

REDACTED

1 **Request IR-1:**

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3 **On page 10 of the General Rate Application DE-03 DE-04 it is stated that world prices for**
4 **coal and petcoke have risen 30% in the past six months. Please provide a source for that**
5 **statement. Using the same source, please provide a break-down of price rises between coal**
6 **and petcoke. Using the same source please provide price information for the 12 months**
7 **prior to “the past six months” and a forecast of world coal and petcoke prices for the next**
8 **12 months.**

9

10 **Response IR-1:**

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12 Please refer to Avon IR-1. NSPI has proprietary access to [REDACTED] and [REDACTED]
13 [REDACTED] information and can make data available for scheduled viewing upon request.

NON-CONFIDENTIAL

1 **Request IR-2:**

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3 **On page 11 of the GRA, it is stated that \$900 million is being invested “to expand the use of**
4 **renewable energy, reduce air emissions and maintain and improve plant efficiency.” Please**
5 **provide a detailed break-down of capital costs in each category.**

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7 Response IR-2:

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9 Please see NPB IR-11.

CONFIDENTIAL (Attachment Only)

1 **Request IR-3:**

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3 **On page 13, the GRA states that “we’re cutting our use of high carbon coal and petcoke.”**

4 **Please provide data on the use of coal and petcoke for each of 2009, 2010 and forecasts for**
5 **2011 and 2012.**

6

7 Response IR-3:

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9 Please refer to Confidential Attachment 1. The GRA statement refers to the coal and petcoke
10 reductions that are projected to occur in order to meet the provincial Renewable Electricity
11 Standard (RES) targets of 25 percent by 2015, and 40 percent by 2020. Reductions in
12 Greenhouse Gas (GHG) Emissions will also occur concurrently with the changes being made for
13 RES compliance.

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1 **Request IR-4:**

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3 **Please elaborate on the statement on page 14 that “even at reduced usage our coal plants**
4 **continue to have economic value for our customers.” Is there a difference in “economic**
5 **value” between reducing the fleet of coal plants through retirement of one or more plants**
6 **or running the entire fleet at reduced levels? Explain.**

7

8 Response IR-4:

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10 Yes. From the energy perspective, economic dispatch efforts will generally focus any reductions
11 in operation on coal units with the highest operating costs. However, generators also bring value
12 to the system in the form of capacity which includes operating and regulating reserves, and
13 planning margins (requirements for which are defined by NERC and NPCC). These
14 considerations and other system factors like system voltage and reactive energy support,
15 transmission congestion, and reserve deliverability could influence decisions on dispatch and
16 retirements.

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1 **Request IR-5:**

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3 **On page 15, it is stated that NSP must compete for debt and equity with other utilities with**
4 **a similar risk profile. Please explain what impact, if any, the 60% increase in share price**
5 **since 2009 has on this competition.**

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7 Response IR-5:

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9 Nova Scotia Power is not familiar with the above reference to a 60 percent increase in share
10 price since 2009. The shares of Nova Scotia Power are not publicly-traded; its parent, Emera
11 Inc., has publicly traded shares. The price of Emera Inc.'s publicly-traded shares reflects
12 investors' future expectations for the company's consolidated operations, of which Nova Scotia
13 Power presently accounts for just over half. Regardless of the share price of Emera Inc., Nova
14 Scotia Power must compete for debt and equity with other utilities with a similar risk profile as
15 well as with unregulated investments on a risk-adjusted basis.

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NON-CONFIDENTIAL

1 **Request IR-6:**

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3 **On page 17 of the GRA it states that “by lessening our reliance on fuel, we will gradually**
4 **achieve more stable electricity prices for our customers.” Please provide an ETA for more**
5 **stable electricity prices.**

6

7 Response IR-6:

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9 NSPI has proposed a multi-year rate plan from 2012 to 2014 that would provide for rate changes
10 that are more stable and predictable than might otherwise occur. The company would like to
11 continue these discussions with customer representatives before the hearing in this application.

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1 **Request IR-7:**

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3 **Continuing on page 17, it is stated that: “In the interim, much of our power will continue to**
4 **come from coal, petcoke and natural gas.” Please provide a time frame for “the interim.”**
5 **Please indicate when it is expected that much of NSP’s power will come from non fossil**
6 **fuels.**

7

8 Response IR-7:

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10 By the phrase noted in the question, Nova Scotia Power is referring to the transition period
11 during achievement of RES requirements and emissions cap requirements. By 2020, 40% of
12 NSPI’s sales will come from renewable sources of energy.

