PGE

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October 3, 2016

Via Federal Express and electronic filing

Oregon Public Utility Commission
Attention: Filing Center
PO Box 1088
Salem OR 97308-1088

Re: UE 308 – PGE Annual Power Cost Update Tariff (Schedule 125)

Attention Filing Center:

Please find enclosed the redacted version of the Opening Brief of Portland General Electric Company in the above-referenced docket.

The confidential portions of PGE's brief are being handled pursuant to the protective order issued in this proceeding and will follow to the Commission via Federal Express.

Thank you for your assistance. If you have any questions, please do not hesitate to call.

Sincerely,

DCT

Douglas C. Tingey
Associate General Counsel

DCT:lgh
Encl.

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 308

In the Matter of PORTLAND GENERAL ELECTRIC COMPANY 2017 Annual Power Cost Update Tariff (Schedule 125).	

REDACTED

OPENING BRIEF OF

PORTLAND GENERAL ELECTRIC COMPANY

Portland General Electric Company ("PGE") submits this opening brief regarding PGE's proposal to meet a portion of its growing natural gas needs through direct ownership in oil and gas wells as a means of protecting customers from market swings in natural gas prices.

BACKGROUND AND CONTEXT

The only issue remaining disputed in this docket is PGE's proposed long-term cost-of-service natural gas transaction. PGE has submitted thorough testimony addressing the reasons for the proposed transaction, and the costs, benefits and risks attendant with the transaction. The Commissioners also offered PGE an opportunity for its witnesses to directly address and respond to their questions about this transaction, which is appreciated. PGE believes it has demonstrated that the proposed transaction is prudent, and will provide beneficial long-term protection for customers from market volatility and longer-lived structural price shifts through a cost-of-service alternative that would satisfy a small part of PGE's natural gas requirements.

There are two primary drivers behind this transaction: PGE's natural gas needs, and recent changes in the natural gas market, where gas production has increased at a faster rate than consumption. This has created an opportunity for PGE for a long-term agreement that was not previously available and which offers significant protections for customers from market volatility through a measured and targeted investment in natural gas reserves and production assets.[1]

PGE's generation portfolio has changed significantly over the last ten years. Three gas-fired generation plants have been added to PGE's portfolio since 2006 – two baseload plants (Port Westward 1 and Carty) and one flexible plant to help integrate variable renewable resources (Port Westward 2). These existing plants will require natural gas for the life of the plants, currently assumed to be 45 years for depreciation purposes. While there may be

[1] PGE/100, 10-12.

additional gas plants added in the future, the proposed transaction is warranted based solely on the existing fleet of plants alone. PGE's current gas-fired generation portfolio, which now represents over 40% of its total power supply, presents significant risks to customers due to exposure to structural shifts in natural gas markets over the long-term.[2] A $1 increase in the price of natural gas would result in approximately a $50 million increase to PGE's power costs.[3]

PGE's current mid-term hedging strategy systematically hedges a portion of gas and power requirements out to five years in the future. The Commission previously examined and approved the mid-term strategy in Docket UE 228 in 2011. The Order in that docket stated:

> We conclude that PGE's overall hedging strategy to be prudently designed. Specifically, we find that the MTS is a reasonable approach to addressing the three-year period between the company's short-term hedges and purchases and the company's long-term resource investment, and agree that the appropriate goal is to address PGE's entire NOP.
> . . . .
> Based on the testimony and contemporaneous exhibits PGE introduced documenting the design and goals of the MTS, as well as its expectation at the time the MTS was introduced that gas and power market volatility would remain high, we conclude that PGE's MTS is an objectively reasonable strategy.[4]

The proposed transaction fills gaps in the MTS, and provides additional protections against volatility. PGE's original filing in this docket also included proposed Guidelines that would be applicable to future, similar transactions. PGE continues to believe that guidelines are appropriate and has proposed a transaction within those guidelines. The second guideline, in particular, requires the long-term projected cost of the hedge to be below the long-term benchmark price (i.e., it has to be cost effective). Throughout this proceeding, PGE has used the second guideline to evaluate the proposed long-term gas hedge as well as alternative long-term gas hedging transactions. As a result of feedback from the parties, however, PGE has stated that

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[2] PGE/100, 9-11.
[3] PGE/100, 9.
[4] Order 11-432, p. 8.

it does not require approval of guidelines in this docket – this docket need only address the one transaction before the Commission.

