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Janet P. Kennedy
Vice President, Regulatory Affairs & Gas Supply

Via E-File

December 5, 2019

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. 2

Accompanying, please find a copy of PNG's responses to BCUC Information Request No. 2 on the referenced Application.

Please direct any questions regarding the attached to my attention.

Yours truly,

J.P. Kennedy

Attachments (2)

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

INFORMATION REQUEST NO. 2 TO PACIFIC NORTHERN GAS LTD.

Table of Contents

A. APPLICATION OVERVIEW

33.0 Reference: APPLICATION OVERVIEW
Exhibit B-4, BCUC IR 2.3, 11.7.1, 22.2.1
Certificate of Public Convenience and Necessity (CPCN)

In response to British Columbia Utilities Commission (BCUC) Information Request (IR) 2.3, Pacific Northern Gas Ltd. (PNG) states

> 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.

33.1 Please clarify what PNG considers to be "material capital expenditures" for the purpose of determining whether to file CPCN application(s) related to the Reactivated Capacity Allocation Process (RECAP).

Response:

PNG will follow its current practices in determining whether a standalone CPCN application is required taking into account the BCUC's directives as outlined in the 2018-2019 Revenue Requirement Decision. In that Decision, the BCUC directed PNG, in accordance with Section 45(6) of the UCA, to file with the BCUC at least once a year a report of all planned significant system modifications or additions. In its recently filed 2020-2021 Revenue Requirements Application, PNG has proposed a process to respond to this BCUC directive. Historically, PNG has filed CPCN applications for capital projects that are greater than $1 million and that have not been approved in its revenue requirements applications.

33.2 Please describe the potential circumstances under which PNG would file multiple CPCNs for capital expenditures related to the RECAP, as opposed to a single CPCN.

Response:

If customer requested in-service dates are spread significantly apart, PNG believes that it may make sense to treat each required increase in capacity as a separate capital project. If, for example, PNG can defer the work required for a customer with a more distant requested in-service date, without an adverse overall cost impact, PNG would submit a CPCN application for this work at later date, which would also provide savings in AFUDC to the benefit of all customers.

More importantly, it would not be prudent for PNG to incur expenditures to obtain a CPCN to develop capacity for a customer who has only signed a TRA. PNG does not plan to incur costs related to providing service to that customer until that customer has exercised their option and executed a TSA, unless that customer provides a backstop for PNG's costs. In these circumstances, PNG expects there would be multiple CPCN applications related to the RECAP process.

In its response to BCUC IR 11.7.1, PNG states that it will "[c]onsult 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."

33.3 Does PNG intend on requesting an expedited review of any CPCN application related to the RECAP? If so, please discuss the potential circumstances under which this would occur.

Response:

PNG may request an expedited review of a CPCN application depending on the outcome of the RECAP process. For example, one customer may require an in-service in the very near future which PNG determines can be accomplished without any adverse cost or other impacts to the overall project and to other customers who successfully participate in the RECAP process. Under this scenario, depending on the timeline, PNG may request an expedited review to meet the customer's needs.

33.4 Please identify any issues with seeking approval of Rate Schedule (RS) 80 before the number of customers, delivery points, capital expenditures, and any other costs associated with the RECAP are known and a CPCN is granted.

Response:

There are a range of possible outcomes associated with the RECAP process, but the alternative of not having an applicable rate is unworkable. PNG strongly believes that customers would not commit to any service whatsoever unless there is reasonable certainty with the rate that will apply to that service.

In the context of this uncertainty, PNG has reviewed a wide range of potential outcomes with respect to numbers of customers, delivery points and contract demands. PNG has also estimated the capital costs for the range of potential outcomes with sufficient detail to offer reasonable certainty on the associated tolls. The results of this analysis have been provided in its Application and supplemented through the information request process. As a result of this analysis, PNG submits the Commission has a solid foundation to conclude that the RS 80 rate will represent a fair and reasonable rate across all possible RECAP outcomes.

In its response to BCUC IR 22.2.1, PNG states that "In discussions with prospective bidders, toll certainty was a top priority."

33.5 Given the uncertainty regarding the scope of the Reactivation Project, please identify any potential risks associated with toll certainty for RS 80 customers.

Response:

PNG has attempted to balance the risks of the Reactivation Project and the design of the RS 80 toll. As explained in the RECAP Application, the scope of the Reactivation Process is subject to the uncertainty of the economics and the extensive development risks faced by the project proponents which have expressed interest in capacity under the RS 80 toll. By providing RS 80 toll certainty for a limited time, not only will PNG avoid certain undesirable toll outcomes as discussed in the response to BCUC IR No.1, Question 20.3, but PNG expects that the projects vying for transmission capacity will become more financeable.

Reducing the risk for these projects will increase their likelihood of success and therefore increase the likelihood that PNG's existing customers will enjoy the benefits from increased deliveries on its system. In its Application and in response to information requests, PNG's analysis shows that the Reactivation Project will provide benefits to its existing customers.

34.0 Reference: APPLICATION OVERVIEW
Exhibit B-4, BCUC IR 27–29
Depreciation

In its response to BCUC IR 27.11, PNG states:

> 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.

In its response to BCUC IR 29.1, PNG states with respect to the Large Volume Industrial Deferral Account (LVIDA):

> 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.

34.1 Please clarify if the assets that are the subject of reactivating, recommissioning and/or reinforcement activities related to the RECAP will be common assets to provide service to all PNG ratepayers. If yes, please provide details of the assets and how they will provide service to all PNG ratepayers.

Response:

As noted in the RECAP Application, PNG has proposed that any customer-specific facilities that may be required, such as laterals from PNG's transmission pipeline to a project site, will be developed and tolled independently of the RS 80 service. All facilities subject to reactivation, recommissioning or development under RECAP will handle gas flows which are not specific to any one customer. For example, the recommissioning of PNG's R2 compressor station will result in a substantial majority of the gas delivered on the PNG system flowing through and being compressed at that station; only deliveries to customers upstream of R2 would not be subject to compression at R2.

In other words, it is not just gas destined for the RS 80 customers that would be subject to compression at R2. This circumstance will apply to all RECAP facilities, including the other compressor stations which may be recommissioned under RECAP, as well as any reactivated pipeline loops or extensions of such pipeline loops. A portion of all gas will travel on the pipeline loops, whether these are existing loops or new extensions of the loops via a reinforcement project, and a portion will travel on the existing transmission line. There will be no loops or reinforcement projects under RECAP that will be committed solely to one or more RS 80 customers.

The fact that the RECAP facilities will be common facilities is best demonstrated by an example of a future event which causes a disruption on facilities which are currently not deactivated. If there were to be a line break in a section of pipe that is parallel to a reactivated loop, the reactivated loop would be used to provide service to all of PNG's customers to the extent feasible, typically with firm core market customers receiving priority service; it would not just be RS 80 customers receiving service in this situation. Similarly, if the existing compressor in use at R1 were to fail, the RS 80 customers would not receive priority delivery service on the basis that the other recommissioned compressor stations were 'RS 80 facilities' and not common facilities for use by all customers.

34.2 Please clarify if any new assets that are required as a result of the RECAP will be common assets to provide service to all PNG ratepayers. If yes, please provide details of the assets and how they will provide service to all PNG ratepayers.

Response:

Projects involving the construction of new facilities to accommodate additional volumes under the RECAP process would be classified by PNG as reinforcement projects. As noted in the response to Question 34.1, customer-specific facilities will be handled outside of the RECAP process. Otherwise, these new facilities under RECAP would be common facilities, as described in the response to Question 34.1.

34.3 If no RECAP shippers extend contracts beyond the initial term of 20 years, please provide a description of any RECAP assets that will continue to be used to provide service to other ratepayers and a description of any RECAP assets that will no longer be used and useful under low, medium and high-volume scenarios.

Response:

PNG expects that its response to the unlikely scenario described above would be similar to its response when Methanex terminated its contract in early 2006. PNG would review which facilities could be decommissioned or deactivated to reduce its cost of service without jeopardizing its ability to provide safe and reliable service to its remaining customers. It may be that the same facilities that were reactivated or recommissioned under RECAP would be those identified again for deactivation and decommissioning, however this cannot be absolutely determined at this time. In 2006, PNG deactivated segments of its transmission line solely because it could obtain substantial relief on assessments of, and therefore property taxes applicable to, those segments of line per the provisions of the existing Assessment Act Regulations. Changes in these regulations could impact the decision on which, if any, transmission pipe would be deactivated.

As another example of the difficulty in determining which assets would remain in service under the scenario proffered, it may be that unit 2 at compressor station R1, which is currently decommissioned, may be better fit for ongoing service at the end of the life of the RS 80 contracts than unit 1 which is currently in use.

