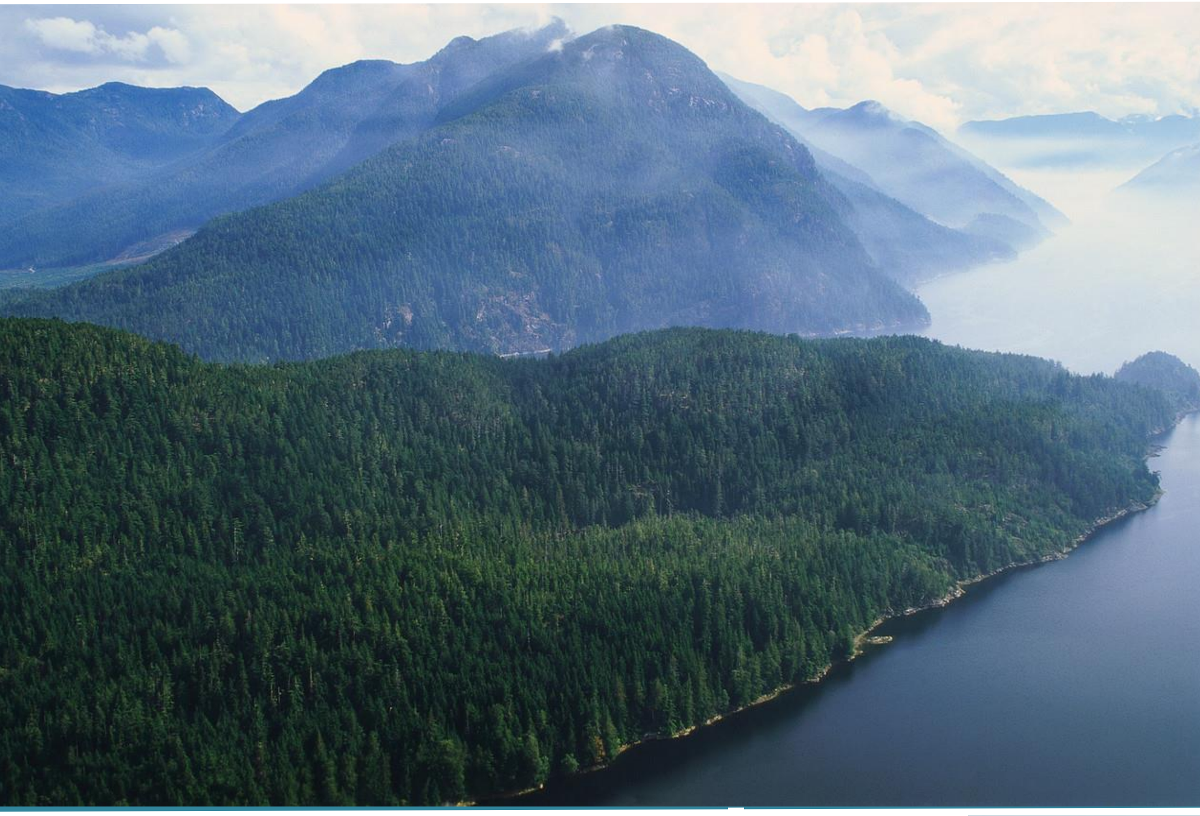

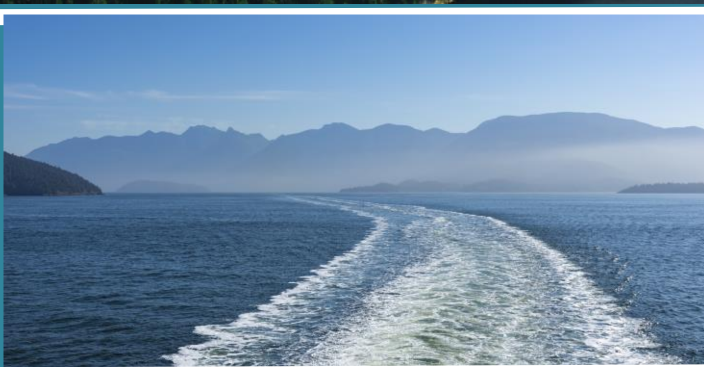

Section 55 Review

British Columbia Ferry Services Inc. Supplemental Filing with the British Columbia Ferries Commissioner for the Major Capital Expenditure for Four Island Class Vessels and One New Salish Class Vessel Pursuant to Section 55(2) of the Coastal Ferry Act

