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ORDER NUMBER
G-55-25

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

Pacific Northern Gas Ltd.
PNG 2024 Consolidated Resource Plan

BEFORE:
A. K. Fung, K.C., Panel Chair
E. B. Lockhart, Commissioner

on March 3, 2025

ORDER

WHEREAS:

A. On June 28, 2024, Pacific Northern Gas Ltd. and Pacific Northern Gas (N.E.) Ltd. (together, PNG) filed an application for acceptance by the British Columbia Utilities Commission (BCUC) of the 2024 Consolidated Resource Plan pursuant to section 44.1 of the *Utilities Commission Act* (UCA);

B. Aside from acceptance of the 2024 Consolidated Resource Plan and a request for variance of the directive on page 36 of the Decision accompanying Order G-265-20, PNG is not seeking approval for any particular elements identified in its 2024 Consolidated Resource Plan;

C. By Order G-215-24 and as amended by Order G-268-24, the BCUC established a public hearing and timetable consisting of an evidentiary update, intervener registration, one round of BCUC and intervener information requests (IRs), letters of comment and final and reply arguments;

D. On August 23, 2024, PNG filed an updated 2024 Consolidated Resource Plan;

E. The British Columbia Sustainable Energy Association, the BC Old Age Pensioners' Organization et al. and the Residential Consumer Intervener Association registered as interveners in the proceeding; and

F. The BCUC has reviewed the evidence and submissions filed in this proceeding and makes the following determinations.

NOW THEREFORE for the reasons outlined in the decision accompanying this order and pursuant to sections 44.1 and 99 of the UCA, the BCUC orders as follows:

1. PNG's 2024 Consolidated Resource Plan as updated on August 23, 2024, is accepted in its entirety.

2. The directive on page 36 of the Decision accompanying Order G-265-20 is varied to read as follows:

   > PNG is directed to file for BCUC review and approval a set of principles regarding the development of RNG supply infrastructure, prior to PNG advancing an actual RNG supply infrastructure project.

3. PNG is directed to provide in a compliance filing, no later than December 31, 2025, further information regarding its resiliency risks as detailed in Section 2.5 of the accompanying decision.

4. PNG is directed to file its next consolidated resource plan by June 30, 2029.

5. PNG is directed to comply with all other directives set out in the accompanying decision.

DATED at the City of Vancouver, in the Province of British Columbia, this 3rd day of March 2025.

BY ORDER

Electronically signed by Anna Fung

A. K. Fung, K.C.
Commissioner

DECISION

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Executive Summary

On June 28, 2024, Pacific Northern Gas Ltd. (PNG-West) and Pacific Northern Gas (N.E.) Ltd. (PNG[NE]) (collectively, PNG) filed its 2024 Consolidated Resource Plan with the British Columbia Utilities Commission (BCUC). PNG filed an updated plan on August 23, 2024 (2024 CRP). PNG is required to periodically file long-term resource plans for review and acceptance by the BCUC, the content of which is prescribed by section 44.1(2) of the *Utilities Commission Act* (UCA), and supplemented by the BCUC's Resource Planning Guidelines. The 2024 CRP is filed pursuant to those requirements.

The 2024 CRP presents a 20-year view of the demand-side and supply-side resources identified to meet future gas demand, reliability requirements and provincial greenhouse gas emission reduction requirements at the lowest reasonable cost to PNG's customers. PNG's pipeline capacity is not operating at capacity, and relatively flat demand is expected across the residential and commercial rate classes over the 20-year planning horizon from 2022 to 2042. Accordingly, the 2024 CRP does not forecast any need for new assets to address growth or system capacity utilization.

A key theme explored in the proceeding is the degree to which PNG is required, as part of its long-term resource planning, to balance ratepayer affordability with government policy goals to reduce greenhouse gas emissions, in the absence of legislated targets applicable to PNG.

In reviewing the 2024 CRP, the Panel has considered the UCA's section 44.1(2) filing requirements, the factors set out in section 44.1(8), along with the entirety of the evidence and submissions in this proceeding. Pursuant to section 44.1(6) of the UCA, we find that carrying out the 2024 CRP would be in the public interest, and we accept the 2024 CRP. PNG appears to be taking a reasonable approach to balance the need to provide affordable gas service to meet customer demand with shifting provincial energy goals. The Panel notes that PNG's efforts to decarbonize its system are constrained by its limited access to renewable natural gas (RNG) and the lack of uptake on its demand-side measures.

Although the 2024 CRP represents a reasonable approach in outlining how PNG is planning for a low carbon future in light of current internal and external constraints, the next CRP will need to go further. The direction of provincial policy to reduce greenhouse gas emissions is clear and should not be downplayed.

In addition to accepting the 2024 CRP, the Panel approves PNG's request to vary the directive in the Decision accompanying Order G-265-20 regarding the filing of a set of principles for the development of RNG supply. PNG is directed to file for BCUC review and approval a set of principles regarding the development of RNG supply, prior to PNG advancing an actual RNG supply infrastructure project.

The Panel directs PNG to provide further information regarding its resiliency risks in a compliance filing by no later than December 31, 2025.

PNG is further directed to file its next consolidated resource plan no later than June 30, 2029.

1.0 Introduction

1.1 Application and Approvals Sought

On June 28, 2024, Pacific Northern Gas Ltd. (PNG-West) and Pacific Northern Gas (N.E.) Ltd. (PNG[NE]) (collectively, PNG) filed its 2024 Consolidated Resource Plan for its pipeline systems for review and acceptance by the British Columbia Utilities Commission (BCUC). PNG filed an updated plan on August 23, 2024 (2024 CRP).[1] The 2024 CRP presents a 20-year view of the demand-side and supply-side resources identified to meet future gas demand, reliability requirements and provincial greenhouse gas (GHG) emission reduction requirements at the lowest reasonable cost to PNG's customers.

PNG's pipeline system is not operating at capacity, and relatively flat demand is expected across the residential and commercial rate classes over the 20-year planning horizon from 2022 to 2042. Accordingly, the 2024 CRP does not forecast any need for new assets to address growth or system capacity utilization.

Beyond the acceptance of the 2024 CRP, PNG is not seeking approvals of any projects or expenditures as part of the 2024 CRP.[2] During the proceeding, however, PNG asked the BCUC to reconsider an earlier directive to file with the 2024 CRP a set of principles regarding the development of PNG's renewable natural gas (RNG) supply infrastructure.[3]

1.2 Background

PNG owns and operates a natural gas transportation system and distributes gas to approximately 20,800 residential, commercial and industrial customers in communities in northwestern British Columbia via its PNG-West division. Its related company, PNG(NE), provides natural gas sales and transportation services to approximately 21,600 residential, commercial and industrial customers in the northeastern British Columbia communities of Fort St. John, Dawson Creek and Tumbler Ridge.[4]

PNG is required to periodically[5] file long-term gas resource plans for review and acceptance by the BCUC, the content of which is set out in section 44.1(2) the *Utilities Commission Act* (UCA), and supplemented by the BCUC's Resource Planning Guidelines. The 2024 CRP is filed pursuant to those requirements.

1.3 Legislative Framework

Section 44.1 of the UCA establishes the BCUC's framework for review of PNG's 2024 CRP. Section 44.1(2) provides that FortisBC Energy Inc. (FEI) must file a long-term resource plan that includes several components, as discussed in Section 2 below.

Sections 44.1(6) and (7) of the UCA require that the BCUC accept or reject PNG's plan, in whole or in part, based on its determination of whether the plan is in the public interest. In assessing the public interest the BCUC must consider, amongst others, those applicable factors set out in section 44.1(8) of the UCA, namely: how the plan

[1] Exhibit B-3; PNG Final Argument, p. 1.
[2] Exhibit B-3, pp. 6–7; Exhibit B-1, Cover letter, p. 1.
[3] Exhibit B-5, BCUC Information Request (IR) 21.6; PNG Final Argument, p. 19.
[4] Exhibit B-3, p. 1.
[5] Orders G-265-20 and G-356-23.

addresses BC's energy objectives; whether the plan demonstrates PNG's intention to pursue adequate and cost-effective demand-side management; and whether the plan serves the interests of its ratepayers.[6]

The *Demand-Side Measures Regulation* (DSM Regulation) prescribes the "adequate, cost-effective demand-side measures" referred to in section 44.1(8)(c) of the UCA.[7]

1.4 Regulatory Process

The BCUC established a public hearing and regulatory timetable for this proceeding, consisting of intervener registration, one round of written information requests from the BCUC and interveners, letters of comment and final arguments.[8]

BC Sustainable Energy Association (BCSEA), British Columbia Old Age Pensioners' Organization et al. (BCOAPO) and Residential Consumer Intervener Association (RCIA) registered as interveners in the proceeding. All three interveners actively participated in the proceeding and filed final arguments. The BCUC did not receive any letters of comment.

1.5 Structure of the Decision

Section 2 of this decision addresses the filing requirements for a long-term resource plan as set out in section 44.1(2) of the UCA. Section 3 then addresses whether the 2024 CRP is in the public interest, and whether the BCUC should accept it in whole or in part.

A note on terminology: PNG uses the term Energy Conservation and Innovation (ECI) to describe its demand-side measures (DSM) program of expenditures, as defined by the DSM Regulation. DSM is a broader industry term, while ECI is PNG's specific terminology for its own DSM activities. PNG and interveners use these terms interchangeably, referring to both the ECI Plan and the DSM Plan. This decision reflects that usage.

2.0 Section 44.1(2) Filing Requirements

In this section, the Panel assesses whether PNG's 2024 CRP meets the filing requirements set out in section 44.1(2) of the UCA, including the provision of the following information:

- An estimate of demand PNG expects to serve in the absence of new demand-side measures (DSM) – section 44.1(2)(a);
- A plan of how PNG intends to reduce demand by taking new cost-effective DSM – section 44.1(2)(b);
- Energy purchases PNG intends to make – section 44.1(2)(e);
- Facilities PNG intends to construct or extend to serve the estimated demand after DSM – sections 44.1(2)(c)(d) and (f); and
- Any other information required by the BCUC – section 44.1(2)(g).

We address specific issues related to these filing requirements in the following subsections.

The section concludes with our overall findings on whether the 2024 CRP meets the above filing requirements.

[6] Section 44.1(8) refers to Sections 6 and 19 of the *Clean Energy Act.* These apply only to electric utilities and are therefore not relevant for the Panel's review of a gas utility's long-term resource plan.
[7] B.C. Reg. 326/2008, last amended June 20, 2023 by B.C. Reg. 167/2023.
[8] Order G-215-24A, amended by G-268-24.

2.1 Estimate of Demand

Section 44.1(2)(a) requires that PNG provide an estimate of the demand for energy PNG would expect to serve during the period addressed by the plan, before taking into account planned new DSM (reviewed in Section 2.2 below).

PNG submits that it has addressed section 44.1(2) of the UCA by providing its estimate of the annual gas demand it expects to serve over the 20-year planning horizon (2022–2042), which accounts for demand before considering the impact of proposed DSM. PNG refers to this estimate as its Reference scenario (Reference Scenario) upon which the 2024 CRP is grounded. PNG states that the Reference Scenario reflects a continuation of current energy consumption patterns while incorporating known and anticipated changes.[9] Additionally, PNG uses "critical drivers," as discussed in Section 2.1.1 below, to represent the policies and regulations considered in the forecasts reflected in the 2024 CRP.

The following subsections outline components of PNG's demand forecast methodology.

2.1.1 End-Use Annual Demand Forecasting Methodology

In this subsection, the Panel examines issues related to PNG's annual demand forecasting methodology for estimating a range of future annual demand under different scenarios. The BCUC previously directed PNG to update its Residential End Use Survey (REUS) to inform the demand forecast for this 2024 CRP.[10]

In 2022, PNG conducted a REUS to gather data on household equipment, dwelling characteristics, and activities affecting natural gas consumption. This survey built on PNG's 2019 Customer Attitudes Survey. Additionally, PNG engaged Posterity Group to develop a more sophisticated forecasting model for the 2024 CRP. PNG explains that, while generally consistent with the forecasting methodology used in the 2019 CRP, the new forecasting model provides a more supportable algorithm linking demand to the external socio-economic, regulatory, and policy drivers identified in 2024 CRP. The new model allows PNG to assess the system-level and regional impact of various alternate scenarios that represent future environments in which it may be required to operate. PNG notes that this methodology is also consistent with that as reflected in FEI's 2022 Long-Term Gas Resource Plan (LTGRP), which FEI engaged Posterity Group to develop.[11]

PNG explains that its residential demand forecast is derived from an end-use model that estimates average residential gas use per account. This model incorporates factors such as dwelling type, construction, the presence and type of natural gas appliances, and customer behavior. PNG used data from the 2022 REUS,[12] along with gas consumption records of survey respondents and regional weather data, to estimate weather-normalized unit energy consumption from end uses including space heating, domestic hot water, cooking and fireplaces.[13]

PNG prepared three annual demand forecast scenarios for its 2024 CRP to explore potential futures based on economic and policy conditions. PNG states that these scenarios are not predictions but projections that reflect how changes in PNG's environment might impact its planning decisions. The forecasts reflect the best-available data and professional judgment, acknowledging inherent uncertainties and risks.[14]

[9] PNG Final Argument, p. 4.
[10] Decision accompanying BCUC Order G-265-20, p. 11.
[11] PNG Final Argument, p. 5.
[12] Exhibit B-3, Appendix A.
[13] Ibid., p. 47.
[14] Ibid., p. 49.

