

2019 Georgian Bay General Hospital Conservation Demand Management Plan



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Georgian Bay General Hospital's conservation demand management plan (CMP) and policies are intended to promote responsible stewardship of our environment and community resources. Two of Georgian Bay General Hospital's core values are Dependability and Excellence. The energy management program will further these core values by increasing operational efficiencies, reducing costs, and enabling the Hospital to provide compassionate service to a greater number of persons in the community.

- Utility and energy related costs are a significant part of overall operating costs. Utility bills, including electricity, and natural gas use in 2017 \$762,892.92 for the Midland site.
- Recent activity (last five years) associated with managing these costs include the following:
 - Boiler plant optimization
 - Continued steam and condensate return distribution system improvements and replacements
 - Continued lighting redesign replacement and sensors including LED replacements
 - Repaired/replaced old and obsolete HVAC equipment with modern energy efficient equipment
 - Optimization of BAS programming strategies
 - Parking lot lighting replacement including helicopter signaling lights
 - Replaced medical and pneumatic air compressors
 - Exterior window and door replacement
- 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.



Energy Management Vision

Georgian Bay General Hospital's mission is improving the health of the communities we serve.

Therefore, we consider our facilities both as a primary source of care and as a leader in moving our community forward to greater overall health. It is critical to our mission that our facilities model an efficient, effective environment of care for our community. Enhancing efficiency in our use of facility resources will enable Georgian Bay General Hospital to direct more resources toward patient care and the relief of illness and suffering. As well, by reducing our ecological footprint, we are doing our part to create a healthier environment. This is essential to our community's health and in inspiring progress toward a healthier future.

Thus, Georgian Bay General Hospital's energy management vision is to improve energy efficiency and reduce waste by improving infrastructure, by developing forward-thinking policies and processes, and by incorporating new best practices and technologies.



Business Proposition

- If energy management considerations are integral to relevant business practices, policies, procedures, and decision-making processes, Georgian Bay General Hospital's energy and utility related costs can be reduced by an additional 5% over a 5 year period.
- Based on 2017 utility rates, this will result in a minimum of \$7,600 in annual value to the bottom line per year, or a total \$38,000 over a 5-year period. Integration of energy management into organizational decision making and business practices will continue to produce value annually for a much longer period of time.
- To support the achievement of these financial benefits, Georgian Bay General Hospital will invest in energy-related capital and operating improvements.



Energy Management Goals

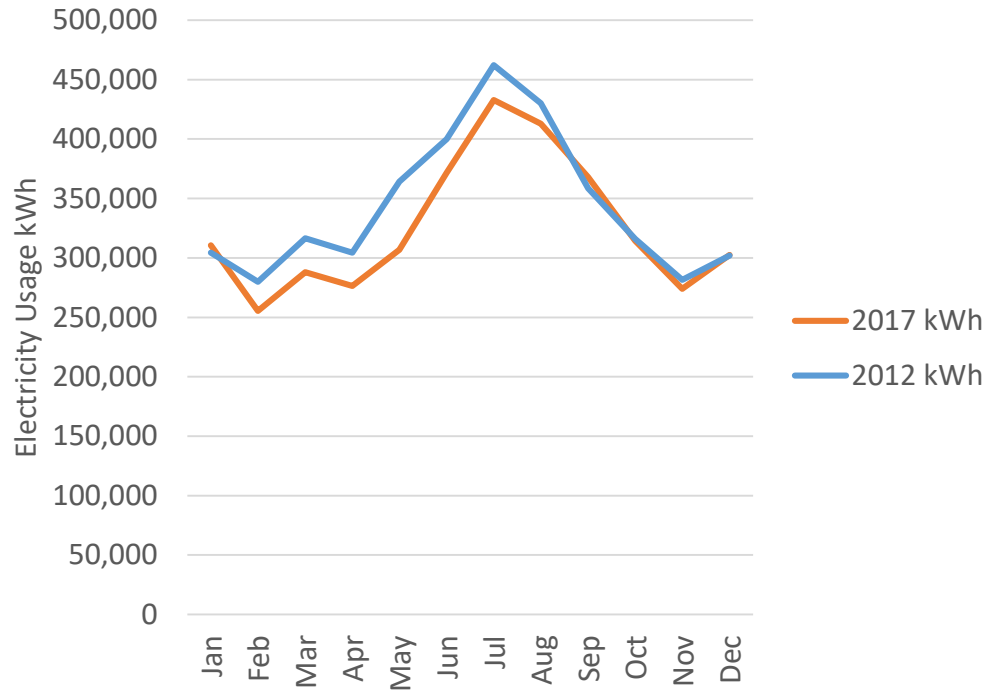
The following outlines some of the energy management goals that will be adopted by Georgian Bay General Hospital. The goals include, but are not limited to, the following:

