



Board of Trustees

Capital Infrastructure Committee

Cycle 2 - Wednesday, December 6, 2023

Start Time: 10:30 a.m.

Participation via TEAMS

[Click here to join the meeting](#)

Or call in (audio only)

[\(888\) 862-4985, 932463357#](#) Canada (Toll-free)

Phone Conference ID: 932 463 357#

Agenda

#	Item	By	Start Time	Length	Action
1.	Call to Order and Land Acknowledgement	RW	10:30	2	
2.	Declaration of Conflict of Interest	RW	10:32	1	
3.	Approval of Agenda (including consent items)	RW	10:33	1	Approval
4.	Business Arising from the Minutes	RW	10:34	1	Information
<u>KEY ITEMS</u>					
5.	<u>2024-2025 Capital and Related Projects Plan (including appendix 1)</u>	SJ/EW/ GA/JT	10:35	15	<u>DECISION</u>
6.	<u>Major Capital Projects Update - Facilities Management (including appendices 1-4)</u>	SJ/EW/ SS	10:50	10	Information
KEY ITEMS (IN CAMERA)					
7.	Clean Agriculture for Sustainable Production (CASP) Field Infrastructure Project (IN CAMERA)(including appendix 1)	TK	11:00	15	Recommendation
8.	ITS Major Projects Update (IN CAMERA) (including appendix 1)	GA/JG	11:15	10	Information
9.	Brock Land Use Planning (IN CAMERA) (including appendix 1)	SJ/JG	11:25	20	Information
CONSENT ITEMS (IN CAMERA)			11:45	5 minutes (if needed)	
10.	IN CAMERA Record of Proceedings - Meeting #1 (2023-24) held on September 27, 2023 - (IN CAMERA)	RW			Approval

#	Item	By	Start Time	Length	Action
<u>CONSENT ITEMS</u>					
11.	<u>Minutes of Previous Meeting - Meeting #1 (2023-24) held on September 27, 2023</u>	RW			Approval
12.	<u>Utilities Portfolio Update (including appendix 1)</u>	SJ/MQ			Information
13.	Metrics - <u>Facilities Management</u>	SJ/ GA			Information
14.	Other Business	RW	11:50	5	
15.	ADJOURNMENT	RW	11:55		

Agenda Legend

RW	Rob Welch	JG	Jennifer Guarasci
SJ	Scott Johnstone	JT	Josh Tonnos
GA	Gemma Ahn	LW	Lynn Wells
MQ	Mary Quintana	EW	Ed Wall
SS	Susan Strban	TK	Tim Kenyon

ACCESSIBILITY: If you require this agenda in an accessible format or require the provision of communications supports for the meeting, please submit a request by email to universitysecretary@brocku.ca Please note, where meetings are held using Microsoft Teams, individual participants can access live captioning by following these instructions: [Live Captioning in Teams Meetings](#).

Report to the Capital Infrastructure Committee

DECISION ITEM

TOPIC: 2024-2025 Capital and Related Projects Plan

December 6, 2023

Scott Johnstone, Associate Vice-President, Operations and Infrastructure

Edward Wall, Associate Vice-President, Ancillary Services

Gemma Ahn, Associate Vice-President & Head of Information Technology Services

Josh Tonnos, Chief Financial Officer & Associate Vice-President, Financial Services

MOTION

THAT the Capital Infrastructure Committee approve the Fiscal Year 2024-2025 Capital and Related Projects Plan presented in Appendix 1 of the Report to the Committee dated December 6, 2023, subject to funding approval from the Board of Trustees.

EXECUTIVE SUMMARY

1. Rationale

- To seek approval of the Fiscal Year (FY) 2024-2025 Capital and Related Projects Plan (Appendix 1), in terms of content and funding; enabling Management to implement the referenced projects including design, tendering, selection, scheduling and project implementation.

2. Key Background

- The FY 2024-2025 Capital and Related Projects Plan (*See Appendix 1*) has been developed in consultation with the Brock community.
- The Fiscal Framework capital funding plan aims for \$14.9M in funding. Due to the significant ongoing budgetary challenges, the proposed capital project plan is being held flat to the 2023-24 funding amount of \$13.0M. The approved capital and related project plan for the 2023-24 fiscal year was reduced by \$1.9M and this reduction is being carried forward for another year in this recommendation for the 2024-25 plan. There is no incremental funding cut to the plan's envelop for 2024-25 over what was provided in the current year envelop.
- The proposed plan also includes \$2.6M in funding for the District Energy System (DES) Electrification project, previously approved by the board. The DES project is budgeted at \$6.5M which includes a \$2.9M grant from the Ministry of Environment.

3. Implications

- The FY 2024-225 Capital and Related Projects Plan will support the following projects:
 - The District Energy System Electrification project, \$2.6M.
 - A Student Information System project, \$2.0M.
 - The Village Residence Renewal project, \$1.7M.
 - An Identity Access Management & Security Operation Center, \$1M.
 - A Learning Management System to provide a teaching and learning solution for all students, staff, and faculty, \$565k.
 - Legislated projects for the Accessibility for Ontarians with Disabilities Act, \$100k.
 - Other deferred maintenance and core capital projects, \$5.0M.
- Considering significant fiscal constraints on Brock's budget planning, the 2024-25 Capital and Related Projects Plan does not include an allocation to a deferred maintenance reserve for residences. The business plan for building Residence 8 and renovating Decew included an annual reserve contribution for residence renewal; however, that allocation for 2024-25 has been omitted to prioritize immediate deferred maintenance needs and increase investment in student information technology systems needed to begin replacing end of life legacy systems.

