

**TO:** Commissioners and Advisors  
**FROM:** Ross Pedersen, Brian Rounds, and Ryan Soye  
**RE:** Staff Recommendation in Docket EL12-034  
**DATE:** June 8, 2012

## **STAFF MEMORANDUM**

### **OVERVIEW**

On April 30, 2012, Otter Tail Power Company (OTP) filed its request for approval of the company's financial incentive utilizing the fixed percentage method for the 2011 Energy Efficiency Plan (EEP) and approval to increase the energy adjustment surcharge as part of its 2012 Energy Efficiency Plan update. OTP began offering the programs as filed in 2008 as a pilot program. Since the program's inception, OTP has taken a proactive approach towards improving its programs and making adjustments based on its own experiences as well as feedback from Commissioners and Commission Staff in previous dockets.

Staff recommends approval of the 2011 EEP Report and accompanying Financial Incentive, the 2012 EEP Update, and the corresponding surcharge adjustment and tariff changes based on its review of the filing and additional correspondence with OTP.

### **2011 RESULTS**

The current program is in its third full year offering energy efficient and load management programs, and OTP continues to achieve positive results in its various programs offered. The Company offers programs in both commercial and residential markets within its South Dakota customer base. In total, OTP exceeded its proposed budget by 3%; however, the increased spending provided positive results. Such spending included increasing advertising efforts in order to raise more awareness of the programs, resulting in increased customer participation. 1,243 customers took part in the programs achieving 161% of the company's projected goal. Increasing customer participation in addition to effective program implementation directly contributed towards the company's success in attaining energy savings of 2,911,610 kWh – 38% higher than its proposed budget.

The company did fall short on its expected demand savings by 8%, however, the programs still managed to save nearly 600 kW. Regardless of the shortcoming, reducing energy and demand usage is one of the goals the commission seeks from the programs, and OTP has done just that by achieving 92% of its goal of approximately 650 kW, reducing demand by 594.2 kW.

As is often the case in energy efficiency programs, some outperform one another whereas others often fall short of their individual goals. For the most part, programs implemented by OTP performed very well– exceeding or at minimum meeting forecasted amounts of energy and demand savings.

Some programs struggled to meet expectations including the Residential Geothermal Heat Pump Program, achieving roughly 80% of its participation goals resulting in energy and demand savings of 88,017 kWh (73% of goal) and 67.58 kW (79% of goal), respectively. Whereas the commercial program also faced difficulty attaining results the company expected. On the commercial side, the same program only achieved 45% and 48% of energy and demand savings goals – saving 157,553 kWh and 113.36 kW, respectively.

The results for both residential and commercial programs may be skewed because greater customer investments make it harder to predict the goals of the program in addition to the unpredictability of not knowing how many units each customer intends to purchase. This could lead to results swaying between positive and negative from year to year. OTP's program is not necessarily atypical by any means, similar geothermal programs offered throughout United States struggle producing the consistent results commissions, companies, and customers strive for. The main concern is the slow growth and uncertainty of geothermal heat pump programs<sup>1</sup>. OTP's geothermal heat pump program results are most likely attributable to such concerns.

Although it was removed previously because of the less than ideal savings results, OTP continues to implement the Residential Demand Control Program. The Residential Demand Control Program offers rebates for customers utilizing response devices allowing the company to control customer energy usage at peak times. The program is rewarding, but the market may be saturated as the Company was only able to entice two of its customers to take part in the program, thus the reason for lower than anticipated results.

## **COST EFFECTIVENESS**

Staff typically relies on the Total Resource Cost (TRC) and Ratepayer Impact Measure (RIM) tests when reviewing the cost effectiveness the programs provide as Staff has explained previously<sup>2</sup>. OTP's programs display impressive benefit-cost ratios including an overall TRC of 3.24 and RIM of 1.45. In other words, a TRC of 3.24 means that a benefit of \$3.24 results from every \$1 spent on the programs. Based on this criterion OTP's results exceed other programs offered within South Dakota. Additionally, every program listed in the filing provides a TRC above the desired 1.0. As such, all of the programs are seem to be cost effective, regardless of total energy and demand savings goals attained. However, it is important to note that benefits cannot be directly compared to other utility results in South Dakota, or anywhere else for that matter, because of the different services offered in addition to the various locations and climates associated with the geography of where the other companies serve.

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<sup>1</sup> Based on results provided by Geothermal Energy Association - <http://www.sn1.com/InteractiveX/article.aspx?CDID=A-14969369-9770&KPLT=4>.

<sup>2</sup> See table on page 2 of Staff Memorandum for docket EL11-002 BHP EEP of Staff's explanation and breakdown of cost-benefit ratios and their desired results.

## FINANCIAL INCENTIVE

OTP implemented a fixed percentage incentive recovery mechanism in this year's program results based on updates the company implemented as ordered in docket EL11-012. The recovery provides the company with a 30% fixed percentage recovery on the lesser of actual expenses incurred or the company's approved budget expenses for the planned program year. This alleviates some of the concern of the company's lost margins resulting from the EEP's ability to reduce energy and demand usage. Staff previously agreed to this method in order to ensure both sides benefit where the company gets something in return for its efforts, but is also limited so as to avoid over-spending in order to increase its incentive recovery amount.

As it did in dockets EL11-002 and EL11-012, Staff finds that this method is the appropriate and most reasonable methodology based on prior mechanisms and recovery options. Based on this method, OTP only requests to recover its budgeted recovery amount of \$78,900 (the lesser of actual and budgeted expenses) – 30% of its 2011 budget of \$263,000.

## RECOVERY RIDER

The company recovers the program costs and the incentive through an adjustment rider based on the expenses incurred from the programs. The adjustment rider is listed as a separate line item on customer bills. Based on the 30% incentive recovery of the lesser of actual expenses or the budgeted amount, in this case the budgeted amount, the company will recover \$78,900 (30% of budgeted \$263,000) and ongoing program expenses through the energy adjustment surcharge of \$0.00088/kWh. This is an increase of \$0.00025/kWh and will ultimately impact the average customer's bill (750 kWh per month) by approximately an additional \$0.19 per month than what is currently paid. The bill impact will result in a rider for the average customer paying the \$0.00088/kWh equating to \$0.66 per month.

<b>Program Year</b>	<b>Rate</b>	<b>Average Residential Bill Impact (750 kWh per month)</b>
<b>2011</b>	\$0.00063	\$0.47
<b>2012</b>	\$0.00088	\$0.66

## SUMMARY

Through strong energy and demand savings and increased customer awareness leading to more participation in programs, OTP continues to show positive results in its ability to implement a balanced and effective EEP. As a result of reduced energy and demand usage, the company's customers benefit from the company's ability to delay the need for additional generation, in turn delaying significant impacts to customer bills. Staff does have a small amount of concern over some of the lower than expected results, but not enough to justify removing any programs at this time.

Based on positive cost-benefits and strong program results shown by the Company, and the understanding that the Company will continue to work with Staff to monitor and refine programs, **Staff recommends approval** of the 2011 EEP Report and accompanying Financial Incentive, the 2012 EEP Update, and the corresponding surcharge adjustment and tariff changes.