

OTTER TAIL POWER COMPANY  
Docket No. EL13-015

Response to: South Dakota Public Utilities Commission  
Analyst: SDPUC Staff  
Date Received: 5/20/2013  
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Responding Witness: Kim Pederson, Manager Market Planning - (218) 739-8303

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Information Request No: SD-PUC-01-04

In the commercial programs, the number of participants has trended down over the past three years however the annual kWh savings has trended up. What is resulting in the increased energy savings with less program participants?

**RESPONSE:**

Many factors can be attributed to the increase in kWh savings for commercial EEP programming. The programs included in the commercial sector vary greatly in savings per participant. Custom Efficiency Projects are customized projects that have varying impacts on overall commercial sector savings. These projects can range from very large energy efficiency projects for industrial customers to relatively small projects at a convenience store or church. Program participant savings ranged from 166,453 kWh saved per participant in 2010; to 237,675 kWh saved in 2011; and then 188,317 kWh saved per a participant in 2012.

Conversely, the motors program has comparably lower savings on a per-participant basis (1,852 - 2,712 kWh) and doesn't impact overall commercial savings as much. However, the motors program participation numbers are significant to the commercial sector. In 2012, the motors program fell to only 4 participants where in 2011 the program had 36 participants. This alone was a drop of 32 participants which mostly explains the 2012 drop in overall commercial participation.

Otter Tail is also seeing the size of heat pumps in the commercial sector vary greatly from year to year. One participant might install just one unit that is 2 tons where another participant might install one unit that is 50 tons. Since the installed tonnage varies greatly the rebates paid and program costs also vary greatly.

<b>Commercial Participants</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Air Source Heat Pumps	22	19	7
Custom Efficiency Projects	6	6	12
Geothermal Heat Pumps	33	16	23
Lighting	15	16	22
Motors	21	36	4
<b>Total - Commercial</b>	<b>97</b>	<b>93</b>	<b>68</b>
<b>kWh Savings</b>			
	<b>2010</b>	<b>2011</b>	<b>2012</b>
Air Source Heat Pumps	184,943	535,523	72,296
Custom Efficiency Projects	999,255	1,426,047	2,259,798
Geothermal Heat Pumps	462,949	157,553	925,905
Lighting	479,819	354,062	251,219
Motors	38,896	73,457	10,849
<b>Total - Commercial</b>	<b>2,165,862</b>	<b>2,546,642</b>	<b>3,520,067</b>
<b>kWh Savings per Participant</b>			
	<b>2010</b>	<b>2011</b>	<b>2012</b>
Air Source Heat Pumps	8,407	28,185	10,328
Custom Efficiency Projects	166,543	237,675	188,317
Geothermal Heat Pumps	14,029	9,847	40,257
Lighting	31,988	22,129	11,419
Motors	1,852	2,040	2,712
<b>Total - Commercial</b>	<b>22,328</b>	<b>27,383</b>	<b>51,766</b>