October 21, 2019

PLEASE NOTE

Information of a confidential and commercially sensitive nature has been redacted from this copy of the report

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Contents

Executive Summary

BC Ferries seeks an order permitting it to proceed with the procurement of five new vessels to cover routes 5, 19, and 23 (referred to as the “Project”). This Supplemental Filing provides an updated analysis based on the results of procurement activities, including a revised forecast total cost for the Project of $< > million, of which $< > million is for capital expenditures (inclusive of interest during construction, or “IDC”) and $< > million for operating costs. The Commissioner has engaged MNP to conduct an independent review of this Supplemental Filling. The review of the Supplemental Filing is intended to ensure that the Project continues to be reasonable, affordable, prudent, and in the public interest. In keeping with these objectives, the guiding questions addressed by the review and the overall findings are as follows:

REVIEW QUESTIONS	SUMMARY RESPONSES
Net Present Values • Are the assumptions and calculations of the net present values (NPV) for the presented options correct and reasonable? • Has the cost impact been included in the NPV analysis?	☒ NPV Assumptions[1] and Calculations ☑ Inclusion of Cost Impact
Contingency • Is the contingency amount included in the estimated project cost reasonable?	☑ Reasonableness of Contingency
Preferred Option • Is the option to procure four Island class and one Salish class still the preferred option? • Have all reasonable options been considered? • Have any other options been considered? • Is life-extending existing vessels for five years to coincide with the development of shore infrastructure to enable full electrification of Island class vessels a viable option? If not, why?	☑ Consideration of Options in Determining What is Preferred
Affordability • Is the preferred option still affordable (i.e., there is no impact on price caps of 2.3% annually for next performance term)?	☑ Affordability of the Preferred Option
Revised Capital Plan • Has the revised cost been offset by a specific corresponding reduction in the capital plan over the same time period with an explanation of the consequences of such a reduction?	☑ Accounting for the Revised Cost
Vessels • Is the scope of the vessels the same as the scope outlined in the initial application?	☑ Consistency in Scope
Preferred Bidder • Does the cost increase impact the determination of preferred bidder(s)?	☑ Determination of Preferred Bidder
Public Interest • Is the explanation of why the stated preferred option is in the public interest (in terms of safety, reliability, and affordability) reasonable and adequate?	☑ Consideration of the Public Interest
BC Ferries Response • Has BC Ferries provided reasonable and satisfactory responses to all questions?	☒ Sufficiency of BC Ferries’ Responses

[1] BC Ferries indicated “discounting of cash flows by fiscal year was not changed in the supplementary filing to keep the revised NPV analysis more comparable to the originally submitted analysis”. This methodology does not correctly reflect the NPV in today’s dollars and the time delay. Overall the results are not material.

Upon completion of the review, it was found that:

- Option 3, the BC Ferries preferred option (the procurement of one Salish class and four Island class vessels to replace three Bowen class vessels), is reasonable, prudent, and consistent with the Coastal Ferry Services Contract;
- Although Option 3 carries the most negative NPV, it represents a lower overall cost than Option 1, since Option 1 defers the acquisition of the same vessels. Option 1 also carries the risk of service interruption. Option 2, in turn, carries significant financial risk since the design specifications for the Shuttle vessels is not complete. Option 3 also supports the strategy for standardization and electrification.
- Option 3 provides a reasonable long-term solution and aligns with BC Ferries' fleet renewal program objectives to achieve capital and operating cost savings along with efficiencies through a strategy of vessel standardization.
- The risk of Option 3 is relatively low given the negotiated fixed price contracts. Option 1 involves the risk of service interruptions, unknown maintenance costs, and uncertainty in renegotiating the build of the vessels in 10 years time. Option 2 carries financial risk as fixed-price contracts have not been negotiated.
- BC Ferries indicated that vessel electrification is a strategic priority. However, there is currently no funding allocated, and there are technical challenges. A business case has not been completed on vessel electrification.
- While the cost increase since the original application have been included in the revised analysis, the NPV discounting has not been updated since the original application. The revised financial model discounts costs that occur in 2019. This results in an understatement of all options equally in the supplemental filing. [2]
- The increased cost of Option 3 in the Supplemental Filing requires adjustments to the long-term capital plan, which has been previously approved by the BC Ferries' Board of Directors.