Finally, it would be unlikely that any reinforcement project under RECAP would be deactivated at the end of the life of the RS 80 contracts. A reinforcement project, with an extension of an existing loop, would involve pipe that is more than 50 years newer and presumably in better condition with less risk of failure, than the existing pipe that it parallels. It would make much more sense to keep the new facilities in service and to deactivate the existing pipe.

34.3.1 For any RECAP assets that will no longer be used and useful under the scenarios presented above, please describe the proposed accounting treatment of any stranded assets and the expected rate impact of this treatment for PNG's existing ratepayers.

Response:

PNG does not expect that any RECAP assets would be retired from service under the scenario described. PNG, for the benefit of its customers and itself, would want an ongoing opportunity to seek new customers for the capacity available on its transmission system. PNG expects that any RECAP assets which are deemed to be no longer used and useful, would be retired under the normal course of business and would follow the same regulatory and accounting treatment that is afforded all other assets which are retired.

PNG acknowledges that if it is not successful finding new customers for the capacity made available when the RS 80 contracts expire, rates to its existing customers would need to increase. For this reason, PNG has suggested the use of the LVIDA to mitigate the rate impact on other customers under a scenario where RS 80 customer contracts terminate and PNG is unsuccessful finding new customers to contract the available capacity.

The other important consideration is that PNG has designed the RS 80 rate and all of its investment criteria under the RECAP process so that existing customers will never be worse off for PNG having undertaken the RECAP process and executed contracts with RS 80 customers. Even if the RS 80 customers don't renew their contracts at the end of their initial term, PNG's analysis shows that existing customers would not have been better off if PNG hadn't undertaken the RECAP process. In fact, PNG expects that its existing customers will realize substantial benefits when PNG contracts with RS 80 customers as proposed in its application.

In its response to BCUC IR 27.10, PNG states:

> 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.

In its response to BCUC IR 27.14, PNG states that it "…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."

34.4 Please provide the depreciation rates by asset class, based on the last Depreciation Study that was conducted in 2017, for the RECAP assets under a low, medium and high-volume scenario.

Response:

Based on the last Depreciation Study that was conducted in 2017, the depreciation rates by asset class are as follows:

- Transmission Mains (BCUC Code 465) - 65 year depreciable life or 1.5385% annual depreciation rate
- Compressor Equipment (BCUC Code 466) – 35 year depreciable life or 2.8571% annual depreciation rate.

The above depreciation rates were used in each of the low, moderate and high volume scenarios for the financial analysis submitted with the Application.

34.5 Please explain if there are circumstances whereby the depreciation rate for specific PNG assets and/or a class of assets may be amended during the asset(s) life if the estimated useful life also changes. If not, please explain why not. If yes, please provide an illustrative example.

Response:

PNG cannot determine at this time if there are circumstances whereby the depreciation rate for specific PNG assets or class of assets may be amended during the asset life. PNG expects to continue to undertake a depreciation study every five years or so which may result in changes to depreciation rates for PNG asset classes. In general, PNG does not have depreciation rates for specific assets, rather it has depreciation rates that apply to the asset classes specified under the BCUC uniform system of accounts.

The Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Master Glossary defines Useful Life as "The period over which an asset is expected to contribute directly or indirectly to future cash flows."

In its response to BCUC IR 27.7 PNG states:

> 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.

In its response to BCUR IR 28.1, PNG states:

> 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.

34.6 Based on the information available at present, please provide the estimated timeframe over which the RECAP assets are expected to contribute directly or indirectly to future cash flows.

Response:

At present, PNG has no reason to believe that the RECAP assets will not contribute to future cash flows over their full physical life, with the useful life then being equal to the physical life of the assets. PNG is not aware that any of the project developers interested in obtaining RECAP capacity are planning to shut down their projects at the end of their initial contract term for transportation service. However, the cash flows generated by the RECAP process are expected to be substantial relative to the cash flows generated by PNG's existing customers. PNG believes that it should plan conservatively to avoid a repeat of the circumstances that occurred when Methanex terminated its operations in Kitimat. Therefore, PNG has proposed the LVIDA and in the future expects it will propose amortization of the LVIDA taking into account the actual term of the TSAs entered into under the RECAP process. The downside risks associated with assuming that RECAP TSAs will be extended beyond their initial term is simply too large to ignore even with PNG's reasonable expectation of that event occurring.

35.0 Reference: APPLICATION OVERVIEW
Exhibit B-4, Response to BCUC IR 1.2, 2.1, 2.2.2, 5.2
System Expansion and Toll Premiums

In response to BCUC IR 2.1, PNG states that "[i]n 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."

PNG further states while "system expansion options [resulting from the RECAP process] 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 expansion'."

In response to BCUC IR 2.2.2, PNG states:

> 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 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.

Similarly, PNG states in response to BCUC IR 5.2:

> 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.

35.1 Please provide an illustrative example of a potential system expansion outcome of the RECAP process which would require new facilities that cannot be economically justified at the Base Toll of $1.00/GJ. Please include the following information in the scenario description:

- the contracted capacity;
- delivery points;
- scope of new facilities;
- capital cost estimate;
- the minimum toll premium required to economically justify this scenario;
- and any other relevant information.

Response:

PNG provides the following illustrative example of a potential system expansion outcome of the RECAP process which would require new facilities that cannot be economically justified at the Base Toll of $1.00/GJ:

- Contracted capacity: 120 MMSCFD.
- Delivery points: This illustrative scenario assumes 55 MMSCFD of contracted capacity to be delivered to Prince Rupert and 65 MMSCFD of contracted capacity to be delivered to Kitimat.
- Scope of new facilities: In addition to the full reactivation and recommissioning of its existing pipeline system and compressor stations, including the rebundling of some if its existing compressors, PNG would construct 160 km of 12-16" looping downstream of the R1, R2, R3, R4 compressor stations, as well as add new compression facilities at R5 (Terrace) and R6 (Salvus).
- Capital cost estimate: ~$500 million. This is based on a Class V estimate of $400 million to which PNG has added 25% for the purpose of this illustrative example. PNG also notes that this estimate could change significantly in the future as it is refined.
- The minimum Toll Premium required to economically justify this scenario: The minimum Toll Premium required to economically justify this illustrative scenario using the mains extension test is approximately $0.32/GJ.

Under this illustrative example of an uneconomic scenario, PNG has assumed the need for significant capital to loop its pipeline for a 20-year contract for volumes of 120 MMSCFD at the Base Toll of $1.00/GJ.

This illustrative scenario would not be economically justified. PNG would require prospective shipper(s) to agree to an appropriate Toll Premium, provide a capital contribution, contract for higher volumes, or a combination of these items that would make the project be economically justified before considering to proceed.

35.1.1 Please provide a supporting financial analysis for the scenario presented above in the same format as the analysis provided in Confidential Exhibit B-2.

Response:

PNG has filed the financial analysis supporting its response to Question 35.1 on a confidential basis as part of the responses to BCUC Confidential IR No. 2.

35.2 Please identify the maximum contracted capacity that would be categorized as "system expansion" rather than "major expansion". Please provide the following information to accompany this response:

- Estimated capital cost to deliver this capacity;
- the minimum toll premium required to economically justify proceeding with the work.

Response:

A system expansion project can increase contractible capacity up to approximately 120 MMSCFD. The system expansion project involves enough new transmission pipeline looping to require an Environmental Assessment Certificate which would add significant time to the project development timeline relative to increases of 88 MMSCFD or less of contractible capacity. PNG may not be able to meet shipper service request dates under this scenario.

- As outlined in PNG's response to Question 35.1, PNG has a Class V estimate for the capital cost of ~ $400 million to provide 120 MMSCFD of contractible capacity.
- The system expansion analysis indicates that a minimum toll premium of $0.07/GJ is required to economically justify a scenario where the 120 MMSCFD is fully contracted and the class V cost estimate proves to be accurate. However, PNG notes this outcome would not provide material benefits to existing ratepayers.
- In the event that there are outcomes to the RECAP where demand exceeds 88 MMSCFD, PNG will assess if the benefits to customers are increased with a system enhancement project before proceeding. In other words, PNG will not proceed with a system expansion project to add up to 32 MMSCFD of additional capacity if the benefits to existing ratepayers are eroded relative to the alternative of not undertaking the system expansion project.

35.3 Please specify the accuracy of capital cost estimates submitted in this Application Regarding Process for Allocation of Reactivated Capacity and Approval of Large Volume Industrial Transportation Rate (Application) and IR responses (e.g. AACE Cost Estimate Classification).

Response:

The accuracy of the capital cost estimates for Scenario 1 (10 MMSCFD – Low Volume) and Scenario 2 (53 MMSCFD – Moderate Volume) are AACE Class III (L:-10% to -20%, H: +10% to +30%). For Scenario 3 (88 MMSCFD – High Volume), PNG used a combination Class III work and some elements of Class V (-30% to +50%) cost estimates for the pipeline loops. In combination, PNG believes the work is at approximately a Class IV for Scenario 3.

