OTTER TAIL POWER COMPANY
Docket No. EL13-015

Response to: South Dakota Public Utilities Commission
Analyst: SDPUC Staff
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Responding Witness: Kim Pederson, Manager Market Planning - (218) 739-8303

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Looking at the past 3 years, is there an explanation as to why the Total cost of Otter Tail's EEP Plan per kWh saved is trending down? Is this downward trend sustainable?

RESPONSE:

Otter Tail's South Dakota Energy Efficiency Plan (EEP) is still evolving. Portfolio startup costs, regulatory management, and research and development contribute toward program costs. For example, annual costs per kwh saved in Otter Tail's Minnesota Conservation Improvement Program have fluctuated significantly since the early 1990s. In 1992 the annual cost per kwh saved in Minnesota was $0.185, and has fluctuated from a low of $.088 to a high of $0.193. In 2013, projected annual cost per kwh saved are forecasted at $0.133.

Although low-hanging fruit associated with energy savings in South Dakota's untapped market help drive energy savings, initial startup costs can offset some of the savings. As we gain more history and develop a better understanding of our South Dakota customer's response to our portfolio, forecasts will tighten. Long-term we would not anticipate a downward trajectory on costs per kwh saved, but do expect some volatility.

That being said, Otter Tail is proud of the fact that in conjunction with our customer's we have been able to reduce program costs per kWh each year. Our challenge is to continue to develop programs and messaging that are creative and take advantage of technological breakthroughs as we pursue successive increments of energy efficiency and harder-to-reach opportunities. As shown in the table below, Otter Tail forecasts program costs increasing for the proposed 2013 year and 2014-2015 Biennial.

South Dakota	Total EEP Program Costs	Total kWh Saved	First Year Cost / kWh
2010 - Actual	$243,816	2,471,742	$0.099
2011 - Actual	$272,093	2,911,610	$0.093
2012 - Actual	$309,911	3,910,104	$0.079
2013 - Proposed	$280,000	2,274,260	$0.123
2014 - Proposed	$353,000	2,808,649	$0.126
2015 - Proposed	$353,000	2,808,649	$0.126

It should be noted there are a number of factors that influence lifetime cost per kwh saved. Lifetime energy savings are kWh savings from a technology over the total life of the technology. For example, Otter Tail estimates the average air-source heat pump will operate for 12 years. The total energy savings over those 12 years is considered lifetime energy savings. The table below summarizes 2012 lifetime energy savings and costs. For 2012, $309,911 was invested in South Dakota energy efficiency which produced over 56 million kWh in lifetime savings. The cost of these savings was about half of a penny per kWh, substantially less than a new generation resource.

South Dakota	Total EEP Program Costs	Total kWh Saved Lifetime	Lifetime Cost / kWh
2012 - Actual LFTM	$309,911	56,447,901	$0.005