

Appendix A: Tables

SOUTH DAKOTA ENERGY EFFICIENCY PLAN - 2014
Otter Tail Power Company

APPENDIX A, TABLE 1

| | BUDGET | PARTICIPATION | PROPOSED ENERGY SAVINGS (KWH) | PROPOSED DEMAND SAVINGS (KW) |
|--|------------------|---------------|-------------------------------|------------------------------|
| DIRECT IMPACT PROJECTS | | | | |
| RESIDENTIAL | | | | |
| Air Conditioning Control * | \$14,000 | 30 | 1,448 | 21.3 |
| Air Source Heat Pumps -Residential | \$19,000 | 25 | 222,277 | 124.3 |
| Geothermal Heat Pumps -Residential | \$23,000 | 10 | 206,583 | 113.3 |
| Lighting | \$4,000 | 340 | 24,098 | 22.7 |
| Total -Residential | \$60,000 | 405 | 454,404 | 281.7 |
| COMMERCIAL | | | | |
| Air Source Heat Pumps -Commercial | \$13,000 | 15 | 134,044 | 74.6 |
| Custom Efficiency Projects | \$71,000 | 5 | 968,760 | 134.6 |
| Drive Power | \$63,000 | 31 | 482,713 | 106.4 |
| Geothermal Heat Pumps -Commercial | \$57,000 | 25 | 523,938 | 283.4 |
| Lighting | \$54,000 | 23 | 244,790 | 80.0 |
| Total -Commercial | \$258,000 | 99 | 2,354,244 | 678.9 |
| Total -Direct Impact | \$318,000 | 504 | 2,808,649 | 960.6 |
| INDIRECT IMPACT PROJECTS | | | | |
| Advertising & Education | \$10,000 | 400 | | |
| Total - Indirect Impact | \$10,000 | 400 | | |
| Total - Without Development Costs | \$328,000 | 904 | 2,808,649 | 960.6 |
| DEVELOPMENT | | | | |
| EEP DEVELOPMENT - 2010 | \$25,000 | | | |
| Total Development | \$25,000 | | | |
| TOTAL - ALL PROGRAMS (INC. DEVL) | \$353,000 | 904 | 2,808,649 | 960.6 |

* Air conditioning programs include summer load reductions, which are coincident to the system summer-peak

SOUTH DAKOTA ENERGY EFFICIENCY PLAN - 2015
Otter Tail Power Company

APPENDIX A, TABLE 2

| | BUDGET | PARTICIPATION | PROPOSED ENERGY SAVINGS (KWH) | PROPOSED DEMAND SAVINGS (KW) |
|--|------------------|----------------------|--------------------------------------|-------------------------------------|
| DIRECT IMPACT PROJECTS | | | | |
| RESIDENTIAL | | | | |
| Air Conditioning Control * | \$14,000 | 30 | 1,448 | 21.3 |
| Air Source Heat Pumps -Residential | \$19,000 | 25 | 222,277 | 124.3 |
| Geothermal Heat Pumps -Residential | \$23,000 | 10 | 206,583 | 113.3 |
| Lighting | \$4,000 | 340 | 24,098 | 22.7 |
| Total -Residential | \$60,000 | 405 | 454,404 | 281.7 |
| COMMERCIAL | | | | |
| Air Source Heat Pumps -Commercial | \$13,000 | 15 | 134,044 | 74.6 |
| Custom Efficiency Projects | \$71,000 | 5 | 968,760 | 134.6 |
| Drive Power | \$63,000 | 31 | 482,713 | 106.4 |
| Geothermal Heat Pumps -Commercial | \$57,000 | 25 | 523,938 | 283.4 |
| Lighting | \$54,000 | 23 | 244,790 | 80.0 |
| Total -Commercial | \$258,000 | 99 | 2,354,244 | 678.9 |
| Total -Direct Impact | \$318,000 | 504 | 2,808,649 | 960.6 |
| INDIRECT IMPACT PROJECTS | | | | |
| Advertising & Education | \$10,000 | 400 | | |
| Total - Indirect Impact | \$10,000 | 400 | | |
| Total - Without Development Costs | \$328,000 | 904 | 2,808,649 | 960.6 |
| DEVELOPMENT | | | | |
| EEP DEVELOPMENT - 2010 | \$25,000 | | | |
| Total Development | \$25,000 | | | |
| TOTAL - ALL PROGRAMS (INC. DEVL) | \$353,000 | 904 | 2,808,649 | 960.6 |