B. REACTIVATED CAPACITY ALLOCATION PROCESS

36.0 Reference: REACTIVATED CAPACITY ALLOCATION PROCESS
Exhibit A-3, Order G-191-19; Exhibit B-4, BCUC IR 8.2–8.4
Consultation with Indigenous Nations

By Order G-191-19, PNG was directed to provide formal notice of the Application, the Regulatory Timetable and the order to all potentially affected communities and Indigenous nations.

In response to BCUC IR 8.3, PNG states: "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."

In response to BCUC IR 8.3.1, PNG states: "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."

36.1 Please provide a copy of the formal notice that was provided to potentially affected communities and Indigenous nations in response Order G-191-19.

Response:

The formal notice that was provided to potentially affected communities and Indigenous nations on August 20, 2019 in response to Order G-191-19 is reproduced on the pages that follow.

Pacific Northern Gas Ltd.

Notice of Regulatory Application

On June 28, 2019, Pacific Northern Gas Ltd. (PNG) filed an application with the British Columbia Utilities Commission (BCUC) for the approval of a new Large Volume Industrial Transportation Rate (RS 80) and draft forms of agreements required to support PNG's proposed Process for Allocation of Reactivated Capacity (RECAP) (Application).

As part of the regulatory review of the Application, the BCUC has issued Order G-191-19 which includes a directive for PNG to provide notification of the Application, the Regulatory Timetable and the BCUC Order to all communities and indigenous nations that may be potentially affected by the reactivation of PNG's system to its full existing capacity.

Background Information on PNG's Application

Following the loss of its largest industrial customers in the early 2000's, which included the closure of the Skeena Cellulose sawmills in Terrace and Smithers and their pulpmill in Prince Rupert; the shutdown of the Methanex Corporation methanol/ammonia complex in Kitimat; and the closure of West Fraser Mills' facility in Kitimat, PNG has been fully committed to exploring initiatives to increase the capacity utilization of its system through customer growth and adding new customers, thereby reducing existing customer rates.

Recent changes in market conditions have revived interest in PNG's transmission pipeline capacity. Indications are that this demand could be in excess of the volume that can be accommodated with PNG's existing facilities, thereby indicating that PNG's transportation capacity may need to be allocated and/or increased to the extent supported by market demand.

As such, PNG plans to conduct an open season to determine the demand for gas transportation capacity on its transmission system, both existing and prospective, and to allocate its existing and prospective capacity of approximately 80 MMSCFD or greater. To facilitate this process PNG is seeking BCUC approvals, including approval of the RS 80 tariff and draft forms of agreements necessary to support the RECAP. PNG's Application provides context as to how PNG designed the process to be open, fair, transparent and competitive.

Regulatory Timetable

Any new rates and any rate changes proposed by PNG are subject to review and approval via a regulatory review process administered by the BCUC. BCUC Order G-191-19 includes a preliminary regulatory timetable for the review of PNG's Application as follows:

Action	Date (2019)
BCUC Information Request (IR) No. 1	Thursday, September 5
Intervener Registration	Thursday, September 12
Intervener IR No. 1	Thursday, October 3
PNG Response to IRs No. 1	Thursday, October 17
Further process	To be determined

Potential Benefits

The increased volume throughput on PNG's transportation and distribution systems that may result from the RECAP initiative has the potential to result in reduced delivery charges for all customers in the service area. PNG is hopeful that the RECAP will result in the full utilization of its transmission system which will provide benefit to existing ratepayers.

Future Steps

As an outcome of the RECAP, PNG will have a current measure of demand for capacity on its system. With this information, PNG will be able to assess the nature and extent of capital improvements required for its system in order to meet this demand. PNG will apply to the BCUC for approval of its plans and the underlying expenditures. As part of this future process, PNG will engage with stakeholders that may potentially be affected by the plans, including communities and indigenous nations.

Further Information

Further information on the regulatory proceeding, including PNG's Application and BCUC Order G-191-19, can be found on the BCUC website at: https://www.bcuc.com/ApplicationView.aspx?ApplicationId=691

If you have any questions on PNG's Application or this notification, please do not hesitate to contact Brock John, PNG's Director, Business Development and Stakeholder Relations, at 604-697-6223 or bjohn@png.ca.

36.1.1 Please include in the response above a) a list of the communities and Indigenous nations that PNG notified, including the contact person (if any) that the correspondence was addressed to; b) the manner in which the notice was provided; c) a description of what was included in the notice; and d) a chronology of any additional meetings, other communications and/or actions that PNG has had with these parties.

Response:

PNG has filed the information requested on a confidential basis as part of the responses to BCUC Confidential IR No. 2.

36.2 Has PNG received any feedback from any communities and/or Indigenous nations regarding the RECAP and Reactivation Project since filing its responses to BCUC IR No. 1 in this proceeding? If so, please describe the content of this feedback.

Response:

PNG has received very little feedback subsequent to sending out the notification of this proceeding. However, any feedback received to date has been positive, particularly related to the prospect of future reduced tolls for residential and commercial customers.

37.0 Reference: REACTIVATED CAPACITY ALLOCATION PROCESS
Exhibit B-1, pp. 13–14
Evaluation of Bids

In May 2013 the National Energy Board (NEB) issued its reasons for decision in the matter of the Trans Mountain Pipeline ULC Application Pursuant to Part IV of the *National Energy Board Act* for approval of the transportation service to be provided and the toll methodology to be applied on a future expanded Trans Mountain Pipeline System. The toll methodology referenced in the reasons for decision provides for the following:

- 20-year Fixed Toll Component will be determined by applying a 10 percent (10%) discount to the adjusted 15-year Fixed Toll Component; and
- Volume commitment discount of 7.5 percent (7.5%) on the Fixed Toll Component for contracts with volumes greater than or equal to 75,000 bpd.[1]

37.1 Please discuss if PNG considered a toll methodology for RS 80 using a predetermined premium or discount to the Base Toll based on specific bid characteristics (e.g. length of contract, volume). Please include in the response any pros and cons associated with this type of methodology for the PNG RECAP, as compared to the Toll Premium methodology proposed in the Application, and ultimately why this type of toll methodology was not selected.

Response:

PNG is well aware that many pipelines regulated by the Canada Energy Regulator (formerly the National Energy Board) offer discounts for longer term contracts. PNG's current rates generally reflect the end-use customer's volume, with larger volume customers typically having lower rates. PNG believes that its proposed RS 80 rate is consistent with the practice of having a lower rate apply to larger volume contracts. Of course, it is only practical to have the customer categories in volume blocks. PNG has proposed that RS 80 contracts be available only to customers committing to 10 MMSCFD or greater. On the other hand, PNG did not want to create a strong incentive for the RECAP capacity to be fully taken up by only one or two customers. By having a larger number of RS 80 customers, credit risk is diversified, so that failure of one customer has less of a negative impact on PNG and its other customers than a circumstance where the full amount of RECAP capacity is held by one customer. For that reason, PNG dismissed the idea of having discounts increase as the RS 80 customer's volume increased.

PNG also believes that its proposed Toll Premium methodology provides an effective incentive for prospective RS 80 customers to maximize the term of their bid. With the bid ranking methodology using a net present value of future net revenues streams, bidders will have an incentive to maximize the term of their bid. In fact, PNG's proposed Toll Premium methodology has been designed to maximize the value of the RECAP capacity to PNG and its existing customers; the toll methodology cited in the reference above would not accomplish that.

[1] NEB, Trans Mountain Pipeline ULC, Reasons for Decision dated May 2013, p. 21. Retrieved from https://apps.cer-rec.gc.ca/REGDOCS/Item/View/955985

C. TRANSPORTATION SERVICE AGREEMENT

38.0 Reference: TRANSPORTATION SERVICE AGREEMENT
Exhibit B-1, Appendix B; Exhibit B-4, BCUC IR 11.5.3, 11.7.1
Conditions Precedent

With respect to the risks to PNG and its existing ratepayers if permit approvals are delayed or denied, in its response to BCUC IR 11.5.3 PNG states:

> 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 [Transportation Service Agreement], 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.

38.1 If any of the conditions precedent are not satisfied by the dates set out in Conditions 4.4(a) of the TSA due specifically to a delay in receiving approvals, please confirm or otherwise explain that a potential outcome is that the TSA may be terminated in accordance with Section 4.5.

Response:

Confirmed.

In response to BCUC IR 11.7.1, PNG states:

> …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.

38.2 Please discuss the circumstances under which PNG would waive a condition precedent that is not satisfied by the date outlined in Section 4.4(a) of the TSA.

Response:

PNG may waive a condition precedent that is not satisfied by the date outlined in Section 4.4(a) of the TSA if there is a reasonable chance that the condition can be satisfied in a timeframe which allows the Reactivation Project to proceed to COD while meeting the requirements of the respective shippers.