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[2] BC Ferries indicated "discounting of cash flows by fiscal year was not changed in the supplementary filing to keep the revised NPV analysis more comparable to the originally submitted analysis" Refer to Appendix B.

Background

The Office of the British Columbia Ferries Commissioner (the "Commissioner") is a regulatory agency established under the *Coastal Ferry Act*. The Commissioner's regulatory mandate is specific to core ferry services and tariffs including those of British Columbia Ferry Services Inc., operating as BC Ferries. The Commissioner, among other key tasks within its directive, monitors BC Ferries' adherence to the terms of the Coastal Ferry Services Contract, addresses any circumstances of unfair competitive advantage, oversees BC Ferries customer complaints process, and provides approval of major capital projects.

BC Ferries is a former crown corporation now operating as an independent commercial organization under the *Business Corporations Act*. The transformation from Crown Corporation to an independent commercial entity occurred in April 2003. The Coastal Ferry Services Contract between the Government of British Columbia and BC Ferries defines the service levels required, which, as stated above, are then monitored by the Commissioner.

Under the *Coastal Ferry Act*, the Commissioner, as noted above, has specific duties to consider capital deployment and expenditures under Section 55. In 2012, Bill 47-2012 of the *Coastal Ferry Amendment Act* was enacted, replacing the original Section 55 with:

> *(2) A ferry operator must not incur a major capital expenditure without first obtaining the Commissioner's approval of the expenditure.*
>
> *(3) A ferry operator may apply to the Commissioner for approval of a proposed major capital expenditure and the Commissioner must respond to the application within 2 months after its receipt by the Commissioner.*
>
> *(4) The Commissioner may approve a proposed major capital expenditure if the proposed major capital expenditure is*
>
> *(a) reasonable,*
>
> *(b) prudent, and*
>
> *(c) consistent with:*
>
> *(i) the current Coastal Ferry Services Contract, and*
>
> *(ii) any long-term capital plan established by the ferry operator.*
>
> *(5) For the purposes of this section, a capital expenditure of a ferry operator is a major capital expenditure if it meets the criteria*
>
> *(a) established from time to time by the commissioner, and*
>
> *(b) most recently provided by the commissioner to the ferry operator.*

For purposes of section 55(5), a major capital expenditure for a new vessel or mid-life upgrade to a vessel is defined as exceeding $50 million, inclusive of component programs and interest during construction.

Section 38 of the *Coastal Ferry Act* describes the role of the Commissioner and states:

> *(1) Without limiting any other power of the commissioner under this Act, the commissioner must, after considering public feedback obtained under this Act, regulate each ferry operator in relation to the core ferry services that are to be provided by that ferry operator and the tariffs, including, without limitation,*

reservation fees, that may be charged for those core ferry services, and must undertake that regulation in the public interest and in accordance with the following principles:

> *(a) the primary role of the commissioner is to balance, in the manner the commissioner considers appropriate,*
>
> > *(i) the interests of ferry users,*
> >
> > *(ii) the interests of taxpayers, and*
> >
> > *(iii) the financial sustainability of ferry operators;*
>
> *(a.1) ferry operators are to be encouraged to meet provincial greenhouse gas emission targets in their operations and when developing capital plans;*
>
> *(b) and (c) [Repealed 2019-9-5.]*
>
> *(d) ferry operators are to be encouraged to be innovative and to minimize expenses without adversely affecting their safe compliance with core ferry services.*
>
> *(e) and (f) [Repealed 2012-28-2.]*

