



Verlon G. Otto  
Director, Regulatory Affairs

Pacific Northern Gas (N.E.) Ltd.  
750 – 888 Dunsmuir Street  
Vancouver, BC V6C 3K4  
Tel: (604) 691-5680  
Fax: (604) 697-6210  
Email: votto@png.ca

Via E-file

April 15, 2020

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

File No.: 4.2.7(2020)

Attention: Patrick Wruck  
Commission Secretary and Manager, Regulatory Services

Dear Mr. Wruck:

**Re: Pacific Northern Gas Ltd.  
PNG-West Division  
2020-2021 Revenue Requirements Application  
Response to BCOAPO Information Request No. 1**

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Accompanying, please find the response of Pacific Northern Gas Ltd. to the referenced information request.

Please direct any questions regarding the application to my attention.

Yours truly,

A handwritten signature in black ink, appearing to read 'Verlon Otto', is written over a light grey circular stamp.

Verlon G. Otto

Enclosure

**REQUESTOR NAME:** BCOAPO *et al.*  
**INFORMATION REQUEST ROUND NO:** #1  
**TO:** PNG West (PNG)  
**DATE:** March 30, 2020 **APPLICATION NAME:**  
2020-21 Revenue Requirements Application

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**1.0 Reference: General – Impact of Covid-19 Pandemic on 2020 Forecasts**

- 1.1 Given the current situation with respect to Covid-19 – potentially a sharp decline in GDP in 2020 QII and beyond – and the impacts on households due to layoffs, reduced incomes, and “stay at home” strictures, assuming that such impacts continue for the next two months, please provide PNG’s views with respect to the potential impacts in 2020 on residential gas demands and utility working capital requirements. Please indicate how these impacts would affect the 2020 forecasts that are the basis for the instant application and the rates sought.

**Response:**

PNG is closely monitoring how the measures being taken with respect to COVID-19 will impact actual residential gas demand and its working capital requirements. With the warmer spring weather, PNG’s forecast takes into consideration lower demand given that residential customers primarily use natural gas for space and hot water heating. As such, subject to changes in weather being warmer or colder than normal, PNG expects minimal impacts to residential consumption over the next few months. PNG also notes that any variation in residential use per account would be captured in the Rate Stabilization Adjustment Mechanism (RSAM) deferral account.

PNG does however anticipate a potential impact in its working capital requirements. In order to help customers who have been financially impacted by COVID-19, PNG has expanded the flexibility in its bill payment arrangements and has also proposed to allow up to a three-month deferral of energy bill payments to qualifying residential and small commercial customers. Under these programs, PNG will see much higher outstanding accounts receivable from customers as well as a much higher than previously anticipated bad debts. Therefore, PNG may be required to increase its borrowings to finance its expenses and capital requirements in order to continue to serve customers, including the write-off of bad debts. PNG does note that it has sufficient borrowing capacity to be able to fund its forecast working capital needs, but will likely incur higher financing charges.

On April 9, 2020, PNG filed an application to the BCUC requesting the creation of a COVID-19 deferral account to capture unrecovered revenues and unplanned costs arising from the

COVID-19 pandemic. As such, PNG is not modifying the 2020 forecasts in the instant application as impacts from COVID-19 will be addressed via the COVID-19 deferral account.

- 1.2 In the event that the Covid-19 pandemic continues for the next two months, please provide PNG's views on the potential 2020 impacts on institutional gas demands by schools, hospitals, and nursing care homes, and on the associated working capital. Please indicate how these impacts would affect the 2020 forecasts that are the basis for the instant application and the rates sought.

**Response:**

PNG is closely monitoring how the measures being taken with respect to COVID-19 will impact institutional gas demand from schools, hospitals and nursing care homes and the associated impact on working capital requirements. With the warmer spring weather, PNG's forecast takes into consideration lower demand given that the noted institutional customers primarily use natural gas for space and hot water heating. Depending on the situation of each type of customer, as well as the customer class category, PNG expects the following impacts:

- Variations in demand from institutions categorized as small commercial customers would be captured in the Rate Stabilization Adjustment Mechanism (RSAM) deferral account; however any permanent closures of institutions in this category would impact PNG's margin.
- Variations in demand from institutions categorized as large commercial customers as well as any permanent closures of institutions in this category would directly impact PNG's actual margin.

Please also see the response to Question 1.1 whereby PNG addresses the impact on its working capital requirements from changes in residential demand. Similar impacts would apply to small commercial customers. PNG notes that it is offering flexible bill payment arrangements to all of its customer classes.

As noted in response to Question 1.1, PNG has filed an application to the BCUC for the creation of the COVID-19 deferral account to capture unrecovered revenues and unplanned costs arising from the COVID-19 pandemic. As such, PNG is not modifying the 2020 forecasts in the instant application as impacts from COVID-19 will be addressed via the COVID-19 deferral account.

- 1.3 In the event that the Covid-19 pandemic continues for the next two months, please provide PNG's views with respect to the potential impacts in 2020 on commercial, industrial, NG transportation demand, and on the associated working capital. Please indicate how these impacts would affect the 2020 forecasts that are the basis for the instant application and the rates sought.

