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Via E-File

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B.C. Utilities Commission
Suite 410 - 900 Howe Street
Vancouver, BC V6Z 2N3

File No.: 4.2 (2019)

Attention: Patrick Wruck
Commission Secretary and Manager, Regulatory Services

Dear Mr. Wruck:

**Re: Pacific Northern Gas Ltd.
Application Regarding Process for Allocation of Reactivated Capacity and
Approval of Large Volume Industrial Transportation Rate
Response to BCUC Information Request No. 1**

Accompanying, please find a copy of PNG's responses to BCUC Information Request No. 1 on the referenced Application.

Please direct any questions regarding the attached to my attention.

Yours truly,

A handwritten signature in black ink that reads 'Janet Kennedy'. The signature is written in a cursive, flowing style.

J.P. Kennedy

Pacific Northern Gas Ltd.
Application Regarding Process for Allocation of Reactivated Capacity and
Approval of Large Volume Industrial Transportation Rate

INFORMATION REQUEST NO. 1 TO PACIFIC NORTHERN GAS LTD.

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A. APPLICATION OVERVIEW

- 1.0 Reference: APPLICATION OVERVIEW
Exhibit 1, Application Regarding Process for Allocation of Reactivated
Capacity and Approval of Large Volume Industrial Transportation Rate
(Application), p. 8
Multi-lateral process (MLP)**

On page 8 of its Application, Pacific Northern Gas Ltd. (PNG) states the following with respect to the MLP launched in 2018:

The Binding Letter Agreement process resulted in 6 parties participating and executing binding bids to reserve capacity on PNG’s existing and proposed expansion pipeline totaling over 300 **MMCFD**. While PNG was encouraged by these results, PNG determined that it had not received sufficient requests for capacity to support the commencement of the Pre-FEED development work on a major expansion of its pipeline and therefore, on March 12, 2019, PNG terminated all the Binding Letter Agreements received from participants and thereby terminated the MLP. [emphasis added]

- 1.1 Please confirm if the term “MMCFD”, emphasized in the preamble, is correct or explain otherwise.

Response:

The term MMCFD noted in the preamble is incorrect and should read MMSCFD. PNG apologizes for the typing error in the Application. PNG also confirms that the total volume of binding bids received to reserve capacity during the MLP was over 300 MMSCFD.

- 1.2 Please elaborate on why the binding bids resulting from the MLP of 300 MMCFD were not considered adequate to continue with the MLP in relation to the firm capacity sought as part of the Reactivated Capacity Allocation Process (RECAP).

Response:

As noted in Section 1.4 of the Application, the MLP process was designed to seek interest from parties to participate in both the reactivation of PNG's existing facilities as well as a large-scale expansion of PNG's system through PNG's Looping Project (PLP). This would enable parties to participate in both the less expensive reactivated capacity, as well as the more expensive large-scale expansion capacity. PNG had determined that interest of approximately 500 MMSCFD would be required for the PLP to be economically viable and to support the commencement of further Pre-FEED development work on the pipeline expansion. This was communicated to all parties that participated in the process.

The MLP was not designed to address only the reactivated capacity of approximately 88 MMSCFD or greater and it did not include a mechanism for allocating only the limited reactivated capacity. Following the termination of the MLP, PNG then focused its efforts to design a process to address this element. As such, PNG is proposing the RECAP to allocate the reactivated capacity in an open, fair and transparent process.

A preliminary estimate of the cost to construct facilities to carry an incremental 220 MMSCFD (i.e. 300 less the 80 of existing available capacity) would have required a toll that was well in excess of \$2.00/GJ. PNG determined that this was substantially above the level that the developers had indicated would be required to economically allow them to proceed with their projects.

- 1.3 Please discuss if PNG sought BCUC approval for any component of the MLP. If not, please discuss why not, considering the approvals sought in the current Application.

Response:

BCUC approval was initially sought for the Triton Letter Agreement for the reservation of up to 50 MMSCFD of firm capacity to Ridley Island. As noted in Section 1.3 of the Application, the Triton application was withdrawn due to increased expressions of interest by other parties for capacity on PNG's system. PNG subsequently launched a non-binding open season and invited interested parties to continue to participate in the first stage of the MLP.

PNG reviewed the *Utilities Commission Act* at the time it proceeded with the MLP and concluded that there were no BCUC approvals that were required to proceed with the initial phase of the process. PNG concluded that preapprovals in the context of the uncertain MLP would not have been a good use of resources. If PNG had been able to proceed with the MLP process after the initial phase, all necessary BCUC approvals would have been sought in due course.

**2.0 Reference: APPLICATION OVERVIEW
Exhibit 1, pp. 1, 8, 10, 14; Appendix B
Capital**

On page 1 of the Application’s Executive Summary, PNG states:

This demand could be in excess of the volume that can be accommodated with PNG’s existing facilities, thereby indicating that PNG’s capacity may need to be allocated and/or increased to the extent supported by market demand.

Further, PNG states that following the completion of the RECAP it plans to “... commence its project to reactivate transmission assets and recommission compressor stations required to return its transmission system to full design capacity (Reactivation Project).”

On page 8 of the Application, PNG states that the RECAP “... will not include capacity that would need to be developed by way of a major expansion. When the market conditions are right, PNG would reassess its plans to loop PNG’s pipeline system.”

Further on page 10, PNG states that it may seek further approvals pending the outcome of the RECAP, including:

Certificates of Public Convenience and Necessity (CPCNs) for capital expenditures for reactivation, recommissioning and reinforcement of existing facilities or construction of new facilities required to provide service under the executed TSAs [Transportation Service Agreements]

On page 14 of the Application, PNG states that “In the event firm TSA’s are executed, PNG will promptly file a CPCN for the required system upgrades necessary to deliver service.”

The draft form Transportation Reservation Agreement (TRA) in Appendix B of the Application defines the Reactivation Project as follows:

the reactivation of Transporter’s existing deactivated facilities or expansion of Transporter’s existing facilities, such expansion to consist of looping pipeline and additions and/or modifications to the existing pipeline’s compression facilities, to increase Gas transportation capacity as required to provide incremental firm transportation service to the Delivery Point, as approved by the BCUC.

The draft form TSA defines the Reactivation Project to mean:

The reactivation of Transporter’s existing deactivated facilities or expansion of Transporter’s existing facilities, such expansion to consist of looping pipeline and additions and/or modifications to the existing pipeline’s compression facilities, to increase Gas transportation capacity as required to

provide incremental firm transportation service to the Delivery Point, as approved by the BCUC;

- 2.1 Please reconcile the definition of the Reactivation Project that is included in the draft form TSA with the statement on page 8 of the Application that the RECAP "...will not include capacity that would need to be developed by way of a major expansion."

Response:

In its RECAP application, PNG has used the term "major expansion" to describe the scenario where its gas transmission mainline is fully looped with 24" or greater diameter pipe. Such a "major expansion" would result in PNG's transmission capacity between Summit Lake and Kitimat increasing by multiples of its existing capacity.

Under the RECAP process, on the other hand, PNG's analysis shows that certain extensions of the existing 12" loops of its transmission mainline may be in the public interest when such extensions would be required to expand PNG's transmission capacity to accommodate a shipper that requires more gas transmission capacity than would otherwise be available. For example, if the RECAP process ends up allocating 40 MMSCFD of capacity to TSAs and another prospective shipper requests a TRA for 50 MMSCFD, subject to the TRA shipper offering to pay a toll such that the revenue generated by the TRA shipper would cover both the costs for the required expansion facilities as well as the reactivation costs attributable to that shipper, then PNG submits that the expansion would be in the public interest as tolls to PNG's existing customers would not be adversely affected and may decrease further.

PNG has also determined that the capacity of its transmission system between Terrace and Prince Rupert may be expanded by way of looping and new compression facilities if required to meet market demand for capacity to Prince Rupert. Again, a shipper requesting this service would need to bid a toll that would cover both the costs for the required expansion facilities as well as the reactivation costs attributable to that shipper for gas transmission between Summit Lake and Terrace.

While these system expansion options may involve significant capital investment, due to the magnitude of the capacity increases relative to existing capacity PNG has not categorized these expansions as a "major expansions".

- 2.2 Please clarify if the potential capital requirements that may result from the RECAP only include reactivating, recommissioning and reinforcement of existing facilities or if new facilities may be required.

Response:

In the context of the RECAP Application, PNG has used the term reinforcement to describe situations where new facilities are justified to accommodate the demand identified through the RECAP process.

Reinforcement of PNG's transmission system cannot be accomplished without the addition of new facilities; by its nature, reinforcement requires capital investment in new facilities. As noted in the response to Question 2.1, new facilities may be justified depending on the results of the RECAP process.

- 2.2.1 Please describe the circumstances under which new facilities may be required following the RECAP process.

Response:

Please see the response to Question 2.1.

- 2.2.2 If new facilities are required as a result of the RECAP process, please discuss if PNG considers that the proposed Base Toll of \$1.00/GJ will still be appropriate and why.

Response:

PNG's extensive analysis of possible outcomes of the RECAP process suggests that the proposed Base Toll of \$1.00/GJ, in most scenarios where new facilities are required, would not only result in a fair recovery of costs from the RS80 class but would also result in material rate reductions for PNG's existing customers. However, there may be some outcomes from the RECAP process which would require new facilities that cannot be economically justified at the Base Toll of \$1.00/GJ. In these circumstances, the new facilities would need to be justified by the toll premium that a RECAP shipper is prepared to pay. If the RECAP process elicits demand that would require new facilities that are not economically justified at the Base Toll, and RECAP shippers are not prepared to pay toll premiums that justify the required new facilities, PNG will not enter into contracts to provide capacity at that level and the new facilities would not be developed.

PNG believes that its proposal is fair and reasonable and allows the market to determine the extent of new facilities that may be justified and in the public interest.

- 2.3 Please clarify if PNG will file a CPCN for all capital expenditures resulting from the RECAP under all possible scenarios. If there are certain scenarios resulting from the RECAP process whereby PNG would not file a CPCN before providing service to Shippers, please provide details.

Response:

PNG expects to file a CPCN application (or multiple CPCN applications depending on the timing and outcome of the RECAP) for any material capital expenditures required to satisfy the demand for capacity contracted via the RECAP process. However, a possible (though unexpected) outcome of RECAP process is the contracting of only a small portion of PNG's available capacity (e.g. ~15 MMSCFD or less) where such demand could be satisfied without any material capital expenditures by PNG. In this case, PNG does not believe a CPCN application would be required.

On page 9 of the Application, PNG states that the current process “...will not include capacity that would need to be developed by way of a major expansion. When the market conditions are right, PNG would reassess its plans to loop PNG’s pipeline system.”

- 2.4 If PNG determines that an expansion of its existing facilities is required, please discuss the process that would be undertaken, including the required BCUC approvals, to achieve the expansion and the related timelines.

Response:

In its responses to Questions 2.1 through 2.3, PNG clarified the distinction between its use of the term “major expansion” (i.e. a full looping of the PNG transmission system), and the potential for system reinforcement or economically justified new facilities that would be driven by the RECAP process. Given that the RECAP Application is limited to the latter possibility, PNG will limit its response to this question to the anticipated process for development and construction of new facilities that do not constitute a major expansion. PNG anticipates following the same process for all material expenditures required to satisfy contracted demand under the RECAP process, whether for reactivation of existing facilities or for new facilities.

The anticipated process is as follows:

- After receipt and ranking of the bids under the RECAP process, PNG will approach the winning bidders to execute TSAs and/or TRAs per the bids.
- PNG does not intend to incur any material costs for development of capacity reserved under TRAs other than as proposed in the Application for commencement of engineering, permitting and consultation processes for the initial works of the Reactivation Project. Otherwise, development of the required capacity will be undertaken only after the TRA holder has exercised its option and has entered into a TSA.
- The conditions precedent in section 4.4(a) of the TSA will provide for dates that PNG believes are achievable, following consultation with its regulators, while targeting to provide service to the shipper commencing on the shipper’s requested in-service date.
- Executed TSAs will be submitted to the BCUC for approval.
- Assuming PNG will need to invest new capital to meet its obligations under approved new TSAs, and assuming PNG has a reasonable expectation that any required capital investment will be economically justified, PNG will undertake any remaining development processes, including engineering and consultation, to meet the requirements for the CPCN application as well as for applications for permits from the OGC. In addition, PNG will commence the acquisition of land, right-of-way and access agreements necessary for the construction and operation of any new facilities.
- Upon obtaining successful approvals of a CPCN, other permits and land related agreements required by PNG to commence construction, PNG will reactivate existing facilities and construct new facilities as required.

**3.0 Reference: APPLICATION OVERVIEW
Exhibit 1, p. 5
Decommissioning costs**

On page 5 of the Application, PNG describes the history of its unutilized capacity, including:

With the closure of Methanex’s methanol/ammonia facility in Kitimat in November 2005, PNG deactivated its compressor stations at Vanderhoof, Burns Lake, and Telkwa, as well as 85 kilometres of 10 inch pipeline. Since then, PNG also experienced the closure of West Fraser’s paper mill in January 2010 and the loss of other industrial customers, and further deactivated 53 kilometres of 6 inch pipeline. These deactivated facilities have been partially maintained for potential future use and will be refurbished and reactivated as necessary to provide service after executing TSAs for the proposed Large Volume Industrial Transportation Service.

- 3.1 Please identify any costs that were incurred when the existing facilities were deactivated in 2005 and 2010, as described in the preamble.

Response:

PNG did not incur any capital costs during the process of deactivating its pipelines and compressor stations. All costs were expensed and absorbed by PNG in its approved provision for operating costs in the year in question.

PNG notes that deactivation of compressor facilities was largely undertaken to reduce ongoing operating and maintenance costs, while deactivation of transmission pipeline was undertaken to reduce property taxes (deactivated transmission pipeline is assessed at 10% of the value of operational transmission pipeline).

- 3.1.1 Please describe how these costs are currently being treated in PNG’s revenue requirements.

Response:

The costs incurred to deactivate facilities are not having any impact on PNG’s current revenue requirements.

- 3.1.2 Please describe the impact of any changes to the treatment to these costs in PNG's revenue requirements following the RECAP process.

Response:

Since there are no costs related to the deactivation of facilities in PNG's revenue requirements, no change will occur following the RECAP process. Reactivation of the transmission pipeline facilities will result in an increase in property taxes, estimated at about \$330,000 at 2019 assessment values and tax rates.

- 4.0 Reference: APPLICATION OVERVIEW
Exhibit B-1, Section 1.6, p. 9;
Application for Approval of Letter Agreement between Pacific Northern Gas Ltd. and Triton LNG Limited Partnership, Exhibit B-1, Section 2, p. 4.
Existing pipeline capacity**

On Page 9 of the Application, PNG states:

PNG expects the RECAP will result in binding TSAs or Transportation Reservation Agreements (TRA) for all the firm transportation capacity available to fully utilize PNG's existing facilities.

Further on the same page of the Application, PNG states:

The estimated capital investment is expected to provide up to approximately 88 MMSCFD of contractible capacity, and roughly double the portion of contractible capacity deliverable to Prince Rupert to 50 MMSCFD.

On page 4 of the Application for Approval of Letter Agreement between PNG and Triton LNG Limited Partnership, PNG lists several new capital infrastructure investments that would be required to achieve a capacity of 50 MMSCFD from Terrace to Prince Rupert. These new capital infrastructure investments include a new compressor site at Salvus Camp. On the same page of the above-referenced application, PNG states, "A pre-FEED study and Class III cost estimate to assist in determining the feasibility of the project [increased capacity to Prince Rupert] will be developed."

- 4.1 Please clarify whether new infrastructure is required to meet the 50 MMSCFD capacity to Prince Rupert.

Response:

Confirmed. New infrastructure is required to meet the 50 MMSCFD capacity to Prince Rupert.

4.1.1 If so, please list and describe the new infrastructure which is required.

Response:

The following new infrastructure and recommissioning of existing infrastructure would be required:

- 1) Approximately 12km – 13.5km, 219.1mm OD pipeline, from Galloway Station to Ridley Island complete with sending/receiving barrels and downstream custody transfer meter. This pipeline will branch off the Prince Rupert Mainline upstream of Galloway Station and all associated existing infrastructure, including the existing let down station, and utilize existing Right-of-Ways when possible. This will facilitate accommodation of the future demand without affecting the integrity of existing equipment or assets.
- 2) Approximately 5km, 219.1mm OD pipeline, from the Compressor Station R-5 location connecting to the Prince Rupert Mainline just downstream of Terrace Junction. The 5km pipeline will be installed within existing Right-of-Way when possible.
- 3) One new compressor site, 1100 HP to 1700 HP, dependent of operating case, at Salvus Camp (new land required).
- 4) One new compressor, 1700 HP at Compressor Station R-5 location (to be installed on PNG owned land).
- 5) Recommissioning of existing non-operational compressor stations (R2, R3, R4) and decommissioned pipeline loops.

