

Conservation Demand Management Plan Hotel Dieu Shaver Health and Rehabilitation Centre

Made for Ontario Regulation 507/18 Energy Reporting and Conservation and Demand Management Plans



Hotel Dieu Shaver Health and Rehabilitation Centre Demand Management Plan 2020-2024

Energy Reporting and Conservation and Demand Management Plans - Ontario Regulation 507/18

The Demand Management plan outlined in the following report is the second component of a two part regulatory compliance measure of the Ontario Regulation 507/18 and is intended to cover the period 2020-2024. The Demand Management plan is to accompany a summary of the public agency's annual energy consumption and greenhouse gas emissions.

The Plan will be revised and updated as circumstances change and as new and different initiatives are identified and adopted. On July 1, 2019, the CDM plan will be posted on the internal website, internet site, and made available to the public in printed format at head office.

Summary of the Conservation Demand Management Plan

Hotel Dieu Shaver has formatted their demand management plan to fulfill the requirements of Ontario Regulation 507/18. The Demand Management plan contains total energy consumption for Hotel Dieu Shaver buildings, specifically Inpatient Building, Outpatient Building, and Maintenance Building. Also included in the report is some background information on past and current measures, proposed future measures, and employee engagement at the hospital.

In addition, the plan outlines proposed future measures for energy reduction along with goals, objectives, and reduction targets for subsequent years. The CDM will be updated every five years starting in 2024 and made readily available according to the reporting requirements listed above. This report is based on the energy profile of the calendar year 2017.



Type of operation: Facilities used for Inpatient and Outpatient Rehabilitation purposes, administrative offices and related support facilities.

Total floor space: 162,527 square feet

Hospital description: The Inpatient space is occupied 24 hours a day from Sunday to Saturday. The outpatient building is occupied from 7:00am to 6:00pm from Monday to Friday. The maintenance building is occupied from 7:00am to 3:00pm from Sunday to Saturday.

Energy Types: Steam, Natural Gas, Electricity, and No. 2 Fuel Oil. (Fuel oil is used for backup power and heating only.)

Energy Amounts:

Hydro 3,458,418 kWh

Natural Gas 470,071 m3

Greenhouse Gas Emissions Total (CO2e kg)

TOTAL 948,552 kg



Our Environmental Stewardship

The Hospital's investment in this principle has been set in stone. Our *Strategic Plan* is premised on the following directions: improving the patient experience, promoting care coordination and system integration, enhancing and sustaining financial health, and strengthening and enhancing organizational health – under the umbrella theme of “pulling the pieces together”. Very specifically, with respect to the environment, the plan incorporates the following commitments:

1. Within existing resources, choose environmental responsible solutions to help reduce our carbon footprint.
2. Decrease carbon footprint through promotion of “green” strategies.

An investment in the environment is a part of the living of our *Mission and Values*. As defined and incorporated in our value of Responsible Stewardship, we respond to community needs by balancing human needs with financial resources. Beyond ensuring that we play our role in promoting a healthy community environment, Hotel Dieu Shaver's energy management program will reduce the Hospital's operating costs – thereby better enabling us to provide excellent healthcare services to all who come through our doors.

Past and Current Measures

Projects

Replacement of roofs on Inpatient Building to mitigating the cost of heating and cooling of the structures (2015,2018)

Replacements of garage doors in Maintenance building to better mitigate the loss of heating and cooling (2017).

Replacement of three (3) Multigen point of Service units to a food service oven system (2017).

Replacement of two outdated Condensing Units with high efficient units (2018).

Replacement of North side sliding exterior entrance door with thermal pane glass sliding doors with air curtain (2018).

Replacement and upgrade of Diesel fuel storage and distribution system for control and efficiency (2018)

Replacement of three boilers from low efficiency to high efficiency heater exchanger and indirect hot water tank (2019).

Building Automation Systems: On weekends and holidays, when offices and other non-clinical areas are closed, the Hospital reduces the air conditioning in the summer and the heating in the winter. Throughout the year, overhead lighting is dimmed throughout the corridors of the entire facility between the hours of 9:00 p.m. through 7:00 a.m.

Nadine Survey: As outlined through the Hospital's Infrastructure Survey, the Hospital continues to address and replace outdated systems annually as funding becomes available.

In House Management

As part of our regular preventative maintenance program, steam trap audits are conducted to isolate and repair any leaks or faulty traps. Leaking and broken traps have the ability to run high steam losses. Also regular scheduled maintenance of heating, ventilation and air conditioning (HVAC) are performed by a third part to ensure the systems maintain their efficiency, and a related energy savings from maintenance.

Annual calibration of building equipment are conducted for air temperature, relative humidity, pressure, chilled water temperature, air and liquid flow to ensure that the proper parameters and set points are in place to maximize energy efficiency while adhering to code.

In addition, to our maintenance programs monthly auditing of utility bills is conducted to verify that the consumption and the charges are correct. Natural gas and Hydro bills are verified and logged by our finance department. Any issues or abnormalities are addressed immediately.

Annual review of building occupancy in relation to building equipment schedules are conducted to ensure that space is being conditioned when it is needed only.

Proposed Demand Management Measures

Effective July 2019, the Hospital has identified the following goals and objectives for the next five year period. The public focus on investing in our environment results in new advancements on a regular basis. As developments occur, and new initiatives or opportunities unfold, the Hospital plan will be updated to reflect most current status.

Projects

- Replacement of older less efficient boiler(s) with new high efficiency boiler(s).
- Replacement of condensing units that have reached the end of useful life according to BOMA (Building Owners and Managers Association) standards identified in the Nadine Report.
- Replacing all incandescent light bulbs with LED lighting.
- Installation of lighting motion sensors in all public and staff washrooms.
- Building roof replacement to be completed as identified in the Nadine report.
- Continued liaison and communication with utility companies to:
 - (i) identify ways to reduce energy use and thereby, reduce energy costs
 - (ii) ensure that, as equipment is purchased replaced, maximum opportunity is taken to access any rebate initiatives available

Employee engagement

Hotel Dieu Shaver is interested in running an active employee engagement program. The intent of the program will be to inspire active participation toward helping the hospital save energy while keep the program fun and friendly. The program will incorporate behaviour change strategies and activities to help educate staff on energy efficient practices while increasing their awareness around energy and environmental issues. The implementation of a green committee will lead these initiatives.