- Specific equipment upgrades will improve energy efficiency over the next five years. These upgrades will proceed strategically on a specific timeline and be supported by improved O&M practices.
 - Steam trap audit/repairs
 - Parking lot lighting and exterior building lighting
 - Domestic Hot Water Upgrades
 - Continue to study loss of heated water through mixing valves and other weak points in the system
 - Heating, Ventilation, and Air Conditioning Upgrades
 - Modernize dated/inefficient HVAC system with modern energy efficient equipment (pumps, fans, valves and coils)
 - Exterior window assessment
 - Building Automation System Upgrades – 2019
 - Replace controllers for optimization
 - Set and manage schedules for seasonal “free-air” cooling and heating
 - Boiler Plant Upgrades
 - Review and optimize sequencing and controls for optimal energy savings and limited downtime
 - Chiller Plant Upgrade
 - Investigate variable speed chiller

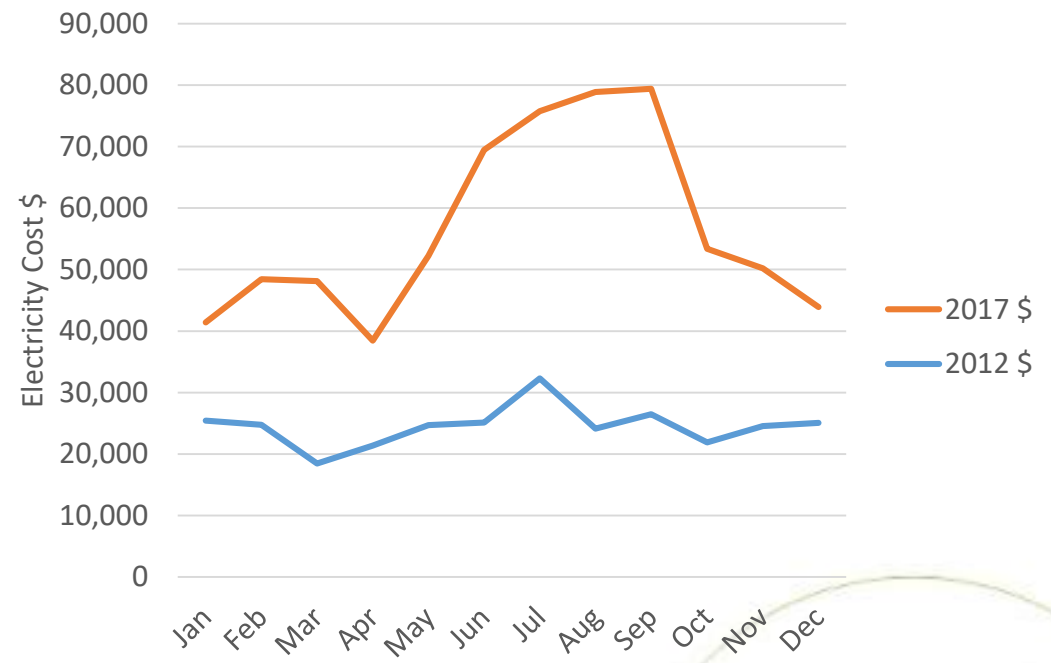


Midland Site								
2012	Electricity (kWh)		Natural Gas (m ³)		Water (m ³)		Total Utility Cost (\$) (Electricity)	
	2012	2017	2012	2017	2012	2017	2012	2017
Jan	304,455	310,548	121,565	94,086	4,777	2,580	25,417.00	41,388.60
Feb	279,835	255,511	88,102	77,738	4,471	2,403	24,744.00	48,443.17
Mar	316,608	288,027	108,672	86,479	4,362	1,964	18,464.00	48,106.17
Apr	304,348	276,491	92,096	62,402	4,846	2,705	21,359.00	38,443.80
May	364,138	306,806	77,836	36,239	4,049	3,911	24,734.00	52,210.54
Jun	399,986	371,696	58,100	36,608	4,432	4,185	25,151.00	69,476.52
Jul	462,237	432,891	54,632	40,905	4,444	3,224	32,333.00	75,763.68
Aug	430,271	413,002	43,497	39,842	3,846	3,510	24,130.00	78,888.11
Sep	358,627	367,944	37,743	44,572	3,920	3,079	26,466.00	79,418.23
Oct	315,957	314,502	44,957	39,341	3,295	2,760	21,916.00	53,402.68
Nov	281,400	273,948	57,105	63,057	4,196	3,000	24,545.00	50,207.52
Dec	301,904	302,555	67,192	95,761	4,470	2,411	25,075.00	43,930.10
Total	4,119,766	3,913,922	851,497	717,030	51,108	35,732	294,334.00	679,679.12

