

1 **Q. Please provide a breakdown of Hydro requested usage of each of the 23**
2 **hydroelectric units over the past 5 years.**

3
4 A. Under normal operating conditions Newfoundland Power dispatches its hydro generation
5 without direction from Newfoundland and Labrador Hydro. When system security is a
6 concern, Hydro will request Newfoundland Power dispatch its hydroelectric generating
7 units in support of the Island Interconnected System. Hydro does not request dispatch of
8 *specific* units.¹
9

10 Hydro frequently requests that Newfoundland Power maximize its available generation.
11 Attachment A is the response to Request for Information PUB-NP-055 of the Supply
12 Issues and Power Outages on the Island Interconnected System providing a detailed list
13 of Hydro's requests in the period 2009 to January 2014.

¹ The coordination existing between Newfoundland Power and Hydro is discussed in the Interim Report presented by Liberty Consulting in the Supply Issues and Power Outage Review Island Interconnect System at page 81.

Response to Request for Information
PUB-NP-055

PUB-NP-055

**Supply Issues and Power Outages
on the Island Interconnected System**

Requests for Information

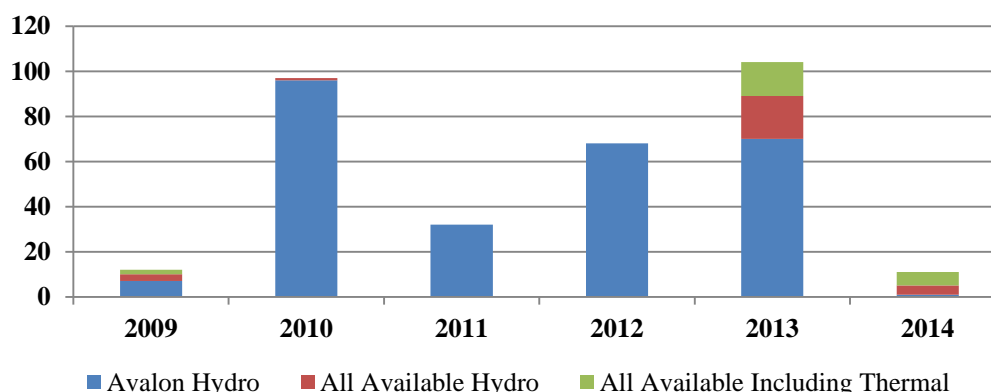
Q. Further to the response to PUB-NP-036, provide the number of times each year, including dates and duration, Newfoundland and Labrador Hydro has requested Newfoundland Power to run its generation in the period 2009 to 2013, inclusive and in January 2014.

A. Attachment A details the recorded requests by Newfoundland and Labrador Hydro (“Hydro”) for Newfoundland Power to run its generation in the period 2009 to January 2014.¹

The recorded requests are divided into 3 groupings that broadly reflect the nature of the requests made by Hydro.² They are (i) requests for all available hydro generation on the Avalon Peninsula, (ii) requests for all available hydro generation province wide, and (iii) requests for all available generation including thermal generation.³

Graph 1 summarizes the data contained in Attachment A.

**Graph 1
Recorded Requests for Additional Generation
January 2009 to January 2014**



¹ Newfoundland Power does not have comprehensive records of requests by Hydro to run its generation. As a result, the detailed information provided in this response does not provide a complete record of all requests made by Hydro. Newfoundland Power’s System Control Centre (“SCC”) operators typically log requests from Hydro for generation in the daily SCC diary. The amount of detail recorded is dependent upon the time available for operators to maintain the diary. On a typical day, the diary will fully reflect the events on the electricity system. However, on days when supervisory requirements for the electrical system are higher, maintenance of the diary will be a lower priority for SCC operators. For example, on January 4th, 2014 supervisory requirements for the electrical system were unusually high due to system disturbances and restoration efforts. Because of this, there were no SCC diary entries for most of January 4th, 2014.

² The recorded requests exclude those occasions when Newfoundland Power runs localized generation to support Hydro transmission maintenance. For example, Newfoundland Power runs its hydro and thermal generation in the Southwest portion of its service territory for approximately 1 week each summer to allow Hydro to maintain its transmission lines TL214 and TL215 which serve the Port Aux Basques area.