Role of the Independent Review

BC Ferries seeks an order permitting it to proceed with the procurement of five new vessels to cover routes 5, 19, and 23 based on a revised forecast total cost of $< > million, of which $< > million is for capital expenditures (inclusive of interest during construction, or "IDC") and $< > million for operating costs. The Supplemental Filing provides an updated analysis that is informed by the results of procurement activities. The Commissioner has engaged MNP to conduct an independent review of this Supplemental Filling. The review of the Supplemental Filing is intended to ensure that the project continues to be reasonable, affordable, prudent, and in the public interest.

Scope

The scope of the Section 55 Independent Review included the following:

- Review of documentation provided by BC Ferries that is related to the Section 55 Supplemental Filing with the BC Ferry Commissioner Application dated September 4, 2019;
- Meetings and correspondence with the BC Ferries project team to clarify details of the Section 55 Application and business case;
- Review of additional supporting materials;
- Preparation and review of a findings report with the Commissioner; and
- Preparation of a final report.

Limitations

MNP prepared this report for the exclusive use of the Commissioner to support the assessment of the Section 55 Supplemental filing by BC Ferries for four new Island class and one new Salish class vessels for Routes 5, 19 and 23.

MNP's work was planned and conducted to assess the reasonableness of the filing. MNP did not examine, compile or apply procedures over the financial information used in this report under the requirements of the Chartered Professional Accountants of Canada. As a result, MNP is unable to express assurances on such information except where expressly stated in the report to form part of the scope of our work. Further, this report does not constitute a legal opinion on any matters, including the interpretation of the *Coastal Ferry Act*.

MNP did not examine BC Ferries' strategy of fleet standardization including, but not limited to, its state, scope of implementation, and realized benefits. Rather, MNP focused on whether the filing fits with, and furthers, BC Ferries' standardization strategy.

The results of this work do not in any way constitute advice or recommendations (and MNP accepts no liability in relation to any such interpretation) regarding any commercial decisions. In addition, this work was not designed to identify and cannot necessarily be expected to disclose defalcations, fraud, and other irregularities. As a result, this report does not necessarily include all those matters, which a more extensive or special examination might develop.

The work to provide this report was carried out based on the assumption that information provided to MNP by the management and employees of BC Ferries was reliable, accurate, and complete. We did not subject the information contained in the report to checking or verification procedures except to the extent expressly stated. In no circumstances shall MNP be responsible for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by management and employees of BC Ferries or any other person of whom we may have made enquiries.

Approach

MNP reviewed BC Ferries' Section 55 Supplementary Filing and other supporting documentation to determine whether the revised costing for a major capital expenditure to procure four new Island class vessels and one new Salish class vessel for Routes 5, 19, and 23 is reasonable, prudent, in alignment with the current intentions of the Coastal Ferry Services Contract and the long-term capital plan, and in the public interest.

MNP drew on staff with the professional expertise necessary to conduct a review based on:

- Available documentation including the updated Bowen class replacement financials supporting the Supplemental Filing;
- Consultation with BC Ferries personnel;
- A consideration of the BC Ferries budget, net present value (NPV), and underlying assumptions; and
- A detailed appraisal of BC Ferries' Section 55 Supplemental Filing and original application, including all supporting analyses.

The review was an iterative process, involving meetings and the submission of multiple sets of questions to BC Ferries. The review sought to ensure that the questions outlined in the Section 55 Guidelines established by the BC Ferry Commissioner were answered with appropriate detail.

Analysis of Options

The following analysis provides additional detail around the responses to questions from the table contained in the Executive Summary section of this document.

Are the assumptions and calculations of the net present values (NPV) for the presented options correct and reasonable? Has the cost impact of the delay been included in the NPV analysis?

