

**NON-CONFIDENTIAL**

---

1 **Request IR-112:**

2

3 **Reference: DE-03, DE-04, page 21.**

4

5 **NSPI states its base cost of fuel in 2011 will be \$42.77 per MWh. Please provide the**  
6 **corresponding BCF figures for each service classification.**

7

8 Response IR-112:

9

10 NSPI has not performed the required analysis to establish a production cost forecast 2011 BCF  
11 rate for each customer class.

**NON-CONFIDENTIAL**

---

1 **Request IR-113:**

2  
3 **Reference: DE-03, DE-04, Section 5.0.**

4  
5 **In light of the significant forecast increases in NSPI capital spending that are forecast for**  
6 **the next number of years, and in light of recent global economic circumstances that have**  
7 **negatively impacted the economy, please identify and provide details regarding all**  
8 **extraordinary Operation, Maintenance, and General cost reductions that NSPI has**  
9 **explored and/or undertaken in the past two years. If any extraordinary OM&G cost**  
10 **reductions have been explored but not undertaken, please explain why they have not been**  
11 **undertaken.**

12  
13 Response IR-113:

14  
15 NSPI is a cost of service utility and manages its costs in a prudent and effective manner. The  
16 OM&G forecast reflected in 2012 GRA DE-03 - DE-04 Appendix C are the costs that NSPI  
17 estimates are required to operate the utility in an effective, safe and reliable manner. The  
18 OM&G increases sought in this Application focus on improving reliability, improving service  
19 levels and transforming NSPI's generation mix.

20  
21 Comprehensive reviews of NSPI's OM&G expenses reveal effective cost control. Through these  
22 cost control mechanisms, NSPI has stabilized OM&G expenditures in constant dollars since  
23 2002, even with an increased investment in storm-related outage response and vegetation  
24 management.

25  
26 NSPI's OM&G costs benchmark favourably with its peers as depicted in DE-03 - DE-04  
27 Appendix B.

**NON-CONFIDENTIAL**

---

1 **Request IR-114:**

2

3 **Reference: DE-03, DE-04, page 68.**

4

5 **Labour-related increases include wage increases for both union and non-**  
6 **union employees, succession planning, and regulatory requirements.**

7

8 **Does NSPI still use the balanced scorecard as part of its employee compensation? If so,**  
9 **please identify the classifications of employees who are compensated based on the balanced**  
10 **scorecard and provide, for each employee classification, the % of the balanced scorecard**  
11 **applicable to the various items that impact the evaluation.**

12

13 Response IR-114:

14

15 NSPI continues to use a balanced scorecard as part of its non-union employee compensation.

16

17 The balanced scorecard is segmented into five main objective areas: Safety, People, Customer,  
18 Asset Management and Financial. Overall incentive level opportunities vary by employee  
19 category (General Staff target is 7 percent, Supervisor/Individual Contributor is 10 percent,  
20 Manager is 13 percent, Director is 18 percent and Executive is 30 percent).

21

22 Incentive levels are also weighted by objective area as shown in the table below

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

**NON-CONFIDENTIAL**

Employee Category	Balanced Scorecard weighting by Objective Area (%)					
	Safety	People	Customer	Asset Mgmt	Business Unit Financial	NSPI Financial
Executive	7.5	7.5	30	15	N/A	40
Director	7.5	7.5	30	15	N/A	40
Manager	10	10	25	15	30	10
Supervisor/ Individual Contributor	10	15	25	20	20	10
General	10	20	25	15	20	10

1

**NON-CONFIDENTIAL**

---

1 **Request IR-115:**

2

3 **Reference: DE-03, DE-04, page 69.**

4

5 **The increase in capital investments results in an \$8.2 million increase in our**  
6 **Administrative Overhead (AO) credit in 2012. AO is an amount credited to**  
7 **OM&G based on labour hours charged to capital projects and reduces our**  
8 **total OM&G costs.**

9

10 **(a) Please confirm that the labour hours charged to capital projects as AO are**  
11 **recovered in NSPI's rate base, and that NSPI earns a return on the AO.**

12

13 **(b) Please identify the total overall costs included in rate base for the 2012 test year that**  
14 **NSPI estimates are related to AO, and provide all support used by NSPI for the**  
15 **classification of these costs as AO.**

16

17 **(c) At paragraphs 111-112 of the Board's decision approving the 2011 Annual Capital**  
18 **Expenditure Plan, the Board stated that it**

19

20 **...is concerned that the differentiation between a capital expenditure**  
21 **and a maintenance expense is not as clear as it could be. The delays in**  
22 **updating the CEJC add to this concern. The Board is in the process**  
23 **of reviewing the update to the CEJC.**

24

25 **Please provide:**

26

27 **(i) a copy of the current CEJC policy,**

28

29 **(ii) a copy of the CEJC update showing the changes to the CEJC proposed by**  
30 **NSPI, and**

31

32 **(iii) an explanation of any changes proposed by NSPI.**

**NON-CONFIDENTIAL**

---

1 Response IR-115:

2

3 (a) AO charged to capital projects is included in rate base. AO is recovered through the  
4 depreciation of capital projects once in-service. NSPI earns a return on rate base, which  
5 includes AO. The AO amount is a credit in OM&G expense.

6

7 (b) Please see Liberty IR-49 Attachment 1 for a calculation of the AO included in the 2012  
8 test year forecasted capital spend. NSPI does not separately track the AO included in rate  
9 base for each project once it is in-service.

10

11 (c) Discussion between NSPI and Board Staff on the CEJC is ongoing with the goal to  
12 update the document to reflect current processes and technical criteria. The current  
13 approved Capital Expenditure Justification Criteria (CEJC), the 1997 CEJC draft with  
14 proposed changes, and the most recent draft provided to Board Staff for discussion can  
15 be viewed at NSPI offices. These large documents are available electronically upon  
16 request.

**NON-CONFIDENTIAL**

---

1 **Request IR-116:**

2

3 **Reference: DE-03, DE-04, page 119.**

4

5 **Please provide all work papers supporting the calculation/derivation of the 2,308 MW peak**  
6 **load.**

7

8 Response IR-116:

9

10 NSPI produces estimates for the test year electricity consumption for each customer class,  
11 without and with the effects of planned future DSM programs. This process is detailed in NSPI's  
12 load forecast report found in Appendix SR-02.