4.1.2 If not, please list and describe the reactivation and recommissioning activities that are required at existing facilities.

Response:

Please see the response to Question 4.1.

4.2 Please provide the current existing transmission capacity to each delivery point by completing the table below.

Table 1 - Transmission Capacity

Delivery Point	Current total pipeline transmission capacity (MMSCFD)	Natural gas firm demand in 2018 (MMSCFD)	Natural gas interruptible demand in 2018 (MMSCFD)	Available excess pipeline transmission capacity in 2018 (MMSCFD)
Summit Lake to Terrace				
Terrace to Kitimat				
Terrace to Prince Rupert				

Response:

Table 1 below displays the requested information. PNG notes that two additional rows (lines 4 and 5) have been added to reflect the results based on delivery points as explained in the discussion that follows.

Table 1 - Transmission Capacity

Delivery Point	Current total pipeline transmission capacity (MMSCFD) ¹	Natural gas firm demand in 2018 (MMSCFD) ²	Natural gas interruptible demand in 2018 (MMSCFD) ³	Available excess pipeline transmission capacity in 2018 (MMSCFD) ⁴
1. Summit Lake to Terrace	59.5	28.6	0	30.9
2. Terrace to Kitimat	39.3	8.4	0	30.9
3. Terrace to Prince Rupert	3.8	3.8	0	0
4. Terrace to Kitimat*	8.4	8.4	0	0
5. Terrace to Prince Rupert*	27.7	3.7	0**	24.0**

* All the spare capacity is assumed to be used in the Prince Rupert Area.

** BC Hydro has a range of interruptible service of 0 to 12 MMSCFD. Any gas they use will reduce the available excess by the amount used by BC Hydro.

From a hydraulic perspective, after gas is delivered to Terrace (Line 1), it can then either be consumed in Terrace, or directed to Kitimat or Prince Rupert. In practical terms, “the fork in the line” is at Terrace. Lines 2 and 3 reflect Kitimat as the load centre, with the remainder of the gas going to Prince Rupert. Lines 4 and 5 reflect Prince Rupert as the load centre, with the remainder of the gas going to Kitimat.

PNG also notes that the 8" line to Prince Rupert is limited at 27.7 MMSCFD, whereas the 10" line accommodate volume up to 39.3 MMSCFD.

A few additional points are relevant:

1. Currently, PNG only has one compressor at R1 (Summit Lake) operational for the entire system, and the looped sections of the mainline have been decommissioned. Therefore, in its present configuration, PNG is limited to the output of this compressor and the capacity of the single pipeline.
2. PNG notes that the natural gas firm demand in 2018 does not reflect system capacity design considerations. PNG designs its system based on Extreme Value Analysis which considers a 20-year return period for firm customers and reviews historical peak day loads which are typically much higher than 2018 Firm Demand.
3. PNG does not consider IT demand as a system capacity design consideration. This includes BC Hydro, who is PNG's largest interruptible customer, and has consumed up to 12 MMSCFD on an irregular basis.

- 4.3 Has the Pre Front-End Engineering and Design (FEED) study related to increasing the transmission capacity between Terrace and Prince Rupert been completed? If so, please provide.

Response:

PNG notes that a Pre-FEED study for the transmission capacity between Terrace and Prince Rupert was completed for the Triton Project. At the time, PNG entered into an agreement with Triton, whereby PNG Pre-FEED costs were backstopped if the Triton project did not proceed. PNG's existing customers were therefore insulated from the risk of recovering these costs. PNG has filed a summary of the Pre-FEED Study with its responses to BCUC Confidential IR No. 1.

**5.0 Reference: APPLICATION OVERVIEW
Exhibit B-1, Section 1.6, p. 9
RECAP capital cost estimate and toll premiums**

On page 9 of the Application, PNG states:

Depending on the RECAP demands, and the requested delivery points, PNG has modeled the full extent of the capital costs for the reactivation recommissioning, and system reinforcement to be up to approximately \$120 million. The activities include compressor rehabilitation, pipeline reactivation and system reinforcement.

Further on the same page of the Application, PNG states that “the size and specifics of the capital investment will be dependent on the RECAP demands and the toll premiums.”

- 5.1 Please provide a breakdown of the capital costs for the various RECAP scenarios PNG has modeled.

Response:

The response to this question has been filed confidentially along with the responses to BCUC Confidential IR No. 1.

- 5.2 Please list and describe the capital investments which are reliant on the value of toll premiums submitted by bidders.

Response:

PNG submits that almost none of the expected capital investments are reliant on the value of the toll premiums submitted by bidders. As noted in page 9 of the Application, PNG states that under all of the scenarios modelled, PNG believes that the RECAP will result in benefits to its existing ratepayers. The modelling referenced did not include any toll premiums, and only include the proposed new Rate Schedule 80 base toll. PNG expects the toll premiums to ultimately benefit ratepayers.

However, there is a scenario that can be foreseen whereby the capital investment is reliant on the value of the toll premiums submitted by bidders. This would be the case where the total demand for capacity is in excess of the available capacity. PNG would evaluate if the toll premiums warrant additional capital investments to meet such demand. If this was not deemed to be cost effective, PNG would not proceed with the capital investment. If this was deemed to be feasible and cost effective, PNG would consider proceeding with this capital investment and notes that a CPCN application would be submitted to the BCUC prior to proceeding.

- 5.2.1 If, following the conclusion of the proposed RECAP bidding process, the demand for capacity on PNG's transmission system is high and the value of the toll premiums submitted is low, are there some capital investments which may not proceed or be considered cost effective?

Response:

As noted in the response to Question 5.2, PNG would evaluate whether to proceed with capital investments required to meet any of the potential demand and would not proceed with any capital investments that are not considered to be cost effective.

- 5.3 Please provide additional details regarding the specific activities and costs that may be required to reinforce the pipeline system.

Response:

Please see the responses to Question 2.2 and Question 5.1.

- 5.3.1 Please describe the factors that would determine the requirement for system reinforcement.

Response:

The main factors that determine the requirements for system reinforcement are: 1) the amount of firm demand required after TSA's are effective; and 2) the location of this demand as it relates to PNG's existing system.

Further, after the overall new firm demand exceeds ~15 MMSCFD, PNG must hydro-test the decommissioned sections of pipeline and refurbish/reinstate the first of the currently "mothballed" compressors (R3) to ensure the required loads can be delivered. PNG must ensure the overall system is safe to upgrade the pressure from a pipeline integrity perspective.

- 5.3.2 Under which potential RECAP scenarios are pipeline system reinforcements required? Please discuss.

Response:

Please see the responses to Questions 5.3 and 5.3.1.

**6.0 Reference: APPLICATION OVERVIEW
Exhibit B-1, Section 1, pp. 3, 9, 31
Benefits and risks**

Further on page 9 of the Application, PNG states, “In addition to reducing pipeline capacity constraints, investment in system reinforcement has the benefit of improving the reliability and resiliency of the overall pipeline system.”

6.1 Please elaborate on how various RECAP scenarios will improve the reliability and resiliency of the overall pipeline system.

Response:

For scenarios where PNG is upgrading existing equipment or constructing new infrastructure, PNG submits that it would be advantageous to realize inherent benefits by addressing reliability and resiliency of the overall pipeline system.

Under the current system configuration, the only compressor station that is operational is at R1 (Summit Lake). Thus, if there is an operational problem at the R1 site, PNG could have restricted or possibly no compression ability, and therefore be at risk of a significant outage.

In a scenario whereby there were moderate volumes of gas from the RECAP process, PNG would recommission the R2 compressor. In this scenario, PNG may be able to flow gas from the Westcoast system to R2 (Burns Lake), and have the potential to continue to deliver some volume of gas to customers, subject to some curtailments.

In a scenario whereby the PNG system is at full capacity and the decommissioned loops downstream of R1, R2 and R3 as well as the compressor stations were put back in service, there would be some redundancy in the event of a leak on the adjacent line, and some gas volumes would still flow to customers. Under this scenario, some new small loop extensions downstream of R1, R2 and R3 may be required and, if PNG had an operational issue, or in the event of outages for maintenance work, the line could continue to provide some or all of the necessary demands on the system.

Depending on the outcome of the RECAP, PNG also contemplates an interconnecting line between R5 (near Terrace) and Terrace junction, which, in addition to enabling more capacity to Prince Rupert, inherently enables some operational flexibility between pipelines.

Despite the above examples, PNG acknowledges that the system operations will be more complex with higher loads and with less margin for error in most cases. PNG could also lose some of its current line-pack it currently benefits from during times of system maintenance or during the repair of line breaks.

6.1.1 Are there any cost savings achieved because of improved reliability and resiliency?

Response:

PNG does not expect annual cost savings per se, but there would be some risk reduction related to “a mass outage”. If a significant outage were to occur, PNG would be better able to mitigate some of the consequences which would normally cost PNG ratepayers significant dollars and/or increased insurance premiums.

6.1.1.1 If so, please provide additional details regarding the cost savings.

Response:

Please see the response to Question 6.1.1.

6.1.1.2 If so, please confirm whether these cost savings have been included in PNG’s supporting financial analysis provided in confidential Exhibit B-2.

Response:

Please see the response to Question 6.1.1. PNG has not included these cost savings in the supporting financial analysis.

On page 31 of the Application, PNG states:

PNG also submits that there is no identifiable financial risk to PNG and its existing ratepayers in undertaking the Reactivation Project as the Base Toll (new Rate Schedule 80 – Large Volume Industrial Transportation Tariff) has been designed so that all capital and operating costs are recovered from prospective shippers, thereby eliminating the risk of asset stranding and ensuring that there are negligible rate impacts on PNG's other ratepayers. In fact, PNG expects significant rate reductions to existing ratepayers.

- 6.2 Please clarify if the rate impact to PNG's existing ratepayer following the RECAP is expected to be negligible or significant.

Response:

The rate impact to PNG's existing ratepayer following the RECAP would depend on the outcome of the process. However, as noted in the Application, PNG is confident that it would result in benefits to existing ratepayers.

The toll impact on PNG's existing customers will be related to the amount of capacity PNG is able to contract through the RECAP. Generally, the greater the amount of reactivation capacity that can be contracted, the greater the rate benefits will be to PNG's existing ratepayers. This is true even without toll premiums being paid. PNG expects a substantial portion, if not all, of the reactivation capacity will be contracted through the RECAP process, which will significantly reduce rates for existing ratepayers.

- 6.3 Are there any financial risks to PNG and its existing ratepayers resulting from project schedule delays? If so, please describe.

Response:

PNG has anticipated the possibility of project delays and has drafted its contractual obligations in the proposed TSA to mitigate the financial risks to itself and its ratepayers. The financial risk to PNG and its ratepayers is limited to project development costs which are incurred prior to a determination by PNG that it: (i) will be unable to satisfy one or more of the conditions precedent in section 4.4(a) of the proposed TSA by the date provided in an executed agreement; or, (ii) would be unwilling to waive the condition precedent if it has not been satisfied by the date provided in an executed TSA (which would be the case if PNG determines that the necessary permit approvals and land related agreements would not be forthcoming).

Delays in commencement of service beyond the shipper's requested in-service date will result in the deferral of the receipt of revenues under the TSA which in turn will delay the time at which PNG's customers will enjoy the benefits of reduced rates following the Reactivation Project.

B. REACTIVATED CAPACITY ALLOCATION PROCESS

**7.0 Reference: REACTIVATED CAPACITY ALLOCATION PROCESS
Exhibit B-1, pp. 13–14
Evaluation of bids**

On page 13 of the Application PNG states, “PNG intends to evaluate bids using a net present value (NPV) approach. The criteria outlined in Section 2.2 will be used as the basis for determining each bid’s NPV.”

Further on page 13, PNG states, “The NPV will also be adjusted for the bidder’s credit quality. Bids seeking a TRA will be further discounted by a constant factor to account for the uncertainty of revenue from parties entering into TRAs relative to parties making a firm commitment under TSAs.”

- 7.1 Please provide an example of a bid evaluation NPV analysis that will be performed in an excel spreadsheet and provide details of all inputs and assumptions used.

Response:

The response to this question has been filed confidentially along with the responses to BCUC Confidential IR No. 1.

- 7.2 Please describe the methodology by which PNG plans to adjust the NPV analysis for each of the bidders’ credit quality and TRAs and provide an example of each.

Response:

The response to this question has been filed confidentially along with the responses to BCUC Confidential IR No. 1.

- 7.3 Please discuss any risks associated with accepting bids for reservation capacity (i.e. TRAs) and how PNG plans to mitigate those risks.

Response:

PNG does not anticipate any material risks associated with reserving capacity under TRAs. PNG will ensure that it only executes TRAs for the amount of capacity that it is confident that can be developed, either by way of reactivation of existing facilities or by way of development and construction of economically feasible new facilities.

Each TSA executed following the exercise of the option by the shipper under a TRA is subject to BCUC approval and is also subject to additional conditions precedent covering required permits and land related agreements necessary for construction and operation of facilities required to provide service to the shipper. Once a shipper has converted its TRA into a TSA, the risks are as outlined in the response to Question 6.3.

On page 14 of the Application, PNG states that “If volumes and Toll Premiums justify a system reinforcement project, PNG will notify bidders of the requirement to post security (either through its credit rating or Letter of Credit) for their pro rata share of the total capital costs of the project.”

- 7.4 Please clarify if PNG will require the security requirements to be met regardless of whether the requested capacity and toll premiums justify a system reinforcement project. If not, please discuss the differences between the security requirements under the two scenarios (i.e. system reinforcement project required versus not required).

Response:

PNG confirms that the credit support requirements must be met from all TSA holders regardless of whether PNG undertakes a system reinforcement project. The security required is equal to 12 months of demand charges for non-investment grade shippers and 3 months of demand charges for investment grade shippers or guarantors.

If a system reinforcement project is undertaken on behalf of a shipper or shippers, additional credit support will be required. This will ensure that no undue risk is placed on PNG or its customers if a significant capital investment to develop additional capacity which may become stranded if the shipper defaults under its TSA.

- 7.5 Please clarify how the credit rating and letter of credit will be connected to the amount of the Shipper's pro rata share of the total capital costs.

Response:

As noted in Section 17.8 of the proposed GT&Cs, PNG has suggested that credit support requirements, in the event of a system reinforcement project, will be negotiated between PNG and the shipper with the base requirement being that the shipper will provide a letter of credit for its pro rata share of the cost of the additional facilities.

If PNG and the shipper cannot agree on the credit support requirements in these circumstances, the shipper will be able to apply to the BCUC to provide credit support at a reduced level from the base requirements and PNG will require credit support from the shipper as so directed by the BCUC.

- 7.5.1 Specifically, will the amount of the letter of credit or the minimum acceptable rating change based on the amount of the pro rata share of the total capital costs? Please discuss.

Response:

The base requirement is for a letter of credit that would be equal to the shipper's pro rata share of the total capital costs, so the amount of the letter of credit will change based on the amount of the pro rata share of the total capital costs.

On page 14 of its Application, PNG states:

There are ranges of potential capital cost and operating expense outcomes depending on the amount of contracted capacity and the delivery point (whether at Terrace, Prince Rupert or Kitimat). The Bid Value methodology distinguishes between projects that, on a stand-alone basis, require PNG to incur different levels of capital investment and operating costs. PNG will incorporate the capital costs and operating expenses associated with the bid in the determination of the Bid Value.

- 7.6 Please describe how PNG will determine the amount of capital costs attributable to each bid, both for those bids that require capital expenditures on a stand-alone basis and those that require capital expenditures to satisfy demand from multiple bidders.

Response:

PNG plans to use the capital requirements attributable to each bidder's terms on a stand alone basis. PNG does not plan to attribute incremental capital for the incremental volumes of other bidders. PNG submits that the use of this approach will allow PNG to determine the bid value of each bidder in a fair and unbiased manner.

- 7.7 If the RECAP results in executed TRAs and there are required capital costs associated with providing service to those Shippers, please discuss if PNG would be required to incur the related capital costs prior to those Shippers exercising their option under the TRA and entering an executed TSA.

