

1 Q. **Reference: Avalon Combustion Turbine**

2 Schedule 1, Table 1, page 5. Please provide details of the scope of work required for each
3 expenditure listed in Table 1. Include in the response why each scope of work is required to be
4 completed at this time and when Hydro expects each of the expenditures to be made. In
5 relation to the Combustion Turbine Procurement and GSU Transformer Procurement, please
6 detail what is included in the scope of work, for example, non-refundable deposits, reservations
7 for a manufacturing time slot, initial payments on supply contracts, fees related to cancellation
8 clauses, etc.

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11 A. The primary driver(s) for initiating Early Execution specific work related to the Avalon
12 Combustion Turbine (“Avalon CT”) project is to ensure that the project is completed in line with
13 the current schedule and estimated costs. Delay in any of the proposed Early Execution Work
14 will result in impacts on both cost and schedule for the Avalon CT project.

15 Hydro’s Early Execution application assumes that approval of the 2025 Build Application will be
16 received by the end of the fourth quarter 2025. In the absence of a Board Order on the 2025
17 Build Application by the end of this year, to maintain project schedule, Hydro would be required
18 to file a second Early Execution application in the fourth quarter of 2025 with a more substantial
19 budget than the current Early Execution application.

20 Each expenditure listed in Schedule 1, Table 1 has been scoped and timed to support critical
21 project milestones and reduce risk to schedule slippage, as detailed below.

22 **Engineering, Procurement, Construction Management Support and Internal Project**
23 **Management**

24 **Details and Rationale**

25 To ensure project success, it is critical to maintain the established Project Management Team
26 (“PMT”) to support the Early Execution Scope. The PMT is fully engaged and up to speed on the

1 project execution requirements and are essential for the preparation of technical and
2 contractual documents required to continue with the project plan. The PMT will also be
3 responsible for overseeing and completing optimization studies and engaging with the
4 Engineering, Procurement, Construction Management (“EPCM”) consultant.

5 Optimization studies ensure all interface issues from the existing site are well understood in
6 time for initial kick off with the EPCM consultant such that direction and guidance provided at
7 that time is correct. This will significantly reduce risk on the project from an existing brownfield
8 site interface perspective. Similarly, it is essential to engage an EPCM contractor in line with the
9 proposed schedule in order to maintain the overall project schedule.

10 Without the support of the existing PMT, the Early Execution scope could not proceed as
11 planned. The PMT resources will also support the regulatory processes associated with the 2025
12 Build Application and the Environmental Assessment Registration. Gaps in activity or prolonged
13 delays can lead to loss of key personnel due to uncertainty and inactivity, and re-building project
14 teams can be costly and time consuming, which would impact the project’s execution timeline
15 and cost. Continuity of the PMT across the phases of the project enables a seamless transition
16 into the Execution phase. This continuity is crucial to maintain project schedule and effectively
17 manage risks.

18 The optimization studies are critical to confirming site interfaces and identifying opportunities to
19 improve cost and schedule; it is essential to continue with these studies in 2025 to ensure all
20 interface issues related to the existing brownfield site are clearly understood before the detailed
21 design phase begins. Early completion of this work will enable the EPCM contractor to provide
22 accurate technical guidance and informed direction during project kick-off. Early engagement of
23 the EPCM contractor is also necessary to commence detailed design work and to ensure
24 alignment with the broader execution schedule. Failure to maintain PMT continuity or delay
25 EPCM engagement would significantly increase project risk and could lead to schedule slippage.

26 It is essential to engage an EPCM consultant as soon as practical during early execution so that
27 engineering work packages associated with the long lead equipment are prepared in time to
28 support the critical procurement timelines. The EPCM consultant will also finalize field data
29 gathering that is required for detailed design and construction planning, including site survey

1 control and additional geotechnical investigations. This will ensure that detailed design can
2 begin immediately following project sanction and is required to mitigate schedule risk.

3 The EPCM consultant will also continue with detailed execution planning activities, such as
4 establishing the final project execution plan, final contracting plan, and other planning
5 documentation needed to maintain project progress.

6 **Timeline for Expenditure**

7 Costs related to the PMT are ongoing throughout 2025. Should the PMT not be maintained in
8 2025 it is projected that up to an additional 12 months could be added to the project schedule
9 due to the loss of project-specific insight, and the disruption caused by a stop-start execution
10 approach, along with the needed to once again rebuild the project team with adequate
11 resources. A lapse in continuity could erode momentum and commitment, making it unlikely
12 that the project could be completed by the targeted in-service date of the fourth quarter of
13 2029.