13

14 NSPI also estimates the hourly load profile of each class's electricity consumption, without and  
15 with the effects of expected future DSM programs. This test year hourly load profile is based on  
16 load research data for a recent year, adjusted for weather effects and to reflect the load forecast  
17 assumptions for the test year. System load for each hour is then estimated by applying the load  
18 profiles to the annual energies, adding losses, and summing for all classes. The peak for the test  
19 year is the maximum of the hourly loads.

20

21 The workpapers requested are provided in Electronic Attachment 1. The 2308MW forecasted  
22 peak can be seen at cell C22 of the Concident peaks tab, and cells C2 and G515 of the Load  
23 Shapes tab.

**NON-CONFIDENTIAL**

---

1 **Request IR-117:**

2

3 **Reference: DE-03, DE-04, Appendix A. Appendix A shows the RES Compliance Plan for**  
4 **the years 2011, 2013, 2015, and 2020.**

5

6 **Please provide the NS Electricity Sales Forecast, RES Requirement, and Renewable**  
7 **Energy Requirement for 2012, the “Post-2001 Renewable Energy – Committed” forecast**  
8 **GWh for 2012, and the Surplus / (Shortfall) expected in 2012. In this chart, please also**  
9 **identify the forecast GWh of NSPI Wind (Existing, Nuttby, Digby) that is not eligible for**  
10 **2012 RES.**

11

12 **Response IR-117:**

13

14 **Please refer to Attachment 1 for the most recent information on Renewable Electricity Supply to**  
15 **2020. NSPI has 251 GWh of wind that is not eligible for 2012 RES.**



## Nova Scotia Renewable Energy Supply

	2011	2012	2013	2014	2015	2020	Source	Energy
<b>NS Electricity Sales Forecast (GWh) (Note 1)</b>	<b>11,618</b>	<b>11,833</b>	<b>11,558</b>	<b>11,540</b>	<b>11,328</b>	<b>10,635</b>		
RES Requirement (%) (Note 2)	5%	5%	10%	10%	25%	40%		
<b>Renewable Energy Requirement (GWh) (Note 3)</b>	<b>581</b>	<b>592</b>	<b>1,156</b>	<b>1,154</b>	<b>2,832</b>	<b>4,254</b>		
<i>Pre-2001 Renewable Energy (GWh)</i>								
NSPI Hydro					970	970	NSPI	Hydro
IPP Hydro (Morgan Falls, Black River)					4	4	IPP	Hydro
IPP Biomass (Brooklyn Energy, Taylor Lumber)					157	157	IPP	Biomass
<b>Total Pre-2001 Renewable Energy</b>					<b>1,131</b>	<b>1,131</b>		
<i>Post 2001 Renewable Energy - Committed (GWh)</i>								
NSPI Wind (Existing, Nuttby, Digby) (Note 4)		251	251	251	251	251	NSPI	Wind
NSPI / New Page Port Hawkesbury Biomass			388	388	388	388	NSPI	Biomass
FPL Energy Pubnico	90	90	90	90	90	90	IPP	Wind
Amherst Wind Project (See Note 6)		44	86	86	86	86	IPP	Wind
Confederation Power Inc.	55	55	55	55	55	55	IPP	Wind
Halifax Renewable Energy Corp.	9	9	9	9	9	9	IPP	Biogas
RESL	72	72	72	72	72	72	IPP	Wind
Shear Wind	145	169	169	169	169	169	IPP	Wind
RMS Energy	168	168	168	168	168	168	IPP	Wind
Maryvale	20	20	20	20	20	20	IPP	Wind
Distribution Connected Projects - December 2008 RFP		63	110	115	115	115	IPP	Wind/Biomass
<b>Total Post-2001 Renewable Energy - Committed</b>	<b>559</b>	<b>690</b>	<b>1,418</b>	<b>1,423</b>	<b>1,423</b>	<b>1,423</b>		
<b>Total Renewable Energy Supply (GWh)</b>	<b>559</b>	<b>690</b>	<b>1,418</b>	<b>1,423</b>	<b>2,554</b>	<b>2,554</b>		
<b>Surplus / (Shortfall) (GWh) (Note 5)</b>	<b>(22)</b>	<b>98</b>	<b>262</b>	<b>269</b>	<b>(278)</b>	<b>(1,700)</b>		

Options for 2015 and beyond Renewable Energy Supply

IPP Large Scale Biomass (GWh)					170	170		
IPP Competitive Bid RFP (GWh)					300	300		
NSPI Large Scale Wind Projects (GWh)					300	300		
NSPI Co-firing (GWh)					150	150		
Import Power - Lower Churchill Muskrat Falls (GWh)						1,000		
Community based Feed-in-Tariff (COMFIT) (GWh)					50-300	50-300		
New NSPI Small Hydro (GWh)								
Bay of Fundy Tidal (GWh)								

**Notes:**

- 1) NSPI 2012 GRA Load Forecast
- 2) RES for 2011 and 2013 are based on renewable energy sources post 2011
- 3) Renewable energy requirement excludes any planning contingency for margin of safety
- 4) NSPI renewable energy not eligible for 2011 RES - subject to shortfall provisions of regulations
- 5) Shortfall energy in 2011 will be supplied with RES qualified power
- 6) Sprott Energy Corp began construction of project in June 2011

**REDACTED**

---

1 **Request IR-118:**

2  
3 **Reference: Exports, OE-01A, Attachment 1, page 7 of 26.**

4  
5 **(a) This attachment shows an average export cost of [REDACTED] per MWh [REDACTED]**  
6 **[REDACTED] with monthly costs [REDACTED] and [REDACTED].**  
7 **Please explain why these costs [REDACTED].**

8  
9 **(b) Please explain how the constant profit margin of [REDACTED] per MWh was derived or**  
10 **estimated.**

11  
12 **Response IR-118:**

13  
14 (a) This calculation of export cost did not include exports assigned to a portion of gas  
15 purchases. However, as total gas costs are calculated and then allocated to gas  
16 consumption and exports, the Total Fuel and Purchased Power is correct. Said another  
17 way, currently, gas consumption is overstated and export costs are understated but total  
18 expense is correct.

19  
20 NSPI will correct this item when the Fuel and Purchased Power Forecast is updated in  
21 accordance with the FAM schedule (and simultaneously filed in the GRA proceeding) but  
22 it does not change the revenue requirement requested.

23  
24 (b) The FAM POA Appendix B, Export Power, page 15 indicates profit margin on export  
25 sales will be forecast using an average of the two prior years of actual sales, in this case  
26 2009 and 2010.