³ These requests are in addition to Newfoundland Power’s daily practice during the winter season of running available hydro generation at the time of morning and evening peaks.

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Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

1 Graph 1 shows an increase in the number of requests for additional Newfoundland Power
2 generation, particularly hydroelectric generation, commencing in 2010. At least part of
3 this increase may be explained by changes to Hydro's *Generation Loading Sequence and*
4 *Generation Shortages* system operation instruction. These changes have advanced
5 Newfoundland Power's hydroelectric generation in Hydro's generation loading
6 sequence.⁴

⁴ In the April 29, 2009 version of Hydro's *Generation Loading Sequence and Generation Shortages* system operating instruction, a request to Newfoundland Power to maximize hydro production occurs *before* increasing Holyrood production to near full capacity (see Attachment 1 to the response to Request for Information PUB-NLH-033). In the March 31, 2003 version of the *Generation Loading Sequence and Generation Shortages* system operating instruction, a request to Newfoundland Power to maximize hydro production occurs *after* loading Hydro's steam generators (i.e., Holyrood) to near full capacity (see Hydro's 2003 *General Rate Application*, Volume III, Exhibit JRH-3, *Review of COS Assignment for the GNP, Doyles-Port aux Basques, and Burin Peninsula Assets*, Appendix A).

PUB-NP-055
Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

Recorded Requests for Additional Generation
2009 to January 31, 2014

PUB-NP-055
Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|-------------|-------------------|-----------------|-----------------|---------------------|----------------------------|--|
| 1/24/2009 | 9:32 PM | 12:40 AM | 3:08 | X | | |
| 1/27/2009 | 6:18 AM | | | | X | |
| 7/23/2009 | 5:00 PM | 6:19 PM | 1:19 | X | | |
| 8/18/2009 | 4:35 PM | 8:12 PM | 3:37 | X | | |
| 8/24/2009 | 8:02 AM | 3:15 PM | 7:13 | | X | |
| 8/24/2009 | 4:20 PM | | | | X | |
| 10/12/2009 | 9:10 AM | | | X | | |
| 10/12/2009 | 11:20 AM | | | X | | |
| 10/12/2009 | 5:00 PM | | | X | | |
| 10/14/2009 | 12:34 PM | 9:55 PM | 9:21 | | | X |
| 10/21/2009 | 4:45 PM | 9:10 PM | 4:25 | | | X |
| 12/21/2009 | 4:35 PM | 6:19 PM | 1:44 | X | | |
| 4/9/2010 | 12:40 PM | 2:28 PM | 1:48 | | | |
| 4/24/2010 | 12:05 PM | 3:03 PM | 2:58 | X | | |
| 4/24/2010 | 4:34 PM | 4:56 PM | 0:22 | X | | |
| 4/26/2010 | 8:22 AM | 4:00 PM | 7:38 | | X | |
| 4/27/2010 | 7:48 AM | 10:08 PM | 14:20 | X | | |
| 4/28/2010 | 7:40 AM | 10:30 AM | 2:50 | X | | |
| 5/11/2010 | 9:39 AM | | | | | |
| 5/24/2010 | 9:25 AM | | | X | | |
| 6/29/2010 | 8:30 AM | 3:20 PM | 6:50 | X | | |
| 6/30/2010 | 8:15 AM | 1:40 PM | 5:25 | X | | |
| 7/1/2010 | 8:50 AM | 2:30 PM | 5:40 | X | | |
| 7/1/2010 | 4:44 PM | 6:18 PM | 1:34 | X | | |
| 7/2/2010 | 8:13 AM | 1:23 PM | 5:10 | X | | |
| 7/5/2010 | 8:52 PM | 10:34 PM | 1:42 | X | | |
| 7/6/2010 | 7:30 AM | | | X | | |
| 7/7/2010 | 8:02 AM | | | X | | |
| 7/8/2010 | 7:40 AM | | | X | | |
| 7/8/2010 | 5:20 PM | 10:00 PM | 4:40 | X | | |
| 7/9/2010 | 9:00 AM | 11:00 AM | 2:00 | X | | |
| 7/20/2010 | 10:14 AM | 1:57 PM | 3:43 | X | | |
| 7/21/2010 | 9:56 AM | 12:30 PM | 2:34 | X | | |
| 7/26/2010 | 11:35 AM | | | X | | |
| 8/5/2010 | 10:11 AM | 2:25 PM | 4:14 | X | | |
| 8/6/2010 | 11:22 AM | | | X | | |

