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1 **Request IR-1:**

2
3 **The applicant in the proceeding is NSP Maritime Link Incorporated (NSPML), but**
4 **NSPML is not a party to the agreements attached to the application as Exhibit M-2(i),**
5 **Appendix 1.02, or Exhibit M-2(ii), Appendices 2.02 to 2.16.**

6
7 **(a) Please provide an overview of NSPML's role in the Maritime Link Project, and how**
8 **NSPML will interact with each of the following during the course of the Project:**

9
10 **(i) Emera Incorporated (Emera);**

11
12 **(ii) Nova Scotia Power Incorporated (NSPI);**

13
14 **(iii) 3264956 Nova Scotia Limited (3264956)**

15
16
17 **(iv) Bayside Power L.P. (Bayside); and**

18
19 **(v) any other affiliates.**

20
21 **(b) Have any of the rights and obligations under these agreements been assigned to**
22 **NSPML? If so, please provide a copy of any assignment agreement(s); and**

23
24 **(i) Where a pro forma Form of Assignment Agreement was attached, to the**
25 **main agreement, but was not used, please indicate and explain why the pro**
26 **forma agreement was not used.**

27
28 **(ii) If only a portion of the rights and obligations of a party under the main**
29 **agreement have been assigned to NSPML, please identify what rights or**

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1 **obligations have not been assigned to NSPML and explain why the**
2 **assignment has been limited.**

3
4 **(c) If none of the rights and obligations under any of these agreements have been**
5 **assigned to NSPML, please explain why they have not been.**

6
7 Response IR-1:

8
9 (a)

10 (i) NSPML's role in the Maritime Link Project is to carry out Emera's obligations
11 under the Maritime Link-Joint Development Agreement, Energy and Capacity
12 Agreement, Maritime Link (Nalcor) Transmission Service Agreement, Maritime
13 Link (Emera) Transmission Service Agreement, Nova Scotia Transmission
14 Utilization Agreement and Joint Operations Agreement.

15
16 (ii) The Agency and Service Agreement governs the relationship between NSPML
17 and NS Power with respect to the Maritime Link Project. Under the Agency and
18 Service Agreement, NS Power will act as NSPML's agent with respect to the
19 delivery, dispatch and scheduling of the NS Block, provide the Transmission
20 Facilitation Service to Nalcor on behalf of NSPML, perform the duties of system
21 operator under the Maritime Link Transmission Service Agreements and perform
22 other duties as set out therein.

23
24 (iii) 3264956 Nova Scotia Limited is a wholly owned subsidiary of Emera. Pursuant to
25 the Maritime Link (Emera) Transmission Service Agreement, 3264956 will
26 receive from NSPML the Firm Point-to-Point Transmission Service necessary for
27 transmission of the Nova Scotia Block over the Maritime Link.

28
29 (iv) Pursuant to the Backstop Energy Agreement, Bayside may require NSPML to
30 purchase Backstop Energy, if Bayside is required to purchase such energy

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1 pursuant to Section 3.2(b) of the New Brunswick Transmission Utilization
2 Agreement or Section 2.5 of the MEPCO Transmission Rights Agreement (both
3 of which have been assigned to Bayside), NSPML then has the option, pursuant to
4 Section 6.1 of the Agency and Service Agreement, to require NS Power to
5 purchase such energy from NSPML.

6
7 (b) Please refer to the response to UARB IR-20 for particulars regarding the assignment
8 agreements. The Form of Assignment Agreement attached to the main agreement was
9 used for each assignment agreement.

10
11 (c) N/A.

