

Energy and Water Consumption and Greenhouse Gas Report 2017

July 2017

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1. PURPOSE

Through the Green Energy Act, 2009 (GEA), the Government of Ontario made commitments to conserve energy and use energy and water efficiently in conducting its affairs. The Government also committed to promote and expand energy conservation by all Ontarians and to encourage Ontarians to use energy efficiently.

Under the GEA, the Government is guided by a number of principles in constructing, acquiring, operating and managing facilities. Ministries responsible for the operation of Government owned facilities have a responsibility to demonstrate leadership in reducing energy/water consumption, the emission of greenhouse gases, and in fostering an overall culture of conservation. In addition to managing facilities in an environmentally sound manner, Ministries are also required to annually report energy and water consumption and conservation.

This is the Ministry of Children and Youth Services (MCYS) Energy and Water Consumption and Greenhouse Gas report for facilities governed by the GEA (target class facilities) for 2017.

2. SCOPE

This report includes a portfolio overview, energy consumption data, energy conservation plans, and communications and awareness activities for the MCYS target class facilities for the calendar year 2016.

3. PORTFOLIO OVERVIEW

On October 23, 2003, the Government announced the creation of a new ministry to deliver real, positive change in the way we support our children, youth and families. A number of children and youth programs previously delivered by the Ministries of Community and Social Services, Health and Long-Term Care, and Community Safety and Correctional Services were integrated under MCYS.

MCYS began a transformation of youth justice services which included the disentanglement of youth justice facilities and programming from the Ministries of Community Safety and Correctional Services, and Community and Social Services. Based on an assessment of the existing facilities, and with the introduction of the

federal Youth Criminal Justice Act, the Government committed to achieving a dedicated youth justice system separate and apart from adult corrections by April 1, 2009. To satisfy this commitment, four new purpose built facilities were constructed to enable the transfer-in of all youth from the adult correctional system. Currently, the youth justice services program is supported by eleven government owned secure custody/detention facilities; six are directly operated and five are transfer payment operated where youth are provided programs and services.

MCYS Youth Justice Services Delivery Model

The Ministry is mandated to provide community and custodial programs for youth in or at risk of conflict with the law. These programs are available through provisions under the Youth Criminal Justice Act (YCJA). Also, the Child and Family Services Act was amended through Bill 103 to provide MCYS with the authority to fulfill its obligation under the YCJA for youths from twelve to seventeen years of age at the time of the offence.

The Youth Justice Services delivery model is a continuum of evidenced-based supports such as prevention, diversion and rehabilitation that contribute to community safety by addressing the underlying causes of youth crime and successfully transitioning youth out of custody.

Services such as probation and custody are mandatory based on court sentencing. Youth placed in custody/detention take part in structured programming including education (i.e. skills development, life skills programs, anger management) and rehabilitative programs that will help them develop the skills necessary to reintegrate into the community.

MCYS Youth Justice Services Facilities

The Ministry has eleven target class facilities. Six of these facilities are operated by the Ministry, and five are operated by Transfer Payment Agencies. The following table lists the target class facilities and the year they were built. Note that four of the facilities became operational in 2008 and 2009.

YOUTH FACILITY NAME	LOCATION	YEAR BUILT
Brookside Youth Centre	Cobourg	1870 to 1974
Cecil Facer Youth Centre	Sudbury	1971 & 1972
Sprucedale Youth Centre	Simcoe	1962, 1971, 1972, 1992
Maurice Genest Youth Centre	London	1975
Arrell Youth Centre	Hamilton	1989
William E. Hay Youth Centre	Ottawa	1995 to 2009
Syl Apps Youth Centre	Oakville	1972
Donald Doucet Youth Centre	Sault Ste. Marie	2008
Ge-Da-Gi Binez Youth Centre	Fort Frances	2008
Justice Ronald Lester Youth Centre	Thunder Bay	2008
Roy McMurtry Youth Centre	Brampton	2008

4. ENERGY AND CONSUMPTION OVERVIEW

The Ministry's consumption overview for the periods of 2006 to 2016 can be found in Appendix A.