**NON-CONFIDENTIAL**

---

1 **Request IR-119:**

2  
3 **Preamble: NSPI is acquiring increasing amounts of intermittent wind generation.**

4  
5 **(a) Please provide the additional amount of regulation capacity in MW that NSPI**  
6 **estimates it will need to obtain in order to reliably integrate this new wind**  
7 **generation for the years 2011, 2012 and 2013. By “regulation capacity” we mean**  
8 **dispatchable resources under automatic generation control or other automatic**  
9 **controls that will help balance load and generation to meet NERC CPS 1 and CPS 2**  
10 **requirements when the wind generation unexpectedly increases or decreases.**

11  
12 **(b) Please identify and quantify (in terms of megawatts and cost) the resources that**  
13 **NSPI plans to rely upon for regulation capacity in the years 2011, 2012 and 2013**  
14 **(for example, combustion turbines with automatic generator control, dynamic**  
15 **scheduling from other balancing authorities, etc.).**

16  
17 **(c) To the extent that NSPI relies on sources external to the NSPI system for regulation**  
18 **capacity, please provide the cost per MW including wheeling for the service and any**  
19 **energy costs excluding inadvertent or unplanned energy interchanges.**

20  
21 **Response IR-119:**

22  
23 (a-c) NSPI is in the process of selecting a consultant to assist with a comprehensive study of  
24 the impacts of additional wind integration on the dispatch of the generating units and on  
25 the system as a whole. The analysis of wind characteristics is scheduled for completion  
26 in the fourth quarter of this year with the final report expected to be completed in the  
27 second quarter of 2012. Once this study is complete, the effect of additional wind energy  
28 and the investments that will be required to reliably integrate it into the system will be  
29 better understood.

**NON-CONFIDENTIAL**

---

1 **Request IR-120:**

2

3 **Preamble: NSPI has filed General Rate Applications for the Years 2002, 2005, 2006, 2007,**  
4 **and 2009.**

5

6 **For each year, please identify**

7

8 **(a) the total revenue requirement requested in NSPI's Application,**

9

10 **(b) the total revenue requirement approved in NSPI's compliance filing following the**  
11 **Board's decision, and**

12

13 **(c) the reductions to the revenue requirement as a result of the Board's decision or**  
14 **Board approved settlement agreement.**

15

16 **Response IR-120:**

17

18 **(a-c) Please refer to the table below:**

19

<b>Year</b>	<b>Application (\$M)</b>	<b>Compliance (\$M)</b>	<b>Reductions per Board decision/Board approved settlement (\$M)</b>
2002	949.2	901.3	42.4
2005	1,072.9	999.9	53.2
2006	1,168.8	1,106.6	68.9
2007	1,197.6	1,159.5	38.1
2009	1,285.8	1,255.8	30.0

20

**NON-CONFIDENTIAL**

---

1 **Request IR-121:**

2

3 **Reference: DE-03, DE-04, Figure 5.2, page 65.**

4

5 **Please provide a version of Figure 5.2 that does not exclude pension costs. Please also**  
6 **indicate the specific Consumer Pricing Index that NSPI used in this chart.**

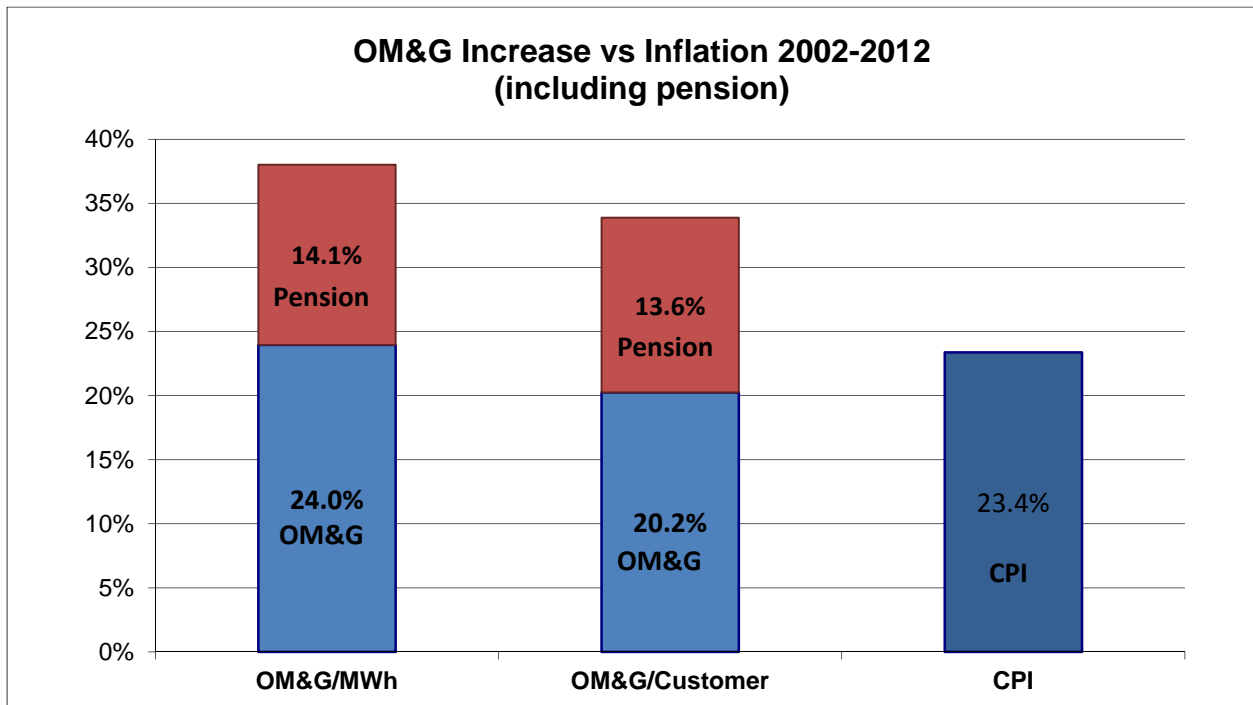
7

8 Response IR-121:

9

10 Please refer to the chart below, updated to include pension costs.

11



12

13

14 NSPI used the Consumer Price Index for Nova Scotia, provided by the Conference Board of  
15 Canada on October 28, 2010.

**REDACTED**

---

1 **Request IR-122:**

2

3 **Reference: DE-03, DE-04, page 68.**

4

5 **Among competing companies, we stand at about the 50th percentile for non-**  
6 **union salaries.**

7

8 **(a) Please identify the “competing companies” referred to by NSPI in this statement.**

9

10 **(b) Please provide NSPI’s percentile for union salaries.**

11

12 Response IR-122:

13

14 (a) Energy Sector market data published by Mercers and Towers Watson was extracted from  
15 national databases to conduct annual compensation analyses. Data representing the 50<sup>th</sup>  
16 percentile of the marketplace was used for comparison purposes to determine that NSPI  
17 stands at about the 50<sup>th</sup> percentile. The table below lists participants in these two surveys.

