

Chapter 9 Conclusions and Action Plan

Plan Conclusions

This Plan provides a disciplined economic evaluation of supply and demand side resources that could meet the next 20 years of NorthWestern's supply load-serving obligation. The Plan employs quantitative risk analysis to help understand the potential effects from environmental and market uncertainties at a time when utilities, including NorthWestern, are struggling to minimize consumer rate increases while maintaining reliability and meet growing demand. The Plan's conclusions will guide NorthWestern's acquisition activities on behalf of supply customers. The conclusions also raise issues that NorthWestern believes requires input and advice from policy makers such as the Commission.

1. The Plan's quantitative and qualitative analyses of the three best-performing portfolios provide valuable insights about desirable portfolio characteristics. The three portfolios generally rely upon market purchases to a certain degree.
 - a. Portfolio 16 – 150 MW Wind, 135 MW Generic Regulating Resource.
 - b. Portfolio 15 – 150 MW Wind, 135 MW Generic Regulating Resource, 80 MW LM Natural Gas.
 - c. Portfolio 14 - 150 MW Wind, 135 MW Generic Regulating Resource, 88 MW Internal Combustion Natural Gas.

These three portfolios all minimize cost with a nominal increase in market risk.

2. NorthWestern has acquired resources that substantially meet the resource requirements through mid 2012 and much of the existing portfolio's price risk has been fixed. The results indicate that, with the exception of the high market case, the portfolios under consideration are generally choices

between portfolios that rely on market acquisitions to a large degree or portfolios with a significant reliance upon new coal resources. Typically, the lower cost and slightly higher risk market portfolios are preferred to the coal resources. This is especially highlighted by the risk exposure presented by the high carbon cost adders to new coal plants. Absent significant clarification of the CO₂ uncertainty or increased regional baseload power supplies, the price of supply will likely be more volatile and higher. The passage of time between now and 2012 may result in decreases in regional electricity supply with corresponding upward pressure on price. As a result, reliance upon the spot market rather than longer-term forward market acquisitions is an unattractive option.

During 2008, therefore, NorthWestern will actively explore market opportunities to at least partially address the resource needs beginning in 2012. NorthWestern, absent regulatory or statutory clarification of key risks, particularly CO₂ costs, does not anticipate developing baseload generation for inclusion in rate-base.

In addition, NorthWestern has developed a detailed electricity hedging strategy to methodically manage the default load needs through additional acquisition of forward contract power in the near-term markets (out 1-2 years).

3. NorthWestern's analysis shows that it will meet the Renewable Portfolio Standards requirements for 2008 and 2009. During 2008 a RFP will be issued to acquire renewable resources that meet the CREP requirements in the Renewable Portfolio Standards for 2010.
4. Several of the preferred portfolios support additional quantities of wind resource. Wind integration requires a significantly greater percentage of regulation resources than needed for more higher capacity factor thermal

resources. As discussed in Volume 2, Chapter 5, recent market assessments indicate a growing illiquidity in the regulation resources market along with substantially higher prices for third party ancillary services. The need for a more secure physical supply and known cost of regulation is clear, especially given the existing system needs for regulation and the likelihood of additional wind resource in NorthWestern's portfolio. In reviewing the renewable portfolio options, portfolio 37 performs comparatively well against the other renewable portfolios. Portfolio 37 includes biomass and geothermal resources. Given NorthWestern's existing contracts for Judith Gap and the likely preponderance of wind in new QF contracts, an effort should be made to explore the addition of biomass or geothermal resources.

