

## **INFORMATION FOR ARTICLE 8 ON THE 2016 TOWN WARNING - PROPOSED CHARLESTON SOLAR ARRAY**



### **The Project**

Proceeds from the requested loan amount of up to \$348,000 will be used to install an 118.5 kW ground-mounted solar array in the town gravel pit on Ten Mile Square Road that will generate enough power to offset electricity costs of the school, town offices, town garage, fire department, and streetlights.

The array will consist of 456 panels and will be sited in an area of the gravel pit that has already been cleared of its material. The line to VEC's connection point will run adjacent to the access road into the pit. As a result, the environmental impact of both will be minimal. Because of setback distances and surrounding woods, the array will not be visible from the road or from any nearby residences. It will not require any upgrades/additions to VEC's existing power lines, and current regulations require that any dangerous components of the array be shielded to prevent accidents. The gate to the pit, which sees frequent activity by the road crew, is kept locked when not in use.

The array will come with a 5-year warranty on installation, 25-year warranties on the solar panels, and 12-year warranties on the inverters (with 25-year options). Required maintenance will consist of monitoring the array's output and equipment via computer. The installer will be tracking this, but someone from the town will also need to monitor the array and conduct occasional onsite visual inspections. Snow removal is not recommended, so the array has been sized accordingly.

### **Financing & Anticipated Benefits**

A grant request has been submitted to USDA for \$50,000, but this is still in process and timing on the decision is uncertain, so the amount of the loan requested in the warning is based on the full estimated costs of the project without regard to any other potential sources of funding. Repayment of the loan is based on the premise that the credits generated by net metering with VEC will cover the loan payments plus ongoing insurance and maintenance costs, so the length of the payback period has been calculated accordingly (20 years without USDA funding and 15 years with the USDA grant.)

Long-term savings over the 25-year warrantied life of the project are estimated at approximately \$150,000 without USDA funding and approximately \$250,000 with funding. The break-even point on costs occurs during the loan payoff period, with the majority of savings occurring after payoff. Other anticipated benefits include a steady cost to the town for electricity over the life of project (in contrast to VEC's own projected average rate increase of 1.2% per year) and the environmental benefits of switching to renewable energy.

### **Other Details**

Because VEC's cap for net metering in 2016 was reached by last November, we are not likely to install and connect the array until 2017 (though there is a slight chance it could be installed this year if enough current projects drop out to create sufficient room under VEC's net metering cap).

This proposal is based on the best information we have available. As most people are aware, the state of our economy and of net-metering in Vermont are both in flux, and it is difficult to anticipate how future economic and policy developments may impact this project. If any changes negatively impact the project's financing and anticipated benefits in a significant way, we will bring the project back to the voters for consideration before pursuing it further.

If you have questions, or would like further details prior to Town Meeting, please leave a message at the Town Clerk's Office (895-2814).