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Request IR-1:

In the 2026 ACE Plan M12619 Figure 10: 2026 Capital Items Forecast for Subsequent Submittal. This RC SCR Bridge 10.10 Refurbishment \$1,353,592 is listed with a different CI number, C0076672. In the Project description, the application stated: “This project is for refurbishment of priority areas of the roof at the Sydney Coal Railway Transportation & Rail Maintenance Centre (Rail Centre)”.

(a) Please explain why the CI number has been changed to C0084033.

(b) Please explain why the project description for the Bridge 10.10 Refurbishment is unrelated to the roof at the Rail Centre.

(c) Does Nova Scotia Power (NS Power) own the property that this project will take place on?

(i) If not, is NS Power required by contract to maintain this infrastructure?

(a) If so, for how long?

(ii) Does NS Power’s property join with property/infrastructure owned by another firm/agency?

(iii) If NS Power owns the entirety of the railway line infrastructure, when will this asset be decommissioned?

(d) Will this project negatively impact other operations of the railway?

(i) If so, what is the estimated cost of creating a negative impact on the railway operations?

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1 Response IR-1:

2
3 (a) The CI number was changed to C0084033 as the PowerPlan records related to C0076672
4 were lost during the cyber security incident and were unable to be recovered; therefore, a
5 new CI number needed to be created to generate a Capital Work Order to collect costs.
6

7 (b) The description provided in the 2026 ACE Plan subsequent submittal list for C0076672
8 was incorrect, and referenced the roof at the SCR Rail Centre in error. The project
9 description was for a separate project, C0074110 - ICP - RC TRMC Roof Structure
10 Refurbishment, which was included in the 2026 ACE Plan as a project <\$1M. These
11 projects are not directly related, as C0074110 is addressing the integrity of the
12 Transportation and Rail Maintenance Centre (TRMC) building which supports operation
13 of the Sydney Coal Railway (SCR), and C0084033 is addressing Bridge 10.10, which is a
14 direct component of the SCR.
15

16 (c) Yes.

17 (i) N/A.

18 (ii) Yes.

19 (iii) There are no current plans to decommission this asset by a specific date. If the SCR
20 no longer supports coal transport (after 2030), the asset may be used to transport
21 other fuels or goods. NS Power will consider alternative uses or opportunities
22 regarding the use of the SCR if coal transport no longer becomes the primary
23 purpose.
24

25 (d) No, this project will not negatively impact other operations of the railway as NS Power is
26 the only operator on the railway.

27 (i) N/A.

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Request IR-2:

The application states that this project has an estimated useful life of 20 years.

(a) How old is this structure?

(b) Has this infrastructure reached the end of its useful life?

(c) Please list all investments made on this structure in the past 10 years.

(d) Does NS Power intend to continue using this infrastructure over the next 20 years?

(i) If so, please explain.

(e) Please list all the alternative investments with a shorter useful life that NS Power evaluated and their associated costs.

(i) If NS Power did not evaluate any other investment, please explain why.

(ii) Did NS Power consider replacing trucking in place of this investment?

(a) If so, what was the total cost of using trucks up to the retirement of coal-fired generation at Langan?

(b) If not, why not?

Response IR-2:

(a) This structure is 46 years old.

(b) Yes, this infrastructure is considered to have reached the end of its useful life as it is 46 years old and the condition assessment indicates it can not be safely operated into the future.

(c) There have been no investments required on this structure in the past 10 years.

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1
2 (d) Please refer to IR-1(c)(ii). NS Power is not contracted for any services beyond 2030.

3
4 (e) Please refer to Attachment 3 to the application, sections 1.3 and 5. An alternative was
5 discussed involving installation of cover plates on the existing girders and repositioning of
6 the girders (girder cover plate alternative).