4. Next Steps

- Upon approval, Administration will begin the planning and tendering process to implement the projects identified in Appendix 1.

5. Background Materials

- Appendix 1 - 2024-25 Capital and Related Projects Plan

Project	Project Spending - 2024-25			Total Project Costs	Brock University Values					Reporting Criteria	
	Facilities Renewal Program Funds/Eligible	Ancillary	Other Operating		Student Experience	Teaching & Learning	Research	Regulatory	Campus Community	DM - Deferred Maintenance	Non-Deferred Maintenance
Major Capital Projects											
District Energy Modernization	2,571,535		-	2,571,535	√				√	2,571,535	-
Total Major Capital Projects	2,571,535	-	-	2,571,535						2,571,535	-
University Deferred Maintenance											
Sanitary/Storm Line Replacement and Repairs	100,000		-	100,000	√					100,000	-
Flooring Renewal	50,000		-	50,000	√					50,000	-
Interior & Exterior Door Replacements	50,000		-	50,000	√				√	50,000	-
Painting of Public Spaces	50,000		-	50,000	√					50,000	-
Energy Efficiency Upgrades	250,000		-	250,000	√		√		√	250,000	-
Annual High Voltage Maintenance	120,000		-	120,000	√				√	120,000	-
Annual BAS Controls Modernization	100,000		-	100,000	√		√		√	100,000	-
Motor Control Centre Upgrade	110,000		-	110,000	√				√	110,000	-
Road Repairs	500,000		-	500,000	√				√	500,000	-
Replace South Stairs to Scotia Bank Hall	225,000		-	225,000	√					225,000	
Total University Deferred Maintenance	1,555,000	-	-	1,555,000						1,555,000	-
AODA ⁽¹⁾ Accessible Built Environment (ABE)											
Annual AODA Upgrades; washrooms, paths of travel, etc	100,000		-	100,000	√	√		√	√	100,000	-
Total AODA ⁽¹⁾ Accessible Built Environment	100,000	-	-	100,000						100,000	-
Audits and Studies											
Annual Facility Condition Audits (VFA Inc.)			80,000	80,000				√		-	80,000
Total Audits and Studies	-	-	80,000	80,000						-	80,000
Ancillary Services - Parking											
Parking Lot Repair and Maintenance		50,000	-	50,000	√					50,000	-
Total Ancillary Services - Parking	-	50,000	-	50,000						50,000	-
Ancillary Services - Residence and Dining											
Village Residence Renewal		1,700,000	-	1,700,000	√				√	1,700,000	-
Residence Furniture Replacement		50,000	-	50,000	√				√	-	50,000
Total Ancillary Services - Residence and Dining	-	1,750,000	-	1,750,000						1,700,000	50,000

Project	Project Spending - 2024-25			Total Project Costs	Brock University Values					Reporting Criteria	
	Facilities Renewal Program Funds/Eligible	Ancillary	Other Operating		Student Experience	Teaching & Learning	Research	Regulatory	Campus Community	DM - Deferred Maintenance	Non-Deferred Maintenance
ITS - New or Flexible											
PCI Compliance			270,000	270,000	√						270,000
Incident Response Platform			53,000	53,000	√						53,000
Campus Network & Wireless Capacity Upgrades			82,000	82,000	√						82,000
Residence Network Capacity Upgrades			101,000	101,000	√						101,000
Network Switches - Admin			12,000	12,000	√						12,000
Network Switches - Residences			50,000	50,000	√				√		50,000
A.V.			92,000	92,000	√	√	√		√		92,000
Campus Critical Power Replacement			40,000	40,000	√	√	√		√		40,000
Residence Critical Power Replacement			30,000	30,000	√	√	√		√		30,000
CCTV - Admin			40,000	40,000	√	√	√		√		40,000
CCTV - Residence			10,000	10,000	√				√		10,000
Physical Security & Safety Upgrade & Improvement			35,000	35,000	√				√		35,000
Data Back Up			60,000	60,000	√				√		60,000
Cabling Infrastructure			50,000	50,000	√		√		√		50,000
Computer Purchase & redeployment			250,000	250,000	√				√		250,000
Total ITS - New or Flexible	-	-	1,175,000	1,175,000						-	657,000
ITS - Core Activities											
Core Subscription Fees			1,880,000	1,880,000	√	√			√	-	1,880,000
Core Strategic Student Solutions			240,000	240,000	√				√	-	240,000
Learning Management System			565,000	565,000	√	√			√	-	565,000
Student Information System			2,000,000	2,000,000	√	√			√	-	2,000,000
Identity Access Management and Security Operation Center			1,000,000	1,000,000	√				√	-	1,000,000
Total ITS - Core Activities	-	-	5,685,000	5,685,000						-	5,685,000
Total Projects - FM	4,226,535	-	80,000	4,306,535						4,226,535	80,000
Total Projects - Ancillary Services	-	1,800,000	-	1,800,000						1,750,000	50,000
Total Projects - ITS	-	-	6,860,000	6,860,000						-	6,342,000
TOTAL PROJECTS for APPROVAL	4,226,535	1,800,000	6,940,000	12,966,535						5,976,535	6,990,000

Revenue - Fiscal Framework Guidance

New or "flexible" capital	\$4,792,000
Core Capital (deferred maintenance)	\$6,000,000

