

Implementation Plan and Strategies
for
Risk-Integrated Resource Plan

Updated: September 2007

Midwest Energy, Inc.

Introduction

With the assistance of PACE Global Energy Services (PACE), Midwest Energy, Inc. (Midwest) completed a Risk-Integrated Resource Plan (RIRP) in 2005. While there are myriad reasons the development of such a plan is prudent utility practice, one factor was key in the rationale for and development of the RIRP: all of Midwest's current long-term supply contracts expire by 2010 and must be replaced in some form.

Additional goals of the RIRP process included:

- Forecast load and resource requirements.
- Identify and compare all practicable energy efficiency and energy supply resource options.
- Describe efforts to minimize adverse environmental effects of new resource acquisitions.
- Recommend next steps to be taken to replace expiring contract resources and measurement strategies for options identified in IRP to determine whether objectives are being met.

The actionable recommendations developed in the RIRP can be broadly categorized into three groups:

- Recommendations for fuel mix in supply portfolio development.
- Inclusion of wind energy or other renewable resources in the supply portfolio.
- Recommendations for DSM and/or energy efficiency measures to be investigated further.

These three categories of action items will be addressed separately, though there is certainly some overlap between the categories.

Supply Portfolio Development

Table I below shows the action items associated with the development of a new power supply portfolio that is consistent with the findings of the RIRP. In as much as all current supply contracts expire June 2010 the entire portfolio must be replaced in this time frame. Table I shows the individual action items, target execution/completion dates, and current status.

Table I
Portfolio Development Action Plan

Action Item	Start Date	Completion Date	Status
Develop RFP to engage consultant to (a) review status of existing generating facilities, and (b) assist in development of RFP for long-term power supply proposals.	2005Q4	2005Q4	Complete
Issue consultant RFP	2005Q4	2005Q4	Complete
Select Consultant and issue Notice to Proceed	2005Q4	2006Q1	Complete
Receive report and recommendations regarding status and future use of existing generating facilities.	2006Q1	2006Q2	Complete
Complete RFP for solicitation of long-term power supply proposals	2006Q1	2006Q1	Complete
Issue RFP	2006Q2	2006Q2	Complete
Receive long-term power supply proposals	2006Q2	2006Q2	Complete
Evaluate long-term power supply proposals	2006Q2	2006Q3	Complete
Select proposals for detailed negotiation	2006Q3	2006Q4	Complete
Negotiate contracts	2006Q3	2007Q4	In Progress – See Note 1
Execute contracts	2006Q4	2007Q4	In Progress – See Note 2

Notes to Table I

1. The following contracts are currently under negotiation:

██████████: Up to █████ MW of firm long-term base load and peaking capacity and energy
██████████: Up to █████ MW of firm long-term peaking capacity and energy
██████████: █████ MW of firm long-term base load capacity and energy

2. The following contracts have been executed:

Westar Energy: 75MW of firm short-term base load and peaking capacity and energy
Sunflower Electric: Letter of Intent to purchase 75MW of firm long-term base load capacity and energy
Wartsila N.A.: Purchase of generating equipment to construct 75MW peaking generation facility
Burns & McDonnell: EPC contract to design and construct 75MW peaking generation facility.
(Project is under construction and scheduled to enter commercial operation 2008Q2.)

Wind Energy/Renewable Resources

The incorporation of wind energy and other renewable resources into the overall power supply portfolio for Midwest Energy was reviewed in detail in the RIRP. The final recommendation was to pursue the acquisition of up to 50MW (nameplate) of wind energy supply resources over the next several years. While Kansas does not have a Renewable Portfolio Standard or other mandate related to the acquisition of wind energy by public utilities, the Governor's office nonetheless solicited commitments from the states public utilities to acquire wind resources.

Several of the Kansas public utilities, including Midwest, announced a commitment in mid-2007 to acquire sufficient wind energy resources with nameplate ratings of at least 10% of the utility's peak demand by 2010, and 20% of peak demand by 2020. The Board of Directors of Midwest Energy approved the addition of wind energy to the supply portfolio with the provision that it not increase the overall average cost of energy.