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1 **Request IR-8:**

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3 **On page 18 it is stated that “one component of fuel cost increase is the need to seek out low**
4 **sulphur low mercury coal. On page 19 it is stated that the increase in solid fuel cost (\$21**
5 **million) is “primarily due to the global escalation in solid fuel prices.” Please state the**
6 **percentage of the increase in the 2012 solid fuel cost (\$21 million) resulting from low**
7 **sulphur and low-mercury coal and what percentage is due to the global escalation in solid**
8 **fuel prices.**

9

10 Response IR-8:

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12 The SO₂ and Hg emission limits for 2011 and 2012 are the same, but have become more
13 stringent compared to previous years and will continue to become more stringent in future years,
14 which is the basis of the statement on page 18. Approximately \$7 million of the \$21 million
15 difference between 2012 and 2011 is due to the November 2010 FAM Decision¹ to reduce the
16 2011 BCF by this amount. The remaining approximately \$14 million increase is the net effect of
17 an escalation in solid fuel price increases, offset by a decrease due to reduced solid fuel
18 consumption.

¹ NSPI 2010 BCF Reset and Fuel Forecast Standardized Filing for 2011 FAM, UARB Decision, NSUARB-NSPI-P887(2), November 18, 2010.

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1 **Request IR-9:**

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3 **On page 20, it is stated that 111 Gwh more energy from IPPs than forecast in the 2011 BCF**
4 **is needed to meet provincial renewable energy regulations. Please outline the change in**
5 **provincial renewable energy regulations which led to the new forecast.**

6

7 Response IR-9:

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9 The comments do not relate to a change in regulations but to our view of the in-service dates of
10 new renewable projects.

NON-CONFIDENTIAL

1 **Request IR-10:**

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3 **The GRA (pps.19-24) indicates that natural gas prices are forecast to drop in 2012 while**
4 **coal and petcoke prices are forecast to rise. In 2010, natural gas generation was 20%, but**
5 **for 2012 it is forecast to be no more than 14%, with 66% from solid fuel, the price of which**
6 **is rising. Please explain why NSPI is proposing to use less of a fuel source whose price is**
7 **dropping.**

8

9 Response IR-10:

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11 NSPI burns natural gas when it is lower priced than solid fuel. The forward prices for natural
12 gas and solid fuel, at the time of the forecast, showed solid fuel to be lower priced than natural
13 gas more often than what actually occurred in 2010 and therefore the GRA forecasts a lower
14 burn of natural gas than 2010. This will be optimized based on actual pricing throughout 2012.

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1 **Request IR-11:**

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3 **On page 36 of the GRA it is stated that NSP is preparing to test alternate fuels at Point**
4 **Aconi power plant because of the 28% increase in the price for petcoke. Please explain**
5 **why Point Aconi is limited to petcoke.**

6

7 Response IR-11:

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9 The fluidized bed technology is not limited to petcoke, and coal can also be consumed. A
10 change from petcoke to coal can result in changes in limestone flow, bed stability, ash properties,
11 and boiler fouling, or other operating challenges, any of which can affect plant reliability. These
12 changes are dependent on coal quality parameters including sulphur, moisture and ash mineral
13 properties. Therefore, a change from petroleum coke to alternate fuels, calls for testing in
14 advance of the change to determine which coals and blends of coals can be consumed without
15 adverse effects.

NON-CONFIDENTIAL

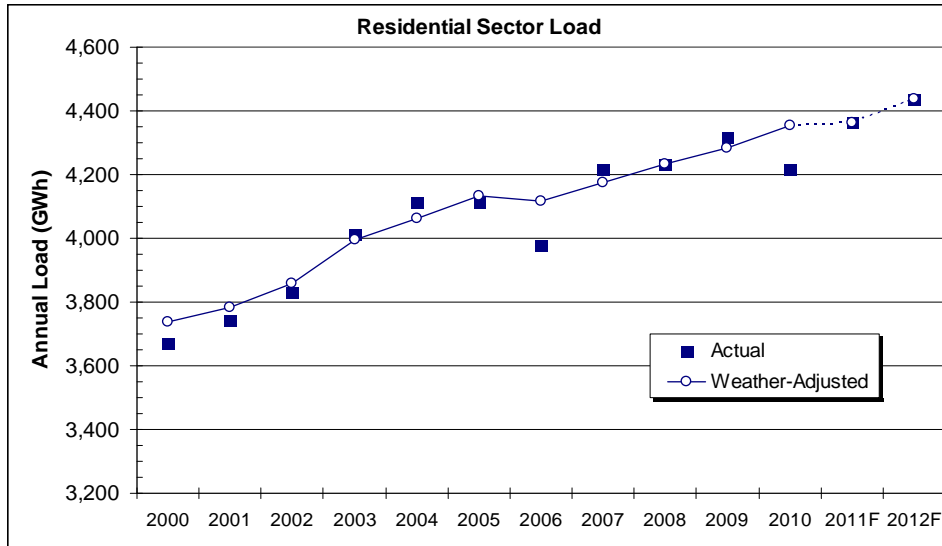
Request IR-12:

