

FRPO INTERROGATORY #3

INTERROGATORY

REF: Exhibit D1, Tab 2, Schedule 2, Page 11, Figure 3

Preamble: While respect that the graph is illustrative, we are interested in the assumptions that support the multi-peak approach in the context of recent changes to the storage targets especially during the month of March.

Please provide the data behind the graph and the source of data and assumptions that contribute to the graph.

- a) If the graph is not based upon actual experience (illustrative), please provide the actual data, source and assumptions.
- b) Please ensure that the data and derivation of the forecasted peaks for March are provided.

RESPONSE

- a) The yellow line in the referenced graph is the daily demand profile Enbridge used in the preparation of its 2015 gas supply plan (i.e., August 1, 2014 to July 31, 2015). The profile is the result of the Company's Demand Profile process described at length in Section 2.3 of the referenced Gas Supply Memorandum.
- b) The data is provided in Table 1, below. As stated, the derivation is described in Section 2.3 of the referenced Gas Supply Memorandum. The referenced section relies on evidence filed in EB-2011-0354, and is expanded below to aid in the understanding of the multi-peak approach.

Multi-peaks were developed for each of the Central, Eastern and Niagara regions of Enbridge's franchise area using temperature data from Environment Canada. The days within the months of January, February and March were divided into 5 day brackets. A peak was the developed for each 5 day bracket. Each 5 day bracket was then assigned one peak resulting in a total of 18 multi-peaks for each region respectively. A peak was then developed for each 15 day bracket within each month. A peak was also developed for each month. The peak for each 15 day bracket replaced the coldest peak in the three 5 day brackets contained with each 15 day bracket. The peak for the month replaced the coldest peak in the two 15 day brackets with the exception of January. The monthly peak

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for January was replaced with the peak day HDD value. Within each 5 day bracket a multi-peak was placed on the day determined to be the coldest average day within that bracket. The peak day HDD value was placed on January 15, historically the coldest day on average in the winter. Additionally, January 15 was designed to occur on a week day. The rationale for imposing peak day HDD to occur during a week day arises from the observation that demand on weekdays is higher than demand on weekends, and therefore weekdays are more suitable for supply planning. Each of the 18 multi-peaks in the current Design Criteria correspond to a recurrence interval of 1 in 5 years and were derived assuming degree days are normally distributed.

Subsequent to the filing of the above-noted evidence in EB-2011-0354, the Company proposed changes to its Design Criteria in EB-2011-0354 which resulted in recurrence interval being maintained at 1 in 5 years but the multi-peaks being derived assuming degree days are log-normally distributed. That approach was agreed to and approved in the EB-2011-0354 Settlement Agreement.