Project	Project Spending - 2024-25			Total Project Costs	Brock University Values					Reporting Criteria	
	Facilities Renewal Program Funds/Eligible	Ancillary	Other Operating		Student Experience	Teaching & Learning	Research	Regulatory	Campus Community	DM - Deferred Maintenance	Non-Deferred Maintenance
Base Ancillary Contribution				\$3,246,000							
Additional Ancillary Contribution				\$816,283							
Subtotal - Fiscal Framework				\$14,854,283							
Budget Mitigation (consistant with previous year)				-\$1,887,748							

(1) AODA - Accessibility for Ontarians with Disabilities

Report to the Capital Infrastructure Committee

INFORMATION ITEM

TOPIC: Major Capital Projects Update - FM

December 6, 2023

Scott Johnstone, Associate Vice President, Infrastructure and Operations
Edward Wall, Associate Vice President, Ancillary Services
Susan Strban, Interim Director, Capital Planning and Project Management

EXECUTIVE SUMMARY

1. Purpose of the Report

- The purpose of this report is to provide Committee members with an overview of key Facilities Management and Ancillary Services projects aligned with the University's strategic priority of *offering a transformational and accessible academic and university experience*.
- These projects, as well as others that FM is working on, all continue to enhance and strengthen the University's environment and help facilitate the University's mission of leadership, innovation and excellence in learning, teaching, research, scholarship, and creativity across disciplines.

2. Key Background

- There are currently four active major capital projects underway:
 - ⊖ Major renovations on the ground floor at the Goodman School of Business with a proposed link between Mackenzie Chown building A (MCA) and the Goodman School of Business (GSB).
 - ⊖ Major renovations to Village Residence, court 12, that include upgrades to the interior finishes with new flooring, millwork, plumbing, light fixtures and painting throughout.
 - ⊖ Major renovations to Village Residence, court 7 and 8, that replicate the interior upgrades at court 9 and 12.
 - ⊖ Major upgrades to the District Energy System (DES) including a new boiler, heat pump, piping retrofits and overall optimization of control sequences to reduce Brock's carbon emissions by up to 67% and save \$5M in carbon costs by 2030.

Projects	Budget
Goodman School of Business Renovation, MCA	\$ 3,000,000
Village Residence Interior & Exterior Renewal	\$ 1,830,000
Village Residence Renewal Court 7 and 8	\$ 2,700,000
District Energy System Electrification	\$ 6,500,000

- Project details follow in Appendices 1 to 4
- Market conditions continue to have a significant impact on Brock projects, including those identified above.

3. Next Steps

- Continue to manage the construction process and to identify and mitigate any potential risks where possible to maintain project budget and schedule.

4. Background Materials

Appendix 1 - Goodman School of Business, MCA Renovation (1 page)
Appendix 2 - Village Residence Interior and Exterior Renewal (1 page)
Appendix 3 - Village Residence Renewal Court 7 and 8 (1 page)
Appendix 4 - District Energy System Electrification (1 page)

Appendix 1 - Goodman School of Business Renovation - MCA

December 6, 2023

Project Status Update

Project Description:

The major renovation and proposed link between the Level 2 in the Mackenzie Chown building A (MCA) and the Goodman School of Business (GSB) includes approximately 5,000 SF (465 m2) of renovation to MCA level 200, and 300 SF (28 m2) of addition, creating an exciting new link between the two buildings. The goal of the project is to better serve the growing student population, with student focused space that offers support for undergraduate, international, and professional development programs.

Impact: Students, faculty, staff, and the Brock community. This project highlights the benefit of using the Revenue and Expense Allocation Model to support space usage decision making where GSB gains needed space including 12 offices, a reception area and a collaborative multipurpose area.

Status/Issues:

Occupancy has been held up due to fire alarm issues.

Upcoming Milestones:

Complete fire alarm system deficiencies and achieve occupancy.

Schedule

	Original	Current
Architect -complete tender drawings and specifications	October 2021	November 2021
Retain General Contractor	January 2022	December 2022
Construction Commencement	February 2022	January 2023
Substantial Performance and Occupancy	September 2022	November 2023

Budget

Budget	\$3,000,000	
Actuals	\$2,356,374	
Commitments	\$190,473	
Forecasted Future Spend	\$253,153	
Total Projected Cost (estimate)	\$2,800,000	
Variance to Revised Budget	\$200,000	6.7%

Note: Project funding is from the “Goodman Trust Fund and the Dean’s Discretionary Fund”.

Project Team

Facilities Management	John Rizzo, Senior Project Manager
Research	Barry Wright, Dean, Goodman School of Business
Architect	McCallum Sather
General Contractor	Niacon Construction

Appendix 2 - Village Residence Interior and Exterior Renewal

December 6, 2023

Project Status Update

Project Description:

The building renovations will include upgrades to the interior and exterior finishes to Village Residence, Court 9 and 12. The interior finishes upgrade will include, new flooring, removal of popcorn ceiling in selected areas, repairing of gypsum wall board, new millwork in kitchen (cabinetry) and bathrooms (vanities) and replacement of plumbing fixtures - sinks, toilets, removal and replacement of light fixtures, receptacles, switches and plates; painting throughout including exterior doors; and installation of window treatments (blinds). The goal of the project is to enhance the student experience with upgraded space and accommodations.

Phase 1: Court 9

Phase 2: Court 12

Impact: Students, faculty, staff, and the Brock community.

Status/Issues:

Phase 1: Court 9 completed.

Phase 2: Court 12 completed.

Upcoming Milestones:

Project completed with the exception of minor deficiencies (being addressed in Spring 2024).