The scenarios aim to: meet the BCUC's Resource Planning Guidelines; address BCUC directives from the 2019 CRP decision; reflect updates to federal, provincial and municipal policies; and account for potential economic changes affecting PNG and its customers.[15]

The Reference Scenario for PNG's demand forecast reflects the most plausible regulatory and socio-economic conditions as determined by PNG,[16] incorporating current energy consumption patterns along with known and expected changes in building codes, equipment standards, DSM savings and fuel choices. PNG asserts that this Reference Scenario is also aligned with evolving regulations and government policy objectives, including the CleanBC Roadmap to 2030 (Roadmap 2030).[17]

In addition to the Reference Scenario, the 2024 CRP assesses two alternative scenarios: a Decarbonization Delayed Scenario, where slower policies and price signals limit electrification and RNG adoption compared to the Reference Scenario; and a Decarbonization Accelerated Scenario, where stronger policies, pricing and electrification drive faster decarbonization.[18] PNG explains that it developed these three scenarios by considering possible outcomes for nine variables, called critical drivers, that influence natural gas demand in its service territory. These critical drivers are key exogenous variables that PNG expects to have a material impact on annual energy consumption and GHG emissions, and have sufficient data to model their effect. PNG used these critical drivers to forecast demand across sectors, regions and end uses.[19]

The nine critical drivers PNG identified are as follows:[20]

- Carbon price;
- Burner tip price;
- Blend percentage of RNG;
- Customer accounts;
- Large customer demand;
- Building Code – New Construction;
- Building Code – Retrofit;
- Appliance standards; and
- Gas system GHG mitigation options.

After identifying the critical drivers, PNG then defined and combined discrete trajectories (e.g., Low, Reference, or High) for each critical driver under each of the three scenarios.[21]

In the following sections, we review the particulars of the Reference Scenario and the two alternative scenarios.

2.1.2 Reference Scenario

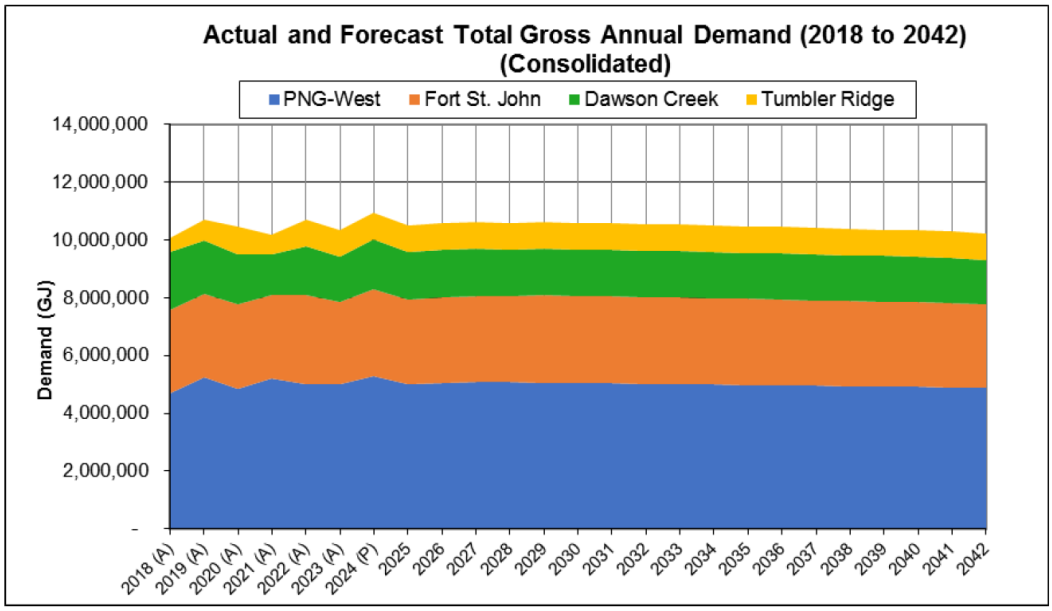
The Reference Scenario is based on the end-use model and is built at the sector level, i.e. residential, commercial and industrial customers. PNG projects annual demand to decline slowly over the forecast period, primarily due to:[22]

[15] Ibid., p. 50.
[16] PNG Final Argument, p. 13; PNG Reply Argument, p. 2.
[17] Exhibit B-3, p. 50.
[18] Ibid., p. 50.
[19] Ibid., p. 51.
[20] Ibid., pp. 51–53.
[21] Ibid., p. 53.
[22] Ibid., p. 55.

- Increases in carbon price and burner tip prices, which drives an increased focus on conservation and fuel switching away from gas;
- Increasingly stringent building code and equipment standards, which lower the unit energy consumption for space and water heating end uses in residential and commercial dwellings; and
- Leveling off of load from existing industrial customers, based on the large customer demand forecasts.

Notwithstanding that slow decline in annual demand, PNG projects that the demand breakdown by region remains fairly consistent, with PNG-West accounting for the majority of demand, as shown in Figure 1 below. PNG provides the following explanation for the apparent discrepancy in those two statements. Nearly half of PNG's total demand comes from residential and commercial customers, with space heating as the largest end use. Further, while PNG projects space heating demand to decline due to stricter building codes and equipment standards, it expects the overall share of residential and commercial demand to remain steady throughout the planning period, as modest customer growth offsets reductions in use per account.[23] Similarly, the demand forecast for the large customer sectors is stable. This is because the demand forecast for large customers is offset by the gradual loss of residential and small commercial customer demand over 20 years due to decreases in the residential and small commercial use per account that are not offset by the modest growth in customer additions from these sectors. The combination of these factors results in the Reference Scenario showing minimal changes (overall 1 percent decline in demand by 2042).[24]

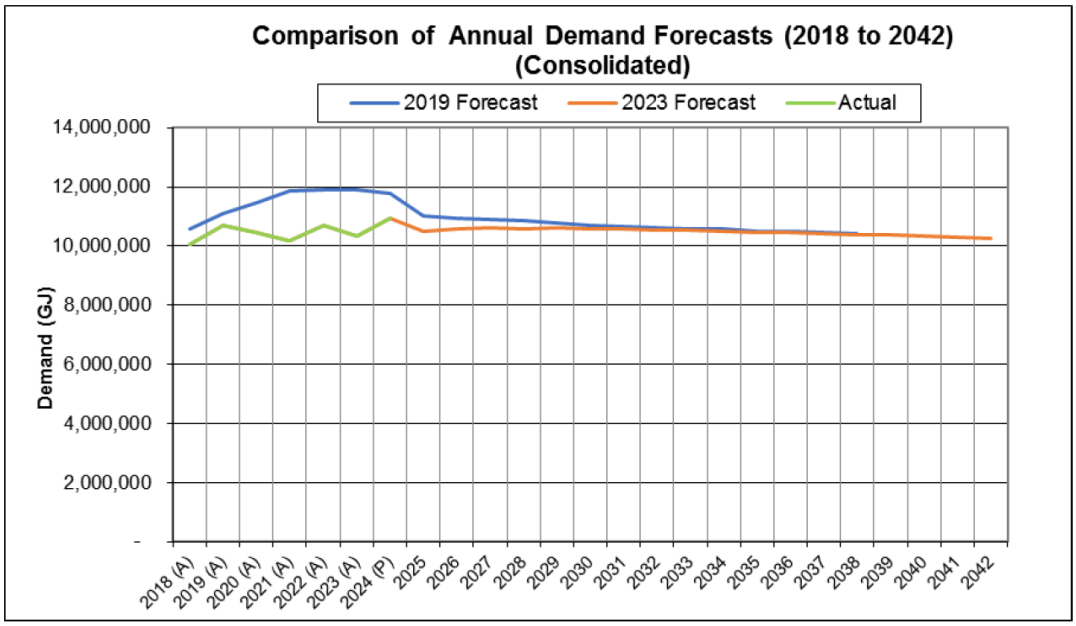
Figure 1: Annual Demand – Actual and Forecast by Region, Reference Scenario[25]



PNG also provides in Figure 2 below a comparison between its 2024 CRP and 2019 CRP forecasts, showing that demand in the 2024 CRP in all years remains below the levels projected in the 2019 CRP.[26]

[23] Exhibit B-3, p. 55.
[24] Ibid., p. 85.
[25] Ibid., p. 56.
[26] Ibid., p. 55.

Figure 2: Comparison of Forecasts from the 2019 and 2024 CRPs[27]



2.1.3 Alternative Demand Scenarios

The following section examines PNG's two alternative scenarios in greater detail.

In the **Decarbonization Accelerated** Scenario, PNG assumes faster decarbonization driven by policies and price signals that promote electrification and increased blending of low-carbon fuels such RNG and hydrogen. Key assumptions in this scenario include:[28]

- Higher RNG/hydrogen blending raises natural gas costs.
- Accelerated adoption of the BC Energy Step Code.
- Increases to the BC Carbon Tax beyond federal levels after 2030.

Under the Decarbonization Accelerated Scenario, demand is forecast to decline by 4 percent by 2030 and 16 percent by 2042.[29]

In the **Decarbonization Delayed** Scenario, PNG assumes decarbonization policies are delayed, with the BC Carbon Tax frozen at 2024 levels, reducing conservation and electrification impacts. Key assumptions in this scenario include:[30]

- Slower adoption of the BC Energy Step Code.
- DSM incentives remain aligned with current regulations.

Under the Decarbonization Delayed scenario, demand is forecast to rise by 16 percent by 2030 and 18 percent by 2042.[31]

[27] Exhibit B-3, p. 57.
[28] Ibid., pp. 82–83.
[29] Ibid., p. 85.
[30] Ibid., p. 83.
[31] Ibid., p. 85.

PNG confirms the following significant variability in demand projections between the Decarbonization Accelerated and Decarbonization Delayed Scenarios for 2042:

- Annual Demand: A total range of 3,489 terajoules (TJ)/year, equivalent to approximately 34 percent; and
- Design Day Demand: A total range of 30,301 gigajoules (GJ)/day, or about 33 percent.[32]

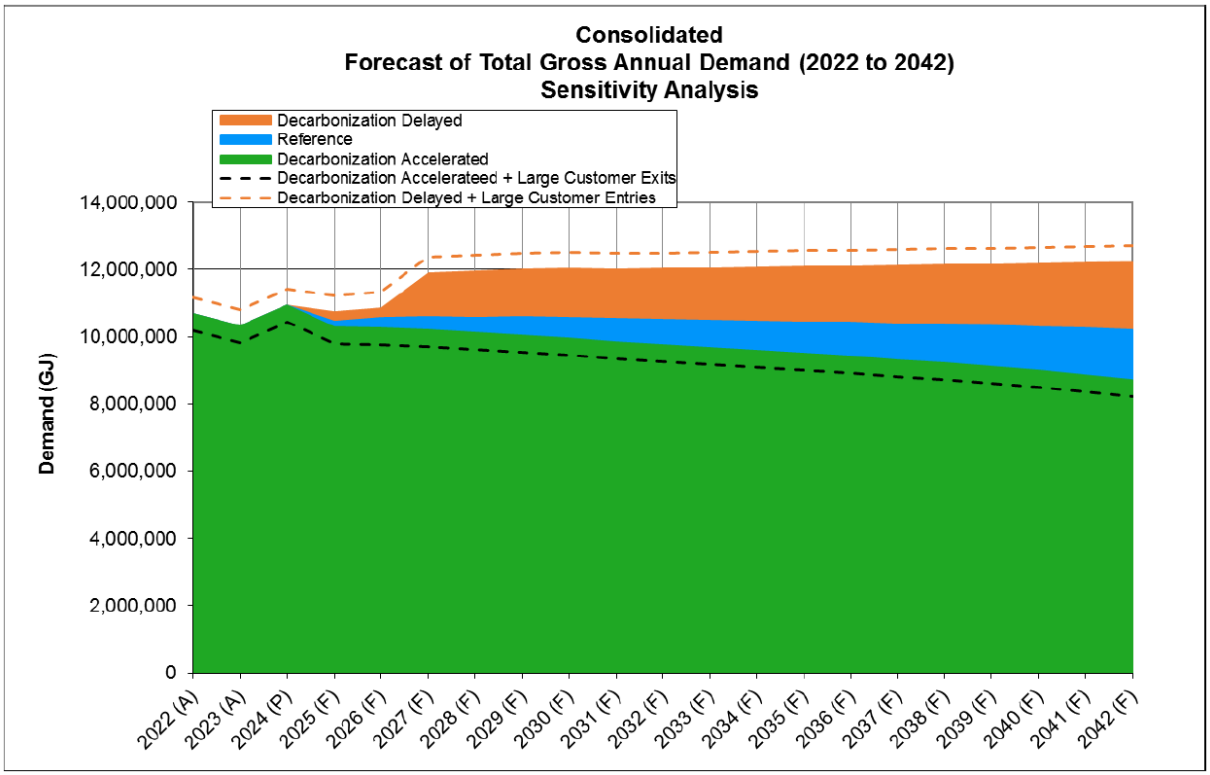
PNG submits that the Decarbonization Accelerated and Decarbonization Delayed Scenarios provide a robust sensitivity analysis on either end and demonstrate that PNG's planning considers potential future economic or policy changes that might drive changes in demand by customers.[33]

In its review of PNG's 2019 CRP, the BCUC noted that it would be useful for PNG to include scenarios that would more dramatically impact future demand, whether positively or negatively, in the region. Accordingly, the BCUC directed PNG to incorporate more extreme planning scenarios, including the gain or loss of a large commercial or industrial customer demand, in its next long-term resource plan.[34] For this analysis in the 2024 CRP, PNG identified a large customer in each of its four service areas and its corresponding annual load as follows:[35]

- Pellet plant (~330,000 GJ) for PNG-West.
- Upstream oil and gas fuel load (~100,000 GJ) for Fort St. John.
- Oil and gas services (~50,000 GJ) for Dawson Creek.
- Recreation centre (~10,000 GJ) for Tumbler Ridge.

Erreur ! Source du renvoi introuvable. below shows PNG's demand forecast for all scenarios including the impact of the addition or removal of a large customer (as identified above), on its system.

