

PUBLIC

| Executive Summary Table-2023 | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------------------|------------------|--------------|-------------------|-----------------------|------------|------------------|-------------|--------------|-------------|------------------|----------------|------------------------|------------|------------------------|--------------------|-------------------------------------|-------------|
| Goal | | | | | Actual | | | | | | | | | | Actual Test Results | | | |
| 2023 | Electric Participants | Electric Budget | Generator kW | Generator kWh | Electric Participants | % of Goal | Electric Budget | % of Goal | Generator kW | % of Goal | Generator kWh | Lifetime Years | Lifetime Generator kWh | % of Goal | Participant Test Ratio | Utility Test Ratio | Ratepayer Impact Measure Test Ratio | TRC Ratio |
| Business Segment | | | | | | | | | | | | | | | | | | |
| Lighting Efficiency | 477 | \$393,373 | 784 | 6,482,533 | 51 | 11% | \$138,776 | 35% | 311 | 40% | 1,685,626 | 14 | 24,360,749 | 26% | 2.98 | 4.76 | 0.38 | 1.09 |
| Business Saver's Switch | 20 | \$25,250 | 57 | 78 | 3 | 15% | \$11,823 | 47% | 2 | 3% | 3 | 15 | 47 | 4% | INF | 0.11 | 0.11 | 0.11 |
| Peak and Energy Control | 1 | \$10,000 | 174 | 448 | 0 | 0% | \$6,701 | 67% | 0 | 0% | 0 | 0 | 0 | 0% | | 0.00 | 0.00 | 0.00 |
| Total | 498 | \$428,623 | 1,014 | 6,483,059 | 54 | 11% | \$157,299 | 37% | 313 | 31% | 1,685,629 | 14 | 24,360,796 | 26% | 2.98 | 4.21 | 0.38 | 1.06 |
| Residential Segment | | | | | | | | | | | | | | | | | | |
| Home Lighting | 8,066 | \$131,615 | 714 | 5,281,610 | 7,041 | 87% | \$168,925 | 128% | 701 | 98% | 5,196,773 | 13 | 69,049,018 | 98% | 57.22 | 10.17 | 0.27 | 6.64 |
| Heat Pump Water Heaters | 25 | \$10,900 | 8 | 61,901 | 3 | 12% | \$2,951 | 27% | 1 | 14% | 8,148 | 13 | 105,920 | 13% | 4.57 | 0.97 | 0.22 | 0.74 |
| Residential Demand Response | 1,400 | \$230,000 | 835 | 59,022 | 1,669 | 119% | \$478,689 | 208% | 1,632 | 196% | 35,872 | 10 | 362,488 | 61% | 24.48 | 2.08 | 1.93 | 2.17 |
| Consumer Education | 62,070 | \$393,680 | N/A | N/A | 33,388 | 54% | \$21,363 | 5% | N/A | N/A | N/A | NA | NA | NA | | | | |
| Residential Segment Total | 62,070 | \$393,680 | 1,556 | 5,402,533 | 33,388 | 54% | \$671,929 | 171% | 2,334 | 150% | 5,240,793 | 13 | 69,517,426 | 97% | 55.05 | 4.04 | 0.40 | 3.68 |
| Planning Segment | | | | | | | | | | | | | | | | | | |
| Regulatory Affairs | 0 | \$10,000 | 0 | 0 | 0 | N/A | \$12,335 | N/A | 0 | N/A | 0 | NA | NA | NA | | | | |
| Total | 0 | \$10,000 | 0 | 0 | 0 | N/A | \$12,335 | N/A | 0 | N/A | 0 | NA | NA | NA | | | | |
| PORTFOLIO TOTAL | | | | | | | | | | | | | | | | | | |
| | 62,568 | \$832,303 | 2,571 | 11,885,592 | 33,442 | 53% | \$841,563 | 101% | 2,647 | 103% | 6,926,422 | 14 | 93,878,222 | 58% | 11.66 | 4.01 | 0.39 | 2.40 |