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

APPENDIX A, TABLE 3

| | APPROVED BENEFIT / COST TEST RESULTS | | | | |
|------------------------------------|---|----------------------------|------------------------------|----------------------|-------------------------|
| | UTILITY TEST | TOTAL RESOURCE TEST | RATEPAYER IMPACT TEST | SOCIETAL TEST | PARTICIPANT TEST |
| DIRECT IMPACT PROJECTS | | | | | |
| RESIDENTIAL | | | | | |
| Air Conditioning Control * | 3.58 | 5.27 | 3.29 | 5.27 | inf. |
| Air Source Heat Pumps -Residential | 13.44 | 5.66 | 1.41 | 5.66 | 4.75 |
| Geothermal Heat Pumps -Residential | 12.70 | 3.60 | 1.49 | 3.60 | 2.60 |
| Lighting | 12.19 | 14.10 | 2.63 | 14.10 | 15.17 |
| Total - Residential | 10.77 | 4.59 | 1.57 | 4.59 | 3.40 |
| | | | | | |
| COMMERCIAL | | | | | |
| Air Source Heat Pumps -Commercial | 12.05 | 5.55 | 1.47 | 5.55 | 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 | 13.13 | 3.70 | 1.59 | 3.70 | 1.78 |
| Lighting | 5.05 | 2.83 | 1.25 | 2.83 | 1.94 |
| Total - Commercial | 9.90 | 3.74 | 1.54 | 3.74 | 1.90 |
| | | | | | |
| Total - Direct Impact | | | | | |
| | | | | | |
| INDIRECT IMPACT PROJECTS | | | | | |
| Advertising & Education | | | | | |
| Total - Indirect Impact | | | | | |
| | | | | | |
| TOTAL - ALL PROGRAMS | 9.07 | 3.77 | 1.52 | 3.77 | 2.13 |

* Air conditioning programs include summer load reductions, which are coincident to the system summer-peak

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

APPENDIX A, TABLE 4

| | APPROVED BENEFIT / COST TEST RESULTS | | | | |
|------------------------------------|--------------------------------------|---------------------|-----------------------|---------------|------------------|
| | UTILITY TEST | TOTAL RESOURCE TEST | RATEPAYER IMPACT TEST | SOCIETAL TEST | PARTICIPANT TEST |
| DIRECT IMPACT PROJECTS | | | | | |
| RESIDENTIAL | | | | | |
| Air Conditioning Control * | 3.79 | 5.52 | 3.48 | 5.52 | inf. |
| Air Source Heat Pumps -Residential | 14.28 | 5.99 | 1.46 | 5.99 | 4.89 |
| Geothermal Heat Pumps -Residential | 13.43 | 3.79 | 1.53 | 3.79 | 2.66 |
| Lighting | 13.22 | 15.21 | 2.77 | 15.21 | 15.68 |
| Total - Residential | 11.44 | 4.84 | 1.63 | 4.84 | 3.49 |
| | | | | | |
| COMMERCIAL | | | | | |
| Air Source Heat Pumps -Commercial | 12.81 | 5.87 | 1.52 | 5.87 | 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 | 13.90 | 3.90 | 1.64 | 3.90 | 1.83 |
| Lighting | 5.43 | 3.02 | 1.31 | 3.02 | 2.00 |
| Total - Commercial | 10.55 | 3.96 | 1.60 | 3.96 | 1.95 |
| | | | | | |
| Total - Direct Impact | | | | | |
| | | | | | |
| INDIRECT IMPACT PROJECTS | | | | | |
| Advertising & Education | | | | | |
| Total - Indirect Impact | | | | | |
| | | | | | |
| TOTAL - ALL PROGRAMS | 9.66 | 3.99 | 1.58 | 3.99 | 2.19 |

* Air conditioning programs include summer load reductions, which are coincident to the system summer-peak

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

APPENDIX A, TABLE 5

| | APPROVED BENEFIT / COST TEST RESULTS | | | | |
|------------------------------------|--------------------------------------|---------------------|-----------------------|---------------|------------------|
| | UTILITY TEST | TOTAL RESOURCE TEST | RATEPAYER IMPACT TEST | SOCIETAL TEST | PARTICIPANT TEST |
| DIRECT IMPACT PROJECTS | | | | | |
| RESIDENTIAL | | | | | |
| Air Conditioning Control * | 3.68 | 5.39 | 3.38 | 5.39 | inf. |
| Air Source Heat Pumps -Residential | 13.84 | 5.82 | 1.44 | 5.82 | 4.82 |
| Geothermal Heat Pumps -Residential | 13.05 | 3.70 | 1.51 | 3.70 | 2.63 |
| Lighting | 12.69 | 14.65 | 2.70 | 14.65 | 15.43 |
| Total - Residential | 11.09 | 4.72 | 1.60 | 4.72 | 3.44 |
| | | | | | |
| COMMERCIAL | | | | | |
| Air Source Heat Pumps -Commercial | 12.41 | 5.71 | 1.50 | 5.71 | 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 | 13.50 | 3.80 | 1.62 | 3.80 | 1.80 |
| Lighting | 5.23 | 2.93 | 1.28 | 2.93 | 1.97 |
| Total - Commercial | 10.21 | 3.85 | 1.57 | 3.85 | 1.92 |
| | | | | | |
| Total - Direct Impact | | | | | |
| | | | | | |
| INDIRECT IMPACT PROJECTS | | | | | |
| Advertising & Education | | | | | |
| Total - Indirect Impact | | | | | |
| | | | | | |
| TOTAL - ALL PROGRAMS | 9.35 | 3.88 | 1.55 | 3.88 | 2.17 |

* Air conditioning programs include summer load reductions, which are coincident to the system summer-peak