Figure 3: Demand Forecast Scenarios – Consolidated[36]



[32] Exhibit B-6, BCOAPO IR 5.2.
[33] PNG Final Argument, p. 13.
[34] Decision accompanying BCUC Order G-265-20, p. 17.
[35] Exhibit B-3, p. 93.
[36] Ibid., p. 79.

In addition to the above, the Quintette Mine in Tumbler Ridge recently announced it has received permits to restart operations, and in response to BCUC staff information requests, PNG estimates that the mine will consume between 70,000 and 90,000 GJ annually at full operation based on ongoing discussions. Given this announcement occurred after the filing of the 2024 CRP, PNG did not include this estimate in the additional scenarios in the 2024 CRP.[37]

Finally, PNG submits that its gross demand forecast set out in the Reference Scenario is based on sound objectives and methodologies that have been clearly explained, and it has presented an appropriate range of potential future scenarios. [38]

2.1.4 Reasonableness of Demand Forecast in Light of Energy Policies

In the 2024 CRP, PNG identifies "Building Code-New Construction," which refers to the adoption of the BC Energy Step Code, as one of PNG's critical drivers. This code mandates energy efficiency levels for new residential and commercial buildings. PNG notes that implementing this code will decrease space and water heating demand for natural gas in new buildings.[39]

In addition to the BC Energy Step Code, as part of the Roadmap 2030, British Columbia has also introduced the Zero Carbon Step Code (ZCSC) aimed at mandating zero-emissions new buildings by 2030, and enabling earlier adoption by municipalities on a voluntary basis. Another policy from the Roadmap 2030, the Highest Efficiency Equipment Standards (HEES), will require all new space and water heating equipment sold and installed in British Columbia to be at least 100 percent efficient by 2030. The Province consulted on the HEES in early 2024, but to date has not implemented those standards.[40]

PNG confirms that beyond incorporating the BC Energy Step Code in the "Building Code – New Construction" critical driver, the demand forecast in the 2024 CRP does not account for other government policies, such as the ZCSC or the HEES. PNG states that it did not explicitly consider the latter two policies due to insufficient implementation details when PNG developed its critical drivers for the 2024 CRP. PNG explains that since the ZCSC is voluntary, there is a great deal of uncertainty about its implementation, whereas the BC Energy Step Code is mandatory and has publicly available information about code requirements and adoption paths, hence PNG included the "Building Code – New Construction" critical driver[41] based on the BC Energy Step Code requirements. [42]

As for the HEES, PNG notes that the proposed standards were only released after PNG's modeling assumptions were developed. Accordingly, the gas-to-electric fuel switching modelled by PNG in its scenarios is driven by carbon tax and burner tip price signals rather than government policy such as the ZCSC or the HEES.[43] Finally, PNG states that if the ZCSC and HEES were explicitly incorporated in PNG's demand forecast scenarios, the electric fuel share for space and water heating in new construction and existing buildings, respectively, will gradually increase.[44]

[37] Exhibit B-5, BCUC IR 15.1.
[38] PNG Final Argument, p. 18; PNG Reply Argument, p. 4.
[39] Exhibit B-3, p. 52.
[40] Exhibit B-5, BCUC IR 7.1.
[41] PNG sets an "accelerated" setting for this critical driver, reflecting a faster adoption of the net-zero-ready step equivalent than what is currently required by the BC Building Code.
[42] Exhibit B-5, BCUC IR 7.1.
[43] Ibid., BCUC IR 7.1.
[44] Ibid., BCUC IR 7.2.

2.1.5 Design Demand Day Forecast

In addition to its annual demand forecast, PNG also provides a design day demand forecast, which represents the maximum demand the system is expected to serve. PNG states that it estimates this demand by using the same method developed for determining peak day gas supply requirements for annual firm gas supply planning.[45] PNG notes that under the Reference and Decarbonization Accelerated Scenarios, all systems except Tumbler Ridge reach maximum design day demand by 2026, while PNG-West reaches it by 2027 under all scenarios. Furthermore, PNG states that only Tumbler Ridge faces a potential capacity constraint, expected as early as 2024 under the Decarbonization Delayed Scenario.[46]

Positions of the Parties

BCOAPO states that PNG's alternative future demand scenarios and critical driver analysis framework are an improvement over past CRPs, and a reasonable approach considering the planning environment in which PNG operates. However, BCOAPO recommends that the BCUC direct PNG to consider a wider range of demand scenarios for its next CRP, such as lower and upper bounds or alternative economic and policy scenarios, consistent with those FEI undertook for its 2022 LTGRP.[47]

BCOAPO also notes its concern that PNG has not developed a preferred planning scenario as part of the 2024 CRP (for example, FEI presented a preferred scenario in its 2022 LTGRP), and that PNG's use of the Reference Scenario as a "de facto planning scenario" is too similar to a "business as usual" approach during a significant energy transition. BCOAPO submits that PNG should develop a preferred planning scenario for its next CRP that reflects the strategic initiatives to further its overall vision for a successful energy transition. Such preferred planning scenario would differ from a reference scenario containing the most plausible settings for critical drivers, by also including planning settings for critical drivers that PNG seeks to influence through its strategic initiatives and related planning activities.[48]

In reply to BCOAPO, PNG argues that expanding the range of scenarios would add unnecessary complexity and burden, especially given its smaller size and resources compared to FEI. It maintains that its approach aligns with the BCUC's Resource Planning Guidelines, which account for each utility's unique circumstances. PNG states that it has already provided scenarios to cover an overall annual demand range of 34 percent, which is not insignificant.[49]

PNG further disagrees with BCOAPO's implication that by not presenting a preferred planning scenario similar to that of FEI, it does not have a vision and strategy for energy transition. PNG states that its strategic approach to energy transition considers many factors beyond those considered in this proceeding, including provincial climate policies, both legislated and unlegislated, the financial implications for ratepayers of taking incremental action as well as the impacts of such action on PNG's ongoing viability. PNG submits it should not be compelled to approach how it presents evidence with respect to its GHG emission reduction strategies and plans in the same manner as FEI.[50]

RCIA sees the new forecasting model used for the 2024 CRP as an improvement, as it allows for more scenario modelling.[51] RCIA finds the Reference Scenario reasonable, with the Accelerated and Delayed Decarbonization

[45] Exhibit B-3, p. 96.
[46] Exhibit B-3, pp. 96–97.
[47] BCOAPO Final Argument, pp. 10–11.
[48] Ibid., pp. 12, 22.
[49] PNG Reply Argument, pp. 4–5.
[50] PNG Final Argument, p. 15.
[51] RCIA Final Argument, p. 6

Scenarios serving as useful bookends for evaluating DSM measures and new facility needs.[52] RCIA acknowledges that although it has no concerns at this time with the approach PNG has taken in the 2024 CRP, since this is the first year of using the model presented in the 2024 CRP, the model should be tested for accuracy in the review of the next CRP.[53]

BCSEA does not comment on PNG's demand forecasting methods directly, but submits that PNG's long-term resource plan should be driven by GHG emission reduction policies (as opposed to legislated targets) and not wait for detailed prescription.[54] BCSEA points to the long-term resource plans of British Columbia Hydro and Power Authority and FEI as examples of how provincial and federal climate policy should be a crucial driver of PNG's long-term resource plans.[55]

In reply to BCSEA, PNG submits that it has placed climate policies at the forefront of its 2024 CRP by creating its two alternative scenarios specifically to address the potential impacts of climate policy. PNG submits that BCSEA's concern is less about whether PNG gave due consideration to how climate policies affect its planning landscape and more about whether PNG is doing enough, in BCSEA's view, to advance GHG emission reductions arising from its operations.[56]

Panel Determination

The Panel finds PNG's estimate of demand before DSM to be reasonable in the 2024 CRP. We acknowledge—as have BCOAPO and RCIA—the enhancements that PNG has made to its demand forecasting methodology, including updating the REUS and engaging Posterity Group to develop a more sophisticated demand forecasting model. Section 44.1(2)(a) of the UCA does not specify the particular methodology that a utility must use in developing its demand forecast, and forecasts are inherently uncertain.

The Panel is satisfied that PNG has provided sufficient information about the underlying assumptions for its updated methodology to enable us to assess the reasonableness of that methodology. We find that the both the key critical drivers and the end-use methodology PNG used to prepare its demand forecasts are reasonable. Overall, we find that PNG's demand forecast for residential, commercial and industrial customers, before new DSM, as reflected in the Reference Scenario, is reasonable and plausible and therefore, meets the requirements of section 44.1 (2)(a) of the UCA.

We are not persuaded that we should direct PNG to consider a wider range of demand scenarios, as BCOAPO suggests. We consider the range of demand that PNG has modelled in its scenarios (representing 34 percent of overall demand) to be more useful than the total number of scenarios canvassed in the 2024 CRP. Further, we are persuaded about the reasonableness of the critical drivers identified by PNG. Carbon and gas price, building codes and equipment standards, and the loss of large customer load, are the factors that PNG expects will have a material impact on the annual energy consumption by PNG's customers and on the GHG emissions arising from the provision of its gas service.

As the Resource Planning Guidelines note, the BCUC considers a utility's unique circumstances when reviewing its resource plan. PNG correctly reminds us that it is a smaller utility than FEI. What FEI chooses to do may not be appropriate for PNG. We consider that insisting PNG approach its resource planning in the same way that FEI does would impose additional burden on PNG's resources with no commensurate value. We note that even if PNG were to model lower bound scenarios similar to FEI, it would not change the fact that PNG's pipeline system remains underutilized. Similarly, we are persuaded that an upper bound scenario is more relevant for

[52] Ibid., p. 9.
[53] RCIA Final Argument, p. 7.
[54] BCSEA Final Argument, p. 2.
[55] BCSEA Final Argument, p. 3.
[56] PNG Reply Argument, p. 14.

situations where PNG adds additional large commercial or industrial customers, which PNG has already accounted for in its alternative demand scenario analysis in the 2024 CRP with the exception of the potential load associated with the Quintette Mine.

The Panel finds that PNG has satisfied the directives in the Decision accompanying Order G-265-20[57] by including in the 2024 CRP the results of an updated REUS and more extreme planning scenarios, including the gain or loss of a large commercial or industrial customer. The 2024 CRP demonstrates that the gain or loss of an industrial customer is the single largest uncertainty in the demand forecast. **We direct PNG to continue to include the impact of a gain or loss of a large commercial or industrial customer on demand as directed in Order G-140-14 in future long-term resource plans.**

Although we have rejected interveners' requests to direct PNG to model a wider range of provincial policies, we encourage PNG to do so in its next CRP. Uncertainties about drastic changes in demand due to shifting provincial policies are not going away, and cannot be addressed by doing nothing or ignoring clear policy signals. We note that PNG's alternative demand scenarios in the 2024 CRP did not take into account the potential impacts of the ZCSC or HEES, which are at various stages of advancement by the provincial government. If both policies are fully implemented by 2030, PNG will have additional challenges to attach new customers and retain existing load. We consider that it would be prudent for PNG to address the potential impact of such policies sooner rather than later.

By all accounts, 2030 is just around the corner. To the extent that PNG has not modelled more extreme planning scenarios in the 2024 CRP, it will have to bear the consequences of having to take action to address potentially significant loss of demand due to the imposition of stringent legislated targets within a compressed timeframe. Similarly, to the extent that PNG's forecast demand does not include the Quintette Mine increased demand in its modelling of the average industrial load, PNG may have to add facilities to serve that increased load, which may require PNG to make quick changes to its facilities planning or take other steps to accommodate that load.

2.2 Demand to be Offset Using DSM

Sections 44.1(2)(b) and (c) of the UCA require that PNG include in the 2024 CRP an indication of how PNG intends to reduce demand by taking cost-effective DSM and an estimate of demand after DSM. This section reviews PNG's plan to reduce demand and outlines the amount of demand that PNG forecasts will be offset using DSM. The cost effectiveness and adequacy of the proposed DSM are discussed separately in Section 3.2 below.

PNG's 2024 CRP includes its plan to provide adequate and cost-effective DSM from 2025–2034 (ECI Plan). PNG is not seeking approval of the DSM expenditures in the ECI Plan, but simply to demonstrate how PNG intends to reduce its gross annual demand by undertaking adequate and cost-effective DSM as required by section 44.1(2)(b) of the UCA.[58]

PNG explains that the following resources informed the development of the ECI Plan:[59]

- The forecast energy savings potential identified in the 2021 Conservation Potential Review (CPR), which PNG determined was overly optimistic and modified downwards for the long-term from 2025 to 2034, based on PNG's actual DSM experience to date;

[57] Decision accompanying Order G-265-20, pp. 11; 17.
[58] PNG Final Argument, p. 8.
[59] Exhibit B-3, pp. 101–102; Exhibit B-3, cover letter p. 3.

- PNG's 2023–2024 ECI Schedule of Expenditures, previously approved by the BCUC,[60] which funds the continuation of PNG's current programs and initiatives, and expands the range of programs offered to residential, commercial and industrial customers in 2023 and 2024; and
- The REUS that PNG commissioned in 2022, which provides useful insights into customers' perception of PNG's DSM programs, along with guidance on the design of new programs.