PUBLIC

2023 SD DSM Actual Cost-Effectiveness Analysis

| LIGHTING EFFICIENCY | | | | | | 2023 ELECTRIC | | | Actual |
|--|--------------------|------------------|----------------------|------------------|------------------|--|--|--|----------------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | |
| | Test | Test | Impact | Resource | Test | Lifetime (Weighted on Generator kWh) | A | | 14.5 years |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | Annual Hours | B | | 8760 |
| Benefits | | | | | | Gross Customer kW | C | | 1 kW |
| Avoided Revenue Requirements | | | | | | Generator Peak Coincidence Factor | D | | 78.23% |
| Generation | N/A | \$166,579 | \$166,579 | \$166,579 | \$166,579 | Gross Load Factor at Customer | E | | 48.84% |
| T & D | N/A | \$29,704 | \$29,704 | \$29,704 | \$29,704 | Transmission Loss Factor (Energy) | F | | 4.550% |
| Marginal Energy | N/A | \$464,815 | \$464,815 | \$464,815 | \$464,815 | Transmission Loss Factor (Demand) | G | | 5.317% |
| Environmental Externality | N/A | N/A | N/A | N/A | \$103,465 | Societal Net Benefit (Cost) | H | | \$440 |
| Subtotal | N/A | \$661,098 | \$661,098 | \$661,098 | \$764,563 | Program Summary per Participant | | | |
| Participant Benefits | | | | | | Gross kW Saved at Customer | I | | 7.37 kW |
| Bill Reduction - Electric | \$1,604,338 | N/A | N/A | N/A | N/A | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | 6.09 kW |
| Rebates from Xcel Energy | \$117,625 | N/A | N/A | \$117,625 | \$117,625 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | 31,548 kWh |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | 33,051 kWh |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | | |
| Subtotal | \$1,721,963 | N/A | N/A | \$117,625 | \$117,625 | Total Participants | J | | 51 |
| Total Benefits | | | | | | Total Budget | K | | \$138,776 |
| Costs | | | | | | Gross kW Saved at Customer | $(J \times I)$ | | 376.08 kW |
| Utility Project Costs | | | | | | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | 311 kW |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | 1,608,930 kWh |
| Utility Administration | N/A | \$21,151 | \$21,151 | \$21,151 | \$21,151 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | 1,685,626 kWh |
| Advertising & Promotion | N/A | \$0 | \$0 | \$0 | \$0 | Societal Net Benefits | $(J \times I \times H)$ | | \$165,528 |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kWh Lifetime | | | |
| Rebates | N/A | \$117,625 | \$117,625 | \$117,625 | \$117,625 | \$0.0057 | | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | |
| Subtotal | N/A | \$138,776 | \$138,776 | \$138,776 | \$138,776 | \$447 | | | |
| Utility Revenue Reduction | | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$1,604,338 | N/A | N/A | | | | |
| Subtotal | N/A | N/A | \$1,604,338 | N/A | N/A | | | | |
| Participant Costs | | | | | | | | | |
| Incremental Capital Costs | \$500,650 | N/A | N/A | \$500,650 | \$500,650 | | | | |
| Incremental O&M Costs | \$77,235 | N/A | N/A | \$77,235 | \$77,235 | | | | |
| Subtotal | \$577,885 | N/A | N/A | \$577,885 | \$577,885 | | | | |
| Total Costs | | | | | | | | | |
| | \$577,885 | \$138,776 | \$1,743,114 | \$716,660 | \$716,660 | | | | |
| Net Benefit (Cost) | \$1,144,079 | \$522,323 | (\$1,082,016) | \$62,063 | \$165,528 | | | | |
| Benefit/Cost Ratio | 2.98 | 4.76 | 0.38 | 1.09 | 1.23 | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