On page 45 it is stated that load in 2012 is forecast to increase from a forecast 12,412 in 2011 to 12,682 Gwh in 2012, an increase of 2.2%. Elsewhere it is indicated that without DSM, the load forecast for 2012 would be 12,948 gwh, (an increase of 4.3% over the 2011 forecast). However, Figure 8 on page 123 indicates that the *actual* energy requirement in 2010 was 3.8% lower than in the peak year, 2007, continuing a downward trend. Please reconcile the apparent conflict between actual requirements and forecast requirements.

Response IR-12:

The load forecast growth is best understood by splitting the overall load into the three sectors. The charts below show the load by sector and individual sector trends can be observed.

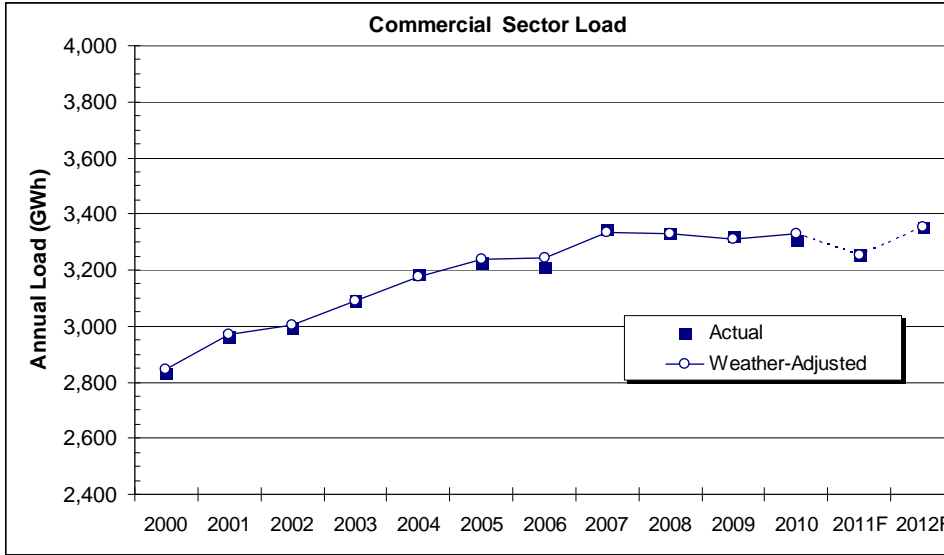
The residential sector has had steady growth since 2000, particularly notable in the actual weather normalized results. The forecast continues that trend.



The commercial sector growth has leveled out in comparison to the growth trend from the early part of the decade. The forecast is in line with this trend, as shown below.

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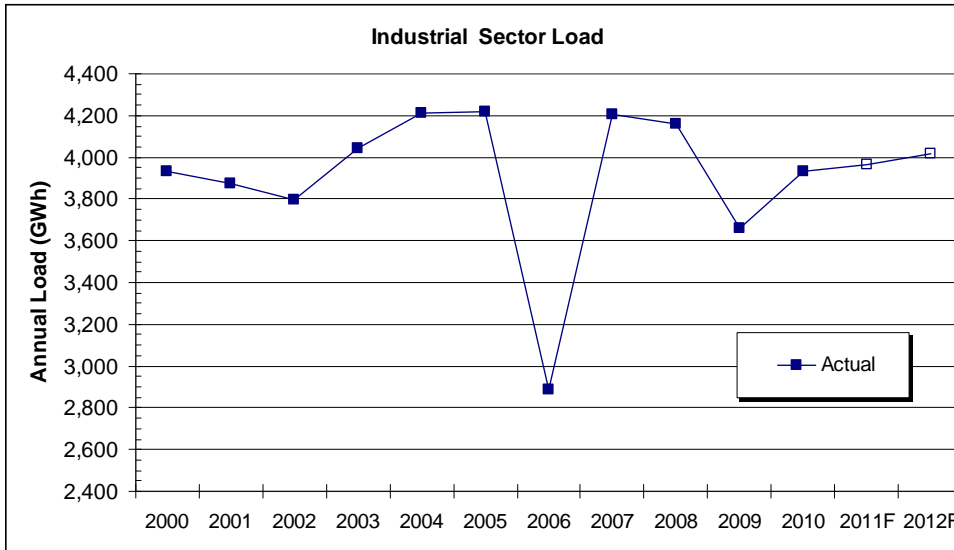


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4 As shown in the chart below, industrial load has not completely recovered from the recession of
5 2008 and 2009 and modest industrial load growth is forecast to occur.