PNG has no plans to update the 2021 CPR, while noting the 2021 CPR would be less reflective of future "realistic" DSM opportunities during the next round of planning.[61] PNG considers the approach it took to adjusting the estimated potential DSM savings is more precise than that offered by a generic CPR. PNG points out that the weakness of the latter is that it "relies on more general assumptions of per-measure energy savings and market adoption rates that do not reflect PNG's specific climate, existing dwelling construction, occupant behaviour, and modest level of resourcing for program management, marketing and rebates."[62]

PNG states that the ECI Plan uses the 2023–2024 ECI Schedule of Expenditures as the starting point, to which PNG added or deleted some measures and updated the incentives for some measures. PNG also notes that the ECI Plan proposes changes to existing programs, as well as new programs, to respond to amendments made in 2023 to the DSM Regulation.[63] Those amendments included changes to the types of DSM that utilities can offer. In particular, the amendments removed incentives for natural gas space and water heating equipment with performance below a certain threshold, with some exceptions for low income and Indigenous customers in specific climate zones, and certain industrial settings.[64]

PNG explains that the ECI Plan is focused on providing programs that support customer energy conservation and efficient use of natural gas, for example one that supports the installation of dual-fuel heating systems such as an electric air-source heat pump paired with a natural gas furnace. The ECI Plan does not focus on programs that incentivize fuel switching, such as switching home heating from natural gas to electricity, because such programs could result in the loss of a customer. PNG notes that incentivizing this fuel-switch choice would be detrimental for PNG's ratepayers because they would have to absorb the loss of revenue arising from the reduced demand along with the cost of providing the incentive.[65]

PNG acknowledges that the BCUC has previously directed PNG to include in its resource plans different DSM funding scenarios including, at a minimum, a "reference" DSM funding scenario with "high DSM" and "low DSM" scenarios relative to the reference funding scenario.[66] PNG refers to the long-term ECI Plan as the Reference DSM scenario.[67]

PNG also provided a "High DSM" scenario that showed increased participation in the various programs and the resultant higher savings, driven by higher marketing and rebate expenditures.[68] Consistent with its approach in the 2019 CRP, however, PNG has not included an analysis of a "Low DSM" funding scenario because it envisions such a scenario would correspond to a DSM portfolio that only meets, rather than exceeds, the adequacy requirements of the DSM Regulation.[69]

[60] BCUC Order G-171-23.
[61] Exhibit B-5, BCUC IR 16.4.
[62] Ibid., BCUC IR 16.5.
[63] Exhibit B-3, p. 103.
[64] Exhibit B-5, BCUC IR 16.3, 18.7; Exhibit B-8, RCIA IR 9.2; Exhibit B-3, cover letter, p. 4.
[65] Exhibit B-5, BCUC IR 17.1.
[66] Exhibit B-3, p. 100; Order G-155-15, p. 10.
[67] Exhibit B-3, p. 103; PNG Final Argument, p. 7.
[68] Exhibit B-5, BCUC IR 18.9.
[69] Exhibit B-3, p. 106.

PNG estimates the cumulative energy savings associated with its Reference and High DSM scenarios of the long-term ECI Plan to be 809 TJ in the Reference DSM scenario and 1,046 TJ in the High DSM scenario.[70] By 2034, PNG anticipates annual gas demand will reduce by 2.0 percent under the Reference DSM scenario, and by 2.9 percent under the High DSM scenario.[71]

PNG provided an analysis of the bill and rate impacts on all customer groups of the long-term ECI Plan, as required by Order G-265-20.[72] The Reference DSM scenario would cause a monthly bill increase in 2034 for a residential customer of approximately $1.50 per month in the PNG-West service area, $2.29 per month in the Fort St. John/Dawson Creek service areas and $1.67 per month in the Tumbler Ridge service area.[73]

In 2024, PNG's actual DSM spending was $894,000, approximately 50 percent of the approved forecast expenditure of $1.78 million.[74]

PNG submits that its proposed ECI plan meets the section 44.1(2) requirement that a long-term resource plan must include a plan of how the public utility intends to reduce demand by taking cost-effective DSM. [75]

Positions of the Parties

RCIA supports PNG's ECI Plan as it is aligned with the 2023–2024 ECI Schedule of Expenditures, which the BCUC has already accepted.[76] RCIA submits that PNG has appropriately recognized that DSM uptake is still fundamentally limited by customers' willingness to participate, and agrees that relying on PNG's historical experience with DSM uptake likely provides the most accurate forecast of DSM savings.[77]

RCIA's critique, however, focuses on PNG's High DSM scenario, which assumes increased customer participation and spending on marketing, but no change in the incentives or measures offered. RCIA describes the High DSM scenario as "an optimistic version of PNG's Reference scenario, with additional money to be spent on marketing" and submits PNG has not developed a credible alternative ECI Plan that would result in additional DSM savings.[78] RCIA recommends that the BCUC direct PNG to include an alternative enhanced DSM plan in its next CRP that reflects additional cost-effective measures and increased incentives to generate additional savings over and above the Reference Scenario. RCIA suggests, for example, that PNG explore whether the changes to the cost-effectiveness test in the DSM Regulation create the potential for new initiatives that were previously not cost-effective.[79]

BCOAPO acknowledges that PNG has complied with sections 44.1(2)(b) and (c) in the UCA. However, it states that PNG's forecast scenarios of 2.0 percent to 2.9 percent cumulative DSM savings in the 10-year period between 2025 and 2034 make it difficult to conclude that PNG intends to aggressively pursue DSM in the overall public interest. It recommends that the BCUC not accept the Reference DSM scenario.[80] BCOAPO notes that it expected that PNG would aggressively pursue DSM initiatives to reduce ratepayer consumption of natural gas, bills and GHG emissions and that PNG would build a High DSM scenario into all of its demand forecasting

[70] Exhibit B-3, Cover letter, p. 4
[71] Exhibit B-3, p. 111.
[72] As directed in the Decision accompanying Order G-265-20, p. 10, and Order G-155-15, p. 10.
[73] Exhibit B-3, Section 8.2.3, p. 113.
[74] Exhibit B-5, BCUC IR 16.8.
[75] Exhibit B-3, p. 100.
[76] RCIA Final Argument, p. 11.
[77] Ibid., p. 10.
[78] Ibid., p. 11.
[79] Ibid. pp. 5, 11.
[80] BCOAPO Final Argument, p. 3, 15.

scenarios. Instead, BCOAPO observes the High DSM scenario appears to simply be a sensitivity for informational value produced in response to a prior BCUC directive. [81]

PNG notes in reply that the obligation set out in the UCA is for PNG to demonstrate that it intends to undertake adequate, cost-effective DSM as required by the DSM Regulation. There is no requirement to "aggressively pursue" DSM.[82] PNG cautions that "simply put, for PNG to do more will cost more. This will place an upward pressure on customer rates, including for low-income ratepayers, the very constituents BCOAPO represents."[83] PNG submits that its ECI Plan is important to PNG and its customers, and PNG is devoting the appropriate resources to advance its programs within the context that it operates.[84]

BCOAPO states that the 2021 CPR is unrealistic and it would be prudent for PNG to refresh the technical, economic and market potential for DSM savings, rather than continually adjusting forward looking ECI plans for actual results. BCOAPO recommends that the BCUC direct PNG to update its CPR in its next long-term resource plan filing.[85]

BCSEA submits PNG's long-term DSM plan is weak, and cites in support the minimal difference between PNG's Reference and High DSM scenarios over the 10-year planning period (2025–2034), as compared to FEI's forecast of DSM savings in its 2022 LTGRP amounting to 13 percent of annual load in 2042.[86] BCSEA considers that the rate impacts of both the Reference DSM scenario and the High DSM scenario are modest.

BCSEA submits that PNG's underspending of approved DSM expenditure schedules has become a strategic problem that should be addressed at the level of the long-term DSM plan.[87]

PNG notes BCSEA and BCOAPO's concerns regarding PNG's underspending relative to its forecast expenditures, and argues that it has refined its forecasts to better reflect the impact of its ECI Plan and programs to date, so as to reset the consideration of the impact of its ECI Plan. Through program refinement and the hiring of a DSM program implementation resource, PNG expects to realize increased customer participation in its ECI programs and to achieve better alignment between funded amounts and program expenditures.[88]

PNG also cites the amended DSM Regulation which effectively limits the incentive programs that PNG can offer, and the customer driven nature of DSM programs.[89]

Panel Determination

The Panel finds that the 2024 CRP meets the requirements of section 44.1 (2)(b) of the UCA. Specifically, we find that the long-term ECI Plan demonstrates PNG's intent to reduce demand by taking cost-effective DSM. A more detailed examination of the cost-effectiveness of the specific DSM programs will occur and be determined through future applications for approval of PNG's DSM expenditure schedules.

The Panel also finds that the 2024 CRP meets the requirements of section 44.1 (2)(c) of the UCA because it includes an estimate of the reduction in demand resulting from cost-effective DSM. We accept that the ECI Plan demonstrates that PNG's DSM could reduce demand by two percent relative to the Reference Scenario.

[81] Ibid. p. 15.
[82] PNG Reply Argument, p. 8.
[83] PNG Reply Argument, p. 18.
[84] Ibid., p. 8.
[85] BCOAPO Final Argument, pp. 15, 24.
[86] BCSEA Final Argument, pp. 2, 4.
[87] Ibid., p. 5.
[88] PNG Reply Argument, p. 8.
[89] Ibid., p. 9.

We acknowledge that PNG has sought to address the underspending that its previous DSM plans have experienced. We are encouraged that PNG has identified some improvements to its DSM programs and resources that might lead to better participation by ratepayers. In addition, as RCIA notes, the changes to the cost-effectiveness test in the DSM Regulation may give PNG the impetus to explore new initiatives that were previously not cost-effective.

The Panel also acknowledges that all of the interveners are critical of PNG's DSM plans. BCSEA describes the ECI Plan as weak and the rate impact as modest, and BCOAPO says PNG's efforts are not aggressive enough. Although RCIA concedes that the ECI Plan appropriately recognizes that "DSM uptake is still fundamentally limited by the willingness of customers to participate," RCIA suggests that the High DSM scenario does not go far enough. RCIA recommends that we direct PNG to include an enhanced DSM plan in its next CRP that reflects additional cost-effective measures and increased incentives to generate additional savings.

Despite interveners' disappointment in PNG's efforts regarding DSM, the Panel finds that PNG has complied with the requirements under the UCA. We note that subsection 44.1(2)(f) of the UCA only requires that a utility explain why planned energy purchases and facilities are not planned to be replaced by DSM. A utility is not required to undertake any particular level of DSM beyond the adequacy requirements set out in the DSM Regulation, as addressed in section 3.2 below.

By stating that PNG's DSM efforts are not aggressive enough, what BCOAPO is really highlighting is that the legislation does not require utilities to aggressively pursue DSM. Whether utilities should be mandated to aggressively pursue DSM to reduce GHG emissions, however, is a matter for the Legislature to determine, not for the BCUC to arbitrarily decide in the context of a specific utility's long-term resource plan. Furthermore, as PNG has noted, higher levels of DSM would increase rates relative to the Reference DSM scenario.

The Panel finds that the previous BCUC directives to PNG regarding its DSM planning have been a useful reference point for evaluating the ECI Plan and PNG's long-term DSM planning in the 2024 CRP. Therefore, **we direct PNG to continue to include in its resource plans different DSM funding scenarios including, at a minimum, a "reference" DSM funding scenario with a "high DSM" scenario relative to the reference funding scenario.** We accept PNG's submission that a "low DSM" scenario is not useful because it would simply illustrate negligible gas savings. In contrast, a "high" DSM scenario is useful because it illustrates what could be achieved with more resources and it also provides a reminder—reality check—of the cost to ratepayers that accompanies DSM.

That said, we do not find it helpful to prescribe what a "high" DSM scenario should comprise. For the purpose of the 2024 CRP, we are persuaded that it was reasonable for PNG to develop the High DSM scenario by adjusting the participation assumptions in the Reference DSM scenario instead of adding, as RCIA suggests, other cost-effective measures and increased incentives to generate additional savings over and above the Reference DSM scenario. However, the Panel also recognizes that PNG's approach may no longer be sufficient for its next resource plan. As RCIA notes, changes to the cost-effectiveness test in the DSM Regulation might necessitate PNG proactively pursuing new initiatives that were previously not cost-effective.

The Panel rejects BCOAPO's submission to direct PNG to update the 2021 CPR as part of the filing of PNG's next long-term resource plan. While utilities often use a CPR to provide a range of DSM possibilities, there may be other more cost-effective ways in which a utility can do this, such as through an environmental scan. The Panel is persuaded by PNG's concerns about the utility of a generic CPR given PNG's operating environment. Ultimately, PNG remains responsible for showing it has canvassed a reasonable range of DSM possibilities in developing its DSM plan, rather than simply relying on the tried and true or low-hanging fruit.

2.3 Energy Purchases

Pursuant to section 44.2(2)(e) of the UCA, PNG must provide information regarding the energy purchases it intends to make to serve the estimated demand, after taking planned DSM into account, as part of the 2024 CRP. In the 2024 CRP, PNG takes into account the British Columbia goal of reducing the GHG emissions associated with natural gas, and other low emission gases such as renewable natural gas (RNG), when considering energy supply resource alternatives.[90]

2.3.1 Gas Supply Contracts

PNG is not a vertically integrated utility with its own natural gas supply or storage resources, and therefore must contract for gas supply annually based on its expected energy needs. PNG submits an annual contracting plan to the BCUC for approval. That plan describes the physical gas supply resources PNG intends to secure to meet the projected peak day and average daily gas demand of PNG's gas sales customers over each gas year beginning November 1st.[91] Since the BCUC considers this gas contracting plan separately, PNG has not directly addressed the issue of natural gas supply in the 2024 CRP.[92]

PNG explains that its natural gas supply requirements are facilitated by a third-party energy management services provider.[93] PNG is not forecasting a need for new assets to address growth or system capacity utilization over the planning period of the 2024 CRP.[94]

2.3.2 Renewable Natural Gas

PNG states its biomethane (renewable natural gas or RNG) acquisition strategy balances the 2018 CleanBC Strategy (CleanBC)[95] of a 15 percent RNG content in natural gas deliveries with important considerations unique to its environment.[96] PNG elaborates on two of its RNG acquisition strategy considerations below.