THE PROPOSED TRANSACTION

Prior to entering into this proposed transaction, PGE undertook a series of workshops with Staff, CUB and ICNU. PGE also made an information presentation to the Commission on approaches to long-term hedging. PGE heard the concerns of the parties and took steps to mitigate those concerns.

As explained in the testimony, PGE made a thorough effort to identify suitable counterparties for a hedging transaction. PGE sought out and had significant discussions about possible transactions with over 40 producers in the US Rockies region plus several banks and marketing companies that presented PGE with contract or financial hedging alternatives.[5] PGE employed this process rather than issuing a formal request for proposals based on:

- Discussions with consultants, market participants, and other experts to assess strategic options for implementing a long-term hedging program as well as the potential benefits and challenges of each.[6]
- The limitations of the normal timeframe in the market for longer-term gas hedge and supply transactions (typically 60 to 90 days).[7]

As a result, PGE's approach of widely polling the market, and talking with multiple possible counterparties, provided what PGE believes is the best transaction available for PGE customers. The market outreach and evaluation process was robust and thorough.

The transaction: PGE has obtained a cost-of-service natural gas hedge transaction that provides a small portion of required gas [redacted] with the option, but not the

[5] PGE/300, 13.
[6] *Id*.
[7] PGE/800, 18.

requirement, to drill additional wells in future years. This is a non-operating ownership interest in gas wells. [redacted][8] This provides cost-of-service natural gas from owned wells, the purpose of which is to protect customers against volatility, and the transaction does that over the life of the wells.

In addition, PGE heard considerable concerns from the parties about volume risk. [redacted].[10]

PGE has also performed thorough due diligence, including the services of industry, operational and environmental experts. Those materials have been provided to the parties through discovery, and the results of the due diligence are described in PGE's testimony.[11]

PGE has spent considerable time and money finding and developing this transaction. PGE believes it has negotiated a unique and compelling transaction that will provide effective

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[8] PGE/800, 34.
[9] PGE's affiliate for purposes of this transaction as described in PGE/100, Section V.
[10] PGE/600, 3-4.
[11] PGE/800, 20-31.

protection for customers. CUB[12] and ICNU[13] testimony have acknowledged the unique and beneficial attributes of the proposed transaction. Given that PGE is seeking approval of the transaction alone (and not the associated guidelines), the Commission should approve the inclusion of the costs of the transaction through PGE's annual power cost update (i.e., AUT filing). The transaction will benefit customers over the life of the investment.

QUESTIONS RAISED AT THE HEARING

At the hearing in this matter, it was suggested by Commissioners that three issues be addressed in briefs. We address them below:

AUT: Chair Hardie asked the parties to address whether it is appropriate to include the costs of this hedging transaction in PGE's AUT filing, and if not, how the costs should be handled.

As explained in PGE's testimony[14], it is appropriate to include these costs in PGE's AUT. Per Tariff Schedule 125, the AUT forecast would include:

- Contracts for the purchase or sale of power and fuel.
- Changes in hedges, options, and other financial instruments used to serve retail load.

This transaction fits these parameters. The costs of the gas produced under this transaction will be unitized based on the volume of gas produced, and then incorporated into PGE's power cost forecast model (MONET) like other gas hedges. As described in testimony, this is also similar to how Northwest Natural Gas' long-term gas hedge is treated in its ratemaking – through their Purchased Gas Adjustment mechanism.[15] As explained below, the use of an affiliate does not impact this analysis.

