

West Park Healthcare Centre

170 Emmett Avenue, Toronto, Ontario



Energy Conservation and Demand Management Plan

2023 to 2028

Version 1. - June 2024

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Executive Summary

The West Park Healthcare Center 2023 – 2028 Energy Conversation and Demand Management (ECDM) plan continues the commitment made in the previous West Park Healthcare Centre (WPHC) plan towards exceptional energy and environmental performance.

At the end of 2023, with substantial completion achieved on 21st November 2023, the site transitioned to the new building. At this point EllisDon Facilities Services (EDFS) began its custodianship for the facility.

With the building targeting LEED Silver Certification and as part of this custody, EDFs has a number of commitments under its stewardship covering Utilities Management, Environmental and Sustainability Services. There are also contractual commitments and guarantees for utilities consumption for the site.

This plan is cognisant of the West Park's Vision, Mission and Values to ensure it reflects and continues its commitment to environmental sustainability and healthy communities. Most notably that West Park will continue to be "A Great Place to Be".

Following on from the use of the eQuest energy model informing our design and setting a baseline, our proposals for the new site included green roof spaces, the use of Heat Recovery Chillers, automated roller shades, an integrated Building Management System and intelligent controls of the heating, cooling and lighting. Our metering and verification strategy included in the design allows for detailed tracking of operational energy and water consumption broken out by system to improve the sustainability performance of the building.

Given that the year from November 2023 to November 2024 establishes the baseline for the site and the commissioning/familiarisation of all the buildings systems, EDFs will revise and republish this ECDM in the Fall of 2025.

EDFS is a member of the Greening Health Care family and will bring to bear and learnings from the best practices of the top performing non acute hospitals in Ontario.

Part 1. – Introduction

West Park Healthcare Centre (WPHC) helps patients get their lives back by providing specialized rehabilitative and complex care after a life-altering illness or injury such as lung disease, amputation, stroke, and traumatic musculoskeletal injuries.

West Park, is located on the banks of the Humber River, and was founded in 1904 as a sanitarium for tuberculosis patients. Its original major buildings were opened in the 1930's, 1970's, 1980's and in 2001 (Long Term Care facility).

Of these the Ruddy and Gage buildings have been replaced with a new hospital transforming its 27-acre site into an integrated campus of care, enabling the hospital to evolve its rehabilitative programs to meet Ontario's future healthcare needs.

This new building, of 740,000 sq feet is home for 316 beds and offers rehabilitation, Complex Continuing Care and outpatient services.



The purpose of the EDFS West Park Healthcare Energy Conservation and Demand Management (ECDM) plan and our associated policies is to promote good stewardship of our environment and community resources.

Whilst this plan does not address the remaining buildings on the campus, EDFS notes, in Section 2, the previous ECDM plan initiatives made by West Park Healthcare including its achievement of Green Hospital of the Year (non-acute) by the Canadian Coalition for Green Health Care.

EDFS also notes the voluntary integration between University Health Network and West Park Healthcare Centre, effective April 1, 2024, which was approved by the Ontario Ministry of Health. As with Greening Healthcare, EDFS looks forward to leveraging each others expertise and capabilities.

Part 2. - Previous ECDM

In West Park Healthcare Centre's 2018- 2023 plan commitments for the Main Hospital site were set out:

- Reduce energy use by 6%
- Reduce water consumption by 7%

New Hospital

A commitment was made to deliver the most energy efficient building possible maintaining its history of being at the top of energy efficiency charts.

Strategic Alignment

Presentation of the ECDM to key groups – which remains a strategic objective for the new site.

Renewable Energy

There was no commitment to introduce renewable energy for the new site

Energy management, reporting and team building.

Introduction of an integrated energy reporting system, which is further detailed in section 3.2.

Staff Training and Support

Greater use of the Greening Healthcare membership through its workshops, webinars and technical support.

Occupant engagement and communications

Development of an outreach program.

Part 3: The plan for the next 5 years – 2024 to 2029

Over the upcoming years, the UHN - West Park Healthcare Centre site will utilize the new building as a model of sustainable, patient-centered healthcare. To ensure that the building and its surrounding areas remain in optimal condition, WPHC has partnered with EllisDon Facility Services (EDFS), who will provide comprehensive facility maintenance along with energy management support among some of their services. This includes monitoring energy usage, identifying and implementing energy conservation measures, and supporting energy projects to improve the overall efficiency and sustainability of the facility. By working closely with EDFs, WPHC remains committed to providing the highest standard of care to all patients while minimizing the environmental impact and promoting responsible resource usage.