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1 **Request IR-2:**

2
3 **Exhibit M-2(ii), Appendix 2.03 – Energy and Capacity Agreement**

4
5 **(a) Have (or will) the ownership rights in the GHG Credits associated with the Nova**
6 **Scotia Block and referred to in Section 2.3(a) of the agreement been (or be) assigned**
7 **to NSPML? If not, how will NSPML ensure that the value associated with these**
8 **GHG Credits is conveyed to Nova Scotia ratepayers?**

9
10 **(b) Will the Additional Energy rights in Section 2.6 of the agreement be assigned to**
11 **NSPI? (Note: Section 5.1 of the Agency and Service Agreement (Appendix 8.01) may**
12 **address this but not as an assignment.)**

13
14 **Response IR-2:**

15
16 **(a) Emera’s obligations and rights under the ECA, including its rights to the GHG Credits,**
17 **have been assigned to NSPML. NSPML, in turn, has assigned its rights to the GHG**
18 **Credits to NS Power pursuant to Section 2.3 of the Agency and Service Agreement.**

19
20 **(b) A formal assignment of Section 2.6 of the ECA is not necessary for this purpose.**

21
22 **NSPML’s rights under Section 2.6 of the ECA to negotiate with Emera for additional**
23 **energy have not been assigned to NS Power. Section 5.1 of the Agency and Service**
24 **Agreement contemplates that NS Power will have responsibility for negotiation with**
25 **Nalcor for the purchase of energy where such purchase is in the best interests of NS**
26 **Power’s customers.**

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1 **Request IR-3:**

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3 **Exhibit M-2(ii), Appendix 2.05 – Maritime Link (EMERA) Transmission Service**
4 **Agreement**

5

6 **(a) Who is 3264956 and what is its role in the Maritime Link Project?**

7

8 Response IR-3:

9

10 (a) 3264956 Nova Scotia Limited is a wholly-owned subsidiary of Emera. It is a single
11 purpose entity and acts as a party to the Maritime Link (Emera) Transmission Service
12 Agreement primarily to allow for the delineation of the contractual provisions between a
13 transmission provider (NSPML) and a transmission customer (3264956) in respect of
14 transmission services over the Maritime Link necessary for the delivery of the NS Block.

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1 **Request IR-4:**

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3 **Exhibit M-2(ii), Appendix 2.09 – Interconnection Operators Agreement, Article 3 –**
4 **“Mutual Benefits”.**

5
6 **(a) “Mutual Benefits” are defined as “transient and steady-state support that the**
7 **integrated generation and Transmission Systems in NL and NS inherently provide**
8 **to each other by virtue of being interconnected. Please provide a more detailed**
9 **description and explain whether this sharing of Mutual Benefits will benefit NSPI’s**
10 **ratepayers.**

11
12 **Response IR-4:**

13
14 Mutual Benefits is a concept that describes the positive attributes of being interconnected.
15 Interconnected Balancing Areas have the ability to purchase and sell energy to each other to the
16 benefit of both parties. This provides the opportunity to purchase less expensive energy that can
17 be supplied within the other balancing area as well as having the ability to sell excess energy
18 when available to the other balancing area. It is the ability to do this that is the mutual benefit.
19 There is also the ability to enter into reserve sharing agreements whereby the recovery of the loss
20 of a generator unit (in either area) is shared between two parties within the first ten minutes of
21 the contingency to provide quicker response. In transient or system upset situations, the
22 interconnection between balancing areas with a DC link also provides much the same benefits as
23 a generator, in that in addition to energy flows there is also the ability to supply frequency
24 response to the system and the ability to provide regulation services. Other attributes of the VSC
25 technology which may become apparent during operation are also anticipated to be shared with
26 mutual benefit, without compensation to either party for those potential inherent benefits.

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1 **Request IR-5:**

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3 **Exhibit M-2(ii), Appendix 2.10 – Joint Operations Agreement**

4

5 **(a) In respect of Section 3.2(a), why aren't the number of representatives appointed by**
6 **Nalcor and Emera equal?**

7

8 Response IR-5:

9

10 The Joint Operations Committee is responsible for coordinating the operations and maintenance
11 of the Labrador Island Link, the Maritime Link and the Labrador Transmission Assets. The
12 differential number of representatives on the Joint Operations Committee is intended to reflect
13 the fact that the majority of the transmission assets which will fall under the purview of the JOC
14 are owned and operated by Nalcor. In addition, the differential number also reflects the
15 reversionary interest held by Nalcor in the Maritime Link and its interest in ensuring that the
16 Maritime Link is operated and maintained consistent with Good Utility Practice, similarly
17 applicable to the Nalcor owned transmission assets (in particular, the Labrador Transmission
18 Assets and the Labrador Island Link).