The cost impact of the delay, primarily due to negotiated vessel pricing with proponents being higher than anticipated in the original application, has been included in the analysis. However, regarding the NPV assumptions, the calculation of the NPV has not been updated to reflect the time that has incurred since the original filing. Updating the NPV will have a significant increase to all options equally in the Supplemental Filing. This NPV change does not impact the selection of the preferred option.

Is the contingency amount included in the estimated project cost reasonable?

Contingency on construction costs were reduced (both percent and amount) for the Salish and Island class vessels in the Supplemental Filing to reflect that vessel designs are now complete, with a confirmed price and a supplier in place for the Island class vessels. The contingency amount increased for the Shuttle class vessels, resulting from the forecasted increase in the cost of construction. The contingency amount included in the estimated project cost in the Supplemental Filing is adequate and reasonable.

Is the option to procure four Island class vessels and one Salish class vessel still the preferred option? Have all reasonable options been considered? Have any other options been considered?

The option with four Island class vessels and one Salish class vessel is still the preferred option and all reasonable options have been considered. Option 1, deferring the preferred option, carries elevated risk of service disruptions due to non-functional machinery or environmental, safety, and/or regulatory issues. Cost estimates for the life extension include a high degree of uncertainty due to asbestos and lead paint abatement along with steel renewals. Option 2 carries a high level of risk as the design, engineering, and regulatory effort to meet the specifications have not been completed for this option.

MNP is satisfied with BC Ferries' response that all reasonable options were considered.

Below is a table documenting the change in NPV between the original filing on November 5, 2018 and Supplemental Filing on September 4, 2019:

NPV Analysis	November 5, 2018	September 4, 2019	Variance
Option 1	$ 663,189,257	$ 685,947,600	$ 22,758,343
Option 2(a)	$ 690,680,415	$ 731,294,479	$ 40,614,063
Option 2(b)	$ 690,680,415	$ 712,970,328	$ 22,289,912
Option 3	$ 721,934,083	$ 764,237,164	$ 42,303,081

Is life extending existing vessels for five years to coincide with the development of shore infrastructure to enable full electrification of Island class vessels a viable option? If not, why?

Life extending the vessels for five years to coincide with development of shore infrastructure to enable full electrification of Island class vessels is not seen to be a viable option by BC Ferries. Although electrification is currently being considered, full fleet electrification is a longer-term aim. Specifically, BC Ferries reported that its focus is on electrification of the seven new Island class vessels in the later period of the Capital Plan.

Challenges to full electrification reportedly include the relatively low cost of fuel; high cost of terminal upgrades to support electrification; lack of funding and/or grants; absence of immediate, proven and reliable technical solutions for charging at shore; and the impact of tides on charging.

Underlying this position, BC Ferries indicates the financial business case to electrify the fleet does not exist, particularly as existing fuel costs are relatively low and there is no payback unless BC Ferries can secure significant grants. BC Ferries indicated conversion would cost a minimum of $< > million per vessel and $< > million per terminal, funding not currently accounted for in the Capital Plan. It was noted in the Supplemental Filing that conversion to all electric propulsion may be considered during quarter-life upgrades if the technical conditions and business case warrant. As a comparison, Washington State has allocated $44 million to convert two 39 Jumbo Mark II vessels (that can carry 2,500 passengers and 202 vehicles) to hybrid-electric.[3]

MNP recommends that BC Ferries completes a detailed business case on vessel electrification and integrates vessel electrification into the long-term strategic plan, if it is deemed a feasible option.

Is the preferred option still affordable (i.e., there is no impact on price caps of 2.3% annually for next performance term)?

BC Ferries indicated that the preferred option is still affordable within the Capital Plan. There is no apparent impact on the price cap of 2.3%.

Has the revised cost been offset by a specific corresponding reduction in the Capital Plan over the same time period with an explanation of the consequences of such a reduction?

BC Ferries has not yet updated the capital plan to account for the revised costs in the Supplemental Filing. They indicated that the revised cost will be accounted for through an adjustment in the Capital Plan over the same time period. BC Ferries is proposing deferrals of terminal upgrades and/or scope reductions of projects in the Capital Plan that would not cause significant impacts.