7
8 (i) The girder cover plate alternative would have had a shorter useful life but was not
9 appropriate according to Transport Canada's Guideline for Bridge Safety
10 Management. This guideline assists NS Power in undertaking bridge safety
11 management that should follow the objectives of the Railway Safety Act (RSA).
12 Transport Canada's own Guideline for Bridge Safety Management says, "For
13 overhead bridges where the railway company is responsible for the inspection,
14 evaluation, repairs, and verifications of load limits it shall ensure that the structure
15 is adequate for its posted load limit and that safe railway operations are being
16 maintained." The girder cover plate was confirmed by the engineer of record to not
17 meet this guideline. Please refer to Section 5 of Attachment 3 of the application for
18 a discussion on the alternative to leverage the existing structure via the
19 implementation of new girder cover plates and re-alignment of existing girders.
20 While new cover plates could be installed on the existing girders, welding these
21 plates onto corroded surfaces requires extensive surface preparation and
22 sandblasting, which is labour-intensive and time-consuming. Moreover, underlying
23 corrosion may not be completely removed, potentially weakening the bond and
24 reducing the long-term performance of the new plates. The extensive presence of
25 existing corrosion also increases the risk of premature deterioration of the
26 replacement plates. For these reasons, plate replacement alone is not a sustainable
27 long-term solution. Furthermore, even with new cover plates, the girders would still
28 need to be repositioned to achieve a more uniform load distribution and reduce
29 oversteering of the inner girders. Reconfiguration of the girders requires removal
30 and reinstallation of the deck, as well as resurfacing of the bridge seats and

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1 installation of new bearings, all of which are common to both the selected
2 alternative proposed in the filing and girder cover plate alternative. The selected
3 alternative proposed in the filing reduces the coal-delivery outage on the SCR and
4 reduces the risk of unforeseen issues manipulating and re-using corroded structural
5 members. In conclusion, the girder cover plate alternative is a longer duration
6 implementation, which would require a longer coal-delivery outage, increase
7 labour cost, add risk to implementation due to repurposing corroded members
8 which may present unforeseen changes to the scope of work and would have been
9 a less viable solution from a bridge safety management standpoint.

10
11 (ii) NS Power does not truck coal to Lingan Generating Station. Due to the proximity
12 of the Lingan Generating Station to the neighbouring communities, coal is
13 delivered by rail only for safety reasons. In the hypothetical scenario where coal is
14 trucked to Lingan, the cost of trucking coal is far more expensive than rail.

15
16 (a-b) Assuming an annual requirement of 500,000 tonnes of coal to Lingan, the
17 cost to truck the coal would be approximately \$9/tonne. The cost to rail
18 coal to Lingan is approximately \$3.2/tonne. Therefore, the incremental cost
19 to truck coal is approximately \$5.8/tonne. On an annual basis, that is
20 approximately \$2.9 million in incremental transportation costs to truck coal.
21 In addition to the safety concerns and added cost, there is insufficient
22 trucking capacity to facilitate that amount of trucked coal in this area of the
23 province.

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Request IR-3:

Please describe the Transport Canada condition requirements for Bridge 10.10 on Sydney Coal Railway and identify the requirements that Bridge 10.10 does not meet.

(a) Please identify the specific tasks that will be performed to adhere to Transport Canada's standards.

Response IR-3:

Please refer to IR-2(e)(i). Transport Canada provides a Guideline for Bridge Safety Management to assist a railway owner in meeting bridge safety management objectives. Transport Canada's Guideline does not prescribe specific design methods and calculations. As such, there are no defined Transport Canada condition requirements that the bridge does not meet.

(a) Transport Canada's standard references the American Railway Engineering and Maintenance-of-way Association (AREMA) for design and analysis. Further, Transport Canada's Guideline for Bridge Safety Management section 1.3 defines the specific tasks that the Railway Bridge Engineer must perform to AREMA or equivalent standards. An equivalent would be CN's internal Guidelines for Design of Railway Structures which are not available to the public but widely known to railway engineers in Canadian railway industry. Of note, CN's guidelines also refer to AREMA for clearances, loads, forces and stresses, shop drawings, member construction (girders, bracings, etc.), and welding procedures. NS Power does not develop its own guidelines for design of railway structures and therefore relies upon AREMA.

Transport Canada's Guideline puts the responsibility on the Railway Bridge Engineer (NS Power's engineer of record for this project) to do the following:

- Determine the forces and stresses in bridges and their components;
- Prescribe safe loading conditions for bridges;

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- Prescribe inspection, maintenance, repair and modification procedures for bridges;
- Design repairs and modifications to bridges; and
- Decide the extent to which Professional Engineers and others shall be directly involved in the engineering work.

Therefore, the specific tasks that will be performed to adhere to Transport Canada's standards are to ensure that design of the refurbishment of Bridge 10.10 meets AREMA or equivalent standards.

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Request IR-4:

NS Power states on page 2: “The corrosion deterioration has led to a substantial reduction in the effective cross-section properties, and consequently, the load-carrying capacity of the affected members.”

(a) Please describe the cross-section properties and how this investment relates to these properties.

