

**SOUTH DAKOTA ENERGY EFFICIENCY PLAN - 2014**  
**Otter Tail Power Company**

APPENDIX A, TABLE 1

	BUDGET	PARTICIPATION	PROPOSED ENERGY SAVINGS (KWH)	PROPOSED DEMAND SAVINGS (KW)
<b>DIRECT IMPACT PROJECTS</b>				
<b>RESIDENTIAL</b>				
Air Conditioning Control	\$14,000	30	1,448	21.3
Air Source Heat Pumps -Residential	\$19,000	25	222,277	6.5
Geothermal Heat Pumps -Residential	\$23,000	10	206,583	17.4
Lighting	\$4,000	340	24,098	2.2
Total -Residential	<b>\$60,000</b>	<b>405</b>	<b>454,404</b>	<b>47.4</b>
<b>COMMERCIAL</b>				
Air Source Heat Pumps -Commercial	\$13,000	15	134,044	3.9
Custom Efficiency Projects	\$71,000	5	968,760	134.6
Drive Power	\$63,000	31	482,713	104.8
Geothermal Heat Pumps -Commercial	\$57,000	25	523,938	43.6
Lighting	\$54,000	23	244,790	75.0
Total -Commercial	<b>\$258,000</b>	<b>99</b>	<b>2,354,244</b>	<b>361.8</b>
Total -Direct Impact	<b>\$318,000</b>	<b>504</b>	<b>2,808,649</b>	<b>409.1</b>
<b>INDIRECT IMPACT PROJECTS</b>				
Advertising & Education	\$10,000	400		
Total - Indirect Impact	<b>\$10,000</b>	<b>400</b>		
<b>Total - Without Development Costs</b>	<b>\$328,000</b>	<b>904</b>	<b>2,808,649</b>	<b>409.1</b>
<b>DEVELOPMENT</b>				
EEP DEVELOPMENT - 2010	\$25,000			
Total Development	<b>\$25,000</b>			
<b>TOTAL - ALL PROGRAMS (INC. DEVL)</b>	<b>\$353,000</b>	<b>904</b>	<b>2,808,649</b>	<b>409.1</b>

**SOUTH DAKOTA ENERGY EFFICIENCY PLAN - 2015**  
**Otter Tail Power Company**

APPENDIX A, TABLE 2

	BUDGET	PARTICIPATION	PROPOSED ENERGY SAVINGS (KWH)	PROPOSED DEMAND SAVINGS (KW)
<b>DIRECT IMPACT PROJECTS</b>				
<b>RESIDENTIAL</b>				
Air Conditioning Control	\$14,000	30	1,448	21.3
Air Source Heat Pumps -Residential	\$19,000	25	222,277	6.5
Geothermal Heat Pumps -Residential	\$23,000	10	206,583	17.4
Lighting	\$4,000	340	24,098	2.2
Total -Residential	<b>\$60,000</b>	<b>405</b>	<b>454,404</b>	<b>47.4</b>
<b>COMMERCIAL</b>				
Air Source Heat Pumps -Commercial	\$13,000	15	134,044	3.9
Custom Efficiency Projects	\$71,000	5	968,760	134.6
Drive Power	\$63,000	31	482,713	104.8
Geothermal Heat Pumps -Commercial	\$57,000	25	523,938	43.6
Lighting	\$54,000	23	244,790	75.0
Total -Commercial	<b>\$258,000</b>	<b>99</b>	<b>2,354,244</b>	<b>361.8</b>
Total -Direct Impact	<b>\$318,000</b>	<b>504</b>	<b>2,808,649</b>	<b>409.1</b>
<b>INDIRECT IMPACT PROJECTS</b>				
Advertising & Education	\$10,000	400		
Total - Indirect Impact	<b>\$10,000</b>	<b>400</b>		
<b>Total - Without Development Costs</b>	<b>\$328,000</b>	<b>904</b>	<b>2,808,649</b>	<b>409.1</b>
<b>DEVELOPMENT</b>				
EEP DEVELOPMENT - 2010	\$25,000			
Total Development	<b>\$25,000</b>			
<b>TOTAL - ALL PROGRAMS (INC. DEVL)</b>	<b>\$353,000</b>	<b>904</b>	<b>2,808,649</b>	<b>409.1</b>

