

DISTRICT OF SAANICH – ENERGY RETROFIT CASE STUDY

Summary of Results

- Energy Performance Contract for over 500,000 sq. ft. of municipal buildings
- Project Cost: \$857,000
- Energy Savings: \$83,000 annually
- Project Initiated: 2005
- Scheduled Completion: March 2007

Background

The District of Saanich has set the goal of creating a model sustainable community and being a steward of the environment. Like many municipalities, Saanich wanted to show leadership by reducing water use and saving energy within their own facilities.

After carrying out early research, the District of Saanich Council agreed to support a comprehensive building energy retrofit program in 2004. The program included 50% of all municipal buildings, accounting for more than 75% of the building's total square footage. In particular, the retrofit included the largest energy users in the community - the ice arena and two pool facilities. In addition, the energy retrofit included recreation centres and municipal hall office buildings as well as police and fire halls.

Project Details

The District of Saanich decided to develop the energy retrofit project as a bundled project, by retrofitting a number of buildings accounting for 500,000 square feet of building space. They worked with an Energy Services Manager who provided support to various municipalities in the Capital Region in order to develop the terms of reference for the project, and to select an Energy Services Company (ESCO) to deliver the projects.

The services being provided by the ESCO include overall project management, carrying out a comprehensive energy and operations audit, developing a retrofit engineering plan and overseeing plan implementation. These services were provided as part of an Energy Performance Contract, which provided guaranteed energy savings over the first three years of the project.

Energy retrofits being carried out include:

- Lighting upgrade to improve efficiency as well as providing better occupant comfort.
- Energy management control system to improve the efficiency of the mechanical and electric system
- Providing indoor/outdoor control on the heating system
- Upgrading water fixtures with more efficient models

The total cost of the Saanich retrofit project was \$857,000, with project savings estimated at \$83,000 per year, resulting in a



"Saanich is pleased to participate in this initiative and achieve the benefits from this retrofit." - Mayor Frank Leonard.

simple payback period of approximately 10 years. Although the ESCO could have provided financing, Saanich financed the project through the Municipal Finance Authority. The project will be complete in March 2007.

Lessons Learned

The actual retrofit process was relatively easy. The contractors provided excellent service, with minimal disruption to the work environment. The District is anticipating very good end results – with energy being saved, and improvements in lighting providing a better work environment.

There were a number of lessons learned in the process of developing the retrofit project:

- The District of Saanich benefited from the advice and assistance of a regional Energy Services Manager provided by the Capital Regional District. Having this support was extremely helpful in getting the project off the ground.
- District staff believes that managing the project in-house was one of its strengths – it allowed staff to have better control over the process and to build capacity so that future energy retrofits will be easier to manage.
- The ESCO provided two key services (1) as “watch dog” overseeing the process over the entire project to ensure that the retrofit would achieve its goals; and (2) providing quality control over the retrofit work that is done.
- The early stages of the process were slow – with the biggest challenge dealing with utility and federal incentives. Delays in the process resulted in additional stress for those managing the project as well as lost energy savings. Due to these lost savings, the District felt it might have been more cost effective to proceed with the retrofit project without the incentives.