Response:

As noted in response to Question 2.4, PNG does not expect to incur any material development or construction costs prior to execution of a TSA, other than as proposed in the Application for commencement of engineering, permitting and consultation processes for the initial works of the Reactivation Project.

- 7.7.1 If the answer to the preceding Information Request (IR) is yes, please describe how PNG plans to account for such capital costs in its revenue requirements and how they would be recovered if the related TRA does not result in an executed TSA.

Response:

Not applicable, other than as proposed in the Application for limited expenditures for engineering, permitting and consultation processes for the initial works of the Reactivation Project. For the limited expenditures for engineering, permitting and consultation processes for the initial works of the Reactivation Project, PNG has proposed these be recorded in a deferral account and dealt with in accordance with PNG's responses to Questions 32.1 through 32.6.

On page 14 of its Application, PNG describes the process for ranking of bids and determining the winning bids.

- 7.8 Please discuss if there are any other factors that PNG will consider in determining the ranking of bids and the winning bids, beyond the Bid Value, security requirements and timelines. Specifically, will PNG consider the compatibility of the capital requirements for different bids in relation to each other? Please discuss.

Response:

PNG is unclear on the reference to "compatibility of the capital requirements for different bids in relation to each other" and has interpreted this to mean that PNG would not follow its proposed bid ranking process. As noted in Section 2.4 of the Application, PNG describes the process of determining the winning bids based on the review of the bid forms and the ranking based on the Bid Values. PNG anticipates getting to an optimum result taking into consideration the factors and the process described. Therefore, PNG does not plan to consider the compatibility of the capital requirements for different bids in relation to each other as this would unduly favour specific bidders regardless of their bid.

**8.0 Reference: REACTIVATED CAPACITY ALLOCATION PROCESS
Exhibit B-1, pp. 11, 14, 29
Timelines and consultation**

On page 14 of its Application, PNG states that following the selecting of winning bidder(s), “PNG will then apply to the BCUC for approval of the executed TSAs and TRAs. In the event firm TSA’s are executed, PNG will promptly file a CPCN for the required system upgrades necessary to deliver service.”

On page 29 of the Application, PNG states:

The Reactivation Project will entail significant work on engineering, permitting, and First Nations and stakeholder engagement and consultation prior to construction and recommissioning. PNG plans to seek BCUC approval for its Reactivation Project through a CPCN Application following the execution of TSAs.

- 8.1 Has PNG canvassed potential shippers to discuss the timelines for the approvals and consultation that may be required in relation to the capital facilities following from the RECAP process? If so, please discuss the impact that any delays or lengthy processes are expected to have on the outcome of the RECAP.

Response:

PNG has canvassed potential shippers to discuss the timelines for the approvals and consultation that may be required in relation to the capital facilities following from the RECAP process. PNG is currently aware of potential shippers that are contemplating two different categories of LNG liquefaction projects: “small scale” plants requiring an environmental certificate plus an Oil and Gas Commission (OGC) permit; and “mini scale” plants only requiring an OGC permit.

The timeline for the permitting and construction of a small scale plant is in the range of 4-5 years and the timeline for the permitting and construction of a mini scale plant is in the range of 1.5-2 years. Depending on the volume of the requested transportation service and the delivery point(s), the timeline for construction of the associated PNG facilities will be consistent with each of these project types. Therefore, PNG anticipates being able to construct the required facilities in time to match the required in-service dates of the various projects that are currently proposed.

On page 11 of the Application, PNG states that the expected completion date for the RECAP is during the first quarter (Q1) of 2020.

- 8.2 Please provide an updated timeline for the commencement and completion of the RECAP.

Response:

Subject to receiving BCUC approval of the Application before the end of the year, PNG continues to plan for the commencement of the RECAP within the first quarter of 2020. The completion of the RECAP will depend on the outcome of the bidding process.

- 8.3 Please discuss PNG's plan and timeline for engagement and consultation with potentially affected communities and indigenous nations regarding the Reactivation Project.

Response:

PNG has commenced a preliminary level of engagement with the BC Department of Energy as well as some of the larger communities (Kitimat, Terrace and Prince Rupert) potentially affected by the RECAP. Once PNG determines the scope of the required facilities and reactivation process, PNG plans to commence consultation with those Indigenous Nations and communities that may be affected by the Reactivation Project. The determination of the parties affected will be made in concert with the BC Government and, in particular, the OGC staff. The engagement and consultation will continue through to construction and as appropriate, during the life of the facilities.

- 8.3.1 For any consultation that has taken place to date, please describe the position taken by the parties and identify any issues that have been raised.

Response:

As noted in the response to Question 8.3, PNG has engaged with the Department of Energy as well as the municipalities of Kitimat, Terrace and Prince Rupert. In each case, PNG has presented the potential benefits (jobs, tax revenue, lower PNG rates, spin off services, etc.) associated with the LNG projects which would potentially benefit these communities. In all cases, the responses have been positive and no issues have been raised by the parties.

In addition, as directed by the BCUC, PNG notes that it has notified the affected Indigenous Nations and communities of this Application and the RECAP process and has not received any feedback to date.

- 8.3.2 Please discuss if there are the risks to the Reactivation Project and PNG's ratepayers if an affected community and/or indigenous nation were to oppose part, or all, of the Reactivation Project.

Response:

Based on our engagement activities with communities and Indigenous Nations thus far, PNG does not anticipate any opposition to all or a part of the Reactivation Project. However, if some opposition occur during the engagement and consultation process for the RECAP facilities, PNG believes any issues can be resolved with a relatively small delay in the project timing.

PNG has excellent working relationships with Indigenous Nations that have traditional territories along its pipeline rights-of-way which is evidenced by PNG's ability to complete its operating, maintenance and capital projects without delays or opposition to these projects. Given the benefits to be realized by communities and Indigenous Nations, PNG expects support will be forthcoming for its Reactivation Project.

- 8.3.2.1 If so, please describe the risks and how they could be mitigated.

Response:

As noted in the response to Question 8.3.2, PNG does not believe that there will be opposition to the Reactivation Project. PNG will continue to engage with and consult the affected parties specific to the facilities that are required for the transportation service resulting from the RECAP. Having operated the PNG-West gas transmission system for the over 50 years in a safe and reliable manner, PNG has an established reputation and presence in the communities and will leverage this existing relationship to ensure that these relationships are maintained and enhanced during the Reactivation Process.

- 8.4 Please provide an updated timeline for the Reactivation Project.

Response:

Please see the response to Question 30.1 where PNG has provided timelines for the Moderate and High Volume scenarios.

**9.0 Reference: REACTIVATED CAPACITY ALLOCATION PROCESS
Exhibit B-1, Appendix A, p. 4
Bid document and bid form**

Page 4 of the draft RECAP Bid Document and Bid Form states:

Differences in Bid Values for firm transportation service and Bid Values for reservation capacity will likely reflect a marked advantage to parties with projects of greater certainty who are prepared to enter into firm TSAs. However, an investment grade party seeking reservation capacity and submitting a substantial Toll Premium has an opportunity to generate a higher Bid Value than a noninvestment grade party seeking firm transportation service with no Toll Premium.

- 9.1 Please discuss the circumstances under which PNG would accept a bid from a non-investment grade party, the risks associated with this and how PNG would propose to mitigate such a risk.

Response:

PNG's proposed GT&Cs provide that a non-investment grade party entering into a TSA must secure its obligations under the TSA by providing an approved letter of credit equal to 12 months of anticipated toll charges.

At the proposed \$1.00/GJ toll for firm service under RS80, 12 months of toll charges will generate sufficient revenue to cover such shipper's pro rata share of reactivation costs. As noted in the Application and as provided in the GT&Cs, non-investment grade shippers whose contracts spur the need for new facilities will also be required to provide additional credit support in respect of those new facilities as discussed in the response to Question 7.4.

PNG has proposed the credit requirements found in the draft GT&Cs so that its existing customers would never be worse off from PNG having entered into a TSA for service under RS 80.

C. TRANSPORTATION SERVICE AGREEMENT

**10.0 Reference: TRANSPORTATION SERVICE AGREEMENT
Exhibit B-1, Appendix B, Section 1.1, p. 2
Definitions**

The draft form TSA defines, “General Terms and Conditions” to mean “Transporter’s General Terms and Conditions – Industrial Transportation Service, as filed with or otherwise approved by the BCUC and in effect **from time** and initially to be in the form of the General Terms and Conditions attached hereto as Schedule “C”. [emphasis added]

10.1 Please clarify if the definition included in the preamble should be amended as follows:

“General Terms and Conditions” means Transporter’s General Terms and Conditions – Industrial Transportation Service, as filed with or otherwise approved by the BCUC and in effect from time to time and initially to be in the form of the General Terms and Conditions attached hereto as Schedule “C”

Response:

Yes, the definition should be amended to read; “....approved by the BCUC and in effect from time to time and initially...”.

The draft form TSA defines the Commencement Date to mean “the later of: (i) the first day after PNG has completed the Reactivation Project, as required to provide firm transportation service for the Shipper Contracted Capacity; or (ii) the Shipper Service Request Date.”

10.2 Please discuss any issues and risks if the completion date of the Reactivation Project is delayed beyond the Shipper Service Request date and how PNG plans to mitigate these issues/risks.

Response:

Within the draft TSA, there are no penalties to PNG if the Reactivation Project is delayed beyond the Shipper Service Request Date. However, it is in the best interest of PNG and the existing ratepayers that the Commencement Date start as soon as possible to maximize the transportation service revenue associated with the Reactivation Project.

**11.0 Reference: TRANSPORTATION SERVICE AGREEMENT
Exhibit B-1, Appendix B, p. 2, Sections 4.4, 4.5; Appendix I, p. 11
Conditions precedent**

- 11.1 Please elaborate on the reasons for the changes to the Conditions Precedent Section as compared to previously approved TSAs.

Response:

The previously approved TSAs did not include a “Conditions Precedent” section as the previously approved TSA was accompanied by a TRA that contained the equivalent conditions precedent. Per the RECAP Application, PNG believes it is in the public interest to allow potential new RS 80 customers with well advanced projects to commit directly to transportation service rather than to commit to an option on transportation service.

For this reason, the conditions precedent are required in the TSA. Since PNG will require BCUC approval of the shipper specific TSAs and CPCNs, OGC permits and other associated approvals (right-of-ways, etc.), it is prudent that PNG have the right to terminate the TSA as expeditiously as possible if it is not be able to satisfy any of these conditions.

Section 4.4 and 4.5 of the draft form TSA relates to Conditions Precedent. Section 4.4 (a) (i) reads as follows:

- a) Transporter may advance, in its reasonable discretion, the Reactivation Project from the Effective Date, but shall have no obligation to complete the Reactivation Project, or perform the Service, until satisfaction, or waiver in Transporter's sole discretion, of the conditions precedent set out below:
 - (i) approval by the BCUC of the terms of this Agreement, on terms, including conditions, if any, satisfactory to Transporter, acting reasonably, on or before [date TBD];
 - (ii) receipt by Transporter of all Permits on terms acceptable to Transporter, acting reasonably, on or before [date TBD]; and
 - (iii) execution by Transporter, in its sole discretion, of all necessary agreements, including right-of-way and related land access agreements, required for construction and operation of the Reactivation Project, on terms acceptable to Transporter, acting reasonably, on or before [date TBD].

Page 11 of Appendix I sets out an indicative timeline for the Reactivation Project.

- 11.2 Please discuss how and when the dates to be inserted in section 4.4 will be determined.

Response:

Once the RECAP process is complete, PNG will determine the scope of the Reactivation Project required to meet the associated volumes, delivery locations and service request dates. Based on consultations with the various regulators and associated parties, as well as PNG's engineering and regulatory experience, PNG will determine a reasonable timeframe that is achievable and meets the needs of both PNG and the specific Shipper to the extent reasonably possible.

- 11.3 Please discuss if PNG intends on consulting with the British Columbia Utilities Commission (BCUC) regarding the date by which approval of any TSAs is required, pursuant to section 4.4 (a) (i) of the draft form TRA.

Response:

PNG submits that the reference to “TRA” in this question is in error and that the reference should be to “TSA”.

Yes, PNG intends to consult with the BCUC regarding the date by which approval of any TSAs is required prior to execution of any TSA under the RECAP process. PNG’s intent of filing the draft TSA within this Application is to reduce the timeline for approval of the TSA as well as the likelihood of a specific TSA not being approved by the BCUC.

- 11.4 Please discuss if there would be any issues with excluding the date in Condition Precedent (i) in Section 4.4 (a) of the draft form TRA.

Response:

PNG submits that the reference to “TRA” in this question is in error and that the reference should be to “TSA”.

Approval of the TSA by a specific date is required to give the condition precedent a time limit. If there is no date specified, PNG may not be able to notify the shipper of a failure to obtain approval of the TSA, leaving the shipper without the certainty it requires to develop its project.

Page 2 of the draft form TSA states that “Permits” means “all licences, permits, approvals and authorizations granted or issued by any Authorities as are necessary or may be desirable to construct, own, commission, and operate the Reactivation Project, and perform the Service;”

11.5 Please discuss the permits that will be required for the Reactivation Project and their associated lead times.

Response:

Following the results of the RECAP, PNG will develop a detailed permitting plan that corresponds to the actual infrastructure that will be required. As previously noted, the specifics of the infrastructure needs will impact the permitting approach. The following is a list of licences, permits, approvals and authorizations that may be sought in the first 1.5 years after the TSA’s are executed:

- BCSA – boiler registration and operating permit
- BCSA – pressure vessel registration and operating permit
- BCUC (CPCN)
- Building permits
- Department of Fisheries & Oceans
- Electrical permits
- Environmental permits and monitoring reports
- Highway permits (municipal/provincial/federal)
- Land use and rights of way
- Municipal permits
- OGC – notice of intent (NOI)
- OGC – pipeline permits and amendments
- OGC – pipeline/facility application package
- OGC – notice of construction start (NCS)
- OGC – notice of pressure test (NPT)
- OGC – leave to open (LTO)
- OGC – as-built notice (within 90 days of LTO)
- OGC Section 11
- Archeological Reviews and Permits
- Agricultural (AIA) reviews and permits
- Master License to Cut

11.5.1 Please explain whether the timeline on page 11 of Appendix I takes into consideration all the permits required for the Reactivation Project.

Response:

Yes, PNG has considered permitting as part of the timelines presented in the Application.

11.5.2 When does PNG plan to apply for these permits, and when does PNG anticipate that these permits might be granted? Please discuss.

Response:

Other than as proposed in the Application for limited expenditures on engineering, permitting and consultation processes for the initial works of the Reactivation Project, PNG plans to initiate permitting after firm TSAs are executed. PNG expects to commence all remaining work following a successful auction in the first quarter of 2020.

11.5.3 If any permit approvals are delayed or denied, please describe the risks to PNG and its existing ratepayers and how PNG plans to mitigate these risks.

Response:

PNG has provided the TSA that would be executed by the new customers in this Application, and under the TSA, PNG's existing ratepayers are not exposed to schedule risk on PNG's capital projects for the reactivation. If permit approvals are delayed, it would result in a delay in the Commercial Operation Date (COD) and a corresponding delay in revenues being received from new customers. If permits are denied and PNG must terminate the TSA, the draft form TSA provides that PNG, not the Shipper, shall be responsible for all costs incurred by PNG with respect to the Reactivation Project, which costs PNG would intend to recover from existing customers subject to requisite approvals from the BCUC. See also the response to Question 11.8. In practice, PNG would likely work to rectify the deficiency in the permit application, and not expose the existing ratepayers to risks.

11.6 Please confirm, or explain otherwise, that Permits would include a CPCN approval, if required.

Response:

Confirmed. PNG agrees that in this context and within the definition of "Permits", the approval of a CPCN would be considered a Permit.

11.6.1 If confirmed, please discuss if PNG intends on consulting with the BCUC regarding the date by which approval of a CPCN is required.

Response:

Confirmed. Prior to execution of a TSA under the RECAP process, PNG intends to consult with the BCUC regarding the date by which approval of a CPCN is required.

11.6.2 Please discuss if there would be any issues with excluding the date in Condition Precedent (ii) in section 4.4 (a) of the draft form TRA.

Response:

PNG submits that the reference to “TRA” in this question is in error and that the reference should be to “TSA”.

PNG notes that approval of the Permits, including CPCN approval, by a specific date is required to give the condition precedent a time limit. If there is no date specified, PNG may not be able to notify the shipper of a failure to obtain the Permits, leaving the shipper without the certainty it requires to develop its project.

