



Detailed Assessment at Southbrook Identifies Opportunities for 40% Energy Savings with a 4-Month Payback

The Challenge

Bill Redelmeier is the proprietor of Southbrook Vineyards, a LEED Gold-certified biodynamic and organic winery located in scenic Niagara-on-the-Lake, Ontario.

Bill's commitment to environmental sustainability led him to agree to a conventional energy efficiency assessment of Southbrook by an outside consultant to find ways to reduce energy use, save money, and reduce the winery's environmental footprint.

The results of the assessment were modest, however (5% energy savings with a 20-year payback). Southbrook was also considering a solar net metering project (with a 7-year payback).

However, in addition to covering land not suitable for agriculture, the panels would cover valuable vineyard.

The Solution

Before the design of the solar panels was finalized, Bill had Enviro-Stewards take a second look at energy use to see if the solar array's size could be minimized. Our team identified and implemented opportunities that are saving **40%** of the winery's energy use with only a **4-month** payback.

Due to these significant energy reductions, one-third fewer solar panels were installed—meaning that $\frac{1}{3}$ acre of vineyard was conserved (the row of grape vines in the above

photo). The estimated value of the saved wine (\$20,000 per year) further reduced the payback period of the efficiency measures to 2 months.

This project also won Canada's Clean50 Top Project Award in 2018 (www.clean50.com).



Harvested grapes ready to be processed into wine.



Bill gives a tour of his award-winning winery to visitors.