PUB-NP-055
Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|-------------|-------------------|-----------------|-----------------|---------------------|----------------------------|--|
| 8/10/2010 | 9:16 AM | | | X | | |
| 8/11/2010 | 10:38 AM | | | X | | |
| 8/13/2010 | 8:52 AM | 1:31 PM | 4:39 | X | | |
| 8/16/2010 | 11:34 AM | 2:40 PM | 3:06 | X | | |
| 8/16/2010 | 4:39 PM | 6:08 PM | 1:29 | X | | |
| 8/17/2010 | 8:50 AM | 1:35 PM | 4:45 | X | | |
| 8/17/2010 | 4:05 PM | 6:35 PM | 2:30 | X | | |
| 8/18/2010 | 9:52 AM | 10:02 PM | 12:10 | X | | |
| 8/23/2010 | 8:57 AM | 2:00 PM | 5:03 | X | | |
| 8/23/2010 | 4:57 PM | 6:40 PM | 1:43 | X | | |
| 8/23/2010 | 8:40 PM | 10:00 PM | 1:20 | X | | |
| 8/24/2010 | 9:10 AM | 1:26 PM | 4:16 | X | | |
| 8/24/2010 | 4:55 PM | 6:34 PM | 1:39 | X | | |
| 8/24/2010 | 8:35 PM | 10:00 PM | 1:25 | X | | |
| 8/25/2010 | 9:30 AM | 1:40 PM | 4:10 | X | | |
| 8/25/2010 | 4:45 PM | 5:45 PM | 1:00 | X | | |
| 8/25/2010 | 8:55 PM | 10:05 PM | 1:10 | X | | |
| 8/26/2010 | 9:30 AM | 12:40 PM | 3:10 | X | | |
| 8/26/2010 | 4:15 PM | | | X | | |
| 8/26/2010 | 8:08 PM | 9:50 PM | 1:42 | X | | |
| 8/27/2010 | 8:12 PM | 9:22 PM | 1:10 | X | | |
| 8/30/2010 | 9:31 AM | 1:54 PM | 4:23 | X | | |
| 8/30/2010 | 3:51 PM | 6:00 PM | 2:09 | X | | |
| 8/31/2010 | 9:35 AM | 1:00 PM | 3:25 | X | | |
| 8/31/2010 | 8:36 PM | 10:00 PM | 1:24 | X | | |
| 9/1/2010 | 10:55 AM | | | X | | |
| 9/2/2010 | 10:30 AM | 4:30 PM | 6:00 | X | | |
| 9/2/2010 | 7:55 PM | 9:50 PM | 1:55 | X | | |
| 9/3/2010 | 9:39 AM | 1:30 PM | 3:51 | X | | |
| 9/3/2010 | 4:45 PM | 5:42 PM | 0:57 | X | | |
| 9/8/2010 | 11:20 AM | 2:14 PM | 2:54 | X | | |
| 9/8/2010 | 3:56 PM | 6:22 PM | 2:26 | X | | |
| 9/9/2010 | 7:35 AM | | | X | | |
| 9/10/2010 | 9:52 AM | 3:00 PM | 5:08 | X | | |
| 9/10/2010 | 4:10 PM | 7:30 PM | 3:20 | X | | |
| 9/13/2010 | 4:45 PM | 6:22 PM | 1:37 | X | | |