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1 **Request IR-6:**

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3 **Exhibit M-2(ii), Appendix 2.14 – Supplemental Agreement**

4

5 **(a) Will the Additional Energy rights in Article 2 of the agreement be assigned to NSPI?**

6

7 Response IR-6:

8

9 (a) The Supplemental Agreement has not been assigned to NSPML. Please refer to NSDOE
10 IR-2(b) regarding Additional Energy Rights.

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1 **Request IR-7:**

2

3 **Exhibit M-2, Maritime Link Application, Section 4.11 (p.90) and Section 8.2.1 (pp.143-145).**

4

5 **(a) Are the costs NSPI may incur for capital upgrades and re-dispatch (referenced on**
6 **page 90 of the application) the same costs it is expected to incur for capital**
7 **upgrades, maintenance and re-dispatch (referenced on pages 144 and 145 of the**
8 **application)?**

9

10 **(b) Please provide copies of any studies that have been done relating to this.**

11

12 **(c) Have these costs, and any associated transmission revenues been included in the**
13 **alternatives analysis presented in the application?**

14

15 **Response IR-7:**

16

17 **(a) Yes.**

18

19 **(b) Please refer to SBA IR-94.**

20

21 **(c) No.**

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1 **Request IR-8:**

2
3 **Exhibit M-2, Maritime Link Application, Page 135, lines 8 -12: "NSPML anticipates that,**
4 **by 2025, it will be possible to increase the amount of electricity that can remain within Nova**
5 **Scotia, which is presently modeled at a 300 MW limit. By increasing the limitation**
6 **assumption from 300 MW to 500 MW, and based on NSPML's expectation that additional**
7 **Nalcor energy will be available by 2025, the benefit to customers of the Maritime Link**
8 **Project increases by a further \$495 million, after the cost of potential transmission**
9 **upgrades."**

10
11 **(a) Have NSPML or NSPI undertaken any studies relating to these "potential**
12 **transmission upgrades"? If so, please provide these studies. If not, please indicate**
13 **whether there are any plans to undertake such studies (and if so, when)?**

14
15 **(b) Have the benefits or costs associated with increasing the limitation assumption from**
16 **300 MW to 500 MW been included in the alternatives analysis done by NSPML?**

17
18 **Response IR-8:**

19
20 **(a) No, NSPML has done high level estimates only. There are plans to undertake these**
21 **studies in 2014.**

22
23 **(b) No. Neither the cost nor benefit were included in the alternative analysis; the additional**
24 **\$495 million was the result of a sensitivity run. The sensitivity produced a benefit of**
25 **\$565 million less an estimated cost of \$70 million for transmission upgrades for a net**
26 **benefit of \$495 million. Without a study, current estimates of the transmission upgrades**
27 **range from \$70 million to \$450 million, where the net benefit would range from**
28 **\$115 million to \$495 million.**

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1 **Request IR-9:**

2

3 **Exhibit M-2, Maritime Link Application, Risk Management and Project Governance,**
4 **Section 4.15 (pp. 93-95).**

5

6 **Please explain how NSPML will manage the risk of cost overruns during construction, and**
7 **avoid the imposition of additional costs on NSPI ratepayers?**

8

9 Response IR-9:

10

11 The following is a brief summary of the practice employed by NSPML. A comprehensive plan
12 is developed and being executed.

13

14 The Maritime Link Project utilizes industry best practice project management methodology
15 which includes decision gates for appropriate oversight and approvals of project spending as well
16 as front end engineering design (FEED), which provides for cost estimating based on engineered
17 scopes of work and market proposals.