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Table 1

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|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1-Aug | 0.3790 | 0.5168 | 0.7687 | 1.2268 | 1.8364 | 2.0425 | 1-Feb | 1.9901 | 1-Mar | 1.7958 | 1-Apr | 1.4584 | 1-May | 0.7079 | 1-Jun | 0.5285 | 1-Jul | 0.3897 |
| 2-Aug | 0.3982 | 0.5146 | 0.7143 | 1.2495 | 1.8952 | 2.1289 | 2-Feb | 2.0489 | 2-Mar | 1.9720 | 2-Apr | 1.4510 | 2-May | 0.6556 | 2-Jun | 0.5883 | 2-Jul | 0.4826 |
| 3-Aug | 0.3801 | 0.5232 | 0.6983 | 1.3901 | 1.9474 | 2.1889 | 3-Feb | 2.0905 | 3-Mar | 2.6500 | 3-Apr | 1.2321 | 3-May | 0.7036 | 3-Jun | 0.6118 | 3-Jul | 0.4014 |
| 4-Aug | 0.4762 | 0.4442 | 0.7901 | 1.9987 | 1.9588 | 1.9720 | 4-Feb | 3.2767 | 4-Mar | 1.9464 | 4-Apr | 1.2139 | 4-May | 0.7623 | 4-Jun | 0.5851 | 4-Jul | 0.3876 |
| 5-Aug | 0.4826 | 0.4057 | 0.9396 | 1.4318 | 1.7948 | 2.8304 | 5-Feb | 2.3895 | 5-Mar | 1.9485 | 5-Apr | 1.2236 | 5-May | 0.7634 | 5-Jun | 0.4975 | 5-Jul | 0.4100 |
| 6-Aug | 0.4762 | 0.4431 | 0.8872 | 1.4350 | 1.8812 | 2.1300 | 6-Feb | 2.9180 | 6-Mar | 1.8652 | 6-Apr | 1.4339 | 6-May | 0.7783 | 6-Jun | 0.4303 | 6-Jul | 0.4452 |
| 7-Aug | 0.3961 | 0.4079 | 0.8894 | 1.2972 | 2.0713 | 2.2443 | 7-Feb | 2.0766 | 7-Mar | 2.5208 | 7-Apr | 1.4713 | 7-May | 0.7890 | 7-Jun | 0.4740 | 7-Jul | 0.4879 |
| 8-Aug | 0.3812 | 0.5328 | 0.8413 | 1.3218 | 2.0905 | 2.2293 | 8-Feb | 2.1343 | 8-Mar | 1.7414 | 8-Apr | 1.4350 | 8-May | 0.6684 | 8-Jun | 0.5082 | 8-Jul | 0.4847 |
| 9-Aug | 0.4057 | 0.5306 | 0.8029 | 1.4403 | 1.9816 | 2.1631 | 9-Feb | 2.1845 | 9-Mar | 2.0019 | 9-Apr | 1.4520 | 9-May | 0.6022 | 9-Jun | 0.5605 | 9-Jul | 0.4826 |
| 10-Aug | 0.4399 | 0.5381 | 0.7687 | 1.4777 | 2.0040 | 3.0397 | 10-Feb | 2.2880 | 10-Mar | 1.8481 | 10-Apr | 1.1403 | 10-May | 0.6908 | 10-Jun | 0.5552 | 10-Jul | 0.3972 |
| 11-Aug | 0.4869 | 0.4612 | 0.8264 | 1.6101 | 2.0403 | 1.9581 | 11-Feb | 3.0706 | 11-Mar | 2.4268 | 11-Apr | 1.1232 | 11-May | 0.7388 | 11-Jun | 0.5434 | 11-Jul | 0.3854 |
| 12-Aug | 0.4783 | 0.4057 | 0.7709 | 1.6026 | 1.9400 | 1.9378 | 12-Feb | 2.3361 | 12-Mar | 1.9816 | 12-Apr | 1.1392 | 12-May | 0.7879 | 12-Jun | 0.4527 | 12-Jul | 0.4057 |
| 13-Aug | 0.4826 | 0.4591 | 0.9086 | 1.4723 | 1.9934 | 2.1076 | 13-Feb | 2.1407 | 13-Mar | 1.7040 | 13-Apr | 1.3442 | 13-May | 0.7730 | 13-Jun | 0.4185 | 13-Jul | 0.4410 |
| 14-Aug | 0.3940 | 0.5007 | 0.9780 | 1.3239 | 1.9987 | 2.1834 | 14-Feb | 2.0286 | 14-Mar | 1.5609 | 14-Apr | 1.2257 | 14-May | 0.7463 | 14-Jun | 0.4506 | 14-Jul | 0.4826 |
| 15-Aug | 0.3812 | 0.6043 | 0.8047 | 1.4221 | 1.9912 | 3.9776 | 15-Feb | 2.0595 | 15-Mar | 1.6666 | 15-Apr | 1.1670 | 15-May | 0.6470 | 15-Jun | 0.4890 | 15-Jul | 0.4783 |