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Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|-------------|-------------------|-----------------|-----------------|---------------------|----------------------------|--|
| 9/13/2010 | 7:16 PM | 9:57 PM | 2:41 | X | | |
| 9/14/2010 | 7:52 AM | 9:42 AM | 1:50 | X | | |
| 9/14/2010 | 4:43 PM | 6:04 PM | 1:21 | X | | |
| 9/14/2010 | 7:19 PM | 9:41 PM | 2:22 | X | | |
| 9/26/2010 | 9:25 AM | | | X | | |
| 9/28/2010 | 7:25 AM | 9:03 AM | 1:38 | X | | |
| 10/24/2010 | 12:28 PM | | | X | | |
| 10/26/2010 | 7:34 AM | 8:42 AM | 1:08 | X | | |
| 10/26/2010 | 4:00 PM | 8:30 PM | 4:30 | X | | |
| 10/27/2010 | 7:10 AM | 9:43 AM | 2:33 | X | | |
| 11/1/2010 | 7:25 AM | 9:50 AM | 2:25 | X | | |
| 11/1/2010 | 4:35 PM | | | X | | |
| 11/2/2010 | 7:10 AM | 9:47 AM | 2:37 | X | | |
| 11/3/2010 | 4:48 PM | 10:22 PM | 5:34 | X | | |
| 11/4/2010 | 6:51 AM | 10:26 AM | 3:35 | X | | |
| 11/4/2010 | 5:52 PM | 9:04 PM | 3:12 | X | | |
| 11/5/2010 | 6:56 AM | 10:09 AM | 3:13 | X | | |
| 11/12/2010 | 7:04 AM | | | X | | |
| 11/15/2010 | 4:05 PM | 9:00 PM | 4:55 | X | | |
| 11/16/2010 | 6:09 AM | 8:50 AM | 2:41 | X | | |
| 11/16/2010 | 3:42 PM | 7:14 PM | 3:32 | X | | |
| 11/20/2010 | 4:00 PM | 10:32 PM | 6:32 | X | | |
| 11/21/2010 | 7:15 PM | | | X | | |
| 11/22/2010 | 6:10 AM | | | X | | |
| 11/22/2010 | 3:50 PM | | | X | | |
| 11/23/2010 | 5:48 AM | 8:13 AM | 2:25 | X | | |
| 11/23/2010 | 3:37 PM | 5:12 PM | 1:35 | X | | |
| 11/24/2010 | 6:03 AM | 8:24 AM | 2:21 | X | | |
| 11/25/2010 | 4:11 PM | | | X | | |
| 11/29/2010 | 8:00 AM | 9:15 AM | 1:15 | X | | |
| 11/29/2010 | 4:10 PM | 9:25 PM | 5:15 | X | | |
| 11/30/2010 | 7:00 AM | | | X | | |
| 12/2/2010 | 6:15 AM | | | X | | |
| 12/10/2010 | 3:25 PM | 7:30 PM | 4:05 | X | | |
| 12/11/2010 | 7:30 AM | 9:38 PM | 14:08 | X | | |
| 12/12/2010 | 2:48 PM | | | X | | |

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Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|-------------|-------------------|-----------------|-----------------|---------------------|----------------------------|--|
| 12/12/2010 | 7:51 PM | | | X | | |
| 12/13/2010 | 5:46 AM | | | X | | |
| 12/21/2010 | 3:17 PM | 7:15 PM | 3:58 | X | | |
| 1/5/2011 | 3:45 PM | 8:59 PM | 5:14 | X | | |
| 1/6/2011 | 3:27 PM | 9:21 PM | 5:54 | X | | |
| 1/14/2011 | 1:50 PM | 7:05 PM | 5:15 | X | | |
| 1/15/2011 | 3:56 PM | 5:34 PM | 1:38 | X | | |
| 1/16/2011 | 3:45 PM | 5:21 PM | 1:36 | X | | |
| 1/17/2011 | 6:10 AM | | | X | | |
| 2/8/2011 | 5:43 AM | | | X | | |
| 3/15/2011 | 7:00 AM | | | X | | |
| 3/16/2011 | 7:10 AM | | | X | | |
| 3/22/2011 | 9:00 PM | 9:45 PM | 0:45 | X | | |
| 3/23/2011 | 7:15 AM | | | X | | |
| 4/3/2011 | 12:00 PM | 2:01 PM | 2:01 | X | | |
| 4/11/2011 | 7:45 AM | 9:00 AM | 1:15 | X | | |
| 4/12/2011 | 10:31 AM | | | X | | |
| 4/19/2011 | 8:55 PM | 9:34 PM | 0:39 | X | | |
| 4/20/2011 | 7:11 AM | | | X | | |
| 4/21/2011 | 7:10 AM | | | X | | |
| 5/2/2011 | 7:10 AM | | | X | | |
| 6/12/2011 | 7:50 PM | 10:33 PM | 2:43 | X | | |
| 6/13/2011 | 7:09 AM | | | X | | |
| 6/15/2011 | 11:12 AM | | | X | | |
| 9/27/2011 | 7:27 AM | 9:04 AM | 1:37 | X | | |
| 9/27/2011 | 5:30 PM | 9:50 PM | 4:20 | X | | |
| 9/28/2011 | 2:30 AM | 10:09 PM | 19:39 | X | | |
| 10/20/2011 | 4:55 PM | 8:24 PM | 3:29 | X | | |
| 11/24/2011 | 6:56 AM | | | X | | |
| 11/24/2011 | 4:24 PM | | | X | | |
| 11/25/2011 | 4:43 PM | | | X | | |
| 12/4/2011 | 8:35 AM | 1:45 PM | 5:10 | X | | |
| 12/14/2011 | 4:15 PM | 9:50 PM | 5:35 | X | | |
| 12/15/2011 | 4:00 PM | 9:30 PM | 5:30 | X | | |
| 12/16/2011 | 8:15 AM | 9:52 AM | 1:37 | X | | |
| 1/15/2012 | 5:45 AM | | | X | | |