| BUSINESS SAVER'S SWITCH | | | | | | 2023 ELECTRIC | | | Actual |
|--|--------------------|------------------|------------------|------------------|------------------|--|--|--|-------------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | |
| | Test | Test | Impact | Resource | Test | | | | |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | | | | |
| Benefits | | | | | | Program Summary per Participant | | | |
| Avoided Revenue Requirements | | | | | | Gross kW Saved at Customer | I | | 3.27 kW |
| Generation | N/A | \$1,106 | \$1,106 | \$1,106 | \$1,106 | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | 0.62 kW |
| T & D | N/A | \$197 | \$197 | \$197 | \$197 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | 1 kWh |
| Marginal Energy | N/A | \$1 | \$1 | \$1 | \$1 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | 1 kWh |
| Environmental Externality | N/A | N/A | N/A | N/A | \$0 | Program Summary All Participants | | | |
| Subtotal | N/A | \$1,304 | \$1,304 | \$1,304 | \$1,304 | Total Participants | J | | 3 |
| Participant Benefits | | | | | | Total Budget | K | | \$11,823 |
| Bill Reduction - Electric | \$5 | N/A | N/A | N/A | N/A | Gross kW Saved at Customer | $(J \times I)$ | | 9.82 kW |
| Rebates from Xcel Energy | \$0 | N/A | N/A | \$0 | \$0 | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | 2 kW |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | 3 kWh |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | 3 kWh |
| Subtotal | \$5 | N/A | N/A | \$0 | \$0 | Societal Net Benefits | $(J \times I \times H)$ | | (\$10,518) |
| Total Benefits | | | | | | Utility Program Cost per kWh Lifetime | | | \$250,7718 |
| | \$5 | \$1,304 | \$1,304 | \$1,304 | \$1,304 | Utility Program Cost per kW at Gen | | | \$6,328 |
| Costs | | | | | | | | | |
| Utility Project Costs | | | | | | | | | |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Utility Administration | N/A | \$11,823 | \$11,823 | \$11,823 | \$11,823 | | | | |
| Advertising & Promotion | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Rebates | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Subtotal | N/A | \$11,823 | \$11,823 | \$11,823 | \$11,823 | | | | |
| Utility Revenue Reduction | | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$5 | N/A | N/A | | | | |
| Subtotal | N/A | N/A | \$5 | N/A | N/A | | | | |
| Participant Costs | | | | | | | | | |
| Incremental Capital Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Incremental O&M Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Total Costs | | | | | | | | | |
| | \$0 | \$11,823 | \$11,828 | \$11,823 | \$11,823 | | | | |
| Net Benefit (Cost) | | | | | | | | | |
| | \$5 | (\$10,519) | (\$10,523) | (\$10,519) | (\$10,518) | | | | |
| Benefit/Cost Ratio | | | | | | | | | |
| | INF | 0.11 | 0.11 | 0.11 | 0.11 | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

PUBLIC

2023 SD DSM Actual Cost-Effectiveness Analysis

| PEAK AND ENERGY CONTROL | | | | | | 2023 ELECTRIC | | | Actual |
|--|--------------------|------------------|------------------|------------------|------------------|--|--|--|----------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | |
| | Test | Test | Impact | Resource | Test | Lifetime (Weighted on Generator kWh) | A | | 0.0 years |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | Annual Hours | B | | 8760 |
| Benefits | | | | | | Gross Customer kW | C | | 1 kW |
| Avoided Revenue Requirements | | | | | | Generator Peak Coincidence Factor | D | | #DIV/0! |
| Generation | N/A | \$0 | \$0 | \$0 | \$0 | Gross Load Factor at Customer | E | | #DIV/0! |
| T & D | N/A | \$0 | \$0 | \$0 | \$0 | Transmission Loss Factor (Energy) | F | | 0.000% |
| Marginal Energy | N/A | \$0 | \$0 | \$0 | \$0 | Transmission Loss Factor (Demand) | G | | 0.000% |
| Environmental Externality | N/A | N/A | N/A | N/A | \$0 | Societal Net Benefit (Cost) | H | | #DIV/0! |
| Subtotal | N/A | \$0 | \$0 | \$0 | \$0 | Program Summary per Participant | | | |
| Participant Benefits | | | | | | Gross kW Saved at Customer | I | | #DIV/0! |
| Bill Reduction - Electric | \$0 | N/A | N/A | N/A | N/A | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | #DIV/0! |
| Rebates from Xcel Energy | \$0 | N/A | N/A | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | #DIV/0! |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | #DIV/0! |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | | |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | Total Participants | J | | 0 |
| Total Benefits | | | | | | Total Budget | K | | \$6,701 |
| Costs | | | | | | Gross kW Saved at Customer | $(J \times I)$ | | #DIV/0! |
| Utility Project Costs | | | | | | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | #DIV/0! |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | #DIV/0! |
| Utility Administration | N/A | \$6,487 | \$6,487 | \$6,487 | \$6,487 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | #DIV/0! |
| Advertising & Promotion | N/A | \$214 | \$214 | \$214 | \$214 | Societal Net Benefits | $(J \times I \times H)$ | | #DIV/0! |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kWh Lifetime | | | |
| Rebates | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | #DIV/0! | | | |
| Subtotal | N/A | \$6,701 | \$6,701 | \$6,701 | \$6,701 | #DIV/0! | | | |
| Utility Revenue Reduction | | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$0 | N/A | N/A | | | | |
| Subtotal | N/A | N/A | \$0 | N/A | N/A | | | | |
| Participant Costs | | | | | | | | | |
| Incremental Capital Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Incremental O&M Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Total Costs | | | | | | | | | |
| Net Benefit (Cost) | | | | | | | | | |
| | \$0 | (\$6,701) | (\$6,701) | (\$6,701) | (\$6,701) | | | | |
| Benefit/Cost Ratio | | | | | | | | | |
| | INF | - | - | - | - | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

