

NSPML Application to Review the Holdback Mechanism
(NSEB M12696)
NSPML Responses to Consumer Advocate Information Requests

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1 **Request IR-01:**

2
3 **With respect to Exhibit N-1, p. 10 and Appendices A and C, please provide an excel**
4 **workbook with the data included in the graphs and tables, for the period August 2021**
5 **through December 2025.**

6
7 Response IR-01:

8
9 Please refer to NSEB IR-06 Attachment 1.

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Request IR-02:

On p. 3 of Exhibit N-1, NSPML states:

In its October 2023 Decision in that matter, the Board ordered that the Holdback would continue until (1) at least 90% of the NS Block (excluding Make-up Energy) is received during each of twelve consecutive months with flexibility to account for Good Utility Practice (defined in Concentric Evidence, Attachment 1, A24) outages and/or exceptional circumstances) and (2) the net outstanding balance of undelivered energy is less than 10% of the NS Block annual contracted amount.

On p. 11 of Exhibit N-1, NS states:

Deliveries of Base NS Block and Make-up Energy exceeded 90 percent of Contract Amounts every month and were over 100 percent in every month but September 2023 which fell short due to a planned outage in advance of the winter period.

- a) Is the statement on p. 11 intended to suggest that NSPML has complied with provision (1) of the October 2023 Board Decision as summarized above?**
- b) If not, please explain how and when NSPML has complied with provision (1).**
- c) Please state during which months NSPML has met the requirements in provision (2) and provide a workbook with the data included in the graph shown in Exhibit N-1, p. 14.**

Response IR-02:

- a) The statement on p. 11 is intended to provide context as to the consistency of the NS Block delivery levels (including Make-up Energy) during the period in question. It is not specifically intended as the information that applies to provision (1) of the October 2023**

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1 Board Decision, but it may be relevant to the Board in making their ultimate determination
2 as to whether the holdback mechanism should be terminated.

- 3
4 b) The information supporting NSPML's compliance with provision (1) can be found
5 throughout NSPML's Application, with an emphasis on the information contained in
6 Section 4 of the Application.

7
8 To summarize, provision (1) was satisfied during the Compliance Period, as defined in the
9 Application (May 2023-April 2024). During the Compliance Period at least 90% of Nova
10 Scotia Block Energy was delivered during 8 months in that period, namely May 2023, June
11 2023, August 2023, October 2023, November 2023, December 2023, January 2024 and
12 February 2024. These deliveries, in excess of 90% of the expected Nova Scotia Block
13 Energy, can be observed in the chart on page 11 of the Application, in Appendix A of the
14 Application, in Appendix C of the Application and in the response to NSEB IR-06
15 Attachment 1.

16
17 For the remaining 4 months in the Compliance Period, there was a combination of planned
18 outages that occurred in keeping with the concept of good utility practice along with
19 incidents of exceptional circumstances that caused icing after extreme weather events. Had
20 these events not occurred during these 4 months, at least 90% of the Nova Scotia Block
21 Energy would have been delivered. The Energy Board specified that NSPML could apply
22 for relief if good utility practice or exceptional circumstances resulted in less than 90%
23 Nova Scotia Block Energy deliveries in a particular month. NSPML, in the Application,
24 requested relief as specified by the Energy Board for July 2023 (planned outage which
25 NSPML contends was good utility practice), September 2023 (planned annual outage
26 which NSPML contends was good utility practice), March 2024 (planned outage which
27 NSPML contends was good utility practice, as well as exceptional circumstances that
28 resulted in excessive icing) and April 2024 (exceptional circumstances in the previous

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1 month that resulted in excessive icing). Additional details to support the request for relief
2 due to good utility practice and exceptional circumstances can be referenced in the
3 Application, Section 4.0.