**Response:**

PNG has reached out to its large industrial customers as well as a number of small industrial customers to better understand the impacts of COVID-19 on their forecast natural gas consumption. To date, these customers have indicated that even in a scenario whereby COVID-19 related restrictions are prolonged for an additional three to six months, they do not anticipate any substantial impact to their demand. However, they also indicated that gas consumption would be impacted if labour resources were not available, if forestry product customers shut down, or if feedstock for related industries such as pellet manufacturers is no longer available. PNG will continue to monitor the situation with its larger customers. PNG also notes that a number of its larger customers have a minimum take or pay contractual obligation in place and that variances in demand from some customers is subject to capture in the Industrial Customer Deliveries Deferral Account (ICDDA).

Please also see the response to Question 1.1 whereby PNG addresses the impact on its working capital requirements from changes in residential demand. Similar impacts would apply to small commercial customers. PNG reiterates that it is offering flexible bill payment arrangements to all of its customer classes, but does not currently foresee the larger customers being impacted to the same extent, as noted above.

In addition, as noted in response to Question 1.1, PNG has filed an application to the BCUC for the creation of the COVID-19 deferral account to capture unrecovered revenues and unplanned costs arising from the COVID-19 pandemic. As such, PNG is not modifying the 2020 forecasts in the instant application as impacts from COVID-19 will be addressed via the COVID-19 deferral account.

- 1.4 Given that some economic forecasters are predicting a severe global recession/depression due to the current pandemic, does PNG still believe that the demands of the two new large commercial customers, LNG Canada and the Prince Rupert propane terminal, are still expected align with the forecasted demands in the Application?

**Response:**

For the LNG Canada LDS#2 project, PNG is aware that in response to the COVID-19 crisis and in an effort to protect its construction workers and the local community, LNG Canada has temporarily reduced its workforce on the Kitimat LNG project. This will have a minor impact on the natural gas consumption in the next few months, as the natural gas is being used for heating and cooking in the work camp and as the spring weather moderates, this impact should become negligible. PNG also notes that the contract for the LDS#2 volumes is underpinned by a minimum take or pay obligation.

PNG is also currently working on a take or pay Gas Sales Agreement for the LNG Canada LDS#1 load that is anticipated to commence in 2021. However, PNG expects a possible construction delay in the yet to be constructed LDS#1 due to COVID-19 and therefore a potential delay to the in-service date of the demand to be served by this facility. Please also see the responses to BCUC IR No.1, 52 series of questions.

For the Prince Rupert propane terminal project, PNG notes that construction has been suspended due to COVID-19 and the in-service date is likely to slip into the fall of 2020. This project is also subject to a minimum take or pay obligation and the expected in-service date is consistent with PNG's forecast. Demand for Canadian propane in Asia continues to be robust, as it is cost competitive and environmentally advantageous, therefore, PNG expects construction to commence post COVID-19.

- 1.5 To the extent that the Covid-19 pandemic may materially change throughputs for different customer classes, does PNG agree that proposed rates for each customer class should reflect these impacts? If not, please explain.

**Response:**

As described in PNG's responses to Questions 1.1, 1.2, 1.3 and 1.4, PNG does not expect material changes in throughputs for the different customer classes, but does expect delays in customer payments as well as a potential increase in the amount of bad debts. PNG also notes that mechanisms are in place to capture use per account variances related to residential and small commercial customers via the RSAM, and load variances for some large industrial customers via the ICDDA. PNG also concluded that based on current information, it is not proposing to modify the 2020 forecasts in the instant application. PNG does note that at this time it cannot determine the full impact of COVID-19 if current conditions are prolonged for a significantly longer period.

- 1.6 In the event that the Covid-19 pandemic continues for the next two months, please provide PNG's views with respect to the potential impacts in 2020 on overall throughputs, utility revenues, and income taxes.

**Response:**

As noted in the previous responses to Questions 1.1 through 1.5, other than customers opting to take advantage of payment deferral programs offered by PNG, the Company does not anticipate any significant decrease in gas consumption, subject to significant weather changes and a prolonged period of COVID-19 conditions. However, PNG is closely monitoring this situation and has applied to the BCUC for the COVID-19 deferral account to capture any unrecovered revenues and unplanned costs. Should other unanticipated circumstances arise as a result of COVID-19, PNG reserves the right to seek further rate relief subject to approval by the BCUC.

- 1.7 In the event that the Covid-19 pandemic continues for the next two months – with the mandated personal physical minimum distance – does PNG believe there will be any material impact in 2020 on (i) utility costs, (ii) forecasted capital expenditures, (iii) utility maintenance activities, (iv) engagements with third-parties such as consultants and contractors, and (v) in-house labour costs, including administrative costs.

**Response:**

PNG submits that it is premature to predict the outcomes from COVID-19 on PNG. However, PNG provides the following commentary on the key areas of its operations:

Utility Costs: At this stage, PNG has continued with most of its work as planned, in a manner that promotes physical distancing and good hygiene practices. One exception is the temporary suspension of meter recalls due to the in-premise re-light aspect and direct contact with customers. PNG expects that this may result in an increase in contractor costs near the end of the year to ensure PNG fulfills Measurement Canada requirements. PNG reiterates that it has submitted an application to the BCUC for the creation of a COVID-19 deferral account that will enable it to capture any unplanned expenses due to the COVID-19 pandemic. These costs may include, but are not limited to, additional resources to manage customer service, incremental information technology and personal protection equipment costs, and additional financing costs.