PNG cites the first consideration in incorporating higher-priced RNG into its supply as being the rate impacts on PNG's ratepayers. PNG states its customers in the PNG-West and Tumbler Ridge service areas pay the highest burner tip rates in the province, and that achieving the 15 percent RNG content target would put further cost pressure on these customers.[97] For example, PNG estimates the average rate impact across all customers, of increasing the RNG blend to 15 percent of PNG's throughput by 2030 to be approximately $3.00 per GJ.[98]

Secondly, PNG states the CleanBC RNG content target of 15 percent remains voluntary at this time but accepts that further policy directions that are set out in the Roadmap 2030 signal to PNG the importance of building a foundational portfolio of RNG supply.[99] Accordingly, PNG has recently entered into two biomethane supply agreements. The biomethane that is being notionally supplied to PNG under these agreements qualifies as RNG under the Greenhouse Gas Reduction (Clean Energy) Regulation. PNG took notional delivery of a small quantity of biomethane under its first, short term contract in Q4 of 2022. PNG expected to receive biomethane under a second, long term supply agreement beginning in Q3 of 2024. The combined supply from these two agreements

[90] Exhibit B-3, p. 13.
[91] Exhibit B-3, p. 135.
[92] Ibid., p. 10.
[93] Ibid., p. 135.
[94] Ibid., p. 7.
[95] 2018 CleanBC Climate Strategy, p. 8, retrieved from www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_2018-bc-climate-strategy.pdf
[96] Exhibit B-3, p. 120.
[97] Ibid., p. 120.
[98] Ibid., p. 122.
[99] Ibid., p. 120.

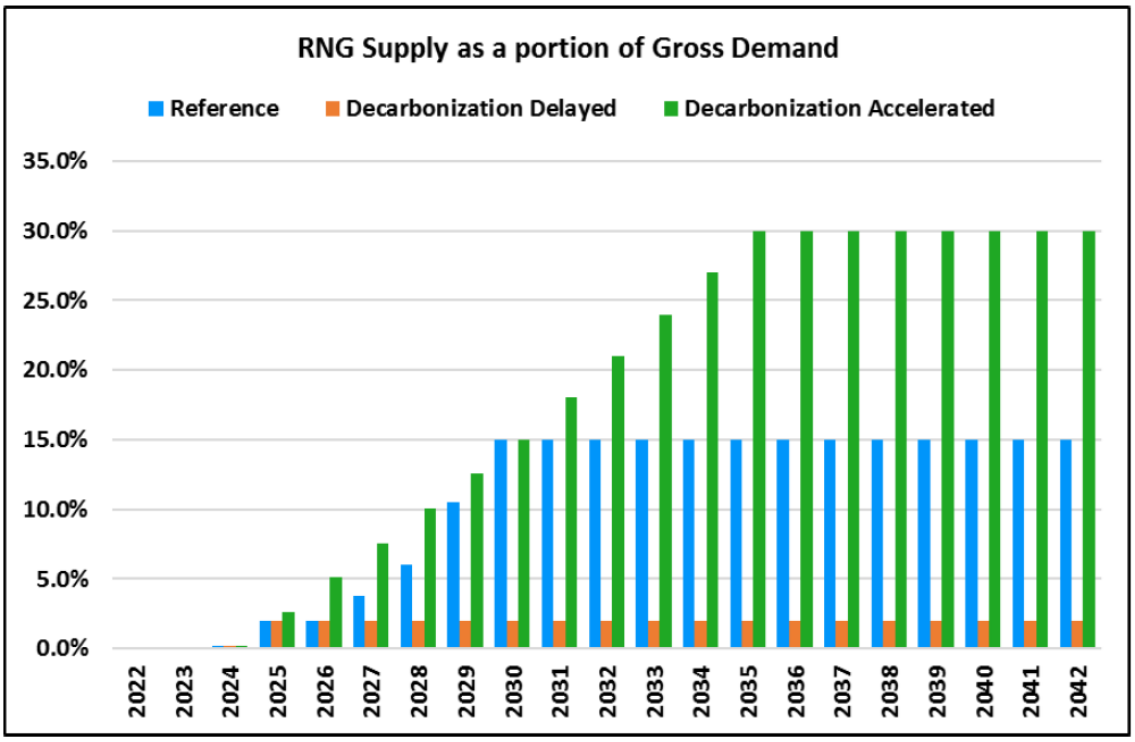
represents approximately two percent of PNG's overall supply to its customers.[100] These two biomethane supply agreements t are with out-of-province suppliers,[101] and have been reviewed and approved by the BCUC.[102]

With respect to acquiring any additional supply of RNG, PNG confirms that it has no plans to do so at this time since it must balance its voluntary actions to reduce GHG emissions against the cost impacts on ratepayers of acquiring more RNG.[103] PNG notes that its likelihood of acquiring more RNG would increase if there were greater certainty and clarity required regarding GHG emission reporting schemes and management of the environmental attributes associated with RNG.[104]

PNG also notes that if the Roadmap 2030 reference to a GHG Reduction Standard (GHGRS) that limits the annual emissions from natural gas utility supply to approximately 6 megatonnes by 2030 became law, PNG would be incented to acquire additional RNG. However, at this time, PNG has no indication of when, or even whether, the GHGRS will be mandated through legislation or regulation, nor does PNG have any insight into whether other regulations will be brought into force that specify a certain minimum portion of RNG blended with natural gas throughput.[105]

In Figure 4 below, PNG provides the RNG supply projections for each of the three demand forecast scenarios included in the 2024 CRP:

Figure 4: RNG Supply as a Portion of Gross Demand[106]



[100] Ibid., p. 121.
[101] PNG Application for Approval of a Low Carbon Energy Cost Recovery Mechanism and Biomethane Purchase Agreements, Exhibit B-1, pp. 56; 58; 66.
[102] BCUC Order E-7-22.
[103] Exhibit B-3, p. 120.
[104] Exhibit B-5, BCUC IR 21.1.
[105] Ibid.
[106] Exhibit B-3, p. 123.

Under the Reference Scenario, PNG has projected an increase in RNG content to 15 percent by 2030. At this time, PNG has not identified any specific sources of additional RNG supply, but notes it could source another 1,400 TJ of supply from a portfolio of existing projects in Canada and the US if those are determined to be appropriate sources to pursue. Together with the 230 TJ of RNG supply expected under its contracted long-term supply agreement, this could enable PNG to meet the voluntary 15 percent blend threshold.[107]

With respect to the 30 percent RNG blend by 2035 included under the Decarbonization Accelerated Scenario, PNG clarified that this refers to a hypothetical amendment to the Greenhouse Gas Reduction Regulation that would increase the maximum, aggregated blend of biomethane, hydrogen, synthesis gas and lignin to 30 percent or greater from the current 15 percent maximum.[108]

Positions of the Parties

RCIA accepts PNG's argument that the detailed information on annual contracting plans is addressed in other proceedings before the BCUC.[109]

RCIA notes that GHG policies in Canada are subject to significant political uncertainty and volatility. While GHG reductions are an important policy goal, heating is a vital health and safety need for BC residents and must remain affordable. In RCIA's view, a plan that would sacrifice affordability to achieve GHG objectives would not be in the public interest, and it would certainly not be in the interest of residential ratepayers. As such, RCIA supports PNG's choice not to develop a resource plan that meets the proposed GHGRS in full. There are too many uncertainties with the emissions cap, including the level applicable to PNG, the calculation methodology, and potential compliance pathways. PNG correctly assesses that there is risk in taking actions that may ultimately not be required and that prejudice the ratepayers of British Columbia.[110]

BCSEA submits that PNG's RNG program appears to be adrift, noting PNG's anticipated contracted volume of RNG represents only a 2 percent blend. BCSEA notes this is far short of the CleanBC goal of using 15 percent renewable gas by 2030, which the BCUC encouraged PNG to prepare for in the 2019 CRP Decision.[111]

While BCOAPO recognizes PNG's voluntary actions with respect to building knowledge and capacity on RNG and GHG emissions, BCOAPO submits that PNG's plan to not acquire additional RNG above the 2 percent currently contracted blend is not reasonable in light of the CleanBC objective of 15 percent RNG by 2030.[112]

In reply, PNG submits that it has demonstrated its willingness to support and acquire RNG, even if the benefits to PNG's operations are uncertain and the cost is significantly higher. Despite its efforts, PNG notes that BCOAPO and BCSEA take the position that the resource planning process should be used to compel PNG to take actions to advance the energy transition, in the absence of any legal requirement or obligation to do so and with no consideration given to its operations or the rate impacts to its customers.[113] PNG notes that BCOAPO is advocating for PNG to spend more to address climate policies, which would significantly (and negatively) impact ratepayers, and therefore appears to be contrary to the interests of the low-income ratepayers that BCOAPO represents.[114]

[107] Exhibit B-5, BCUC IR 21.2; 21.4.
[108] Exhibit B-5, BCUC IR 21.3.
[109] RCIA Final Argument, p. 14.
[110] RCIA Final Argument, p. 26.
[111] BCSEA Final Argument, pp. 2, 4; BCUC Order G-265-20 and Decision.
[112] BCOAPO Final Argument, p. 19.
[113] PNG Final Argument, p. 11.
[114] PNG Reply Argument, p. 18.

Panel Determination

The Panel finds that the 2024 CRP meets the requirements of section 44.1(2)(e) of the UCA regarding PNG's planned energy purchases. It is reasonable for PNG to continue to provide its detailed acquisition plans through the annual gas contracting plan which we note is a well-established practice also used by other utilities. Furthermore, the 2024 CRP sets out PNG's strategy for decarbonizing its energy purchases and provides an adequate rationale for limiting its RNG blend to two percent.

As for the actual composition of PNG's energy purchases, we acknowledge that PNG's approach to decarbonizing its energy purchases is an attempt to balance the rate impacts of funding energy transition measures against the benefits of supporting non-specific and non-binding provincial climate policy. The Panel is persuaded that the challenges facing PNG in its attempt to decarbonize its energy purchases through on-system RNG supply are significant. Some of these challenges are unique to PNG. Firstly, PNG is operating in small urban centres in northeastern British Columbia, with limited potential for local RNG supply. Although PNG has identified existing RNG projects elsewhere in Canada and the US to potentially meet the 15 percent RNG blend target it would presumably have to compete with other gas utilities to secure that supply. Secondly, PNG's customers already pay the highest natural gas rates in the province and no one disputes that increasing its RNG content would add to already high rates.

Additionally, some of the challenges that PNG is facing as it works to decarbonize its energy purchases are a function of the general uncertainty surrounding climate policies and therefore are not unique to PNG. As PNG notes, the overall 15 percent RNG target is province-wide and not specific to PNG. We accept PNG's observation that there remains much uncertainty regarding the potential application of the GHGRS, including how the emissions cap among natural gas distribution utilities will be allocated, as well as how emissions will be prioritized or environmental attributes managed, and whether and when the cap will actually be implemented.

BCOAPO and BCSEA are sceptical that PNG has achieved a good balance: while acknowledging that the province's climate goals are not yet legally enforceable, they argue that PNG's approach is unreasonable because it does not do enough to meet stated provincial policy targets around GHG emissions and RNG purchases. The Panel notes, however, that neither BCOAPO nor BCSEA have addressed the cost implications of PNG setting a goal higher than two percent RNG. They have not tackled the difficult question of how much more PNG's ratepayers should have to pay to support meeting what still remains largely an aspirational RNG target.

The Panel recognizes that a two percent RNG blend is far from the provincial 15 percent target. We accept PNG's explanation for the two percent RNG target in the 2024 CRP; however, we remind PNG that the longer it delays formulating plans to meet the provincial 2030 objectives, the more drastic measures it may have to take as the 2030 horizon looms. In other words, PNG is taking a calculated risk by relying on the uncertainty of provincial policies as a reason to not further decarbonize its energy supply in the meantime.

Finally, this proceeding did not fully explore PNG's submission that notwithstanding stated government energy policies, it has a duty to serve its customers even if such demand results in increased GHG emissions. The Panel observes, however, that a utility's duty to serve is not absolute. Under section 28(3) of the UCA, the BCUC has the ability to hold a hearing to consider whether there is proper cause to relieve a public utility from the obligation to serve (such as through deactivation of under-utilized infrastructure in the face of drastic decline in demand).

2.3.3 Variance Request Regarding Principles for RNG Development

In its decision on PNG's 2019 CRP,[115] the BCUC supported PNG's stated intention to adopt a set of principles governing its ability to develop RNG supply infrastructure, and directed PNG to file these principles no later than "its next long-term resource plan and ECI application in 2023."[116] PNG acknowledges that contrary to that BCUC directive, it has not provided this set of principles as part of the 2024 CRP, on the basis that this would be developed in the abstract and would not be informed by a specific prospective RNG facility. PNG notes that it has not identified any economically viable RNG supply opportunities in any of its service areas and does not anticipate constructing, owning, operating or connecting any RNG facilities to its system.[117] Instead, PNG proposes that, if such an opportunity should arise in future, it would develop the set of principles that meet the requirements of this directive as part of an application for approval of capital expenditures for the identified opportunity.[118] PNG accordingly requests that the BCUC vary the directive.[119]

Positions of the Parties

BCOAPO has no concerns with respect to PNG's request to vary the BCUC's directive.[120] Similarly, RCIA and BCSEA do not object to PNG's request.

Panel Determination

The Panel approves PNG's request and varies the previous BCUC directive on page 36 of the Decision accompanying Order G-265-20 to read as follows: "The BCUC directs PNG to file for BCUC review and approval a set of principles regarding the development of RNG supply prior to PNG advancing an actual RNG supply infrastructure project."

