PSE's Preliminary Hedging Plan

I. Summary

The goal of Puget Sound Energy's ("PSE's") natural gas hedging program is to balance the benefit of customer protection from market volatility with the cost of hedging. This plan focuses solely on PSE's natural gas hedging program which is one component of PSE's broader energy supply program. In response to the Policy Statement issued by the Washington Utilities and Transportation Commission ("WUTC" or "Commission"), PSE made two changes to its hedging program to improve this balance. PSE reduced its existing programmatic strategy from 50 percent to 35 percent of annual load, improving the flexibility to lower hedging costs. Additionally, PSE added a risk-responsive component equivalent to approximately 15 percent of annual load to inform hedging in response to the risk of higher and lower natural gas prices. In combination, these two changes maintain approximately the same prior upside price protection with improved flexibility to lower costs.

II. Introduction

In October 2013, the Commission opened a staff investigation into natural gas utility hedging practices and policy issues under Docket UG-132019. The Commission solicited written comments from parties and held in-person workshops that included a review of programmatic hedging and the benefits of implementing risk-responsive hedging strategies. PSE submitted comments and was an active participant in the workshops. During the investigation, Staff and Public Counsel also sponsored a whitepaper authored by Michael Gettings of RiskCentrix, LLC ("Gettings Whitepaper") that provided an overview of hedging programs and definitions, along with examples and strategies for incorporating risk-responsive hedging into a company's hedging program.

In March 2017, the WUTC issued a Policy and Interpretive Statement on Local Distribution Companies Natural Gas Hedging Practices ("Policy Statement") that provides guidance to utility natural gas hedging programs and requires the companies to file annual hedging plans as part of the yearly PGA filing. The Policy Statement requires a company's first year (i.e. 2017 PGA filing) hedging plans to articulate hedging objectives and communicate an approach to basic elements of risk-responsive hedging such as exposure quantification, strategic initiatives and oversight and control. In subsequent PGA filings, the Policy Statement requires companies to demonstrate the integration of risk-responsive strategies into the overall framework and include a retrospective hedging report. This is PSE's Preliminary Hedging Plan and already demonstrates the strategic changes PSE has incorporated into its hedging program in response to Policy Statement guidance.

III. Goals & Strategies

PSE's hedging program includes programmatic, risk-responsive, and cash cost (low price) strategies. The program considers seasonal and daily load variability, prices, natural gas storage and transportation assets. Within the hedging program, PSE uses its storage assets to reduce winter hedging requirements. Storage injection and withdrawal flexibility also helps mitigate price volatility. Transportation assets provide price diversity which enables hedging flexibility at multiple supply basins in the region. In addition to the hedging benefits, unutilized storage and transportation capacity is further optimized to reduce costs. Since the mid-2000s, PSE's hedging program has included a ratable three-year 50 percent programmatic strategy. In response to the Commission workshops and guidance included in the Policy Statement, PSE will reduce its existing programmatic strategy from 50 to 35 percent of annual load and add a risk-responsive component equivalent to approximately 15 percent of annual load. This combination of strategies meets PSE's objective of developing a robust hedging program that balances the benefit of risk reduction to customers with hedging costs. The components of PSE's hedging program are described further below:

1. *Programmatic strategy - 35% of load*
    - The programmatic strategy is a prescribed dollar cost averaging approach where hedges are added consistently over a time horizon ranging from 32 to 38 months. Hedging volumes are added seasonally in eight, four-month hedging periods allowing for ratable risk reduction (*see Illustration No. 1 below*). Programmatic hedges can be accelerated in response to market opportunities. Hedging instruments used in this strategy to mitigate the impact of higher natural gas prices include financial fixed price swaps, physical fixed price, and financial options. The moderate, 35 percent programmatic level provides price stability, reducing the effects of natural gas price volatility on portfolio costs. The risk reduction from programmatic hedging also has the benefit of reducing the need for large tranches of risk-responsive hedging.