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

**REDACTED**

---

<b>PARTICIPATING ORGANIZATIONS</b>	<b>Mercers - Energy Sector - Utilities Module</b>	<b>Towers Watson - Power Services</b>

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

**REDACTED**

---

PARTICIPATING ORGANIZATIONS	Mercers - Energy Sector - Utilities Module	Towers Watson - Power Services
[REDACTED]		

1

2 (b) NSPI does not track this information.



**REDACTED**

---

1 **Request IR-123:**

2

3 **Reference: DE-03, DE-04, Figure 5.5, page 74 and Appendix C, page 26 (“External Legal**  
4 **and Audit increase due to fuel contracts.”)**

5

6 **Please identify all legal costs associated with Power Production and explain why NSPI is**  
7 **forecasting an increase of \$1.4 million.**

8

9 Response IR-123:

10

11 The increase in legal costs from 2009C to 2012 is reflective of the actual costs incurred for 2009  
12 and 2010 and forecasted in 2011. Please refer to table below.

13

<b>in \$ thousands</b>	<b>2009C</b>	<b>2009 Actual</b>	<b>2010 Actual</b>	<b>2011 Forecast</b>
<b>Legal Costs</b>	650	4,420	2,046	

14

15 These expenditures cover the legal costs associated with negotiation of fuel contracts, as well as  
16 to obtain legal services relating to third party disputes, environmental and labour related issues,  
17 all relating to fuel and Power Production.

**NON-CONFIDENTIAL**

---

1 **Request IR-124:**

2

3 **Reference: DE-03, DE-04, Figure 5.11, page 81.**

4

5 **Please provide the actual storm costs broken down by year over the past 23 years.**

6

7 Response IR-124:

8

9 Please refer Attachment 1, page 1 and Liberty IR-058, page 2, for storm costs extending back to  
10 2000. NSPI does not have storm costs segregated from general OM&G expenses prior to 2000.

11

<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
\$1,564,459	\$1,284,104	\$2,793,099	\$7,671,338	\$5,821,306

12

13 Please refer to Liberty IR-152 Attachment 2 for the remaining years.

**NON-CONFIDENTIAL**

---

1 **Request IR-125:**

2  
3 **Reference: DE-03, DE-04, page 89 (“The increase is based on our most recent experience.”)**  
4 **and Appendix C, page 6 (“Insurance increase due to increased premiums.”)**

5  
6 **(a) Please provide all justification for the \$5.4 million cost for insurance included in the**  
7 **forecast and explain why NSPI is forecasting an increase of \$1.2 million.**

8  
9 **(b) Please identify all activities and efforts undertaken by NSPI to minimize its**  
10 **insurance costs.**

11  
12 **Response IR-125:**

13  
14 (a) NSPI has insurance coverage to protect its assets and operations. Insurance premiums are  
15 the largest component of the insurance costs. Premium variations from year to year  
16 (either up or down) are subject to a number of factors including:

- 17  
18 • The assets of NSPI are insured under the property and machinery breakdown  
19 policies on a repair/replacement cost basis. On an annual basis, these assets are  
20 subject to an escalation factor to reflect increasing costs of replacing/repairing  
21 assets.  
22  
23 • Loss experience of the insurers as a result of the industry in general. Insurers’  
24 claims experience with the 'energy' industry sector will affect the rates. Also,  
25 global catastrophe claims such as windstorm/hurricane, earthquake and flood  
26 losses may stress insurers’ financial results. To recover, insurers and re-insurers  
27 may increase rates.  
28

**NON-CONFIDENTIAL**

---

- 1           •       In the case of property and machinery breakdown insurers, there are a number of  
2                   new NSPI capital investments including: a new Tufts Cove unit; Lower Water  
3                   Street building refurbishment and the Digby, Nuttby and Point Tupper Wind  
4                   Development projects.
  
- 5
- 6           •       In the case of casualty insurers, company production and revenue are used by  
7                   insurers to determine the rates.
  
- 8
- 9           •       New assets are insured under construction policies until the asset is considered in  
10                  service. Thereafter the asset is insured under the operational insurance program.  
11                  The timing of the move from construction coverage to operational coverage will  
12                  impact the costs of operational coverage in the year of the transition.
  
- 13
- 14          •       NSPI claims experience will affect pricing.
  
- 15
- 16          •       Available insurer capacity, a reduction or increase in the amount of exposure  
17                  insurers are willing to take will impact coverage and pricing.
  
- 18
- 19          •       Global financial market impact on insurers and re-insurers.
  
- 20
- 21          •       Underwriters views of NSPI's loss prevention initiatives or the perception of the  
22                  risk.
- 23          •       The number and type of vehicles insured by the company can also impact auto  
24                  premiums.
  
- 25

26           Insurance coverage is renewed on an annual basis with precise terms and pricing not  
27           confirmed until binding of the coverage. As such, in forecasting future years there is not  
28           precise data upon which to base forecasts. The forecast was an approximation of an  
29           overall annual increase of 10 percent over the years in question. The 10 percent increase

**NON-CONFIDENTIAL**

---

1 was comprised of an annual escalation factor of 2-4 percent to reflect the increased costs  
2 of replacing/repairing assets; an increase of insurance market pricing of 5 percent, plus  
3 the addition of new assets as set out above.

4  
5 In addition to premiums, the insurance forecast also includes broker's fees, legal  
6 fees/expenses for claims settlements, claims adjusting services, and experts who may be  
7 retained for insurance related matters.