**SOUTH DAKOTA ENERGY EFFICIENCY PLAN , 2014 only**  
**OTTER TAIL POWER COMPANY**  
**Benefit Cost Ratios**

APPENDIX A, TABLE 3

	<b>APPROVED BENEFIT / COST TEST RESULTS</b>				
	<b>UTILITY TEST</b>	<b>TOTAL RESOURCE TEST</b>	<b>RATEPAYER IMPACT TEST</b>	<b>SOCIETAL TEST</b>	<b>PARTICIPANT TEST</b>
<b>DIRECT IMPACT PROJECTS</b>					
<b>RESIDENTIAL</b>					
Air Conditioning Control	4.02	5.93	3.70	5.93	inf.
Air Source Heat Pumps -Residential	5.80	2.48	0.61	2.48	4.75
Geothermal Heat Pumps -Residential	6.67	1.92	0.78	1.92	2.60
Lighting	3.00	3.48	0.65	3.48	15.17
<b>Total - Residential</b>	<b>5.53</b>	<b>2.41</b>	<b>0.81</b>	<b>2.41</b>	<b>3.40</b>
<b>COMMERCIAL</b>					
Air Source Heat Pumps -Commercial	5.35	2.49	0.65	2.49	3.48
Custom Efficiency Projects	11.97	4.10	1.57	4.10	2.02
Drive Power	8.35	3.53	1.65	3.53	1.63
Geothermal Heat Pumps -Commercial	7.05	2.01	0.85	2.01	1.78
Lighting	4.93	2.77	1.22	2.77	1.94
<b>Total - Commercial</b>	<b>8.19</b>	<b>3.11</b>	<b>1.28</b>	<b>3.11</b>	<b>1.90</b>
<b>Total - Direct Impact</b>					
<b>INDIRECT IMPACT PROJECTS</b>					
Advertising & Education					
<b>Total - Indirect Impact</b>					
<b>TOTAL - ALL PROGRAMS</b>	<b>6.93</b>	<b>2.91</b>	<b>1.16</b>	<b>2.91</b>	<b>2.13</b>

**SOUTH DAKOTA ENERGY EFFICIENCY PLAN , 2015 Only**  
**OTTER TAIL POWER COMPANY**  
**Benefit Cost Ratios**

APPENDIX A, TABLE 4

	<b>APPROVED BENEFIT / COST TEST RESULTS</b>				
	<b>UTILITY TEST</b>	<b>TOTAL RESOURCE TEST</b>	<b>RATEPAYER IMPACT TEST</b>	<b>SOCIETAL TEST</b>	<b>PARTICIPANT TEST</b>
<b>DIRECT IMPACT PROJECTS</b>					
<b>RESIDENTIAL</b>					
Air Conditioning Control	4.27	6.23	3.91	6.23	inf.
Air Source Heat Pumps -Residential	6.29	2.67	0.64	2.67	4.89
Geothermal Heat Pumps -Residential	7.15	2.04	0.82	2.04	2.66
Lighting	3.29	3.79	0.69	3.79	15.68
Total - Residential	<b>5.95</b>	<b>2.57</b>	<b>0.85</b>	<b>2.57</b>	<b>3.49</b>
<b>COMMERCIAL</b>					
Air Source Heat Pumps -Commercial	5.80	2.69	0.69	2.69	3.59
Custom Efficiency Projects	12.81	4.35	1.64	4.35	2.07
Drive Power	8.92	3.74	1.72	3.74	1.68
Geothermal Heat Pumps -Commercial	7.56	2.14	0.89	2.14	1.83
Lighting	5.31	2.96	1.29	2.96	2.00
Total - Commercial	<b>8.78</b>	<b>3.31</b>	<b>1.33</b>	<b>3.31</b>	<b>1.95</b>
Total - Direct Impact					
<b>INDIRECT IMPACT PROJECTS</b>					
Advertising & Education					
Total - Indirect Impact					
<b>TOTAL - ALL PROGRAMS</b>	<b>7.43</b>	<b>3.09</b>	<b>1.22</b>	<b>3.09</b>	<b>2.19</b>

**SOUTH DAKOTA ENERGY EFFICIENCY PLAN , 2014 and 2015**  
**OTTER TAIL POWER COMPANY**  
**Benefit Cost Ratios**

APPENDIX A, TABLE 5

	<b>APPROVED BENEFIT / COST TEST RESULTS</b>				
	<b>UTILITY TEST</b>	<b>TOTAL RESOURCE TEST</b>	<b>RATEPAYER IMPACT TEST</b>	<b>SOCIETAL TEST</b>	<b>PARTICIPANT TEST</b>
<b>DIRECT IMPACT PROJECTS</b>					
<b>RESIDENTIAL</b>					
Air Conditioning Control	4.14	6.08	3.80	6.08	inf.
Air Source Heat Pumps -Residential	6.03	2.57	0.63	2.57	4.82
Geothermal Heat Pumps -Residential	6.90	1.98	0.80	1.98	2.63
Lighting	3.16	3.65	0.67	3.65	15.43
Total - Residential	<b>5.73</b>	<b>2.49</b>	<b>0.83</b>	<b>2.49</b>	<b>3.44</b>
<b>COMMERCIAL</b>					
Air Source Heat Pumps -Commercial	5.56	2.59	0.67	2.59	3.53
Custom Efficiency Projects	12.37	4.22	1.60	4.22	2.04
Drive Power	8.62	3.63	1.68	3.63	1.65
Geothermal Heat Pumps -Commercial	7.30	2.08	0.87	2.08	1.80
Lighting	5.12	2.86	1.25	2.86	1.97
Total - Commercial	<b>8.47</b>	<b>3.21</b>	<b>1.30</b>	<b>3.21</b>	<b>1.92</b>
Total - Direct Impact					
<b>INDIRECT IMPACT PROJECTS</b>					
Advertising & Education					
Total - Indirect Impact					
<b>TOTAL - ALL PROGRAMS</b>	<b>7.17</b>	<b>3.00</b>	<b>1.19</b>	<b>3.00</b>	<b>2.17</b>