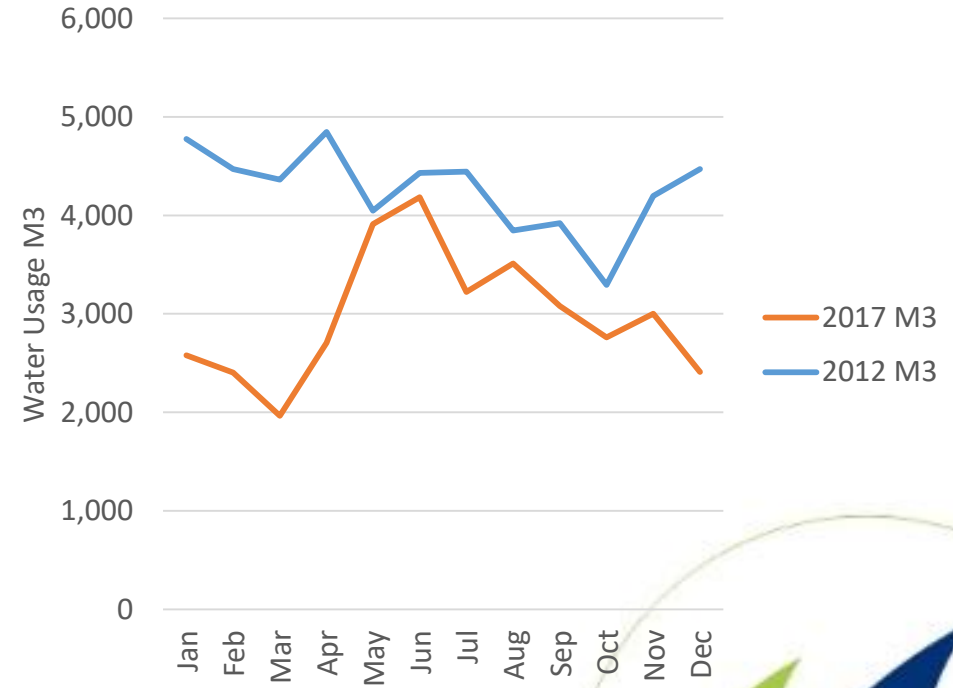
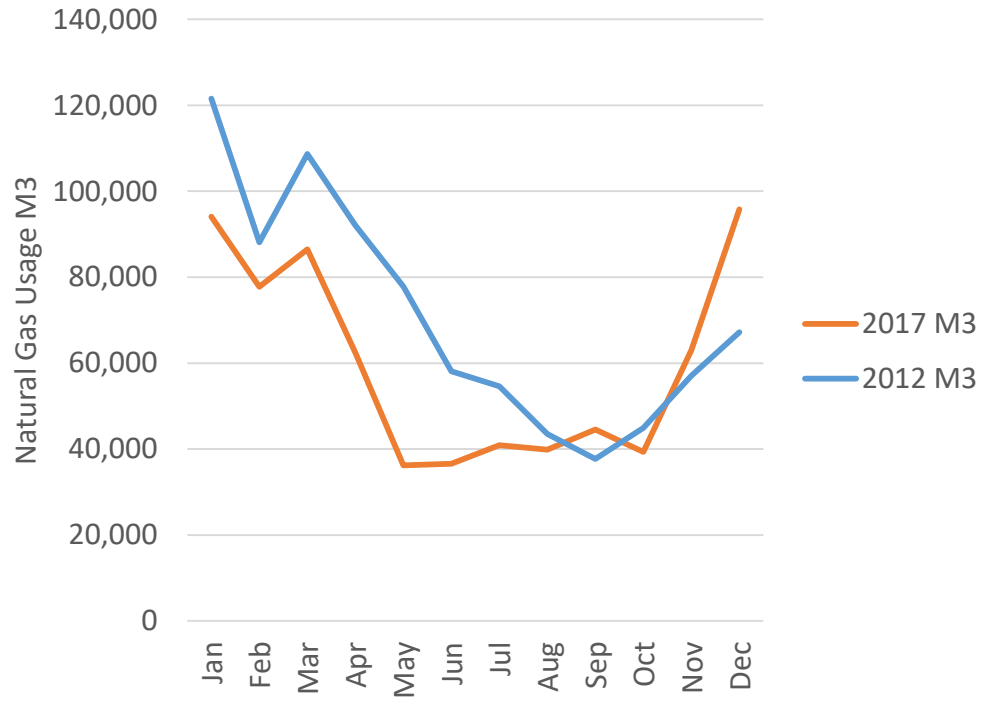




Annual Consumption Breakdown



Annual Consumption Breakdown cont'd



Executive Team



Gail Hunt
Chief Executive Officer



Stewart Boecker
Vice President, Corporate Services &
Chief Financial Officer

Facilities Department



Glen Allen
Manager, Facilities and Operations



Angela Puddicombe
Supervisor, Facilities