- i) Forecast Capital Expenditures: PNG has not revised its forecasted capital expenditures at this time, and will be monitoring this closely in the coming weeks. The planned system betterment work is a high priority for PNG to ensure the continued provision of safe and reliable service. For the most part, the system integrity work can be executed in a manner that promotes physical distancing and good hygiene. PNG has also implemented numerous health and safety procedures and activated its Emergency Operations Centre to ensure the work can continue given that PNG staff are providing an essential service to customers.
- ii) Utility Maintenance Activities: There is no change to utility maintenance activities forecast at this time, but PNG is monitoring the situation closely.
- iii) Engagements with Third Parties such as Consultants and Contractors: At this time, PNG has significantly decreased in-person meetings, which impacts its engagement efforts with stakeholders and Indigenous Nations for some projects. In terms of working with PNG's vendors and consultants, business has been carrying on as usual as much of the work is in the planning, engineering, permitting stage, which can be done remotely in most cases. If the situation persists into the construction season, there could be some impact to the

engagement efforts in projects. PNG notes that it is too early to predict whether contractors will have sufficient resources and be ready to work on PNG infrastructure projects when required.

- iv) In-house Labour Costs, Including Administrative Costs: There is no change to the in-house labour forecast at this time, but PNG is monitoring the situation closely. PNG expects some reduction in its travel expenses, based on the physical distancing and remote working arrangements in place. However, it is too early to revise the forecast, as other labour and administrative costs may increase due to COVID-19.

- 1.8 Does PNG believe that the recent 0.5% cut in the Bank of Canada's overnight rate to 0.25% will materially impact PNG's short-term borrowing costs?

**Response:**

PNG has provided some sensitivity analysis to interest rates in its response to BCUC IR No.1, Question 67.4 which was seeking updates to the forecast short-term and long-term interest rates.

Despite the rate reductions in underlying government debt instruments, the underlying rates for corporate instruments have not moved significantly. Financial institutions have significantly increased credit spread requirements and standby charges for debt that have more than offset the reductions in prime rates. PNG is exposed to these impacts for both any new financing that may be required for RECAP, and at the renewal of the 18 month operating facility which will next be required in May, 2021. PNG relies on the short-term and long term deferral accounts to capture the differences in the actual and forecast debt rates rather than forecasting corporate credit spreads and changes in other bank charges.

In summary, with the decline of the forecast 90-day treasury rate for 2020 from BMO's published forecast from 1.6625% in November 22, 2019 to 0.4875% in March 27, 2020, PNG notes the following:

- For Test Year 2020, PNG-West's forecast average short-term interest rate would decline by 118 basis points to 3.24% and PNG-West's forecast average long-term interest rate would decline by 50 basis points to 4.71%.
- For Test Year 2021, PNG-West's forecast average short-term interest rate would decline by 146 basis points to 2.87% and PNG-West's forecast average long-term interest rate would decline by 57 basis points to 4.47%.
- The resulting impact on the 2020 and 2021 cost of service from the updated 90-day treasury bill rate on 2020 and 2021 short term debt costs would result in a decrease in costs of \$105,000 and \$143,000, respectively.
- The resulting impact on the 2020 and 2021 cost of service from the updated 90-day treasury bill rate on 2020 and 2021 long term debt costs would result in a decrease in costs of \$364,000 and \$447,000, respectively.

PNG already has established both short term and long term interest rate deferral accounts in place to capture variances in short term and long term financing costs. Given the current uncertainty in the capital markets, and the inability to be able to forecast what terms for the

renewal of the operating facility may be provided in May 2021, PNG proposes to rely on these deferral accounts to capture any differences in financing costs for Test Years 2020 and 2021.

- 1.9 In the Amended Application, did PNG have the time or opportunity to reflect any potential impacts of the recent pandemic?

**Response:**

At the time of submission of the Amended Application at the end of February 2020, PNG was aware of the COVID-19 outbreak and was monitoring the related impacts that were unfolding around the world. However, like most other organizations, PNG had not anticipated events unfolding the way they have. Consequently, no impacts of the COVID-19 pandemic have been reflected in the Amended Application.

PNG notes that the COVID-19 outbreak was not declared a pandemic by the World Health Organization until March 12, 2020, and further notes that given the fluidity of the COVID-19 situation, PNG continues to assess risks and to undertake measures to ensure safety and to mitigate potential economic impacts. As noted previously, PNG has also filed an application to the BCUC for the creation of the COVID-19 deferral account to capture unrecovered revenues and unplanned costs arising from the COVID-19 pandemic.

- 1.10 If applicable, based on PNG's views as provided in the preceding responses, does PNG believe that any significant revision to its Amended Application is warranted at this time?

**Response:**

PNG does not believe that any significant revision to the Amended Application is warranted at this time.

As discussed in PNG's responses to Questions 1.1, 1.2 and 1.3, PNG does not yet have evidence of any substantial impact to gas consumption as a result of COVID-19. PNG also notes that mechanisms are in place to capture use per account variances related to residential and small commercial customers and load variances for some large industrial customers.

As described in PNG's response to Question 1.7, it is premature to predict the outcomes from COVID-19 on PNG and its operating costs and as such, PNG does not believe that any significant revision to the Amended Application is due at this time.