Schedule

	Original	Current
Retain Architect - Phase 2	September 2022	September 2022
Retain General Contractor	October 2022	November 2022
Construction Commencement	October 2022	December 2022
Occupancy	December 2022	August 2023

Budget

Budget	\$1,830,000	
Actuals	\$1,822,142	
Commitments	\$0	
Forecasted Future Spend	\$7,858	
Total Projected Cost (estimate)	\$1,830,000	
Variance to Revised Budget	\$0	0.0%

Project Team

Facilities Management	John Rizzo, Senior Project Manager
Ancillary Services	Cindy Chernish, Director, Residences
Architect	Quartek Group Inc
General Contractor	Phase 1: Stolk Construction Phase 2: Stolk Construction

Appendix 3 - Village Residence Renewal Court 7 and 8

December 6, 2023

Project Status Update

Project Description:

The building renovations will include upgrades to the interior and exterior finishes to Village Residence, Court 7 and 8. The interior finishes upgrade will include, new flooring, removal of popcorn ceiling in selected areas, repairing of gypsum wall board, new millwork in kitchen (cabinetry) and bathrooms (vanities) and replacement of plumbing fixtures - sinks, toilets, removal and replacement of light fixtures, receptacles, switches and plates; painting throughout including exterior doors; and installation of window treatments (blinds). The goal of the project is to enhance the student experience with upgraded space and accommodations.

Impact: Students, faculty, staff, and the Brock community.

Status/Issues:

Construction complete.

Upcoming Milestones:

Minor deficiencies related to millwork being address in January.

Schedule

	Original	Current
Retain Architect	March 2023	March 2023
Retain General Contractor	May 2023	May 2023
Construction Commencement	May 2023	May 2023
Occupancy	August 2023	August 2023

Budget

Budget	\$2,700,000	
Actuals	\$1,694,704	
Commitments	\$299,870	
Forecasted Future Spend	\$705,425	
Total Projected Cost (estimate)	\$2,700,000	
Variance to Revised Budget	\$0	0.0%

Project Team

Facilities Management	John Rizzo, Senior Project Manager
Ancillary Services	Cindy Chernish, Director, Residences
Architect	Quartek Group Inc.
General Contractor	Niacon Construction

Appendix 4 - District Energy System Electrification

December 6, 2023

Project Status Update

Project Description:

The District Energy System (DES) Electrification includes installing an electric boiler at Welch Hall, installing a heat pump in CAIRNS, recovering heat waste from CAIRNS' steam boiler for mechanical equipment, piping retrofits at Schmon Tower, Decew Residence, Welch Hall, Thistle Complex and Student Centre to supply the DES, and the optimization of control sequences DES and satellite generation assets. The goal of the project is to reduce Brock's carbon emissions by up to 67% thus reducing future costs of carbon by more than \$5M by 2030.

Impact: Students, faculty, staff, and the Brock community.

Status/Issues:

Engineer has been retained and schematic design is 75% complete.

Upcoming Milestones:

Completion of schematic design and purchase of equipment.

Schedule

	Original	Current
Engineer	March 2023	March 2023
Retain Contractor(s)	March 2024	March 2024
Construction Commencement	April 2024	April 2024
Substantial Performance	March 2025	March 2025

Budget

Budget	\$6,500,000	
Actuals	\$238,050	
Commitments	\$474,135	
Forecasted Future Spend	\$5,787,815	
Total Projected Cost (estimate)	\$6,500,000	
Variance to Budget	\$0	0.0%

Note: Project funding is from current and future years capital (\$3.6M) and a grant from the Ministry of Environment (\$2.9M).

Project Team

Facilities Management Engineer	Drew Cullen, Manager, District Energy
General Contractor(s)	Equinox Strategies Inc. TBD

Appendix 1 - Goodman School of Business Renovation - MCA

December 6, 2023

Project Status Update

Project Description:

The major renovation and proposed link between the Level 2 in the Mackenzie Chown building A (MCA) and the Goodman School of Business (GSB) includes approximately 5,000 SF (465 m2) of renovation to MCA level 200, and 300 SF (28 m2) of addition, creating an exciting new link between the two buildings. The goal of the project is to better serve the growing student population, with student focused space that offers support for undergraduate, international, and professional development programs.

Impact: Students, faculty, staff, and the Brock community. This project highlights the benefit of using the Revenue and Expense Allocation Model to support space usage decision making where GSB gains needed space including 12 offices, a reception area and a collaborative multipurpose area.

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Appendix 2 - Village Residence Interior and Exterior Renewal

December 6, 2023

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Phase 1: Court 9

Phase 2: Court 12

Impact: Students, faculty, staff, and the Brock community.

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Project Team

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Ancillary Services	Cindy Chernish, Director, Residences
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Appendix 3 - Village Residence Renewal Court 7 and 8

December 6, 2023

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Appendix 4 - District Energy System Electrification

December 6, 2023

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Status/Issues:

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Upcoming Milestones:

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Project Team

Facilities Management Engineer	Drew Cullen, Manager, District Energy
General Contractor(s)	Equinox Strategies Inc. TBD



MINUTES OF MEETING #1 - CYCLE 1 (2023-2024)

CAPITAL INFRASTRUCTURE COMMITTEE

WEDNESDAY, SEPTEMBER 27, 2023, 10:30 AM

REMOTE PARTICIPATION VIA MICROSOFT TEAMS

MEMBERS

PRESENT: Rob Welch (Committee Chair), Mark Arthur, Anteneh Ayanso, Nyarayi Kapisavanhu, Kristian Knibutat, Brian Lang, Anne McCourt, James Maxwell-Barillas, Matthew Melnyk, Lesley Rigg, Stephanie Thompson

REGRETS: Kevin Magee, Debbie Zimmerman

KEY

RESOURCE: Chabriel Colebatch, Stacey Duncan, Jennifer Guarasci, Scott Johnstone, Tim Kenyon, Margaret Thompson, Lynn Wells

ALSO

PRESENT: Invited staff members during specific agenda items and other members of the Brock community

1. Call to Order

The Committee Chair welcomed members and staff, called the meeting to order, and provided a land acknowledgement.

