



	REPORT NO.: 2018-09
MEETING DATE: FEBRUARY 15, 2018	DATE PREPARED: JANUARY 25, 2018
SUBJECT: GREEN ENERGY INITIATIVES ANNUAL REPORT 2018	

RECOMMENDATION

For information only.

REPORT SUMMARY

To provide The District of Thunder Bay Social Services Administration Board (TBDSSAB or the Board) with information on green energy initiatives undertaken in 2017 in keeping with the objective of being an environmentally friendly organization that will maintain green and energy efficient buildings while lowering our greenhouse gas emissions.

BACKGROUND

At the January 23, 2014 Board meeting, it was requested by the Board that a report outlining the green energy initiatives and potential energy savings be presented annually. An update was provided at the March 26, 2015 and March 24, 2016 Board meetings. This report outlines initiatives implemented in the 2017 budget year.

COMMENTS

Utility costs remain as one of the largest operating expenses the TBDSSAB incurs within its property portfolio. For the 2017 budget year, \$4,497,800 was allocated for utilities (\$674,300 for natural gas, \$2,425,800 for hydro and \$1,397,700 for water and sewer).

The utility cost for 2017 is forecasted based on third quarter actual results due to all billing not having been received for the fourth quarter. Actual Natural gas cost is forecasted to be \$686,700, electricity \$2,001,000 and water \$1,343,100.

The *Fair Hydro Act, 2017* came into effect on June 1, 2017 in order to lower electricity bills for residential customers, hold increases to inflation rates for four years, provide additional relief for on-reserve First Nations residential customers and remove the cost of certain electricity-related relief programs from electricity bills.

Significant energy related projects were implemented through capital planning and the Social Housing Apartment Retrofit Program (SHARP) in order to reduce energy consumption. Energy efficient products replaced high energy usage products to reduce

consumption. Several of these projects were supported through energy savings incentive programs provided by Thunder Bay Hydro, Hydro One and Union Gas. As a result, over \$500,000 in rebates were realized through these programs for 2017.

In 2017, through the capital budget, SHARP funding and the Social Housing Improvement Program (SHIP), \$2.8 million was allocated toward energy reducing projects. Attachment #1 outlines the list of projects completed in 2017 for energy consumption reduction.

In April 2016, the Ministry of Housing allocated \$92 million to successful social housing Service Manager applicants through SHARP funding. TBDSSAB received \$2.5 million to reduce its energy consumption in high rise buildings containing 150 or more apartments. The two qualifying buildings were Andras Court (120/122 S. Cumberland St.) and Spence Court (230 W. Amelia St.). The majority of the projects were completed in 2017.

At Andras Court, five projects were completed. Older, less efficient hot water tanks were replaced with high efficiency boilers and storage tanks. New high efficiency Make Up Air units and air handlers replaced mid efficiency units. The parking garage heating system was replaced with high efficiency unit heaters and variable speed exhaust fans. A heat recovery ventilator was installed to replace an exhaust fan in the refuse areas. The most notable project was the removal of all the florescent and incandescent lighting and replacement with LED fixtures throughout the entire building. In February 2018, a Demtroys heat management system will be completed to reduce the electricity consumption for baseboard electric heating.

At Spence Court, three major projects were completed. Both one million BTU boilers were replaced by a system consisting of three 400,000 BTU high efficiency modulating boilers. The Make Up Air unit was replaced with a high efficiency model. Lighting was also replaced with LED fixtures in units and in common spaces. Through a partnership with the Housing Services Corporation Community Champions Program, Spence Court was identified as realizing a 31% reduction in natural gas in 2017.

As a result of the energy-savings projects undertaken, TBDSSAB will reduce its energy consumption by an estimated 366 MWh. Furthermore, there is a reduction of approximately 228 metric tonnes of CO2 emissions (according to the United States Environmental Protection Agency Impact Calculator).

From the installation of more energy efficient products through these initiatives, additional operational savings are expected over the useful life span due to lower consumption, maintenance and repair costs.

FINANCIAL IMPLICATIONS



There are no financial implications related to this report.

CONCLUSION

It is concluded that TBDSSAB continues to meet the organizational direction of providing green, environmentally friendly housing. The ongoing commitment to seek out efficiencies in energy consumption, while maintaining the quality of life of tenants, has resulted in the responsible provision of quality housing.

REFERENCE MATERIALS ATTACHED

Attachment #1: [Green Energy Initiatives Listing](#)

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Attachment #1 - Green Energy Initiatives Listing

Capital Budget

Lendrum Court	PR-06	Mechanical System - Make Up Air Unit	\$91,342
Manion Court	PH-07	Plumbing System - Hot Water Heating	\$30,000
Badanai Court	PH-25	Domestic Water	\$30,000
Lendrum Court	PR-06	Domestic Water	\$86,500
Glenwood Court	PE-02	Domestic Water	\$30,000
Legion Houses	PH-22	Appliances - Fridges & Stoves	\$20,000
Cumberland Court	PR-02	Appliances - Refrigerators	\$21,000
Habitat	PR-03	Appliances -Stoves	\$24,000
Habitat	PR-03	Appliances -Refridgerators	\$24,000
Manion Court	PH-07	Windows - 40 count	\$25,000
Ruskin/Hall	PH-01	Roofing Systems	\$54,000
Assef Court	PH-16	Fridges	\$56,000
John/Clarkson/Windsor	PH-19	Roofing Systems	\$5,000
Bertrand Court 2	PH-24	Roofing Systems	\$25,000
Bertrand Court 1	PH-23	Roofing System - 532 N Court	\$35,000
TOTAL CAPITAL			\$556,842

SHARP Funding

Andras Court	AN-01	Domestic water heater upgrades	\$145,000
Andras Court	AN-01	Air Handler upgrade	\$150,000
Andras Court	AN-01	Make-up air unit upgrades	\$225,000
Andras Court	AN-01	Internal heat unit upgrade	\$130,000
Andras Court	AN-01	Interior lighting upgrade	\$280,000
Spence Court	PH-30	Domestic water heater upgrades	\$150,000
Spence Court	PH-30	Make-up air handling unit upgrades	\$225,000
Spence Court	PH-30	Interior lighting upgrade	\$155,000
SHARP TOTAL			\$1,460,000

SHIP Funding

Wardrope Court	PH-10	Make up air unit	\$140,000
Wardrope Court	PH-10	Roof	\$262,495
Assef Court	PH-16	Roof	\$240,000
SHIP TOTAL			\$642,495

TOTAL \$2,659,337