PNG also reiterates that it has submitted an Application for the creation of the COVID-19 deferral account to capture unrecovered revenues and unplanned costs resulting from the COVID-19 pandemic.

**2.0 Reference: Exhibit B-2, p. 29, and Exhibit A-3 BCUC IR 6.5, UAF**

The first referenced page states:

*“Primary reasons for natural gas loss which goes unaccounted include: meter inaccuracy; leakages from pipelines due to third-party damage or problems with pipelines themselves; theft issues and meter tampering; and variations in surrounding temperature.”* [Emphasis added.]

- 2.1 In PNG’s view, is it the responsibility of ratepayers – who have been paying for inspection, maintenance, and pipeline remediation/betterment in rates – to compensate the shareholder for UAF that is due to leaky pipes?

**Response:**

Please see the discussion on the sources of UAF on pages 30 to 33 of the Amended Application. PNG notes that the component of UAF attributed to physical losses of gas is solely from the error in estimating these quantities. Regardless, the quantities of gas released from PNG’s pipeline system are small compared to the overall UAF volumes. In every case, these released volumes are the result of PNG’s routine operations of its pipeline and are appropriately included in PNG’s company use gas volumes. PNG also routinely completes surveys of its pipeline system to detect leaks and promptly repairs these as they are found.

PNG submits that UAF is effectively a theoretical amount embedded in the gas supply of its operations and should be included in these costs. As noted in previous applications to the BCUC and in the current Amended Application, PNG submits that UAF refers to gas that is not specifically accounted for in gas energy balancing of receipts, deliveries and operational use and may represent both unaccounted for losses and gains. UAF is in essence a calculated “plug” to balance the total deliveries received and total gas used or delivered to customers. This “plug” will vary on a monthly basis and be on a net gain or net loss position as demonstrated in prior years. There are various potential sources of UAF, but as noted in the Amended Application, the amount of UAF attributable to each of these potential sources cannot be accurately quantified. PNG monitors this balance and is currently undertaking a thorough review of the data and calculations associated with the determination of the monthly UAF.

**3.0 Reference: Exhibit B-2, p. 38, ROW Clearing**

The referenced page states:

***Right of Way Clearing***

*Right of Way (ROW) clearing costs for Test Year 2020 are forecast to be \$514,000, an increase of \$222,000 compared to Decision 2019 costs of \$292,000. Costs for Test Year 2021 are forecast to be \$524,000. The sustained increase in cost for 2020 and 2021 reflects an increased focus on PNG's integrity program and the necessity to ensure not only the ROW is cleared to meet CSA Z662 standards and pipeline regulations, but also cleared to allow for the additional inline inspection activities described previously, and for third-party activities on and about the ROW. PNG's ROW clearing program is a core activity within the TIMP. ROW clearing activity is primarily undertaken by contractors as PNG-West is not equipped to undertake the activities with internal resources. [Emphasis added.]*

- 3.1 Please confirm that PNG has always been in compliance with CSA Z662 and pipeline regulations. If unable to so confirm, please explain.

**Response:**

Through the development, implementation, application, and updating of integrity management plans and programs, PNG has strived to remain in compliance with the intent of associated codes and standards, including and primarily CSA Z662 Section 10, as well as the associated requirements and expectations of regulatory bodies, stakeholders, Indigenous Nations, and the public. PNG has been very conscientious in managing an appropriate balance between these requirements and interests and the associated cost implications to rate payers. Over the last 20 years, following the loss of many significant industrial customers, PNG has had to tip the balance in favor of minimizing rate impacts and has done so by deferring aspects of some integrity management program elements such as some portions of right of way clearing activity.

PNG submits that it has conducted considerable right of way clearing activity each operating year and has strived to maintain compliance with the intent of Section 10.6.2 of CSA Z662. However, the geographic spread, topography, climatic regeneration rate of coastal and interior vegetation, limited lengths of seasonal access, and total extent of pipeline rights of way within the PNG system has resulted in a vegetation management backlog in some areas of the system.

Given PNG's continued commitment to safe, reliable, and responsible operation of our systems, the Company firmly believes it can no longer defer activities that ensure complete and certain compliance and alignment with industry practice and regulatory and stakeholder

expectations. As a result, to ensure compliance with CSA Z662, PNG plans to increase right of way clearing efforts in coming years in a prudent and financially responsible manner which will entail higher associated costs.

- 3.2 Please enumerate any and all changes to CSA Z662 and pipeline regulations that were not in effect in 2019 but come into effect in 2020.

**Response:**

There are no changes to applicable sections of CSA Z662 from 2019 to 2020. However, as explained in its response to Question 3.1, PNG has a backlog in vegetation management in some areas of its system. PNG also notes that regulatory expectation (BC OGC and TSBC) around the fulsome application of CSA Z662 within integrity management activities, including right of way clearing, has increased considerably. This is evidenced by the following: 2020 BC OGC driven initiatives around formal IMP audits, the requirement for all operators to have risk assessment and management practices of a granularity that considers each and every pipeline segment under their own specific conditions, and a special assessment program for aged pipelines. These initiatives and requirements will impact PNG directly in the 2020 Test Year and beyond.

- 3.3 Please provide an estimate of the amount (in dollars) of incremental ROW clearing in 2020 and 2021 due to incremental requirements in 2020 and 2021 for additional inline inspections and for other third-party activities.