| 16-Aug | 0.4014 | 0.5904 | 0.8776 | 1.5759 | 2.0510 | 2.1471 | 16-Feb | 3.1518 | 16-Mar | 1.7884 | 16-Apr | 1.2332 | 16-May | 0.6054 | 16-Jun | 0.5434 | 16-Jul | 0.4783 |
| 17-Aug | 0.4420 | 0.5830 | 0.8178 | 1.6581 | 2.1332 | 2.0629 | 17-Feb | 2.0553 | 17-Mar | 1.7457 | 17-Apr | 1.0944 | 17-May | 0.6929 | 17-Jun | 0.5424 | 17-Jul | 0.3929 |
| 18-Aug | 0.4826 | 0.4794 | 0.8830 | 1.6261 | 2.0681 | 2.0360 | 18-Feb | 1.9677 | 18-Mar | 1.7275 | 18-Apr | 0.9620 | 18-May | 0.6128 | 18-Jun | 0.5328 | 18-Jul | 0.3865 |
| 19-Aug | 0.4911 | 0.4249 | 1.0762 | 1.5428 | 2.0585 | 2.1973 | 19-Feb | 1.8855 | 19-Mar | 1.6923 | 19-Apr | 0.9470 | 19-May | 0.7324 | 19-Jun | 0.4906 | 19-Jul | 0.4057 |
| 20-Aug | 0.4890 | 0.4975 | 1.0271 | 1.5599 | 2.0670 | 3.5479 | 20-Feb | 1.8001 | 20-Mar | 2.4001 | 20-Apr | 1.1616 | 20-May | 0.7382 | 20-Jun | 0.4196 | 20-Jul | 0.4999 |
| 21-Aug | 0.4089 | 0.5232 | 1.1072 | 1.5172 | 1.9966 | 3.2041 | 21-Feb | 1.8129 | 21-Mar | 2.2197 | 21-Apr | 1.1776 | 21-May | 0.7314 | 21-Jun | 0.4410 | 21-Jul | 0.4869 |
| 22-Aug | 0.3833 | 0.5990 | 1.1403 | 1.6004 | 1.9773 | 2.1652 | 22-Feb | 1.8866 | 22-Mar | 1.6367 | 22-Apr | 1.2118 | 22-May | 0.6150 | 22-Jun | 0.4847 | 22-Jul | 0.4847 |
| 23-Aug | 0.4132 | 0.6278 | 0.9214 | 1.6567 | 1.9656 | 2.0190 | 23-Feb | 2.0628 | 23-Mar | 1.6688 | 23-Apr | 1.1478 | 23-May | 0.5744 | 23-Jun | 0.5264 | 23-Jul | 0.4815 |
| 24-Aug | 0.4474 | 0.6321 | 0.8637 | 1.7649 | 2.0788 | 2.0681 | 24-Feb | 2.9148 | 24-Mar | 1.6549 | 24-Apr | 0.9652 | 24-May | 0.6844 | 24-Jun | 0.5360 | 24-Jul | 0.3929 |
| 25-Aug | 0.4837 | 0.5285 | 0.9246 | 1.6827 | 2.0884 | 2.1983 | 25-Feb | 2.1375 | 25-Mar | 1.5663 | 25-Apr | 0.8894 | 25-May | 0.6854 | 25-Jun | 0.5296 | 25-Jul | 0.3854 |
| 26-Aug | 0.4783 | 0.4377 | 1.0570 | 1.6816 | 2.1834 | 3.2009 | 26-Feb | 2.0307 | 26-Mar | 2.2432 | 26-Apr | 0.9225 | 26-May | 0.7153 | 26-Jun | 0.4292 | 26-Jul | 0.4036 |
| 27-Aug | 0.4879 | 0.5253 | 1.0773 | 1.5407 | 2.0361 | 2.2933 | 27-Feb | 2.6265 | 27-Mar | 1.4264 | 27-Apr | 1.1285 | 27-May | 0.6961 | 27-Jun | 0.4111 | 27-Jul | 0.4420 |
| 28-Aug | 0.4332 | 0.5637 | 1.1723 | 1.5289 | 1.9400 | 2.2571 | 28-Feb | 1.8407 | 28-Mar | 1.2225 | 28-Apr | 1.1307 | 28-May | 0.6887 | 28-Jun | 0.4410 | 28-Jul | 0.4815 |
| 29-Aug | 0.3886 | 0.6801 | 1.2011 | 1.5823 | 2.0521 | 2.2400 | 29-Feb | 1.3058 | 29-Mar | 1.3058 | 29-Apr | 0.9961 | 29-May | 0.5894 | 29-Jun | 0.4826 | 29-Jul | 0.4794 |
| 30-Aug | 0.4175 | 0.6577 | 1.2012 | 1.6698 | 2.1012 | 2.1460 | 30-Feb | 1.4125 | 30-Mar | 1.4125 | 30-Apr | 0.9556 | 30-May | 0.5531 | 30-Jun | 0.4783 | 30-Jul | 0.4783 |
| 31-Aug | 0.4538 | 0.9101 | 0.9101 | 1.6698 | 1.9976 | 2.0713 | 31-Feb | 1.4232 | 31-Mar | 1.4232 | 31-Apr | 0.9556 | 31-May | 0.6769 | 31-Jun | 0.5253 | 31-Jul | 0.4004 |

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