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Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|-------------|-------------------|-----------------|-----------------|---------------------|----------------------------|--|
| 1/16/2012 | 5:46 AM | | | X | | |
| 1/20/2012 | 4:38 PM | 6:56 PM | 2:18 | X | | |
| 2/1/2012 | 3:50 PM | | | X | | |
| 2/2/2012 | 7:53 AM | | | X | | |
| 2/10/2012 | 4:06 PM | | | X | | |
| 2/24/2012 | 8:10 AM | | | X | | |
| 3/8/2012 | 7:15 AM | | | X | | |
| 3/15/2012 | 7:30 AM | 10:11 AM | 2:41 | X | | |
| 3/16/2012 | 7:17 AM | | | X | | |
| 3/22/2012 | 7:34 AM | 10:30 AM | 2:56 | X | | |
| 4/29/2012 | 9:54 AM | 11:45 AM | 1:51 | X | | |
| 4/29/2012 | 8:29 PM | 10:06 PM | 1:37 | X | | |
| 4/30/2012 | 6:00 AM | 10:11 AM | 4:11 | X | | |
| 5/1/2012 | 6:44 AM | | | X | | |
| 5/2/2012 | 7:23 AM | | | X | | |
| 5/6/2012 | 10:22 AM | | | X | | |
| 5/8/2012 | 7:39 AM | 10:00 AM | 2:21 | X | | |
| 6/5/2012 | 7:06 AM | 3:28 PM | 8:22 | X | | |
| 6/6/2012 | 6:50 AM | | | X | | |
| 6/16/2012 | 9:34 PM | 10:53 PM | 1:19 | X | | |
| 6/18/2012 | 8:16 AM | 9:05 AM | 0:49 | X | | |
| 7/12/2012 | 1:23 PM | 2:13 PM | 0:50 | X | | |
| 10/4/2012 | 11:20 AM | | | X | | |
| 10/4/2012 | 3:30 PM | 9:36 PM | 6:06 | X | | |
| 10/7/2012 | 9:34 AM | | | X | | |
| 10/11/2012 | 7:06 AM | 9:23 AM | 2:17 | X | | |
| 10/13/2012 | 9:54 AM | 1:56 PM | 4:02 | X | | |
| 10/13/2012 | 5:05 PM | | | X | | |
| 10/14/2012 | 8:26 AM | 1:00 PM | 4:34 | X | | |
| 10/15/2012 | 7:10 AM | 8:15 PM | 13:05 | X | | |
| 10/25/2012 | 8:05 AM | 9:40 AM | 1:35 | X | | |
| 10/25/2012 | 10:43 AM | 10:05 PM | 11:22 | X | | |
| 10/26/2012 | 7:10 AM | 12:27 PM | 5:17 | X | | |
| 10/26/2012 | 5:30 PM | 7:30 PM | 2:00 | X | | |
| 10/29/2012 | 5:26 PM | 9:26 PM | 4:00 | X | | |
| 10/30/2012 | 7:49 AM | 8:28 PM | 12:39 | X | | |