11.7 What are PNG’s expected timelines to achieve the Conditions Precedent?

Response:

As indicated in the response to Question 11.2, through its consultations and general experience, PNG will endeavour to determine a reasonable timeline based on the transportation volumes requested, delivery point(s), and service request dates that will work for both PNG and the respective Shippers.

11.7.1 Please discuss if there are any risks associated with delays in achieving the Conditions Precedent and how PNG intends on mitigating these risks.

Response:

The major risk to PNG and its customers associated with delays in achieving the Conditions Precedent will be the follow-on delays in meeting the shipper's requested in-service date which in turn delays the benefits to PNG's existing customers of the benefits expected to be realized under the RECAP process. However, if delays in achieving the Conditions Precedent create such uncertainty that PNG cannot, in good faith, waive the Condition Precedent at the date at which it was required to be met, there is a risk that PNG will have to terminate the TSA and the expected benefits therefrom will not be realized.

PNG intends to mitigate the risks associated with delays in receiving approvals by;

1. Obtaining approval of the draft TSA via this Application, which should streamline the approvals of the shipper-specific TSAs.
2. Consult with the BCUC and the OGC prior to submission of CPCN and facility permit applications to confirm the information required in advance of completing the applications which should expedite the application review process.
3. Engage and consult with the various stakeholders in advance of the regulatory applications to understand their interests and to resolve any issues.

Section 4.5 of the draft form TSA relates to Failure to Achieve Conditions Precedent and states that, in the event that the Conditions Precedent outlined in Section 4.4 of the draft form TRA is not satisfied or waived, "...as the sole and exclusive remedy of Shipper therefor, Transporter shall be responsible for all costs incurred by Transporter with respect to the Reactivation Project, which costs Transporter would intend to recover from existing customers subject to requisite approvals from the BCUC, and there shall be no further obligations between the Parties."

- 11.8 Please identify when PNG would expect to seek approval to recover any costs associated with the Reactivation Project from existing customers, pursuant to section 4.5 of the TRA draft form.

Response:

PNG submits that the reference to "TRA" in this question is in error and that the reference should be to "TSA".

Following the termination of any TSA under the RECAP process, PNG would seek approval to record the costs of the Reactivation Project associated with the terminated TSA in the Large Volume Industrial Deferral Account (LVIDA) in the next revenue requirement application following the termination of a TSA.

- 11.9 Please explain why PNG considers it appropriate to recover any costs incurred in relation to the Reactivation Project that are incurred before the Conditions Precedents are satisfied from its existing customers, pursuant to section 4.5 of the draft form TRA.

Response:

PNG submits that the reference to "TRA" in this question is in error and that the reference should be to "TSA".

PNG is undertaking the RECAP process as a utility project which is expected to provide significant benefits to its existing customers. As long as PNG has acted prudently, it would be unreasonable to expect PNG to absorb the Reactivation Project costs particularly given that its return on equity has not been set at a level which would compensate PNG for such risks. Further, placing the risk of cost recovery on PNG would simply discourage PNG from undertaking the Reactivation Project and therefore discourage PNG from seeking projects and opportunities to provide lower rates to its existing customers.

- 11.10 Does PNG have a potential range of costs that it may seek to recover from existing ratepayers under section 4.5 of the draft form TSA? If yes, please provide details. If not, please explain why not.

Response:

First, it is PNG's reasonable expectation that it will not have to seek recovery of any costs under section 4.5 of the draft form of TSA as PNG has no reason to believe that it will not be able to satisfy the conditions precedent that have been agreed to with the Shippers under the executed TSAs. Second, it should be noted that PNG does not expect to have incurred any construction costs associated with the Reactivation Project at the time that it would have terminated a TSA for failure to meet a condition precedent as both the CPCN and other Permits will be required prior to the commencement of construction.

PNG will manage its cost risk exposure under the TSA until the conditions precedent are satisfied, incurring only those costs that are required to be incurred to secure the TSA approval and the Permits. For example, PNG would only commence the early stages of the project development work until the TSA(s) have been approved by the BCUC. However, the requirements for CPCN applications and OGC permit applications are such that a significant portion of the FEED work will need to be completed prior to the submission of these applications. It is important that PNG has sufficient work completed and adequate resources to comply with the BCUC's CPCN Guidelines, while also seizing the opportunity to deliver benefits to PNG customers without delays.

PNG expects there may be circumstances where a Shipper wishes PNG to achieve an accelerated in-service date which could not be achieved without PNG taking on additional risk exposure by accelerating certain tasks (e.g. commencing FEED prior to the TSA approval). In these circumstances PNG will require the Shipper to provide a backstop for the accelerated development and construction costs.

As requested in the Application, PNG has proposed to initiate limited development of the Reactivation Project prior to execution of TSAs in order to meet expected timelines of certain project developers. In the scenario where either a Permit is not forthcoming or PNG is not able to arrange the necessary rights-of-way or land access agreements and PNG must cancel all of the TSAs and TRAs that have been executed, PNG expects it will have incurred up \$1.0 Million in expenses that it will seek to recover from its ratepayers. If projects have delayed CODs or prospective shippers do not sign TSAs following the RECAP, PNG submits that the work will be used and useful for several years for future projects and reactivation scenarios.

**12.0 Reference: TRANSPORTATION SERVICE AGREEMENT
Exhibit B-1, Appendix B, Section 6.1
Confidentiality**

- 12.1 Please elaborate on the reasons for the additions to the Confidentiality section of the draft form TSA, as compared to previously approved TSAs.

Response:

Due to the competitive nature of the business that the Shippers are typically engaged in, confidentiality tends to be a standard requirement within a commercial contract. The previously approved TSA was an appendix to a TRA which contained similar confidentiality provisions to the draft form TSA under the RECAP process. Since PNG anticipates the possibility of entering directly into TSAs under the RECAP process, without an associated TRA, it was deemed necessary to include the confidentiality provisions in the draft form TSA.

Section 6.1 of the draft form TRA addresses No Disclosure Without Consent and states that the no disclosure period is as follows:

...at any time during the period commencing on the Effective Date and expiring on the 5th anniversary of the Effective Date in connection with the transaction contemplated herein and clearly designated at the time of such communications as confidential or proprietary, without the Non-disclosing Party's prior written consent to such disclosure.

- 12.2 Please clarify if the toll premiums will be held confidential in accordance with the terms of Section 6.1 of the draft form TRA or if this information will be publicly available.

Response:

PNG submits that the reference to "TRA" in this question is in error and that the reference should be to "TSA".

PNG will keep the toll premiums confidential for the benefit of the shippers that will be developing their projects in a competitive market.

- 12.2.1 If toll premiums become public and there are a variety of different toll premiums for different shippers taking the same or similar service under Rate Schedule (RS) 80, please discuss if there are any issues or risk associated with this and how PNG proposes to mitigate these issues/risks.

Response:

The toll premium during the RECAP bidding process is meant to enhance the value of the potential Shipper's bid. If the toll premium becomes public and there are a variety of different toll premiums for different shippers taking the same or similar service, it should be recognized by the participating parties that these toll premiums were bid on a competitive and voluntary basis.

**13.0 Reference: TRANSPORTATION SERVICE AGREEMENT
Exhibit B-1, Appendix B, Section 8.2, p. 10; Appendix E, Article 19.1, p. 19
Permitted assignments**

Section 8.2 of the draft TSA states:

8.2 Permitted Assignments -

(a) By Transporter - Transporter, without obtaining any approvals or consents from Shipper, shall have the right to assign its rights and obligations, or parts thereof, under this Agreement to any Person, provided that such Person owns and operates the Pipeline and agrees in writing to be bound by all of the terms and conditions of this Agreement.

(b) By Shipper - Notwithstanding the provisions of Section 8.1, Shipper may assign all, but not less than all, of its rights and obligations under this Agreement to an Affiliate, provided however, Shipper shall not be released of its obligations under this Agreement, unless: (i) prior to such assignment such Affiliate enters into an agreement directly with the Transporter under this Agreement under which such Affiliate agrees to assume, perform and observe the Shipper's obligations under this Agreement; (ii) such Affiliate is at least equal to the creditworthiness of the Shipper, in Transporter's reasonable determination; and (iii) any Credit Support or

Guarantee currently provided by or on behalf of the Shipper is also provided by or on behalf of such Affiliate.

Article 19.1 of the General Terms and Conditions states:

19.1 Each Service Agreement that adopts these General Terms and Conditions shall also agree to or have articles such that:

[...]

(b) Either party may assign its rights under a Service Agreement subject to the written consent of the nonassigning party, such consent not to be unreasonably withheld.

- 13.1 Will the Transporter and/or Shipper be required to seek approval from the BCUC prior to assigning rights under Section 8.2 of the TSA and/or Article 19.1 of the General Terms and Conditions? If not, why not?

Response:

PNG submits that BCUC approval of the assignment of a TSA by either the Shipper or by PNG is not necessary for protection of the public interest and would create unwarranted regulatory burden. For assignment by the Shipper under Section 8.2 of the TSA, there will be no adverse changes to PNG's credit exposure to the Shipper as the assignee must be at least as creditworthy as the assignor or the assignor will not be released from its obligations under the TSA following the assignment. Similarly, for assignments of the Shipper's interest to a third party, under Section 8.1 of the TSA, in order for the assigning Shipper to be released from its obligations under the TSA, the assignee must be at least as creditworthy as the assignor.

For assignment by PNG, the assignee must be the owner of the Pipeline which in turns means there would be a transfer of PNG's Pipeline to the assignee. The *Utilities Commission Act* does not allow the transfer by PNG of its Pipeline to another party without the consent of the BCUC. PNG submits that, de facto, the BCUC already has approval power of any assignment by PNG and further requirements would be unnecessary and duplicative.

- 14.0 Reference: TRANSPORTATION SERVICE AGREEMENT
Exhibit B-1, Appendix B, Article 9.2, p. 12; Appendix D, Article 8.2, p. 9;
Appendix E, Schedule A, Section 15, p. 23.
Dispute resolution**

Article 9.2 of the Draft TSA, Article 8.2 of the Draft TRA, and section 15 of Schedule A of the General Terms and Conditions (GTC) essentially state that all disputes arising out of the Draft TSA, Draft TRA and Guarantees shall be resolved by legal proceedings through the British Columbia courts system, and that such courts shall be the exclusive forum for resolving any dispute or controversy.

- 14.1 Please discuss why PNG has not included any arbitration and alternate dispute resolution processes in the Draft TSA, Draft TRA and Draft GTCs.

Response:

After reviewing the dispute resolution options, PNG concluded that a single approach to dispute resolution was best to allow for a simple and efficient approach. PNG decided on the BC court system, in lieu of arbitration or other dispute resolution option, since the court system has a well-defined procedure and decision process that is open and fair and beyond question. PNG wishes to minimize disputes about the process to settle disputes.

D. TRANSPORTATION RESERVATION AGREEMENT

**15.0 Reference: TRANSPORTATION RESERVATION AGREEMENT
Exhibit B-1, p. 14
Reservation fee**

On page 14 of the Application, PNG states "...TRAs will be required to make a cash payment of the first year's reservation fee. The reservation fee is a minimum of \$25,000 per MMSCFD and will increase by a factor linked to the Toll Premium submitted."

- 15.1 Please discuss how PNG determined that the reservation fee of a minimum of \$25,000 per MMSCFD is appropriate.

Response:

PNG relied on its historically negotiated reservation fees for determination of the \$25,000 minimum value. The reservation fees payable by LNG Partners and EDFT under their agreements with PNG and as approved by the BCUC, were approximately \$25,000 per MMSCFD per annum (i.e. those contracts provided for reservation of approximately 80 MMSCFD of capacity for fees of either \$2 million per annum or \$1 million for each six month period). Also, the reservation fee negotiated between PNG and Triton was equal to \$25,000 per MMSCFD per annum, although the application to the BCUC for approval of that agreement was withdrawn before being adjudicated.

Further, while not based on any quantitative analysis, PNG is confident that the proposed minimum reservation fee will generate revenues in excess of PNG's costs related to entering into any TRAs, generating a net benefit for PNG's existing customers. In this regard, reservation fees under previous agreements have generated pre-tax net revenues of \$10.4 million and neither the BCUC nor interveners have ever suggested that this was not sufficient to cover PNG's costs in respect of the agreements.

PNG also believes that the level of the minimum reservation fee is sufficient to eliminate 'tire-kickers' from the process of reserving capacity and that this is a desirable aspect of the minimum reservation fee. That is, PNG submits that only developers with viable potential projects will be prepared to pay the minimum reservation fee.

- 15.1.1 Please clarify how the reservation fee will increase by a factor linked to the toll premium.

Response:

The reservation fee will increase by 50,000 times the toll premium. For example a \$0.10 toll premium will increase the reservation fee by $\$0.10 \times 50,000 = \$5,000$ per MMSCFD.

**16.0 Reference: TRANSPORTATION RESERVATION AGREEMENT
Exhibit B-1, Appendix D, Article 3.3, p. 4
Option period**

Article 3.3 of the Draft TRA states:

3.3 Option Period – Subject to early termination of this Agreement in accordance with its terms, the “Option Period” shall commence on the Effective Date and expire on the date that is twelve (12) months following the Effective Date; provided that, Shipper may elect to extend the Option Period by extension periods of six months each, provided further that the relevant extension period expires by a date that is not less than twenty-four (24) months prior to the Shipper Service Request Date, by notifying Transporter of such extension prior to expiration of the initial Option Period, or each permitted six months extension thereof, as applicable, and paying Transporter of \$ a fee equal to half of the Initial Reservation Fee for each such permitted six-months extension (each a “Reservation Extension Fee”).

- 16.1 Please clarify if the phrase taken from Section 3.3 should be re-worded as follows:
“and paying Transporter of \$ a fee equal to half of the Initial Reservation Fee.”

Response:

Yes, Article 3.3 should be re-worded to read; “...and paying Transporter a fee equal to half of the Initial Reservation Fee...”.

E. GENERAL TERMS AND CONDITIONS

**17.0 Reference: GENERAL TERMS AND CONDITIONS
Exhibit B-1, Appendix B; Appendix E
Applicability**

- 17.1 Please clarify if the GTCs for Industrial Transportation Service apply to any current or future PNG customers other than those taking service under Rate Schedule 80 (RS 80) and if any changes to the GTCs proposed in the Application will be applicable to those customers.

Response:

For administrative simplicity and consistency among customers, it would be PNG's long term goal to have a single set of GTCs apply to all industrial transportation service customers, not just those taking service under RS 80. However, PNG's current large industrial transportation contracts have been individually negotiated with each customer and these contracts embody the GTCs applicable to that customer. PNG does not have any contractual right to unilaterally impose new GTCs under these agreements and, therefore, there will be no immediate change to the GTCs that apply to existing customers. For PNG's small industrial interruptible transportation customers, PNG has an approved single set of GTCs which are incorporated by reference into each small industrial interruptible transportation contract.

Upon approval of the GTCs for RS 80 service, PNG suggests that it should approach its existing larger industrial transportation service customers to see if they would agree to amend their contracts and adopt the RS 80 GTCs. However, in PNG's experience, some customers would be unwilling to amend their contracts. PNG would also undertake to review the GTCs applicable to small industrial interruptible transportation customers to see if those could be consolidated with the GTCs for RS 80 service without material adverse impact on PNG or its customers.

**18.0 Reference: GENERAL TERMS AND CONDITIONS
Exhibit B-1, Appendix B; Appendix E
Termination**

Section 4.1 of the draft form TRA (Appendix B) defines the Term as follows:

The term of this Agreement shall be from the Effective Date until the end of the Primary Term, plus any extension effected pursuant to Section 4.2, unless this Agreement is terminated earlier in accordance with Section 4.5 or the General Terms and Conditions.

The GTCs for Industrial Transportation Service (Appendix E) define the Early Termination Charge as follows:

An amount equal to the net present value of all future Demand Charges multiplied by the Shipper's Contracted Capacity from the date of termination until the end of the Primary Term using a discount rate equal to the Transporter's Weighted Average Cost of Capital as at the date of termination

Article 16 of the GTCs include Article 16 related to Default and Termination.

18.1 Please discuss why the termination provisions are included in the GTCs rather than the draft form TRA and identify any risks associated with this.

Response:

PNG submits that the reference to "TRA" in this question is in error and that the reference should be to "TSA".

PNG has included the termination provisions found in Article 16 of the GTCs in the GTCs rather than in the TSA as these provisions are proposed to apply consistently to all TSAs. PNG has generally attempted to keep all operative contractual provisions which are intended to apply consistently to all RS 80 TSAs within the GTCs. PNG believes this is an appropriate administrative practice as it reduces the chance of errors within a particular TSA and ensures the greatest possible consistency across the contractual provisions applicable to each RS 80 shipper. PNG does not see how this approach could introduce any risk as the GTCs are incorporated into each TSA by reference.