The new building is an impressive facility, with substantial completion achieved on November 21, 2024 and full occupancy in April 2024. Equipped with smart technology, the building is designed to be energy-efficient and reduce environmental impact while providing a better experience for patients and staff. The use of modern technology enhances the overall functionality of the facility, making it easier for staff to manage operations, while also creating a more comfortable and relaxing environment for patients. With the building's completion, the focus by the end of 2023 turned to the move-in process, which took place at the beginning of the second quarter of 2024.

Following substantial completion of the new building, the initial operations period began on December 1st, 2023 and will continue until November 30th, 2024. During this time, utility data is being collected to establish a baseline for the new site, which is currently in progress and being reported to the Utilities Management Sub-Committee

Throughout this period, EDFs will conduct tuning and implement operations and maintenance (O&M) practices to ensure that the site's assets are operating efficiently and effectively, enabling the delivery of exemplary care. This work is critical in ensuring that the new building is fully optimized and performing at its best, which in turn will benefit patients, staff, and the environment.

While the new building has been completed, there are still areas of the hospital site that are currently under development, including new retail pharmacy and food spaces. To ensure continuity and consistency throughout the site, EDFs and WPHC are working together to ensure that these areas are implemented to the same base building specifications as the rest of the facility. This collaborative approach ensures that the entire site is optimized for

the delivery of exemplary care, with a focus on the comfort and wellbeing of patients and staff.

As part of its commitment to sustainability and environmental responsibility, West Park's first goal was to obtain a LEED Silver certification for the new building, which was confirmed in June 2024. This certification recognizes the building's energy-efficient design and construction, as well as its impact on the environment and the health and wellbeing of patients and staff. By prioritizing sustainability in the development of the new building, West Park is demonstrating its commitment to creating a healthier, more sustainable future for all.

Key Facts for the New Site

The following represent indicators of high performing buildings in the healthcare sector:

- Utility costs for electricity, natural gas and water are anticipated to be \$3.511 million annually.
- The Hospital's Energy Use Index (EUI) is expected to be 48.2ekWh/ft²
- The Hospital's Water Use Intensity is expected to be 142.1l/ ft²
- Energy related emissions annually are expected to equal 4079tCO₂e.
- Facility related O&M costs are \$2.4 million annually (excluding utilities)

1. The New West Park Hospital

The new building is more than just a modern healthcare facility - it's a model of sustainable design that prioritizes energy efficiency and environmental responsibility. With over 730,000 square feet of space and a capacity for over 300 patient beds, the hospital is equipped with state-of-the-art features that promote patient comfort and wellbeing. The heating and ventilation system is designed to bring fresh air indoors, while the expansion of green space and extensive landscaping provide patients with therapy courtyards, sensory gardens, and fitness trails. The new building is not only designed to operate efficiently, but also to provide a positive rehabilitation experience for patients and staff alike. The partnership between EDFS and WPHC ensures that the building is continuously monitored and maintained to meet expected standards, thus enabling us to provide exemplary care in a sustainable and energy-efficient way.



2. Renewable energy

While there are currently no existing renewable energy sources at the new hospital, WPHC and EDFS are committed to operating the facility efficiently and sustainably. Recognizing the importance of reducing the building's environmental impact and promoting responsible resource usage, there might be an opportunity to explore possible renewable energy sources into the facility in the future. In the meantime, all engaged parties will be leveraging advanced energy management technologies and implementing best practices to optimize energy usage, reduce waste, and promote sustainability across all aspects of the operations. WPHC goal is to provide exemplary care to all patients while minimizing the environmental footprint and contributing to a healthier, more sustainable future for all.

3. Management, organizational and community alignment

West Park Healthcare Centre is committed to continue leading the healthcare industry by implementing innovative initiatives that prioritize patient comfort, wellbeing, and environmental responsibility. The management team is always seeking new opportunities to learn about emerging technologies and how they can be adapted to the facility to create a positive impact for all users. Through this partnership with EDFS, the service provider has engaged multiple individuals to lead the charge in optimizing the facility's performance and minimizing its environmental impact. By leveraging advanced energy management technologies, implementing best practices, and prioritizing patient-centered care, WPHC remains confident in their ability to provide exemplary service to patients while minimizing the environmental footprint and contributing to a healthier, more sustainable future for all.