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Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|------------|------------|----------|----------|--------------|---------------------|---------------------------------|
| 10/31/2012 | 7:35 AM | 1:18 PM | 5:43 | X | | |
| 10/31/2012 | 3:27 PM | 9:06 PM | 5:39 | X | | |
| 11/1/2012 | 7:16 AM | 12:44 PM | 5:28 | X | | |
| 11/1/2012 | 5:15 PM | 8:41 PM | 3:26 | X | | |
| 11/7/2012 | 7:00 AM | | | X | | |
| 11/8/2012 | 6:55 AM | 10:50 PM | 15:55 | X | | |
| 11/10/2012 | 4:45 PM | 8:17 PM | 3:32 | X | | |
| 11/11/2012 | 8:45 AM | | | X | | |
| 11/12/2012 | 7:00 AM | 1:30 PM | 6:30 | X | | |
| 11/15/2012 | 12:25 PM | 9:40 PM | 9:15 | X | | |
| 11/16/2012 | 7:22 AM | | | X | | |
| 11/18/2012 | 9:22 AM | 11:54 AM | 2:32 | X | | |
| 11/19/2012 | 6:28 AM | 8:00 PM | 13:32 | X | | |
| 11/20/2012 | 6:34 AM | 9:05 PM | 14:31 | X | | |
| 11/21/2012 | 6:30 AM | | | X | | |
| 11/22/2012 | 7:30 AM | 2:30 PM | 7:00 | X | | |
| 11/23/2012 | 6:54 AM | 11:12 PM | 16:18 | X | | |
| 11/24/2012 | 8:39 AM | 1:14 PM | 4:35 | X | | |
| 11/25/2012 | 4:53 PM | 9:01 PM | 4:08 | X | | |
| 11/26/2012 | 7:09 AM | | | X | | |
| 11/28/2012 | 6:10 AM | | | X | | |
| 12/4/2012 | 6:45 AM | 9:51 PM | 15:06 | X | | |
| 12/5/2012 | 7:00 AM | 10:00 PM | 15:00 | X | | |
| 12/7/2012 | 6:30 AM | | | X | | |
| 12/10/2012 | 4:39 PM | 11:42 PM | 7:03 | X | | |
| 12/13/2012 | 6:00 AM | 11:30 PM | 17:30 | X | | |
| 12/14/2012 | 6:45 AM | 11:00 PM | 16:15 | X | | |
| 12/16/2012 | 4:33 PM | | | X | | |
| 12/17/2012 | 5:06 PM | | | X | | |
| 12/19/2012 | 3:46 PM | | | X | | |
| 1/4/2013 | 6:59 AM | | | X | | |
| 1/10/2013 | 6:30 AM | 9:21 AM | 2:51 | X | | |
| 1/11/2013 | 4:25 PM | 6:41 PM | 2:16 | X | | |
| 1/12/2013 | 8:21 AM | 9:45 AM | 1:24 | | | X |
| 1/16/2013 | 6:57 AM | 8:50 PM | 13:53 | X | | |
| 1/17/2013 | 6:38 AM | 7:40 PM | 13:02 | X | | |