- 18.2 Please clarify the difference between a Shipper Default and a Critical Shipper Default under the GTCs, provide an example of each and summarize the remedies that PNG would have under each scenario.

Response:

The GTCs define a Critical Shipper Default as one of three events: (i) non-payment of amounts due under the TSA by the Shipper after 30 business days following notice to the Shipper by PNG; (ii) a failure by the Shipper to meet the credit requirements under Article 17 of the GTCs; and, (iii) a declaration of bankruptcy by the Shipper or its Guarantor. It should be noted that the Critical Shipper Defaults are all related to non-payment of tolls or the risk of future non-payment of tolls under the TSA.

A Shipper Default, on the other hand, arises when the Shipper is not in compliance with its obligations under the TSA and GTCs and failure to comply with these obligations would not give rise to a Critical Shipper Default. PNG notes that there are not many Shipper obligations under the TSA and GTCs that are not related to payment of tolls and that don't have their own remedy embodied within the GTCs. However, there are a few and one example is section 10.1 of the GTCs where a Shipper Default would occur if the Shipper were to provide its Gas to PNG at a pressure of less than 450 psi gauge.

In the event of a Critical Shipper Default, PNG has the right to terminate the TSA with the Early Termination Charge becoming immediately due and payable by the Shipper.

In the event of a Shipper Default, PNG can give the Shipper 60 days written notice that it intends to terminate the TSA and collect the Early Termination Charge. However, if the Shipper cures the Shipper Default within that 60 day notice period, the TSA will not terminate and the Early Termination Charge will not be payable by the Shipper.

**19.0 Reference: GENERAL TERMS AND CONDITIONS
Exhibit B-1, Appendix E, p. 2, Section 17.2, 17.6, 17.7, 17.8; Exhibit B-1, p.
18
Credit requirements**

Section 17.2 of the GTCs states:

Shipper understands and agrees that at any time after the Effective Date, Shipper or, if applicable, its Guarantor ceases to be Creditworthy, Shipper shall provide to Transporter the requisite additional Credit Support within five (5) Business Days of the Shipper or, if applicable its Guarantor, ceasing to be Creditworthy.

On page 18 of the Application, PNG states:

PNG has made a few modifications to the previously approved GTCs. Many of the changes have been made to provide clarity or are administrative in nature. PNG provides a summary of key changes below.

- i. Article 1 – Definition of Credit Support: this has been simplified to require an approved Letter of Credit for an amount equal to 3 months of the Shipper’s anticipated monthly toll charges as credit support in the event that the Shipper has a Minimum Acceptable Rating or 12 months in the event that the Shipper does not have the Minimum Acceptable Rating.
- ii. Article 1 – Definition of Minimum Acceptable Rating – has been modified from “Baa2” to “Baa3” for Moody’s ratings and from “BBB” to “BBB(low)” for DBRS ratings to reflect a lower acceptable credit rating.
- iii. Article 1 – Definition of Transporter’s Weighted Average Cost of Capital (WACC) – the formula has been adjusted from an after-tax WACC to a pre-tax WACC to correct for the proper discount rate to be used in determining the Early Termination Charge.

- 19.1 Please explain the rationale for reducing the minimum acceptable rating and credit support requirements in the GTCs.

Response:

The RECAP process is largely expected to result in the increased utilization of existing facilities as opposed to the development of new facilities. PNG therefore determined that the Letter of Credit requirements needed to be reduced in order to attract as much interest in the RECAP process as possible. After the Letter of Credit requirement was established, PNG concluded that it would be strongly preferable to have shippers provide a guarantee from a BBB- party along with a 30-day Letter of Credit rather than to provide only a 12-month Letter of Credit. In other words, PNG wanted to provide an incentive for shippers that had access to a guarantee from a BBB- rated party, to provide that guarantee.

- 19.2 Please discuss if there are any risks associated with a party that is not Creditworthy providing 12 months of monthly toll charges as credit support, for an agreement that spans a minimum of 20 years. Further, please explain how PNG proposes to mitigate these risks.

Response:

While PNG prefers that parties are Creditworthy, PNG recognized that it needed to attract as much interest in the RECAP process as possible. It was determined that a 12-month Letter of Credit would materially cover capital costs associated with the RECAP process, so that customers would not be subject to material risk due to default of shippers prior to expiry of the 20-year agreement.

- 19.3 Please discuss how PNG will ensure that existing ratepayers are protected from any increased credit risk exposure due to changes highlighted in the preamble above.

Response:

PNG will ensure that required Credit Support is maintained over the life of the contract. As noted in response to Question 19.2, the Credit Support was set to ensure that existing ratepayers would be protected from any material credit risk exposure.

- 19.4 Please discuss the rationale for changing the definition of the Transporter's Weighted Average Cost of Capital (WACC) from after-tax WACC to a pre-tax WACC and implications of the same.

Response:

Upon review of the provision in the previously approved GT&Cs, PNG determined that since the discounting was being applied to pre-tax revenues, it was correct financial practice to also utilize a pre-tax discount rate.

Section 17.6 of the GTCs states:

Shipper and, if applicable, Guarantor shall furnish to Transporter, as soon as available, and, in any event, within one hundred and twenty (120) days after the end of each fiscal year of both of Shipper and guarantor, its audited consolidated financial statements setting forth in comparative form the corresponding figures of the preceding fiscal year together with an auditor's report thereon. In the event no audited consolidated financial statements are available, Shipper and, if applicable, Guarantor shall furnish unaudited consolidated financial statements certified by an authorized officer of Shipper and, if applicable, Guarantor.

- 19.5 Please discuss if there are any risks associated with accepting unaudited financial statements under Section 17.6 of the GTCs and how PNG proposes to mitigate these risks.

Response:

Accepting unaudited financial statements could create additional risk of PNG being delivered financial statements that materially misstate the Shipper or Shipper's Guarantor's financial position. Given the relatively large magnitude of the operations of each 10+ MMSCFD shipper, PNG believes it is appropriate to require audited financial statements on an annual basis and proposes to amend the draft GTCs to remove the provision allowing the option for delivery of unaudited financial statements.

Section 17.7 of the GTCs states:

Shipper and, if applicable, Shipper's Guarantor shall give immediate notice to Transporter of the occurrence of any of the following events: (i) a credit rating downgrade; (ii) a negative change in credit outlook; or (iii) notification from a recognized rating agency that Shipper or Shipper's Guarantor will be placed on credit watch status. For the purposes of this Section 17.7, "change" shall include a pending or threatened change

- 19.6 Please describe any activities PNG will undertake itself to monitor the creditworthiness of the Shippers.

Response:

On an annual basis PNG will request the annual ratings reports for Shippers. PNG will also ensure on a quarterly basis that rating agencies have not downgraded any of the Shippers. PNG also plans to review the annual financial statements of Shippers, which will be likely be audited as part of the Shippers rating agency requirements.

Section 17.8 of the revised GTCs reads as follows:

Notwithstanding the provisions of this Article 17, the credit requirements may be subject to more extensive conditions to support the development and construction, by Transporter, of required additional facilities for Transporter to meet its obligations to provide Service to Shipper under the Service Agreement. Such more extensive credit requirements, if any, will be specified by Transporter to Shipper following either agreement between Shipper and Transporter, or as directed by the BCUC. Such credit requirements may include the requirement for an Approved Letter of Credit not to exceed Shipper's pro rata share of the cost of the required additional facilities.

- 19.7 Please discuss the specific circumstances under which PNG would require an Approved Letter of Credit up to the amount of the Shipper's pro rata share of the cost of the required additional facilities.

Response:

PNG will require an Approved Letter of Credit up to the amount of the Shipper's pro rata share of the cost of the required additional facilities whenever the shipper is non-investment grade and a 12-month LC would not be sufficient for PNG to recover its capital costs in the event of payment default by the shipper. For shippers that are investment grade, PNG will consider requiring credit support beyond the base level 3-month Letter of Credit that must be posted when no additional facilities are required.

- 19.8 Section 17.8 of the revised GTCs state that the more extensive conditions may be “as directed by the BCUC.” Please discuss if there are any issues associated with the BCUC directing the parties to provide an Approved Letter of Credit up to the amount of the pro rata share of the cost of the required facilities. Specifically, please discuss if PNG expects that this would result in any impact on the outcome of the RECAP.

Response:

PNG included this provision in the GTCs in the event it could not reach agreement with a prospective new shipper on the necessary additional credit support when new facilities are required. In this circumstance, PNG believed it would be reasonable to allow the shipper to apply to the BCUC in order to make its case with respect to the risks that would be borne by PNG’s ratepayers. While PNG would hope that this would not have any impact on the outcome of the RECAP, PNG wants to ensure that the BCUC is satisfied that credit support requested will not adversely impact ratepayers.

Page 2 of the GTCs, states:

“**Credit Support**” means an Approved Letter of Credit for an amount equal to twelve (12), or if the Shipper or its Guarantor is Creditworthy three (3), times the Shipper’s anticipated monthly toll charges, as determined by Transporter in its reasonable discretion, **or alternate forms of credit enhancement**, determined by Transporter in its sole discretion, providing at least an equivalent level of security to Transporter hereunder; [emphasis added]

- 19.9 Please discuss what other alternative forms of credit enhancement can be considered as equivalent level of security as highlighted in the preamble above.

Response:

PNG is not currently aware of what other alternative forms of credit enhancement might be available, until other alternatives are proposed by Shippers. An appropriate amount of cash on deposit would likely be equivalent to a Letter of Credit, although it is unlikely that this alternative would be preferable to a Letter of Credit to a Shipper.

- 19.10 Please explain under what conditions will PNG accept alternative forms of credit support/enhancement from the Shippers or its Guarantor.

Response:

PNG is unable to anticipate the conditions under which alternative forms of credit support might be acceptable and expects that it would depend on the unique circumstances applicable to a particular shipper. PNG believes that providing some flexibility in this regard is a reasonable approach as long as PNG and its ratepayers are not subject to additional risks.

F. NEW LARGE VOLUME INDUSTRIAL TRANSPORTATION RATE

**20.0 Reference: RATE SCHEDULE 80
Exhibit B-1, p. 20; Appendix G
Rate setting methodology**

On page 20 of its Application PNG submits that:

...fixing the initial rate for a defined term provides Rate Schedule 80 customers a fair toll for service, regardless of their commencement date. This approach will minimize any advantage or disadvantage related to the timing of a bidder's project. Under PNG's current methodology of allocating revenue deficits and surpluses on the basis of normalized margins, not fixing Rate Schedule 80 during the period described could result in an unfair outcome by allocating a portion of revenues from new RECAP TSA and thereby reducing the margin requirements from shippers in this customer classification.

- 20.1 Please elaborate on why PNG considers it appropriate to minimize any advantage or disadvantage related to the timing of a bidder's project, considering that PNG's rates for other existing or new customers may increase or decrease during the same timeframe.

Response:

As noted in response to Question 6.2, PNG expects that rates to existing customers will be lower, relative to where they would otherwise be set, as the new TSAs under RS 80 go into service. This relative reduction in rates is expected to increase as the volume of reactivation capacity that goes into service increases. As a result, and given the expected significant downward impact on existing rates, if a substantial portion of the reactivation capacity is contracted, PNG believes that it is reasonable to expect that if the RS 80 rate was rolled-in prior to all TSAs under RS 80 being in service, RS 80 shippers with later commencement dates would realize tolls that are under \$1.00/GJ.

This outcome would not only provide a benefit to the shippers with later commencement dates (as the earlier RS 80 shippers would have paid higher rates in the early years of their projects), but the benefits to existing customers would also be reduced as the tolls paid by the RS 80 shippers would be under \$1.00/GJ. Therefore, PNG considers it appropriate to minimize any advantage or disadvantage related to the timing of a bidder's project by fixing the initial rate until all projects have come into service.

- 20.2 Given PNG's current rate setting methodology described above, please describe how the rate benefits resulting from the RECAP process will impact different classes of service, depending on their relative margins.

Response:

As noted in the preamble, PNG expects that the rate benefits will be reflected in the revenue requirement applications and PNG will allocate these benefits using the current methodology of allocation based on normalized margins and impact the different classes of service accordingly.

- 20.3 Please elaborate on how not fixing RS 80 (Appendix G) before the last service commencement date may result in an unfair outcome and provide an illustrative example.

Response:

Please see the response to Question 20.1 addressing the matter of why not fixing the RS80 before the last service commencement date may result in an unfair outcome to RS 80 customers and to existing ratepayers.

Please consider the following simple illustrative example:

Assumptions:

- Year 1 New RS80 customer A with revenues of \$5 million with a fixed toll of \$1.00/GJ for year 1 and then rolled-in for Year 2
- Year 2 New RS80 customer B with revenues of \$10 million with a fixed toll of \$1.00/GJ in Year 2 and then rolled-in for Year 3
- Year 3 New RS80 customer C with revenues of \$20 million with a fixed toll of \$1.00/GJ in Year 3 and then rolled-in for Year 4
- Revenue Requirement in Year 1 is \$2 million prior to recognition of new RS 80 customer A revenues of \$5 million.
- Revenue Requirement in Year 2 is \$3 million prior to recognition of new RS80 customer B revenues of \$10 million.
- Revenue Requirement in Year 3 is \$4 million prior to recognition of new RS80 customer C revenues of \$20 million.

Results when not fixing the RS 80 rate before the last service commencement date:

- Year 1 Revenue Requirement would result in a Net Revenue Sufficiency of \$3 million.
 - RS 80 Customer A toll would be at the fixed \$1.00/GJ
 - Existing customers would share in the \$3 million revenue sufficiency

- Year 2 Revenue Requirement would result in a Net Revenue Sufficiency of \$7 million.
 - RS 80 Customer B toll would be at the fixed \$1.00/GJ toll
 - Previous RS 80 Customer A as well as the existing customers would all share in the \$7 million revenue sufficiency.
- Year 3 Revenue Requirement would result in a Net Revenue Sufficiency of \$16 million.
 - RS 80 Customer C toll would be at the fixed \$1.00/GJ toll
 - Previous RS 80 Customer A and Customer B as well as the existing customers would all share in the \$16 million revenue sufficiency.

Results when fixing the RS 80 rate until after the last service commencement date:

- Year 1 Revenue Requirement would result in a Net Revenue Sufficiency of \$3 million.
 - RS 80 Customer A toll would be at the fixed \$1.00/GJ
 - Existing customers would share in the \$3 million revenue sufficiency
- Year 2 Revenue Requirement would result in a Net Revenue Sufficiency of \$7 million.
 - RS 80 Customer B toll would be at the fixed \$1.00/GJ toll
 - RS 80 Customer A toll would be at the fixed \$1.00/GJ toll
 - Existing customers only would share in the \$7 million revenue sufficiency.
- Year 3 Revenue Requirement would result in a Net Revenue Sufficiency of \$16 million.
 - RS 80 Customer C toll would be at the fixed \$1.00/GJ toll
 - RS 80 Customer B toll would be at the fixed \$1.00/GJ toll
 - RS 80 Customer A toll would be at the fixed \$1.00/GJ toll
 - Existing customers only would share in the \$16 million revenue sufficiency.

- 20.4 The proposed RS 80 (Appendix G) does not include a fixed charge. Please discuss why PNG has not proposed a fixed charge for RS 80.

Response:

The toll for the RS 80 service is a demand charge that applies to the contracted quantity under the TSA regardless of the volume actually transported under the TSA. Therefore, the substantial majority of the payments made by shippers under the TSAs will comprise fixed demand charges that do not vary with the volume transported making an additional fixed charge unnecessarily more complex.

**21.0 Reference: RATE SCHEDULE 80
 Exhibit B-1, pp. 20, 22, 23
 Historical rates for industrial transportation customers**

On page 22 of the Application PNG states the following with respect to historical rates:

Historically, each of PNG’s industrial transportation customers had a different negotiated rate for firm service. Looking back at 2002, prior to PNG and Methanex negotiating a load retention rate, there were four large industrial customers with contract demands ranging from 1.1 MMSCFD to 57 MMSCFD and with firm transportation rates, at that time, ranging from \$1.1447/GJ to \$1.2642/GJ. PNG also had approximately 6 small industrial firm transportation customers with delivery rates ranging from \$1.2850/GJ to \$1.4254/GJ, and the interruptible transportation rate at that time was \$1.3826/GJ.

