

North Dakota Public Service Commission

INFORMAL HEARING

October 8, 2008

**Northern States Power Company
Demand Side Management and
Cost Recovery Adder
Tariff**

**Case No. PU-08-171
Filed April 18, 2008**

Summary of Proposal: Northern States Power Company (NSP) filed a petition for demand side management (DSM) programs and tariff changes for an associated cost recovery rider that would appear as a line item charge (the "Energy Efficiency Charge") on customer bills. The charge would recover direct and administrative program costs, plus an offset for the resulting electric margin loss from decreased electric sales.

Procedural History: The Commission suspended NSP's tariff filing on May 13, 2008.

Recommendation: NSP's request in the instant case for funding to implement certain additional DSM programs and its request for a tariff cost recovery rider should be denied.

However, NSP's proposal to expand its existing load management programs (Peak & Energy Control Service and Savers Switch) should be approved with base rate cost recovery implemented, ideally, in NSP's current rate case. (Case No. PU-07-776). Unfortunately, such implementation may require additional rate case procedures as there is no evidence in the existing record.

Discussion: Note that on December 14, 2005, in Case No. PU-05-598, the Commission denied by motion a Conservation Tracking Adjustment billing adder requested by MDU for recovering program costs and lost revenue resulting from several proposed natural gas conservation programs. Recalling the discussions at the time, gas costs were peaking and there was reluctance by the Commission to impose increased costs on non-participants.

In 2007, as part of a NSP Gas rate case settlement in Case No. PU-06-525, the Commission approved base rate recovery of \$138,000 of certain residential natural gas conservation programs (home energy audits, furnace and water heater rebates, etc.) for NSP to promote lower natural gas usage and bills among its customers. Consideration of lost revenues was not necessary because of NSP's fixed monthly charge rate design.

NSP states in the current filing that around 1995 it terminated many electric DSM programs in part because there was no mechanism to recover program costs or the adverse impact of reduced electric sales and revenues. NSP further explains

that many programs had lost effectiveness due to higher federal efficiency standards. NSP now cites increased customer focus on conservation, the environment, and desire to manage increasing energy costs as among its reasons for requesting to implement DSM programs it deems cost effective (see Appendix A to the filing) from a Total Resource Cost (TRC) perspective.

NSP further states that Minnesota law has established a goal for energy savings equal to 1.5% of annual energy sales so similar efforts in North Dakota would presumably help prevent additional jurisdictional allocations. NSP has not, however, provided any growth rates comparisons or other supporting data that would indicate the magnitude of or even any basis for such concerns.

TRC is a common cost/benefit test used by DSM advocates to justify energy conservation programs that result in increased rates to customers. The TRC test recognizes total resource costs to the utility and to participating customers who should use less energy and therefore receive lower bills. The problem is that the TRC does not account for reduced system kWh energy consumption, which can leave less system sales volumes over which to spread fixed plant costs and higher kWh rates for customers. Thus reliance on the TRC can result in programs that are subsidized by non-participants. This is why utilities implementing DSM programs based on TRC have problems with rate increases due to lost sales revenues.

Instead, NSP should focus on load management programs aimed at reducing system peak demand to avoid or delay the need for new generation, thus reducing fixed costs and reducing rates from what they would have otherwise been. Ideally, the objective would be to shift load from on peak to off peak - shave the peaks and fill the valleys to make full use of existing resources and minimize lost revenues. Minimum electric rates occur with maximum production from existing base load generation.

The Rate Impact Measure (RIM) is another cost/benefit test commonly used for evaluating DSM programs. The RIM test measures what happens to rates due to changes in utility revenues and operating costs caused by DSM programs. Rates go down if the program's avoided generation, transmission, distribution and energy costs exceed the program costs and any lost revenue. In other words, the RIM test indicates more clearly than the TRC test those DSM programs that will lead to lower rates and eliminate the need for additional customer billings.

In response to staff information requests, NSP provided RIM cost/benefit ratios, which are compared below with the TRC cost/benefit ratios provided for its proposed 2009 programs. A program passes each test if the resulting cost/benefit ratio is greater than 1.0. Cost/benefit ratios at or near 1.0 can be questionable depending on calculation assumptions, free riders, etc.

	Participants	Budget	kW Saved	kWh Saved	TRC Ratio	RIM Ratio
Residential						
Home lighting	6,000	\$100,000	58	515,460	1.33	0.55
Savers Switch	488	\$144,400	586	6,832	5.45	1.63
Home Energy Audits	400	\$167,650			n/a	n/a
Customer Information	71,000	\$48,000			n/a	n/a
Commercial						
Lighting efficiency	32	\$182,337	296	1411537	2.08	1.09
Cooling efficiency	10	\$111,524	120	209,363	1.88	1.27
Motor & Drive Efficiency	16	\$60,732	60	387,957	2.8	1.09
Custom Efficiency	1	\$8,755	25	125,000	5.32	1.19
Energy Design Assistance	1	\$149,668	102	400,000	2.10	0.87
Total Commercial Energy Efficiency	60	\$513,016	603	2533857	2.08	1.06
Peak & Energy Control	10	\$15,000	1,500	167,000	63.11	4.58
Savers Switch	38	\$47,504	103	906	2.82	1.66
Custom Analysis	22	\$52,337			n/a	n/a

As expected, the energy efficiency programs (as opposed to the load management programs) generally do not pass or are questionable under the RIM test. Therefore, additional funding to implement these programs is not recommended. The only programs that provide clear benefit are the load management programs – i.e. Peak & Energy Control service and to a lesser extent the Savers Switch air conditioning cycling programs for residential and commercial customers. These programs provide rate discounts to customers in exchange for having their usage controlled or curtailed *during system peak periods*. These programs are already available under existing NSP tariffs, but have had limited to no promotion.

NSP informs that, in anticipation of its application for, and approval of, a cost recovery tariff rider, costs for these existing programs were excluded from the filed test year in Case No. PU-07-776. NSP further informs that the above cost recovery estimates (\$144,400 + \$15,000 + \$47,504 = \$206,904) include existing

costs plus additional funding for promotion and expansion of these programs plus an allocation of labor costs for an additional full-time employee in North Dakota. If the Commission were to approve only the expansion of the Saver Switch and Peak & Energy Controlled Service in this docket, then some additional labor expenses currently allocated to other commercial efficiency programs proposed in the application may need to be reallocated to the approved programs.

Prepared by: Jerry Lein