2. Declaration of Conflict of Interest

There were no conflicts of interest declared to any matter on the Agenda.

3. Approval of the Agenda

The Committee Chair referred members to the Agenda and confirmed that there were no items to be lifted from the consent portion. He noted that appendix 2 of Agenda Item 8 regarding a cyber security summary is a confidential document and will be considered during the *in camera* session.

On a motion by Trustee Melnyk, seconded by Trustee Lang and carried, it was

RESOLVED that the Agenda, including consent items, be approved.

4. Business Arising from the Minutes - None

5. 2023-24 Capital Infrastructure Committee Work Plan

[A Decision Item *TOPIC: 2023-24 Capital Infrastructure Committee Work Plan* dated September 27, 2023 had been posted with the meeting materials together with Appendix 1 - 2023-24 Capital Infrastructure Committee Work Plan and Appendix 2 - Capital Infrastructure Committee Charter.]

The Committee reviewed its 2023-24 Work Plan that reflects the Committee's responsibilities in its Charter, the strategic priorities of the University, the feedback provided from the annual Board assessment and ongoing actions from the previous year. In addition, the following key objectives for 2023-24 as set by the Committee Chair had been included in the Report:

1. Ensure that the Vision, Mission, Guiding Values and Strategic Priorities as stated in the Brock University Institutional Plan 2018-25 are reflected in our capital and maintenance spending, and decision-making.
2. Provide oversight to the completion, on-time and on-budget, of major capital projects presently in progress, while reviewing how capital is spent to ensure consistency with the Campus Master Plan.
3. Provide necessary allocation of resources for IT services for leading edge technology and IT security and cyber-security to the Brock community.
4. Monitor the status of the interim location of Brock's Burlington campus, and the progress towards the ultimate relocation of the Burlington campus to the former Robert Bateman school site.
5. Review Management's progress towards addressing facility needs for the Yousef Haj-Ahmad Department of Engineering.
6. Review and monitor management's progress on the University's Land Use Master Plan plus Phase 2 of its Space Plan.
7. Monitor the status of deferred maintenance and unfunded liabilities surrounding Brock's capital and infrastructure assets, and management's efforts towards addressing these issues.
8. Monitor Brock's sustainability efforts and initiatives in the construction, maintenance and stewardship of Brock's capital and infrastructure assets.

During discussion, the Associate Vice-President, Infrastructure and Operations responded to questions and received comments from members regarding the oversight of climate resilience within the monitoring of sustainability and funding and risk matters related to deferred maintenance.

The Board Chair requested that the Governance/Nominating Committee consider the feasibility of including oversight of climate resilience within the Capital Infrastructure Committee Charter during its upcoming review of Board Committee Charters. The Audit Committee Chair asked Management to include additional information in future reports regarding potential risks should government funding for facilities renewal not come through.

In addition, the following article was shared with the Committee members for information: [Investing in university infrastructure is an investment in the future \(thestar.com\)](https://www.thestar.com/article/2023/09/27/investing-in-university-infrastructure-is-an-investment-in-the-future).

On a motion by Trustee Lang, seconded by Trustee Knibutat and carried, it was

RESOLVED that the Capital Infrastructure Committee approve the 2023-24 Committee Work Plan as outlined in Appendix 1 of the Report.

6. T1 Financial Update on Capital and Related Project Plan

[An Information Item *TOPIC: T1 Financial Update on Capital Related Project Plan* dated September 27, 2023 had been posted with the meeting materials together with Appendix 1 - T1 Financial Update on Capital and Related Project Plan.]

The Committee reviewed the Report that provided a trimester one update of the capital and related projects, consistent with the Committee Charter and reporting requirements. During the review, the Associate Vice-President, Infrastructure and Operations provided highlights for the information of members.

7. Major Capital Projects Update - Facilities Management

[An Information Item *TOPIC: Major Capital Projects Update - Facilities Management* dated September 27, 2023 had been posted with the meeting materials together with the following appendices: 1 - Goodman School of Business, MCA Renovation; 2 - Village Residence Interior and Exterior Renewal; 3 - Village Residence Renewal Court 7 and 8; and 4 - District Energy System Electrification.]

The Committee reviewed the Report that provided an overview of key Facilities Management and Ancillary Services projects aligned with the University's strategic priority of offering a transformational and accessible academic and university experience.

8. ITS Major Projects and Information Security Update

[An Information Item *TOPIC: ITS Major Projects & Information Security Update* dated September 27, 2023 had been posted with the meeting materials together with Appendix 1 - ITS Project Dashboard Update and confidential Appendix 2 - Confidential ITS Information Security Update.]

The Associate Vice-President, Information Technology Services presented the Report that provided an overview of key IT major projects that support both the University's strategic priorities as well as manage and address IT risk, information, and cyber security. Key topic areas included Major Projects, Cyber Security Summary and National Institute of Standards and Technology (NIST) Action Plan Update, and the National Association of Corporate Directors (NACD) Cyber Security as a Strategic Risk.