8  
9 (b) The objectives for the insurance program include:

- 10
- 11 • appropriateness of the coverage for the risks associated with the business
  - 12
  - 13 • consistency of terms of coverage from year to year
  - 14
  - 15 • consistency of pricing from year to year which is also reflective, to the extent  
16 possible, of the loss experience, business operations and market in which  
17 operations are carried out
  - 18
  - 19 • insuring with, and maintaining relationships with, insurers who are  
20 knowledgeable in the industry, knowledgeable of the company and who, in the  
21 event of loss, will negotiate or settle claims on an appropriate basis
  - 22

23 These objectives are believed to result in the most appropriate costing over time for the  
24 company.

25  
26 There are also a number of matters considered to help assess the appropriateness of the  
27 pricing and coverage and to help manage pricing:

**NON-CONFIDENTIAL**

---

- 1           •       The majority of the risks insured are of a nature and a size that no one insurer will  
2                   underwrite the risk so multiple insurers are included in the insurance portfolio.  
3                   The insurers included in the portfolio are established companies in the insurance  
4                   industry and have expertise in the areas within which the Company operates.  
5                   Insurers in the portfolio are insurers which are well capitalized and have the  
6                   necessary financial status.  
7
- 8           •       Regular meetings with insurers are held and presentations made regarding  
9                   operations, risk improvements and business plans.  
10
- 11          •       Ongoing provision of underwriting data  
12
- 13          •       In Property and Boiler Machinery areas, detailed annual inspection of major  
14                   facilities is conducted, including documentation review and human element  
15                   reviews.  
16
- 17          •       Ongoing loss mitigation efforts, particularly as related to major property losses.  
18
- 19          •       Active review of major contractual relationships to ensure where appropriate that  
20                   counterparties as best as possible have appropriate coverage to minimize exposure  
21                   to NSPI.  
22
- 23          •       In addition, NSPI requires its broker to:  
24
  - 25               -       perform periodic marketing exercises (which may be either extensive or  
26                       selective) to create competition and competitive pricing models or to  
27                       assess potential alternatives
  - 28
  - 29               -       provide updated benchmarking data for peers of a similar size

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

**NON-CONFIDENTIAL**

---

- 1  
2           -     monitor the appropriate markets, reinsurer capacity, rates, etc., to ensure  
3                   pricing is in line with market conditions as well as new market entrants  
4                   and the coverage and rates they may provide compared to incumbent  
5                   insurers

**NON-CONFIDENTIAL**

---

1 **Request IR-126:**

2

3 **Reference: DE-03, DE-04, page 92. “The underlying assumptions in the 5 year forecast**  
4 **are...”**

5

6 **(a) Please identify the specific wage increase assumptions for both union and non-union**  
7 **employees assumed in 2012 as part of this forecast.**

8

9 **(b) Please identify the “employee related expenses” and explain why NSPI forecasts an**  
10 **increase of 2.2 percent per annum.**

11

12 **(c) Please explain why NSPI is assuming a 7.5% annual escalation in insurance costs.**

13

14 Response IR-126:

15

16 (a) Please refer to Liberty IR-104(a).

17

18 (b) Employee related expenses consist of the remaining non-labour expenses included in  
19 DE-03 – DE-04, Appendix C, that are not specifically listed in the underlying  
20 assumptions on page 92 of the Application. Such expenses include office supplies, travel  
21 expenses, telephones, membership dues, subscriptions, meals & entertainment, training &  
22 development, overtime meals, and personal equipment.

23

24 Generally, NSPI used the forecasted real GDP for Nova Scotia as an annual escalator on  
25 non-labour expenses. This is consistent methodology as applied with prior general rate  
26 applications.



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

**NON-CONFIDENTIAL**

---

1 (c) Insurance coverage is renewed on an annual basis with precise terms, and pricing is not  
2 confirmed until binding of the coverage. There are multiple variables that impact both  
3 pricing and coverage in any subsequent year, thus, NSPI based the escalation of 7.5  
4 percent on experience allowing an annual escalation factor between 2-4 percent to reflect  
5 the increased costs of replacing and repairing assets, plus an increase between 5-7 percent  
6 to reflect an increase in insurance market pricing.

7

8 Please refer to NPB IR-125.

**NON-CONFIDENTIAL**

---

1 **Request IR-127:**

2

3 **Reference: DE-03, DE-04, page 98. “Accordingly, to maintain a competitive credit rating,**  
4 **Nova Scotia Power’s financial profile, including its capital structure – should be at least**  
5 **comparable to that of other Canadian utilities.”**

6

7 **Please provide a graph showing the share price of Emera Inc. from January 1, 2009 to the**  
8 **date of the Application.**

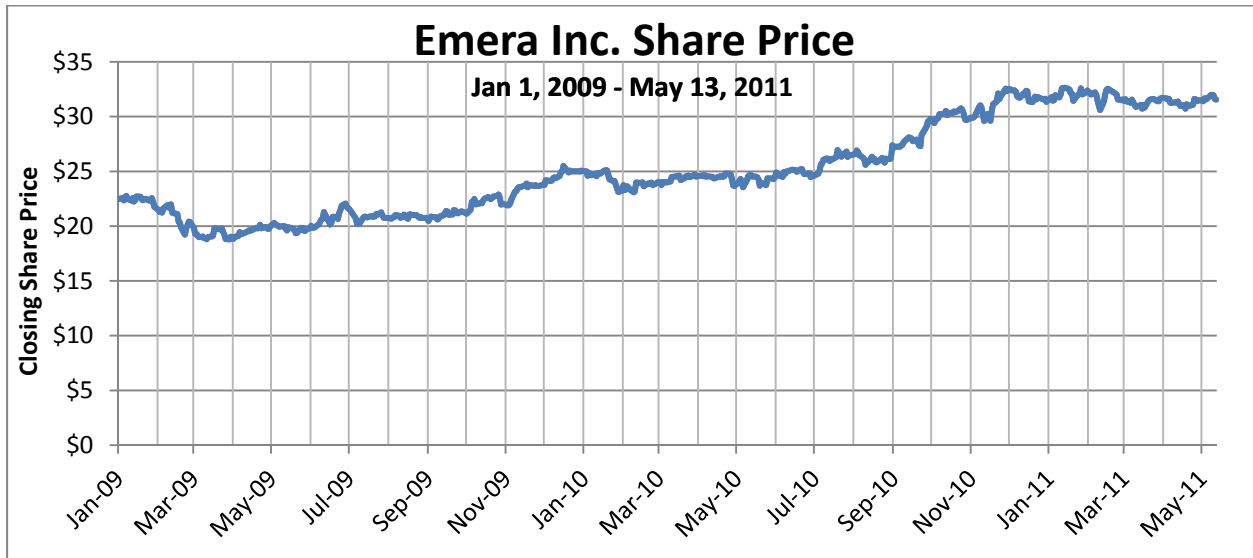
9

10 Response IR-127:

11

12 Please refer to the graph below:

13



14

**REDACTED**

---

1 **Request IR-128:**

2

3 **Reference: DE-03, DE-04, page 29, Solid Fuel procurement policy and Chronicle-Herald**  
4 **article, June 25, 2011, page C4. “Xstrata Coal Donkin Management is also in talks with**  
5 **Nova Scotia Power Inc. about supplying coal to the power company’s Lingan generating**  
6 **plant.”**

