



HURON PERTH HEALTHCARE ALLIANCE CLINTON PUBLIC HOSPITAL

CONSTRUCTION YEAR

2021

HIGHLIGHTS

Annual Electric Reduction =
4483 kWh/yr

Annual Natural Gas Reduction =
6142 m3/yr

Annual Energy Reduction =
69,322 ekWh/yr

Annual GHG Reduction =
11 tons/yr

EQUIVALENCY RESULTS

CO₂ Emissions From

3.366
Passenger Vehicles

2.574
Homes' Energy Use for One Year

7.359
Homes' Electricity for One Year

AIR HANDLING UNIT (AHU) SYSTEM REPLACEMENTS

Clinton Public Hospital (CPH) undertook a project to upgrade and modernize three air handling systems serving patient and administrative areas. The work included installation of new air handling units complete with energy recovery and variable speed supply / return fans. These replacement systems provide ventilation and cooling to particular sections of the hospital.

The project also upgraded the humidification systems and provided patient spaces with the ability to operate in a 100% outdoor air mode. A 100% outdoor air mode might be preferred when epidemic concern exists.

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

Two of the three replacements include installation of energy recovery wheels. An energy recovery wheel is devised within the air handling system that 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. This provides a significant reduction in energy and carbon inputs. Further, the new air handling system generally operates more efficiently and includes an update controls sequence. Control of perimeter heating is also improved by installing direct digital control valves.