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Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|-----------|------------|----------|----------|--------------|---------------------|---------------------------------|
| 1/18/2013 | 5:23 AM | 9:55 PM | 16:32 | | | X |
| 1/19/2013 | 6:00 AM | 11:43 AM | 5:43 | | | X |
| 1/19/2013 | 4:00 PM | 7:15 PM | 3:15 | | | X |
| 1/22/2013 | 7:40 AM | 9:03 AM | 1:23 | X | | |
| 1/22/2013 | 4:00 PM | 7:07 PM | 3:07 | X | | |
| 1/23/2013 | 6:45 AM | 9:28 AM | 2:43 | | X | |
| 1/23/2013 | 4:03 PM | 9:11 PM | 5:08 | | | X |
| 1/24/2013 | 6:33 AM | 10:15 AM | 3:42 | | X | |
| 1/24/2013 | 3:44 PM | 9:53 PM | 6:09 | | | X |
| 1/25/2013 | 7:11 AM | 10:19 AM | 3:08 | | X | |
| 1/25/2013 | 3:49 PM | 7:53 PM | 4:04 | | | X |
| 1/26/2013 | 9:45 AM | 1:06 PM | 3:21 | | X | |
| 1/26/2013 | 4:30 PM | 7:10 PM | 2:40 | | X | |
| 1/27/2013 | 9:28 AM | 7:30 PM | 10:02 | | | |
| 1/28/2013 | 7:00 AM | 9:30 AM | 2:30 | | X | |
| 1/28/2013 | 4:00 PM | 9:30 PM | 5:30 | | X | |
| 1/29/2013 | 6:34 AM | 10:07 AM | 3:33 | | | X |
| 1/29/2013 | 4:50 PM | 8:18 PM | 3:28 | | X | |
| 1/30/2013 | 7:01 AM | | | | X | |
| 2/5/2013 | 8:10 AM | 9:03 PM | 12:53 | X | | |
| 2/6/2013 | 6:25 AM | 8:25 PM | 14:00 | X | | |
| 2/7/2013 | 7:26 AM | | | X | | |
| 2/8/2013 | 7:21 AM | 9:38 AM | 2:17 | | | X |
| 2/8/2013 | 5:03 PM | 9:40 PM | 4:37 | | X | |
| 2/9/2013 | 8:26 AM | 9:20 PM | 12:54 | | | X |
| 2/12/2013 | 6:35 AM | 1:00 PM | 6:25 | X | | |
| 2/23/2013 | 5:55 PM | | | X | | |
| 2/25/2013 | 7:30 AM | 9:00 AM | 1:30 | X | | |
| 2/26/2013 | 7:33 AM | 9:00 AM | 1:27 | X | | |
| 2/26/2013 | 6:20 PM | 11:15 PM | 4:55 | X | | |
| 2/27/2013 | 7:09 AM | 11:30 AM | 4:21 | X | | |
| 2/27/2013 | 5:25 PM | | | | X | |
| 4/4/2013 | 4:04 PM | 12:15 AM | 8:11 | | X | |
| 4/5/2013 | 6:49 AM | 10:55 AM | 4:06 | | X | |
| 4/12/2013 | 7:00 AM | 1:36 PM | 6:36 | | | X |
| 4/17/2013 | 7:10 AM | | | X | | |

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Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|------------|------------|----------|----------|--------------|---------------------|---------------------------------|
| 4/19/2013 | 7:15 AM | 1:36 PM | 6:21 | X | | |
| 4/25/2013 | 6:50 AM | 7:20 AM | 0:30 | X | | |
| 5/11/2013 | 9:42 AM | 2:25 PM | 4:43 | X | | |
| 5/11/2013 | 4:46 PM | 11:59 PM | 7:13 | X | | |
| 5/12/2013 | 7:07 AM | | | X | | |
| 5/16/2013 | 8:23 PM | 10:36 PM | 2:13 | X | | |
| 5/23/2013 | 7:03 AM | 11:10 AM | 4:07 | X | | |
| 5/24/2013 | 7:03 AM | | | | | |
| 6/3/2013 | 7:18 AM | | | X | | |
| 6/12/2013 | 7:14 AM | | | X | | |
| 6/19/2013 | 4:30 PM | 6:10 PM | 1:40 | X | | |
| 7/12/2013 | 7:04 AM | | | X | | |
| 8/6/2013 | 11:51 AM | 2:30 PM | 2:39 | X | | |
| 9/11/2013 | 4:52 PM | | | X | | |
| 10/10/2013 | 8:09 AM | 10:25 AM | 2:16 | X | | |
| 10/10/2013 | 11:27 AM | 3:06 PM | 3:39 | X | | |
| 10/11/2013 | 9:51 AM | 1:16 PM | 3:25 | X | | |
| 10/11/2013 | 4:35 PM | | | X | | |
| 10/14/2013 | 7:35 AM | 2:15 PM | 6:40 | X | | |
| 10/15/2013 | 5:07 PM | 8:00 PM | 2:53 | X | | |
| 10/16/2013 | 8:02 AM | 3:00 PM | 6:58 | X | | |
| 10/17/2013 | 8:00 AM | | | X | | |
| 10/22/2013 | 8:15 AM | | | | X | |
| 10/22/2013 | 6:20 PM | | | X | | |
| 10/23/2013 | 6:47 AM | | | X | | |
| 10/27/2013 | 9:24 AM | 12:04 PM | 2:40 | X | | |
| 10/30/2013 | 7:59 AM | 10:00 AM | 2:01 | X | | |
| 10/30/2013 | 6:00 PM | 9:24 PM | 3:24 | X | | |
| 10/31/2013 | 7:07 AM | 9:37 AM | 2:30 | X | | |
| 11/1/2013 | 4:24 PM | 6:45 PM | 2:21 | X | | |
| 11/4/2013 | 5:05 PM | | | X | | |
| 11/10/2013 | 9:45 AM | 1:15 PM | 3:30 | X | | |
| 11/10/2013 | 4:30 PM | | | X | | |
| 11/11/2013 | 9:20 AM | | | X | | |
| 11/12/2013 | 6:30 AM | 10:53 AM | 4:23 | X | | |

