

Royal Victoria Regional Health Centre

ENERGY CONSERVATION AND DEMAND MANAGEMENT (CDM) PLAN

2019 – 2024



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Introduction

As per the Ontario Regulation 507/18 all public agencies shall prepare, publish, implement and make available the energy conservation and demand management plan.

The purpose of Royal Victoria Regional Health Centre's (RVH) energy conservation and demand management (CDM) plan and policies is to promote good stewardship of our environment and community resources. In keeping with our core values and efficiency, concern for the environment, and financial responsibility, Royal Victoria Regional Health Centre's energy conservation and demand management program will reduce overall energy consumption, operating costs, and greenhouse gas emissions. It will also enable us to provide compassionate service to a greater number of persons in our community.

Today, utility and energy related costs are a significant part of overall operating costs. For RVH's annual energy consumption 2014 – 2019, **See Appendix A.**

To further strengthen and obtain full value from energy management activities, a strategic approach will be taken, the organization will fully integrate energy management into its business decision-making, policies, and operating procedures.

Active management of energy related costs and risks in this manner will provide a significant economic return to the organization and will support other key organizational objectives.

Results of Previous Measures from CDM Plan Posted July 2014

In July 2014, Royal Victoria Regional Health Centre, developed goals and devised green initiatives in an effort to decrease the facilities annual energy consumption and resulting greenhouse gas emissions. The following activities, completed between 2014 and 2019, are associated with managing overall energy consumption, lowering annual operating costs, and reducing greenhouse gas emissions. These activities may, or may not, have been included in the Royal Victoria Regional Health Centre's 2014 CDM plan and include the following:

Past CDM measures

2014: RVH changed out its aged Cooling tower for the original building at a cost of \$700,000 with and estimated annual energy cost savings of \$95,000 .

2018: RVH embarked on an entire campus lighting retrofit to change over every light to LED lighting a project cost of \$1,098,264 with \$159,897 in rebates the effective cost was \$938,277. And a simple payback of 31.months giving annual savings of \$362,900.81 this gives a 10 year cumulative saving of \$3,629,008.08 and a reduction 2,573,247 kWh equivalent to 2,307 metric tonnes of CO₂ emission reduced or removing 423 cars from the road or planting 59,164 trees, this project was completed fall 2019.

2019: RVH Installed Belimo energy valves on the chilled water system for 3 Air Handling Units (AHU,s) to run the chilled water system more efficiently, the project cost was \$57300 and reducing electricity consumption by 447,130 kWh and an estimated savings of \$53,655 per year.

Energy Management Vision

We live by our statement “Make Each Life Better Together” and we achieve this by believing in our core values, our “Energy Management Vision” embraces these values as well as finding and acting on energy saving opportunities so we can run our facility efficiently and effectively and by implementing sustainable maintenance practices as well as being good stewards to our environment.

Guiding Principles for Strategic Energy Management

RVH’s energy management will be guided by these principles:

Taking A Strategic Approach:

While RVH actively manages energy costs by implementing opportunities as they are identified, by acting strategically, RVH can significantly improve its energy-related performance. Internalising energy management into our organisation’s every-day decision-making, policies, and operating procedures will help assure substantial and long-lasting reductions in energy, operating costs, and environmental impact.

Supporting Mission-Critical Goals:

Strategic energy management will directly support RVH’s mission-critical goals of caring for the community and the environment, improving the healing and working environment, and improving the health centre’s financial bottom line by reducing unnecessary energy costs. It will also serve to optimize the capacity of existing energy systems to meet current and expanding operational needs, while improving the operational resiliency of the organisation. The impacts of RVH’s energy management efforts on those goals will be tracked and reported wherever possible.

Pursuing Long-Term Change to Core Business Practices:

The core of a strategic approach is the consistent incorporation of energy management into our organisation’s everyday practices and decision making. It also needs to be an integral part of the strategic planning and budgeting processes. Change in energy-related business practice will cover all applications of energy management – new construction and major renovations, existing facility operations and upgrades, and the economic analysis and procurement practices underlying these practices.

Fostering Organisational Commitment and Involvement:

Executive and organisational commitment and involvement is critical to successful strategic energy management. Top management at RVH will work with facility managers and other key staff to ensure that adequate organisational support and resources are provided to maximize the benefits of energy management to RVH. Energy management will also be integrated into the strategic planning and capital budgeting processes.

Obtaining Solid Economic Returns:

Energy management investments will yield solid economic returns that meet RVH's standard Return on Investment (ROI) requirements applied through the hospital's capital budgeting process. RVH will apply consistent financial analysis methods, including life-cycle costing, in order to reduce total cost of facility ownership and operation.

Using Available Resources and Assistance:

Use of national, regional, and local sources of strategic, technical, and financial assistance to help to achieve the organisation's energy management goals. These include utility, municipal, provincial and national government programs. It also includes established best practices through a community of practice approach.

Our Energy Management Goals

2020: We implemented an Occupancy set back programme for Rotary Building and fitted VFD's to the AHU's for that building at a project cost of \$49,600 with expected savings annually of \$97,000 this will also reduce our green house gas emissions to the equivalent of removing 99.5 cars from the road a total of 543.2 tCO₂.

2020/21: Implement an Occupancy set back programme in the Simcoe Muskoka Regional Cancer Centre (SMRCC) at an approx cost of \$40000 with potential savings of \$40000

2020: Install VFD's on 4 AHU's and then will rebalance the air to areas they supply in the original Building estimated cost \$25000 and possible savings of \$40000 per year.

Ongoing: We continue to look for ways we can reduce our energy consumption and reduce cost.

Appendix A



