

- 1 **Q. Reference: “2022 Capital Budget Application,” Newfoundland Power, May 18,**  
2 **2021, Volume 1, Section 1.2, Sandy Brook Plant Penstock Replacement, Appendix**  
3 **A, Table 2 at p.A-3**  
4
- 5 **a) Please provide Newfoundland Power’s definition of the winter period and the**  
6 **numbers of hours contained within the winter period.**  
7
- 8 **b) Please provide Newfoundland Power’s calculation of average normal production**  
9 **of the South Brook Hydro Plant.**  
10
- 11 **c) Please provide the output in MW of the Sandy Brook Plant during the hour of**  
12 **system peak for the last for the ten-year period from 2011 to 2020.**  
13
- 14 **A. a) Newfoundland Power defines the winter period as all hours from December 1<sup>st</sup>**  
15 **through March 31<sup>st</sup>.<sup>1</sup> The winter period totals 2,904 hours (2,928 hours during leap**  
16 **years).**  
17
- 18 **b) The average normal production for the Sandy Brook Plant in 2021 is 27.6 GWh. It**  
19 **was determined as a part of the 2015 Hydro Normal Production Review which was**  
20 **completed by Hatch Ltd. (“Hatch”). The calculation was completed by Hatch using**  
21 **its modelling software and historical environmental and hydro production data.<sup>2</sup>**  
22
- 23 **c) See Table 1 on the following page for the Sandy Brook Plant output during system**  
24 **peak for the years 2011 to 2020.**

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<sup>1</sup> This definition is consistent with Newfoundland and Labrador Hydro’s (“Hydro”) *Marginal Cost Study Update – 2018*, dated November 15, 2018.

<sup>2</sup> Normal production for Newfoundland Power’s hydro plants has been completed using this methodology since 2000.

**Table 1**  
**Sandy Brook Plant**  
**Production During System Peak Hours**

<b>Year</b>	<b>Peak Hour</b>	<b>Average Output (MW)</b>
2011-2012	2012-01-16 17:00	0.00 <sup>3</sup>
2012-2013	2013-02-09 17:00	6.08
2013-2014	2014-03-05 7:00	5.98
2014-2015	2015-03-13 8:00	6.07
2015-2016	2015-12-29 8:00	6.07
2016-2017	2017-02-08 8:00	0.88 <sup>4</sup>
2017-2018	2017-12-27 17:00	5.94
2018-2019	2019-02-21 7:00	6.00
2019-2020	2020-02-11 7:00	5.90
2020-2021	2021-02-11 10:00	6.05

<sup>3</sup> The system peak for the 2011-2012 winter season occurred on January 16, 2012 at approximately 5:00pm. Earlier that day, at approximately 5:45am, Hydro requested all available generation due to a loss of a generating unit at the Holyrood Thermal Generating Station (“Holyrood”). As a result, the Sandy Brook Plant was dispatched in the morning at full capacity to support system capacity requirements due to the unplanned outage at Holyrood. Later that day, after Holyrood generation capacity was restored, the Sandy Brook Plant was shut down to allow forebay water levels to recover. This was done to ensure the availability of maximum production from the Sandy Brook Plant if requested by Hydro.

<sup>4</sup> Production from the Sandy Brook Plant was limited during the 2016-2017 system peak due to 3 consecutive requests from Hydro for island-wide generation leading up to system peak. These requests depleted water levels at the Sandy Brook Plant forebay and limited the amount of production available when the actual system peak occurred.