**Response:**

PNG notes that the primary driver for right of way clearing cost increases is elevated and necessitated investment into the PNG pipeline system integrity programs and the compliance aspects of this.

The estimated incremental cost increase for the 2020/2021 ROW clearing campaigns due to increased ILI inspections and third-party crossing and proximity activity is approximately \$100,000. In addition to the fact that total number of ILI inspections annually has increased for 2020 and 2021, the associated terrain and current state of ROW vegetation are also contributors to the projected cost increase.

Impacts associated with third-party activity and damage prevention mechanisms are primarily due to the coincident and coactive project activities of Coastal GasLink throughout the PNG-West system. The Coastal GasLink ROW borders and crosses PNG's ROW in several locations, and it is imperative that PNG maintain and improve the state of the ROW to increase visibility among all the third parties in the area. PNG must assert its presence as a means of damage prevention and to ensure compliance with its crossing and proximity processes and standards.

- 3.4 Please confirm that ROW clearing at any given location on the pipeline is required annually; if unable to so confirm, please provide the frequency/rotation period for each section of pipeline which requires ROW clearing.

PNG submits that ROW clearing of the complete PNG-West infrastructure on an annual basis is not economically feasible, practical, or necessary from a maintenance or compliance perspective. Therefore, PNG West's ROWs are divided up into sections and certain sections are cleared each year based on needs. At a minimum, individual sections are intended to be cleared on a 5-10 year interval. The range is founded primarily on the fact that PNG's ROWs stretch from the central interior out to the North Coast. With a very diverse range of plant species and subsequent growth rates, PNG notes that shorter intervals are generally required heading west along the ROW. In addition, clearing on certain sections is driven by upcoming integrity works (DCVG surveys, ILI runs, etc.), and are increasingly focused on third-party activity pressures that could pose potential threats to PNG's pipeline integrity and safe operation.

PNG also notes that as it continues to strive for continuous improvement in its integrity programs, including the management of ROW vegetation. It is exploring opportunities for vegetation management that more completely considers access and regrowth variables by leveraging forestry practices used by other utilities resulting in better defined, accurate, long term clearing planning based on geo-climatic specific regeneration and other factors.

- 3.5 Please provide the forecast and actual amounts spent for ROW clearing in 2018 and 2019 along with an explanation for any significant variances.

**Response:**

Please see the table that follows.

**BCOAPO 3.5**

(\$'s)	Decision 2019	Actual 2019	Decision 2018	Actual 2018
ROW Clearing	292,000	272,000	286,000	223,000

In both 2018 and 2019, actual ROW clearing costs were lower as PNG completed less total length of ROW clearing than originally projected.

- 3.6 Please provide the planned/forecasted and the actual lengths of pipeline intervals which were subject to ROW clearing activities in 2018 and in 2019.

**Response:**

The table that follows summarizes forecast vs actual ROW miles cleared.

Year	Forecasted Miles	Actual Miles
2018	40	31
2019	47	41

PNG notes that forecasted miles for clearing are sometimes not achieved due to unfavorable ground conditions, denser or more mature vegetation than expected, and the fact that PNG has typically performed clearing work in the fall months and is subject to the early onset of winter weather preventing the completion of the ROW clearing work. Based on this and PNG's effort to improve overall IMP, for 2020 onwards, PNG has changed the timing for ROW clearing to begin in the spring time to avoid being halted prematurely due to winter weather.

- 3.7 At any time in the past, did PNG undertake ROW clearing using in-house resources? If so, please provide details and explain why this core activity was outsourced, along with the utility savings realized by the outsourcing.

**Response:**

PNG has not had a history of undertaking ROW clearing with in-house resources as PNG currently does not have the appropriate equipment nor appropriately trained operators to perform ROW clearing. Following a competitive bidding process, PNG typically engages contractor operators and machinery to perform the physical clearing of the ROW. This activity still requires PNG field resources to coordinate contractor efforts, mark the ROW, perform compliance checks, etc.

- 3.8 Please confirm that the third parties that perform ROW activities for PNG are unrelated to PNG and please explain how the third parties are chosen as contractors for PNG.

**Response:**

The third-party contractors chosen to perform PNG's ROW clearing are not related to PNG in any way. PNG has strict conflict of interest policies that govern procurement practices and prevent such affiliations or relationship potentials. The contractors are chosen by way of a competitive bid process. For example, the 2019 ROW clearing contracts were awarded to 2 contractors (one in the eastern area and one in the western area) selected from a total of 8 bidding contract companies.

Potential contractors are also vetted based on health and safety record, existing equipment sufficiency and operator competency, rate sheet, and review of past similar works (references). Once pre-qualified via this process, they are able to submit proposals for the competitive bidding process.

