

December 20, 2018

Board of Commissioners of Public Utilities  
Prince Charles Building  
120 Torbay Road, P.O. Box 21040  
St. John's, NL A1A 5B2

**Attention: Ms. Cheryl Blundon**  
**Director of Corporate Services & Board Secretary**

Dear Ms. Blundon:

**Re: Rigolet Diesel Engine Failure**  
**Allowance for Unforeseen Items Notification**

### **Background**

Newfoundland and Labrador Hydro ("Hydro") has 25 diesel generating stations, 21 of which are prime power stations<sup>1</sup> serving a total of approximately 4,400 customers. One of these stations serves the community of Rigolet. The Rigolet diesel generating station has three generating units serving the community: Unit 2051 (450 kW), Unit 2065 (320 kW), and Unit 2081 (455 kW). Rural Generation facilities are designed to ensure that firm power<sup>2</sup> can be delivered in the event of failure of the largest generation unit. The forecasted peak load can be served during the failure of a diesel generation unit ("Genset"); however, all remaining units are required to be in service to meet that load.

### **Rigolet Genset 2051**

Genset 2051 has been in service for approximately 20 years and has accumulated 89,000 hours of operation time. During its life, five overhauls have been required with the last overhaul completed in July 2017.

### **Failure of Unit 2051**

On December 12, 2018, Genset 2051 was removed from service due to noise in the engine. Hydro inspected the unit between December 17, 2018 and December 19, 2018 and confirmed that it had suffered a catastrophic mechanical failure while in service. This unit cannot be returned to service and must be replaced. Failure of this unit means that the remaining two units are required to be in service to serve the town load. The remaining two units have a combined capacity of 775 kW. Peak load recorded thus far this season was 640 kW and is not forecasted to exceed available generation capacity; however, failure of a second unit will result in rotating outages to the town.

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<sup>1</sup> Prime power stations are not interconnected to the grid and rely on the power supplied by the diesel generation units for capacity and energy.

<sup>2</sup> Firm power is calculated as the summation of the capacity of all units minus the capacity of the largest unit.

**Replacement of Genset 2051**

With the failure of Genset 2051, failure of a second unit will leave the customers of Rigolet at risk. Therefore, Hydro must take immediate action to replace this Genset with a similar sized unit to ensure availability of power for the community and will do so using the approved Allowance for Unforeseen Items account. Replacement of this unit is estimated at \$643,000. Hydro has sourced a new replacement Genset and expects to have the unit moved to Rigolet and installed by the end of January 2019.

Should you have any questions, please contact the undersigned.

Yours truly,

**NEWFOUNDLAND AND LABRADOR HYDRO**



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Shirley A. Walsh  
Senior Legal Counsel – Regulatory  
SAW/kd