

Great Lakes and St. Lawrence Cities Initiative

Best Practices/Restoration Project Reports

Description

Coin Operated Solar Powered Water Dispensing Station



Background

The Town of Penetanguishene had provided free drinking water for decades to residents not connected to the municipal potable water distribution system and non residents alike. This water was provided through a series of taps connected to the municipal drinking water system.

This practice caused the following problems:

- The taps were continuously broken and leaking and in some cases not turned off.
- Commercial landscapers and companies that spray fertilizers and chemicals were filling storage containers on trailers through hoses and creating a risk of contaminating the water distribution system because this facility was not equipped with backflow preventers.

- Local residents who were paying water bills complained that this practice was unfair because those using this system were not financially supporting the water system.

In 2005 the Town went from a flat rate residential billing system to metered billing system and the concerns about providing free drinking water began to escalate.

At this time it was decided to install a system where the public who used this water would pay for the water through a coin operated facility. At this point the municipality approved the purchase of a coin operated water dispenser.

Connecting this unit to the power grid presented challenges because there were no nearby electrical feeds. The decision was then made to explore the feasibility of powering the unit using solar energy. The water dispensing unit and solar cell assembly cost less than \$20,000 installed and generate an average revenue of \$2000 per year so far.

Results

- This practice reconfirmed the municipal practice of user pay and full cost recovery.
- This facility eliminated the waste of water left running as there are no valves to operate.
- Using solar power to operate the water dispenser demonstrated the Town's commitment to energy conservation.
- The new facility has backflow preventers, so the threat of contamination is eliminated.
- Because the cost for water is low (a quarter for 5 liters), the public is encouraged to fill reusable containers use rather than buying water in disposable bottles.

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