



# Operation & Maintenance Plan

Maxson Hill Road Solar

40 Maxson Hill Road, Hopkinton, RI 02804

**OWNER:**

Ronnie J. & Bonnie Kay  
40 Maxson Hill Road  
Hopkinton, RI 02804

**PREPARED FOR:**

Centrica Business Solutions  
7101 Riverwood Drive  
Columbia, Maryland 21046

**PREPARED BY:**

ESS Group, Inc.  
404 Wyman Street, Suite 375  
Waltham, Massachusetts 02451

ESS Project No.C641-000

May 11, 2020



## **SOLAR OPERATION & MAINTENANCE PLAN**

The operation and maintenance (O&M) plan is part of the Stormwater Management Plan required by the Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8). The plan for the proposed solar development is provided below. Proper maintenance of the solar development will help maintain an aesthetic quality compatible with the surrounding land uses while also ensuring functionality.

### **Contact Information**

Centrica Business Solutions  
Charles Kovacic  
charles.kovacic@centrica.com  
7484 Candlewood Road, Suite T-W  
Hanover, MD 21076  
(508) 259-5726

### **Prepared By:**

Jason Gold, P.E.  
jgold@essgroup.com  
ESS Group, Inc.  
404 Wyman Street, Suite 375  
Waltham, MA 02451  
(781) 419-7749

### **Access and Safety Issues**

No access or safety issues are anticipated because BMP's are not proposed for this project.

### **Applicable Easements**

No easements will be required for this proposed project.

### **Funding Source**

Funding for the project will come strictly from Centrica Business Solutions. Centrica Business Solutions is responsible for all maintenance activities thereafter the project.

### **Scope of Work**

#### **1. On-call Service Technician**

The Contractor shall provide a Service Technician to respond to all alarms, alerts and service requests pertaining to the system within 24 hours of such alarm and/or service request, as personnel safety and weather conditions permit. The Contractor shall respond to forced outages and performance trends. Contractor and Owner shall notify the other as soon as practically possible, but in no event later than twenty-four (24) hours following their discovery of "Forced Outage", which is defined as: (a) any material malfunction in the operation of the Facility, and/or (b) any interruption in the delivery of energy to the Facility's revenue grade meters.

#### **2. System Electrical Inspection & Maintenance**

See attached "Maxson Hill Road Solar: Long Term Operation and Maintenance Plan".

### 3. Module Washing

Module washing is not anticipated. At a maximum, modules might be washed once per year if needed. Cleaning solution will consist of 95% water and 5% non-toxic, non-persistent soap solution; water trucks will provide wash water. No chemical additives or cleaners will be used. Additional washings may be requested by the owner based upon system performance objectives and site-specific environmental conditions.

### 4. Vegetation Management

Low maintenance grasses and ground cover that require little to no fertilization shall be used. **Chemical pesticides, herbicides, insecticides, fungicides, and rodenticides shall not be used.** Good grass cover beneath and between the proposed solar panel array shall be maintained. Ground cover shall be mowed 2-3 times per season, or on an as needed basis. Grass will be cut no shorter than 2 inches and shall not be allowed to grow taller than 36 inches. Ride-on and self-propelled mowers and weed whackers will be used for mowing operations. Lime according to a soil test or at a minimum every 2 to 3 years using a rate of one ton per acre (50 lbs. per 1,000 square feet). Fertilize only if indicated by a soil test. At least 30% of the fertilizer's available nitrogen must be in a slow releasing form.

The Site shall be inspected for evidence of erosion and rilling in any slopes a minimum of 2 times per year. Immediately repair any observed areas of erosion or incipient erosion. Any such conditions shall be noted in the annual report for re-vegetating. Any erosion shall be repaired using similar methods to installation, with like equipment and materials.

Growth of trees or other vegetation that is having a shade impact on the arrays shall be noted in the annual report, and shading vegetation growth shall be thinned appropriately. Vegetation growth (saplings, bush, large weeds, etc.) within any array fences or inverter enclosures shall be removed. In the event that weed control is required, use only non-persistent solutions approved for use by RIDEM. Some snow removal may be required to allow site access during winter months. Removed snow shall be placed in pervious areas.

Inspect plantings at least monthly for 1 year following installation or until all plantings are established. Once plantings are established, inspect semi-annually. Prune plantings as required and provide adequate water and fertilizer annually until established. Maintain mulch or turf cover surrounding the plantings. Trim old growth yearly, or as needed, to improve the appearance of ground covers.

Permanent vegetative cover shall not be considered established until ground cover (approximately 95% vegetative surface cover) controls soil erosion and withstands severe weather conditions. Replace plantings or ground cover that fails to grow.

### 5. Driveway

The driveway shall be inspected for evidence of erosion, rilling and clogging a minimum of 2 times per year. The surface shall be regraded as necessary to maintain its pervious characteristics if ponding is observed after precipitation events of 1.2 inches or greater over a 24-hour period. These conditions shall be noted and supported with photographs and locations as part of the annual report. Any observed erosion, rilling, or clogging shall be mitigated by the Contractor.

## **6. Noise**

Audibly inspect the system's noise levels annually. Noise louder than normal operating conditions shall be corrected to ensure levels do not exceed (40 dBA) at the property line.

## **7. Safety Training**

On-site emergency training and a final walk through for safety for fire officers must be conducted prior to project completion. On-site training for local emergency personnel shall be offered on an annual basis by the Emergency Response Coordinator, or their designees, regarding the content, requirements, and appropriate actions to comply with the provisions of the Emergency Response and Communications Plan. In addition to the annual training, other trainings may occur:

- When changes are made to the Emergency Response and Communications Plan;
- At the request of local emergency personnel;
- At the discretion of the Emergency Response Coordinator.







