

Cascade Natural Gas IRP Review UG-160453

Rule	Requirement	Plan Citation	Notes
WAC 480-90-238(4)	Work plan filed no later than 12 months before next IRP due date.	Cascade filed the 2016 IRP Work Plan on April 29, 2016. An updated workplan was filed on June 29, 2016 and October 4, 2016.	
WAC 480-90-238(4)	Work plan outlines content of IRP.	Contents of the IRP were outlined in the Work Plan.	
WAC 480-90-238(4)	Work plan outlines method for assessing potential resources. (See LRC analysis below)	Methods for assessing potential resources were outlined in the Work Plan.	
WAC 480-90-238(5)	Work plan outlines timing and extent of public participation.	Timing and extent of public participation were outlined in the Work Plan.	
WAC 480-90-238(4)	Integrated resource plan submitted within two years of previous plan.	Please refer to Section 11, page 2, Short History about Compressed Time Schedule.	
WAC 480-90-238(5)	Commission issues notice of public hearing after company files plan for review.	Pending	
WAC 480-90-238(5)	Commission holds public hearing.	Pending	
WAC 480-90-238(2)(a)	Plan describes mix of natural gas supply resources.	Cascade described current and alternative resources in Section 4. Cascade described how it was applied to the Integrated Resource Plan in Section 8.	
WAC 480-90-238(2)(a)	Plan describes conservation supply.	Cascade describes conservation supply in section 4.	
WAC 480-90-238(2)(a)	Plan addresses supply in terms of current and future needs of utility and ratepayers.	Cascade analyzed supply in terms of current and future needs in section 3 by using demand forecasts.	
WAC 480-90-238(2)(a)&(b)	Plan uses lowest reasonable cost (LRC) analysis to select mix of resources.	With the use of SENDOUT® Cascade modelled alternative resources such as Satellite LNG, incremental transport, incremental supply, and incremental storage. After considering these factors, Cascade chose the LRC Portfolio.	
WAC 480-90-238(2)(b)	LRC analysis considers resource costs.	Section 8 discusses resource costs for current as well as alternative Supply-Side Resources.	
WAC 480-90-238(2)(b)	LRC analysis considers market-volatility risks.	Using SENDOUT® Cascade was able to develop demand and price forecasts with effects of market-volatility on price. Low, expected, high, and carbon adders were analyzed. Monte Carlo on prices were also done to stress test the preferred portfolio.	
WAC 480-90-238(2)(b)	LRC analysis considers demand side uncertainties.	In Section 3, uncertainty around future needs was analyzed by Demand Sensitivity Analysis.	
WAC 480-90-238(2)(b)	LRC analysis considers resource effect on system operation.	Please refer to Section 4 as well as Section 8.	
WAC 480-90-238(2)(b)	LRC analysis considers risks imposed on ratepayers.	Please refer to Supply-Side Uncertainties in section 4.	
WAC 480-90-238(2)(b)	LRC analysis considers public policies regarding resource preference adopted by Washington state or federal government.	Please refer to sections 5. Section 5 discusses environmental considerations such as the Clean Air Act and Carbon Cost risks.	
WAC 480-90-238(2)(b)	LRC analysis considers cost of risks associated with environmental effects including emissions of carbon dioxide.	Please refer to sections 5. Section 5 discusses environmental considerations such as the Clean Air Act and Carbon Cost risks.	
WAC 480-90-238(2)(b)	LRC analysis considers need for security of supply.	Please refer to section 8.	
WAC 480-90-238(2)(c)	Plan defines conservation as any reduction in natural gas consumption that results from increases in the efficiency of energy use or distribution.	In Section 4 as well as in Appendix D, the Plan defines reduction in natural gas consumption that results from the installation of energy efficient equipment.	
WAC 480-90-238(3)(a)	Plan includes a range of forecasts of future demand.	Cascade developed a demand forecast at the Citygate and Citygate Loop level with different sensitivity analysis described in section 3. Results of the long range forecast is located in Appendix B.	

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WAC 480-90-238(3)(a)	Plan develops forecasts using methods that examine the effect of economic forces on the consumption of natural gas.	Using SENDOUT® Cascade was able to develop forecast with effects of economic forces on price. Low, expected, high, and carbon adders were analyzed. Monte Carlo on prices were also done to stress test the preferred portfolio.	
WAC 480-90-238(3)(a)	Plan develops forecasts using methods that address changes in the number, type and efficiency of natural gas end-uses.	High and low load growth, which can be seen as an affect of changes in the number, type and efficiency of natural gas end-users, were analyzed in SENDOUT®.	
WAC 480-90-238(3)(b)	Plan includes an assessment of commercially available conservation, including load management.	This is addressed in section 7.	
WAC 480-90-238(3)(b)	Plan includes an assessment of currently employed and new policies and programs needed to obtain the conservation improvements.	This is addressed in section 7.	
WAC 480-90-238(3)(c)	Plan includes an assessment of conventional and commercially available nonconventional gas supplies.	This is addressed in section 7.	
WAC 480-90-238(3)(d)	Plan includes an assessment of opportunities for using company-owned or contracted storage.	Please refer to Section 4 as well as Section 8.	
WAC 480-90-238(3)(e)	Plan includes an assessment of pipeline transmission capability and reliability and opportunities for additional pipeline transmission resources.	Please refer to Section 8 of the IRP.	
WAC 480-90-238(3)(f)	Plan includes a comparative evaluation of the cost of natural gas purchasing strategies, storage options, delivery resources, and improvements in conservation using a consistent method to calculate cost-effectiveness.	Please refer to Section 8 of the IRP.	
WAC 480-90-238(3)(g)	Plan includes at least a 10 year long-range planning horizon.	The plan includes a 20 year long-range planning horizon.	
WAC 480-90-238(3)(g)	Demand forecasts and resource evaluations are integrated into the long range plan for resource acquisition.	Demand forecasts, in section 3 and Appendix B, are modelled in SENDOUT® to evaluate resources integrated into the long range plan for resource acquisition.	
WAC 480-90-238(3)(h)	Plan includes a two-year action plan that implements the long range plan.	Cascade describes a two-year action plan in section 1, page 16-17, as well as in section 12, page 4.	
WAC 480-90-238(3)(i)	Plan includes a progress report on the implementation of the previously filed plan.	Please refer to Section 11, page 2, Short History about Compressed Time Schedule.	
WAC 480-90-238(5)	Plan includes description of consultation with commission staff. (Description not required)	WUTC Staff was a member of Cascade's Technical Advisory Group (TAG). Cascade documents consultation with WUTC Staff in the public participation in section 10 as well as Appendix A.	
WAC 480-90-238(5)	Plan includes description of completion of work plan. (Description not required)	Pending	