In the decision on PNG’s 2002 Revenue Requirements Application, the BCUC approved the negotiated load retention rate of \$0.50/GJ for Methanex for a contract demand of 57 MMSCFD following years of negotiations between the parties. The BCUC also approved that the revenue reduction from Methanex be borne by all other ratepayers.

21.1 Please provide the following information for each of 2002, 2004 and 2019: residential delivery rates, total cost of service and industrial transportation rates (for those not already provided on page 22 of the Application).

Response:

PNG has provided the requested information in the table below and has also added one additional column (2005) to show the rates following the West Fraser negotiated rate.

	2019	2005	2004	2002
Residential delivery rate (\$/GJ)	\$ 12.10	\$ 5.77	\$ 5.39	\$ 3.95
Large Industrial transportation rates (\$/GJ)	\$2.95 - \$3.24	\$1.71 - 1.96	\$1.66 - \$1.90	\$1.25 - \$1.42
Methanex transportation rate (\$/GJ)	n/a	\$ 0.50	\$ 0.50	\$ 1.14
West Fraser transportation rate (\$/GJ)	n/a	\$ 0.85	\$ 1.55	\$ 1.14
Cost of Service Excluding Company Use Gas (\$ millions)	\$ 39.5	\$ 37.4	\$ 37.4	\$ 38.6

- 21.2 Please clarify the meaning of a “load retention rate” in the context of the rate negotiated for Methanex and approved by the BCUC in 2002.

Response:

In mid-2000, Methanex shut down its Kitimat methanol operation citing that high natural gas prices and high transportation costs combined with low methanol prices made its operation unprofitable. At the time, Methanex did not disclose the intended time period over which it would remain shut down.

Following this shutdown, Methanex provided PNG with a proposal for a reduced toll for transportation service on the PNG system which Methanex indicated would allow it to recommence operations of its Kitimat methanol operation. PNG and Methanex attempted to negotiate a new transportation service contract which would be acceptable to both parties as well as to the BCUC, however these discussions were not initially successful. Without a new agreement in place, Methanex recommenced operations at its Kitimat methanol plant in mid-2001.

In March of 2002, PNG and Methanex reached agreement on the principles of a new contract which were filed with the BCUC for approval in conjunction with PNG’s 2002 revenue requirements proceeding. This agreement was intended to provide Methanex with an opportunity to profitably operate the Kitimat methanol plant for a long-term period. Under the rate design principles applicable at the time, the revenue-to-cost ratio under the new Methanex contract would have fallen below the bottom of the band that the BCUC had concluded would achieve just and reasonable rates among the rate classes. However, PNG demonstrated that its ratepayers were better off if Methanex operated the plant at the proposed reduced toll rather than having the operation shut down on a permanent basis. Methanex was able to provide evidence to the Commission that the newly negotiated rate was necessary for Methanex to continue operating the Kitimat methanol plant.

On this basis, PNG and Methanex coined the term “load retention rate” to indicate that the agreed transportation rate varied from the rate that would apply under BCUC approved cost-based rate-making principles. This situation was somewhat analogous to the lower “by-pass rates” that the BCUC had been approving, in that same time period, for utility gas service to industrial customers in other parts of the province. These by-pass rates were approved by the BCUC in order for the utility to retain those customers rather than having them construct their own facilities to connect directly to the Westcoast Energy transmission system.

On page 23 of the Application PNG states that “Under the previously approved TSAs for its unutilized capacity of approximately 80 MMSCFD, the toll was negotiated and approved at \$0.50/GJ and subject to certain provisions for inflation adjustments (see Section 1.3).”

- 21.3 Please confirm, or explain otherwise, that the \$0.50/GJ toll referenced in the above preamble relates to the LNG Partners LLC Term Sheet approved by Order G-174-08.

Response:

First, PNG notes that the LNG Partners LLC Term Sheet approved by Order G-174-08 was terminated and did not result in an approved TSA. Following that, by Order G-39-09, a letter agreement with Merrill Lynch Commodities Inc. (MLCI) was approved by the BCUC and subsequently resulted in a TSA that was filed and accepted by the BCUC. The terms and conditions of the MLCI letter agreement were very similar to the LNG Partners LLC Term Sheet and provided for a firm service toll of \$0.50/GJ, subject to certain escalation provisions. The executed TSA was assigned to LNG Partners LLC in August, 2010 and amended in December 2010 and May 2012, both with Commission approval under Orders G-1-11 and G-89-12, respectively. Finally, in December 2014 the TSA was further amended and assigned to EDF Trading Ltd., with BCUC approval via Order G-5-15.

The statement on page 23 of its Application, as quoted in the preamble to this question, was intended to refer to the TSAs and their approved amendments as referenced in the previous paragraph.

- 21.4 For each of Methanex, West Fraser and LNG Partners LLC, please provide the actual or forecast capital expenditures, if any, that were required to provide service to these parties.

Response:

PNG did not incur any new capital in order to provide service to either Methanex or West Fraser under their negotiated rate contracts as PNG would be providing service to them at essentially the same level as under the previous agreements with them.

For the LNG Partners LLC term sheet, PNG had estimated that it would incur costs of \$1.3 million in order to reactivate the deactivated compressor and pipeline facilities necessary to deliver the agreed contract quantity. None of these costs were capital in nature and were expected to be expensed in the year incurred.

For the TSA with EDFT, PNG had estimated the costs of reactivation of its deactivated facilities at just over \$9.6 million of which approximately \$1.9 million would have been capital costs and the remainder being expense items which PNG proposed to defer and amortize over a 3-year period following the commencement of service to EDFT. In addition to the reactivation costs, PNG was expecting to incur significant capital costs in order to extend its transmission system from Kitimat to the EDFT project site. However, these capital costs were to be recovered in a separate incremental toll applicable only to those shippers using the proposed transmission system extension.

On page 20 of the Application PNG states “To support the RECAP, PNG proposes a single common toll (referred to as the Base Toll in the RECAP) so that parties participating in the process pay a rate that is fair, reasonable, and not unduly discriminatory nor unduly preferential for the service provided and that is also considered to be economically viable and competitive for shippers.”

Further on page 22 of the Application, PNG states that currently, it has “only one firm large industrial transportation customer, Rio Tinto Alcan, as well as one interruptible large industrial transportation customers, BC Hydro.”

21.5 Please provide the rate schedule and existing rates for the service provided to PNG’s other large industrial customers, British Columbia Hydro and Power Authority (BC Hydro) and Rio Tinto Alcan.

Response:

The tariff schedules for the existing rates for the service provided to Rio Tinto Alcan and BC Hydro are reproduced below.

Tab Rates
 Sixty-Seventh Revision of
 Original Sheet 1

Pacific Northern Gas Ltd.
 GAS TARIFF BCUC NO.3

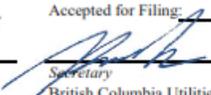
**TABLE OF CHARGES
 APPLICABLE TO SPECIAL CONTRACTS**

Customer ¹	Supp. No.	Delivery Charge	Rate Rider ²	Interim Rate Adj. Rider	
<u>Rio Tinto Alcan</u>					
Firm T-Service and IT-Sales/Service Below CD (\$/GJ)	7, 7A	\$3.0122	\$0.0980	\$0.0000	"A"
<u>B.C. Hydro</u>					
Monthly Demand Charge (\$)	10	\$4,666.37	\$0.0000	\$0.00	
IT-Sales (\$/GJ)		\$3.3025	\$0.0980	\$0.0000	"A"
IT-Sales Above CD (\$/GJ)		\$3.3025	\$0.0980	\$0.0000	"A"
IT T-Service (\$/GJ)		\$3.3025	\$0.0980	\$0.0000	"A"

1. "T" means Transportation and "IT" means Interruptible.

2. The rate riders are required to refund to and recover from customers the credit/debit balances in the Company’s Gas Cost Variance Account.

Issued by: 
 VP, Reg. Affairs & Gas Supply
 Pacific Northern Gas Ltd.
 Suite 950
 1185 West Georgia St.
 Vancouver, B.C.
 V6E 4E6

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 Secretary
 British Columbia Utilities Commission
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- 21.5.1 Please elaborate on why the proposed RS 80 Base Toll of \$1.00/GJ is just, reasonable, and not unduly discriminatory nor unduly preferential for the service provided, with consideration of the existing rates charged to PNG's other large industrial customers.

Response:

PNG's analysis concludes that the RS 80 rate at \$1.00/GJ will recover a fair and reasonable allocation of its costs of providing service to these customers. When comparing the proposed RS 80 rate to PNG's existing industrial tolls, numerous normalizations must be made and considered for an apples-to-apples comparison and include the following:

- Applicable load factors. The RS 80 rate is fully demand charge based so the RS 80 customers pay the same amount regardless of the volume actually taken while that is not true of any other industrial rate;
- Rio Tinto Alcan receives demand charge credits regardless of the circumstances behind their failure to take the minimum contractual quantity, while RS 80 customers only receive demand charge credits when PNG experiences a force majeure;
- The RS 80 rate does not include a charge for system use gas as RS 80 shippers must provide their share of system use gas 'in-kind'; all of PNG's other industrial rates include a charge for system use gas;
- The proper comparison of existing industrial rates should be made on the basis that PNG's reactivation capacity is fully contracted as all of PNG's existing ratepayers are expected to benefit substantially from the RS 80 revenues; and
- The RS 80 rate is available to only very large volume customers for a 20-year contract period reflecting the inherent economies of scale in gas transmission services as well as the significant term commitment being made by the RS 80 customers. PNG notes that it is typical in the gas transmission business that customers signing long-term contracts receive lower rates than customers with shorter term contracts.

Based on the foregoing, PNG concludes that the proposed RS 80 Base Toll of \$1.00/GJ is just, reasonable, and not unduly discriminatory nor unduly preferential for the service provided.

- 21.6 Please discuss both the similarities and differences between the service that will be provided to Shippers under RS 80 and the service provided to PNG's other industrial transportation customers, BC Hydro and Rio Tinto Alcan.

Response:

PNG's responses to Questions 21.5 and 21.7 outline most of the differences between the service proposed under RS 80 and the service provided to PNG's existing industrial customers.

In addition to those differences, its contract with BC Hydro is purely interruptible so that BC Hydro only pays a toll for gas actually delivered each year, although PNG acknowledges that BC Hydro pays a fixed charge intended to partially cover the cost of the customer specific facilities developed by PNG in order to serve BC Hydro. The volume of gas utilized by BC Hydro varies substantially from year-to-year as does the revenues from BC Hydro. This will not be the case with RS 80 customers.

- 21.6.1 Please provide the annual volume for each of PNG's existing industrial transportation customers and explain if these customers also have long-term transportation service agreements with PNG.

Response:

PNG currently has only two large industrial transportation customers. The largest industrial transportation customer has a firm transportation contract with PNG on a year-to-year basis, but is required to give a 12-month termination notice. This customer's annual volumes for the past five years has ranged from approximately 700,000 GJs to 1,400,000 GJs. The only other industrial transportation customer has an interruptible services contract with PNG and its annual volumes for the past five years has ranged from 15,000 GJs to 350,000 GJs.

- 21.7 Please discuss if PNG's existing large industrial customers could request service under RS 80.

Response:

PNG does not plan on excluding its existing large industrial customers from participating in the RECAP process such that they could theoretically request service under RS 80. However, PNG does not expect that it would be financially beneficial for its existing large industrial customers to acquire service under RS 80 and therefore believes that it is highly unlikely that those customers will choose to participate in the RECAP bidding process. In assessing the financial obligations under an RS 80 TSA, PNG's large industrial customers would need to take in account the following factors:

- 1) The minimum contract demand volume under RS 80 is 283.17 10^3m^3 per day, which is more than double the existing contract demand of PNG's only firm large industrial customer.
- 2) The minimum contract term for service under RS 80 is 20 years. [Both of PNG's existing large industrial customers are currently under evergreen contracts which extend for only one year at a time.]
- 3) The minimum \$1.00/GJ toll applicable to an RS 80 customer is a demand charge applicable to the full contract quantity of the customer regardless of the actual volume taken. Neither of PNG's existing large industrial customers pay demand charges on their contract quantity.
- 4) When comparing the rates for existing large industrial customers with the RS 80 rate, it is necessary to account for the fact that RS 80 customers will be providing their share of system use gas 'in-kind'. PNG rates for its existing large industrial customers include charges for recovery of system use gas.
- 5) As PNG has stated in the RECAP Application, following a successful RECAP process PNG expects material reductions in rates for its existing customers. PNG's existing large industrial customers will benefit from the RECAP process without having to participate in it.

On page 20 of its Application, PNG states it “... does not have an existing common large industrial transportation rate schedule for industrial customers since, historically, industrial transportation customers have negotiated different rates with PNG under their respective TSAs. These industrial customers’ TSAs have all been approved by the BCUC.”

21.8 Please elaborate on why PNG considers a common Base Toll to be appropriate for the current RECAP process as opposed to negotiating different rates for each Shipper.

Response:

Through the RECAP bidding process, there is the opportunity for rates to be different for each Shipper based on their willingness to bid a premium to the base toll. It was PNG’s view that setting the Base Toll at a common rate with Shippers bidding on a toll premium, rather than having each Shipper bid on an all-in rate, was beneficial as it:

- (i) signals to participants the approximate cost base of the RS 80 toll;
- (ii) it reflects PNG’s expectation that the demand for firm service under the RS 80 rate will be robust which supports PNG’s view that it is not necessary provide a toll discount to future shippers utilizing PNG’s reactivated capacity; and
- (iii) it helps eliminate less serious project developers whose projects are only economic at discounted tolls or those who want to capture the value of discounted tolls for themselves.

**22.0 Reference: RATE SCHEDULE 80
Exhibit B-1, pp. 1, 20, 21, 27
Fixed rate**

On page 20 of its Application PNG states:

Due to the uncertainty of the outcome of the RECAP, and due to the various in-service dates expected for bidder's projects, PNG is proposing that the initial rate of \$1.00/GJ remain fixed until the calendar year following the last Service Commencement Date of all the bidders that have or could receive capacity via the RECAP. PNG expects that in the calendar year following the last Service Commencement Date of such bidders, the Rate Schedule 80 toll would become a rolled-in toll that would then be subject to periodic changes following the BCUC's review and approval.

Further on page 1 of the Application, PNG states:

Parties with an advanced project may submit binding bids for firm transportation service and parties with projects at an earlier stage of its development lifecycle will be able to bid for reservation of capacity.

- 22.1 Please discuss any potential risks associated with PNG's proposal to fix the Base Toll of \$1.00/GJ until the last Service Commencement Date of all Shippers.

Response:

PNG recognizes that there are potential risks associated with PNG's proposal to fix the Base Toll of \$1.00/GJ until the last Service Commencement Date of all Shippers. The risk that PNG has identified is the potential for unforeseen capital costs once the base toll has been implemented and until the last Service Commencement Date of all shippers.

PNG believes that this risk can be mitigated through the creation and use of the Large Volume Industrial Deferral Account (LVIDA). In the years following the first in-service date and until the last Service Commencement Date of all shippers, PNG plans to add a significant proportion of the excess proceeds from the RECAP revenue to the LVIDA. The LVIDA would be used in the event of unexpected capital costs during the period following the first in-service date and until the last Service Commencement Date of all shippers.

The risk that PNG's RS 80 rate does not continue to recover a fair and reasonable share of PNG's revenue requirements over this period is highly unlikely to occur as there are no foreseen costs or customer losses that would cause such an increase in PNG's non-RS 80 rates over this period.

- 22.2 Please provide details regarding how the incremental revenue and costs associated with providing service under RS 80 will be treated in PNG's annual revenue requirements before RS 80 becomes a rolled-in toll.

Response:

PNG would reflect all the incremental revenue and incremental costs associated with providing service under RS 80 in its annual revenue requirements which would result in a reduction in the revenue requirement that would be allocated to the non-RS 80 customers. In its revenue requirements applications, PNG would also file for treatment of a portion of the incremental revenue to be placed into the LVIDA.

- 22.2.1 Please describe any alternative treatments to account for the revenue and incremental costs before the last service commencement date that were considered by PNG and why these alternatives were ultimately not selected.

Response:

PNG considered other alternative treatments to account for the revenue and incremental costs before the last service commencement date.

PNG considered using a rolled-in toll following the first service commencement date. Due to the nature of the rolled-in toll methodology, when a second service commencement occurs, the \$1.00 base toll could decline, lowering the toll for all shippers and in particular for the second shipper. This unfairly penalizes the first shipper and rewards the second shipper simply due to timing. In discussions with prospective bidders, toll certainty was a top priority. Due to these factors, this alternative was not selected.