**4.0 Reference: Exhibit B-1-1, Amended Application, 2018-19 RRA, Tab 1, p. 2 and Exhibit B-2, Amended Application, 2020-21 RRA, Tab 1, p. 2, Other Operating Expenses and Other Maintenance Expenses**

**Per the first referenced page:**

Approved "Other Operating Expenses"	2017	\$4.767M
Actual "Other Operating Expenses"	2017	\$4.465M
Approved "Other Maintenance Expenses"	2017	\$285K
Actual "Other Maintenance Expenses"	2017	\$225K

**Per the second referenced page:**

Approved "Other Operating Expenses"	2019	\$5.150M
Actual "Other Operating Expenses"	2019	\$4.068M
Approved "Other Maintenance Expenses"	2017	\$312K
Actual "Other Maintenance Expenses"	2017	\$269K

**Using information from both referenced pages:**

Forecasted "Other Operating Expenses"	2018	\$5.150M
Actual "Other Operating Expenses"	2018	\$4.068M
Forecasted "Other Maintenance Expenses"	2018	\$312K
Actual "Other Maintenance Expenses"	2018	\$269K

4.1 There appears to be a consistent pattern of over-forecasting "Other" expenses for both "Operating Expenses" and "Maintenance Expenses." Please explain fully why this pattern is observed.

**Response:**

PNG does not believe there has been a consistent pattern of over-forecasting for its Operating and Maintenance Expenses. While PNG recognizes there have been some variances, the majority of costs have been prudently managed between the various categories to ensure the overall Operating and Maintenance budgets are effectively managed. For example, within Operating Expenses, there are often trade-offs that need to be made between company labour and external contractors. PNG highlights some of the circumstances below.

**2017**

<b>EXPENSES</b> <b>(\$000's)</b>	<b>Actual</b> <b>2017</b>	<b>Decision</b> <b>2017</b>	<b>Difference</b> <b>Total</b>
<b>Operating</b>			
Labour	6,770	6,288	483
Other	4,465	4,767	(302)
Shared Services Recovery from PNG(NE)	<u>(1,622)</u>	<u>(1,622)</u>	<u>0</u>
Sub-total	<u>9,613</u>	<u>9,433</u>	<u>180</u>
<b>Maintenance</b>			
Labour	174	202	(28)
Other	<u>225</u>	<u>285</u>	<u>(60)</u>
Sub-total	<u>399</u>	<u>487</u>	<u>(88)</u>

In 2017, the actual change in overall Operating expenses was \$180,000 (or 1.9%) greater than the Decision 2017 amount. The variation can be explained by PNG managing between company labour and external resources/other operating expenses in the Other category. In sum, the forecast was very close. With respect to Maintenance expenses, as noted in previous year responses to information requests, labour costs are budgeted for unknown repairs, so there will always be variances with regard to the actual costs incurred. The \$60,000 favourable variance in other costs was primarily due to savings in compressor station maintenance, regulating station maintenance and lower costs for pipeline repairs. Between Operating and Maintenance together, which is how the work is often managed within the organization, the actuals are only slightly over the forecast (0.9% over).

**2018**

<b>EXPENSES</b> <b>(\$000's)</b>	<b>Actual</b> <b>2018</b>	<b>Decision</b> <b>2018</b>	<b>Difference</b> <b>Total</b>
<b>Operating</b>			
Labour	7,134	6,428	706
Other	4,422	5,168	(746)
Shared Services Recovery from PNG(NE)	(1,718)	(1,718)	0
Sub-total	<u>9,837</u>	<u>9,877</u>	<u>(40)</u>
<b>Maintenance</b>			
Labour	142	189	(47)
Other	185	306	(121)
Sub-total	<u>327</u>	<u>495</u>	<u>(168)</u>

In 2018, the actual change in overall Operating expenses was actually \$40,000 (or 0.4%) under the Decision 2018 amount. The variance is due to PNG managing between company labour and external resources/other operating expenses in the Other category. In sum, the forecast was very close. With respect to Maintenance, the variance arises primarily by favourable variances of \$49,000 for meter maintenance and recalls, \$28,000 for distribution maintenance, \$23,000 in transmission line repair, and \$16,000 in station maintenance. Between Operating and Maintenance together, which is how the work is often managed within the organization, the actuals are slightly under the forecast (2% under).

**2019**

EXPENSES (\$000's)	Actual 2019	Decision 2019	Difference Total
<b>Operating</b>			
Labour	6,967	6,661	306
Other	4,068	5,150	(1,082)
Shared Services Recovery from PNG(NE)	(1,748)	(1,748)	0
Sub-total	<u>9,287</u>	<u>10,063</u>	<u>(776)</u>
<b>Maintenance</b>			
Labour	226	193	33
Other	269	312	(43)
Sub-total	<u>495</u>	<u>505</u>	<u>(10)</u>

In 2019, the actual change in overall Operating expenses was actually \$776,000 (or 7.3%) under the Decision 2019 amount. The variance is explained primarily by: sustainment costs of \$200,000 for the GIS system that were not incurred because of a strategic decision to delay the go-live of the GIS system, \$254,000 in Maximo sustainment costs that were capitalized in compliance with US GAAP, and approximately \$120,000 in training and travel cost savings due in part to the vacancy of the Manager, EH&S and related reduced travel to field sites. Other favourable variances occurring in 2019 were in employee benefits of \$73,000 for negotiated benefits budgeted that employees did not utilize and a variance of \$82,000 for operational supplies that were not purchased because of the increased focus in 2019 on executing a significant capital program. Further information on the GIS avoided costs and the Maximo sustainment costs that were capitalized has been provided in the responses to BCUC Questions 75.1 through 75.3. While 2019 had some unique variances, PNG believes they are isolated and unique circumstances and not representative of trends for 2020 or 2021. Moving forward, PNG notes that it has implemented the Maximo system, which will support improved tracking, scheduling and reporting for operating and maintenance activities.