7

8 **Please indicate whether NSPI is currently in discussions with Xstrata and provide all**  
9 **information regarding the status of these discussions.**

10

11

12 **Response IR-128:**

13

14 NSPI is currently in discussions with Xstrata. These discussions are in their preliminary stages  
15 and there is limited information available at this time. [REDACTED]

16 [REDACTED]

**NON-CONFIDENTIAL**

---

1 **Request IR-129:**

2  
3 **Reference: Quarterly FAM Reports. "Generation and Purchased Power Statistics."**

4  
5 **(a) Please confirm that the "Station Service" MWh identified in the Quarterly FAM**  
6 **Reporting refer to electricity used by NSPI to operate each generating unit. Please**  
7 **also confirm that the % of Total Generation (gross) required for station service has**  
8 **increased from 5.82% in 2008 to 5.96% in 2009 to 6.10% in 2010.**

9  
10 **(b) Please provide a list of DSM activities carried out by NSPI between 2008 and the**  
11 **present to increase the efficient use of electricity at each of its generating units. For**  
12 **each initiative carried out, please identify the estimated MW and GWh savings and**  
13 **provide all available information regarding the evaluation and verification of these**  
14 **savings.**

15  
16 **(c) For the 2012 test year, please indicate all currently planned DSM initiatives by**  
17 **specific generating unit and identify the forecasted MW and GWh savings for each**  
18 **initiative.**

19  
20 **(d) Please identify the fuel expense included in the 2012 BCF forecast that is**  
21 **attributable to the GWh for station service electricity, both on an overall basis and**  
22 **broken down for each specific NSPI generating unit.**

23  
24 **(e) Please identify the OM&G costs included in the 2012 BCF forecast that are**  
25 **attributable to the GWh for station service electricity, both on an overall basis and**  
26 **broken down for each specific NSPI generating unit.**

**NON-CONFIDENTIAL**

---

1 Response IR-129:

2

3 (a) “Station Service” MWh identified in the Quarterly FAM Reporting is confirmed as  
4 referring to electricity used by NSPI to operate each generating unit. The Station Service  
5 increase, as a percentage of Total Generation, from 2008 to 2010 has been confirmed.  
6 With the addition of renewable energy sources and a decline in the capacity factor of the  
7 thermal generating stations it is anticipated that station service as a percentage of total  
8 station output will increase.

9

10 (b-c) NSPIs capital program is ranked across all investment opportunities. There is not a  
11 specific DSM program for the plants.

12

13 (d) Station service is one of the parameters directly affecting plant heat rate. For the 2012  
14 forecast, the heat rates of each plant are used to determine cost per MWh. Station service  
15 is therefore accounted for within the overall costs per MWh for each plant and is not  
16 forecast separately. Please refer to 2012 GRA OE-01A for heat rate and cost per MWh  
17 for each plant.

18

19 (e) Please refer to (d) above. Although OM&G costs associated with station service are not  
20 tracked, they are estimated to be negligible to the forecast.

**NON-CONFIDENTIAL**

---

1 **Request IR-130:**

2

3 **Reference: DE-03, DE-04, page 50, and Board letter to NSPI dated February 22, 2011.**

4

5 **...the Board continues to be concerned with the variance and possible steps**  
6 **which could have been taken to avoid or reduce it. The Board has directed its**  
7 **fuel consultant, The Liberty Consulting Group, to review this matter in**  
8 **greater detail...**

9

10 **Please provide all information provided to Liberty as part of its review in this matter,**  
11 **whether by way of responses to Information Requests or otherwise.**

12

13 Response IR-130:

14

15 Information was provided confidentially to Liberty during the referenced audit process. It is  
16 NSPIs understanding that, similar to the treatment of previous audit work, only the final report  
17 would be disclosed in a FAM process or as otherwise determined by the UARB. NSPI has not  
18 yet received a draft or final report by Liberty.

19

**NON-CONFIDENTIAL**

---

1 **Request IR-131:**

2

3 **Reference: PR-01, Page 3. Optional Green Power Rider.**

4

5 **(a) Please indicate when the Optional Green Power Rider was first approved by the**  
6 **Board. If the Rider has been revised since it was first approved, please identify the**  
7 **revisions and indicate when the revisions were approved.**

8

9 **(b) Please identify how many domestic customers took service under NSPI's Optional**  
10 **Green Power Rider in each year in which it has been available, and how many**  
11 **domestic customers are forecast to take service under the Rider in the 2012 test**  
12 **year.**

13

14 **(c) Please indicate how much NSPI spent in promoting the Optional Green Power**  
15 **Rider in each year in which it has been available, how much NSPI proposes to spend**  
16 **as part of its 2012 test year forecast, and provide all available marketing materials**  
17 **used to promote take-up of this Rider.**

18

19 **(d) Is NSPI familiar with Bullfrog Power? If so, please provide all information NSPI**  
20 **has with respect to Bullfrog Power's operations in Nova Scotia, including any**  
21 **available estimates of how many of NSPI's customers are also customers of Bullfrog**  
22 **Power.**

23

24 **Response IR-131:**

25

26 **(a) The Green Rider Rate was approved on an interim basis by the UARB in its 2002 GRA**  
27 **Decision of October 23, 2002<sup>1</sup>, and there have been no revisions since that date.**

---

<sup>1</sup> NSPI 2002 Rate Case, UARB Decision, NSUARB-NSPI-P-875, October 23, 2002, page 133.

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

**NON-CONFIDENTIAL**

---

1 (b)

Year	Customer Count
2002	96
2003	318
2004	311
2005	240
2006	180
2007	162
2008	142
2009	120
2010	110
2011	98

2

3 In order to establish the revenue associated with the Green Power rider, the number of \$5  
4 blocks sold is forecasted, not the customer count. We are projecting 96 blocks of energy  
5 being sold per month in 2012, representing a revenue of \$5,760 in the 2012 GRA test  
6 year.

7

8 (c) The Green Power Rider has not been promoted since 2003 and there are no plans to  
9 promote it in the future. Costs associated with the promotion of the program were not  
10 tracked separately. Marketing materials associated with the program are not available.

11

12 (d) Yes. NSPI does not have particular information on Bullfrog Power's operations in Nova  
13 Scotia, nor estimates of customer participation. Bullfrog Power has asked NSPI about  
14 the possibility of a joint initiative.