3.1. Strategic Alignment

At West Park Health Care, the strategy for the coming years extends beyond simply maintaining the new facility's maximum efficiency. WPHC is committed to engaging all visitors, employees, and members of the community to learn about all efforts to minimize the building's carbon footprint and promote environmental responsibility. This objective has been a priority not only with the new facility but also with the previous facility, and WPHC have implemented educational initiatives among the staff to cascade the message and create a greater impact. Moving forward, WPHC will maximize all efforts to educate and engage all members of the community, both within and outside the facility, whenever possible. By promoting environmental responsibility and educating all stakeholders on best practices, the objective is to inspire positive change and contribute to a healthier, more sustainable future for all.

3.2. Energy Management, reporting and team building

The new facility features advanced energy metering infrastructure that allows EllisDon Facility Service to monitor energy usage in detail, including the specific areas and uses of energy throughout the building. With over 250 data points, including sensors, meters, and VFDs, this technology provides a comprehensive view of energy usage, primarily electricity and natural gas. Multiple individuals are involved in the monitoring of utilities, with a shared goal of promoting efficient energy usage and long-term cost savings. By leveraging this technology and engaging experts in energy management, the facility can achieve optimal energy efficiency, reduce its environmental impact, and provide a comfortable and sustainable environment for patients and staff alike.

EDFS provides utilities management services and environmental and sustainability services to support energy management at West Park Healthcare Centre. These two services work in tandem, as efforts to manage utility consumption have a positive impact on the environmental sustainability of the facility and its surrounding areas. EDFS employs a multiskilled team with strong skills in specific scopes, allowing them to understand data and identify areas where action is required to optimize energy usage. Once areas of improvement are identified, EDFS works closely with the on-site team to ensure that decisions made regarding energy consumption are properly informed by data and have a positive impact on the facility's energy efficiency and environmental impact. By leveraging this expertise and working collaboratively, good and effective measures to save energy will be in place.

As part of the monitoring and reporting methodology, EDFS will provide monthly, quarterly, and annual reports to WPHC. These reports will include updates on utilities management, gains and losses in energy efficiency, and any other relevant topics related to the optimal operation of the facility. To facilitate ongoing discussion and collaboration, EDFS and WPHC have established a Utilities Management Subcommittee, which meets quarterly to discuss updates on utility usage, identify areas for improvement, and ensure that the facility is running efficiently. By meeting regularly and leveraging the team expertise, WPHC can identify and implement best practices that optimize energy usage, reduce waste, and promote environmental sustainability.

3.3. Staff training and support

Energy-efficient initiatives are not only linked to operational changes but can also be impacted by the behavior of individuals who visit the facility. As part of the plan to promote energy efficiency and sustainability, EDFS and WPHC will implement initiatives aimed at educating individuals on-site about how their behaviors can impact energy consumption. Once a year, a workshop will be provided for key individuals. The workshop will provide essential tips and information that can impact energy consumption, with the purpose that this information will be disseminated. Another initiative of the program will be to disseminate information once a year through various communication tools such as the intranet, email, posters, and other channels, to provide tips to patients, visitors, and employees about how they can contribute to energy efficiency and sustainability.

3.4. Occupant engagement and communications

At West Park Healthcare Centre, the commitment to energy efficiency and sustainability remains as strong as ever with the new facility. Over the last five years, WPHC have made significant efforts to reduce the environmental impact and promote responsible resource usage. Moving forward, WPHC will continue to build on these efforts, leveraging the benefits of the new building to further optimize energy usage and reduce waste. WPHC team is dedicated to ensuring that every occupant of the facility has a positive experience and is included in the efforts to promote energy conservation and demand management. By working collaboratively and engaging everyone in the process, WPHC remains confident in its ability to meet all sustainability objectives and contribute to a healthier, more sustainable future for all.

Upon completion of the baseline year a number of measures would follow, which are noted in the Appendix.

Therefore, EDFS will review, revise and re-publish this version of the plan during the summer/fall by of 2025. As operator of the facility, EDFS will continue to work with management in support of this plan.

Appendix – Measures Anticipated to 2028

Upon completion of the baseline data collection.

- 2024/5
 - Gap Analysis against the Energy Letter
 - Re-verification of the M&V plan
 - Review of HVAC setbacks compared to actual usage of the building
 - Review of hot water boiler temperatures and operation to efficient delta temp of 10c
 - Boiler combustion efficiency testing and tuning
 - Re publish this EDCM

- 2025/2026
 - Hospital education and engagement

- 2028
 - Completion of Joint Technical Review