During the Committee's review of the Report, the Committee Chair shared comments he had received and forwarded to the AVP, ITS from Committee member Trustee Magee who was unable to attend today's meeting. It was requested that the written comments be shared with all members following the meeting. The AVP, ITS responded to questions raised regarding opportunities being examined and received feedback regarding the potential to include additional information on costs associated with the major projects.

The Committee then agreed to move *in camera* to consider the confidential appendix regarding a cyber security summary and the following item:

9. Litigation Update - *In camera*

On a motion by Trustee Lang, seconded by Trustee McCourt and carried, the Committee moved *in camera* at 11:13 a.m. Only members of the Committee and those invited staff remained for the closed session.

[During closed session, the Committee reviewed a confidential appendix and a confidential Report.]

The Committee resumed open session at 11:31 a.m.

10. In Camera Record of Proceedings - Meeting #5 (2022-23) held on June 28, 2023 - *In camera*

[The *in camera* Record of Proceedings of the previous meeting had been posted with the meeting materials.]

The confidential Record of Proceedings from the previous meeting held on June 28, 2023 had been approved by consent.

11. Minutes of Previous Meeting - Meeting #5 (2022-23) held on June 28, 2023

[The minutes of Meeting #5 (2022-23) held on June 28, 2023 had been posted with the meeting materials.]

The minutes of the previous meeting held on June 28, 2023 were approved by consent.

12. Metrics - Facilities Management, ITS

[An Information Item *TOPIC: Metrics - Facilities Management, Information Technology Services* dated September 27, 2023 had been posted with the meeting materials.]

The Report was received by consent.

13. Other Business - None

14. Adjournment

The meeting adjourned at 11:32 a.m.

Report to the Capital Infrastructure Committee

INFORMATION ITEM

TOPIC: Utilities Portfolio Update

December 7, 2023

Scott Johnstone, Associate Vice-President, Infrastructure & Operations

Mary Quintana, Director, Asset Management & Utilities

EXECUTIVE SUMMARY

1. Purpose of the Report

- To provide an update on the University's utilities (Natural gas, Electricity, Carbon and Domestic water) procurement and production strategies, in accordance with section 3.7 of the Committee's mandate to "review sustainability-related policies, plans and activities of the University to satisfy itself that the University has appropriate measures in place to support sustainability."

2. Key Background

Brock University owns and operates its own District Energy System (DES) that provides the majority of the heating, cooling and electricity to the main campus, year-round. Through this efficient system Brock has a considerable amount of flexibility to respond to energy and commodity market pricing changes by immediately implementing operational changes.

In Ontario's ever-changing energy market, the Facilities Management team responds by continuously changing operating parameters at the DES. For example: Actively adjusting the amount purchased from the grid between 0-100% to meet campus demand and take advantage of electricity prices. Brock opts into the Ontario's Industrial Conservation Initiative (ICI) as a Class A customer, avoiding \$382,800 CAD in electricity costs between July 2022 and June 2023.

Brock's DES is also instrumental in protecting Brock's assets and its community in the event of extreme weather events (e.g. a snowstorm), while providing cost-effective alternatives to reduce the institution's carbon emissions.

Natural Gas

- Blackstone Energy Services Inc. acts as an Agent of Brock University to secure or fix the commodity prices to be paid for future consumption of most of the University's natural gas requirements.
- Currently, Brock has 90% of its estimated natural gas consumption hedged at an average commodity price of \$5 CAD/GJ
- The hedging strategy is aimed at providing price certainty, to manage the increased volatility of the past couple of years, while balancing the cost of the commodity.

Electricity

- For the period of July 1, 2023 - June 30, 2024, Brock chose to participate as a Class A customer in the ICI program. The University's Peak Demand Factor was extremely favourable because of cogeneration and demand management efforts undertaken in summer 2022. Under this customer class, Brock pays an average of \$1.42 CAD/MWh instead of \$59.51 CAD/MWh, making these efforts critical for cost avoidance.
- The hourly price of electricity in Ontario (HOEP) has been rising in recent months. In the future, electricity hedging might become an alternative to mitigate costs related to HOEP. Facilities Management is working with other universities to set up an OAPPA-wide electricity-buying process to prepare in the event it becomes advantageous to hedge this commodity.
- Facilities Management has continued to improve on the Energy Management System (EMS) deployed in 2021. Additional dashboards and features have been added. This system has been so successful that several colleges and universities across Ontario are looking at installing this system.

Carbon

- The University is now a voluntary participant under the provincial Emissions Performance System (EPS), which has now replaced the federal pricing program for direct emissions.
- Brock's carbon liability for calendar year 2020 was 8,602 tonnes of CO₂e, with a regulated price of \$50 CAD/tonne emitted. In addition, A total of \$430,100 CAD was paid on November 23rd, 2023 to the Ministry of Environment, Conservation and Parks (MECP).
- Brock obtained permission from the Ministry to use an older methodology for 2022, which resulted in avoiding \$112,000 CAD in additional compliance fees. The total cost avoidance from participating in EPS during 2022 was \$692,150 CAD (a 62% cost reduction).
- The MECP intends to reduce the assistance for carbon emitters by 16% with the price of carbon increasing by \$15 CAD every year until reaching \$170 / tonne CO₂e in 2030. Brock has continued leading OAPPA's efforts in advocating for the sector as carbon regulations and programs are amended.