4
5 NSPML believes planning for and executing the outages in July 2023, September 2023,
6 March 2024 and April 2024 was rooted in good utility practice. The work completed was
7 expected maintenance and repair work that was necessary and could be completed within
8 a reasonable timeframe. LIL components are complex and involve the subsea cables,
9 converter stations and hundreds of kilometers of overland transmission lines in remote
10 regions. Issues arise when operating and managing complex, interconnected systems that
11 need proactive action to avoid future outages or ballooning problems due to short-term
12 inaction. Dealing with non-critical punch list items in a controlled, planned and safe
13 manner avoids future problems and costs. The specific work in the Compliance Period
14 included:

- 15 • July 2023 – preparation to get ready for the necessary round of known software
16 backup/validation updates to satisfy non-critical punch list items, test the electrode
17 line fault indicator, and to test the SCADA indication points.
- 18 • September 2023 – annual planned maintenance to prepare for high demand winter
19 months.
- 20 • March 2024 – repair damage from icing and deration due to inclement weather to
21 preserve system reliability.
- 22 • April 2024 – work to make improvements to correct a deficiency with cable
23 switching.

24
25 All this work was within a spectrum of acceptable practices generally accepted in the
26 electric utility industry in Canada. Not completing this planned work could have resulted
27 in forced outages in the future. Responding to a forced outage could take longer since the
28 benefits of pre-planning would be foregone, parts, if required, could take longer to procure

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1 and alternative energy could cost more. The work completed during each of the months
2 was consistent with expected utility maintenance and was performed in a safe environment.

3
4 Should the Energy Board provide relief as requested for the 4 months noted above in the
5 Compliance Period, NSPML would have satisfied the requirements for provision (1).

6
7 c) NSPML met the requirements of provision 2 as of March 2024. Please refer to Section 4.1
8 and Appendix C of the Application. Please refer to NSEB IR-06 Attachment 1 for an Excel
9 version of Appendix C.

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Request IR-03:

With respect to Exhibit N-1, Appendix B,

- (a) Please explain the reason(s) for under delivery in each month in which the holdback was retained, including the start and end date for each reason and the total under delivery related to the reason.**
- (b) To the extent that under delivery was due to a combination of causes (e.g., maintenance of the LIL and reduced power output from Muskrat Falls), please provide NSPML's best estimate of the monthly under delivery that would have occurred, and the resulting holdback, if each concurrent cause was the only cause, understanding that the sum of each monthly under delivery amount by cause may be greater than the actual monthly under delivery amount.**
- (c) Please provide calculations of the holdback amounts in a workbook, with formulas intact.**
- (d) For the month of August, 2024, please provide a calculation of what the holdback amount would have been but for the \$4 million cap.**
- (e) Please explain whether the following LIL outages were materially related to the underperformance of the LIL (see p. 5, lines 31-32) such as installation of improved software or testing related to the continuing failure of the LIL to be commissioned at the full, planned 900 MW delivery level. If NSPML's opinion is that these outages were primarily caused by some other factor (e.g., weather or routine scheduled maintenance that would have occurred irrespective of the LIL's ongoing underperformance), please explain in detail.**

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1
2 **i. July 2023**

3 **ii. April 2024, specifically the planned three-day outage “to correct deficiency**
4 **respecting cable switching”**

5 **iii. July – October 2024**

6 **iv. January 2025**

7 **v. April 2025**

8 **vi. September 2025**

9
10 **(f) Please provide the WACC calculations in a workbook, with formulas intact.**
11

12 Response IR-03:

13
14 (a) Please refer to Attachment 1.

15
16 (b) Please refer to Attachment 2.

17
18 (c) The total amount for holdback retained in Appendix B is provided monthly by NS Power,
19 and reviewed for reasonableness by NSPML based on the delivery levels identified in
20 Appendix C. The calculation of the cost associated with under deliveries (and the offsetting
21 replacement energy deliveries) is maintained by NS Power within the FAM as the cost per
22 MWh fluctuates throughout the period. Additionally, the FAM account, including the
23 holdback calculation, is subject to an audit by Bates White.

24
25 (d) The total replacement cost for the Deferred Energy in August 2024 was approximately
26 \$[REDACTED] million, which means there was an additional \$[REDACTED] million of impact to customers
27 over the \$4 million holdback amount for that month. However, looking at the monthly
28 impact ignores the value of Make-up Energy, which in this case was redelivered prior to
29 year end and was worth more than the cost of the replacement energy - resulting in a net

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1 benefit to customers. For details, please refer to the response to SBA IR-5, part (a), subpart
2 (1).