D. TRANSPORTATION RESERVATION AGREEMENT

39.0 Reference: TRANSPORTATION RESERVATION AGREEMENT
Exhibit B-1, p. 28
Reservation Fees

On page 28 of the Application, PNG states that it "… also plans to record the reservation fees to be collected from prospective shippers who have executed TRAs into the LVIDA."

39.1 Please clarify if all initial reservation fees and reservation extension fees that are not credited to the demand charges payable under a TSA will be to the benefit of PNG's existing ratepayers or not.

Response:

Consistent with past practice, as applied to option fees paid by LNG Partners and EDFT, all reservation fees will be recorded in a deferral account to be amortized to the benefit of PNG's ratepayers.

40.0 Reference: TRANSPORTATION RESERVATION AGREEMENT
Exhibit B-1, pp. 15–18; Appendix D
Previously Approved TRAs

On page 15 of the Application, PNG states the following regarding the TSA:

> A Service Agreement for Firm Transportation Service was last reviewed by the BCUC during the regulatory proceeding for PNG's Application for a Certificate of Public Convenience and Necessity to Construct and Operate an Interconnecting Pipeline between Kitimat and Douglas Channel which was approved on October 9, 2015 under Order C-10-15. The TSA was attached to the approved TRA between PNG and EDFT.
>
> PNG used this approved TSA as the basis for the draft TSA for the proposed Rate Schedule 80 Tariff (see Appendix B).

Further, on page 18 of the Application PNG states that "PNG has made use of the GTCs incorporated into the draft EDFT TSA as the basis for the General Terms and Conditions – Industrial Transportation Service for the proposed Rate Schedule 80 Tariff (see Appendix E)."

40.1 Please clarify if the draft form Transportation Reservation Agreement (TRA), attached as Appendix D, is based on a TRA previously approved by the BCUC. If yes, please provide the following:

- details of the previously approved TRA
- a blacklined copy of the current draft form TRA, highlighting the differences
- An explanation for any significant changes made.

Response:

PNG loosely based its proposed RECAP TRA on the Interconnecting Transportation Reservation Agreement (ICTRA) executed between PNG and EDFT and approved by the BCUC under Order C-10-15. However, the circumstances surrounding the arrangements with EDFT for the Interconnecting Pipeline were substantially different than the arrangements PNG proposes to have with prospective RS 80 shippers executing a TRA under the RECAP process.

As requested, PNG has prepared a blackline of the proposed RECAP TRA with the approved ICTRA (see PDF file: Attachment BCUC IR 2.40.1 – TRA Comparison). Given the modifications, PNG did not suggest that the RECAP TRA was based on the approved ICTRA and PNG did not feel it was helpful to submit the blackline with the Application. Most notably, the ICTRA involved the development of a new pipeline with a single foundation shipper, which contrasts distinctly with the circumstances of the RECAP process. Under the ICTRA, as can be seen in the blackline provided, the development of the new pipeline was to be coordinated with the development of the shipper's facilities, the shipper was to be responsible for all development costs of the Interconnecting pipeline and the shipper was not paying reservation fees as there were no existing facilities on which to reserve capacity for the shipper's use to the exclusion of other potential shippers. That is, the major provisions of the proposed RECAP TRA are substantially different from those agreed with EDFT in the ICTRA.

40.2 If no, please explain why not.

Response:

Please see the response to Question 40.1.

E. GENERAL TERMS AND CONDITIONS

41.0 Reference: GENERAL TERMS AND CONDITIONS
Exhibit B-4, BCUC IR 19.5
Credit Requirements

In its response to BCUC IR 19.5, PNG states that "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."

41.1 Please provide a blacklined copy of the amended draft General Terms and Conditions (GTCs) including the proposed change referenced in the response to BCUC IR 19.5.

Response:

As requested, PNG has prepared a blackline of the amended draft General Terms and Conditions reflecting the referenced change (see PDF file: Attachment BCUC IR 2.41.1 - RECAP GTCs - Changes to FS Requirements).

42.0 Reference: GENERAL TERMS AND CONDITIONS
Exhibit B-4, BCUC IR 7.5, 19.6; Exhibit B-1, p. 18; Appendix E, Section 17.8
Additional Credit Support

In its response to BCUC IR 7.5, PNG states:

> 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.

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.

42.1 Please explain why the base requirement referenced in the response to BCUC IR 7.5, being that the shipper will provide a letter of credit for its pro rata share of the cost of additional facilities, is not an explicit requirement in the GTCs rather than something that "may" be required.

Response:

PNG believes that it is reasonable to take into account the credit quality of the shipper when determining the amount, if any, of a letter of credit that would be required to support construction of additional facilities. For example, PNG would not expect to require a letter of credit from a shipper that has a AA credit rating – requiring a letter of credit would simply help dissuade the shipper from developing its project in PNG's service area and the issuer of the letter of credit may not have as good a credit rating as the shipper.

42.1.1 Please clarify if PNG will seek additional credit support from both creditworthy and non-investment grade Shippers in accordance with Section 17.8 of the revised GTCs.

Response:

Depending on the magnitude of the costs and therefore the exposure to stranded assets from developing additional facilities, PNG expects that it will seek additional credit support from certain investment grade shippers, particularly those that are low investment grade.

42.1.2 Please discuss if there are any issues and/or considerations with including the base requirement, being that the shipper will provide a letter of credit for its pro rata share of the cost of additional facilities, as an explicit requirement in the GTCs for instances where a system reinforcement project is undertaken.

Response:

As noted in its response to Question 42.1, requiring a highly rated entity to provide a letter of credit simply adds costs to the shipper's project without providing any material value, potentially dissuading the shipper from developing a project in PNG's service area. Also, requiring all shippers to provide a letter of credit regardless of their credit rating could also mean that an investment grade entity would use a non-rated subsidiary to enter into the contract as they receive no value for signing the transportation agreement directly or for providing a guarantee of the subsidiary's obligations.

42.2 Please identify any specific circumstances under which a Contribution in Aid of Construction (CIAC) would be required for the Reactivation Project.

Response:

PNG intends to use financial analysis that is akin to the mains extension test applied to its core market customers, to determine whether a shipper's contract for RS 80 service will provide net benefits to PNG's existing customers. If the shipper's transportation agreement does not generate sufficient cash flow to meet these requirements, PNG would offer the opportunity to the shipper to provide a CIAC in order to justify the capital expenditures required to provide them with service.

On page 18 of the Application, PNG lists modifications to the previously approved GTCs, including:

> 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.
>
> 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.

42.3 Please discuss the potential impacts on the outcome of the RECAP if the credit requirements in the GTCs, including the definition of credit support and the minimum acceptable rating, are maintained as they were in the previously approved GTCs.

Response:

Through the definition of Credit Support, the previously approved GTC's did not provide for any shipper or a shipper guarantor to be rated below BBB. Applying these standards would mean that BBB- or lower or non-rated entities could not participate in the RECAP process. Given the difficulty in attracting highly rated shippers to develop relatively small projects, being limited by the Reactivation Capacity that is available, PNG believes that this would severely limit the number of potential project developers that would participate in the process, reducing competition for the capacity and likely leaving PNG's pipeline system underutilized and providing little, if any, rate benefit to PNG's existing ratepayers.

Further, as stated by PNG in the response to BCUC IR No. 1, Questions 19.2 and 19.3, it has designed the credit requirements so there will be little to no risk that PNG's existing customers would be worse off even in the circumstance where a shipper defaulted on its TSA payment obligations.

In response to BCUC IR 19.6, PNG states:

> 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.

42.4 If PNG were directed to provide compliance filings to the BCUC regarding its credit monitoring activities related to RS 80 ratepayers, please provide details of any timing and content considerations.

Response:

If the BCUC felt that it was necessary to have oversight of PNG's credit monitoring activities, PNG would be able to provide a table on a quarterly, biannual or annual basis which would identify each RS 80 shipper, their current credit rating, any change in the shipper's credit rating from the previous report and the amount of credit support currently on hand from the shipper. PNG believes this would be sufficient for the BCUC to ensure that PNG is monitoring and enforcing the credit requirements for RS 80 shippers. If any shippers provide private ratings, the report may need to be filed with the BCUC on a confidential basis.

F. NEW LARGE VOLUME INDUSTRIAL TRANSPORTATION RATE (RS 80)

43.0 Reference: RATE SCHEDULE 80
Exhibit-4, BCUC IR 2.2.2; *Utilities Commission Act,* RSBC 1996, chapter 473, section 59(5)
Toll Premiums

In response to BCUC IR 2.2.2, PNG states:

> 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.

Section 59(5) of the *Utilities Commission Act* (UCA) reads:

> In this section, a rate is "unjust" or "unreasonable" if the rate is
>
> (a) more than a fair and reasonable charge for service of the nature and quality provided by the utility,
> (b) 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
> (c) unjust and unreasonable for any other reason.

