

Executive Summary

2007 Electric Supply Resource Procurement Plan

Consistent with Montana Public Service Commission Guidelines, NorthWestern completes an Electric Supply Resource Procurement Plan every two years. The 2007 Plan has been developed to comply with the Commission's filing requirements and to meet NorthWestern's planning needs.

The 2007 Plan explains NorthWestern's electricity supply requirements for serving its electricity customers through the 2027 planning period. This supply requirement is compared to the resources that NorthWestern currently has under contract for this planning period. The difference between the supply requirement and resources currently under contract is referred to as the resource need. To provide for this need, the Plan considers the operating characteristics as well as the capital and operating costs of potential new generation resources. These resources are analyzed in various groupings (portfolios) in combination with existing resources, DSM, and market purchases. Costs, risks, and uncertainties are then compared across portfolios. Several key portfolio risks are identified and evaluated in the stochastic¹ modeling part of this Plan, including the effects of a carbon tax and natural gas and electric price volatility.

This Plan has been developed with a recognition that there are many regional issues that can significantly affect the planning and resource acquisition environment of NorthWestern. One such issue is the forecasted lack of new baseload generation development in the Pacific Northwest coupled with the ongoing need by utilities to meet load growth, planning margin, and plant retirements. Chapter 1 of this Plan discusses current load/resource balance forecasts in the Pacific Northwest. Recent resource plans developed by regional

¹ Stochastic analyses employ a range of market price inputs to analyze costs and risks associated with an uncertain future. Results produce a range of potential outcomes for each scenario and portfolio.

utilities indicate a reliance on energy efficiency programs, market purchases, and resource development that is primarily focused on meeting recently enacted renewable portfolio standards (which often add energy but no or very little capacity to a portfolio.) The lack of new baseload resources in these plans coupled with projected continued load growth raises the specter of significant future resource shortfalls and diminishing planning margins. A number of regional planning organizations and utilities' resource plans are projecting future baseload deficits. This will likely exacerbate an already volatile energy commodities market; a market from which NorthWestern currently purchases a considerable percentage of its resource needs.

A second key issue underlies one of the reasons new baseload resources are not being developed - the potential imposition of carbon cost adders to thermal generation. Carbon cost adders are most frequently discussed as being implemented as either a carbon tax or a cap and trade system. A tax would be a level of charges applied by the government for the emissions of carbon dioxide. A cap and trade system is a mechanism where the government sets a limit on the amount of emissions through some form of allotment, and then allows the exchanging or trading of the allotments on the open market. NorthWestern, given that it owns no generation, could be at a distinct disadvantage if the trading mechanism was to be the vehicle used for implementing carbon policy. For purposes of this Plan NorthWestern assumes a carbon tax as the implementation vehicle.

As already discussed, risks posed by the uncertainty of carbon cost adders have a significant impact on NorthWestern's 2007 Plan. Chapter 4 of this Plan discusses a range of environmental costs associated with the production of carbon dioxide ("CO₂") from electric generation resources. The literature on this subject contains significant variability – regarding estimates of what the costs could be and when such a tax is likely to be imposed. Whether such a tax is imposed, the cost, and the timing of such a tax are critical variables for

NorthWestern to take into account when considering resource acquisition options. While the development of accurate CO₂ cost adders currently does not lend itself to definition through science or math, this Plan, from a policy perspective, explicitly recognizes and incorporates a CO₂ tax as a future reality, applied to both NorthWestern’s resource evaluations and market purchase pricing. The CO₂ values set forth in this Plan are based on the values used for planning by other utilities, industry studies, and judgment. However, the actual costs will eventually be settled in a political or policy venue.

The final step in the planning process is the selection of a set of preferred resource portfolios that are most beneficial to Supply customers as measured by lowest cost and risk. The preferred portfolios are shown in Table 1.

Table 1, Preferred Portfolios

Resource Combinations in MW’s

Resource	Natural Gas Simple Cycle	Natural Gas IC	Wind	Generic Regulation
Portfolio #				
14	88		150	135
15		80	150	135
16			150	135

These three resource portfolios were found, after analyzing market price, fuel price, and carbon dioxide cost risks, to provide the best balance between cost and risk. All three portfolios are assumed to meet future renewable portfolio standard requirements, provide an average of 67.5 Mwa of energy to the portfolio through a generic regulation resource, and add 150 MW of new wind (or alternative renewables with minimal fuel price risk) to the supply portfolio. Portfolios 14 and 15 also add 88 MW and 80 MW of natural gas peaking resources, respectively, to the portfolio.