- 3
- 4 (e) The outages noted are not related to underperformance of the LIL. The reference to
5 underperformance on page 5 of the Application was for the period from 2018 through 2022,
6 before the LIL was commissioned in April 2023. LIL performance in delivering energy to
7 Nova Scotia customers since commissioning has been strong and should not be described
8 as underperforming. Additionally, NSPML notes that the LIL was fully commissioned in
9 April 2023 and handed over to the Newfoundland & Labrador System Operator, as the
10 commissioning test (and actual performance) support reliable operation. Of note is that
11 none of the limited winter period outages since LIL Commissioning were related to LIL
12 software and the LIL itself has operated reliably when required.

13

14 Operational performance of the LIL and its ability to support NLH's fulfillment of its
15 contractual obligations has not been impacted by the operating threshold of 700 MW, as
16 was demonstrated through delivery levels since LIL commissioning and also when the
17 Newfoundland & Labrador System Operator availed of the LIL at 780 MW during a 2026
18 cold weather event in advance of the subsequent successful 900 MW test.

19

20 In terms of availability of energy to be delivered over the Maritime Link when NLH testing
21 was limited to 700 MW, it is important to note:

- 22
- 23 • NLH load is significantly less than what was forecasted for this period in 2012. For
24 example, in Newfoundland & Labrador's Department of Natural Resources
25 November 2012 "Electricity Demand Forecast" Report, energy demand in 2023
26 was forecasted to be 12.4 TWh with peak demand forecasted at 2,329 MW. This
27 compares to actual Peak demand in 2023 of 1,730 MW and just under 8 TWh of
28 energy demand.
-

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- NLH continues to operate Holyrood in the winter period which was not forecasted in 2013.
- Although the generation capacity at Muskrat Falls is 824 MW, as the facility is primarily run of river (with minimal storage) the annual MW output is 4.9 TWh or an average of 600 MW per hour.

The factors behind the noted outages are described below.

- (i) The July 2023 outage was a planned outage. Details of this planned outage were provided on pages 18 and 19 of the Application:

July 2023: The July planned outage was referenced in NSPML's Rebuttal Evidence (M11009) filed on June 15, 2023, regarding the Holdback:

NLH made an outage request in early June for a weeklong Labrador Island Link (LIL) Bipole outage to occur early July 2023 to facilitate important work on the LIL. The work includes software backup/validation efforts relating to the final software updates designed to remedy non-critical software punch list items, to verify several Supervisory Control and Data Acquisition (SCADA) points to enable greater LIL visibility and control at the NLSO Energy Control Center, and to test the electrode line fault locator. All of these items serve to improve the reliability of the LIL.

As mentioned above, this outage is being coordinated amongst the respective system operators. Having this outage take place during the summer months is preferred due to the lower peak demands in both NL and NS compared to the Fall / Winter season. Completion of this scope of work is, despite potential holdback ramifications, supported by NSPML as being in accordance with good utility practice and the timing has been chosen to have minimal impact on Nova Scotia customers and is in

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1 accordance with the 30-day outage coordination
2 period previously established by the system
3 operators for outages affecting the delivery of the NS
4 Block, including planned LIL Bipole outages.
5

6 The July outage was planned, consistent with Good Utility Practice,
7 and not related to asset project commissioning activities (which were
8 completed in April 2023).
9

10 This planned outage served to prepare for the deployment of updates
11 of LIL software, which has always been planned to arrive post
12 commissioning, to correct emerging deficiencies with the electrode
13 line fault locator, and to test SCADA indication points and allow
14 greater operator visibility and control of the LIL. All of these serve
15 to enhance asset reliability, were prudently coordinated with system
16 operators, and necessary. Such work is also consistent with Maritime
17 Link outages undertaken post-commissioning of that asset (by
18 comparison, more than 370 software updates have been completed at
19 the ML since commissioning in 2018).
20

21 Absent the 5-day July planned outage, Base NS Block delivery levels
22 (excluding Make-up Energy) exceeded 97%, with most of the
23 remaining 3% shortfall resulting from the wildfires in Quebec and
24 Labrador that impacted regional operations.
25

26 Also refer to NSEB IR-13 and BW IR-05 (g).
27

- 28 (ii) On April 30, 2024, a planned bipole outage was taken to correct a software
29 deficiency relating to cable switching. This outage was intended to identify the root
30 cause of Cable 3 tripping offline during the Cable Switching Sequence operation.