The Panel accepts that PNG has not identified any opportunities to build its own RNG infrastructure, and therefore the only option for PNG to secure RNG supply is through third-party suppliers. We now have a better understanding of the constraints on the RNG landscape in British Columbia than in 2019 when the original BCUC directive was issued. We are satisfied that it makes more sense for PNG to establish a set of principles for the development of RNG supply infrastructure if and when those opportunities arise within its service territory, rather than doing so in the abstract now. Indeed, for PNG to do so now would be a waste of its limited resources given the current lack of economically viable RNG supply options within its service territory.

2.4 System Resource Needs

Following the estimation of forecast demand, both before and after DSM, a utility must consider how it intends to meet that demand, including the ability of its system resources to do so. Section 44.1(2)(d) of the UCA requires that PNG include a description of the facilities that it intends to construct or extend in order to serve the estimated demand after taking into account cost-effective DSM. In addition, Section 44.1(2)(f) of the UCA requires an explanation of why demand to be served by either new facilities or energy purchases for supply, cannot be met through DSM.

[115] BCUC Order G-265-20.
[116] Exhibit B-3, p. 123.
[117] PNG Final Argument, p. 19.
[118] Exhibit B-3, p. 123.
[119] Exhibit B-5, BCUC IR 21.6.
[120] BCOAPO Final Argument, p. 4.

As already noted, PNG does not expect to construct new facilities, as it has sufficient pipeline resources to meet the Reference Scenario forecast demand over the 20-year planning period.[121]

PNG submits that the 2024 CRP demonstrates that the capacity of the transmission and distribution infrastructure of PNG-West, Fort St. John and Dawson Creek is sufficient to meet the design day demand of its firm service customers over the entire planning period. PNG considered whether additional pipeline resources would be needed to serve its forecasted demand under the various planning scenarios, including "design day demand," which is the maximum demand that the pipeline system is expected to serve. This allows PNG to determine its system capacity needs as well as to plan to have sufficient gas supply.[122] With the exception of the Tumbler Ridge Gas Plant, PNG expects all of its delivery systems to have sufficient capacity to serve current and future firm demand.[123]

PNG notes the Tumbler Ridge gas processing plant is forecast to experience a constraint in its ability to serve the design day demand by as early as 2025, depending on the demand from the Quintette Mine. PNG has identified the need to rehabilitate and reinforce the Tumbler Ridge gas plant to restore its original design capacity, and has submitted a separate application to the BCUC for approval of related expenditures.[124]

PNG has identified a need for area-specific upgrades to alleviate "system constraints." This includes possible upgrades to the 1.25 inch high-pressure lateral linking Telkwa Gate Station to the PNG-West Transmission line to address a bottleneck on the local system.[125]

PNG also notes the unexpected loss in 2024 of the Petronas owned and operated supply point servicing Wonowon, a small independent distribution system servicing 65 customers.[126] PNG is servicing the Wonowon system with liquefied natural gas (LNG) while considering long-term supply alternatives. PNG will apply to the BCUC for capital expenditure approvals if necessary.[127] PNG does not expect to rely on LNG as a permanent supply solution because it is a costly alternative, and notes that DSM would not be sufficient to reduce the need for a future gas supply option.[128]

PNG responded to BCUC staff information requests seeking to understand, in the context of legislation to reduce GHG emissions and uncertainty with respect to the long-term viability of natural gas as an energy source, if and how PNG could strategically retire under-utilized assets. In the absence of any proposal to add new pipeline resources to serve its forecast demand, PNG does not consider asset retirement in lieu of capacity additions is relevant to the consideration of whether PNG has sufficient resources to serve its forecast demand for planning purposes.[129]

Although PNG does not anticipate the need for any new pipeline additions, it views its legal obligation to serve new customers as distinct from actions it may choose to take to support provincial policy objectives regarding GHG emission reduction targets in British Columbia. PNG maintains that it is obliged to serve new customers that request service even if it increases GHG emissions in the Province.[130] PNG notes that the sectoral GHG emission reduction targets that are prescribed by legislation, such as GHG emission reduction targets for the oil

[121] Exhibit B-3, p. 131; PNG Final Argument, p. 18.
[122] PNG Final Argument, p. 10; Exhibit B-5, BCUC IR 11.1.
[123] Exhibit B-3, Section 7.1
[124] After a brief adjournment, PNG has withdrawn the PNG (NE) Tumbler Ridge Gas Plant Rehabilitation Project S44.2 Expenditures application as of February 18, 2025. https://www.bcuc.com/OurWork/ViewProceeding?applicationid=1276
[125] Exhibit B-3, pp. 131–132.
[126] Exhibit B-5, BCUC IR 25.1.
[127] Exhibit B-3, pp. 132–133.
[128] Exhibit B-5 BCUC IR 25.3.
[129] Exhibit B-5, BCUC IR 3.1; PNG Final Argument, p. 11.
[130] Exhibit B-5, BCUC IR 13.1.

and gas industry, do not represent an obligation specific to PNG nor does it override PNG's obligation to serve customers.[131] Accordingly, PNG's Reference Scenario forecast includes increasing demand from oil and gas customers as this reflects the demand trends PNG is experiencing. In this context, PNG states that it has a legal obligation to provide gas service to those who seek it, but conversely, no obligation to influence customer choice with respect to energy options.[132]

PNG submits the 2024 CRP shows PNG has sufficient resources to meet its forecast demand over the planning period, which is expected to be flat or decline overall. To the extent that the gross annual demand is reduced by PNG's DSM, this will reduce the gas supply needed to serve customers but will not affect the need for the system delivery resources currently operated by PNG.[133]

Positions of the Parties

RCIA agrees with PNG that barring a major new customer addition, no new facilities are required to meet forecast demand. As PNG does not intend to construct or extend new facilities, there are no related expenditures for PNG to justify. Instead, PNG's forecast capital expenditures are to maintain existing assets, such as the integrity expenditures on the PNG-West transmission mainline. RCIA accepts PNG's position that its assets continue to be needed and that abandoning infrastructure in a linear distribution system is not feasible.[134]

In RCIA's view, PNG is justified in upgrading the Tumbler Ridge gas plant in order to be able to meet the design day demand.[135]

RCIA submits that PNG has adequately addressed why the three required upgrades (Tumbler Ridge gas plant, new connection to Wonowon and Telkwa lateral upgrade) cannot feasibly be replaced by additional DSM. RCIA notes that although DSM could theoretically reduce the bottleneck and avoid the need for the Telkwa lateral upgrade on PNG-West's system, PNG has not decided yet whether to proceed with the Telkwa upgrade.[136]

BCOAPO acknowledges that PNG has complied with the requirements in sections 44.1(2) (d) and (f) of the UCA to, respectively: include a description of the facilities that it intends to construct or extend in order to serve the estimated demand after taking into account cost-effective DSM; and provide an explanation of why demand to be served by either new facilities or energy purchases for supply, cannot be met through DSM.[137]

Panel Determination

The Panel finds the 2024 CRP meets the requirements of section 44.1(2)(d) of the UCA with respect to planned facilities to meet the forecast demand. We are satisfied that under all three demand scenarios that PNG considered (Reference, Decarbonization Accelerated and Decarbonization Delayed Scenarios), it has sufficient capacity in its system to meet the demand it has identified. Therefore, we consider PNG's approach to system resource planning to be sufficient for the purposes of the 2024 CRP.

In addition, the Panel finds the 2024 CRP meets the requirements of section 44.1(2)(f) of the UCA, namely, to explain why demand to be served by either facilities or energy purchases cannot be replaced by DSM. PNG has explained why the required upgrades are needed to maintain its current system resources, and cannot be replaced or avoided by additional DSM. We are further satisfied that PNG has demonstrated the extent to which

[131] Ibid.
[132] Exhibit B-5, BCUC IR 24.1.
[133] PNG Final Argument, p. 12.
[134] RCIA Final Argument, p. 13.
[135] Ibid., p. 13.
[136] Ibid., p. 16.
[137] BCOAPO Final Argument, p. 2.

its estimated gross annual demand can reasonably be reduced by its ECI portfolio, thereby reducing its energy purchases.

As for PNG's comments about its obligation to serve new customers despite the associated increase in GHG emissions, suffice it to say that may not be an adequate response to the need to reflect government policy to the contrary, in light of the BCUC's power to relieve a public utility of that obligation pursuant to section 28(3) of the UCA, as noted in Section 2.3.2 above.

2.5 Other Information Required by the BCUC

PNG submits that it has responded to the BCUC's past directives in the 2024 CRP in accordance with section 44.1(2)(g) of the UCA.[138] The BCUC directed PNG to include the following in its next resource plan: updated REUS results; more extreme planning scenarios, including the loss or gain of a large commercial or industrial customer; and principles regarding the development of RNG supply infrastructure.[139] We have reviewed PNG's responses to each of these in Sections 2.1 and 2.3.3 above.

In the 2019 CRP Decision, the BCUC also directed PNG to provide an analysis of its resiliency plan, including supply risks and its back-up plan in the event of a pipeline rupture, loss of supplier, or similar disruption, for the PNG-West and PNG(NE) systems.[140]

In response to BCUC staff information requests, PNG defines resiliency as its ability to minimize gas supply disruptions (both planned and unplanned) to its customers and to react quickly and efficiently to restore gas service to customers such as in the event of an unplanned outage or emergency event.[141] PNG notes that its emergency response plans include actions to maintain service in such an event and include curtailment of interruptible and large industrial customers, short term supply of critical loads from existing line pack, and the delivery of LNG supplies. However, such measures cannot replace the loss of supply from T-South for any extended period of time.[142]

In general, PNG considers the PNG(NE) system to have greater resilience than the PNG-West system. This is because the PNG(NE) system receives natural gas from multiple third-party suppliers at multiple delivery points, whereas the PNG-West system has only a single point of supply from the Enbridge Westcoast transmission pipeline at Station 4a in Summit Lake.[143]

Positions of the Parties

RCIA agrees that PNG has adequately addressed the issue of resiliency planning, and that the 2024 CRP contains the information required by earlier directives.[144]

Panel Determination

The Panel finds that PNG has filed information to comply with the BCUC's directives set out in the decision on the 2019 CRP, with the exception of an analysis of its resiliency plan in the event of a pipeline rupture, loss of supplier or similar disruption.

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[138] Exhibit B-3, p. 8.
[139] Appendix A to Order G-265-20.
[140] Order G-265-20.
[141] Exhibit B-5, BCUC IR 1.1.
[142] Exhibit B-3, p. 132; Exhibit B-5, BCUC IR 1.1.
[143] Exhibit B-5, BCUC IR 1.1.
[144] RCIA Final Argument, p. 17.

The Panel further finds the information PNG provided in this proceeding related to resiliency planning is very general, and mostly given in responses to information requests rather than considered in the development of the 2024 CRP. PNG states that its potential emergency response measures cannot replace the loss of supply from T-South for any extended period,[145] which would therefore appear to be PNG's most significant resiliency risk and is a cause of concern for the Panel. However, PNG did not discuss the likelihood or impacts upon PNG customers of a supply disruption on T-South, or how PNG would respond to a potential customer outage, and therefore the Panel cannot opine on the extent to which PNG's planning reasonably addresses this resiliency risk. **Accordingly, the Panel directs PNG to provide in a compliance filing by no later than December 31, 2025 the following information regarding its resiliency risks**:

- A high-level characterization of the likelihood of a loss of supply from T-South, and whether this represents the most significant resiliency risk to PNG;
- The duration of a supply disruption on T-South, and/or description of other circumstances, that would likely result in a loss of supply to PNG customers;
- An estimate of the impacts if PNG customers were to lose supply following a supply disruption on T-South (e.g. the potential actions PNG would take in response to the customer outage, and overall time required to restore service to all customers); and
- A high-level discussion of whether PNG considers any further actions are feasible and/or warranted to mitigate the risk or impacts of loss of supply to customers resulting from a disruption on T-South.

Depending on its review of the compliance filing, the BCUC may provide further guidance on information regarding resiliency planning in PNG's next CRP. While the above directive applies specifically to a supply disruption on T-South, PNG is also invited to provide similar information regarding any other resiliency risk that it considers material.

Similarly, the BCUC has directed FEI to file an updated resiliency plan with more comprehensive analysis than was filed in the FEI 2022 LTGRP.[146] For clarity, the Panel is not expecting that PNG's compliance filing would include the same level of detail as FEI's updated resiliency plan.[147] However, to the extent PNG is able to leverage or learn from FEI's resiliency planning process without expending significant resources, the Panel encourages PNG to do so.

2.6 Overall Findings on the Section 44.1(2) Filing Requirements

PNG submits the 2024 CRP has addressed the informational requirements in section 44.1(2), including: providing a realistic gross demand forecast; providing a forecast net of adequate and cost-effective DSM; considering the need for additional facilities to meet the net demand; and presenting the impact of changing economic and policy factors on alternative gross demand forecasts.[148]

[145] Exhibit B-3, p. 132.
[146] FEI Application for CPCN for the Tilbury Liquefied Natural Gas Storage Expansion (TLSE) Project, Order G-62-23 p. 51; FEI 2022 Long Term Gas Resource Plan, Order G-78-24, p. 40.
[147] Filed in the FEI CPCN for the TLSE Project, Exhibit B-61.
[148] Exhibit B-3, pp. 7–8; PNG Final Argument, pp. 1–2.