3. Next Steps

- Carbon costs will continue increasing, Facilities Management will start identifying projects and measures, in accordance to Brock's Carbon Reduction Plan, to reduce emissions and reduce the University's carbon liability.
- Energy conservation and efficiency will be increasingly important in operations and in capital decisions (e.g., new construction and renovations). The long-term repercussions on the operational costs would make the assets unsustainable if these are value-engineered.

4. Background Materials

Appendix 1 - Portfolio Summary Natural Gas and Electricity (2 pages)

APPENDIX 1 – Portfolio Summary of Natural Gas (1 page)

Natural gas

Brock University

Natural Gas Term Purchase Overview
 Aug-23



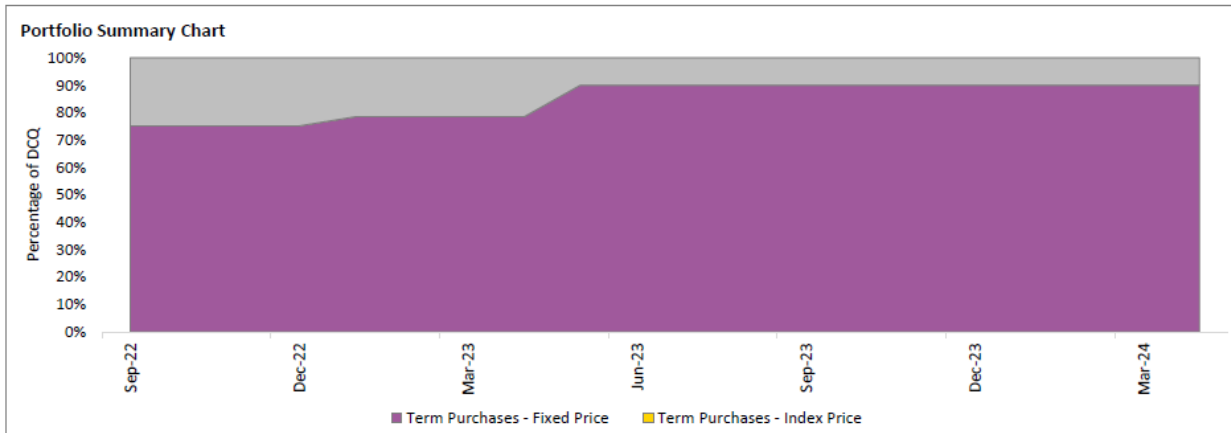
Transaction Details & Portfolio Structure

Gas Supply Purchases																												
Volume (GJ/day)	Supplier	Price (\$/GJ)	Start	End	Delivery Point	% of Portfolio	Status	Price Type	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24
588	Shell	\$6.900	May-23	Dec-23	Dawn	49%	Active	Fixed																				
118	Direct Energy	\$6.270	May-23	Dec-23	Dawn	10%	Active	Fixed																				
372	Direct Energy	\$3.192	May-23	Dec-23	Dawn	31%	Active	Fixed																				
608	Direct Energy	\$4.343	Jan-24	Apr-24	Dawn	51%	Future Term	Fixed																				
470	Shell	\$6.240	Jan-24	Dec-24	Dawn	39%	Future Term	Fixed																				
311	Twin Eagle	\$3.998	May-24	Dec-24	Dawn	26%	Future Term	Fixed																				
353	Shell	\$5.960	Jan-25	Dec-25	Dawn	29%	Future Term	Fixed																				
132	Direct Energy	\$4.715	Jan-25	Dec-25	Dawn	11%	Future Term	Fixed																				

Existing MDV 1,198

Notes

- Delivery Volume refers to the contracted gas volume to be delivered to the utility, also known as Mean Daily Volume (MDV) or Daily Contracted Quantity (DCQ).
- Fixed Price refers to a specified numerical price
- Index Price refers to a price based on industry indices or settlements such as 5A
- Term Purchase refers to transactions with a duration exceeding one calendar month
- Remaining Month-to-Month Delivery is calculated as the difference between Monthly Delivery Volume and any Term Purchases in place



* Data as of November 2, 2023

Electricity

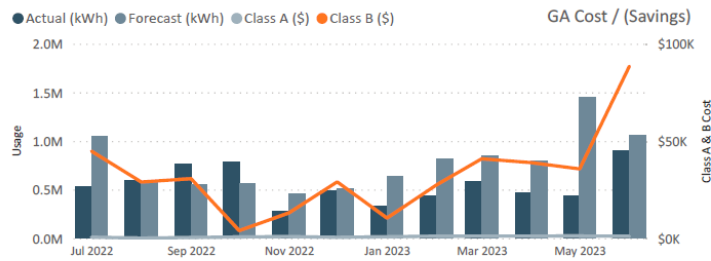
Electricity Industrial Conservation Initiative

Brock University

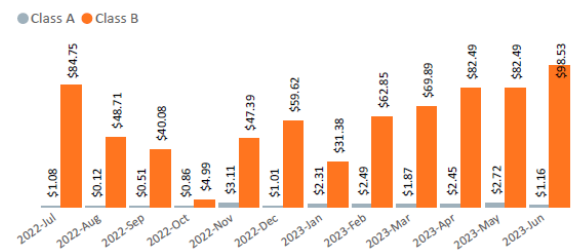


Global Adjustment (GA) Cost Comparison

Actual & Forecasted Usage (kWh), Class A Costs and Class B Costs (\$382.8K)



Class A and Class B Unit Cost (\$/MWh)