Is the scope of the vessels the same as the scope outlined in the initial application?

BC Ferries indicated in the Supplemental Filing and in related discussions that the scope has not changed since the original application. BC Ferries believes there are only limited opportunities to reduce capital expenditures for the recommended option without substantial scope reductions that would negatively impact the move towards fleet standardization.

Does the cost increase impact the determination of preferred bidder(s)?

[Redacted]

Is the explanation of why the stated preferred option is in the public interest (in terms of safety, reliability, and affordability) reasonable and adequate?

The explanation of why the stated preferred option is in the public interest in terms of safety, reliability, and affordability is reasonable and adequate. The preferred option reportedly meets all safety and regulatory requirements and increases staff familiarity through the use of standardized vessels. It also is described as addressing congestion and community impacts on the road networks surrounding the terminals on Routes 19 and 23 by using smaller vessels operating more frequently and reducing the volume of traffic discharged into the communities on each arrival. Reliability is seen to be addressed through standardization of vessels, which enables flexibility in vessel deployments. Replacing aged vessels reduces the risk of unplanned service interruptions, increases capacity, and reduces frequency of overloads. The preferred option supports the move towards standardization. This results in lower through-life costs, maintenance costs, training costs, and inventory costs.

[3] Per the legislative budget for Washington state for 2019-2021, US $495,000 was provided for an electric ferry planning team to develop ten-year and twenty-year implementation plans to efficiently deploy hybrid-electric vessels. Further, US $44 million has been allocated to convert two 39 Jumbo Mark II vessels (that can carry 2,500 passengers and 202 vehicles) to hybrid-electric. http://lawfilesext.leg.wa.gov/biennium/2019-20/Pdf/Bills/House%20Bills/1160-S.E.pdf

BC Ferries responses to all questions are reasonably satisfactory

Although BC Ferries provided a detailed response to questions regarding vessel electrification, it is recommended they complete a business case to support the information provided. Also, fleet standardization is a key assumption in the application and a strategic goal for BC Ferries. BC Ferries did not provide the requested information to support cost savings from vessel standardization. Therefore, BC Ferries did not respond reasonably satisfactorily to all questions.

Conclusions

MNP was engaged to review BC Ferries' Section 55 Supplementary Filing and other supporting documentation to assess if the revised costing for a major capital expenditure to procure five new vessels to cover routes 5, 19, and 23 is reasonable, prudent, and in alignment with the current intentions of the Coastal Ferry Services Contract and the long-term Capital Plan.

BC Ferries has indicated a need to replace or life-extend 14 vessels over the next decade. The current BC Ferries' proposal in the Supplemental Filing is to proceed with Option 3 and invest \$< >million in the procurement of four new Island class vessels and one new Salish class vessel while retiring the *Powell River Queen*, *Bowen Queen*, and *Mayne Queen* in fiscal 2022. Built in 1965, the three Bowen class vessels will be over 55 years old at time of retirement. The vessels have increasing and uncertain maintenance costs to keep functioning and pose a higher risk to reliable delivery of service if they are in operation past the planned retirement dates.

Option 3 carries the most negative NPV but does not have the risk of service interruption as in Option 1, nor does it carry the financial risk of Option 2 due to the incomplete design specification and contract negotiations. Option 3 also supports the strategy for standardization and electrification.

BC Ferries makes a reasonable case with qualitative support that Option 3 provides the best solution to further fleet standardization resulting in improved safety, reliability, and affordability. However, BC Ferries did not quantify the financial benefits of standardization.

The replacement of the Bowen class vessels was included in BC Ferries' 12-year Capital Plan (Fiscal 2015–2026) for performance term four (2016–2020) and the 12-year Capital Plan (Fiscal 2019–2030) submitted for performance term five (2020–2024). The result of the cost increase in the Supplemental Filing will require deferrals or scope decreases to manage within the Capital Plan.

The total expenditure, as described in the filing, is reasonable, prudent, and consistent with the Coastal Ferry Services Contract with the Province of BC.