Positions of the Parties

RCIA recommends that the BCUC find that the plan complies with section 44.1(2),[149] despite the lack of an alternative enhanced DSM plan in the 2024 CRP. RCIA observes section 44.1(2)(b) does not require PNG to maximize the savings from its DSM plan.[150]

On balance BCOAPO considers that PNG has complied with the filing requirements that are specified in section 44.1(2), subsections (a) to (g) of the UCA.[151]

In reply, PNG notes that both RCIA and BCOAPO agree that PNG has met the requirements set out in section 44.1(2) of the UCA.[152]

In contrast, BCSEA submits that PNG's check-list approach is not consistent with the public interest test under section 44.1, and encourages the BCUC to accept or reject, all or part of, PNG's long-term resource plan based on a comprehensive appraisal of the applicable filing requirements.[153]

Panel Determination

The Panel agrees with PNG's submission and finds that the 2024 CRP provides sufficient detail to meet the section 44.1(2) filing requirements, as articulated in the Panel's review of these requirements above.

3.0 Is the 2024 CRP in the Public Interest?

Sections 44.1(6) and (7) of the UCA provide that the BCUC must accept the 2024 CRP if it determines that carrying out the plan would be in the public interest, or reject it, either in whole or in part. In assessing the public interest, while not determinative, the BCUC must consider the following factors set out in section 44.1(8):

(a) Applicable BC energy objectives;

(b) Consistency with sections 6 and 19 of the *Clean Energy Act*;

(c) Whether the plan shows that PNG intends to pursue adequate, cost-effective demand-side measures; and

(d) The interests of persons in British Columbia who receive or may receive service from PNG.

Sections 6 and 19 of the *Clean Energy Act* apply to electric utilities only and therefore do not apply to the review of a gas utility's long-term resource plan, such as PNG's 2024 CRP.

We address each of the remaining factors below.

3.1 BC's Energy Objectives

PNG states that the following BC energy objectives, as set out in the *Clean Energy Act*, are applicable to a gas utility: taking DSM and promoting energy efficiency; encouraging innovative technologies that support energy conservation and efficiency and the use of clean or renewable resources; reducing GHG emissions; encouraging the use of biogas; and economic development.[154] PNG discusses how the 2024 CRP supports these objectives,

[149] RCIA Final Argument, p. 5.
[150] Ibid., p. 11.
[151] BCOAPO Final Argument, pp. 2–3.
[152] PNG Reply Argument, pp. 2–3.
[153] BCSEA Final Argument, pp. 2, 6.
[154] Exhibit B-3, Table 3, pp. 9–11.

citing in particular its ECI portfolio and RNG program, as reviewed in Sections 2.2 and 2.3 above. This section focusses on PNG's approach in the 2024 CRP towards BC energy objective (g). That energy objective entails the reduction of GHG emissions in British Columbia, including an 80 percent reduction from the 2007 level of emissions by 2050, and by such other amounts as determined under the *Climate Change Accountability Act.*

PNG states that the 2024 CRP addresses the BC energy objective to reduce provincial GHG emissions through the ECI Plan, and PNG's strategy to acquire RNG.[155]

With respect to emissions arising from operations, PNG notes that as an operator of natural gas transmission, distribution and processing facilities with emissions beyond a certain threshold, it is required to submit annual emission reports under the BC GHG Emission Reporting Regulation.[156] PNG notes it continues to make refinements to its operations to reduce direct emissions associated with these activities, such as in-service repairs, using pump-down compressors and flaring rather than venting gas.[157]

Turning to emissions arising from customers, PNG notes that British Columbia is contemplating legislation (the GHGRS) to impose a mandatory requirement on natural gas utilities to reduce the GHG emissions associated with natural gas consumed in buildings and industrial processes of their customers to, or below, a defined emissions cap by 2030. Using a hypothetical allocation between PNG and FEI based on throughput (i.e. based on a 4 percent and 96 percent share, respectively), PNG's share of emissions in 2030 under the proposed cap is estimated to be 254 kilotonnes of carbon dioxide equivalent. This is equivalent to a reduction in emissions associated with natural gas consumption in the built environment and industrial sectors of approximately 50 percent, as compared to 2023.[158]

Table 1 below, provided by PNG, shows the anticipated shortfall in 2030 in meeting the proposed emission reductions under the GHGRS, after taking the forecast ECI savings and RNG purchases into account under the three demand scenarios.

Table 1: Emission reduction shortfall relative to the proposed GHGRS under each demand scenario[159]

2030 Emissions (kTCO2e)	Reference	Decarbonization Accelerated	Decarbonization Delayed
Emissions subject to the GHGRS	498.1	480.0	537.2
Less: Reduction from DSM	(6)	(7)	(6)
Less: Reduction from RNG	(84)	(80)	(12)
Net Emissions	408	394	519
GHGRS	254	254	254
Emissions reduction short fall	**154**	**140**	**265**

[155] Exhibit B-3, p. 10; PNG Final Argument, p. 14. [156] Exhibit B-3, p. 126.
[156] Exhibit B-3, p. 126.
[157] Exhibit B-5, BCUC IR 22.1.
[158] Exhibit B-3, p. 127.
[159] Exhibit B-3, Table 28, p. 130.

As noted in Section 2.3.2, the Reference and Decarbonization Accelerated Scenarios assume that PNG will purchase sufficient RNG supply to meet the 15 percent RNG content target by 2030. The Decarbonization Delayed Scenario assumes that PNG maintains its current 2 percent RNG content blend through to 2030. Table 1 above shows that even assuming PNG (i) can purchase sufficient RNG to meet the 15 percent target by 2030, and (ii) building sector demand declines as forecast due to increasingly stringent building codes and equipment standards, the outcome would still be a significant shortfall in PNG's GHG emissions reductions by 2030.[160] As also noted in Section 2.3.2, PNG is not currently planning on acquiring additional RNG as it must balance its voluntary actions to reduce GHG emissions against the cost impacts on ratepayers.

Positions of the Parties

BCSEA states that PNG's 2024 CRP fails to adequately support the BC energy objective to reduce GHG emissions, citing PNG's plan not to acquire additional RNG to meet the goal in the CleanBC Plan of using 15 percent renewable gas by 2030.[161]

BCOAPO submits that if PNG does not develop a proactive strategy, and instead waits until more prescriptive requirements are legislated, PNG may find itself in a position where it must acquire RNG or take other measures on an emergency basis.[162]

RCIA notes that PNG did not quantify its planned DSM and GHG savings in comparison to the BC energy objectives, but agrees with PNG that the ECI Plan and RNG purchases reduce GHG emissions. RCIA is satisfied that the 2024 CRP meets the BC Energy Objectives.[163]

RCIA submits that a plan that sacrifices affordability to achieve GHG objectives would not be in the public interest, and supports PNG's choice not to develop a plan that meets the proposed GHG Reduction Strategy in full.[164]

RCIA agrees with PNG's approach, that until legislation creates a mandatory emission cap, GHG emission reduction targets should not prevail over the need for affordability.[165]

In reply, PNG observes that BC energy objective 2(g) is a provincial level emissions target that does not impose specific obligations on PNG. It is a provincial statement of policy and does not set specific requirements at a utility level that can be measured for compliance.[166] PNG also reiterates that RNG targets set out in the Roadmap 2030 are provincial targets and do not impose specific obligations on PNG.[167]

Panel Determination

The Panel accepts PNG's assessment of the applicable energy objectives and finds that the 2024 CRP is consistent with those objectives.

The Panel would have preferred to see PNG do more towards supporting energy objective (g)—reducing GHG emissions—rather than simply summarizing the current BC policy landscape in that regard. At the same time, we accept that PNG is facing obstacles including a northern climate, few RNG opportunities, and low DSM uptake. Nevertheless, PNG appears to be doing only the minimum to meet legal requirements, and using the lack of legislated standards as an excuse for not investing in additional efforts to meet voluntary targets. The Panel

[160] Exhibit B-3, p. 128.
[161] BCSEA Final Argument, p. 4.
[162] BCOAPO Final Argument, p. 20.
[163] RCIA Final Argument, pp. 19–20.
[164] Ibid., pp. 25–28.
[165] Ibid., p. 26.
[166] PNG Reply Argument, p. 16.
[167] Ibid., para 65.

urges PNG to take heed of the provincial intent to reduce emissions and to proactively plan to meet these targets, instead of waiting for legislation to make them applicable to PNG. As BCOAPO points out, if PNG does not take some initiative now, it may have to act on an urgent basis, which seldom leads to optimal outcomes.

At the same time, we recognize the difficult spot that PNG is in. As PNG correctly notes, it is delivering a service to meet its customers' demand. In the absence of clear legislation that dictates the contrary, it may be somewhat presumptuous and unfair for the BCUC or interveners to insist that PNG voluntarily pursue goals that are evidently at odds with its customers' demand and its shareholder's interests.

3.2 Adequate and Cost-Effective DSM

Section 44.1(8)(c) of the UCA states that the BCUC must take into consideration whether the public utility intends to pursue adequate and cost-effective DSM when determining whether to accept a utility's resource plan. The DSM Regulation defines cost-effectiveness and adequacy for the purposes of section 44.1(8) of the UCA.

PNG describes how PNG's ECI portfolio meets the adequacy requirements set out in section 3 of the DSM Regulation, namely by:

- Continuing to provide programs for income qualified customers;
- Continuing to make its ECI programs available to customers in rental accommodations, while conceding it does not have any specific measures that are uniquely tailored to rental accommodations;[168]
- Meeting its education requirements through offering the "Smart Energy Kids" online resources, and providing funding for energy courses aimed at secondary students in PNG's service territory through its Energy Transformation and Enabling Program expenditures;[169]
- Providing funding to support the development of, or compliance with, energy efficiency standards through its Energy Transformation and Enabling Program expenditures;[170]
- Offering incentives to builders and energy advisors to support the adoption of building practices that adhere to the BC Energy Step Code; and
- Offering its income qualified furnace and commercial efficient boiler replacement program only to Indigenous customers, in line with the DSM Regulation.[171]

PNG submits that its proposed DSM plan meets the legal framework set out in section 44.1(8) of the UCA, which states that the BCUC must take into consideration whether the public utility *intends* to pursue adequate and cost-effective demand-side measures when determining whether to accept a utility's resource plan.[172] [emphasis added]

PNG based its long term ECI plan on the 2023–2024 ECI Expenditures Schedule, which the BCUC found to be adequate and cost-effective as defined the DSM Regulation at that time.[173]

PNG states that the cost-effectiveness of PNG's proposed DSM will be included in future expenditure schedule filings.[174] PNG provides an estimate of DSM cost effectiveness using the Utility Cost Test (UCT) as required by the

[168] Exhibit B-5, BCUC IR 20.2.
[169] Exhibit B-5, BCUC IR 20.4.
[170] Exhibit B-5, BCUC IR 20.3.
[171] Exhibit B-3, Table 7, pp. 118–119.
[172] Exhibit B-3, p. 100; PNG Final Argument, pp. 3–4, 8.
[173] Exhibit B-5, BCUC IR 19.1.
[174] Exhibit B-3, p. 29; Table 7, pp. 118–119.

DSM Regulation, showing an overall portfolio score of 2.95 for the programs it expects to put forward in its 2025–2027 ECI expenditure filing.[175] A score greater than 1 indicates that the benefits to PNG of the avoided gas costs (defined as the prescribed value of RNG in $/GJ) outweigh the costs incurred by PNG in providing the ECI portfolio (defined as the expenditures made by PNG to achieve those gas savings, including incentives paid to participants).

PNG submits its intention to pursue adequate and cost-effective DSM is demonstrated by its overview of all the programs it intends to pursue over the 2025–2032 period,[176] while noting that the details of the specific programs and their cost-effectiveness will be tested through future applications for approval of DSM schedules of expenditures.[177]

Positions of the Parties

RCIA considers that PNG did not provide a sufficient level of detail for the BCUC to conclude that all aspects of adequacy, namely, the allocation of financial resources to support the development of or compliance with energy conservation standards, and details of educational programs. However, RCIA submits that the BCUC should be satisfied with PNG's evidence regarding the allocation of related funding in the accepted 2023–2024 ECI Schedule of Expenditures, acknowledging that this was also the starting point for PNG's long term ECI Plan for 2025 to 2034. Despite the lack of clarity on the specific components of adequacy it noted above, RCIA recommends that the BCUC accept PNG's ECI Plan as being adequate according to the DSM Regulation.[178]

RCIA notes that the earlier 2023–2024 ECI Schedule accepted by the BCUC was evaluated against the cost-effectiveness tests stipulated by the previous version of the DSM Regulation using the total resource cost test, rather than the current UCT. RCIA submits that the preliminary UCT results provided by PNG are sufficient to show that PNG intends to pursue cost-effective DSM, and recommends that the BCUC accept the ECI Plan as cost effective.[179]

In reply, PNG notes that no intervener has suggested that PNG's ECI Plan does not meet the adequacy or cost-effectiveness tests set out in the DSM Regulation.[180]

Neither BCOAPO nor BCSEA commented on the cost-effectiveness or adequacy of PNG's ECI Plan.

Panel Determination

The Panel finds that the 2024 CRP shows that PNG intends to pursue adequate, cost-effective DSM. PNG submits that it has shown that it intends to undertake adequate, cost-effective DSM, and that the details of the actual programs undertaken, including whether they are cost-effective, is an issue to be considered in specific expenditure request filings. In other words, PNG suggests that the consideration for this Panel is whether the 2024 CRP is evidence of its intention, and whether the DSM outlined therein supports that intent.

The Panel accepts, as PNG points out, that section 44.1(8) only requires PNG to demonstrate that it intends to undertake adequate, cost-effective DSM. Adequate and cost-effective DSM does not necessitate the pursuit of "aggressive DSM" within a resource planning framework. We are satisfied with PNG's explanation of how the ECI portfolio meets the adequacy requirements set out in section 3 of the DSM Regulation, and PNG's evidence on the estimated cost-effectiveness using the UCT for the DSM programs expected to be included in its 2025–2027

[175] Exhibit B-5, BCUC IR 19.2.
[176] PNG Reply Argument, p. 7.
[177] PNG Final Argument, pp. 3–4.
[178] RCIA Final Argument, pp. 22–23.
[179] Ibid., pp. 24.
[180] PNG Reply Argument, p. 9.

