(b) Company Official Statement

## (1) Protection of Underground Facilities

The Applicant and its contractors will abide by the requirements set forth in 16 NYCRR Part 753 to protect underground facilities to assure public safety and to prevent damage to public and private property.

## (2) Pole Numbering and Marking Requirements

The Applicant and its contractors will comply with pole numbering and marking requirements implemented by 16 NYCRR Part 217.

## 12(c) Preliminary Plans to Avoid Interference with Existing Utility Systems

The Applicant is compiling and consolidating utility information within the Project Area to verify ownership of the utilities and to verify if the utilities are existing/operating or abandoned. All existing/operating utility systems, both above and below ground, are being identified and designated as electric, communication, natural gas, etc. No pipelines have been identified within

the Project Area. The Applicant and/or EPC Contractor will submit a request for information with Dig Safely New York to receive identification of all documented buried utilities within the Project Area. Safety of all personnel and the prevention of damages to existing/operating utilities is a top priority of the Applicant.

Upon completion of utility identification for all utilities in the Project Area, the Applicant will collaborate with all utility companies within the Project Area to ensure minimal interference. Measures to minimize interference where avoidance is not possible include horizontal directional drilling (HDD) instead of trenching, relocation of Project components (e.g., relocating collection lines to avoid interference with a well), and crossing of existing utilities at 90-degree angles. When necessary, the Applicant will establish a crossing agreement for any permanent crossing of Project components with existing utilities. Crossing agreements will be negotiated and established as a last resort to avoid interference with existing/operating utilities.

The Applicant does not expect to have permanent crossings with distribution lines, fiber optic lines, and natural gas and/or oil pipelines. If deemed necessary, each permanent crossing would be subject to site-specific engineering and construction requirements. The Applicant will adhere to all requirements set forth by Dig Safely New York, all applicable engineering codes and guidelines associated with each permanent utility crossing and will work with the utility companies to ensure there is minimal inference with existing/operating utilities if permanent crossings are required. Refer to the Preliminary Design Drawings in Appendix 11-1 for preliminary plans and details on utility crossings.

## 12(d) Procedures to Address Public Complaints

The Applicant has proposed a formal Complaint Resolution Plan (Appendix 12-3) that will address potential public complaints, including noise-specific complaints, during the construction and operation of the Project. The Complaint Resolution Plan lists specific procedures for where to submit a complaint and the information required to properly resolve the complaint. The Complaint Resolution Plan includes a general complaint form as well as a noise-specific complaint form, both of which can be submitted by mail to the Applicant or delivered in person to the temporary construction office. The Applicant will keep a thorough log of each complaint and its associated resolution. The complaint log will be maintained by the Applicant and, upon request, can be sent to the New York State Department of Public Service (NYSDPS) within seven business days.

A Project Representative will make efforts to respond to reasonable inquiries within 72 hours (during normal business hours) of the receipt of an inquiry. A record of the steps taken to resolve each complaint shall be kept by the Applicant. This record will include complaints received, resolutions of said complaints, and unresolved complaints.

No fewer than two weeks prior to the commencement of construction, the Applicant will publish a summary of the Complaint Resolution Plan in newspapers, including local community and general circulation newspapers, as will serve substantially to inform the public of such Complaint Resolution Plan. A list of these newspapers has been established and identified in the Applicant's Public Involvement Program (PIP) Plan. The Complaint Resolution Plan will be provided to the Town of Florida. The Complaint Resolution Plan will also be posted on the Applicant's website and will be available to the public at the temporary construction office.

In the case that a resolution cannot be delivered within 60 days, a timeline and measures that could be taken will be provided to the complainant including using the complaint resolution procedures adopted by the New York Public Service Commission (NYPSC). The complaint resolution process is limited to reasonable and objectively practical complaints.

A copy of the and Complaint Resolution Plan can be found in Appendix 12-3 of this Application. The plan and protocol provide further details in addressing and resolving public complaints throughout the construction and operation of the Project.

## 12(e) Stakeholder Communication

At least 14 days prior to the commencement of the Project construction date, defined as the anticipated beginning of unlimited and continuous construction of the Facility, but not including tree-clearing activities relating to testing or surveying (such as geotechnical drilling and meteorological testing), the public shall be notified as follows:

- Provide notice by mail to host and adjacent landowners within 500 feet of the final layout, and persons who reside on such properties (if different from the landowner);
- Provide notice by mail to owners and operators of water wells within one mile of the final layout;
- Provide notice to the Town of Florida and Montgomery County officials and emergency personnel;

- Publish notices in the The Leader-Herald, The Recorder, and the County Editor for dissemination;
- Provide notice for display in public places, which will include, but are not limited to, the
  Town of Florida Town Hall, at least one library in the Town of Florida, at least one post
  office in the City of Amsterdam, the Project website, the Project construction
  trailers/offices; and,
- File notice with the Secretary for posting on the NYSDPS Document and Matter Management website.

Notices listed above will contain the following information:

- A map of the Project Site;
- A brief description of the Project;
- The construction schedule and transportation routes;
- The name, mailing address, local or toll-free telephone number, and email address of the Project Development Manager and Construction Manager;
- The procedure and contact information for registering a complaint; and,
- Contact information for the Secretary to the NYPSC staff and Commission.

Upon distribution of notices, and prior to commencement of construction, the Florida Town Board and Planning Board will be notified of all areas where information regarding the Project, Project activities, and Project contact information have been posted.