Appendix A

The following questions, submitted in Clarification Request 1, were verbally answered by BC Ferries in a meeting on September 18, 2019.

Financial Model

Assessment	Question	Response from BC Ferries
Adequately Responded	Please clarify whether the variances in this tab are discounted. Option 2 (a) and (b) NPV is different than the Total Program Cost variance in this tab. [Redacted]	[Redacted]
Adequately Responded	Please clarify why there is an overall maintenance increase of $< > million (starting 2030) for MQ from the original application ($< > million) to the supplemental filing ($< > million). Please clarify why none of the other vessels reflect an increase in maintenance costs.	BC Ferries confirmed that there is an increase to maintenance costs of the Salish Class vessel replacing the Mayne Queen beginning in 2030 and no increase to the maintenance costs of the Island class vessels. BC Ferries indicated that in the absence of actual experience driven insights, the estimates were retained for the Island class vessels, whereas with the Salish class there is two years of experience with LNG propulsion to draw on.
Adequately Responded	Please clarify why the total capital increased < >% from $< > million to $< > million and interest (IDC) increased < >% from $< > million to $< > million.	Interest during construction is the rate charged to cumulative cash flow. BC Ferries indicated that interest was increased due to the cash flows brought forward and extension of the timelines.
Adequately Responded	Please clarify why the Shuttle costs for Routes 19 and 23 are the same cost when there was a $< > million difference in the original application.	BC Ferries confirmed that all costs are now averaged for the 4 ships. The initial cost estimates were base cost assumptions. They now have negotiated pricing to use for estimates. BC Ferries noted that the Shuttle class is still conceptual, and BC Ferries does not anticipate this class of vessel becoming operational until 10 or more years out from now.
Adequately Responded	Please clarify why “Project capital cash flow allocation, project capital” contingency was increased from < >% to < >% while the revised formula indicates a $< > thousand reduction.	BC Ferries confirmed that the project capital contingency increased from < >% However, the $< > thousand was deducted for expenses already incurred.

Overall Application

Assessment	Question	Response from BC Ferries
Did not adequately respond. BC Ferries has not developed a business case to support vessel electrification.	Please clarify whether BC Ferries considered any other options since the delay in the application? In particular, did BC Ferries consider life-extending existing vessels for five years to coincide with the development of shore infrastructure to enable full electrification of Island class vessels. If not, please explain.	BC Ferries indicated that no additional options were considered. The two Island class vessels per route is reportedly better than using one Shuttle to allow scalability. Option 1, which proposes a life extension, is a last resort. Unscheduled maintenance will lead to service impacts and cost increases. BC Ferries also considers the five-year life extension to be a "last strategy" and one that comes with higher risks. The following discussion took place regarding fleet electrification: • Electrification is currently being considered, but five years for full fleet electrification is optimistic. • It makes more sense to focus on electrification on the 7 new Island class vessels in the last year of the 12-year plan. • There is currently no financial business case to electrify the fleet, unless significant grants are provided. As fuel costs are relatively low, the related investment is considered to have no payback. • There is currently no funding in the capital plan for electrification. • There are technical challenges for electrical charging infrastructure due to tides. • Fleet electrification would cost a minimum of $< > million per vessel and $< > million per terminal. This funding is not in the capital plan. • Additionally, new batteries are required every 5 years. Further, electrification requires BC Hydro support. BC Hydro would need to significantly invest to upgrade every terminal to support electrification.
Adequately Responded	Please confirm whether the increased costs have impacted BC Ferries'	• [Redacted] • Schedule, capacity, and experience were some of the selection criteria used.