14 Costs associated with the EPCM contract are expected to be incurred in late August 2025 upon
15 final contract award. If the EPCM contract is not awarded until after the approval of the 2025
16 Build Application, it is anticipated that the corresponding delays in the steps that would be
17 undertaken by the EPCM could delay the project schedule 6 to 12 months.

18 **Combustion Turbine Procurement**

19 **Details and Rationale**

20 The project critical path runs through the Combustion Turbine procurement process. In project
21 management, the critical path is the longest sequence of tasks that must be completed on time
22 for the entire project to stay on schedule. If any task on the critical path is delayed, the final
23 project completion date is also delayed.

24 It is essential to proceed without delay with the Request for Proposals ("RFP") for the
25 Combustion Turbines ("CTs"), to maintain the project critical path schedule. Any delay in issuing
26 the RFP or awarding the contract will result in a direct impact on the overall project schedule.

1 From the perspective of the supply market, indications suggest the supply is significantly
2 constrained, with manufacturers experiencing substantial backlogs. Further delay in determining
3 the suppliers for this equipment would likely increase the project schedule by a minimum of 12
4 to 24 months and impact significantly the availability of standby or peaking power in 2029;
5 therefore, early procurement is critical to secure production capacity and maintain alignment
6 with the project's in-service date.

7 The scope includes the supply of multiple combustion turbine units with an overall 150 MW
8 nominal rating. This includes all associated ancillaries and components, configured to meet best
9 available control technology standards. The scope also encompasses transportation, delivery
10 and installation, mechanical completion and commissioning oversight.

11 Newfoundland and Labrador Hydro's ("Hydro") contracting strategy for the supply of CTs
12 incorporates its standard General Terms and Conditions within the RFP. These terms allow
13 Hydro to terminate the Agreement at its sole discretion. In the event of such termination,
14 supplier compensation will be limited to the value of the work performed up to the termination
15 date and evidenced cancellation costs which is to be agreed with Company.

16 With respect to reservations for manufacturing time slots and initial payments on supply
17 contracts, the contracting strategy also includes the provision of milestone payments tied to
18 various stages of product development including securing a production slot.

19 Please see Hydro's response to PUB-NLH-002 of this proceeding, for discussion on how Hydro
20 intends to utilize mechanisms to mitigate Early Execution procurement risks.

21 **Timeline for Expenditure**

22 Project costs for CT procurement are expected to be incurred as early as July 2025 upon final
23 award of CT contract. If the procurement process is delayed and the contract is not awarded as
24 currently planned, there will be an impact of more than 12 months on the Commercial
25 Operation Date ("COD") of the project, due to the timeframe required to re-staff the project
26 management team, refresh project deliverables to enable continuation of project execution, in
27 addition to the subsequent delay in securing a manufacturing slot.

1 **Early Site Works and Geotechnical Study**

2 **Details and Rationale**

3 The proposed minor civil works for 2025 are critical to maintaining the overall project schedule
4 and ensuring compliance with design, operational requirements, and safety. This scope includes
5 the rerouting of two Newfoundland Power Inc. distribution lines and the excavation of key Right
6 of Way ("ROW") areas to ensure transmission line tolerances meet required standards.

7 Additionally, tree and vegetation clearing within the ROW is required to allow for the relocation
8 and reorientation of existing transmission lines. This work will facilitate future station service
9 power supply and prepare the site for subsequent phases of construction.

10 Hydro notes that the rerouting of the lines must be completed by Newfoundland Power Inc.,
11 and is currently being reviewed for incorporation into their capital program for 2025. It is
12 necessary to reroute these lines to have free and clear access to the primary construction zone
13 for the major Civil Works contract to begin on schedule in second quarter of 2026.

14 A geotechnical investigation will also be completed to obtain select borehole information prior
15 to the commencement of detailed design by the EPCM. This investigation will commence once
16 the site has been cleared allowing access for drilling equipment.

17 **Timeline for Expenditure**

18 Costs are anticipated to be incurred as early as July 2025, following the award of the early site
19 works contract. Failure to complete these preparatory works in 2025 could delay the project by
20 6 months to 12 months as the minor earth works are required to support the major Civil Works
21 scheduled in 2026.

