



August 3, 2021

Ken Kelly, CAO
Municipality of Mississippi Mills
3131 Old Perth Road
Almonte, ON
K0A 1A0

Subject: Shareholder Approval of Capital Expenditure Exceeding \$100,000 – New Trash Rack Cleaner

Ken,

Over the past several years MRPC has conducted research and evaluation of options to replace the current Trash Rack Cleaner (the Hawk) which has been in continuous operation at our station for more than 31 years. The Hawk is breaking down and expensive to repair which is uneconomic. It's also becoming increasingly inefficient to operate. It is used daily to clear debris from the intake racks, which allows water to flow to our turbines and generate electricity. An inefficient machine results in increased operator overtime and decreased electricity generation.

Management has discussed options with several suppliers at industry tradeshow, met with suppliers at our site to discuss requirements, visited other hydroelectric sites to view their machines and discuss pros and cons with operators. Suppliers were provided specifications, including drawings of the existing trash racks, decking and rail system, as well minimum requirements relating to reach and lift. Suppliers were also invited to our site to discuss requirements further, observe the existing unit in operation and do their own measurements.

We received seven quotations from five different suppliers (five electric and two diesel). The prices ranged from \$180,000 to \$925,000. Quotations were discussed by the Board and several were eliminated, either because they did not meet the requirements, or the machines were far more complex than required and had much higher prices (details below). The information on the remaining options was presented in greater detail and reviewed and discussed by the MRPC Board. The Board has decided upon a replacement option that will do the job for us and meet all key criteria.

The selected unit is very similar to the one we presently use. It's electric, so there is no concern about re-fueling or fuel spills, it will run on our existing rail system and is specifically designed for picking up and removing debris.

There were a few other electric units we reviewed and received quotations for, but all were eventually removed from consideration for various reasons, including:

- Some were fully automated, with no manual operation option. This works for some sites with consistent debris (just weeds). At our intake we see a wide variety of debris, including slush ice, large sheets of ice, weeds, large branches / logs, and much more.
- Some offered automated and manual operation, but the price of those units was close to double the price of the unit we have selected and we don't require automation.

We also considered several different types of diesel excavators, but ultimately eliminated them based on a number of factors including:

- Noise – Diesel engines are much louder than the electric motors. There are several residences within 40 metres and this machine will often run throughout the night in the winter, clearing ice. The noise from the diesel engine would be clearly audible from that distance.
- Environmental – The diesel options obviously use diesel fuel. With the machine operating directly over the water, this creates risk of spills.
- Efficiency – The diesel unit will need to be re-fueled after every 13 hours of operation. This means staff filling jerry cans to re-fuel. The diesel excavators are designed for digging, not trash rack cleaning. Operators would have to be careful with the power of these machines, so as not to damage the racks.
- Maintenance – Expenses to maintain the diesel unit are significantly higher than the electric unit.
- Safety – Most of the diesel excavators would not be able to run on our existing rail system. As such, there would be more of a concern of tipping the machine into the river. Staff operate the machine alone. In the winter, operation is mostly at night, when ice is more prevalent. Anytime the operator has to exit the cab on the machine and place themselves on the decking close to the water's edge, they are putting themselves in danger. With the electric units, there is almost no need for this, but with the diesel units, the operator would have to plug the unit in after use and unplug it after each use. They would also have to re-fuel after every 13 hours of use. In the winter there are times when the machine is used all night long, so re-fueling at night is a certainty.

The Board is still looking at payment options. Leasing is unlikely due to low cost of borrowing and cash on-hand. **It's important to note that the funding of the purchase of the replacement Trash Rack Cleaner will come from MRPC resources and does not require any support from Mississippi Mills.** As per 2-13. of the Unanimous Shareholder Declaration, dated November 12, 2014, MRPC requires written prior approval from the Shareholder for any capital expenditure exceeding \$100,000.

The Board of MRPC does not expect the purchase of the replacement equipment to infringe upon MRPC's payment of dividends in the future subject to normal budgeted operating conditions being met. In fact, the acquisition helps minimize the risk of revenue loss.

The Board of MRPC has approved the acquisition of the New Trash Cleaner for the amount not exceeding \$650,000, which includes supply, delivery, installation, commissioning, extended warranty, operator training, and contingency, and is recommending to the Shareholder that it approve by resolution and provide written consent authorizing the capital expenditure not exceeding \$650,000 to acquire a replacement Trash Rack Cleaner.

Recommended Shareholder Resolution:

To approve by resolution dated August __, 2021, authorizing the Mississippi River Power Corporation to expend for a capital expenditure amounts not exceeding \$650,000 to acquire a replacement Trash Rack Cleaner.

Thank you in advance for consideration of this request.

Sincerely,

A handwritten signature in black ink, appearing to be 'Scott Newton', with a stylized loop at the end.

Scott Newton
General Manager

cc: Adrian Foster, President (MRPC)