Projected PDF for Adjustment Period (July 2024 - June 2025)

ICI Base Period (May 2023 - April 2024)

Rank	Date	Hour Ending	Peak-Setting Period	Total (MW)	Actual (MW)
1	05-Jul-23	18	2024	22,686	
2	06-Jul-23	12	2024	21,882	
3	04-Jul-23	17	2024	21,690	
4	02-Jun-23	17	2024	21,463	0.06
5	01-Jun-23	17	2024	21,088	0.10
Total				108,809	0.16

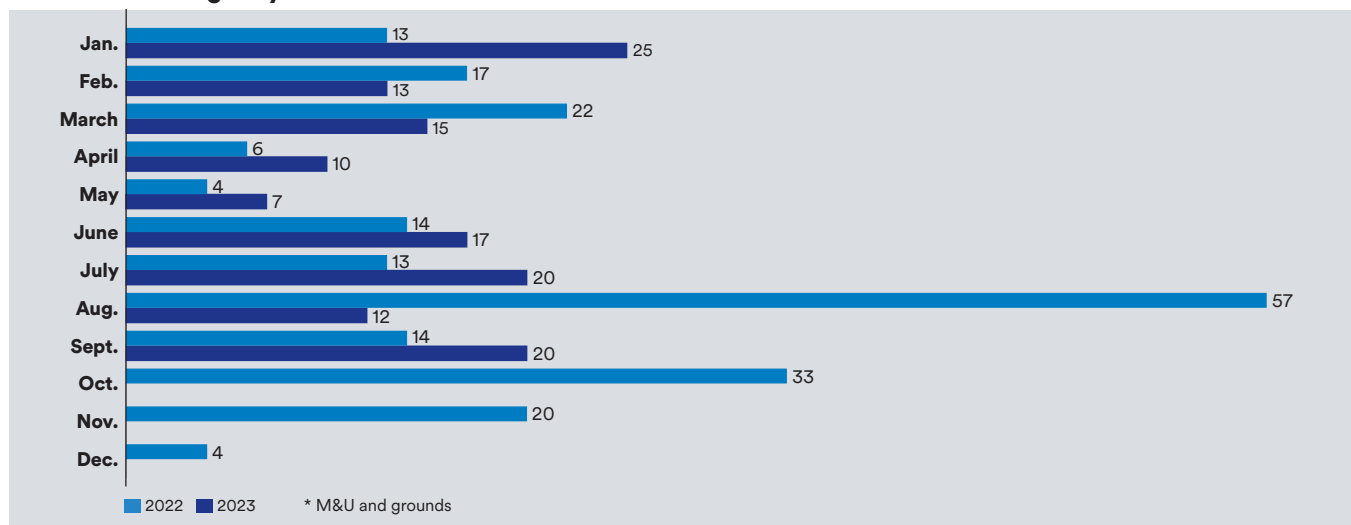
Projected PDF Calculation

108,809	0.0000015
Total (MW)	Forecasted PDF

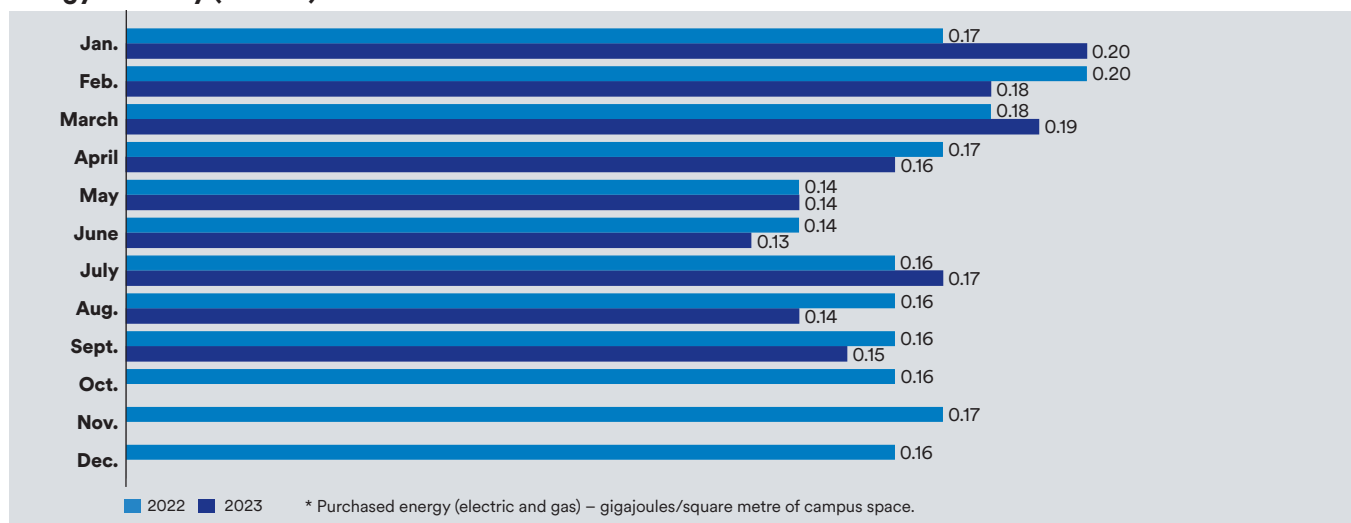
* Source: Electricity Performance Report June 2023

Facilities Management scorecard

Number of emergency/after hour call-ins*



Energy intensity (GJ/M2)*



Water consumption (M3)*