PNG considered a fixed toll until the last service commencement without the use of the LVIDA. Under this scenario, should shippers not renew their contracts at the end of the primary contract term, remaining ratepayers would experience significant rate shock. PNG viewed this alternative as suboptimal.

- 22.3 Please clarify or otherwise explain if the last Service Commencement Date for all bidders (i.e. parties with an advanced project and parties with projects at an earlier stage of its development lifecycle that reserve transportation capacity) will be considered to determine the date when RS 80 toll would become a rolled-in toll.

Response:

As currently drafted, the last Service Commencement Date in the TSAs/TRAs executed following the bid process would determine the date when the RS 80 toll would become rolled-in. Please see the response to Question 22.3.1 for PNG's proposal to provide additional certainty with respect to the date that the RS 80 toll would become rolled-in.

- 22.3.1 If yes, please confirm how far into the future a party that has a project in early stages of development can reserve transportation capacity.

Response:

To this point in time, PNG had not considered limiting the time into the future for which a project developer could reserve transportation capacity. It was PNG's belief that project developers would want to specify the earliest reasonably possible in-service date in their bids given that the bid evaluation involves calculating the net present value of future toll payments – bids with long lead times to their in-service date will be less competitive than bids with earlier in-service dates.

However, PNG understands that it would be desirable to have a maximum length of time for which the RS 80 rate is fixed at \$1.00/GJ prior to it becoming rolled-in with all other rate classes. For that reason, PNG is prepared to amend its bid documents to specify the latest acceptable commencement date for service which it suggests should be 5 years from the bid date.

- 22.3.2 Please provide an estimate of the maximum amount of time between the RECAP process and the last Service Commencement Date.

Response:

As previously discussed in the response to Question 8.1, PNG expects the small scale LNG projects to have an in-service date of roughly 4-5 years from the date they declare Final Investment Decision (FID) to allow for permitting and construction. These projects, if successful in winning capacity via the RECAP, will have the latest Service Commencement Date.

On page 27 of the Application, PNG describes several circumstances under which the Large Volume Industrial Deferral Account (LVIDA) may be applied, including the following:

If unexpected capital expenses (e.g. for system reliability) are incurred in the initial years of new shipper contracts when Schedule 80 rates are fixed and are not on a rolled-in basis, the LVIDA could be applied to alleviate the impact of this unexpected capital requirement.

- 22.4 Please clarify the impact that the scenario outlined above would have on PNG's revenue and cost of service as they factor into its revenue requirements.

Response:

PNG will use the LVIDA, to the extent possible, to mitigate the rate impacts on non-RS 80 customers as a result of the unexpected capital requirement.

On page 21 of the Application, PNG states that in setting the Base Toll it has taken into consideration the following, amongst other things:

The capital requirements to reactivate PNG's pipeline assets and to recommission its compressor stations to operate the pipeline at full capacity, as well as the potential requirement to incur costs to reinforce the pipeline systems when it is at full capacity.

- 22.5 If the actual capital or other costs required to provide service to Shippers under RS 80 exceed those currently forecast, would PNG consider it appropriate to increase the Base Toll of \$1.00/GJ by an amount more than the general rate increases as determined in the revenue requirements applications? Please discuss why or why not.

Response:

PNG does not support such an approach. It would be concerned that the increased uncertainty in rates for the RECAP bidders would result in lower toll premiums being bid. PNG has attempted to provide a reasonable amount of rate certainty for the RS 80 bidders to maximize the interest and the value of the service.

**23.0 Reference: RATE SCHEDULE 80
Exhibit B-1, p. 21
Justification of proposed new toll**

On page 21 of the Application PNG states that it has considered several factors in setting the Base Toll, including the following principles set out in the *Utilities Commission Act (UCA)*:

- Not demand or receive an unjust, unreasonable, unduly discriminatory or unduly preferential rate. (s. 59)
- Segregate the various kinds of service into distinct classes of service. (s. 60)
- Set rates that are just and reasonable so they are not:
 - o More than a fair and reasonable charge for service of the nature and quality provided by the utility,
 - o Insufficient to yield a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property, or
 - o Unjust and unreasonable for any other reason. (s. 59)

- 23.1 Please discuss how PNG's rate setting principles for large industrial customers, including the proposed treatment for Shippers taking service under RS 80, is aligned with the principle to segregate various kinds of service into distinct classes of service.

Response:

Please see the responses to Questions 21.5 and 21.7. PNG believes the RS 80 class is very distinct from PNG's existing rate classes.

- 23.2 Please discuss how the proposed RS 80 Base Toll of \$1.00/GJ, as compared to the rates paid by PNG's other customers, is aligned with the principles outlined in section 59 of the UCA.

Response:

PNG's analysis of revenue to cost ratios for the RS 80 toll suggests that it will meet all of the requirements of Section 59 of the UCA. PNG notes that its current analysis of revenue to cost ratios for all other customer classes indicates that some rate rebalancing may be in order. It is PNG's recommendation and plan to undertake a full rate review study and submit an application for any rate rebalancing indicated as desirable by the study, following the completion of the RECAP process and after the conversion of TRAs into TSAs or the termination of the TRAs executed following the RECAP process.

**24.0 Reference: RATE SCHEDULE 80
Exhibit B-1, p. 23
Competitive rate**

On page 23 of the Application, PNG states the following with respect to the MLP process:

During the MLP, PNG held various meetings and discussions and provided a list of common questions and answers to interested parties. PNG also indicated that the combined single toll would be in the range of \$1.25/GJ to \$1.50/GJ... At the time, PNG did not receive indications that this combined reactivation and expansion toll would be uneconomical for the prospective bidder's projects. Based on the outcome of the MLP, PNG submits that the proposed Base Toll of \$1.00/GJ for large volume industrial transportation customers represents a competitive and economic toll that is not considered excessive by bidders for the service to be provided.

- 24.1 Please elaborate on why PNG has proposed a Base Toll of \$1.00/GJ for RS 80, given that the prospective Shippers did not indicate that a toll in the range of \$1.25/GJ to \$1.50/GJ would be uneconomical.

Response:

The range of \$1.25/GJ to \$1.50/GJ was an indicative toll provided by PNG to the prospective bidders during the MLP which anticipated a combination of utilizing the reactivated capacity as well as expansion capacity and resulting in a higher toll.

For the reactivation capacity process contemplated in the RECAP, PNG has proposed a Base Toll that is fair and reasonable and has left the opportunity for bidders to include a toll premium. PNG did not want to eliminate customers who were not able to make their projects economic at tolls of \$1.25/GJ to \$1.50/GJ when there may be other benefits realizable from those customers (such as relatively short development periods).

- 24.2 From a quantitative perspective, please discuss how PNG arrived at the specific rate of \$1.00/GJ as opposed to some other figure.

Response:

As noted in Section 6.3 of the Application, PNG considered and balanced a number of factors which included: recognized rate design principles; the historical rates for industrial transportation customers; the fair apportionment of costs (revenue to cost ratios); the need to provide a competitive rate to prospective customers; and the impacts to both the RS80 customers as well as existing customers.

PNG evaluated various different rates taking these factors into consideration and can point to the range of rates that had been previously approved by the BCUC for similar service which go from a low of \$0.50/GJ for the Methanex load retention rate and for previous arrangements described in Section 1.3 of the Application to a high of approximately \$1.14/GJ to Methanex.

Since the outcome of the RECAP is unknown and based on the analysis of numerous scenarios contemplated by PNG, the \$1.00/GJ toll achieves a proper balance of all the factors noted above.

- 24.3 Did PNG consider any alternatives to the proposed \$1.00/GJ Base Toll? If yes, please provide details of the alternatives considered and ultimately why they were not selected. If no, please discuss why not.

Response:

PNG reiterates that it considered base tolls within the ranges described in response to Question 24.2 and concluded that the Base Toll of \$1.00/GJ best achieved a proper balance of all the factors noted.

**25.0 Reference: RATE SCHEDULE 80
Exhibit B-1, pp. 25, 29
Interruptible charge**

On page 29 of the Application, PNG states:

PNG will offer interruptible service in excess of the Shipper's Contracted Capacity when available and subject to interruption and curtailment at PNG's discretion. PNG is proposing a Large Volume Industrial Transportation Interruptible rate that is set at the 100% load factor toll proposed for Rate Schedule 80.

On page 25 of the Application PNG states it "... will consider amending this interruptible charge in the future once it has the benefit of operating experience following the RECAP."

Both the RS 80 demand charge (i.e. Base Toll) of \$1.00/GJ and the interruptible charge are included in Schedule B Form of Toll Schedule of the draft form TSA.

25.1 Please describe the basis for the interruptible rate and how it was determined.

Response:

PNG surveyed other gas transmission service providers and found there was a range of interruptible rates relative to firm rates. In certain circumstances the interruptible rate is set below the firm rate and in other circumstances, the interruptible rate is above the firm rate.

Based on PNG's best guess regarding the availability and demand for interruptible service, it concluded that the rate should be set a 100% of the firm rate. Once PNG has additional experience with actual availability and demand for interruptible service, it would consider applying to amend the rate.

25.2 Please explain how PNG proposes to account for the interruptible rate in its revenue requirements.

Response:

PNG proposes to treat the interruptible rate revenues in the same manner as other unpredictable interruptible revenues from large industrial customers in its revenue requirements, thereby recording any variances from forecast in a deferral account such as the LVIDA.

- 25.3 Please discuss if PNG would also consider amending the RS 80 demand charge of \$1.00/GJ once it has the benefit of operating experience following the RECAP, similar to the proposal for the interruptible charge. If yes, please explain the circumstances under which PNG would consider this. If no, please explain why not.

Response:

Please see the response to Question 22.5.

- 25.4 Please clarify if PNG is requesting approval of a separate rate schedule for the Large Volume Industrial Transportation Interruptible Rate or if this rate is only found in the draft form TSA.

Response:

In consideration of this question, PNG has concluded that it would be wise to seek approval of a separate rate schedule for the Large Volume Industrial Transportation Interruptible Rate and will amend the required agreements and schedules as required to reflect this.

- 25.5 Please discuss if any of PNG's existing large industrial customers taking service under existing rate schedules could request a similar Large Volume Industrial Transportation Rate of \$1.00/GJ.

Response:

Please see the response to Question 21.7.

**26.0 Reference: TOLL PREMIUM
Exhibit B-1, Section 8, p. 26
Toll premium**

On page 26 of the Application, PNG states:

In the RECAP, parties will have the option and opportunity to bid a Toll Premium over the Base Toll for firm transportation service or to reserve for capacity on PNG's pipeline system. Taking this option to bid a Toll Premium would enhance a bidder's opportunity to be selected as one of the winning bidders in the RECAP. PNG proposes that the Toll Premium remain fixed for the duration of the contract term and any contract renewals.

Section 59 (1)(a) of the UCA states, "A public utility must not make, demand or receive an unjust, unreasonable, unduly discriminatory or unduly preferential rate for a service provided by it in British Columbia."

26.1 Please explain how the toll premium, if any, will be accounted for in PNG's revenue requirements.

Response:

PNG proposes that any portion of the toll premium that is not captured by the LVIDA will be included as a source of revenue for the determination of rate changes necessary for PNG to recover its revenue requirements.

26.2 Please clarify and explain if the toll premium will be included in the proposed LVIDA deferral account.

Response:

PNG believes it may be desirable to direct some or all of the toll premium revenues to the LVIDA. Several factors will influence what PNG would believe is the appropriate portion of the toll premium revenues to direct to the LVIDA, including: (i) the aggregate size of the toll premium revenues; (ii) the costs of reactivation of existing facilities; and, (iii) the cost, if any, of any new facilities. As noted in Section 9.2 of the Application, PNG will determine what portion of revenues will be included in the proposed LVIDA following the completion of the RECAP.

- 26.3 Under a scenario where the RECAP process results in Shippers paying different rates for the same service because of the Toll Premiums, please explain or clarify why the proposed toll premium methodology does not lead to rates that are unduly discriminatory or unduly preferential.

Response:

Since the bidders are free to include a Toll Premium in the bidding process to best fit their circumstances, then the resulting tolls cannot be considered as unduly discriminatory nor unduly preferential because of differences in shipper circumstances.

- 26.4 Please clarify whether there could be a situation where different toll premiums for different shippers taking the same or similar service under RS 80 are selected.

Response:

Under the proposed RECAP process, different shippers could have different toll premiums under RS80.

G. LARGE VOLUME INDUSTRIAL DEFERRAL ACCOUNT

**27.0 Reference: LARGE VOLUME INDUSTRIAL DEFERRAL ACCOUNT
Exhibit B-1, pp. 1, 17, 27–28
Description and justification**

PNG is seeking approval in the Application to create a new deferral account, the LVIDA, as described on pages 27 and 28.

27.1 Please explain why PNG is seeking approval of the LVIDA at this time rather than after the outcome of the RECAP is known.

Response:

PNG is seeking approval of the LVIDA at this time since it would be more efficient to confirm approval of the essential aspects of the RECAP process and the RS 80 rate concepts in this proceeding rather than in a subsequent application because they are interrelated. PNG believes that the proposed deferral account provides the greatest flexibility to manage the benefits of lower rates to existing ratepayers while also providing a mechanism to address any potential unknown outcomes.

27.2 Please clarify if PNG would continue with the Reactivation Project if the proposed deferral account is not approved and discuss why or why not.

Response:

PNG would continue with the RECAP process and the Reactivation Project regardless of the decision on the LVIDA. The most critical aspect of PNG's RECAP application is to achieve higher use of its existing facilities which, in turn, will provide significant benefits to its ratepayers.

- 27.3 Please discuss if there are any issues with intergenerational equity over the long term, resulting from the proposed deferral account treatment.

Response:

One of the key objectives of the proposed deferral account is to achieve intergenerational equity. For example, it would be unfair to have ratepayers during the term of the TSAs executed under the RECAP process receive all the benefit of the revenues generated by those TSAs and to have subsequent ratepayers following the expiry of those TSAs to continue to pay for the reactivation costs while not having the benefit of any revenues.

In other words, one of the main purposes of the LVIDA is to help avoid a repeat of a Methanex type situation which did result in intergenerational inequity. PNG invested in new facilities to provide service to the Methanex methanol plant and these facilities were depreciated over their physical life. PNG's ratepayers during the time the methanol plant was in operation received the full benefit of the revenues. Following the termination of the TSA with Methanex, the revenues stopped but the costs did not, resulting in ratepayers at that time as well as new ratepayers and PNG continuing to shoulder the burden as demonstrated by the high delivery rates in PNG-West.

On page 1 of the Application, PNG describes one of the objectives of the RECAP on page to be "Benefit existing ratepayers through lower rates."

- 27.4 Please discuss if there are any circumstances under which the LVIDA would eliminate the benefit of lower rates to existing ratepayers for a period of time.

Response:

PNG cannot contemplate any circumstances under which the LVIDA would eliminate the benefit of lower rates to PNG's existing customers.

On page 27 of the Application, PNG states, “Pending the outcome of the RECAP, PNG plans to record a portion of the revenues to be received from the contracted shippers executing TSAs as well as all the reservation fees to be received from potential shippers that execute TRAs into [the LVIDA].”

On page 17 of the Application, PNG states, “If the option is exercised during the option period, [reservation] fees will be credited to the demand charges payable under the TSA in equal pro-rated amounts over the first 24 full calendar months following the Service Commencement Date under the TSA.”

- 27.5 Please clarify what revenues will be received from the contracted shippers executing TSAs pending the outcome of the RECAP.

Response:

PNG would like to clarify that it expects to record a portion of the revenues from tolls generated by RS 80 TSAs (which would be executed as an outcome of the RECAP process and would generate demand charges of \$1.00/GJ following the in-service date) in the LVIDA. However, in instances where a shipper has first executed a TRA, paid reservations fees and subsequently executes a TSA, the reservation fees previously paid would be credited against demand charges payable by that shipper.

- 27.6 Please discuss if there are any administrative issues with recording the reservation fees in the same account as a portion of the revenues, given that the reservation fees will be credited to demand charges if an option under a TRA is exercised.

Response:

PNG submits that its internal records will contain sufficient detail for each TRA such that the creditable reservation fees can be tracked and credited per the terms of each TRA executed.

On page 27 of the Application, PNG describes the intent of the LVIDA, as follows:

- manage the inherent uncertainty related to the RECAP outcome
- avoid volatility in customer rates by systematically managing expected rate decreases
- have the ability to avoid rate shock as contracts eventually expire, and
- provide flexibility to manage any unforeseen circumstances that may arise in the future.