[12] CUB/200, 35.
[13] ICNU/200, 4.
[14] PGE/300, 16-17.
[15] PGE/800, 12.

At the hearing Commissioners also asked questions regarding whether this is a hedge, or a supply agreement. As explained, it is a hedge. There is no significant supply risk, or concern that fuel will not be available for PGE's gas plants at some price. It is the volatility of the price of that required gas that is partially hedged through this transaction. This cost-of-service arrangement hedges future price variability of gas.

In spite of this, CUB focuses on the rate base aspect of the transaction to argue against its applicability in an AUT filing. The larger issue with regard to the AUT however, is not how to categorize the transaction based on its impact on PGE (i.e., fuel purchase versus rate base) but rather on its value to customers. The value for customers is greater retail price stability. Based on this customer value, the transaction is a hedge, which makes it appropriate for the AUT.

The second part of Chair Hardie's question does not apply. But, PGE notes, since these costs are appropriately dealt with as power costs in MONET forecasts, such a hedging transaction could also be addressed in a rate case that includes power costs. As a theoretical matter, the prudence of such a hedging transaction could be addressed in a separate docket as well, but such a docket would need to be synchronized with power cost ratemaking.

Counterparty Bankruptcy: Some parties have expressed concerns about counter-party bankruptcy and non-performance, and the Commission asked about the issue at the hearing. At the outset it is important to observe that these concerns are not based on evidence or specific reasons for concerns regarding the counterparty or the transactions but generalized fears about *potential* scenarios. In fact, the evidence[16] shows that [redacted]

[16] PGE/800, 37-38.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

In addition, the structure of this type of transaction protects PGE to a large degree from such counterparty risk. Bankruptcy risk is greatest when the counterparty is obliged to pay or deliver in the future. In that scenario, PGE is at risk of potentially becoming an unsecured creditor in the event of bankruptcy. In this case, unlike a financial instrument for which the counterparty is obligated to deliver in the future, PGE, through an affiliate, will own a property interest that is not subject to the counterparty's credit impairment or insolvency. [redacted].[19]

Use of an Affiliate: The use of an affiliate for the proposed transaction has no negative impact from the perspective of customers or the Commission. PGE is proposing a cost-of-

[redacted]

[19] PGE/800, 26.

service structure which offers all the same benefits to customers that would be provided if PGE held a direct ownership interest in the natural gas interests. Moreover, the Commission will have full regulatory oversight of the inclusion of the cost of the transaction in future AUT proceedings. At least in part due to these reasons, CUB in oral argument acknowledged that it was indifferent between a direct ownership or affiliate structure. In short, the affiliate offers all the benefits of the transaction directly to customers without creating additional risk for customers or need for supplemental regulatory oversight.

CONCERNS OF OTHER PARTIES

Parties to this docket have raised a number of concerns. Some of the concerns are procedural. As discussed in PGE's testimony, and briefly below, these are not valid reasons to reject this hedging transaction. Some concerns are substantive, including the fundamental question of whether a hedging transaction such as the one proposed is appropriate for PGE and its customers. That is the question to be answered in this docket.

Intergenerational Inequity: The parties do not agree on this issue. CUB's testimony[20] states that:

> PGE has done a good job of negotiating a deal that reduces the front loading of costs. The generic deal PGE proposed in Opening Testimony had front loaded costs beginning at $5 and declining over time. This new contract avoids that.