1 **GSU Transformer Procurement**

2 **Details and Rationale**

3 It is essential to proceed immediately with the RFP for the Generator Start-Up (“GSU”)
4 transformers which have a delivery timeline of up to four years, since delay will result in a direct
5 impact on the overall project schedule.

6 Current market indications suggest that the supply chain for GSU transformers is experiencing
7 backlogs, with extended delivery timeframes driven largely by increasing global demand related
8 to electrification initiatives. Delays in securing suppliers for this equipment would significantly
9 impact the overall project schedule.

10 As such, it is essential to secure manufacturing slots for this equipment as early as possible to
11 mitigate schedule risk and ensure alignment with project milestones.

12 The scope includes the supply of four GSU transformers and one Station Service Transformer
13 and associated equipment, including transportation, delivery and installation, mechanical
14 completion and commissioning oversight.

15 Hydro’s contracting strategy for the transformer supply incorporates its standard General Terms
16 and Conditions in the RFP. These terms allow for the termination of an agreement at Hydro’s
17 sole discretion. In such cases, compensation to a supplier for cancelling an agreement will be
18 limited to the value of work performed up to the termination date and evidenced cancellation
19 costs which is to be agreed with Hydro.

20 To address long lead times and secure a manufacturing time slot, the contracting strategy also
21 includes milestone-based payment provisions. These payments are tied to specific stages of
22 product development including securing a production slot.

23 Please refer to Hydro’s response to PUB-NLH-002 of this proceeding, for discussion on how
24 Hydro intends to utilize mechanisms to mitigate Early Execution procurement risks.

1 **Timeline for Expenditure**

2 Project costs are expected to be incurred as early as the second quarter of 2025, following the
3 final award of GSU contract. Delays in the procurement of the GSU transformers, if not
4 completed as currently planned, could result in a signification impact on the project schedule.
5 Specifically, such delays may push the COD by more than 12 months, due to the timeframe
6 required to re-staff the project management team, refresh project deliverables to enable
7 continuation of project execution, in addition to the subsequent delay in securing a
8 manufacturing slot.

9 **Environmental Assessment Registration**

10 **Details and Rationale**

11 The Environmental Assessment (“EA”) Registration and continuation of stakeholder engagement
12 is also part of the Early Execution scope of work. Hydro is committed to facilitating opportunities
13 for the community to contribute input into decisions that will affect them, and work to
14 incorporate strategies that minimize potential disruptions to the quality of life for those that live
15 and work near the site.

16 The Avalon CT EA Registration forms a critical component of the Early Execution scope of work
17 and is essential to be completed in 2025 to maintain the overall project schedule. Timely
18 completion in 2025 is critical, as it will enable the PMT to address any conditions arising from
19 the Department of Environment’s review without causing delays.

20 Should the EA Registration not be completed in early 2025 as planned, there is a significant risk
21 of delay to permitting required for early site execution. This, in turn, could impact the start of
22 site work and result in broader schedule delays across the project.

23 **Timeline for Expenditure**

24 Costs have been partially incurred with stakeholder consultations in 2024, and through the
25 development and submission of the EA Registration on March 28, 2025, within the front-end
26 engineering design stage of the project. The 45 day assessment process has started and Hydro

1 will actively support the review by responding to any Requests for Information submitted by the
2 Department of Environment. While expenditures related to the filing of the EA were incurred
3 during front-end engineering design, expenditures related to facilitation of the EA process, such
4 as responding to requests for information from the Department of Environment, are included in
5 Early Execution.

6 **Contingency**

7 **Details and Rationale**

8 Contingency funding is included to address unforeseen circumstances or major changes that
9 may arise during project execution. This allocation would be used only in the event of significant
10 risks or events requiring a formal change management process to be initiated.

11 **Timeline for Expenditure**

12 Expenditures under this category will be determined if, and only if a significant project change
13 through change management is triggered during the project.

14 **Interest during Construction and Escalation**

15 Hydro has adopted International Accounting Standard or IAS 23 concerning the recognition of
16 Interest During Construction on capital projects. The recognition of interest, in compliance with
17 this standard, has been included in the estimate for Early Execution work.

18 Further, Hydro has included, where appropriate, escalation assumptions in cost estimates in
19 compliance with corporate policies and industry best practices.