**CONFIDENTIAL (Attachment Only)**

---

1 **Request IR-132:**

2  
3 **Reference:** In response to Liberty IR-6, it states that due to Tufts Cove 1 operating  
4 **limitations, it cannot be run as a cycling unit, and instead is modeled as a must-run unit**  
5 **from December through March.**

6  
7 **(a) Please explain the technical aspects of these limitations that necessitate this mode of**  
8 **operation.**

9  
10 **(b) Please fully explain why the must-run months are December through March as**  
11 **opposed to some other time of the year.**

12  
13 **(c) Please provide the minimum capacity for Tufts Cove 1 assumed in its must-run**  
14 **mode of operation.**

15  
16 **(d) Please explain why the heat rate in the must-run mode is greater than for the**  
17 **cycling mode of Tufts Cove 1.**

18  
19 **(e) Please explain why the cost per MMBtu for the must-run component of Tufts Cove**  
20 **1 is so much greater than the unit cost per MMBtu of fuel for the cycling component**  
21 **of Tufts Cove 1.**

22  
23 **(f) Please provide any studies, analyses or investigations regarding the cost/benefit of**  
24 **capital improvement at Tufts Cove 1 that would enable it to run in a more economic**  
25 **fashion.**

26  
27 **(g) Please provide any studies, analyses or investigations on the cost/benefit of**  
28 **converting any of the Tufts Cove units (besides Tufts Cove 6) to a combined-cycle**  
29 **plant.**

**CONFIDENTIAL (Attachment Only)**

---

1 Response IR-132:

2  
3 (a) Tufts Cove 1 turbine was made by a different manufacturer than Units 2 or 3. Unit 1  
4 turbine and boiler are of significantly different designs than unit 2 and 3 and these  
5 differences limit its suitability for higher frequencies of cycling on and off. One of the  
6 main principles of carrying out a successful two-shift, that will not cause damage to the  
7 turbine, is the ability to admit steam to the turbine at a temperature that matches the  
8 turbine metal temperatures within specific limits.

9  
10 The larger mass of metal in Unit 1, relative to the other units, leads to a longer time to  
11 cool down. This means that the steam admitted to the turbine needs to be very hot on  
12 return to service. In order to get these steam temperatures during in a situation where the  
13 unit was called back into service in a relatively short period of time, the boiler would  
14 have to be operated at temperatures that approach levels that could damage the boiler  
15 tubes.

16  
17 In addition, unit 1's design limitations, are such that sections of the boiler and turbine are  
18 more prone to developing cracks associated with thermal cycling. With the relatively few  
19 thermal cycles that unit 1 is subjected to in its current mode of operation, Tufts Cove Unit  
20 1 boiler has experienced significantly more cracks than Unit 2 or Unit 3 boilers. Unit 1  
21 boiler is a pressurized design and so cracks in the boiler casing can lead to the escape of  
22 gases into the plant. Some evidence of cracking has also been observed in the unit 1  
23 turbine steam chest and this is being closely monitored for propagation.

24  
25 (b) December through March are peak load months. Since Tufts Cove 1 is not suitable for  
26 frequent cycling on and off, and given that it is required through significant portions of  
27 this period to serve load, it is modeled as a "must-run" unit. At times of relatively lower  
28 system load during the peak load months, a "must-run" unit will be dispatched at  
29 minimum capacity.

**CONFIDENTIAL (Attachment Only)**

---

- 1 (c) Minimum Tufts Cove 1 capacity is modeled in Strategist at 45 MW.  
2
- 3 (d) In must-run mode, there is a higher incidence of unit 1 operating at lower than optimal  
4 power output resulting in overall higher average heat rate.  
5
- 6 (e) The cost of natural gas is higher in winter months and its heat rate is higher due to  
7 periods of operation at sub optimal capacity. Please refer to DE-03 – DE-04 Figure 2.31  
8 of the Application, Section 2 for information regarding Fuel and Purchased Power.  
9
- 10 (f-g) NSPI completed a technical review, attached as Confidential Attachment 1, with  
11 GRYPHON International Engineering Services Incorporated, for a Hot-Windbox  
12 Repowering Option. Hot-Windbox repowering involves utilizing the hot exhaust gas  
13 from a combustion turbine as combustion air to a conventional boiler. This process  
14 converts an existing steam generating unit to a hybrid combined cycle unit consisting of a  
15 gas fired turbine operating in conjunction with a conventional steam turbine. The  
16 attached report and analysis provides the results of research into hot windbox re-  
17 powering. During the period from 2002 to 2008, unit 1 was the most expensive unit in  
18 the fleet on a \$/MWh basis. As a result, it typically had a much lower capacity factor.  
19 There have been periods of time when this unit was off for many weeks to several months  
20 at a time. This lower capacity factor would significantly increase the payback period on  
21 efficiency related capital investments on unit 1 relative to investments in other units in  
22 the fleet.

**REDACTED**

---

1 **Request IR-133:**

2

3 **Reference:** Attachment 3 of OE-01A (pages 5 and 6) show a combined (must-run plus  
4 cycling) fuel cost of approximately \$ [REDACTED] for Tufts Cove 1 (\$ [REDACTED]  
5 [REDACTED]). However, Attachment 1 of GRA OE-01A,  
6 page 24 shows total fuel costs of \$ [REDACTED] for Tufts Cove 1.

7

8 **Please explain and reconcile the difference.**

9

10 Response IR-133:

11

12 Please refer to Confidential Attachment 1 for the revised OE-01A, Attachment 1, page 24 of 26.  
13 This update affects reporting but does not change Total Fuel and Purchased Power and  
14 consequently the requested 2012 revenue requirement.

**NON-CONFIDENTIAL**

---

1 **Request IR-134:**

2

3 **Using the statutory federal and provincial corporate tax rates, please provide a calculation**  
4 **of NSPI's 2012 cost of income taxes and a reconciliation to the amount of income taxes**  
5 **included in the 2012 revenue requirement.**

6

7 Response IR-134:

8

9 Please refer to the Application, OE-10 – OE-11.

**REDACTED**

---

1 **Request IR-135:**

2

3 **Reference: Section OE-01A, Attachment 1, page 24 of 26 shows, for the month of**  
4 **December 2012 fuel consumption of [REDACTED] MMBtu for Unit 1 for that month and a total**  
5 **fuel cost for that unit for December of [REDACTED] Doing the math that comes out to a unit**  
6 **cost of gas for that month of approximately [REDACTED] per MMBtu.**

7

8 **Considering NSPI's projected cost of natural gas, please explain the difference in cost in**  
9 **December compared to the other 11 months of the year.**