Each of these preferred portfolios assume that market purchases will make up for the remaining differences between resource need and supply. A significant difference between this Plan and the 2005 Plan is the lack of coal in any of the

2007 Plan's preferred portfolios. While NorthWestern's analysis indicates coal resources perform well in the low and medium carbon dioxide cost adder scenarios, the high carbon cost adder scenario shows significantly higher portfolio costs and risk. NorthWestern's analysis also indicates that market purchases in the scenario of high market prices results in portfolios with higher prices and risk. However, in these two scenarios (high carbon costs and high market prices), the Plan's analysis indicates that portfolios with coal perform poorer relative to those with market purchases.

NorthWestern anticipates moving quickly to start locking in prices for future market acquisitions which will mitigate or eliminate the adverse outcomes associated with a high market price event. Presumably, in the next two to five years technology on carbon capture will be more developed and rules regarding carbon costs will be clarified, opening the door for future development opportunities. The preferred portfolios will allow for these opportunities to be considered in future Plans.

NorthWestern's portfolio analysis clearly shows additional baseload resources are needed by 2012 with additional significant quantities required in 2014. To meet this need NorthWestern can either buy from the market (using request for proposals, auctions, or bilateral negotiations), build and ratebase new generation resources, or some combination of the two. The ability of NorthWestern to develop new resources is dependent on NorthWestern being provided adequate assurances on how CO₂ costs will be treated in cost recovery proceedings. NorthWestern cannot make good resource selection decisions related to CO₂ absent public policy decisions. This is an issue that will require policy makers to provide guidance, and NorthWestern requests the help of the Montana Public Service Commission in facilitating a forum wherein this key issue can be addressed.

The potential of significant future electric market price volatility is a concern and this Plan provides several actions to help dampen the price effects of this volatility. NorthWestern proposes a systematic approach to financially hedging the electric portfolio for time frames less than 24 months into the future. (See Appendix 1 for Proposed Hedging Strategy.) The goal of this proposal is to dampen electric price volatility in an effective, systematic, and efficient manner. However, while this systematic approach seeks to mitigate supply price volatility and provide supply cost stability, it cannot protect customers from electric market price trends. Given that this proposed approach to term financial hedging is more defined with set acquisition parameters and thus differs from current practice, NorthWestern looks forward to the MPSC's comments in the formulation and execution of this plan, prior to moving forward with implementation.

NorthWestern also proposes to initiate an acquisition process (RFP, bilateral discussions, or auction) in 2008 to start layering in longer-term purchases. The acquisition efforts will be focused on obtaining a percentage of the total long-term need (unless significant value opportunities support obtaining the entire long-term need through market purchases). This is consistent with NorthWestern's approach to employing a disciplined layering in approach over time.

Energy efficiency programs help stabilize resource portfolio costs by reducing load. NorthWestern, consistent with a program evaluation consultant's recent recommendation will continue with its DSM programs as presently designed and implement the consultant's recommendations for further improvement as appropriate. The annual DSM goal remains at 5.0 MWa per year. The proposed savings of 5 MWa per year diminishes the forecasted annual energy growth of Supply customer load by nearly half.

Preferred portfolios in the Plan contain quantities of renewable resources. While offsetting CO₂ risk, renewable resources, especially community-based renewable resources, must also be acquired to fulfill a renewable portfolio statutory

obligation. The Plan provides an explanation of how NorthWestern intends to meet this obligation. NorthWestern expects to undertake a RFP in 2008 to acquire renewable community resources to meet the statutory requirement that begins in 2010.

Finally, NorthWestern requires regulation resources capable of nearly instantaneously balancing loads with resources. The availability and affordability of long-term regulation resources is also an impediment to renewable resource development, especially wind resources. NorthWestern proposes to make a decision in early 2008 on whether to proceed with developing a regulation resource. Analyses have been underway since early fall of 2007 and will provide the basis for NorthWestern's decision. If NorthWestern decides to move forward with a self-build option, it will file for MPSC approval prior to commencing construction.

This Plan is intended to provide the Commission and stakeholders an understanding of the costs and risks confronting NorthWestern as it fulfills its obligation to meet electric supply needs. NorthWestern looks forward to meeting this challenge and anticipates working closely with the Commission and stakeholders to provide customers an adequate, reliable supply of electricity that is reasonably and stably priced.