



	REPORT No.: 2020-09
MEETING DATE: MARCH 19, 2020	DATE PREPARED: FEBRUARY 19, 2020
SUBJECT: GREEN ENERGY INITIATIVES ANNUAL REPORT 2020	

RECOMMENDATION

For information only.

REPORT SUMMARY

To provide information on green energy initiatives undertaken in 2019, in keeping with the objective of being an environmentally friendly organization that will maintain green and energy-efficient buildings while lowering greenhouse gas emissions.

BACKGROUND

The Practical Vision of the 2013-2016 Strategic Plan included Green, Environmentally-Friendly Housing within the Optimized Housing strategy.

At the January 23, 2014, meeting, the Board requested that a report outlining the green energy initiatives and potential energy savings be presented annually, which has been provided since that date.

COMMENTS

Significant energy-related projects were implemented through capital planning under provincially funded initiatives, such as the Social Housing Apartment Improvement Program (SHAIP), 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 Synergy North, Hydro One and Enbridge. The SHAIP incentive concludes on March 31, 2020.

Consistent with the 2013-2016 Strategic Plan direction, through the Board-approved Capital Budget and SHAIP funding, \$1.37 million was budgeted for energy-reducing projects in 2019. Attachment 1 outlines the list of projects completed in 2019 for energy consumption reduction.

The most significant projects in 2019 included:

1. The completion of the Andras Court roofing replacement on the north building and the parking garage, which included adding insulation to reduce heat loss.
2. Upgrades were made to the Demtroys heat management system by adding remote sensors into apartments in five (5) buildings (Assef Court, Wardrope Court, Paterson Court, Mclvor Court and Clark Towers) to further improve the energy savings to TBDSSAB, while optimizing heat management and comfort for the tenants.

As a result of the energy-saving projects undertaken across the housing portfolio, TBDSSAB is expected to reduce its energy consumption by an estimated 458 MWh each year. Furthermore, there is a reduction of approximately 324 metric tonnes of CO₂ emissions according to the United States Environmental Protection Agency Impact Calculator. The savings, by year, are identified in Attachment 2.

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

Capital Costs

The capital projects were included in the Board-approved Capital Budget which is financed from the Capital Reserve Fund. SHAIP projects were 100% provincially funded.

Operating Costs

The priority for green, environmentally friendly housing is to reduce the environmental footprint of housing properties within TBDSSAB's portfolio, however, a secondary impact is expected to be cost avoidance on operating utility costs of the housing portfolio.

Utility costs remain as one of the largest operating expenses which TBDSSAB incurs within its property portfolio. Natural gas and electricity amounted to \$2,446,517 in 2019 (2018: \$2,584,290), which account for approximately 15% of the operating costs of the housing portfolio.



Although utility costs are generally not totally controllable, it is anticipated that the green, environmentally friendly initiatives will support cost avoidance by controlling the rise of utility consumption as unit costs for utilities continue to rise.

CONCLUSION

It is concluded that TBDSSAB continues to meet the strategic direction of providing green, environmentally friendly housing.

REFERENCE MATERIALS ATTACHED

Attachment #1 [2019 Green Energy Initiatives – List of Capital Projects](#)
 Attachment #2 [Green Energy Initiative Annual Savings](#)

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**The District of Thunder Bay Social Services Administration Board
2019 Green Energy Initiatives - List of Capital Projects**

#	Project Name	Funding Source	Description	Actual Project Cost (\$)
1	Matthews Court	2019 Capital Budget	Windows: Installation of Energy Star-rated windows to replace antiquated, leaking windows.	18,607
2	Matthews Court		Electrical Upgrades: LED lighting to replace fluorescent common space fixtures.	26,685
3	Wardrope Court		Electrical Upgrades: Demtroys heat management system in-suite temperature regulation to reduce energy consumption.	27,908
4	Wardrope Court		Appliances: Energy Star-rated refrigerators to replace inefficient models.	37,549
5	Assef Court		Electrical Upgrades: Demtroys heat management system in-suite temperature regulation to reduce energy consumption.	34,099
6	Mclvor Court		Electrical Upgrades: Demtroys heat management system in-suite temperature regulation to reduce energy consumption.	35,300
7	John / Windsor		Roofing: Replacement roofing to minimize heat loss.	55,350
8	Bertrand Court 2		Appliances: Energy Star-rated refrigerators to replace inefficient models.	8,344
9	Clark Towers		Exterior Doors: Replacement of exterior and vestibule doors with heavier gauge metal and additional insulation, combined with more efficient windows.	37,399
10	Clark Towers		Electrical Upgrades: Demtroys heat management system in-suite temperature regulation to reduce energy consumption.	34,101
11	Picton 2		Heating Systems - Furnaces: Replacement of mid-efficiency furnaces with high-efficiency models.	75,661
12	Scattered Duplexes		Heating Systems - Furnaces: Replacement of mid-efficiency furnaces with high-efficiency models.	5,370
13	McLaughlin Court		Roofing: Replacement roofing to minimize heat loss.	14,559
14	Paterson Court		Electrical Upgrades: Demtroys heat management system in-suite temperature regulation to reduce energy consumption.	33,473
15	Andras Court	SHAIP	Roofing Replacement: New roofing membrane with higher density insulation layers to reduce heat loss.	572,737
16	Andras Court		Windows: Installation of Energy Star-rated windows to replace original single-pane windows.	25,426
17	Andras Court		Exterior Doors: Replacement of interior door and exterior storm door with one single insulated door per apartment.	143,600
				1,186,168

Green Energy Initiative Annual Savings

Megawatt Hours and Metric Tonnes of Carbon Dioxide