Table II below provides a summary of the action items required to integrate wind energy into the long-term power supply portfolio of Midwest Energy; as well as the timeline for the various steps and the current status of the action items.

Table II
Wind/Renewable Energy Integration Action Plan

Action Item	Start Date	Completion Date	Status
Develop RFP to solicit proposals for the purchase of wind energy resources.	2005Q4	2005Q4	Complete
Issue RFP	2006Q1	2006Q1	Complete
Receive wind energy proposals	2006Q2	2006Q2	Complete
Evaluate wind energy proposals	2006Q2	2006Q3	Complete
Select proposals for detailed negotiation	2006Q3	2006Q4	Completed 2007Q1
Negotiate contracts	2006Q3	2007Q4	In Progress – See Note 3
Execute contracts	2006Q4	2007Q4	In Progress – See Note 4

Notes to Table II

3. Negotiating a contract with [REDACTED] for [REDACTED] MW of wind capacity/energy.
4. Executed a long-term agreement with Smoky Hill Wind for 25MW of wind capacity/energy.

DSM/Energy Efficiency Measures

A third element considered in the RIRP was the applicability of demand-side management or energy efficiency measures to help manage the growth of peak demands and/or energy requirements by end-use customers, with the objective of reducing the need for new generating resources. The final RIRP found that there was only a small potential for benefits.

Nonetheless, the RFP process utilized for new long-term resources could also be used to assess the real opportunities available to Midwest through these programs. This was incorporated into the RFP process for long-term resources, and two proposals were received for such services. Both were more costly than supply-side alternatives. Neither of the two proposals was accepted as they provided little or no real benefit to Midwest or its customer-owners.

It is also important to note that Midwest has had a variety of other programs in place for many years, including:

- Time-of-use / temperature rates for irrigation customers
- Technical services for customers, including:
 - Infrared scanning
 - Duct integrity
 - Thermal shell efficiency analysis (energy audits and air infiltration testing)
 - Lighting Design
 - End-use analysis
- Energy efficiency improvement financing

In January, 2007 Midwest filed an application with the Kansas Corporation Commission seeking approval of a new program, offered initially on a pilot basis, to finance residential and small commercial energy efficiency improvements through the customer's savings in energy costs. The plan is similar to the Pay-As-You-Save® (PAYS®) model developed by PAYS America. Midwest received approval for the How\$martSM program during the third quarter of 2007, and moved immediately to implement it. Requests for participation representing over 70 housing units were received within a month of program approval. Midwest's energy advisors are currently conducting energy audits and developing conservation plans for the participants.

Although the RIRP indicated only a small potential for DSM benefits, a consultant was engaged to conduct a more thorough DSM potential study. The results of that study will be provided separately. To summarize, the consultant (Applied Energy Group) estimated the reasonably achievable potential (the marketing potential) to be approximately 2.8% of retail energy sales by 2017.

Subsequently, a DSM program design consultant was contracted to assist with development of an energy efficiency business plan. That work is currently underway, but expected elements in the initial plan include:

1. Expand the use of the How\$mart Program to promote energy efficiency improvements to more customer groups and geographic areas.
2. Develop a small commercial lighting program.
3. Develop a motor change out program for the irrigation and oilfield classes.
4. Develop a geothermal heat pump Program.
5. Develop a Compact Fluorescent Light (CFL) Program.

A number of other promising ideas will either be considered for further development later or are part of activities that are evolving at the state-level. These programs may or may not be developed but were not deemed as the best candidates for current development by the DSM program design consultant. These include promotion of ENERGY STAR appliances, improving building management in the commercial market, thermal energy storage, water heater load control, online energy audits, and educational activities aimed at providing energy consumers with energy efficiency and consumption information.

Conclusions

Midwest moved quickly to implement the recommendations included in the Risk-Integrated Resource Plan. A number of the initiatives have already been completed, and several others are still under way. These initiatives include contracting for new long-term power supply resources from third parties, construction of a new peaking generation facility, integration of wind energy into the power supply portfolio, and expansion of demand-side management and energy efficiency programs. These initiatives are on schedule and consistent with the recommendations of the RIRP.