43.1 Please clarify if and when PNG will seek BCUC approval of any toll premiums once there are executed TRAs and/or TSAs.

Response:

PNG is requesting that the BCUC find that the toll premiums that result from the RECAP bidding process will not be unjust or unreasonable pursuant to its Application. On a confidential basis, PNG will seek approval of the toll premium concurrently with its application for approval of an executed TSA, particularly given that it is the TSA that will embody the contractual obligation to pay the toll premium bid by the shipper.

43.2 In instances where there are new facilities required as a result of the RECAP that cannot be economically justified at the Base Toll of $1.00/GJ, does PNG consider that the Base Toll on its own is not an unjust or unreasonable rate? Please discuss.

Response:

If the bids received under the RECAP process indicate that new facilities are required but would not be justifiable at the Base Toll, this would not in any way indicate that the Base Toll is unjust or unreasonable. This approach is similar to a main extension for a residential or commercial customer. The fact that the revenue generated by the approved rate for the residential or commercial class may not justify a particular main extension, does not by itself make the approved rate unjust or unreasonable.

On page 26 of the Application PNG states that it "proposes that the Toll Premium remain fixed for the duration of the contract term and any contract renewals."

In its response to BCUC IR 23.2, PNG states:

> 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.

Section 59(1) of the UCA states:

> A public utility must not make, demand or receive
>
> (a) an unjust, unreasonable, unduly discriminatory or unduly preferential rate for a service provided by it in British Columbia, or

43.3 Please elaborate on the reasons why PNG proposes that the Toll Premium remain fixed for the duration of the contract term and any contract renewals.

Response:

PNG considered both alternatives – i.e. keeping the Toll Premium fixed for the duration of the contract and its extensions, or having the Toll Premium be subject to the same rate adjustments as the Base Toll. PNG concluded that the fixed Toll Premium would be more fair to prospective customers with only the Base Toll being subject to future rate adjustments. PNG designed the Base Toll according to accepted rate design principles to be fair and reasonable and neither unduly discriminatory nor unduly preferential for the services to be provided. The Toll Premium then enables bidders to submit competitive bids to be allocated firm capacity on PNG's system or be allocated reservation capacity in an open, fair, transparent and competitive process. The Toll Premium enhances a bidder's chance to succeed in the RECAP process. PNG also concluded that this would be more predictable for the bidders and therefore encourage premium bids at a higher rate.

43.4 If future rate rebalancing indicates the need to either increase or decrease RS 80 rates, please discuss any issues and/or considerations related to having a fixed Toll Premium and any associated mitigating factors.

Response:

PNG suggests that the issues and considerations with respect to the Toll Premium are related to treatment of the Toll Premium itself when evaluating revenue-to-cost ratios for the various customer classes in determining whether rate rebalancing is warranted in the first place. PNG proposes that the Toll Premiums be used to reduce the cost of service that is to be allocated to all customer classes rather than being a source of revenue for the RS 80 class. Under this proposal, all customers will benefit from the Toll Premiums, rather than just the RS 80 class. PNG submits that this is a fair and reasonable approach given that the RECAP facilities required for RS 80 customers will be common facilities and will not be allocated specifically to the RS 80 class. Using this methodology, any new RECAP facilities which are economically justified only if there is a Toll Premium won't have to be isolated in the allocation process. There are currently no common transmission facilities (i.e. transmission facilities that are not customer specific facilities) that are allocated to a particular customer class.

PNG is not aware of any issues and/or considerations that would arise specifically related to having the Toll Premiums fixed in relation to future rate rebalancing activities, though by following the proposed process noted in the preceding paragraph, rate rebalancing may not have to occur as often when the Toll Premiums are fixed. If the Toll Premiums were allocated only to the RS 80 class of customers and the Toll Premiums were fixed, tolls may need rebalancing more regularly since the total RS 80 revenues would potentially not increase at the same pace as the revenues for other customer classes. PNG does not believe that having a fixed Toll Premium results in any different issues or considerations than the issues and considerations regarding the fixed charges in many of the other customer classes which are also not subject to general rate increases.

43.5 Assuming the Base Toll and PNG's other rates will be periodically adjusted for changes in PNG's cost of service, please identify any issues related to Section 59(1) of the UCA with having a fixed Toll Premium.

Response:

The fixed Toll Premium does not give rise to any Section 59(1) issues related to future toll adjustments. PNG designed the Base Toll according to accepted rate design principles to be fair and reasonable and neither unduly discriminatory nor unduly preferential for the services to be provided. The Toll Premium enable bidders to submit competitive bids to be allocated firm capacity on PNG's system or be allocated reservation capacity in an open, fair, transparent and competitive process. The Toll Premium is voluntary, and all potential shippers may bid on an equal footing. Once the Commission approves the tolls, they are deemed to be just and reasonable and in compliance with Section 59(1). Over time the percentage differential between RS 80 tolls will generally decrease as future Base Rate toll increases, thereby decreasing any differential across RS 80 rates.

As a relevant comparison, the BCUC has not found that PNG's rates in one customer class vis-à-vis another customer class have violated section 59(1) by not having the fixed charges subject to general rate increases.

43.6 Please discuss if there are any specific issues and/or consideration related to having a Fixed Toll Premium in instances where new facilities are required that are economically justified based on the Toll Premium.

Response:

PNG does not anticipate any specific issues related to having a Fixed Toll Premium when evaluating whether new facilities are economically justified for an RS 80 shipper. PNG's system expansion evaluation is undertaken without adjustments to Base Toll or the Toll Premium over the contract period, providing a reasonable amount of conservatism in the analysis.

44.0 Reference: RATE SCHEDULE 80
Exhibit B-4, BCUC IR 22.5, 23.2
Rate Design

In its response to BCUC IR 22.5 PNG states that it "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."

In its response to BCUC IR 23.2, PNG states:

> 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.

44.1 Please provide the results of PNG's analysis of the revenue to cost (R/C) ratio for RS 80, including the estimated R/C ratio for the customer class.

Response:

PNG's analysis of the revenue to cost (R/C) ratio for RS 80, assuming no Toll Premium, for the three scenarios provided are as follows:

- Under low volume case scenario 1 where only 10 MMSCFD is contracted to Kitimat, the R/C ratio is 0.54. This scenario illustrates the impact of a worst case scenario whereby only one customer contracts for the minimum volume and notes that it considers this a very unlikely scenario based on all the discussions with prospective bidders.

- Under the moderate volume case scenario 2 whereby 53 MMSCFD is contracted to Kitimat, the R/C ratio is 1.05.

- Under the high volume case scenario 3 whereby 88 MMSCFD is contracted (55 MMSCFD to Prince Rupert and 33 MMSCFD to Kitimat), the R/C ratio is 0.96.

44.1.1 Please confirm, or explain otherwise, that the analysis provided above includes all allocated costs to provide service to RS 80 customers, rather than only the incremental cost of providing service to this customer class.

Response:

PNG confirms that the analysis used to provide the results for the noted scenarios in the preceding response includes all allocated costs to provide service to RS 80 customers, rather than only the incremental costs of providing service to this customer class.

44.2 Please provide the results of PNG's analysis of the revenue to cost ratios for all customer classes.

Response:

The table that follows summarizes the results of PNG's analysis of the revenue to cost ratios for the main customer classes under the three proposed scenarios described in response to Question 44.1 and assuming a conservative scenario with no Toll Premiums from new RS80 customers.

	Revenue / Cost Ratio			
	Current	**Scenario 1**	**Scenario 2**	**Scenario 3**
Rate Class				
Residential Sales	0.87	0.92	0.73	0.84
Small Commercial Sales	1.10	1.25	1.10	1.19
Large Commercial Sales	0.89	1.05	1.00	1.04
Commercial Transport	1.05	1.24	1.15	1.20
Small Industrial (Rate 4)	1.26	1.47	1.33	1.35
Large Industrial Customer	0.91	1.16	1.41	1.62
New RS 80 Customer(s)	-	0.54	1.05	0.96

44.2.1 Please discuss the expected impact of introducing RS 80 on the R/C ratios and future rate rebalancing for PNG's other customer classes.

Response:

PNG expects a successful RECAP process whereby the majority or all of the unutilized reactivated capacity on its pipeline will be contracted by shippers. This would result in the indicative R/C ratios that fall in between the R/C ratios shown for Scenario 2 (53 MMSCFD) and Scenario 3 (88 MMSCFD) as per the table provided in response to Question 44.2.

The table shows that depending on the outcome of the RECAP, some customer classes R/C ratios will increase while some customer classes R/C ratios will decrease compared to the current R/C ratios and would require future rate rebalancing for most customer classes. PNG expects to file a FACOS study and Rate Design application following the completion of the RECAP to address this. PNG also reiterates that under all foreseeable outcomes of the RECAP, existing customers are better off with new customers under the proposed RS 80.

