

Electrical Utility / Energy Strategy

By Mayor Boot

Summerland is one of just five municipalities in the province that owns their electrical utility. The District buys electricity from Fortis and distributes it on publicly owned infrastructure (power lines, power poles, transformers) to Summerland customers.

There are several reasons why having a municipally owned electrical utility is beneficial. For example, in 2020, Fortis received approval from the B.C. Utilities Commission to raise electricity rates. However, because the utility is owned by the District, Council made the decision not to pass along the full rate increase to the consumers.

Another benefit of owning and operating our electric utility is that Council has been able to utilize electric revenues in order to reduce the overall tax rate burden on residents.

Aside from flexibility on rates and taxes, the real opportunity for Summerland residents lies in the ability to be flexible and innovative and build a utility that strengthens the community's self-sustainability and resilience. In other words, build a revenue stream and create a system that consumers can rely on.

At our afternoon regular meeting, Council was presented with the District's draft Energy Strategy Projects Report. Each of 15 potential energy projects was analyzed and evaluated using the following metrics:

- How well does the project meet Council's strategic priorities of Infrastructure Investment, Community Resilience, Alternative Energy and Good Governance?
- What are the environmental (for example, sustainability and air quality) and social (for example, community pride and economic development) values of the project?
- Does the project benefit the District's power system, specifically, diversifying the energy load, reducing demand, and increasing efficiency and reliability?
- Is the project economically feasible—will the investment show a profit over time?

Following the direction of Council, District staff has been working on creating an Energy Strategy Projects Report since early fall 2020. (The decision to explore how to capitalize on the benefits of owning the electric utility started in 2015.)

Of the 15 energy projects evaluated, six are either underway or being actively pursued and all six are in the top eight of the total projects. In order of evaluation scores (highest first) they are:

- electric fleet – replacing District fossil gas/diesel/propane with electric options. The District has an electric Zamboni and is seeking to purchase three electric SUVs.
- voltage conversion – upgrading the current 8 kilovolt (kV) to 25kV, to gain efficiencies, significantly reduce wholesale electricity costs, and improve system resiliency. This is a long-term and expensive project; the District will continue to seek grant funding to assist with the cost of the conversion.

- battery energy storage – installation of two 2 megawatt (MW) energy storage system that quickly dispatch power and lead to reduction in peak usage costs (referred to as peak-shaving), and increases system power quality and reliability. This project is already underway as part of the solar+storage project.
- electric vehicle chargers – charging stations for resident and visitor use. Earlier this year the District completed installation of 22 chargers (six are fast chargers), bringing the public EV charging infrastructure to 25.
- distributed generation (net metering) – a program that allows residential customers to generate their own electricity; excess energy is purchased by the District and put back onto the grid. This program was modernized in 2018.
- solar – several projects that strengthen the District’s electric utility, increase energy security and independence, support innovation, create jobs and attract new residents and visitors. The solar+battery storage project, distributed generation program and the solar arrays on the arts and cultural centre and municipal hall are all part of this initiative.

Council indicated an interest in further exploration of modern metering and micro hydro, the final two projects in the top eight.

Modern metering allows the district to record real time energy consumption through automated meter reading. The improved data accuracy will provide more electricity cost control options for customers. This means lower demand charges to the District and annual cost savings.

Micro hydro is an in-pipe turbine system installed in gravity-fed water pipelines to generate renewal energy that is not subject to weather conditions and has no environmental impact. The turbines do not impact water delivery and the generated energy can be used for peak energy and battery charging. Staff confirmed to Council that this project is a priority action in the Corporate Energy and Emissions Management Plan approved in March 2021.

The Energy Strategy Projects Report is a high-level analysis of each project using information from existing reports from other utilities, agencies and governments. Its implementation is not something that can be accomplished in a single Council term (or even two or three). Rather, it is a series of comprehensive potential projects that will continue to require a long-range perspective in project planning, process and/or installation, and financial planning.