ICNU, on the other hand, contends that the deal contains front-loaded costs that create intergenerational inequity.[21] As explained in testimony, ICNU's approach is not correct. Gas production will be highest in the early years of this contract. Costs will be ascribed using depletion accounting to align the recovery of expenses with the timing of the gas withdrawals. Since gas withdrawals will be higher in the early years, increased benefits of higher production

[20] CUB/200, 34.
[21] ICNU/200, 15-17.

largely offset the early year costs. The result is that the projected costs of the transaction as shown in PGE Exhibits 602 and 702 are fairly level throughout most of the investment's life. Accordingly, there is no intergenerational inequity.[22]

Staff noted that the cost of the investment is projected to exceed the benefits in the first six years.[23] Staff then proposes, without any specific detail, a levelized price for the contract.[24] PGE did not have sufficient detail to respond, but does note that the factual underpinning to Staff's proposal is incorrect. Updated contract costs and benefits summarized in PGE Exhibit 702 show that projected costs exceed benefits only in years two through five, and then not significantly [redacted], and that in all other years, and overall, it is a projected benefit. Again, intergenerational inequity is not an issue.

Benefit to Customers: Staff[25] and ICNU[26] have posited that customers do not want hedging without providing evidence to support their claim. PGE's testimony included the results of a survey of customers indicating that customers do value price stability. A previous ICNU witness also acknowledged that most people prefer stable rates.[27]

Staff's testimony also questions hedging's benefit because of the trade-off between reducing price volatility and conveying price signals.[28] As explained in PGE 800, pages 16-17 and not repeated here, Staff's position is not consistent with ratemaking principles and practices, nor this Commission's prior decisions. Customer prices reflect all aspects of cost-of-service rates, both short-term and long-term. Generating plants are long-term assets, and have long-term

[22] PGE/800, 13-15.
[23] Staff/500, 19.
[24] Staff/500, 20.
[25] Staff/400, 6.
[26] ICNU/200, 11-12.
[27] PGE/800, 16, quoting a deposition in Docket UE 228.
[28] Staff/400, 2-3.

fuel requirements. Customers bear the risk of this fueling requirement, and this hedging transaction will enhance customer price stability for the life of the contract.

The decision regarding hedging is not binary. It is not a question of either no hedging, as Staff seems to suggest, leaving customer prices to swing with short term costs, or hedging all possible costs. It is a tradeoff of costs and benefits as evaluated in PGE Exhibit 801. Customers do value stability, at an appropriate cost. The proposed transaction here provides that valued stability at a long-term projected cost below the long-term benchmark price.

Inadequate time for review: Parties have expressed concern about having inadequate time for review of this transaction. PGE acknowledges that the schedule in this docket was compressed. The nature of the gas transaction drove the timing. It is unusual for a deal such as this to be held open for review as long as this one has.[29] PGE did what it could to mitigate this issue by making great effort to provide contract information, and discovery responses, as quickly as possible. In addition, PGE conducted numerous workshops before and during the docket providing parties with information about the general opportunity and structure of this type of transaction. Regardless of what form regulatory approval is sought for such a deal (whether in an AUT or general rate case), the timeframe would be the same – it is the market and deal that drove the timing, not the particular ratemaking docket.

PGE appreciates the burden this placed on the parties; it also does not seem to be the driving force behind the parties' positions. In fact, at the hearing CUB stated that more time to review would not have changed their position.

CUB did suggest, however, that hedging transactions such as this one be evaluated first in PGE's IRP process.[30] That would expand the time for the regulatory process from months to years. No actual transaction could be held open for that long, and analysis of a generic hedge

[29] PGE/800, 18.
[30] CUB/200, 17-19.

transaction would not be useful given continuously changing product availability and a dynamic gas market environment. The availability of willing counterparties would also be subject to significant change over the time involved. The changes in this docket from the pro forma transaction included in the April 1 filing, to the actual deal achieved, show that the gas markets, and counterparty interest change rapidly.[31] The IRP process is for portfolio analysis, and whether future resource additions are needed. This proposed transaction is to hedge the gas requirements of existing plants. An IRP analysis is not needed to determine gas requirements for existing resources whose operating lives would extend beyond the long-term transaction.

