

**OPERATIONS AND MAINTENANCE OVERVIEW
STANDARD OPERATING PROCEDURE
ISSUED FOR PERMITTING**



NOVEL ENERGY SOLUTIONS LLC

ENGINEERING, PROCUREMENT, AND CONSTRUCTION CONTRACTOR

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List of Acronyms

EPC	Engineering, Procurement, and Construction
IFP	Issued for Permitting
NES	Novel Energy Solutions LLC
O&M	Operations and Maintenance
SOP	Standard Operating Procedure



1. Purpose and Need

As the Engineering, Procurement, and Construction (EPC) contractor for solar facilities throughout the nation, as well as a solar project owner, Novel Energy Solutions LLC (NES) is committed to safe projects. Once constructed and operational, periodic maintenance around the site is utilized to ensure optimal working order.

Generally, the facilities will be operated and maintained in a manner consistent with good utility practices, including a minimum of biannual (spring and fall) onsite inspections and maintenance of stormwater management system components, as needed.

With that in mind, NES goals are aligned with those of the respective towns and counties that host these projects. This O&M Standard Operating Procedure (SOP) is Issued for Permitting (IFP) purposes, and project specific plans will be addressed at a later date.

2. Standard Maintenance Overview

Projects are fenced to ensure the safety of personnel and equipment, in coordination with National Electric Code (NEC) standards . Projects are secured by a wildlife-permeable fence, with standard gates for emergency and maintenance vehicles to access. These projects also utilize remote electronic monitoring to gain real-time information regarding electrical output and associated required maintenance.

The following section provides an overview of selected parts of the NES Operations and Maintenance (O&M) Plan:

2.1 Mowing

It is anticipated that mowing will be performed twice annually, with schedules adjusted as needed, to maintain vegetation to 20 inches in height or less between each cutting.

2.2 Herbicide Use

Herbicide is used only where permitted, and generally only used to control growth of invasive weed while sites reach revegetation status.

2.3 Vegetation Maintenance

The Owner (or designated party) shall be responsible for maintaining vegetation within the limits of the fenced-in solar array and associated project screening. Vegetation is replaced in a timely manner when needed due to disease/death, unsuccessful transplanting, or similar occasion.

2.4 Snow Removal

2.4.1 Panels

Snow typically falls off the panels as they shift from east to west on the racking installations.

2.4.2 Access

The Project Operator removes the snow from the access road to the inverter on sites when the snow is more than 4 inches deep. The Project Operator is required to keep the snow clear anywhere the Utility needs to have access. The snow will be plowed, shoveled, or blown and piled to the side of the road on most sites. Tree screening can make it more difficult to move the snow and may create snow walls at times, which will be maintained in a timely manner to avoid safety or other issues.

2.5 Broken Panel Replacement

NES is notified via remote electronic monitoring when system output decreases in a certain area, indicative of a malfunction, and replaces the panels in a timely manner.

2.6 Broken Equipment Replacement

To ensure profitability, NES is incentivized to ensure optimal working order. Broken equipment is replaced on an as-needed basis.

2.7 Electrical and Utility Visits

Electrical and Utility visits are scheduled as needed and in coordination with the utility.

2.8 Access Road Maintenance

The access roadway will typically require little on-going maintenance, owing to its primary and limited use by light-duty vehicles. Repair and maintenance shall be completed as necessary to ensure runoff from the roadways is conveyed as sheet flow to the downgradient stabilized areas.



2.9 Wildlife Management

NES follows recommendations for the use of wildlife-permeable fencing to address the need for site safety and security, while allowing for access and use of the project area by small animals.

Upon construction completion the owner will establish procedures for regular monitoring and the timely release of any trapped wildlife.