

**2021 Proposed South Dakota EEP Projects
Otter Tail Power Company**

Appendix A, Table 1

	Total Budget	Participation	Proposed Energy Savings (kWh)	Proposed Demand Savings (kW)
DIRECT IMPACT PROJECTS				
Residential				
Air Conditioning Control	\$12,000	736	9,143	152.5
Appliance Recycling	\$28,000	100	97,307	15.1
Home Lighting	\$35,000	7,055	295,269	30.8
Residential Heat Pumps	\$91,000	20	384,572	25.6
Smart Thermostats	\$17,000	31	48,020	1.5
Total Residential	\$183,000	7,942	834,311	225.5
Commercial				
Drive Power	\$319,000	364	8,547,821	1,783.0
Custom Efficiency Grants	\$42,000	12	604,106	123.1
Commercial Direct Install	\$26,000	1,005	243,985	17.4
Commercial Heat Pumps	\$45,000	13	223,355	17.7
Commercial Lighting	\$110,000	69	1,159,616	158.8
Total Commercial	\$542,000	1,463	10,778,884	2,100.0
TOTAL DIRECT IMPACT PROJECTS	\$725,000	9,405	11,613,194	2,325.5
INDIRECT IMPACT PROJECTS				
Advertising and Education	\$35,000	525	0	0.0
TOTAL INDIRECT IMPACT PROJECTS	\$35,000	525	0	0.0
TOTAL WITHOUT DEVELOPMENT COSTS	\$760,000	9,930	11,613,194	2,325.5
DEVELOPMENT				
Development	\$15,000	0	0	0.0
TOTAL DEVELOPMENT	\$15,000	0	0	0.0
TOTAL ALL PROJECTS	\$775,000	9,930	11,613,194	2,325.5

2021 Proposed South Dakota EEP Projects
Otter Tail Power Company
Benefit/Cost Ratios

Appendix A, Table 2

	Utility Test	Total Resource Test	Ratepayer Impact Test	Societal Test	Participant Test
DIRECT IMPACT PROJECTS					
Residential					
Air Conditioning Control	1.44	1.63	1.34	1.63	inf.
Appliance Recycling	1.17	1.43	0.38	1.63	inf.
Home Lighting	4.55	1.37	0.48	1.80	4.12
Residential Heat Pumps	2.42	1.12	0.42	1.55	4.38
Smart Thermostats	1.10	1.01	0.36	1.20	8.04
Total Residential	2.45	1.23	0.44	1.62	4.66
Commercial					
Drive Power	16.44	3.02	0.78	3.91	3.88
Custom Efficiency Grants	10.04	1.84	1.12	2.53	1.68
Commercial Direct Install	1.71	2.61	0.44	2.97	inf.
Commercial Heat Pumps	2.91	1.02	0.58	1.40	1.82
Commercial Lighting	4.22	3.72	0.66	4.70	6.66
Total Commercial	11.63	2.82	0.78	3.66	3.72
INDIRECT IMPACT PROJECTS					
Advertising and Education	0.00	0.00	0.00	0.00	inf.
TOTAL INDIRECT IMPACT PROJECTS	0.00	0.00	0.00	0.00	inf.
TOTAL ALL PROJECTS	8.71	2.55	0.74	3.31	3.81

**2022 Proposed South Dakota EEP Projects
Otter Tail Power Company**

Appendix A, Table 3

	Total Budget	Participation	Proposed Energy Savings (kWh)	Proposed Demand Savings (kW)
DIRECT IMPACT PROJECTS				
Residential				
Air Conditioning Control	\$12,000	761	9,453	157.7
Appliance Recycling	\$28,000	100	97,307	15.1
Home Lighting	\$35,000	7,055	295,269	30.8
Residential Heat Pumps	\$91,000	20	384,572	25.6
Smart Thermostats	\$17,000	31	48,020	1.5
Total Residential	\$183,000	7,967	834,621	230.7
Commercial				
Drive Power	\$69,000	72	1,604,366	197.7
Custom Efficiency Grants	\$42,000	12	604,106	123.1
Commercial Direct Install	\$26,000	1,005	243,985	17.4
Commercial Heat Pumps	\$45,000	13	223,355	17.7
Commercial Lighting	\$110,000	69	1,159,616	158.8
Total Commercial	\$292,000	1,171	3,835,429	514.8
TOTAL DIRECT IMPACT PROJECTS	\$475,000	9,138	4,670,050	745.5
INDIRECT IMPACT PROJECTS				
Advertising and Education	\$35,000	525	0	0.0
TOTAL INDIRECT IMPACT PROJECTS	\$35,000	525	0	0.0
TOTAL WITHOUT DEVELOPMENT COSTS	\$510,000	9,663	4,670,050	745.5
DEVELOPMENT				
Development	\$15,000	0	0	0.0
TOTAL DEVELOPMENT	\$15,000	0	0	0.0
TOTAL ALL PROJECTS	\$525,000	9,663	4,670,050	745.5