44.3 Please discuss the impact that any future rate rebalancing is expected have on the RS 80 rate.

Response:

PNG does not foresee future rate rebalancing on the RS 80 rate. PNG has proposed a fixed Base Toll for the RS 80 for a period of time and then having the RS 80 rate on a rolled-in basis subsequent to the completion of the RECAP whereby all RECAP customers' projects are in service. Based on PNG's modelling of a number of potential and expected outcomes of the RECAP and its assumptions (somewhere between Scenario 2 and Scenario 3), PNG expects the R/C ratio for the RS 80 rate to be in the range of 0.89 to 1.34, which PNG asserts would be reasonable to maintain.

44.4 If future rate rebalancing indicates the need to either increase or decrease RS 80 rates, please discuss any issues and/or considerations related to RS 80 toll certainty and any associated mitigating factors.

Response:

Please see the response to Question 44.3. PNG does note that should an unforeseen situation arise whereby PNG determines that it is necessary to conduct a future rate rebalancing, PNG expects to consult with the RS 80 customers and consider undertaking a full rate design hearing that would include the participation of the RS80 customers to arrive at a fair and reasonable outcome from the regulatory process.

45.0 Reference: RATE SCHEDULE 80
Exhibit B-1, p. 23; Exhibit B-4, BCUC IR 2.2.2
Rate Design

On page 23 of the Application, PNG states:

> PNG has evaluated the cost of transportation under various potential outcomes of the RECAP process, each with its own associated incremental capital and operating cost estimate, and subscribed firm capacity. While the outcome of the RECAP is unknown at this time, PNG has set a Base Toll for Rate Schedule 80 that will recover more than the incremental cost of service associated with providing service to large volume industrial transportation customers in all potential outcomes. In all possible outcomes of the RECAP, all classes of existing customers stand to benefit from the additional revenues from Schedule 80 shippers through lower, and in some cases significantly lower, delivery rates.

In its response to BCUC IR 2.2.2, PNG states:

> 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.

45.1 Please explain if PNG has conducted an analysis of various potential outcomes of the RECAP process using all allocated costs to provide service to RS 80 customers, rather than only the incremental cost of providing service to this customer class. If yes, please provide the results of the analysis.

Response:

As noted in the response to Question 44.1.1, the revenue-to-cost ratio analysis used to determine the proposed Base Toll is based on allocating all costs to RS 80 customers, not just the incremental cost. The results show a fair allocation of all costs to the RS 80 class under the expected outcomes from the RECAP process.

It would not make economic sense to add an RS 80 customer if the incremental costs of doing so are not fully covered by the revenues from that customer. This is directly akin to the main extension test as applied to the addition of new residential and commercial customers.

PNG has provided results for certain expected scenarios (the moderate volume Scenario 2 and the high volume Scenario 3) as well as the worst case scenario (the low volume Scenario 1) for illustrative purposes.

45.1.1 If the answer to the preceding IR is no, please elaborate on why PNG considers an analysis based on the incremental cost of service rather than all allocated costs to provide service to RS 80 customers to be appropriate.

Response:

While PNG has relied almost completely on a fully allocated cost of service model to determine the proposed RS 80 rate, it also believes that incremental cost analysis of adding RS 80 customers, when new expenditures are required, is critical in determining the volume that should be accommodated. If a new customer's anticipated revenues exceeds the incremental cost of providing service to that customer, that customer will be making a contribution to PNG's existing cost base, resulting in reduced rates for other ratepayers. PNG generally believes this result meets the public interest for adding that customer and has been the basis for the BCUC-approved main extension test as well as discounted load retention rates.

46.0 Reference: RATE SCHEDULE 80
Exhibit B-1, p. 23; Exhibit B-4, BCUC IR 1.2, 21.2, 24.1
Rate Design

In its response to BCUC IR 21.2, PNG states:

> …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.

In its response to BCUC IR 1.2, PNG states:

> 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.

In its response to BCUC IR 24.1, PNG states:

> 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).

46.1 For the shippers that have expressed interest in participating in the RECAP, are there any viable and cost-effective alternatives to using PNG's system? Please discuss.

Response:

Shippers that have currently expressed an interest in participating in the RECAP are developing projects that fall into two categories;

1. Micro LNG facilities which propose to transport LNG to market via shipping containers, and
2. Small floating or land based LNG facilities which propose to ship LNG via bulk shipments using tidewater ports.

Both types of projects could potentially gain access to this relatively small volume of natural gas from one of a number of proposed very large natural gas pipeline projects (Prince Rupert Gas Transmission, WestCoast Connector Gas Transmission, and Pacific Trail Pipeline). However, these proposed pipeline projects require a significant base volume to underwrite each of these projects and require many years to construct, therefore the small projects interested in RECAP could be delayed. For these small volume LNG projects, currently expressing an interest in the PNG RECAP, the PNG alternative provides faster access to the natural gas feedstock, at a reasonable cost, thereby providing the project proponents with faster access to the emerging niche markets.

While the micro LNG facilities could be located further upstream, towards the natural gas production sources, transportation costs via road or rail are expensive, so the PNG RECAP provides a cost effective and timely alternative.

46.2 Have prospective participants in the RECAP indicated to PNG the upper limit of the RS 80 rate that would be economical for them to proceed with their projects? If so, please provide details.

Response:

The supply and marketing of LNG is very competitive, especially as the small and micro LNG focused markets in Asia are developing at a very fast rate. The prospective participants in the RECAP have therefore been very careful to not provide PNG with competitive cost structure information and therefore PNG does not know what the upper limit of the RS 80 rate would need to be for the projects to economically proceed.

46.3 Please discuss whether the determination made during the Multi-Lateral Process that a $2.00/GJ toll would be considered economically prohibitive for developers to proceed with projects is relevant to the current RECAP process.

Response:

The Multi-Lateral Process was an amalgamation of transportation service made up of the existing unutilized capacity on the PNG West transmission system (RECAP volumes) along with the expansion capacity proposed on the PNG Looping Project. The $2.00/GJ toll determination made under the Multi-Lateral Process is not relevant to the current RECAP process.

47.0 Reference: RATE SCHEDULE 80
Exhibit B-4, BCUC IR 20.4, 21.6
Fixed Charge

In its response to BCUC IR 20.4, PNG states:

> 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.

In its response to BCUC IR 21.6, PNG states:

> … 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.

47.1 From PNG's perspective, please describe the purpose of the fixed charge and the delivery charge in designing rates, including a discussion of the types of costs that each charge is intended to recover.

Response:

PNG's proposed rate design for the RS 80 service is typical of gas transmission services provided by gas transmission companies across Canada, where the shipper reserves capacity and pays a demand charge related to the amount of capacity reserved. The demand charge for the proposed RS 80 tariff does not vary with the volume of gas delivered and is set to recover the cost of service allocated to the RS 80 class, other than the costs recovered in the Taxes charge. The Taxes charge for RS 80 customers will vary with the volume of deliveries to that customer, and will include the customer's share of motor fuel taxes and carbon taxes on use of gas by PNG. The RS 80 toll structure is essentially identical to the BCUC-approved toll structures that applied under the Methanex and West Fraser load retention contracts as well as being the same as the toll structure that was approved, but never implemented, for the LNG Partners and EDFT transportation contracts.

The demand/commodity toll structures discussed in the preceding paragraph, that have been utilized under some of PNG's large transportation contracts, differ from the fixed charge and delivery charge tolling arrangement that PNG uses for its core market distribution system customers. For its distribution system customers, PNG collects a relatively small fixed charge that is not directly related to the capacity that is required to serve the customer. For context, the fixed charge in the residential class is expected to be just over 11% of the annual non-gas costs collected from this class in 2020. The majority of the cost of service allocated to distribution customers is recovered via the delivery charge, which is applied to the energy actually delivered to each distribution customer.

It is PNG's understanding that the fixed charges for its core market customer classes have been set taking into account broad public policy goals rather than being set to recover a particular set of costs incurred by PNG. For example, PNG is aware of BCOAPO's position that fixed charges should be kept low as they believe that higher fixed charges adversely affect low income households. On the other hand, economic efficiency would be better achieved if the fixed charges recovered all of the fixed costs of providing the service while the delivery charge would recover those costs that were truly variable, that is, they varied with the consumption of gas by the customer.

The BC Hydro contract is a special contract with service available only to BC Hydro's gas-fired stand-by generating facility in Prince Rupert. PNG understands that due to the stand-by nature of the facility, it was able to negotiate inclusion of a monthly fixed charge to assist with recovery of the costs of customer specific facilities installed for BC Hydro. PNG's other non-core interruptible transportation contracts do not have a fixed charge.

