



Corporation of the Municipality of Temagami

Memo No  
2020-M-105

Memorandum to Council

**Subject:**

Feed-in Tariff Microfit Contract (Bylaw 12-1059)

**Agenda Date:**

**August 27, 2020**

**Attachments:**

Temagami Fire Hall Roof - Solar Panels

**RECOMMENDATION**

WHEREAS the Temagami Micro-FIT (solar panel array) installation on the Fire hall roof has caused significant damage to the roof to the point where a new roof is required to address multiple leaks inside the fire hall;

AND WHEREAS it may be in the best interest on the Municipality to relocate the Micro-FIT or terminate the Temagami Micro-FIT contract based on additional information;

NOW THEREFORE BE IT RESOLVED that Council directs Staff to obtain a structural engineer evaluation of the existing building's ability to support the additional weight load capacities of the existing roof to safely support 1) a new roof covering (re-roof); and 2) the additional weight of the solar panel array design;

AND FURTHER THAT based on the results of this evaluation, Staff prepare a report that provides a recommendation on either continuing with the Micro-FIT installation on the new roof of the fire hall or to initiate the process to terminate the Micro-FIT contract.

**INFORMATION**

**Executive Summary:**

March 2012 – entered into 20-year Micro-FIT contract – install tender price: \$50,200 (unconfirmed).

Revenue to date: \$49,674.82

Maintenance costs to date: solar equip & roofing deficiencies: +\$8,140

Anticipated costs for re-roofing fire hall (without the solar system) \$40,000.

- Existing structure may not support the added weight of a new roof and the solar system.
- Installing the solar system might void the new roof warranty

After roof installation, it is estimated the Micro-FIT project has cost the Municipality +\$56,665.

- Installing the solar panels on top of the new roof is an additional unknown cost (+\$10,000)

Micro-FIT contract does not allow for re-location; the contract has a set price (no annual increase) of 80.2¢/kWh. The supplier (Municipality) can cancel the contract, without penalty, by providing a 30-day notice to ISO.

Based on a Solar panel “efficiency loss of 4%” annually, & projected revenue of \$6,450 in 2021, the total estimated revenue calculated: \$58,000 if there is no equipment failure (highly unlikely).

Staff have started implementing the capital project to reroof the Fire Hall.

As disposal of the solar system is a consideration, a review of solar panels listed on Kijiji & GovDeals.ca suggests used solar panels have a value of \$100 each (\$5,200); have not been able to find any sales specifically for solar panel support racks.

**Additional Details**

The Temagami Fire Hall is a Robertson Steel (pre-fab) building, built in 2000. The Building was designed / engineered for snow, ice, rain and wind loads only. The building was never engineered for installation of the solar panel array, covering approximately 40% of the roof.

Power generation revenue decreased in 2013 through 2016. 2016 maintenance included diagnose & rectify problems with inverters, solar panels, & array wiring; pursued replacement or warranty repairs available (\$2,441).

June 2017 the Fire Chief identified 4 roof leaks in the fire hall attributed to solar panel install – September 2017: system was de-energized and 2 applications of roofing compound applied to screws/fasteners (\$5,700). Treatment appeared successful (late fall/early winter). Note: Solar System remained de-energized through the winter, reenergized in late April / early May 2018.

2018: Solar system re-energized in April, Fire Chief reported 1 leak in roof in May. Roofing contractor indicated leaks not necessarily where the leak is seen inside, water could be following roof panel seams for long distance before coming through, no guarantee future compound applications would solve the problem

2019: Fire Chief reports +3 leaks in roof (June), by early fall total of 8 spots where water is dripping through the roof insulation vapour barrier, some are intermittent leaks, while other spots required pails to be placed to catch constant water drips. Total annual revenue in 2019 was \$7,057

2020: Staff started the capital project for the Fire Hall roof.

- Phase 1: De-energizing and removal of the solar panel system. Municipality will have electrician reenergize the system and make it safe for contractor to remove & transport solar panels to the former ski chalet for storage (until the future of the solar panel system is determined).
- Phase 2: Draft Request for Proposal for re-roofing being circulated for staff comment; would include removal of solar panel racking in conjunction with new roof cover (re-roof) installation & structural engineer's evaluation/certification that the current structure can safely support the additional weight of their proposed roofing solution.

Treasurer/Administrator Comment – if the resolution is adopted we will review the requirement first with Tulloch Engineering as they are our Engineers of Record.

**Prepared by:**

**Reviewed by:**

Jim Sanderson, Temagami Fire Chief

Craig Davidson, Treasurer/Administrator