Operations Report to Directors - Mississippi River Power Corp.
November 25, 2021

Last regular meeting – October 28, 2021

Generation for the month of October was 2,089,239 kWh. We generated 442,983 kWh on peak, at a rate of $0.1517 per kWh for a total of $67,200.58. We generated 1,646,255 kWh off peak, at a rate of $0.1165 per kWh, for a total of $191,788.73. Total generation revenue for the month of October was $258,989.31. Kilowatt hour production for the month of October was just over 61% of capacity.

At the time of our last meeting the flow in the river measured 21 cms in Appleton. The following day we received significant precipitation which brought the flow up to 39 cms by the 27th of October. The flow stayed in that range over the next few weeks until additional precipitation on November 17-18 brought the flow up to 48 cms. With this flow we are generating at full capacity.

Earlier this month, our staff removed two logs at the Millfall Dam to ensure sufficient winter flows and ease of log removal early in the Spring. They also removed the top log from our bywash, which allows flow over the stoplogs all winter long, making ice removal much easier.

Penstock #1 was inspected on October 27th. Photos were taken and will be saved in the annual inspection file for reference. The penstock and transition piece looked good.

Staff did an inspection of the Hawk prior to winter operations. As a result, we changed a hydraulic hose, two hydraulic fittings on the clam, and changed from the plastic to steel guard on the rake. There were also a few spots where the weld appeared to be cracked. Thompson Welding was contacted for a further inspection. Rod Thompson came for an inspection two weeks ago and completed an overall inspection and repaired several cracks.

We did an inspection of the HPUs and replaced filters on both units. We also found a small nitrogen leak in the accumulator on unit #2 and determined that the source was the gauge. We changed out the gauge and topped up the nitrogen.

Earlier this month our staff winterized the public washroom in Metcalfe Park and installed “no winter maintenance” signs on the Riverwalk in the park. They also removed the picnic tables and all but one garbage can and stored them for the winter.

We’ve noticed issues with unit #1 on pond control. It won’t stabilize and continually adjusts resulting in large swings in output and occasional shutdowns. The shutdowns tend to occur as a result of the unit taking in too little flow which causes the headpond to rise. The unit then sees the rise in headpond level and overcompensates by drawing in far too much water. When the headpond then drops too low, the unit trips offline. This isn’t a problem when #2 is on pond control, but we like to switch back and forth, so one unit isn’t overworked. We worked on diagnosing the problem two weeks ago with a number of tests. With some assistance from Geoff at Gedawin Novo Controls, we’ve since come up with another range of tests, which we plan to perform this week.

On November 9, we had a transfer trip alarm which shut down our station. After a quick investigation we determined that the fibre connection from our station to the ORPC King Street substation, had been cut. Despite our drawings showing that the fibre line runs from our station up Farm Street, it actually loops in to the old hydro office and then back out. The new owners of the building are in the process of renovating and cut the line. I contacted Ottawa River Energy Solutions and they sent someone from Pembroke right away. They were able to splice the fibre and eliminate the run towards the office. We were back online in about 4.5 hours.

Staff installed two new ‘Danger’ signs at the Millfall/Earthen Dams last week.

We ordered and received steel required for a new ramp into the generating station. Staff will construct the new ramp over the winter.

I have been researching a new Computerized Maintenance Management System for our staff. The system will allow us to better plan and perform regular maintenance, initiate work orders, and organize spare parts inventory, among other things. I found what appears to be a suitable option and contacted the company for a demonstration. I also reviewed the product with staff. I’ll be setting up a live demonstration by the company for our staff in the coming weeks.

That’s all for this month.

Generation Stats

This section shows annual figures

Budget Generation 2018 $2,306,244
Actual Generation 2018 $2,455,780
Actual Generation 2018 (kWh) 19,960,232