18

19 The investment in FEED will clarify project scope and definition prior to construction, eliminate
20 or mitigate project execution risks and provide specifications for the market-based proposals to
21 be transformed into contracts. Each request for market proposal involves a rigorous development
22 and review process to align with budgetary controls and cash flow projections.

23

24 The project scope and definition are used to develop the project budget and schedule, along with
25 all associated execution plans. The project budget is segregated into individual work breakdown
26 structures (WBS) for specific elements of the project. The budget includes each direct WBS cost
27 element, contingency and escalation. At decision gate 2 and 3 milestones, a probabilistic
28 assessment of the budget is completed to assess the range of potential costs, based upon risks and
29 opportunities, to produce a P50 estimate and a confidence interval for the project completion cost

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1 (commonly referred to as the P10 to P90 range). Each identified project risk is quantified and
2 mitigation steps identified, with an assigned owner.

3
4 The supplier contracts will be strategically developed to address remaining project execution
5 risks, avoid risk premiums and to mitigate the exposure to cost overruns through clear
6 assignment of ownership for the execution and the liabilities of each party. Suppliers and
7 contractors will be pre-qualified for inclusion based upon factors such as prior experience,
8 competency, financials, safety and environmental performance.

9
10 Prior to DG3, there will be supply contracts established or ready for execution for the subsea
11 cable, converters, substations and major components of work on the transmission line
12 development. These contracts will represent 50-60 percent of the total project cost, providing a
13 higher degree of certainty on project completion costs.

14
15 The project change management process is administered to carefully control project scope,
16 expenditures and variances, and adjusts for risk mitigation, as determined appropriate within the
17 Continuous Risk Management process.

18
19 NSPML will employ an experienced team at each phase of the project, along with specialists
20 and industry experts, to manage the risk of cost overruns by diligently applying these rigorous
21 project methodologies, commissioning independent reviews and completing scheduled risk
22 assessments throughout the design, planning, construction and commissioning phases of this
23 project. In particular, during construction, cost increases will be controlled by actively measuring
24 progress and managing the suppliers to fulfill the contractual terms negotiated by experienced
25 industry legal experts with the well-established and credible, reliable industry suppliers selected.

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1 **Request IR-10:**

2

3 **Exhibit M-2(vi), Appendix 6.03 – Maritime Link Alternatives Study Input Assumptions,**
4 **p. 14 (Comparison of Alternatives – Base Load) and p. 15 (Comparison of Alternatives –**
5 **Low Load).**

6

7 **(a) These tables show the coal unit retirements included in the modeling assumptions.**
8 **These retirements vary between alternatives both in number and in timing. These**
9 **differences presumably result in different total coal plant fixed costs in the various**
10 **scenarios. For each of the coal units shown as retiring in any of the alternatives and**
11 **scenarios, what are the fixed costs associated with that coal unit in every year of the**
12 **study period?**

13

14 **Response IR-10:**

15

16 **Please refer to Confidential Attachment 1 for the fixed costs of the units that are retiring in the**
17 **scenarios.**

NSDOE IR-010 Att 1 Confidential

Fixed Costs of Coal Units being Retired in the Scenarios

k\$	Retires Oct/2017	Retires Mar/2015	LINGAN 3	LINGAN 4	TUPPER 2	TRENTON 5
	in all Scenarios	in all Scenarios				
	LINGAN 1	LINGAN 2				
2015						
2016		-				
2017		-				
2018	-	-				
2019	-	-				
2020	-	-				
2021	-	-				
2022	-	-				
2023	-	-				
2024	-	-				
2025	-	-				
2026	-	-				
2027	-	-				
2028	-	-				
2029	-	-				
2030	-	-				
2031	-	-				
2032	-	-				
2033	-	-				
2034	-	-				
2035	-	-				
2036	-	-				
2037	-	-				
2038	-	-				
2039	-	-				
2040	-	-				