5. NorthWestern, consistent with the recent NEXANT recommendations, will continue with its DSM programs as presently designed and will consider implementation of NEXANT's recommendations for further improvement as appropriate. The annual DSM goal is 5.0 MWa per year and will provide benefit - it has the potential to reduce the average growth rate for Supply load from about 1.3% to 0.7% per year.
6. Despite the considerable value of the planning process, the inputs to the modeling have inherent limitations. Conclusions regarding portfolio performance must be tested under market conditions. For example, key inputs to the model, such as price forecasts, are simply an informed estimate of what will happen in the future. Historic market changes have demonstrated the limited predictive value of natural gas price forecasts as actual market prices have far surpassed what best-informed analysts predicted. Other inputs have similar limitations.
7. When bids are submitted and fully analyzed following NorthWestern's next RFP, the Commission and the public should not be surprised if the costs

and availability of resources sought or selected differ somewhat from those found in the Plan's best-performing portfolios. As such, the results of this Plan should not be viewed as the definitive decision regarding which resource types will be added, but rather the Plan sets the backdrop against which any resource options will be considered. Uncertainties discussed in the Plan such as the status of a CO₂ tax will have great influence on future resource choices. Until CO₂ policy is clarified, NorthWestern does not anticipate the acquisition of rate based baseload generation. In addition, even though preferred portfolios contain pulverized coal, NorthWestern will not pursue the development of pulverized coal until the carbon issue is clarified.

8. Future electricity supply costs are likely to continue to increase. Ratepayers should take higher future costs into account when they make decisions about home construction, insulation, appliance purchases and their consumption behavior.

9. Commission Order 6501f requires NorthWestern to update the long-term QF rate every two years, "following receipt of PSC comments on NorthWestern's biennial electric Supply plan." Consistent with Commission direction, NorthWestern, as part of this Plan, has developed a 20-year avoided cost with a starting level of \$51.41 per MWh for 2008. This is a real levelized calculation and is based on the base case market price forecast. The market is assumed to be the marginal unit in the development of NorthWestern's portfolio and is consistent with the Commission's direction that the cost should reflect wholesale market prices. The recent Commission decision on QF size will likely have significant impact on the number, type, and total quantity of QF development in the near future.

10. The 2007 Plan satisfies NorthWestern's planning responsibilities under Montana statutes and the Guidelines. The Supply planning process provides NorthWestern and its stakeholders a great deal of information regarding electric industry trends, potential responses to those trends, and the potential impacts of resource decisions on customers and NorthWestern for years to come.

11. To encourage public participation in the planning process, readers are encouraged to review and comment on this Plan. NorthWestern intends to take the following steps regarding obtaining public input:
 - a. The Plan and supporting information will again be placed on the Internet at www.northwesternenergy.com.
 - b. As opportunities arise and requests are received, public meetings will be scheduled for the purpose of presenting and explaining the Plan.

The availability of the Plan will be communicated in various methods to the public including the NorthWestern Energy customer bill insert.

Action Plan

NorthWestern's Action Plan provides the specific steps that implement the Plan.

Primary Action Items

1. During 2008, NorthWestern will actively explore opportunities and discuss supply options with market participants for mid to long-term contract power delivery beginning in 2012 or later.
2. To comply with the Renewable Portfolio Standard, NorthWestern in 2008 will issue an RFP for renewable resources to meet its 2010 CREP obligation. NorthWestern understands that this obligation is subject to a cost threshold test.
3. To diversify the renewable resource portfolio, renewable supply sources other than wind will be identified and where appropriate, solicited.
4. During the first half of 2008, NorthWestern will complete its internal evaluation of developing rate-based regulation resources and make a decision on the best way to proceed for obtaining these necessary resources.
5. Given the new higher updated avoided cost, a review of potential DSM measures will be conducted to determine whether new measures are appropriate to include in DSM programs. A new electric DSM assessment is to be completed by end of 2009.
6. NorthWestern will continue to evaluate key planning issues and resource planning refinements and will seek appropriate input and advice from ETAC on any proposed changes to this planning environment.
7. NorthWestern will work with appropriate parties and seek to determine whether geographical diversity of wind plant locations provide capacity benefits and if so, attempt to quantify these benefits.
8. NorthWestern is prepared to begin the process leading to a system wide demand response study.*
9. To facilitate greater price stability, NorthWestern is prepared to implement the short-term financial hedging strategy described in Appendix 1.*

* Implementation requires MPSC review and affirmative comment.