Response IR-4:

(a) The cross-section properties of the steel members refer to the cross-sectional geometry and area of the members. This influences the load-carrying capacity of those members. Corrosion has created material loss and pitting which has negatively impacted the load-carrying capacity of the steel members’ cross sections – therefore a substantial reduction in the effective cross-section properties. This investment will replace all current members in their corroded state with new steel members with appropriate cross-sectional properties.

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1 **Request IR-5:**

2
3 **Why does NS Power seek to meet the American Railway Engineering and Maintenance-of-**
4 **Way Association (AREMA) standards in addition to Transport Canada's standards?**

5
6 **(a) What would this project cost if the investment only targeted Transport Canada's**
7 **standards?**

8
9 Response IR-5:

10
11 Please refer to IR-3(a).

12
13 (a) As described in IR-3, Transport Canada's requirements are met by virtue of meeting
14 AREMA standards, therefore there are no cost impacts by meeting these standards.

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Request IR-6:

Page 2 of the application states that the structural analysis found that the internal girders did not meet the required member fatigue capacities and that the girders are heavily corroded, which affects the bridge's load rating.

(a) To what load rating will this investment deliver?

(b) What is the load rating recommended by Transport Canada?

(c) What is the load rating required to perform the shipment of coal of Lingan for the remaining useful life of coal-fired generation at Lingan?

Response IR-6:

(a) The load rating delivered by this investment will be the AREMA Cooper E60 live load, which is an industry standard for modern rail traffic and provides sufficient capacity for the anticipated operations.

(b) Transport Canada does not prescribe load ratings. As outlined in its *Guideline for Bridge Safety Management*, responsibility is assigned to the Railway Bridge Engineer to determine the appropriate load rating based on the specific operating requirements and conditions of the structure. Please refer to IR-3(a).

(c) The load rating required to support the shipment of coal to Lingan for the remaining useful life of coal-fired generation at Lingan is AREMA Cooper E60.

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Request IR-7:

The Contingency Statement explains that the project risks are likely to be from market and pricing volatility for materials and contracts and additional scope.

(a) Please discuss the additional scope that could be found during demolition and inspection phases.

(b) If the abutment scope requirements are needed and the cost increases by \$344,651, how does the revised project total compare to alternative investments, such as trucking coal?

(c) Where did NS Power source the materials from?

Response IR-7:

(a) Additional scope could be found during demolition and inspection phases as previously inaccessible areas of the bridge and its abutments will be exposed for assessment and resurfacing prior to elastomeric bearing installation upon which span ends will rest. Inspection to date has included core sampling of the abutments which indicate adequate structural competency to support a bridge span for train travel per current operation of the Sydney Coal Railway (SCR). Should additional degradation be found in these previously inaccessible areas, resurfacing scope will be adjusted to ensure proper anchoring of the new concrete surface and elastomeric bearings.

(b) Please refer to IR-2(e)(ii)(a-b). The revised project total after a cost increase of \$344,651 would still be more favourable than trucking coal, which is not a viable option as discussed in IR-2(e)(ii)(a-b). Additionally, the girder cover plate alternative discussed in IR-2(e)(i) still requires repositioning of the girders which would also expose the abutment bridge seats and would also require the same bridge seat resurfacing.

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- 1
- 2 (c) Material supply is the responsibility of the General Contractor except for the 31 new rail
- 3 ties and the salvage and reuse of rails and rail fastening hardware suitable for reinstallation
- 4 of the deck track panel. The ties were sourced from Stella-Jones Inc. in Quebec.

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Request IR-8:

Was the contract for an inspection and structural analysis awarded through a competitive Request for Proposals?

(a) If not, why not?

(b) If so, please provide the review of the vendors submissions.

(c) Why are the consulting costs confidential?

Response IR-8:

No.

(a) Regarding inspection, following a competitive process several years ago, the vendor (Savage) was awarded a contract to operate, maintain and inspect the Sydney Coal Railway. Savage then subcontracts routine bridge inspections to a competent railway bridge engineer. Accordingly, a competitive process was not completed as part of this project.

The Structural Analysis was sole-sourced based on familiarity and specialty expertise with rail infrastructure engineering. This approach also allowed the project to proceed such that implementation of the refurbishment to Bridge 10.10 could be achieved in 2026 at a time of year that such an outage is easier to accommodate without risking interruptions to generation at the Lingan site. The combination of these factors reduces risk of an unplanned coal delivery interruption.

(b) N/A.