ECI expenditure schedule. Meanwhile, we are not persuaded by BCOAPO's suggestion that we should reject PNG's Reference DSM scenario for failure to aggressively pursue DSM during the current energy transition.

3.3 Interest of Persons in BC Who Receive or May Receive Service From PNG

As noted, PNG is not recommending construction of any new system assets in the 2024 CRP. PNG has instead focused on the use and optimization of its existing permitted assets, and on whether it is able to continue to provide safe and reliable service to its customers. PNG considers the potential impacts of the 2024 CRP on the interest of persons who receive or may receive service from PNG are therefore narrow. PNG submits that consultation is not required to consider this criterion, and states that, if incremental resources were needed that may cause stakeholder impacts, PNG would consult with those potentially impacted stakeholders.[181]

Positions of the Parties

BCOAPO acknowledges the challenge faced by PNG in dealing with aging infrastructure in the face of rapidly evolving climate change policies, and the impact on affordability and reliability for ratepayers.[182]

RCIA believes that PNG has struck the right balance, submitting that PNG's 2024 CRP protects ratepayer interests while making incremental progress towards energy efficiency and renewable natural gas additions. RCIA accepts that the plan also takes an appropriate approach to infrastructure replacement and renewal.[183]

Panel Determination

The Panel has considered the interests of persons in British Columbia who receive or may receive service from PNG. We are persuaded that the 2024 CRP is in the interests of persons who receive or may receive service from PNG because it provides a realistic demand forecast with the objective of continuing to provide safe and reliable service, balanced with affordability. In addition, PNG has demonstrated that it intends to undertake adequate and cost-effective DSM.

Finally, we are persuaded that PNG's decision not to conduct public consultation for the 2024 CRP was reasonable because the potential impact on persons who receive or may receive service from PNG is narrow. We also find comfort in PNG's assurance that if incremental resources are needed that may impact stakeholders, it would consult as appropriate at that time.

3.4 Acceptance of the 2024 CRP

PNG submits it has provided sufficient evidence for the BCUC to determine that carrying out the 2024 CRP would be in the public interest, and therefore to accept the 2024 CRP in its entirety. In support PNG cites the following factors as detailed in Sections 3.1 to 3.3 above:

- The development of a Reference demand forecast, and an appropriate range of potential scenarios, both supported by studies and other supporting documents;
- Evidence demonstrating how it intends to reduce annual forecast demand by implementing adequate and cost-effective DSM as set out in its long-term ECI Plan; and

[181] PNG Final Argument, p. 18; Exhibit B-5 BCUC IR 28.2–28.3.
[182] BCOAPO Final Argument, p. 2.
[183] RCIA Final Argument, p. 5.

- In the absence of a need for new system assets, focusing on the safe and reliable use of its existing permitted service assets.[184]

Positions of the Parties

BCOAPO submits the 2024 CRP will need to be further enhanced to address BC energy policy and strategic considerations.[185] BCOAPO recommends that the BCUC not accept the 2024 CRP in its entirety, and reject PNG's Reference DSM scenario, RNG 2 percent blend plans and associated GHG emission reductions plans, as not being in the public interest.[186] BCOAPO submits the absence of an energy transition vision and a "preferred planning scenario" is of significant concern.[187]

PNG disagrees that it has "inappropriately downplayed the significance of climate policies," noting it has placed climate policies at the forefront of its 2024 CRP by creating its two alternative scenarios specifically to address the potential impacts of climate policy.[188]

BCSEA submits that many parts of the 2024 CRP are in the public interest, and should be accepted by the BCUC. However, BCSEA disagrees with PNG that since the 2024 CRP meets the legal requirements set out in section 44.1 of the UCA, the BCUC can therefore accept it as being in the public interest.[189] BCSEA encourages the BCUC to consider several shortcomings of the 2024 CRP such as inappropriately favouring "costs and rates" over GHG emission reduction and DSM, its apparent resistance to the direction of government policy on GHG emissions reduction, lack of clear next steps in PNG's RNG program, and the need for a stronger DSM long-term plan.[190]

PNG disagrees, submitting the 2024 CRP adequately presents PNG's 20-year vision as to how it intends to reduce GHG emissions from its operations, which requires a balance of voluntarily supporting provincial policy while also keeping operational and customer rate considerations front and centre.[191]

RCIA submits the BCUC should find the 2024 CRP to be in the public interest because it complies with existing legislation, reduces GHG emissions though DSM and limited RNG purchases, and does not result in excessive rate and bill increases that make PNG's gas service unaffordable.[192]

Panel Determination

The Panel has considered the factors set out in section 44.1(8) of the UCA along with the entirety of the evidence and submissions in this proceeding. On balance, **we find that carrying out the 2024 CRP would be in the public interest, and we accept the 2024 CRP**.

The Panel has already determined that PNG has met the filing requirements set out in section 44.1(2) of the UCA, and that the 2024 CRP provides a reasonable range of long-term scenarios that could potentially unfold. The 2024 CRP satisfies the public interest considerations outlined in section 44.1(8) of the UCA and is also consistent with PNG's need to continue to provide reliable, safe and affordable service to its customers. As RCIA observes, PNG appears to be taking a reasonable approach to balance the need to provide affordable gas service

[184] PNG Final Argument, p. 18.
[185] BCOAPO Final Argument, p. 4.
[186] Ibid., p. 3.
[187] Ibid., p. 22.
[188] PNG Reply Argument, p. 14.
[189] BCSEA Final Argument, p. 5.
[190] Ibid., pp. 2, 3, 6.
[191] PNG Reply Argument, p. 11.
[192] RCIA Final Argument, p. 28.

to meet customer demand with shifting provincial energy goals. The Panel notes that PNG's efforts to decarbonize its system are constrained by its limited access to RNG and the lack of uptake on its DSM program.

That said, as outlined in earlier determinations in this decision, the Panel has identified several items that it expects PNG to address in its next plan. Although the 2024 CRP represents a reasonable approach in outlining how PNG is planning for a low carbon future in light of current internal and external constraints, the next CRP will need to go further. It is evident that the absence of legislated targets applicable to PNG has led it to take a narrow reading of the imperative to reduce GHG emissions, but the provincial policy objective to reduce GHG emissions is clear and should not be downplayed.

3.5 Next CRP Filing

Section 44.1(2) of the UCA provides the BCUC with the ability to specify the form, timing and information requirements for PNG's next CRP. PNG submits that it would be reasonable to file its next resource plan in five years, consistent with the approach taken in the 2019 CRP decision.[193]

PNG expects that, absent a significant change such as a large new customer or a provincial policy that significantly impacted demand, there would be no significant changes in the short term that would impact its long-term resource plan. PNG notes that a resource plan filing is a significant endeavor, and requests that in the absence of clear changes, consideration be given to the administrative burden of filing another CRP earlier than five years hence.

Positions of the Parties

BCOAPO disagrees with PNG that the next CRP should be filed in five years, and recommends that PNG be directed to file its next CRP within two years of this decision, similar to the BCUC direction in the FEI 2022 LTGRP proceeding.[194]

No other intervener commented on the timing of the filing of PNG's next CRP.

Panel Determination

The Panel directs PNG to file its next CRP by June 30, 2029, five years after it filed the 2024 CRP. We recognize that unlike FEI, PNG is a small utility with limited resources and is not forecasting a need for additional facilities or major changes to its DSM or RNG plans in the next five years. We also acknowledge that the filing of a long-term resource plan is not a minor or inexpensive undertaking. Having regard to these factors, we consider that requiring PNG to file another CRP in a shorter timeframe is unwarranted and would add to its administrative burden without commensurate benefit.

At the same time, we cannot ignore the possibility of significant changes that might prompt PNG to submit an earlier CRP. If PNG acquires or loses a major customer which has a significant impact on demand, or if the government imposes legislative GHG emissions targets on the natural gas sector or PNG specifically, the Panel expects that PNG will inform the BCUC promptly of its plans to address such changes, including whether and when it would file a new CRP to accommodate those changes.

DATED at the City of Vancouver, in the Province of British Columbia, this 3rd day of March 2025.

[193] Exhibit B-5, BCUC IR 1.2.
[194] BCOAPO Final Argument, p. 23.

Electronically signed by Anna Fung

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A.K. Fung, K.C.
Panel Chair/Commissioner

Electronically signed by Blair Lockhart

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E.B. Lockhart
Commissioner

Pacific Northern Gas Ltd.
PNG 2024 Consolidated Resource Plan

LIST OF ACRONYMS

Acronym	Description
2024 CRP	Updated 2024 Consolidated Resource Plan
BCOAPO	British Columbia Old Age Pensioners' Organization et al.
BCSEA	BC Sustainable Energy Association
BCUC	British Columbia Utilities Commission
CleanBC	2018 CleanBC Strategy
CPR	Consolidated Resource Plan
DSM	Demand-side measures
DSM Regulation	*Demand Side Measures Regulation*
ECI	Energy Conservation and Innovation
FEI	FortisBC Energy Inc.
GHG	Greenhouse gas
GJ	Gigajoules
HEES	Highest Efficiency Equipment Standards
IR	Information request
LNG	Liquefied natural gas
LTGRP	Long-Term Gas Resource Plan
PNG	Pacific Northern Gas Ltd. and Pacific Northern Gas (N.E.) Ltd.
PNG(NE)	Pacific Northern Gas (N.E.) Ltd.

PNG-West	Pacific Northern Gas Ltd.
RCIA	Residential Consumer Intervener Association
REUS	Residential End Use Survey
RNG	Renewable natural gas
Roadmap 2030	CleanBC Roadmap to 2030
TJ	Terajoules
UCA	*Utilities Commission Act*
UCT	Utility Cost Test
ZCSC	Zero Carbon Step Code

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PNG 2024 Consolidated Resource Plan

EXHIBIT LIST

Exhibit No. **Description**

COMMISSION DOCUMENTS

A-1	July 30, 2024 - Panel Appointment
A-2	August 13, 2024 – BCUC Order G-215-24 establishing a regulatory timetable
A-2-1	August 14, 2024 – BCUC Order G-215-24A amending Order G-215-24 regulatory timetable
A-3	September 25, 2024 – BCUC Information Request No. 1 to PNG
A-4	October 23, 2024 – BCUC Order G-268-24 amending the regulatory timetable

APPLICANT DOCUMENTS

B-1	June 28, 2024 - **PACIFIC NORTHERN GAS LTD. AND PACIFIC NORTHERN GAS (N.E.) LTD. (PNG)** - 2024 Consolidated Resource Plan Application
B-2	August 20, 2024 – PNG submitting Public Notice confirmation in compliance with Order G-215-24A Directives
B-3	August 23, 2024 – PNG submitting an Evidentiary Update
B-4	October 22, 2024 – PNG extension request to file Information Request No. 1 responses
B-5	November 7, 2024 – PNG responses to BCUC Information Request No. 1
B-5-1	**CONFIDENTIAL** - November 13, 2024 – PNG confidential response to BCUC Information Request No. 15.1
B-6	November 7, 2024 – PNG responses to BCOAPO Information Request No. 1
B-7	November 7, 2024 – PNG responses to BCSEA Information Request No. 1
B-8	November 7, 2024 – PNG responses to RCIA Information Request No. 1

C1-1	August 20, 2024 – **BRITISH COLUMBIA SUSTAINABLE ENERGY ASSOCIATION (BCSEA)** – Request to intervene by William Andrews
C1-2	October 3, 2024 – BCSEA Information Request No. 1 to PNG
C2-1	September 6, 2024 – **BC OLD AGE PENSIONERS ORGANIZATION ET AL. (BCOAPO)** – Request to intervene by Leigha Worth
C2-2	October 3, 2024 – BCOAPO Information Request No. 1 to PNG
C3-1	September 6, 2024 – **RESIDENTIAL CONSUMER INTERVENER ASSOCIATION (RCIA)** – Request to intervene by Abdulrahman Abomazid
C3-2	October 3, 2024 – RCIA Information Request No. 1 to PNG

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PNG 2024 Consolidated Resource Plan

SUMMARY OF DIRECTIVES

This summary is provided for the convenience of readers. In the event of any difference between the directives in this summary and those in the body of the decision, the wording in the decision shall prevail.

Directive	Page
We direct PNG to continue to include the impact of a gain or loss of a large commercial or industrial customer on demand as directed in Order G-140-14 in future long-term resource plans.	11
[W]e direct PNG to continue to include in its resource plans different DSM funding scenarios including, at a minimum, a "reference" DSM funding scenario with a "high DSM" scenario relative to the reference funding scenario.	16
The Panel approves PNG's request and varies the previous BCUC directive on page 36 of the Decision accompanying Order G-265-20 to read as follows: "The BCUC directs PNG to file for BCUC review and approval a set of principles regarding the development of RNG supply prior to PNG advancing an actual RNG supply infrastructure project."	21
Accordingly, the Panel directs PNG to provide in a compliance filing by no later than December 31, 2025 the following information regarding its resiliency risks: - A high-level characterization of the likelihood of a loss of supply from T-South, and whether this represents the most significant resiliency risk to PNG; - The duration of a supply disruption on T-South, and/or description of other circumstances, that would likely result in a loss of supply to PNG customers; - An estimate of the impacts if PNG customers were to lose supply following a supply disruption on T-South (e.g. the potential actions PNG would take in response to the customer outage, and overall time required to restore service to all customers); and - A high-level discussion of whether PNG considers any further actions are feasible and/or warranted to mitigate the risk or impacts of loss of supply to customers resulting from a disruption on T-South.	24–25
[W]e find that carrying out the 2024 CRP would be in the public interest, and we accept the 2024 CRP.	32
The Panel directs PNG to file its next CRP by June 30, 2029.	33