47.2 Please clarify if general rate increases are applied to both the fixed charge and the delivery charge. If not, please discuss if there are any issues with not having an RS 80 fixed charge and any mitigating factors.

Response:

For the RS 80 toll, general rate increases would apply to the demand charge following the proposed 5-year period over which the toll would remain at $1.00/GJ. There are no issues that would arise as a result of the toll structure for the RS 80 service not having a fixed charge in addition to the proposed demand charge.

For PNG's core market, general rate increases have been applied only to the delivery charge. The current fixed charges have been in effect for over 22 years. While the general rate increases have only been applied to the delivery charge, the rate increase is allocated pro rata among customer classes using revenues from both fixed charges and the delivery charges.

For the BC Hydro special contract, general rate increases are applied to both the delivery charge and the fixed charge.

48.0 Reference: RATE SCHEDULE 80
Exhibit B-4, BCUC IR 22.1, 22.3.2; UCA, section 59(1)
Fixed Base Toll

In its response to BCUC IR 22.1, PNG states:

> 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 its response to BCUC IR 22.3.2, PNG states:

> 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.

48.1 Please elaborate on why PNG considers 5 years to be an appropriate length of time for RS 80 to be a fixed rate, versus some other length of time.

Response:

The selection of a five-year period was based on PNG's discussions with project proponents expressing an interest in participating in the RECAP process; PNG understood from these discussions that the proponents reasonably expected to complete their projects and commence taking gas transportation service within a five-year time frame. However, PNG has recently been advised by one of the proponents that their site acquisition process is not advancing as quickly as had been expected and therefore they may need more than 5 years to compete their project. PNG hopes to maintain some latitude so that the optimum result from the RECAP process can be achieved.

48.2 Please discuss the expected impact, if any, that having a rolled in rate from the beginning, rather than a fixed rate for a specified period, would have on the outcome of the RECAP.

Response:

PNG believes that this scenario would have two major implications for the RECAP process. First, since it is reasonable to expect tolls to decline as RS 80 customers come into service, a rolled-in rate from the beginning would create some incentive for the prospective shippers to delay their projects to take advantage of lower RS 80 tolls in the proposed scenario. Second, and in PNG's opinion more importantly, the prospective shippers would be faced with more volatility and uncertainty in the RS 80 rate which could eliminate their willingness to continue to develop their project and participate in the RECAP process or affect their willingness to bid toll premiums.

48.2.1 Would PNG proceed with the RECAP if RS 80 was approved as a rolled in rate from the beginning, rather than a fixed rate for a set time? Please discuss.

Response:

PNG believes that the proposed 5-year fixed demand charge time-frame is eminently reasonable and is expected to be beneficial to its existing customers as demonstrated by the example provided by PNG in the response to BCUC IR No.1, Question 20.3. As further demonstrated by that example and as noted in the response to BCUC IR No.1, Question 20.1, PNG believes that it would be unfair and unreasonable that RS 80 shippers with later in-service dates would benefit from the rate reductions expected following earlier RS 80 shippers commencing service. PNG would not be prepared to proceed with the RECAP process under those circumstances – in this event, PNG notes that it may need to fall back to a first-come, first-served process as it has relied upon previously.

48.3 If there are unforeseen capital costs during the time when RS 80 is a fixed rate, as noted in response to BCUC IR 22.1, does this mean that there could potentially be upward pressure on rates until TSAs go into service and in the absence of the LVIDA? Please discuss the circumstances under which this could occur.

Response:

As noted in response to BCUC IR No.1, Question 22.1, PNG considers the likelihood of unforeseen capital costs to be extremely low and had proposed that the LVIDA could be used to address this unlikely scenario. In the absence of the LVIDA, PNG would agree that there would be upward pressure on rates until TSAs go into service or alternatively PNG could request that such unforeseen capital costs be deferred until the TSAs go into service.

Section 59(1) of the UCA states:

> A public utility must not make, demand or receive
>
> (b) an unjust, unreasonable, unduly discriminatory or unduly preferential rate for a service provided by it in British Columbia, or

48.4 Given the uncertainty regarding the outcome of the RECAP, including the costs of the Reactivation Project and the timing of agreements with Shippers, please identify any issues related to Section 59(1) of the UCA with fixing the Base Toll for a specified period.

Response:

PNG believes that fixing the Base Toll as proposed in the Application will not result in an unjust, unreasonable, unduly discriminatory or unduly preferential rate for the service provided. PNG has designed the RS80 rate within the proposed RECAP process as described in detail in the Application to ensure that a fair outcome is achieved for the prospective RS80 shippers and existing customers. Fixing the Base Toll for a specified period of time enables this to be achieved as demonstrated in the illustrative example provided in response BCUC IR No.1, Question 20.3.

49.0 Reference: RATE SCHEDULE 80
Exhibit B-4, BCUC IR 25.4
Interruptible Rate

In its response to BCUC IR 25.4, PNG states that "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."

49.1 Please provide a blacklined copy of the amended agreements and schedules to include the separate rate schedule for the Large Volume Industrial Transportation Interruptible Rate.

Response:

As requested, on the pages that follow, PNG has reproduced six pages of the TSA that would be amended to make reference to a separate rate schedule for the Large Volume Industrial Transportation Interruptible Rate, with proposed amendments in blackline.

"***Delivery Point***" means the point of delivery from Transporter to Shipper as out in Schedule "A" at which Transporter will deliver Shipper's Gas under the terms of this Agreement;

"***Effective Date***" means the date set forth at the top of page 1 of this Agreement;

"***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 and initially to be in the form of the General Terms and Conditions attached hereto as Schedule "GD";

"***Initial Delivery Term***" means the number of years specified on Schedule "A" for which Transporter will deliver Shipper's Gas under the terms of this Agreement;

"***Lenders***" means any banks or financial institutions which provide debt financing for the development, construction and operation of the Pipeline, including, without limitation, the Reactivation Project;

"***Minimum Delivery Point Pressure***" means the minimum pressure set out in Schedule "A";

"***Non-disclosing Party***" shall have the meaning ascribed to it in Section 6.1;

"***Parties***" means, collectively, Transporter and Shipper and their respective successors and permitted assigns, and "**Party**" means, individually, Transporter and its successors and permitted assigns or Shipper and its successors and permitted assigns;

"***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;

"***Primary Term***" means the period of time which commences on the Effective Date and ends on the anniversary of the Commencement Date following the number of years specified as the Initial Delivery Term on Schedule "A";

"***Reactivation Project***" means 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;

"***Receipt Point***" means the point of interconnection of Transporter with a Delivery Pipeline, as specified in Schedule "A", at which Transporter will receive Shipper's Gas for transportation service;

"***Shipper's Contracted Capacity***" means the volume of Gas, set out in Schedule "A", that Transporter has agreed to deliver on the Pipeline on any Day on a firm basis and for which Shipper has agreed to pay the Demand Charge in accordance with the terms of this Agreement;

"***Shipper Service Request Date***" means the earliest date, as set out in Schedule "A", for which Shipper is willing to receive Service and be responsible for any Demand Charges and Interruptible Charges relating to that service; and,

"***Toll Premium***" means the amount specified as such on Schedule B, as approved by the BCUC;

"***Toll Schedule***" means Transporter's schedule of Demand Charges and Interruptible Charges applicable to Service provided to Shipper under this Agreement and in effect from time to time in the form of Schedule "B" and Schedule "C" attached.

"***TRA***" means the Transportation Reservation Agreement dated _____ between Shipper and Transporter. **[NTD – required only if this agreement is attached to an executed TRA.]**

1.2 Interpretation Generally - Unless the context otherwise necessarily requires, the following provisions will govern the interpretation of this Agreement:

(a) the words "hereof", "herein" and "hereunder" and similar expressions will refer to this Agreement as a whole and not to any particular provision of this Agreement;

(b) the singular of any term includes the plural and vice versa and the use of any term is equally applicable to any gender and, where applicable, to a body corporate;

(c) except as otherwise specified in this Agreement, each reference to a statute, requirement of law or governmental consent will be deemed to refer to such statute, requirement of law or governmental consent as the same may be amended, supplemented or otherwise modified from time to time;

(d) where a term is defined, a derivative of that term will have a corresponding meaning;

(e) the words "include", "including" and similar expressions mean "including but not limited to";

(f) all references to "Articles", "Sections" and "Schedules" are references to Articles and Sections of, and Schedules to and forming part of, this Agreement unless otherwise specified;

(g) the division of this Agreement into Articles, Sections, Schedules and other subdivisions and the insertion of headings are for convenience of reference only and are not intended to interpret, define or limit the scope, extent or intent of this Agreement or any provision hereof;

(h) subject to any restrictions on assignment set forth in this Agreement, any reference to a corporate or other business entity includes and is also a

reference to any corporate or other business entity that is a successor to such entity; and

(i) except as otherwise defined in such agreement, terms used in this Agreement that have well-known technical, trade or industry meanings will be interpreted in accordance with those well-known technical, trade or industry meanings.