6



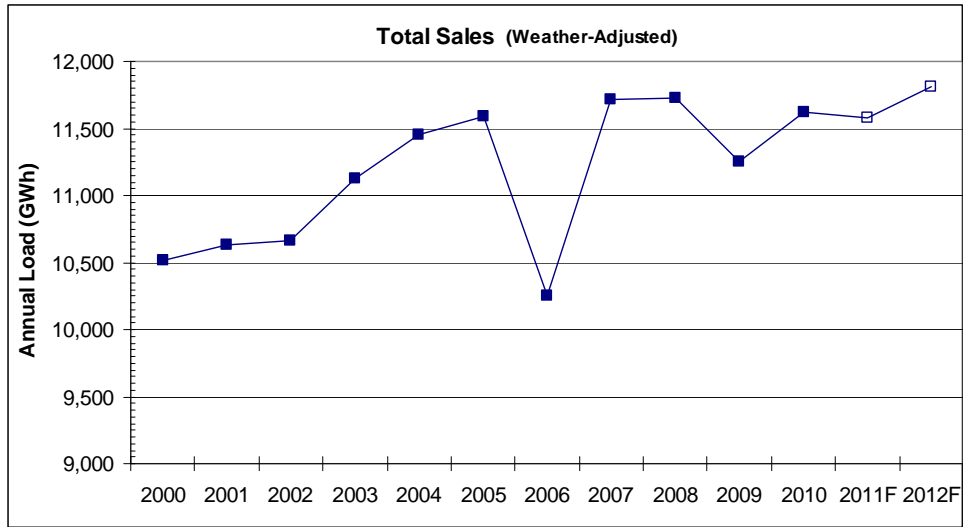
7

8 When the weather-adjusted sector results and forecasts summed, the trend is shown in the
9 following figure.

10

2012 General Rate Application (NSUARB P-892)
NSPI Responses to EAC Information Requests

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2012 General Rate Application (NSUARB P-892)
NSPI Responses to EAC Information Requests

NON-CONFIDENTIAL

1 **Request IR-13:**

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3 **Please describe the make-up and mandate of the Sustainability group.**

4

5 Response IR-13:

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7 Please refer to Liberty IR-50(d) and Liberty IR-66.

8

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1 **Request IR-14:**

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3 **Please provide details of the \$5.4 million increase in OMG costs (pps 63 and 74) related to**
4 **operation of wind farms at Digby, Nuttby Mountain and Point Tupper.**

5

6 Response IR-14:

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8 Please refer to NPB IR-63.

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1 **Request IR-15:**

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3 **On page 111 of the GRA it is stated that average capital assets have “risen sharply”**
4 **because of the legislated mandate to increase cleaner, renewable energy. Please itemize all**
5 **investments constituting the \$906 million increase in average capital assets.**

6

7 Response IR-15:

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9 Please refer to NPB IR-11.

NON-CONFIDENTIAL

1 **Request IR-16:**

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3 **On page 130, a peak demand of 2,308 is forecast for 2012, up 3.1% from the previous**
4 **record peak set in 2004. Please explain the basis for this forecast.**

5

6 Response IR-16:

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8 Please refer to NPB IR-116.

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1 **Request IR-17:**

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3 **On page 21, citing Figure 2.2, it is stated that “various changes in 2012 fuel costs over 2011**
4 **BCF result in an increase in the fuel cost per megawatt hour of electricity produced ...from**
5 **\$42.77/mwh in the 2011 BCF to \$45.25/mwh in the 2012 GRA.” Please explain why these**
6 **numbers differ from those in figure 2.3, the redacted version of which seems to show fuel**
7 **costs for both 2011 and 2012 in excess of \$48.26 per mwh.**

8

9 **Response IR-17:**

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11 The redacted version of this graph blackens out the column to the top of the graph which may
12 lead one to believe that is where the column reaches. In fact, the confidential version of the graph
13 reflects the 2011 BCF value of \$42.77/MWh and the 2012 GRA value of \$45.25/MWh.