Additional Risks: Parties have commented on the additional risks that this transaction would entail. As an initial matter, it should be noted that most, if not all, of these risks are inherent in any natural gas deal. That includes long-term gas supply contracts – these risks will be built into the price of the gas supply contract. The question is whether PGE has taken appropriate steps to mitigate these risks. As shown in testimony, PGE has taken appropriate steps.[32]

Environmental Risks. PGE has provided its due diligence material, and summarized its approach and findings in testimony. PGE 800, pages 20 through 25, discuss PGE's actions regarding environmental risks. A significant portion of that testimony is confidential, and will not be summarized here. The testimony does state that PGE has addressed:

- Risk of incurring costs for cleanup and damages from release of harmful substances. Due diligence found the likelihood of this to be low.[33]

[31] PGE/800, 19.
[32] PGE/800, 20-32.
[33] PGE/800, 21-22.

- Risks of non-compliance by the operating partner. The capability, experience and sound policies and procedures of the counterparty are discussed in the confidential testimony.[34] PGE believes the potential impacts of non-compliance are minimal.[35]
- Methane and other greenhouse gas emissions regulations. CUB raised the risk of regulations impacting the oil and gas industry.[36] That is a risk, but if such regulations increase costs, those costs will be passed through to all purchasers, regardless of procurement or hedge approach. PGE's costs of production may increase, but so would market prices to reflect the increase to all producers.[37]

Counterparty risks. The bankruptcy concerns of Staff and CUB were addressed above. They also questioned what would happen if the counterparty no longer wishes to operate the wells. Contract terms and conditions address this issue, providing PGE the means to mitigate exposure to potential successor counterparties. This was also fully addressed in the confidential testimony.[38]

Commodity risk. The gas production under the hedging transaction includes oil and non-gas liquids. The value of these liquids is included in PGE's forecast as a revenue credit. [redacted] PGE has also stated that it is examining strategies to lock in the forecast prices for the liquids.[39]

Staff transaction cost economics testimony. Staff testimony discusses transaction cost economics ("TCE") and argues from that against ownership of gas reserves, such as PGE's proposal. Staff uses TCE as if it is a fundamental economic law to effectively preclude

[34] PGE/800, 22-25.
[35] PGE/800, 22.
[36] CUB/200, 23-24.
[37] PGE/800, 25.
[38] PGE/800, 25-27.
[39] PGE/800, 30.

consideration of this transaction.[40] It is not. TCE has both advocates and critics. PGE's testimony provided one such critique that would support the efficiency created by PGE's proposal.[41] While it may be an interesting intellectual exercise, TCE is only one theory for predicting or explaining some of what can be observed in economic activity with regard to vertical integration. It is not an economic certainty, and should not be used to preclude this transaction.

Value of the transaction. After first acknowledging that PGE's revenue requirement model for the proposed transaction is "sound", Staff then makes unlikely, worst case assumptions to question the value of the transaction. Staff assumes, without support, a very unlikely cost increase, coupled with a significant decrease in production[42], a combination very unlikely to occur together, particularly given the fact that much of the costs that are subject to variability are largely driven by production volumes, with higher production (and higher value) resulting in higher variable costs, and lower production resulting in lower cost. It is not surprising that such assumptions produce negative results. It is also not helpful to the analysis of this transaction. Staff also failed to provide the other side of that coin, with positive scenarios occurring simultaneously. Such scenarios that would result in economics that are materially better than the base case are equally likely.[43] PGE provided the results of such analysis in its testimony[44], and the results were predictably positive.

Cost of capital. Staff concludes that PGE's cost of capital would increase as a result of the proposed transaction based on: 1) the financial weakness of PGE's counterparty, and 2) the rating agencies' view of PGE after its affiliate becomes involved with the exploration and

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[40] Staff/400, 8-9.
[41] PGE/800, 32-33.
[42] Staff/500, 6-7.
[43] PGE/800/35.
[44] PGE/800, 35.