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1 Changes were made to software and hardware was investigated. More work was
2 required at a later date to completely fix the issue(s) found. Please refer to BW IR-
3 05 (k).
4

5 (iii) This was a planned outage. Please refer to Attachment 1.
6

7 (iv) This was a forced outage and monopole connection was established after several
8 hours. After that outages were planned to fix the icing damage. Please refer to
9 Attachment 1 and IG IR-13.
10

11 (v) This was a planned outage. Please refer to Attachment 1.
12

13 (vi) This was a planned outage. Please refer to Attachment 1.
14

15 (f) Please refer to NSEB IR-06 Attachment 2.

Month	Holdback Retained (\$)	Undelivered energy for the month (MWh)	Outage Dates	Reason
5/1/2024	-			
6/1/2024	-			
7/1/2024	1,092,306	11,475.00	Jul 23 - 24, Jul 29 - Jul 31	July 23- 24: Repair faulty cable insulation on the conductors for the reclose command circuit. July 29-31: Single pole outages were taken to troubleshoot intermittent system alarms and replace faulty equipment. A bipole outage was then taken at the end of July to install, verify, and test a converter station software update. The bipole outage continued for the month of August to implement software and test it.
8/1/2024	4,000,000	83,514.00	all month	A bipole outage was then taken at the end of July to install, verify, and test a converter station software update. The bipole outage continued for the month of August to implement software and test it.
9/1/2024	3,791,208	44,897.00	Sep 1- Sep 14, Sep 21 - Sep 30	Sept 1-14: A bipole outage required for software updating was completed early in September. Sept 21-30: The bipole outage was subsequently followed by a planned annual maintenance shutdown of the LIL to complete various preventative maintenance activities. Individual pole outages and a bipole outage were required to complete this work safely, with the outage extending into early October as planned.
10/1/2024	1,324,945	14,318.00	Oct 1 - Oct 2, Oct 10 - Oct 11, Oct 16 -Oct 18	Oct 1-2: Starting late September, individual pole outages and a bipole outage were required to complete this work safely, with the outage extending into early October as planned. Oct 10-11: Planned bipole outage to install rises for testing of the Electrode Line Fault Locator followed by removal of the rises. Oct 16-18: A brief additional bipole outage was required later in October to complete testing on one of the three LIL marine cable transition sites.
11/1/2024	-			
12/1/2024	-			
1/1/2025	1,084,196	16,373.00	Jan 13 -Jan 19	Jan 13-19: A bipole icing-related outage (forced outage) on January 13, 2025, on NLH's above-ground transmission assets located near Muskrat Falls that lasted several hours before a monopole connection was reestablished to facilitate NS Block deliveries. The referenced outage impacted five cross arms and two tower tips, with full remediation of the damage carried out during daylight hours from January 15 to 19, upon which bipole functionality was reestablished. Deliveries continued to flow during the overnight periods with the above-mentioned damage, but for safety purposes flows were curtailed while daytime remediation work was performed.
2/1/2025	-			
3/1/2025	-			
4/1/2025	700,101	18,627.00	Apr 13 - Apr 19	Planned outage to load an updated version of control and protection software; however, NLH subsequently reverted to the prior software as they experienced some issues with the updated software. NLH confirmed the prior software was working as intended and the LIL was returned to service by the end of the first week. NSPML also took a maintenance single pole outage on the Maritime Link (for a period of one day) inside the timeframe of the LIL outage; as such there was no interruption of the NS Block or Purchased Energy. This is an example of NSPML exercising operational efficiency and ensuring reliability and availability of the Maritime Link by coordinating maintenance and outages.
5/1/2025	-			
6/1/2025	-			
7/1/2025	-			
8/1/2025	-			
9/1/2025	3,360,000	28,290.00	Sep 20 - Sep 30	Planned bipole outage as part of NLH's planned annual maintenance outage in advance of the winter period.
10/1/2025	-			
11/1/2025	-			
12/1/2025	-			
Total	15,352,756	217,494		

