

Fwd: EFCC analysis in keeping the refrigeration plant on for April



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To Rick Champagne

Cc Jason Trottier; Kari Hanselman; Greg Kirton; Marier, Paul



9:39 AM



EFCC electrical analysis 2022.xlsx  
41 KB

Good morning Pauline and Rick

When I contacted the council to request support to keep the curling club ice in for an extra month I promised that I would complete an analysis on the additional costs of doing so.

The attached spreadsheet provides a summary of these costs. Data on the spreadsheet comprises the volume in kwh as well as the total costs (without taxes) from 2017 to present.

To complete the analysis I used an average of historical consumption from 2017 to 2019 (3 years) as a baseline case. Since 2020 and 2021 were covid years I did not use that data.

The report shows that operating the refrigeration plant for an additional month cost

**EFCC \$2,853.56**

I also completed a quick analysis on the LED lighting project savings. Assuming the lighting retrofit was completed in Sept 2021. I compared the average KW (2017-2019) to the new kW from Jan to present. The average of these came up to 16.33 kW in savings. I then added the breakdown in costs from Hydro One rates. (NOTE: As a General Service - Demand customer the EFCC is paying ~ **\$25/kW** this is expensive)

Savings achieved from the demand portion only amounts to ~ **\$900** per month **or** ~**\$15,969** per year.

However since the LED lighting can be dimmed when the facility is not occupied these savings seem to be much higher. The average kWh savings per month from Jan 2022 to April 2022 = ~14,000 kWh per month or **\$2,651/mth** or ~**\$31,000/yr** total savings with the LED lighting.

Note That the analysis for the LED lighting only has a few months of data to compare with the baseline. Once a full year or 2 passes this can be refined further.

I would be pleased to answer any questions you may have regarding this analysis.

Kind Regards,

Paul

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Paul P. Marier