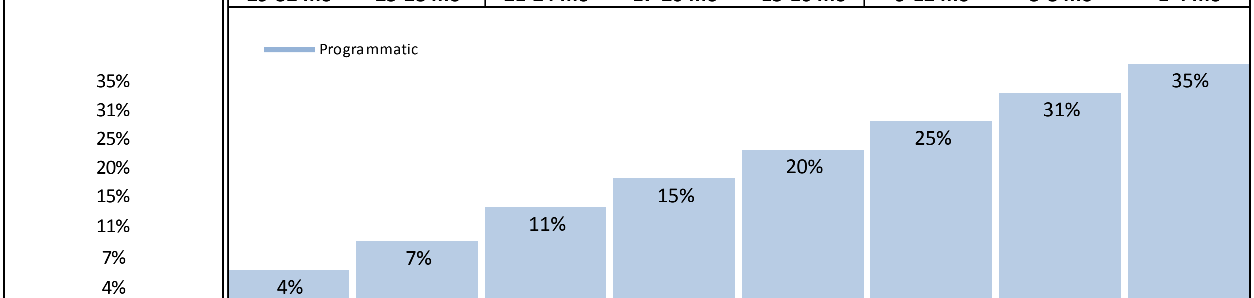
2. *New Risk-Responsive strategy - 15% of load*
    - The risk-responsive strategy is based on a risk-view rather than a prescribed methodology or market-view and instead relies on measuring and monitoring market risk conditions. Risk-responsive hedges are added in response to the risk of higher and lower prices over a two-year time horizon. If hedges are not required then hedge losses will not be incurred. Hedging instruments used to manage the risk to both higher and lower prices include financial fixed price swaps, physical fixed price, and financial options. Cost targets informing risk-responsive hedging will be defined annually and measured weekly. In combination with the 35 percent programmatic capacity, the 15 percent risk-responsive capacity enables PSE to retain approximately the same upside protection to higher costs prior to the change with improved flexibility to reduced hedge costs.

3. *Cash Cost (Low Price)*
    - The existing cash cost strategy increases hedge capacity in response to low market prices. Hedges are added over a shorter time horizon ranging from 12 to 18 months. This strategy is opportunity focused, taking advantage of low price opportunities resulting from near term changes to market fundamentals. Hedge volumes are available based on a low price methodology that is calculated annually. The strategy allows for the flexibility to hedge or not based on changes to resources, load, or supply/demand dynamics.

Illustration No. 1

Programmatic Hedge Target = 35% of average annual load

Percent of Load Hedged	Time to start of Winter Strip (Nov-Mar)							
	29-32 mo	**25-28 mo**	**21-24 mo**	**17-20 mo**	**13-16 mo**	**9-12 mo**	**5-8 mo**	**1-4 mo**



Hedge Periods	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Months within Period	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**

IV. Timelines

PSE plans to execute the new hedging strategies starting with the November 2018 – October 2019 PGA year. Over the next year, PSE will be implementing the changes to the hedging program described in this plan. PSE will continue to monitor portfolio risk and consider changes to the hedging program.

V. Exposure Quantification

As part of the new strategy implementation, PSE will measure the potential exposure of the portfolio annually, defining cost and hedge loss targets for the current and following year.[1] The financial exposure is quantified by using volume, forward prices, volatilities, and time to expiration. The potential exposure will be measured weekly with risk-responsive hedges added to defend high and low cost targets. Risk-responsive hedge volumes will be added only as required to maintain a confidence level of portfolio costs. PSE will include portfolio cost targets in future PGA annual reports.

VI. Oversight & Controls

The hedging program is governed by PSE's Energy Risk Policy ("Policy") and associated Energy Supply Transaction and Hedging Procedures Manual ("Procedures"). The Policy and Procedures are approved by PSE's Energy Management Committee ("EMC"). The change to the programmatic strategy and the addition of the risk-responsive strategy were approved by PSE's EMC. The EMC provides policy direction and oversight of PSE's energy risk policies and is comprised of company officers and directors. The strategies are managed by the Portfolio Hedging team who work with middle-office to execute the hedging program. The Portfolio Hedging team provides the EMC with a monthly hedge program update.

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[1] Potential exposure measurement is discussed in further detail in Michael Gettings, *Natural Gas Utility Hedging Practices and Regulatory Oversight: An Inquiry into Local Natural Gas Distribution Companies' Hedging Practices and Transaction Reporting,* July 2017, pp. 12-18, filed in WUTC docket UG-132019.

VII. Conclusion

In summary, to improve the balance of protection against higher prices with the cost of hedging, PSE made two strategy changes reducing the existing programmatic strategy from 50 percent to 35 percent and adding a new risk-responsive strategy equal to 15 percent of annual load. PSE plans to implement the changes over the next year starting with the November 2018 – October 2019 PGA year. These changes are consistent with hedging best practice discussions that occurred in the workshops hosted by the WUTC. PSE's Energy Management Committee approved the changes to the hedging program and will provide oversight going forward. In combination with PSE's existing hedging strategies, these changes meet PSE's objective of developing a robust hedge program that balances risk reduction with hedge costs.