production of natural gas.[45] At the hearing, Staff then argued that an arbitrarily (and significantly) higher cost of capital would adversely affect the value of PGE's proposed transaction. In rebuttal testimony, PGE demonstrated that Staff only provided erroneous information to support its conclusion on PGE's cost of capital. In fact, PGE showed just the opposite to be the case and that this risk is unfounded.[46] Further, PGE notes that if such rates were to be authorized in some distant future, they would not do so in isolation but would likely correspond to higher prices for commodities rather than the lower ones.[47]

Alternative transactions. In its testimony, CUB asserted, based on a slide from a Northwest Natural presentation, the availability of low-cost, 10-year financial gas hedges.[48] CUB offered no other support for the claim. As PGE explained in its testimony, PGE regularly obtains price indications for financial gas hedges with qualified institutions and has not encountered any such low-cost, 10-year hedges.[49]

Used and useful. CUB questioned whether the gas production would be used and useful, claiming that the fuel supply extends beyond the life of PGE's generating assets.[50] This argument was based on an incorrect statement about the life of PGE's generating assets. PGE's gas-fired generating plants have 45-year useful lives and depreciation schedules, well beyond the life of this hedging contract.[51]

Market prices. CUB also makes the broad claim that competitive wholesale markets will produce prices lower than those of a cost-of-service utility investment. CUB makes this erroneous claim by comparing the market price of gas to PGE's residential electric prices.[52] This

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[45] Staff/500, 8-11, 17-18.
[46] PGE/800, 35-40.
[47] Staff/505, PGE Response to Staff DR 060.
[48] CUB/100, 15.
[49] PGE/800, 42-43.
[50] CUB/200, 5.
[51] PGE/800, 43.
[52] CUB/200, 6-9.

is not a reasonable comparison as demonstrated in PGE/800, pages 44-45. If accurate, it would also call into question decades of history of cost-of-service utility service.

Risk premium. ICNU claims that there is a substantial "risk premium" built into forward gas markets.[53] ICNU's analysis is fundamentally flawed. What ICNU's analysis does show is:

- how accurately the futures market has predicted future price activity, which is inherently difficult and imprecise; and
- how effectively hedges based on those futures "beat the market."

That is not a "risk premium".[54]

PGE acknowledges that there generally is a risk premium associated with hedging, and the premium typically increases with the length of the transaction. This premium reflects the implicit value of price stability. PGE has addressed the risk premium by requiring the long-term projected cost of the hedging contract to be at or below the comparable long-term benchmark price forecast. The result is that the risk premium is contained.[55]

CONCLUSION

PGE has conducted exhaustive research, analysis and market assessments to identify and pursue long-term hedging and supply opportunities for the benefit of its customers. In addition the company has conducted thorough due-diligence and effective negotiations to develop a unique and compelling transaction that reduces risk and will enhance long-term customer price stability. PGE staff also engaged in a robust stakeholder dialogue, whereby feedback and concerns of the parties were directly incorporated into and addressed in the proposed cost-of-service gas deal. We appreciate the efforts of Staff and the other parties to provide feedback and

[53] ICNU/200, 6-9.
[54] ICNU/300, page 3 and 4 of 5; PGE Response to ICNU DR 023.
[55] PGE/800, 48.

consider the transaction.

While there is certainly room for discussion about the type of role that natural gas will play going forward, it is reasonable to expect that it will remain a necessary part of the regional electric generation mix for many years. More importantly, PGE currently has significant long-term gas generation assets that provide a large portion of its customers' electric supply. Those plants will require fuel for the foreseeable future. This transaction provides cost-of-service gas over a long time frame and will help to hedge against potential adverse future price shifts in the natural gas market.

PGE requests approval of this contract and its inclusion in AUT power costs.

DATED this 3rd day of October, 2016.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the confidential pages of **PORTLAND GENERAL ELECTRIC COMPANY'S OPENING BRIEF** upon the parties shown below by mailing copies via First Class U.S. Mail, postage prepaid and properly addressed, or by hand-delivery.

Dated at Portland, Oregon, this 3rd day of October, 2016.

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