

**NP-NLH-303**  
**2013 NLH General Rate Application**

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1 Q. Further to response to Request for Information NP-NLH-003:

2 Please complete the following table:

3

| <b>Hydro Reliability Measures</b> |   |                                  |                                  |
|-----------------------------------|---|----------------------------------|----------------------------------|
| <b>Type</b>                       | <b>5 Year Average<br/>2009-2013 (YTD)</b> | <b>NLH 2013 (YTD)<br/>Actual</b> | <b>% Difference<br/>(+ or -)</b> |
| SAIFI (Tx)                        |   |                                  |                                  |
| SAIDI (Tx)                        |   |                                  |                                  |
| SAIFI (Dn)                        |   |                                  |                                  |
| SAIDI (Dn)                        |   |                                  |                                  |
| DAFOR                             |   |                                  |                                  |
| UFLS                              |   |                                  |                                  |

**Notes:**

SAIFI = System Average Interruption Frequency Index

SAIDI = System Average Interruption Duration Index

DAFOR = Derating Adjusted Forced Outage Rate

UFLS = Underfrequency Load Shedding

Tx = Transmission

Dn = Distribution

4

5

6 A. Please refer to the completed table below.

| <b>Hydro Reliability Measures<sup>1</sup></b> |                                     |                            |                                  |
|---|-------------------------------------|----------------------------|----------------------------------|
| <b>Type</b>                                   | <b>5 Year Average<br/>2009-2013</b> | <b>NLH 2013<br/>Actual</b> | <b>% Difference<br/>(+ or -)</b> |
| SAIFI (Tx)                                    | 2.61                                | 3.45                       | +32%                             |
| SAIDI (Tx) (mins)                             | 269.56                              | 468.45                     | +74%                             |
| SAIFI (Dn)                                    | 4.77                                | 5.65                       | +18%                             |
| SAIDI (Dn) (hours)                            | 12.09                               | 18.55                      | +53%                             |
| DAFOR <sup>2</sup>                            | 4.66                                | 12.24                      | +163%                            |
| UFLS  | 5.6                                 | 7                          | +25%                             |

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<sup>1</sup> The SAIFI and SAIDI results for transmission and distribution include forced and planned outages types. The results for 2013 are to the end of December.

<sup>2</sup> DAFOR reported as a weighted value.

1        Hydro's transmission performance in 2013 was impacted by the January 11 winter  
2        storm, during which a major blizzard resulted in tripping of the equipment in the  
3        Holyrood Terminal Station and transmission lines on the Avalon Peninsula. This  
4        storm contributed 0.53 interruptions per delivery point or 15% of total SAIFI (Tx)  
5        and 65.69 minutes per delivery point or 14% of total SAIDI (Tx). In addition, there  
6        were several significant wind storm events affecting the Great Northern Peninsula  
7        in 2013 (February 17/18, November 28 and December 4). These wind storms  
8        resulted in 1.16 interruptions per delivery point or 34% of total SAIFI (Tx) and  
9        113.24 interruption minutes per delivery point or 24% of total SAIDI (Tx).

10  
11        With these major contributing events excluded, the SAIFI (Tx) would have been 1.76  
12        or 22% lower than a modified five year average<sup>3</sup> and the SAIDI (Tx) would have  
13        been 289.52 or 24% higher than a modified five-year average.

14  
15        Hydro's distribution performance in 2013 was impacted by equipment failures on  
16        Fogo Island on January 19, April 6, and May 5, 2013. These events contributed 0.38  
17        interruptions per customer or 7% of total SAIFI (Dn) and 2.50 interruption hours per  
18        customer or 14% of total SAIDI (Dn). In addition, there were planned outages in  
19        Labrador West that contributed 0.48 interruptions per customer or 8% of total SAIFI  
20        (Dn) and 3.89 interruption hours per customer or 21% of total SAIDI (Dn).

21  
22        With these outages excluded, the SAIFI (Dn) would have been 4.79 or only 2%  
23        higher than the modified five-year average and the SAIDI (Dn) would have been  
24        12.16 or only 13% higher than the modified five-year average.

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<sup>3</sup> The 2009-2013 five-year average, re-calculated with the significant events in 2013 excluded.

1        Hydro's DAFOR performance in 2013 was also affected by the January 11 winter  
2        storm which resulted in a trip and subsequent damage to Unit 1 at Holyrood. This  
3        caused the unit to be unavailable for several months contributing 7.44% to the  
4        DAFOR or 61% of the total for 2013. With this major failure excluded, the DAFOR  
5        would have been 4.80% or 51% higher than the modified five-year average.