5. PROGRESS

The overall energy consumption trend for the portfolio is positive with the following trends observable:

- An increase in Total Energy Consumed from 2006 to 2010 due to the growth of the portfolio as the new purpose built facilities became operational in 2008 and 2009, followed by stabilization and generally decreasing trend in Total Energy Consumed from 2010 to 2016 as energy conservation efforts reduced consumption.

- A decreasing trend in Total GHG Emissions (in tonnes) between 2006 and 2016. This decreasing trend is due to two main factors: the generally decreasing annual consumption trend, and the reduction in the overall Current Emission Factor. Infrastructure Ontario (IO) reports that the Current Emission Factor has dropped significantly between 2006 and 2014 due to the phase out of coal generated electricity.
- A decrease in electricity and natural gas consumption from 2015 to 2016. The net decrease in both electricity and natural gas consumption was seen at both the Ministry's directly operated facilities and transfer payment agencies.
 - The net decrease in natural gas was due to:
 - Current youth occupancy at directly operated facilities, as well as an upgrade to more efficient boiler systems
 - A generally milder climate as compared to the previous year
 - The net decrease in electricity usage was primarily due to the decommissioning of select areas of Roy McMurtry Youth Centre for the preparation of transfer to the Ministry of Community Safety and Correctional Services (MCSCS).

6. ENERGY CONSERVATION MEASURES

The Ministry's target class facilities operate continuously (twenty-four hours a day, seven days a week), therefore there is a minimum level of energy that is required to operate our facilities appropriately and safely for the clients we serve. Due to the nature of the programs, there are limited opportunities to change operational requirements in order to realize significant energy consumption savings. Given these operational requirements, the primary opportunity for energy savings will be achieved through capital investment upgrades, particularly to the older legacy facilities. Section seven of this report outlines the current capital investment plan.

The Ministry is also acting proactively to contribute to energy consumption savings targets by utilizing recognized energy efficient construction design standards. All four of the Ministry's newly constructed secure youth facilities are designed to meet the Leadership in Energy and Environmental Design (LEED) Silver New Construction Designation, and have received Silver Certification. LEED is intended to provide building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions. The Ministry is also upgrading light fixtures to energy efficient options such as LED technology as fixtures are being replaced.

7. CONSERVATION FORECASTING AND LONG TERM PLAN

The Ministry's long term conservation plan includes continuing to use industry leading design standards to ensure new facilities are incorporating green building design, construction, operations and maintenance. The Ministry will also work closely with our partners at the Ministry of Infrastructure (MOI) and Infrastructure Ontario to continue to develop a comprehensive plan to improve energy conservation through fundamental capital upgrades to building envelope and operating systems, especially for the older facilities in the portfolio. Due to limited capital funding, the MOI capital plan for the next two years focusses on the key priorities of addressing imminent breakdown, code compliance issues, and health and safety fixes.

Other Ministry Measures

As part of the transformation of the Youth Justice System, the Ministry has taken the strategic direction to close Bluewater Youth Centre which has reduced its overall carbon footprint. The Bluewater Youth Centre announced closure in 2012 and the decommissioning of the site was completed in 2015/16 based on the Ministry's trailing exiting obligations. The Bluewater facility was one of the ministry's older buildings (51 years old) which would have required significant repairs to be sustained as a core asset as well as numerous upgrades and/or retrofits to achieve energy efficiency savings. The decommissioning of this facility resulted in a smaller portfolio footprint and a reduction in overall energy consumption for the Ministry.

In addition, the Ministry complies with the various government greening initiatives such as the Green Print Strategy whereby multifunctional devices (MFDs) are being installed replacing several single function devices such as fax machines, photocopiers and network printers, leading to an overall reduction in energy consumption. The Ministry is taking efforts to raise awareness through members of several of its divisional committees and local meeting agendas.

8. COMMUNICATION AND AWARENESS

This report will be made available to ministry staff and the public through posting on the Ministry website in July 2017.

In addition, the Ministry raises conservation awareness at forums such as Divisional Management Committee and Youth Centre Administrators meetings. Conservation awareness is also shared through broader communications, such as greening initiatives posted on the Ministry intranet website.

9. ENERGY CONSUMPTION BY BUILDING

The Ministry's energy consumption by building for 2016 can be found in Appendix B.

Further information for the Province-wide energy consumption report can be found at the MOI internet site:

http://www.moi.gov.on.ca/en/infrastructure/energy_directive/