Assessment	Question	Response from BC Ferries
	determination of the preferred bidder. If it has not, please explain why.	
Did not adequately respond. BC Ferries has not developed a business case to support vessel electrification.	Please confirm the estimated timeframe for conversion of the Island class vessels to full electrical power and clarify: • The steps BC Ferries will take to expedite a conversion to full electric power; • The incremental costs for shore structure and other costs not currently considered; and • The estimated operational cost savings from running on electric/batteries instead of diesel.	• Further to the discussion above, converting to electric power is a strategic priority for BC Ferries. The vessels selected can be converted to electric power, yet the current recommendation is to begin with the seven new Island class vessels to be acquired under the capital plan and then retrofit the vessels to be acquired under this application. • As mentioned above, there is a dependency on BC Hydro to upgrade infrastructure at terminals. • Funding will be required as part of the capital funding process. • Currently, the prevailing view is that there are no financial incentives to convert, given present fuel consumption along with the costs to convert vessels and terminal upgrades. The financial impacts and GHG benefits also vary per route. Reportedly, conversion to electric would have minimal GHG emission reductions in some routes. • It was also raised by BC Ferries that hydro costs could exceed in some cases current fuel costs.
Adequately Responded	Please explain the measures BC Ferries is taking to ensure the current issues with malfunctioning elevators and doors on existing Salish class vessels are addressed and mitigated on future Salish vessels.	• BC Ferries acknowledges the issue with the doors and has gone back to the design to seek a solution. With the Salish class, this was characterized as a critical failure on one vessel that has since been rectified; and that any other issues are "integration based." • Doors will be rectified on the existing ships and the solution fitted on the new ship. • Elevators have had one failure which has since been rectified. •
Did not adequately respond	Please quantify the estimated cost savings resulting from BC Ferries' strategic goal to standardize the fleet, assuming a mature	As described in section 3.3.1 of BC Ferries' original submission dated November 5, 2018, as well as in section 2.2.2 of its supplemental submission

Assessment	Question	Response from BC Ferries
	state for the number of Island class and Salish class vessels in the fleet.	dated September 4, 2019, the Company expects that vessel standardization will result in significant benefits, including cost savings in vessel acquisitions and improved operational efficiencies. The Company also notes that other benefits of standardization include higher customer and community satisfaction. BC Ferries has considered the request to quantify the estimated cost savings resulting from its strategic goal to standardize the fleet. While BC Ferries understands the desire at this time to quantify the specific cost savings from standardization, as noted in its supplemental submission, the Company believes that “[t]he financial benefits of standardization can only be quantified in the longer term, but are accepted in many sectors, including automotive, airlines and bus systems. It will take considerable time, experience and data gathering to yield and quantify the financial benefits envisaged.”
N/A	Additional information	• The 12-year capital plan will not be increased due to the increase in the project costs. There are reportedly many options for mitigating the increase in the capital plan; the most likely involve delaying terminal expenditures. BC Ferries also indicated there would be no issues to the Performance Term Five price cap. • BC Ferries stated that the description of the vessels and scope have not changed in the Supplemental Filing.

Appendix B

The following questions, submitted in Clarification Request 2, were formally answered by BC Ferries by email on September 25, 2019:

Financial Model

Assessment	Question	Observations and Reported Information from BC Ferries
Impacts NPV[4]	Was consideration given to updating the discounting in the supplementary filing? Please clarify why 2019 costs are discounted in the updated financial model?	The discounting of cash flows by fiscal year was not changed in the supplementary filing to keep the revised NPV analysis more comparable to the originally submitted analysis.
Adequately Responded (assumes future contract will be fixed priced at estimated cost increase)	Calculating the New Build & Direct Terminal Upgrades for yrs. 10–14 was computed using "year 10" for all calculations in this period. Please confirm if the financial model should be updated.	There is no need for the financial model to be updated. The 10-year life extension options include only 10 years of inflation as the current day multi-year cash flows are tied to contract amounts that already include inflation for costs to be paid in the later years of the contract.
Did not adequately respond[5]	Calculating the Vessel Capital Upgrades (1QLU, MLU, 3QLU) appears to use the incorrect cell reference for years of inflation in some of the formulas. Please confirm the financial model should be updated.	It is not entirely clear what cell references are being referred to, but we believe there is no need to update the financial model.

[4] Amount is significant, but overall not material
[5] Amount is not material