**5.0 Reference: Exhibit B-2, Historical Rates and Bills**

5.1 Please provide a table showing for the most recent 10 years, the rates, the annual bill and annual consumption for a typical PNG residential customer under approved rates, providing any explanations necessary for clarity in making relevant historical comparisons.

**Response:**

Please see table that follows. The annual consumption is based on actual deliveries divided by average customer count. The rates displayed are those approved and in effect as of December 31 of each year.

Residential Class	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Annual Consumption (GJ)	66.3	64.9	73.3	56.0	65.9	72.4	65.4	71.0	69.3	65.7
Monthly Fixed Charge @10.75/mo. (\$/GJ)	\$1.946	\$1.988	\$1.760	\$2.304	\$1.958	\$1.782	\$1.972	\$1.817	\$1.861	\$1.963
Delivery (\$/GJ)	12.159	12.198	12.439	12.121	11.867	11.842	11.732	11.478	11.152	10.974
GCV A Co. Use Rider (\$/GJ)	0.098	(0.009)	(0.042)	0.012	(0.018)	0.004	(0.017)	0.043	0.000	0.094
Interim Rate Rider Adjustment (\$/GJ)	0.000	(1.026)	0.000	0.098	0.000	(0.393)	(0.188)	0.098	0.000	0.000
RSAM Rider (\$/GJ)	(0.327)	(0.479)	1.656	0.337	0.099	0.138	(0.633)	(0.642)	0.156	0.074
Gas Supply Charge (\$/GJ)	2.274	2.034	2.381	2.428	3.209	4.378	3.500	3.375	4.619	5.337
GCV A Rider (\$/GJ)	(0.013)	(0.396)	(0.208)	(0.450)	(0.163)	0.241	0.070	0.178	(0.199)	(0.199)
Carbon Tax (\$/GJ)	1.986	1.738	1.490	1.490	1.490	1.490	1.490	1.490	0.000	0.000
Total \$/GJ	\$18.123	\$16.048	\$19.476	\$18.339	\$18.441	\$19.482	\$17.926	\$17.837	\$17.589	\$18.243
Annual Bill Estimate	\$1,201.56	\$1,041.50	\$1,427.57	\$1,027.00	\$1,215.28	\$1,410.47	\$1,172.38	\$1,266.41	\$1,218.95	\$1,198.60

5.2 Please provide similar tables for small and large commercial customers.

**Response:**

Please see tables that follows. The annual consumption is based on actual deliveries divided by average customer count. The rates displayed are those approved and in effect as of December 31 of each year.

<b>Small Commercial Class</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
Annual Consumption (GJ)	301.7	295.5	330.7	266.0	283.0	311.9	285.7	322.6	331.3	304.1
Monthly Fixed Charge @25.00/mo. (\$/GJ)	\$0.994	\$1.015	\$0.907	\$1.128	\$1.060	\$0.962	\$1.050	\$0.930	\$0.906	\$0.987
Delivery (\$/GJ)	10.259	10.289	10.483	10.229	10.033	10.008	9.925	9.728	9.478	9.342
GCV A Co. Use Rider (\$/GJ)	0.098	(0.009)	(0.042)	0.012	(0.018)	0.004	(0.017)	0.043	0.000	0.094
Interim Rate Rider Adjustment (\$/GJ)	0.000	(0.859)	0.000	0.091	0.000	(0.311)	(0.132)	0.075	0.000	0.000
RSAM Rider (\$/GJ)	(0.327)	(0.479)	1.656	0.337	0.099	0.138	(0.633)	(0.642)	0.156	0.074
Gas Supply Charge (\$/GJ)	2.260	2.030	2.406	2.464	3.212	4.353	3.481	3.365	4.629	5.362
GCV A Rider (\$/GJ)	(0.013)	(0.396)	(0.208)	(0.450)	(0.163)	0.241	0.070	0.178	(0.199)	(0.199)
Carbon Tax (\$/GJ)	1.986	1.738	1.490	1.490	1.490	1.490	1.490	1.490	0.000	0.000
<b>Total \$/GJ</b>	<b>\$15.258</b>	<b>\$13.329</b>	<b>\$16.692</b>	<b>\$15.301</b>	<b>\$15.713</b>	<b>\$16.885</b>	<b>\$15.234</b>	<b>\$15.167</b>	<b>\$14.970</b>	<b>\$15.660</b>
Annual Bill Estimate	\$4,603.27	\$3,938.82	\$5,520.03	\$4,069.96	\$4,446.74	\$5,266.32	\$4,352.31	\$4,892.79	\$4,959.40	\$4,762.06

