



## HURON PERTH HEALTHCARE ALLIANCE SEAFORTH COMMUNITY HOSPITAL

### CONSTRUCTION YEAR

2021

### HIGHLIGHTS

Annual Electricity Reduction =  
8741 kWh/yr

Annual Natural Gas Reduction =  
0 m3/yr

Annual Energy Reduction =  
8741 ekWh/yr

Annual GHG Reduction =  
0.34964 tons/yr

### EQUIVALENCY RESULTS

CO<sub>2</sub> Emissions From

0.1069898  
Passenger Vehicles

0.0818158  
Homes' Energy Use for One Year

0.2339092  
Homes' Electricity for One Year

### PENTHOUSE AHU REPLACEMENT

Seaforth Community Hospital (SCH) undertook a project to replace the central air handling unit serving the inpatient wing and lower-level administrative areas. The new fans include variable speed drives or EC motors to allow for precise and energy efficient setting of air flow rates to the building.

The existing glycol runaround loop was replaced with a new one and includes a variable speed pump for matching pump and fluid flow rate to the available useful energy recovery.

Note that for this project, there has been an overall improvement to the HVAC strategy which did not exist in the pre-retrofit state. That being said, the energy and carbon savings would be more substantial if we compared it against a standard system providing the conditioning now present.

### ENERGY & CARBON SAVINGS

The new AHU has fans and motors that run at higher efficiency than the system being replaced. Further, the glycol runaround loop provides energy recovery which extracts energy from the air which is going to be exhausted and inputs it into the outside air that would otherwise need to be actively conditioned. Finally, the variable flow rate pump reduces the electrical energy needed for operating this heat recovery