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1 (c) The proposals and ensuing work contain financial, technical, and analytical information
2 that is sensitive to the consultant's business interests and the public disclosure of such
3 information could adversely affect them by weakening their competitive position.
4 Specifically, access to financial information could enable competitors to undercut their
5 pricing strategies and diminish their leverage in negotiations with partners and customers.
6 Finally, the vendor's technical information, including proprietary processes, designs, or
7 trade secrets could result in replication or reverse engineering, thereby eroding competitive
8 advantages and reducing the value of their investments in research and development.

REDACTED

1 **Request IR-9:**

2
3 **Attachment 2** [REDACTED]
4 [REDACTED]
5 [REDACTED]?

6
7 **(a) If not, why?**
8

9 **(b) If so,** [REDACTED]
10 [REDACTED]?

11
12 **Response IR-9:**
13

14 Cleaning of debris was performed. [REDACTED]
15 [REDACTED]

16
17 **(a)** For railway bridges per the American Railway Engineering and Maintenance-of-Way
18 Association (AREMA), [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]

22 [REDACTED] Bridge 10.10 exhibits none of these features and therefore [REDACTED]
23 is not required and will not be installed. The [REDACTED] is included in the
24 scope of this project. For balanced bridge performance, [REDACTED]
25 [REDACTED]

26
27 **(b)** Cleaning of debris is a part of routine operational maintenance and is not a part of this
28 capital project. [REDACTED]
29 [REDACTED]

REDACTED

1

[REDACTED]

2

[REDACTED]

REDACTED

1 **Request IR-10:**

2
3 **Attachment 3 states that the** [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8
9 **(a) If not,** [REDACTED]

10
11 **(b) If not, why did NS Power** [REDACTED]

12 [REDACTED]

13
14 **(c) Please describe the difference between** [REDACTED]

15 **(i)** [REDACTED]

16
17 **Response IR-10:**

18
19 **Yes. Please refer to IR-3 and IR-5.**

20
21 **(a) N/A.**

22
23 **(b) N/A.**

24
25 **(c) Please refer to Attachment 3 to the application,** [REDACTED]

26 [REDACTED]

27 [REDACTED]

28 [REDACTED]

29 [REDACTED]

CI C0084033 – RC SCR Bridge 10.10 Refurbishment (NSEB M12839)
NSPI Responses to Nova Scotia Energy Board Information Requests

REDACTED

- 1 (i) NS Power would only require [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]

REDACTED

1 **Request IR-11:**

2
3 [REDACTED]

4
5 **Response IR-11:**

6
7 **NS Power received** [REDACTED]

8 [REDACTED]

9 [REDACTED] For this reason, the scope of the detailed inspection performed in 2025
10 included detailed measurements of all the members and components.

REDACTED

1 **Request IR-12:**

2
3 **Attachment 3** [REDACTED]

4 [REDACTED]
5
6 **(a)** [REDACTED]

7 [REDACTED]
8 **(i) If not, why not?**
9

10 **Response IR-12:**

11
12 **(a) No.**

13
14 **(i) It is not possible to have** [REDACTED]

REDACTED

1 **Request IR-13:**

2
3 **Attachment 3,** [REDACTED]

4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7
8 **Response IR-13:**

9
10 Yes. Please refer to IR-2(e). The risk of [REDACTED] is mitigated by proceeding with the
11 proposed alternative which specifies that the entire span be removed and replaced with new. [REDACTED]

12 [REDACTED]
13 [REDACTED]

REDACTED

1 **Request IR-14:**

2
3 **Attachment 3,** [REDACTED]

4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]

9
10 **Response IR-14:**

11
12 This project does address these concerns and does follow the recommendations made in the
13 structural assessment.

14
15 Please refer to IR-2(e). [REDACTED]

16 [REDACTED]
17 [REDACTED]
18 [REDACTED]

REDACTED

1 **Request IR-15:**

2
3 **Attachment 3,** [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8
9 **(a)** [REDACTED]

10 [REDACTED]

11 **(i) If not, why not?**

12 **(ii) If so,** [REDACTED]?

13
14 **Response IR-15:**

15
16 **(a) Yes.**

17
18 **(i) N/A.**

19
20 **(ii)** [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED] Please refer to IR-2(e)(i).

REDACTED

1 **Request IR-16:**

2
3 **Page 142, Attachment 4 presents** [REDACTED]

4 [REDACTED]
5 [REDACTED]

6
7 **(a) Has NS Power** [REDACTED] **?**

8
9 **Response IR-16:**

10
11 The estimate for the [REDACTED] is included as the sum of all line items referencing
12 Attachment 4 to the application as cost support within the Materials, Contracts and Freight sections
13 of the Detailed Estimate.

14
15 **(a) Yes.**