<b>Large Commercial Class</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
Annual Consumption (GJ)	5568.6	6475.8	5743.9	4676.1	7838.5	9031.6	8588.4	8191.7	5600.2	5579.00
Monthly Fixed Charge @\$150.00/mo. (\$/GJ)	\$0.323	\$0.278	\$0.313	\$0.385	\$0.230	\$0.199	\$0.210	\$0.220	\$0.321	\$0.323
Delivery (\$/GJ)	8.247	8.269	8.419	8.224	8.083	8.058	8.001	7.837	7.654	7.557
GCV A Co. Use Rider (\$/GJ)	0.098	(0.009)	(0.042)	0.012	(0.018)	0.004	(0.017)	0.043	0.000	0.094
Interim Rate Rider Adjustment (\$/GJ)	0.000	(1.035)	0.000	0.097	0.000	(0.281)	(0.139)	0.071	0.000	0.000
Gas Supply Charge (\$/GJ)	2.260	2.030	2.406	2.464	3.212	4.353	3.481	3.365	4.629	5.362
GCV A Rider (\$/GJ)	(0.013)	(0.396)	(0.208)	(0.450)	(0.163)	0.241	0.070	0.178	(0.199)	(0.199)
Carbon Tax (\$/GJ)	1.986	1.738	1.490	1.490	1.490	1.490	1.490	1.490	0.000	0.000
<b>Total \$/GJ</b>	<b>\$12.902</b>	<b>\$10.875</b>	<b>\$12.378</b>	<b>\$12.222</b>	<b>\$12.833</b>	<b>\$14.064</b>	<b>\$13.095</b>	<b>\$13.204</b>	<b>\$12.405</b>	<b>\$13.137</b>
Annual Bill Estimate	\$71,844.08	\$70,424.70	\$71,099.00	\$57,150.06	\$100,594.89	\$127,021.33	\$112,468.40	\$108,159.39	\$69,472.82	\$73,289.31

**6.0 Reference: Exhibit B-2, Low-Income Customers**

- 6.1 Given the current pandemic and the associated economic conditions, and rather pessimistic short-term income and growth forecasts, does PNG have any plans to offer any relief to low-income and senior ratepayers in respect of rate mitigation or financial consideration (e.g., with respect to late payment, interest on overdue bills, disconnection policy, etc.) beyond what is or will be mandated by local/provincial/federal government and beyond what is proposed?

**Response:**

Since mid-March 2020, PNG has been working to help its customers who have been financially impacted as a result of COVID-19. On March 17, PNG altered its dunning process to have more flexible collection activities. PNG has also halted the disconnection of service for non-payment as directed by the BCUC in Letter L-13-20.

PNG has been working individually with customers to reach mutually agreeable bill payment arrangements, including partial payments, customized payment plans and the waiver of late payment charges. As the magnitude of the impact of COVID-19 on British Columbians and their finances continues to grow, PNG informed the BCUC on April 9, 2020 that it would be providing additional support for customers with respect to their energy bills.

PNG is expanding the flexibility in its pay arrangements for qualifying residential and small commercial customers experiencing significant financial difficulties as a direct result of COVID-19 to allow payment deferrals for up to three months and a longer repayment period up to March 31, 2021.

These bill payment deferral arrangements will be available to residential customers who are unable to pay their energy bills because they have been directly impacted financially as a result of COVID-19 for reasons such as having lost their job or being unable to work. The bill payment arrangements will also be available to small commercial customers who have temporarily closed their business or are still operating but have experienced a significant reduction in revenue.

These measures are available to all residential customers and not just limited to low income and seniors. PNG is cognizant that its situation is different from other utilities in that its rates are significantly higher than those in other areas of BC and is cautious in proposing measures that could result in higher rates for all customers going forward.

- 7.0 Reference: Exhibit B- 2, Amended Application, 2020-21 RRA, p. 47 and Table 17  
Exhibit B1-1, Amended Application, 2018-19 RRA, p. 39, Table 16  
Account 866 Compressor Maintenance Costs

The first referenced page states:

**2.4.1 Account 866 – Compressors**

*The costs in this account cover the labour, supplies and expenses to repair broken compressor equipment, including engines, compressors, generators and their constituent parts, repairs to tools and testing equipment, repairs to station grounds, fences and buildings, repairs to access roads and repainting. The expenses for Test Year 2020 of \$59,000 are forecast to be \$17,000 greater than Decision 2019 costs of \$42,000 primarily due to an increase in contractor costs for compressor station maintenance. This increase can be attributed to increased repair and maintenance required on aging infrastructure. Test Year 2021 costs of \$60,000 are similar to those for Test Year 2020 with an inflationary increase. [Emphasis added.]*

The second referenced table indicates that although the 2017 Decision included \$28,000 in rates for forecasted and planned compressor maintenance, actual compressor maintenance spending in 2017 was only \$2K.

- 7.1 The evidence is that compressor infrastructure is now aging and in need of a large increase in maintenance spending for Test Year 2020: in 2017, when said infrastructure was only three years younger, was it a good idea to vastly underspend on compressor maintenance?

**Response:**

The underspend in 2017 is associated with delays on two major projects as a result of long lead items not materializing in 2017 in time to complete the projects during that year. These two projects were completed in 2018, and are reflected in Actual 2018 costs being 8.9% greater than Decision 2018 amounts (as per Table 48 of the Amended Application). The cost increases in this account for 2020 and 2021 are for additional integrity-related programs to ensure PNG continues as a prudent and safe operating company.

- 7.2 Is it not true that under-spending on planned and forecasted maintenance in one year typically increases the total maintenance spending required on the subject plant or equipment?

**Response:**

Typically, underspending on planned and forecasted maintenance in one year does not increase the total maintenance spending. However, prolonged underspending on planned and forecast maintenance will give rise to increased total maintenance spending. Irrespective of actual to forecast cost variances, PNG continues to maintain its assets to industry standards to ensure that it operates in a safe and efficient manner.