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1 **Request IR-18:**

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3 **With reference to the response to IR-34 (Liberty) please identify any trends contributing to**
 4 **the 4.6% (3% weather adjusted) increase in total electricity requirement for the first four**
 5 **months of 2011.**

6

7 Response IR-18:

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9 Inspection of the year-over-year change in the four-month sales of the various in-province
 10 categories shows that the largest change is in the NewPage-Bowater load at a 5.5 percent
 11 increase, with the remaining industrial customers demonstrating some strong recovery following
 12 low levels experienced in 2009. The residential category saw a 5.0 percent increase but is
 13 equivalent to 0.8 percent growth when corrected for weather effects. Details are shown in the
 14 table below.

15

Category	Actual Sales, Jan. – Apr				Weather-Adjusted Sales, Jan – Apr			
	2010	2011	Δ GWh	% Change	2010	2011	Δ GWh	% Change
Residential	1,720	1,807	87	5.0%	1792	1807	15	0.8%
Commercial	1,095	1,118	23	2.1%	1114	1118	4	0.4%
NewPage-Bowater	730	770	40	5.5%	730	770	40	5.5%
Other Industrial	539	554	16	2.9%	539	554	16	2.9%
Other	107	112	5	4.8%	109	112	2	2.2%

16

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1 **Request IR-19:**

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3 **Further to the response to IR-39 (Liberty), NSPI lists provincial government**
4 **environmental requirements in the areas of mercury, nitrogen oxides, sulphur dioxides and**
5 **greenhouse gases requiring enhanced additional monitoring and new control technology**
6 **and incremental resources for implementation. Please state the year in which each of the**
7 **four listed environmental requirements came into effect and any new actions required in**
8 **2012 as a result of these requirements.**

9
10 Response IR-19:

11
12 Please refer to CA IR-149.

13

Emission	Effective Date	Provincial Limit for 2012
Mercury	2010	100 kg
Nitrogen Oxides	2009	21,365 tonnes
Sulphur Dioxide	2010	72,500 tonnes
Carbon Dioxide	2010	18.5 million tonnes in total for 2012 and 2013

14
15 Sulphur dioxide and mercury emissions requirements will be met through the continued
16 consumption of low sulphur, low mercury coals, in conjunction with the use of powder activated
17 carbon technology. NOx targets will continue to be met through the use of low-NOx burner
18 technology that is in place in the thermal generating stations.

19
20 The action plan to meet the Provincial Renewable Electricity Standard requirement of 25 percent
21 electricity generated from renewables by 2015 is projected to provide concurrent carbon dioxide
22 emission reductions such that Greenhouse Gas (GHG) requirements will be met.

NON-CONFIDENTIAL

1 **Request IR-20:**

2

3 **Appendix A, referenced on page 45 of the GRA, indicates that in 2011 NSPI will fall at least**
4 **38 GwH short of meeting its RES for 2011. How does NSPI intend to address this shortfall**
5 **in 2011? In 2012?**

6

7 ResponseIR-20:

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9 NSPI intends to make up any shortfall in 2011 from NSPI-owned renewable electricity facilities
10 constructed after 2001, in a manner that is consistent with the RES regulations. In 2012, NSPI
11 does not anticipate a shortfall on RES with all IPPs producing for the full year and an additional
12 50 MW contracted to be on line by or before July 1, 2012.

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1 **Request IR-21:**

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3 **The shortfall calculated in Appendix A is based on electricity sales for 2011 forecast in**
4 **2010. Please calculate the shortfall based on current forecasts for electricity sales in 2011**
5 **and 2012.**

6

7 Response IR-21:

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9 Please refer to NPB-117 and EAC IR-20.

NON-CONFIDENTIAL

1 **Request IR-22:**

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3 **Please provide reference to any information pertaining to:**

4

5 **(a) The NSPI timetable of the capital investment application on the Muskrat Falls**
6 **project before the UARB and**

7

8 **(b) How these new capital costs at NSPI will be / are going to be comparatively**
9 **evaluated and assessed against other import cost-options for NSPI to be compliant**
10 **in meeting NS renewable and GHG reduction goals and targets, by 2020, while**
11 **simultaneously providing best-value to Nova Scotian rate-payers.**

12

13 **Response IR-22:**

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15 **(a-b) This project remains in the planning and negotiation phase.**

NON-CONFIDENTIAL

1 **Request IR-23:**

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3 **Please provide any information pertaining to contingency plans for meeting 2020 targets, if**
4 **Muskrat Falls should happen to fall behind the anticipated 2017 completion timeline.**

5

6 Response IR-23:

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8 Nova Scotia Power will meet the renewable electricity standard using sources of renewable
9 generation that may be permitted by the Renewable Electricity Regulations then in place.

10