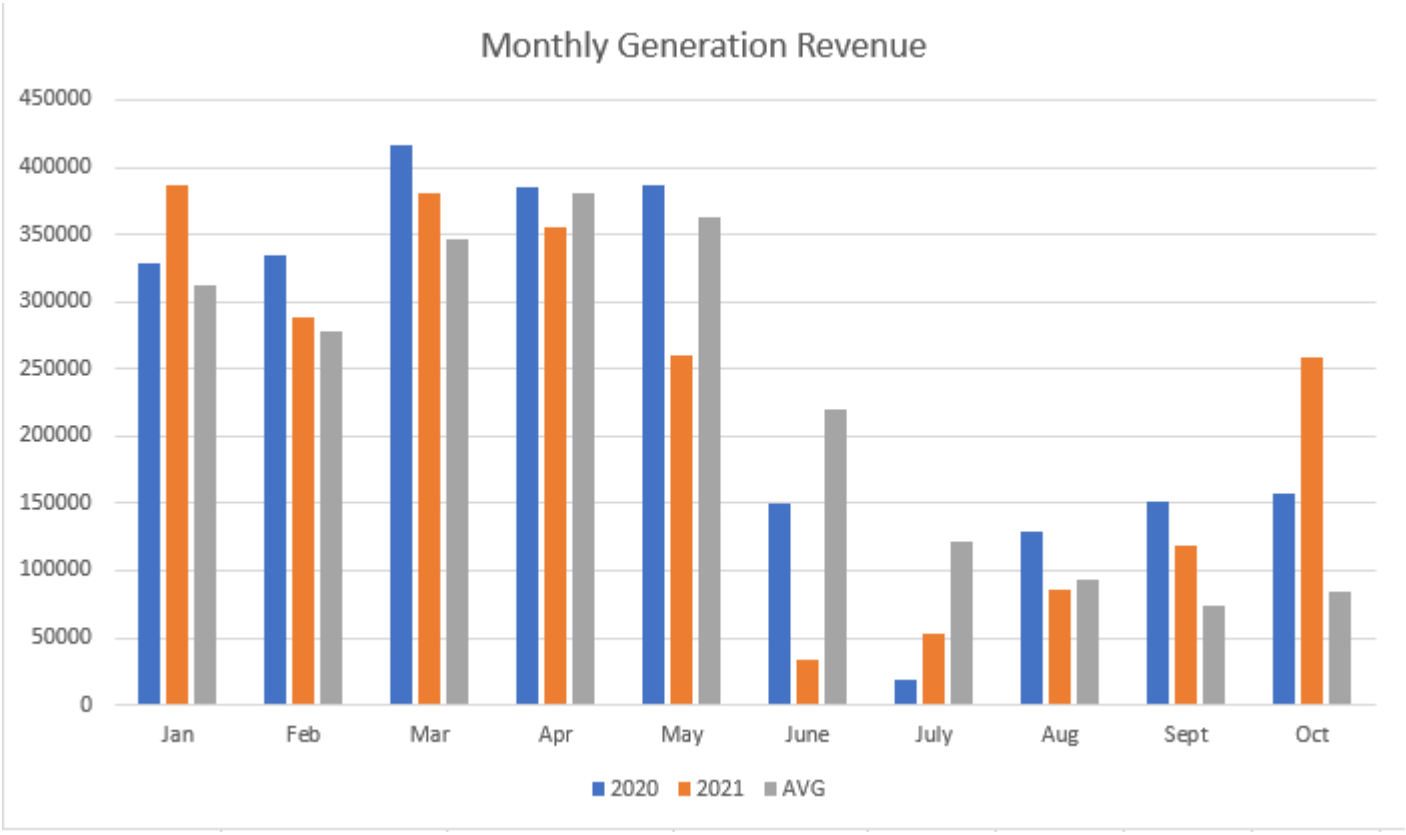
Budget Generation 2019 $2,411,009
Actual Generation 2019 $3,007,133
Actual Generation 2019 (kWh) 24,327,543

Budget Generation 2020 $2,422,939
Actual Generation 2020 $3,062,511
Actual Generation 2020 (kWh) 24,649,416

This section shows figures representing the period of January 1 – October 31 (2020 vs 2021)

2020			2021	
Budget Generation	$1,981,956		Budget Generation	$2,198,425
Actual Generation	$2,455,994		Actual Generation	$2,270,051
Actual Generation	19,755,761 kWh		Actual Generation	18,238,032 kWh

NOTE: The projected (or budgeted) revenue/kWh output is often well above or below the actual totals. As a run-of-river station we must base our projections on average flows.



- AVG = 10 year average of actual monthly revenue.

Scott Newton, General Manager