

Operations Report to Directors - Mississippi River Power Corp.

November 6, 2020

Last regular meeting – October 6, 2020

Generation for the month of September was 1,219,173 KWh. We generated 280,740 KWh on peak, at a rate of \$0.1515 per KWh for a total of \$42,532.15. We generated 938,433 KWh off peak, at a rate of \$0.1163 per KWh, for a total of \$109,139.74. Total generation revenue for the month of September was \$151,671.89.

Generation for the month of October was 1,259,466 KWh. We generated 300,080 KWh on peak, at a rate of \$0.1515 per KWh for a total of \$45,007.50. We generated 972,108 KWh off peak, at a rate of \$0.1163 per KWh, for a total of \$111,925.60. Total generation revenue for the month of October was \$156,933.10.

At the time of our last meeting, the flow in the river was measuring at around 12 cms in Appleton. We finally had some substantial precipitation in late September and then at various times throughout October, which has gradually increased the flow. As of Monday of this week, the flow was measuring 22 cms. With that flow our generation output was 2600-2700 KW.

The Mississippi Valley Conservation Authority typically pulls logs in Carleton Place shortly after Thanksgiving. They haven't done so yet, but expect to pull a row of logs very soon.

In early October, we changed the oil in generator #1, which is part of our annual maintenance on the unit.

Staff alerted me to a leak around one of the aerator pipes in the tailrace earlier this month. After inspection, it was clear that the exterior of the pipe was not fully grouted. I contacted Dumoulin & Associates and they sent a representative to have a look. Later that week, they were onsite to fill the void with grout. After curing, we let the water back into the tailrace, and the leak is gone.

Staff continued grinding and painting the fence in Des Houston Park.

On October 8th, we had an issue with the turbine blades not responding as they should, resulting in a shut down. After a few tests, we eliminated some potential causes, but couldn't diagnose the problem. I contacted Gedawin Novo Controls and they had a representative at the station the next morning. After numerous tests, a faulty relay was found. We replaced the relay with a spare and were able to restart the unit that morning.

On October 20, Ottawa Crane Rental was onsite to remove the tailrace gates from #1. All three gates were removed. After having completed all other maintenance on #1, it was now ready for restart.

We placed an Arc Flash clothing order for staff last week, to replace what they had.

Staff removed all of the large garbage cans from Metcalfe GeoHeritage Park last week. They also removed the dock last Wednesday. The public washroom was closed earlier this month.

I've been sorting through decades of files, equipment and supplies at the office building over the past few weeks, and will continue to do so, in preparation for our move to the new office space. Work on the new office space will be completed this week.

I received the Turbine #1 Liquid Penetrant Inspection report. The report discussed minor porosity found

on the blades, which is completely normal and not cause for concern. Re-inspections in the future will determine if the porosity is worsening and should be repaired.

Generation Stats

This section shows annual figures

Budget Generation 2016	\$2,424,651
Actual Generation 2016	\$1,918,603
Actual Generation 2016 (KWh)	15,715,881
Budget Generation 2017	\$2,355,095
Actual Generation 2017	\$3,899,139
Actual Generation 2017 (KWh)	31,939,350
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

This section shows figures representing the period of January 1 – October 31 (2019 vs 2020)

2019		2020	
Budget Generation	\$1,972,205	Budget Generation	\$1,981,956
Actual Generation	\$2,425,945	Actual Generation	\$2,455,994
Actual Generation	19,640,600 KWh	Actual Generation	19,755,761 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. Verified flow data exists on our system from 1919 to the present. We use data from 1960 to the present in our projections, as regulation of the system has changed significantly over the past 100 years.

 Scott Newton, General Manager