1.3 Schedules - The following schedules are attached to and made part of this Agreement and each of the terms and provisions thereof, including any revisions thereto made by or necessary to comply with the requirements of any Authorities, are accepted and agreed to by the Parties:

Schedule "A" – Shipper's Contracted Capacity
Schedule "B" – Form of Toll Schedule – Large Volume Demand Charge
Schedule "C" – Form of Toll Schedule – Large Volume Interruptible Charge

Schedule "CD" – General Terms and Conditions

ARTICLE 2
REPRESENTATIONS AND WARRANTIES

2.1 Representations and Warranties of Transporter - Transporter represents and warrants that:

(a) it is duly organized, validly existing and in good standing in its jurisdiction of organization and to its knowledge, no action has been taken relating to its insolvency, liquidation or bankruptcy;

(b) the execution, delivery and performance of this Agreement by Transporter has been duly authorized by all necessary action on the part of such Party in accordance with its charter documents and do not and will not require the consent of any trustee or holder of any indebtedness or other obligation of Transporter or any other party to any other agreement with Transporter;

(c) this Agreement constitutes a valid, legal and binding obligation of Transporter, enforceable in accordance with the terms hereof subject only to laws of general application applying to equitable remedies and the enforcement of creditor's remedies; and

(d) there are no actions, suits or proceedings pending or, to its knowledge, threatened against or affecting Transporter before any court or governmental authority that might materially and adversely affect the ability of such Transporter to meet and carry out its obligations under this Agreement.

Schedule "B"
to the Transportation Service Agreement
Between
Pacific Northern Gas Ltd. and <*>

Form of Toll Schedule
Large Volume Demand Charge

Effective Date: [•]

Rate 80 demand charge	$[•] / GJ
plus Toll Premium	$[•] / GJ
Demand Charge:	$[•] / GJ
~~Rate 80 Interruptible Charge:~~	~~$[•] / GJ~~

Schedule "C"
to the Transportation Service Agreement
Between
Pacific Northern Gas Ltd. and

Form of Toll Schedule
Large Volume Interrupbtible Charge

Rate 80 Interruptible Charge: $[•] / GJ

Schedule "CD"
to the Transportation Service Agreement
Between
Pacific Northern Gas Ltd. and <*>

General Terms and Conditions – Industrial Transportation Service

G. LARGE VOLUME INDUSTRIAL DEFERRAL ACCOUNT

50.0 Reference: LARGE VOLUME INDUSTRIAL DEFERRAL ACCOUNT
Exhibit B-1, pp. 27–28
Existing Deferral Accounts

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 this deferral account. PNG notes that the amortization of this account would be to the benefit of ratepayers.

50.1 Please provide details of any existing PNG deferral accounts where option fees and/or reservation fees are recorded.

Response:

PNG has one deferral account where option and reservation fees are recorded which was approved under Order G-174-08 when the BCUC approved the Term Sheet between PNG and LNG Partners LLC on November 2008. This interest bearing deferral account tracks the receipt of option fee payments received from customers to secure future transportation capacity in PNG-West's system. The disposition of this account has been determined under the BCUC's directions in PNG-West's annual or biennial Revenue Requirements Applications. At December 31, 2019, the credit balance of this account is forecast at $4.677 million, consisting of gross option fees received from various parties of $11.0 million plus accrued interest, offset by legal fees incurred, taxes paid and approved amortizations to date of $8.0 million.

On page 28 of the Application, PNG states that "[t]he amortization of this account would be to the benefit of existing ratepayers and would not apply to Rate Schedule 80 customers."

50.2 Please provide an illustrative example of how the amortization of the LVIDA would be to the account of PNG's existing ratepayers and not to RS 80 customers.

Response:

PNG could amortize the LVIDA account through a credit rider in the same manner that RSAM and GCVA rate riders are amortized only to certain customer classes. Another method is to calculate the annual revenue deficiency or sufficiency excluding the amortization of the LVIDA and allocate this to all customer classes following the current methodology. The amortization of the LVIDA would then be allocated separately to all customer classes except for the RS 80 customers. PNG would require BCUC approval of any amortization of the LVIDA deferral account.

H. REACTIVATION PROJECT DEVELOPMENT COSTS

51.0 Reference: REACTIVATION PROJECT DEVELOPMENT COSTS
Exhibit B-4, BCUC IR 11.10
Rate Impact

In response to BCUC IR 11.10, PNG states:

> 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.

51.1 Please describe the circumstances, if any, under which PNG may incur and include in the Reactivation Project Development Costs deferral account expenses greater than $1 million.

Response:

PNG may incur Reactivation Project Development Costs that are greater than $1 million and would likely arrange for backstop agreements with prospective shippers, if required. PNG is only seeking approval for the deferral of Reactivation Project Development Costs of $1 million at this time.

51.2 Please provide the rate impact if $1 million in expenses related to initial works for the Reactivation Project are recovered from PNG's existing ratepayers.

Response:

PNG has provided two illustrative examples of the requested rate impact of $1 million in expenses related to initial works for the Reactivation Project to be recovered from PNG's existing ratepayers: over a 5-year amortization period and over a 10-year amortization period.

Under the 5-year amortization period, the table below shows the average rate increase to customers:

	Year 1	Year 2	Year 3	Year 4	Year 5
Rate increase	0.8%	0.9%	0.8%	0.8%	0.7%

Average 5-year rate increase	**0.8%**

Under a 10-year amortization period, the table below shows the average rate increase to customers:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Rate increase	0.5%	0.6%	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%

Average 10-year rate increase	**0.5%**

52.0 Reference: REACTIVATION PROJECT DEVELOPMENT COSTS
Exhibit B-4, BCUC IR 31.1, 31.1.2
Reactivation Project Development Costs

In response to BCUC IR 31.1, PNG provides a breakdown of costs for the early stage work.

In response to BCUC IR 31.1.2, PNG states:

> PNG believes that the $1 million estimate is expected to be enough to complete the FEED [Front-End Engineering and Design] 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)…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.

52.1 Using the same format as the table provided in response to BCUC IR 31.1, please provide a cost estimate to complete the FEED and other early stage work under a high-volume scenario.

Response:

PNG provides the following breakdown of costs for the early stage work for the high volume scenario.

Activity	Costs
FEED/Engineering and Planning	$1,800,000
Permitting	$400,000
Survey	$800,000
Lands	$400,000
Indigenous Relations	$500,000
PNG Project Services	$500,000
Total	$4,400,000

52.2 Using the same format as the table provided in response to BCUC IR 31.1, please provide details of any actual FEED and other early stage costs incurred to date.

Response:

PNG has not incurred any actual FEED costs in the table provide in BCUC IR 31.1. For planning purposes, PNG has leveraged historical work from a recommissioning study in 2017, the Triton project in 2018, and a modest amount of 3rd party planning/estimating support in 2019.

53.0 Reference: REACTIVATION PROJECT DEVELOPMENT COSTS
Exhibit B-4, BCUC IR 4.3, 11.10
Backstop Agreements

In response to BCUC IR 4.3, PNG states:

> 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.

In response to BCUC IR 11.10, PNG states:

> 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.

53.1 Please provide further detail regarding the terms and obligations of a potential backstop agreement with a RECAP shipper.

Response:

The backstop agreement is meant to cover any commitments or expenditures related to the accelerated development and construction costs by the specific project proponent, if their project does not proceed. In this context, the backstop agreement will typically include the following;

1. An estimate of the commitments and/or capital costs expected prior to execution of a TSA.
2. An estimate of the timeframe during which the preliminary work is undertaken and a date on or before which the TSA is to be executed.
3. A requirement to pay the estimated costs upfront, post a letter of credit or a Parental Guarantee for the estimated costs. If the proponent's project does not proceed, the proponent is obligated to pay the actual costs and/or commitments (including reasonable turndown costs) to that point in time.
4. A provision within the agreement, if the project proceeds and a TSA is executed, to allow the pre-payment, to be applied against a Contribution In Aid of Construction (CIAC), if required, or rebated if a CIAC is not required.

53.1.1 Please provide information regarding the timing of entering into a backstop agreement.

Response:

PNG will require a prospective shipper to enter into a backstop agreement prior to committing to or expending any capital directly related to the accelerated development and construction costs.

53.2 Please explain, with supporting rationale, whether PNG has considered the need to enter into backstop agreements related to FEED or other early stage work in the case of either a low or medium volume scenario.

Response:

PNG will require a prospective shipper to enter into a backstop agreement prior to committing to or expending any capital directly related to the proponent's project, regardless of the scope of the volume scenario. The backstop agreement is designed to protect against the stranded costs that PNG's customers could be exposed to if the prospective shipper's project does not proceed.