PUB-NP-055
Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|------------|------------|----------|----------|--------------|---------------------|---------------------------------|
| 11/14/2013 | 6:47 AM | | | X | | |
| 11/15/2013 | 6:47 AM | | | X | | |
| 11/25/2013 | 6:38 AM | | | X | | |
| 12/1/2013 | 8:21 AM | | | X | | |
| 12/2/2013 | 6:53 AM | 1:00 PM | 5:53 | X | | |
| 12/5/2013 | 7:09 AM | | | X | | |
| 12/6/2013 | 7:14 AM | | | X | | |
| 12/12/2013 | 4:57 PM | | | X | | |
| 12/18/2013 | 4:35 PM | | | | X | |
| 12/18/2013 | 6:14 AM | | | X | | |
| 12/19/2013 | 4:55 PM | | | X | | |
| 12/19/2013 | 7:03 AM | | | X | | |
| 12/20/2013 | 6:47 AM | 11:43 AM | 4:56 | X | | |
| 12/20/2013 | 4:09 PM | | | X | | |
| 12/21/2013 | 4:36 PM | | | | X | |
| 12/22/2013 | 3:01 PM | | | X | | |
| 12/23/2013 | 5:13 PM | 8:08 PM | 2:55 | X | | |
| 12/24/2013 | 4:17 PM | 8:18 PM | 4:01 | X | | |
| 12/26/2013 | 9:25 AM | 11:15 AM | 1:50 | | | |
| 12/26/2013 | 4:08 PM | 9:28 PM | 5:20 | | | X |
| 12/28/2013 | 7:57 AM | 11:00 AM | 3:03 | X | | |
| 12/28/2013 | 3:49 PM | | | X | | |
| 12/29/2013 | 11:00 AM | | | | X | |
| 12/29/2013 | 3:35 PM | 9:55 PM | 6:20 | | | X |
| 12/30/2013 | 7:52 AM | 7:45 PM | 11:53 | | | X |
| 12/31/2013 | 8:32 AM | 10:00 AM | 1:28 | | X | |
| 12/31/2013 | 3:45 PM | | | | X | |
| 12/31/2013 | 4:55 PM | 6:55 PM | 2:00 | | | X |
| 1/1/2014 | 6:30 AM | 10:17 PM | 15:47 | | | X |
| 1/2/2014 | 6:19 AM | 1:15 AM | 18:56 | | | X |
| 1/3/2014 | 6:14 AM | | | | | X |
| 1/4/2014 | 6:00 AM | | | | | |
| 1/6/2014 | 4:12 PM | 6:20 PM | 2:08 | | | |
| 1/8/2014 | 6:30 AM | | | | | X |
| 1/8/2014 | 11:28 AM | 12:26 PM | 0:58 | | X | |
| 1/10/2014 | 3:45 PM | | | | | X |
| 1/19/2014 | 12:27 AM | 3:30 AM | 3:03 | | | X |
| 1/22/2014 | 5:41 AM | | | | X | |

PUB-NP-055
Attachment A

Supply Issues and Power Outages
on the Island Interconnected System

Requests for Information

| Date | Start Time | End Time | Duration | Avalon Hydro | All Available Hydro | All Available Including Thermal |
|-------------|-------------------|-----------------|-----------------|---------------------|----------------------------|--|
| 1/27/2014 | 5:38 PM | | | | X | |
| 1/29/2014 | 7:00 AM | | | X | | |
| 1/31/2014 | 6:57 AM | | | | X | |