Date	Under-delivered	Total Undelivered for the Period	2013 Application Commitment (from NSEB IR-06 Att 1)	% Undelivered	Holdback Criteria Trigger if the Cause was the Only Cause
7/23/2024	1,757				
7/24/2024	1,722	3,479	83,514	4.17%	No Holdback
7/29/2024	1,559				
7/30/2024	1,513				
7/31/2024	2,694	5,767	83,514	6.91%	No Holdback
9/1/2024	1,967				
9/2/2024	-				
9/3/2024	2,448				
9/4/2024	1,684				
9/5/2024	1,764				
9/6/2024	1,684				
9/7/2024	1,741				
9/8/2024	57				
9/9/2024	1,741				
9/10/2024	315				
9/11/2024	1,189				
9/12/2024	-				
9/13/2024	1,684				
9/14/2024	1,684	17,957	80,820	22.22%	Holdback would be triggered as undelivered energy is greater than 10%, estimated as \$1,516,000 based on 40% of September actual holdback.
9/21/2024	2,694				
9/22/2024	2,694				
9/23/2024	2,694				
9/24/2024	2,694				
9/25/2024	2,694				
9/26/2024	2,694				
9/27/2024	2,694				
9/28/2024	2,694				
9/29/2024	2,694				
9/30/2024	2,694	26,940	80,820	33.33%	Holdback would be triggered as undelivered energy is greater than 10%, estimated as \$2,275,000 based on 60% of September actual holdback.
10/1/2024	2,694				
10/2/2024	2,694	5,388	83,514	6.45%	No Holdback
10/10/2024	2,020				
10/11/2024	2,020	4,041	83,514	4.84%	No Holdback
10/16/2024	1,010				
10/17/2024	1,179				
10/18/2024	2,357	4,546	83,514	5.44%	No Holdback

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Request IR-04:

On p. 6 of Exhibit N-1, NSPML requests that in addition to distributing \$15.4 million in retained holdback (see Appendix B), the Board also require that NS Power distribute \$1.1 Million in “updated WACC consideration.” However, on p. 32 of Exhibit N-1, NSPML’s request to the Board does not include the “updated WACC consideration.”

(a) Please confirm that NSPML is requesting the \$1.1 million in “updated WACC consideration.”

(b) Please identify where in Exhibit 1, other than Appendix B, NSPML puts forward a justification for recovery of the \$1.1 million in addition to the retained holdback.

(c) Please explain why NSPML has delayed applying for the review of the holdback mechanism for nearly two years, resulting in the accumulation of the \$1.1 million amount.

(d) In its Final Costs Decision (*NSPML Final Project Costs Decision* (February 23, 2022), Matter No. M10206, p. 16, para. 32), the Board noted that the holdback may ameliorate intergenerational equity concerns resulting from the fact that customers have paid for the Maritime Link without receiving anything close to the full benefits. Considering that perspective, please provide NSPML’s view on whether the accumulation of “updated WACC consideration” ameliorates or exacerbates intergenerational equity concerns.

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1 Response IR-04:

- 2
- 3 a) NSPML is requesting the weighted cost of capital (WACC) calculated to the date of the
- 4 Board Decision on this Matter. The reference WACC is calculated to December 31, 2025.
- 5
- 6 b) Please refer to the response to NSEB IR-01 part (c). WACC is a consistently applied
- 7 regulatory outcome where funds are due to one party in the matter, therefore specific
- 8 justification was not included in the Application.
- 9
- 10 c) Please refer to the response to NSEB IR-01 parts (a) and (b). NSPML has applied for
- 11 WACC on the holdback amounts retained since the Compliance Period, given that this
- 12 approach aligns with the NSEB's Decision in the previous holdback matter (M11009) and
- 13 previous matters in general.
- 14
- 15 d) NSPML submits that it does neither.