2022 Proposed South Dakota EEP Projects
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Benefit/Cost Ratios

Appendix A, Table 4

	Utility Test	Total Resource Test	Ratepayer Impact Test	Societal Test	Participant Test
DIRECT IMPACT PROJECTS					
Residential					
Air Conditioning Control	1.50	1.70	1.39	1.70	inf.
Appliance Recycling	1.23	1.49	0.39	1.70	inf.
Home Lighting	4.75	1.43	0.49	1.88	4.20
Residential Heat Pumps	2.52	1.17	0.43	1.61	4.46
Smart Thermostats	1.16	1.06	0.37	1.26	8.18
Total Residential	2.56	1.28	0.46	1.69	4.75
Commercial					
Drive Power	12.55	2.66	0.76	3.45	3.60
Custom Efficiency Grants	10.39	1.90	1.14	2.61	1.71
Commercial Direct Install	1.81	2.77	0.46	3.14	inf.
Commercial Heat Pumps	3.03	1.07	0.60	1.46	1.85
Commercial Lighting	4.39	3.88	0.68	4.89	6.78
Total Commercial	6.74	2.39	0.77	3.12	3.32
INDIRECT IMPACT PROJECTS					
Advertising and Education	0.00	0.00	0.00	0.00	inf.
TOTAL INDIRECT IMPACT PROJECTS	0.00	0.00	0.00	0.00	inf.
TOTAL ALL PROJECTS	4.64	1.97	0.67	2.57	3.68

**2023 Proposed South Dakota EEP Projects
Otter Tail Power Company**

Appendix A, Table 5

	Total Budget	Participation	Proposed Energy Savings (kWh)	Proposed Demand Savings (kW)
DIRECT IMPACT PROJECTS				
Residential				
Air Conditioning Control	\$12,000	786	9,764	162.9
Appliance Recycling	\$28,000	100	97,307	15.1
Home Lighting	\$35,000	7,055	295,269	30.8
Residential Heat Pumps	\$91,000	20	384,572	25.6
Smart Thermostats	\$17,000	31	48,020	1.5
Total Residential	\$183,000	7,992	834,932	235.9
Commercial				
Drive Power	\$69,000	72	1,604,366	197.7
Custom Efficiency Grants	\$42,000	12	604,106	123.1
Commercial Direct Install	\$26,000	1,005	243,985	17.4
Commercial Heat Pumps	\$45,000	13	223,355	17.7
Commercial Lighting	\$110,000	69	1,159,616	158.8
Total Commercial	\$292,000	1,171	3,835,429	514.8
TOTAL DIRECT IMPACT PROJECTS	\$475,000	9,163	4,670,361	750.6
INDIRECT IMPACT PROJECTS				
Advertising and Education	\$35,000	525	0	0.0
TOTAL INDIRECT IMPACT PROJECTS	\$35,000	525	0	0.0
TOTAL WITHOUT DEVELOPMENT COSTS	\$510,000	9,688	4,670,361	750.6
DEVELOPMENT				
Development	\$15,000	0	0	0.0
TOTAL DEVELOPMENT	\$15,000	0	0	0.0
TOTAL ALL PROJECTS	\$525,000	9,688	4,670,361	750.6

2023 Proposed South Dakota EEP Projects
Otter Tail Power Company
Benefit/Cost Ratios

Appendix A, Table 6

	Utility Test	Total Resource Test	Ratepayer Impact Test	Societal Test	Participant Test
DIRECT IMPACT PROJECTS					
Residential					
Air Conditioning Control	1.56	1.77	1.44	1.77	inf.
Appliance Recycling	1.27	1.55	0.41	1.76	inf.
Home Lighting	4.92	1.48	0.56	1.95	3.75
Residential Heat Pumps	2.62	1.21	0.49	1.67	3.91
Smart Thermostats	1.21	1.11	0.40	1.32	7.71
Total Residential	2.65	1.33	0.52	1.75	4.23
Commercial					
Drive Power	12.99	2.75	0.86	3.57	3.29
Custom Efficiency Grants	10.70	1.96	1.30	2.69	1.53
Commercial Direct Install	1.90	2.90	0.49	3.28	inf.
Commercial Heat Pumps	3.14	1.11	0.68	1.51	1.68
Commercial Lighting	4.54	4.01	0.75	5.05	6.32
Total Commercial	6.97	2.47	0.86	3.22	3.05
INDIRECT IMPACT PROJECTS					
Advertising and Education	0.00	0.00	0.00	0.00	inf.
TOTAL INDIRECT IMPACT PROJECTS	0.00	0.00	0.00	0.00	inf.
TOTAL ALL PROJECTS	4.80	2.03	0.75	2.66	3.34

2021-2023 SOUTH DAKOTA ENERGY EFFICIENCY PLAN

Appendix A, Table 7

Otter Tail Power Company

2021-2023 Benefit/Cost Ratios

	Utility Test	Total Resource Test	Ratepayer Impact Test	Societal Test	Participant Test
DIRECT IMPACT PROJECTS					
Residential					
Air Conditioning Control	1.50	1.70	1.39	1.70	inf.
Appliance Recycling	1.22	1.49	0.39	1.70	inf.
Home Lighting	4.74	1.43	0.51	1.88	4.02
Residential Heat Pumps	2.52	1.17	0.45	1.61	4.25
Smart Thermostats	1.16	1.06	0.38	1.26	7.98
Total Residential	2.55	1.28	0.47	1.69	4.55
Commercial					
Drive Power	15.33	2.93	0.79	3.80	3.76
Custom Efficiency Grants	10.37	1.90	1.18	2.61	1.64
Commercial Direct Install	1.81	2.76	0.46	3.13	inf.
Commercial Heat Pumps	3.03	1.07	0.62	1.46	1.78
Commercial Lighting	4.39	3.87	0.70	4.88	6.59
Total Commercial	9.16	2.65	0.79	3.45	3.50
INDIRECT IMPACT PROJECTS					
Advertising and Education					
TOTAL INDIRECT IMPACT PROJECTS					
TOTAL ALL PROJECTS					
	6.42	2.28	0.72	2.98	3.67