

Community Energy Leadership Program (CELP)

Stories of Success

Squamish-Lillooet Regional District
GOLD BRIDGE SOLAR PHOTOVOLTAIC

Total Project Cost: \$74,978
Total CELP funding support: \$20,000

Energy savings: 23%/year
GHG reductions: 0.202 tCO₂e

Summary of Project: *The Gold Bridge Solar Photovoltaic (PV) Renewable Energy Initiative is an innovative solar energy project encompassing three small-scale, grid-tied PV arrays in the small community of Gold Bridge in Electoral Area A, also known as the Bridge River Valley.*

Partners:

Squamish-Lillooet Regional District (SLRD):
Responsible for managing the project and operating the transfer station and Community Building sites.

Bridge River Valley Community Association (BRVCA): Community partner responsible for managing the Haylmore Heritage Site and

promoting tourism and economic development in the Bridge River Valley.

Novo Solar Systems: Contractor responsible for installing the PV system and developing/delivering the inaugural tour.

Minto Communications Society: Community partner donating internet service at the Haylmore Heritage Site and contracted to connect the Community Building system to the internet.



Solar array at Transfer Station

Background:

The small community of Gold Bridge is located in Electoral Area A of the SLRD, also known as the Bridge River Valley. Gold Bridge is the primary service hub for about 224 full-time and 1,780 part-time residents living throughout Area A, as well as the nearly 25,000 people who visit the region each year.

The project was initiated after discussions between SLRD Area A Director, Debbie Demare, and the BRVCA revealed a desire to develop a renewable energy project to help the area achieve its goal of building “a sustainable community in the wilderness.” Funds were allocated by the Area Director to conduct a solar feasibility study, which revealed several promising sites to consider for solar PV.

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In April 2015 the SLRD was notified of the CELP funding opportunity, and the SLRD Board directed staff to submit an expression of interest regarding the Gold Bridge project. Subsequently, the SLRD was invited to submit an application to the CELP program. Given the program requirements, SLRD staff proposed a project comprising three small-scale arrays and requested 33% (\$24,743) from CELP. With this, the SLRD Board approved staff's request that the balance of the project cost would be allocated from Area A's portion of Community Works Funds (Gas Tax Agreement).

"The PV systems enable the SLRD to generate electricity at three of its service areas, leading to modest cost savings, providing a hedge against rising electricity prices, and helping the SLRD achieve several objectives of its Integrated Sustainability Plan and meet its obligations under the BC Climate Action Charter."



Community Building Installation

Innovation:

Developing renewable energy projects to power local government infrastructure is a relatively new concept. This project enables the SLRD and BRVCA to demonstrate the viability of PV systems as a means of enhancing the sustainability and resiliency of rural and remote communities. It helps the SLRD

take a leadership role; through this project we hope to offer practical experience to other rural and remote communities to help them launch their own renewable energy initiatives.

Outcomes:

Environmental benefits: The projected greenhouse gas emissions reduced are expected to be between 0.173-0.202 tCO₂e/year, as calculated in the "Energy&GHG Calculator" provided with the 2015/2016 CELP Application package.

Social benefits: Developing the project brought government, the BRVCA and local citizens together and has become an inspiring source of pride for the Bridge River Valley community. It also enables the SLRD to demonstrate leadership in renewable energy and provides a practical opportunity for the SLRD and other small local governments to learn about the many benefits, opportunities and challenges of developing small-scale solar projects.

Economic benefits: The project should result in the three facilities meeting or exceeding net-zero operation; it is expected to reduce grid energy dependence by about 23% per year which should generate about \$2,050 in energy savings and/or exported energy revenue per year (at today's rates). The project will also provide a hedge against rising electricity prices.

Over time, the project has the potential to generate broader economic benefits by rising the profile of the SLRD, and in particular Area A, the project will increase awareness of the Bridge River Valley as an attractive place to live, visit and do business.

Project Reflections:

Where possible, the project used local contractors and suppliers. This served to raise awareness about the project and increase community buy-in. Future projects should aim to use local resources and

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labour whenever feasible.

The roof-mounted system at the Community Building was installed just above the snow-stops. This allows snow to build up over the panels during winter; reducing their efficiency. Future projects should ensure roof-mounted panels are sited well above any snow-stops.

The BRVCA intends to use the project to increase tourism in the area. This may include incorporating the Halymore Site array into summer tours at the site, and offering an “energy tour” of the Bridge River Valley intended to showcase renewable energy facilities in the area.

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