27.7 Please describe the uncertainties related to the RECAP outcome that are referred to on page 27 of the Application and discuss on how the LVIDA will manage these uncertainties.

Response:

PNG considered the following uncertainties of the RECAP outcome that are germane to use of the LVIDA :

- The volume and timing of RS 80 service being contracted;
- The volume of capacity reserved under TRAs and the uncertainty of conversion of the TRAs to TSAs;
- The magnitude of toll premiums, if any; and
- The term of the TSAs.

The LVIDA will provide flexibility to largely help ensure intergenerational equity and allow a better matching of the recognition of revenues with the recognition of costs. For example, if the RECAP process outcome is that the average life of the RS 80 TSAs is 30 years rather than the minimum bid term of 20 years, less of the revenues from the TSA would be recorded in the LVIDA as revenue generation would occur over a longer period and more closely match the cost recognition period.

27.8 With respect to avoiding volatility in customer rates as referenced on page 27 of the Application, please clarify if this refers to volatility related to Shippers taking service under RS 80 or volatility under any circumstances.

Response:

The reference of avoiding volatility is mainly intended to cover volatility in customer rates resulting from the RECAP process.

- 27.9 With respect to the flexibility to manage unforeseen circumstances as referenced on page 27 of the Application, please clarify if this refers to unforeseen circumstances related to Shippers taking service under RS 80 or any unforeseen circumstances that may impact PNG and its rates.

Response:

The reference to the management of unforeseen circumstances is intended to be generic in nature and would cover events that impact PNG and its rates that may not be directly related to the provision of service under RS 80.

On page 27 of the Application, PNG states, “The contract term will likely be shorter (ranging between 20 and approximately 40 years) than the depreciable life of the assets (approximately 60 years) which will misalign the timing between the collection of revenues from the contracts and the associated cost of service.”

- 27.10 Please provide the useful life for the Reactivation Project Assets.

Response:

The depreciable life of the assets is a good proxy for the useful life of the assets. However, these are expected mean values, and in practice, the useful life of the new assets would be distributed over a range of years in a histogram. Other factors such as preventative maintenance can also impact the life of the assets.

- 27.11 Please clarify if PNG proposes to use a depreciation rate for the Reactivation Project assets in its revenue requirement based on the contract term, the useful life of the assets or some other method and explain why.

Response:

Based on historical practice and for administrative reasons, PNG proposes to continue to use the estimated physical life of its assets for determination of the depreciation rate. The majority of assets that will be used to provide service under RS 80 will be common assets; therefore the assets that are used to provide service to RS 80 customers are also used, on a common basis, to provide service to all other ratepayers in PNG’s service territory. For this reason, PNG does not believe it is possible to segregate assets into different pools for the purpose of setting depreciation rates that match the economic life (contract term) of its RS 80 TSAs.

27.11.1 Please provide the depreciation rate that PNG proposes to use in its revenue requirements for the Reactivation Project assets.

Response:

PNG proposes to utilize its existing approved depreciation rates for the various capital assets required for the Reactivation Project.

27.12 Please discuss if PNG would consider using a depreciation rate for the Reactivation Project assets in its revenue requirement based on the contract term and explain why or why not.

Response:

Please see the response to Question 27.11.

27.13 Please discuss if PNG uses a depreciation rate based on agreement terms for any other assets in its revenue requirements.

Response:

PNG is not aware of any situation where it uses a depreciation rate based on agreement terms for any other assets in its revenue requirements. PNG has often provided financial analysis using depreciation rates based on contractual terms to demonstrate that the revenues to be received from agreements negotiated with customers will cover all operating and capital costs during the term of the contract. PNG has provided this for illustrative purposes only.

27.14 Please confirm if PNG is seeking approval of any depreciation rates in the Application.

Response:

PNG is not seeking approval of any depreciation rates in the Application. As noted in response to Question 27.11, PNG will use the currently approved depreciation rates for its assets as per the last Depreciation Study which was conducted in 2017 and approved in the Decision on its 2018/19 Revenue Requirements Application. PNG also notes that depreciation studies are expected to be conducted approximately every five years.

On page 27 of the Application, PNG states, “If unexpected capital expenses (e.g. for system reliability) are incurred in the initial years of new shipper contracts when Schedule 80 rates are fixed and are not on a rolled-in basis, the LVIDA could be applied to alleviate the impact of this unexpected capital requirement.”

27.15 Please describe the unexpected capital expenses that may be required and the likelihood that they will be incurred.

Response:

In the future, PNG may have to incur unexpected asset management related costs to maintain service levels. Examples of such expenses are costs for repair of line breaks, unforeseen pipeline integrity issues, aging infrastructure needs, obsolescence, new codes/standards/regulations, and acts of nature. To mitigate this risk, PNG has pipeline integrity and risk management practices in place. Further, PNG has traditionally budgeted the appropriate funds in its System Betterment budgets to manage such risks. PNG also carries insurance coverage in the event a major repair is required. Overall, PNG would view it as a relatively low risk that unexpected capital or expenses would be required outside those forecasted.

**28.0 Reference: LARGE VOLUME INDUSTRIAL DEFERRAL ACCOUNT
Exhibit B-1, p. 28
Amortization**

On page 28 of the Application, PNG states the following with respect to the amortization of the LVIDA:

- The amortization of this account would be to the benefit of existing ratepayers and would not apply to Rate Schedule 80 customers.
- Dependent on the outcome of the RECAP, PNG will propose a methodology for amortizing the LVIDA, taking into account the benefits of rate smoothing and the length of time where there is direct value related to the item being amortized. PNG will amortize the LVIDA to the benefit of ratepayers.

- 28.1 Please clarify if PNG expects to set an amortization methodology for the life of the LVIDA or if the proposal is for an amortization method that may change over time depending on the circumstances.

Response:

PNG expects that the amortization method or amount of amortization may change over time as PNG will be attempting to utilize the LVIDA to provide the best matching of costs with expected revenues. PNG notes that expected revenues, in particular, may change over time as markets change. For example, RS 80 TSAs may get extended or the demand for transmission capacity on the PNG system may be such that the risk of stranded assets is very low allowing for expected additional future revenues to be taken into account when determining the appropriate amortization of the LVIDA.

**29.0 Reference: LARGE VOLUME INDUSTRIAL DEFERRAL ACCOUNT
Exhibit B-1, pp. 27–28
Alternatives**

On page 27 of the Application, PNG describes several examples of how the LVIDA may be applied, including:

Capital requirements to allow PNG to have sufficient capacity to meet RECAP demand will depend on the outcome of the allocation process. The contract term will likely be shorter (ranging between 20 and approximately 40 years) than the depreciable life of the assets (approximately 60 years) which will misalign the timing between the collection of revenues from the contracts and the associated cost of service. This misalignment could result in future rate shock if the financial contribution from Rate Schedule 80 shipper(s) ceases at the end of their contract before the related rate base is fully recovered. In other words, the remaining customer classes will be adversely affected by the departure of Rate Schedule 80 shipper(s) at the end of their contract life. The LVIDA would be applied for the benefit of ratepayers to help smooth rates and mitigate the likely potential of rate shock.

On page 28 of the Application, PNG states:

PNG plans to record a portion of the revenues to be collected from Rate Schedule 80 shippers, which includes both the Base Toll as well as the Toll Premium, in the LVIDA. At this time, PNG cannot state what portion of the revenues would be included in the LVIDA. Following the completion of the RECAP, PNG will assess the expected net benefits that can be attributed to existing ratepayers. PNG will design the resultant rate decreases in a manner that does not create future rate volatility.

- 29.1 Please identify any alternatives to the proposed deferral account treatment that were considered by PNG to reduce rate volatility resulting from the RECAP and discuss why these alternatives were not selected.

Response:

The only other alternative to the proposed deferral account treatment would be to have pools of the common assets attributed to the RS 80 customers be segregated and be subject to accelerated depreciations rates. As noted in the response to Question 27.11, PNG believes this approach would be impractical and unnecessarily complex.

29.1.1 Specifically, please discuss if PNG considered amortizing the assets related to the RECAP over the contract term (i.e. 20–40 years) as an alternative to the LVIDA.

Response:

Please see the responses to Questions 27.11 and 29.1.

**31.0 Reference: REACTIVATION PROJECT DEVELOPMENT COSTS
Exhibit B-1, Section 10.2, p. 29
Scope of front-end engineering and design work**

On page 29 of the Application, PNG states:

PNG submits that it is prudent to maintain progress on the engineering, permitting, and First Nations relations for its Reactivation Project. PNG is therefore seeking approval to establish a rate base deferral account to record Front-End Engineering and Design work for the initial works (estimated at \$1 million) which will be required to deliver capacity for the early stage projects.

- 31.1 Please provide a breakdown of the \$1 million in costs for each activity: 1) FEED work, 2) Permitting, and 3) First Nations relations and any other relevant cost categories.

Response:

PNG provides the following breakdown of costs for the early stage work:

Activity	Costs
FEED/Engineering and Planning	\$450,000
Permitting	\$100,000
Survey	\$125,000
Lands	\$100,000
Indigenous Nations	\$100,000
PNG Project Services	\$125,000
Total	\$1,000,000

31.1.1 Please provide a description of the scope of work to be undertaken as part of the FEED work.

Response:

Additional detail on the scope of the work noted in the cost categories in response to Question 31.1 is provided below:

Engineering: The recommissioning of older compressors will require engineering support for design of components, equipment and facilities. Engineering support is also required for planning and developing the accelerated integrity works as well as improving the accuracy of the costs and schedule.

Permitting: This pertains to the work required to finalize permitting requirements to advance certain early stage needs for permit planning for key permits described in the response to Question 11.5.

Survey: This relates to the early works to determine the more detailed requirements for design, development, construction, geotechnical/hyrotechnical and mapping. Surveys will improve PNG's ability to estimate the equipment, budget, schedule and workforce required.

Land: This pertains to the early works required to secure or expand property rights, such as Rights-of-Way, leases, and fee simple land.

Indigenous Nations: This refers to the continuation of the early work to notify, engage, and consult Indigenous Nations about the infrastructure plans. PNG views involvement of Indigenous Nations as one of the key factors for the success of the overall project.

PNG Project Services: This pertains to the requirement for additional project management and coordination resources as well as determining a procurement strategy.

PNG believes the funds will be sufficient to fund for 4-6 months for work for the Moderate Volume Scenario which involves recommissioning with no pipeline looping. In the event of a High Volume Scenario whereby pipeline looping was required, PNG would allocate some funds to commence this work.

31.1.2 Please explain whether the \$1 million estimate is enough to complete the FEED work.

Response:

PNG believes that the \$1 million estimate is expected to be enough to complete the FEED work for the moderate volume scenario, but likely not enough for the high volume scenarios. FEED costs do vary in terms of cost makeup (pipelines, facilities, integrity work), but are generally somewhere between 3-5% of the total installed cost (TIC).

PNG is taking a measured approach to initiate the FEED work and maintain commercial timelines, while not putting undue risk on existing ratepayers. PNG believes it is a benefit to initiate this work in late-2019/early-2020 will be of significant advantage to ratepayers because PNG would be able to provide service to prospective shippers, given the expected demand and timing for capacity. Once TSA's are effective (conditional upon BCUC and board approvals), the risk of project development is squarely on the prospective shippers.

The \$1 million will provide approximately 4-6 months funding. It will be critical to advance this work early, because PNG is completing its auction process, executing TSA's, and working on its CPCN application. If PNG contracts customers for the high volume scenario, then PNG may look for opportunities for backstop agreements from shippers to supplement the \$1 million in funding. All of the work for the moderate scenarios will also be needed for the high volume scenarios.

**32.0 Reference: REACTIVATION PROJECT DEVELOPMENT COSTS
Exhibit B-1, Section 10.2, p. 29
Deferral account for preliminary engineering and permitting**

On page 29 of the Application, PNG states:

PNG submits that it is prudent to maintain progress on the engineering, permitting, and First Nations relations for its Reactivation Project. PNG is therefore seeking approval to establish a rate base deferral account to record Front-End Engineering and Design work for the initial works (estimated at \$1 million) which will be required to deliver capacity for the early stage projects. If projects have delayed COD's or prospective shippers do not sign TSA's following the RECAP, PNG submits that this work will be used and useful for several years for future projects and reactivation scenarios. By initiating expenditures in late 2019, PNG believes it could save six to nine months on the schedule for the Reactivation Project.

- 32.1 Please provide the term (i.e. length of time) of the proposed deferral account including the rationale for the term.

Response:

As noted in the Application, PNG is seeking approval of the reactivation project development costs deferral account to advance the work on the engineering, permitting and Indigenous Nations relations in anticipation of a successful RECAP. Depending on the outcome of the RECAP, PNG expects the deferral account to be in place for a period of one to three years and subsequently transferred to rate base as part of the reactivation costs. This approval would be sought in a future CPCN application.

- 32.2 In the absence of the proposed deferral account under the current scenario, please discuss how PNG would typically account for the \$1 million in costs related to the initial works.

Response:

PNG would normally require project certainty to capitalize the FEED costs for a project, with the FEED cost being included in rate base once the project has gone into service; otherwise these costs would need to be expensed. This is consistent with US GAAP rules that state development costs incurred prior to project certainty would need to be expensed.

32.2.1 Please clarify if PNG would continue with the Reactivation Project if the proposed deferral account is not approved and discuss why or why not.

Response:

PNG would not be prepared to accelerate the FEED work for the Reactivation Project in the absence of approval of the requested deferral account and that lack of this approval could result in delays in the project.

PNG cannot attest with certainty if delays in the Reactivation Project will materially impact demand for capacity under the RECAP process, but believes that it would impact the dates by which PNG ratepayers will enjoy the benefits of reduced rates.

32.3 Please clarify whether the proposed deferral account is intended to capture additions for a specific period of time or an ongoing basis.

Response:

PNG intends to use the proposed deferral account to capture additions for the accelerated FEED work for the Reactivation Project for approximately one year.

32.4 Please discuss how the balance in the proposed deferral account will be recovered if the RECAP is successful. In your response, please provide details of the timeline of the recovery and the rationale for the proposed recovery mechanism.

Response:

The balance in the deferral account would be transferred to rate base concurrently with the Reactivation Project assets upon completion of the project. Therefore, this amount would be part of the capital costs of the project and be recovered in the tolls.

- 32.4.1 If the RECAP is not successful, how does PNG propose to recover these costs? In the response, please provide details of the timeline of the recovery and the rationale for the proposed recovery mechanism.

Response:

PNG expects the RECAP to be successful and to be able to recover the reactivated project development costs through the tolls for the RS 80 customers. However, in the unforeseen circumstance whereby the RECAP is not successful and results in no RS 80 customers, PNG would need to evaluate the situation at that time and determine an appropriate course of action, which would be subject to BCUC approval. The work being contemplated will be used and useful for several years for future projects and reactivation scenarios. Therefore, PNG would consider delaying recovery for a few years while it continues to seek for new RS 80 customers, or consider offsetting the deferral account with the option fees credit deferral account.

On page 29 of its Application, PNG states, “[i]f projects have delayed COD’s or prospective shippers do not sign TSA’s following the RECAP, PNG submits that this work will be used and useful for several years for future projects and reactivation scenarios.”

- 32.5 Please clarify the expected number of years that the work described in Section 10 of the Application will be used and useful for.

Response:

PNG expects the work will be used and useful for at least 5 years. From years 5 to 10, there will be some residual value (i.e. 50%). After 10 years, much of the work will likely have to be redone.

- 32.6 Please discuss the likelihood that future projects will have the same specifications (i.e. number of customers, delivery points etc.) as the Reactivation Project and the initial works will therefore be used and useful for future projects.

Response:

PNG is confident that there is strong likelihood that future projects will have the same or similar specifications.

- First, there are only so many delivery points on the western part of PNG's system, and PNG has had numerous discussions with prospective shippers on the industrial sites under consideration that confirm this point.
- Second, PNG has received considerable commercial interest from project proponents, whereby the nature of the idea or project development concept has similarities.
- Finally, the entire northwest BC coast and corridor is opening up for development, with recent public projects that include LNG Canada, Pembina Watson Island, Ridley Island Propane Export Terminal, and the Prince Rupert port expansion.

PNG is well positioned to serve other industrial projects that are currently in development (many processing natural gas) for the long-term benefit of PNG's existing ratepayers. PNG believes it is important to conduct the necessary FEED/development work to meet customer requirements and to meet the market window for demand from industrial projects.