

# Fast Facts



## Community Solar Initiative 2017



*"When completed, this will be the largest municipal solar array in BC. We are proud to be a leader in electricity self-generation, and appreciate the BC Hydro net-metering initiative that helps us achieve it. We anticipate reduction in the District electricity costs to be*

*in the neighborhood of \$70,000 per year. Over 30 years, that amounts to savings of more than \$2 million. That's calculated using present rates and future rate increases will enhance that savings considerably."*

Gwen Johansson, Mayor  
District of Hudson's Hope



## **BACKGROUND:**

### **2016**

- The District of Hudson's Hope began implementation of a community solar initiative with the goal to offset electricity costs to the District and take a lead role in sustainable energy solutions by installing photovoltaic (PV) systems on community buildings.
- The District received \$1.35 million from the Strategic Priorities Fund/Federal Gas Tax Fund through the Union of BC Municipalities. Urban Systems (Fort St. John) was contracted to oversee the project.
- Peace Energy Renewable Energy Cooperative (Dawson Creek) was contracted to perform a “Community Scan” to determine which buildings or other locations would produce the best financial return with solar energy.

### **2017**

- Peace Energy Co-op / Moch Electric Ltd. Joint Venture was selected through an RFP process to provide structural and electrical engineering, supply, install and commission the PV arrays.
- Crews will be on-site in Hudson's Hope installing the PV arrays through this summer and fall. Completion is expected at the end of 2017.

## **TECH SPECS:**

- Roof-mounted grid-tied solar arrays will be mounted on five (5) municipal buildings.
- One (1) ground mounted grid-tied array will be installed at the sewage treatment lagoons.
- Total peak output of all the arrays combined will be approximately 500 kilowatts (kW).
- This will be the largest municipal solar project in British Columbia.
- “Grid-tied” means solar generated electricity is fed into the grid when it is not needed, accumulating a credit with BC Hydro. That credit can be withdrawn later when the buildings need power, such as at night or in the winter.
- These high-efficiency polycrystalline Solar panels come with a ten-year materials and workmanship warranty, and a 25-year energy production warranty.
- Solar panels are expected to run without maintenance for 30 years and probably much longer.



 The Bullhead Mountain Curling Club building will receive 67 kW of solar, which will provide 100% of its electrical needs (photo simulation).

- Solar panels turn sunlight directly into electricity. They are silent, have no moving parts and produce no pollution.
- Roof-top solar arrays will be flush mounted parallel to roof surfaces to provide maximum energy at minimum cost. Flush mounting produces minimum load stress. All buildings have been assessed by a structural engineer.
- SolarEdge™ voltage optimizers and inverters will be used to ensure maximum efficiency from every panel. SolarEdge™ technology also provides remote internet monitoring of every panel in real time and records historical output data. This allows the District to monitor how much power they are producing, how much money they are saving and whether arrays are operating correctly.
- Students from Hudson's Hope High School have been hired on the solar installation teams. Other solar education and training opportunities will be offered in Hudson's Hope during construction.
- District personnel will be trained to monitor, operate and maintain the solar system.



 The District Office will receive 53 kW of solar, which will provide about 80% of its electrical needs (photo simulation).



 The Arena will receive 132 kW of solar, which will provide about 55% of its electrical needs (photo simulation).



 The new Public Works Shop will receive 86 kW of solar, which will provide about 90% of its electrical needs (photo simulation).



 The Tourist Information Centre will have 10 kW of solar installed, which will provide about 50% of its electrical needs (photo simulation).

 122 kW of ground mounted solar will be installed at the Sewage Treatment Lagoons.



For more information, call Hudson's Hope District Office at 250-783-9901

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