10

11 **Response IR-135:**

12

13 Please refer to NPB IR-133.

**NON-CONFIDENTIAL**

---

1 **Request IR-136:**

2  
3 **(a) In the input data of the electronic model of the cost of service study (Rows 301-325),**  
4 **it shows a functionalization of costs for performance and regulation, corporate**  
5 **finance, corporate communications, human resources services, corporate groups,**  
6 **and IT services of 36% thermal, 11% transmission, 26% distribution and 27%**  
7 **retail. Please provide all studies, analyses or investigations supporting this**  
8 **functional breakout.**

9  
10 **(b) Please provide all work papers supporting the calculation/derivation of 16.4% of**  
11 **marketing sales costs to the ELI 2P-RTP class.**

12  
13 **(c) Please provide all work papers supporting the calculation/derivation of 16.5% of**  
14 **meter data services costs to the ELI 2P-RTP class.**

15  
16 **Response IR-136:**

17  
18 (a) The functional breakdown of these costs was proposed by NSPI in the 2005 rate case  
19 application and has been included in the COSS in compliance filings submitted by NSPI  
20 since 2004<sup>1</sup>. Please refer to Attachment 1.

21  
22 (b) The 16.4 percent allocator was proposed by NSPI in the 2007 rate case and has been  
23 included in the COSS in compliance filings submitted by NSPI since that case<sup>2</sup>. Please  
24 refer to Attachment 2.

25  

---

<sup>1</sup> NSPI, 2005 Rate Case, UARB Decision, NSUARB-NSPI-P-881, March 31, 2005.

<sup>2</sup> NSPI, 2007 Rate Case, UARB Decision, NSUARB-NSPI-P-886, February 5, 2007.

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

**NON-CONFIDENTIAL**

---

1 (c) This allocator was proposed by NSPI in the 2007 rate case and has been included in the  
2 COSS in compliance filings submitted by NSPI since that case<sup>3</sup>.

3  
4 NSPI has not attempted to retrieve and repeat the basis of this principle in this  
5 proceeding, which does not propose substantial revisions to the Cost of Service Study,  
6 other than in respect of the LED streetlights initiative.

---

<sup>3</sup> NSPI, 2007 Rate Case, UARB Decision, NSUARB-NSPI-P-886, February 5, 2007.



2004

NSUARB-P-881

## NOVA SCOTIA UTILITY AND REVIEW BOARD

**IN THE MATTER OF:** The *Public Utilities Act*, R.S.N.S. 1989, c.380 as amended

**IN THE MATTER OF:** An Application by Nova Scotia Power Incorporated for Approval of Certain Revisions to its Rates, Charges and Regulations

## RESPONSE TO INFORMATION REQUEST

**TO:** NSPI

**FROM:** HRM

---

**Question IR-7:** Please provide the basis and work papers for the functionalization of the Corporate Groups shown on lines 10-16 of Exhibit 4.

**Response IR-7:** The functionalization of these expenses are derived on the basis of estimates within each Corporate Head Office Group of the portion of its resources used to service each of the primary business operations (generation, transmission, distribution and customer/retail). The percentage assignment of these expenses for 2005 are as follows:

<b>Function</b>	<b>Percentage</b>
Generation	36%
Transmission	11%
Distribution	26%
Customer/Retail	27%
Total	100%

2007

NSUARB-P-886

**NOVA SCOTIA UTILITY AND REVIEW BOARD**

**IN THE MATTER OF:** The *Public Utilities Act*, R.S.N.S. 1989, c.380 as amended

**IN THE MATTER OF:** An Application by Nova Scotia Power Incorporated for Approval of Certain Revisions to its Rates, Charges and Regulations

**RESPONSE TO INFORMATION REQUEST**

**TO:** NSPI

**FROM:** SEB

---

**Question IR-72:** Please provide all supporting workpapers and calculations used to develop allocation factor O-15 on Exhibit 8B of Appendix G.

**Response IR-72:** The O-15 allocator on Exhibit 8B in Appendix G allocates Marketing and Sales (now Revenue Operations) costs by rate class.

The development of this allocator was based on the 2006C Marketing & Sales (Revenue Operations) resources that support each ATL customer class. Due to the reorganization of the Customer Service function, the costs for 2007 to which this allocator applies have decreased from \$4.5 million in 2006C, to \$1.9 million in 2007. The job functions which no longer reside in the Revenue Operations area remain and are assigned as Corporate Overhead.

Please refer to SEB IR-91e.

**NON-CONFIDENTIAL**

---

1 **Request IR-137:**

2

3 **Reference: SR-01. In the electronic version of the cost of service study in the tab labeled**  
4 **“Input Data,” it shows that 45% of purchased power costs are considered fixed and 55%**  
5 **are considered variable.**

6

7 **Please provide all work papers supporting this split of purchased power costs.**

8

9 Response IR-137:

10

11 Please refer to NPB IR-45.

**NON-CONFIDENTIAL**

---

1 **Request IR-138:**

2

3 **Reference: SR-01. In the “Input Data” tab of the electronic version of the cost of service**  
4 **study, it shows that 30% of purchased power wind costs are considered fixed and 70% are**  
5 **considered variable.**

6

7 **Please provide all work papers or studies, analyses or investigations supporting this split of**  
8 **purchased power wind costs.**

9

10 Response IR-138:

11

12 Please refer to NPB IR-46.

**CONFIDENTIAL (Attachment Only)**

---

1 **Request IR-139:**

2

3 **Reference: Multeese IR-1.**

4

5 **In the Confidential Excel Version of the 2012 Cost of Service provided in response to**  
6 **Multeese IR-1, all the formulae in the spreadsheet are generally provided intact except for**  
7 **Exhibit 10A, in which the numbers are hard-coded in. Please provide an electronic version**  
8 **of Exhibit 10A with the formulae intact.**

9

10 Response IR-139:

11

12 Please refer to Confidential Attachment 1, filed electronically.

13

14 Exhibit 10A shows the allocation of cost of service among rate classes in the absence of required  
15 increase in total revenue. The study is predicated on information shown in financial tables  
16 (Standardized filing 04-FOR) under columns labeled "Present Rates 2012". The exhibit is  
17 provided for reference purposes only. It has no bearing on the Cost of Service Study under  
18 Proposed Rates.

19

20 In preparing this response, NSPI realized that the Cost of Service Study under Present Rates  
21 includes the capital-related costs associated with the proposed LED streetlight investments. The  
22 proper treatment of these costs should have been to exclude them. This has no implication on the  
23 filed proposed rates, revenue responsibilities and Cost of Service Study.