

## Update on GVEA's Solar Project

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As a member of GVEA's board of directors, I am pleased to announce that GVEA will be expanding its renewable energy portfolio with the installation of a 563-kW Solar PV System this coming fall.

With GVEA's members expressing interest and the popularity of community solar projects in the Lower 48, GVEA's board of directors formed a "Solar Project Committee" in 2016 to research the possibility of a Fairbanks-based community solar project. The committee was comprised of several GVEA staff from across the company, three GVEA board members and two Member Advisory Committee (MAC) members.

GVEA's Solar Project Committee investigated all aspects of what a GVEA solar project might look like. A wide array of options were explored, with the intent of setting up a community solar project somewhere in the Fairbanks/North Pole area.



Under the community-solar-project model, GVEA members could purchase and receive credit for their panels' production. A private company would construct the solar plant, market and sell the panels to our members and administer the credits to those members' bills for their individual panel's production. The committee worked with two prominent solar companies to determine costs and feasibility for a 2-MW community solar project. The committee became concerned with the high cost per panel under this model and GVEA staff would have a hands-off role in the project; therefore, their attention turned to a GVEA-owned solar plant.

As the committee investigated a GVEA-owned solar plant, the scale of the project was reduced from 2 MW to .5 MW, with the notion that we would start with a demonstration project. This would give GVEA experience in solar plants, a better understanding of the performance of the solar plant and the resulting cost per kWh. We are calling this a demonstration project, as it would be easy to expand the size of the plant and could reconsider the community solar model or continue with the GVEA-owned model.

Last summer, GVEA staff developed a request for proposal (RFP) for a .5-MW solar array and issued the RFP, seeking a qualified firm to design and build this project. GVEA staff reviewed and analyzed twelve different system designs from four vendors, which included all the technical specifications from warranty to the estimated cost of power for the life of the system. All proposals and staff analysis was presented to the Solar Project Committee in August. A local Fairbanks business, ABS Alaskan Inc., was selected. This past fall, GVEA's Board approved this decision and work began.

GVEA staff also submitted a grant application to the Renewable Energy Alaska Project (REAP) through the USDA and was awarded \$225,000 for this project.

To keep costs down, GVEA also looked at property that GVEA already owns and decided on a 3-acre parcel on the south side of GVEA's Battery Energy Storage System (BESS), which is adjacent to GVEA's Wilson Substation off Bidwell Street. This site uses existing brown-field land, does not require

any tree clearing and is adjacent to existing utility infrastructure – all making this an excellent location for a solar plant.

This winter, design and equipment procurement are underway, so that the project can break ground this spring and be completed by October 2018. This solar installation will be the largest Solar PV system in the State of Alaska. The annual energy production is estimated to equal the annual energy used in 71 homes (using an average of 660 kWh per month). This project has a dedicated web page (<http://www.gvea.com/inside/gvea-projects/solar-project>) that will have information added as it becomes available.

Tom DeLong, GVEA Board Vice Chairman

**Overview of Solar Project**

Size: 563 kw Solar PV Syusutem

Footprint: 3 acres

Panel manufacturer: CSUN

Total panels” 1,760 rated at 320 watts each

Cost: \$850,000 after a \$225,000 REAP grant