PUBLIC

2023 SD DSM Actual Cost-Effectiveness Analysis

| BUSINESS SEGMENT TOTAL | | | | | | 2023 ELECTRIC | | | Actual |
|--|--------------------|------------------|----------------------|------------------|------------------|--|--|--|----------------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | |
| | Test | Test | Impact | Resource | Test | Lifetime (Weighted on Generator kWh) | A | | 14.5 years |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | Annual Hours | B | | 8760 |
| Benefits | | | | | | Gross Customer kW | C | | 1 kW |
| Avoided Revenue Requirements | | | | | | Generator Peak Coincidence Factor | D | | 76.69% |
| Generation | N/A | \$167,685 | \$167,685 | \$167,685 | \$167,685 | Gross Load Factor at Customer | E | | 47.59% |
| T & D | N/A | \$29,901 | \$29,901 | \$29,901 | \$29,901 | Transmission Loss Factor (Energy) | F | | 4.550% |
| Marginal Energy | N/A | \$464,816 | \$464,816 | \$464,816 | \$464,816 | Transmission Loss Factor (Demand) | G | | 5.317% |
| Environmental Externality | N/A | N/A | N/A | N/A | \$103,465 | Societal Net Benefit (Cost) | H | | \$384 |
| Subtotal | N/A | \$662,402 | \$662,402 | \$662,402 | \$765,868 | Program Summary per Participant | | | |
| Participant Benefits | | | | | | Gross kW Saved at Customer | I | | 7.15 kW |
| Bill Reduction - Electric | \$1,604,343 | N/A | N/A | N/A | N/A | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | 5.79 kW |
| Rebates from Xcel Energy | \$117,625 | N/A | N/A | \$117,625 | \$117,625 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | 29,795 kWh |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | 31,215 kWh |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | | |
| Subtotal | \$1,721,968 | N/A | N/A | \$117,625 | \$117,625 | Total Participants | J | | 54 |
| Total Benefits | | | | | | Total Budget | K | | \$157,299 |
| Costs | | | | | | Gross kW Saved at Customer | $(J \times I)$ | | 385.90 kW |
| Utility Project Costs | | | | | | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | 313 kW |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | 1,608,933 kWh |
| Utility Administration | N/A | \$39,460 | \$39,460 | \$39,460 | \$39,460 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | 1,685,629 kWh |
| Advertising & Promotion | N/A | \$214 | \$214 | \$214 | \$214 | Societal Net Benefits | $(J \times I \times H)$ | | \$148,309 |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kWh Lifetime | | | |
| Rebates | N/A | \$117,625 | \$117,625 | \$117,625 | \$117,625 | \$0.0065 | | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | |
| Subtotal | N/A | \$157,299 | \$157,299 | \$157,299 | \$157,299 | \$503 | | | |
| Utility Revenue Reduction | | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$1,604,343 | N/A | N/A | | | | |
| Subtotal | N/A | N/A | \$1,604,343 | N/A | N/A | | | | |
| Participant Costs | | | | | | | | | |
| Incremental Capital Costs | \$500,650 | N/A | N/A | \$500,650 | \$500,650 | | | | |
| Incremental O&M Costs | \$77,235 | N/A | N/A | \$77,235 | \$77,235 | | | | |
| Subtotal | \$577,885 | N/A | N/A | \$577,885 | \$577,885 | | | | |
| Total Costs | | | | | | | | | |
| | \$577,885 | \$157,299 | \$1,761,642 | \$735,184 | \$735,184 | | | | |
| Net Benefit (Cost) | \$1,144,084 | \$505,103 | (\$1,099,240) | \$44,844 | \$148,309 | | | | |
| Benefit/Cost Ratio | 2.98 | 4.21 | 0.38 | 1.06 | 1.20 | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

PUBLIC

2023 SD DSM Actual Cost-Effectiveness Analysis

| HOME LIGHTING | | | | | | 2023 ELECTRIC | | | Actual |
|--|--------------------|------------------|------------------|------------------|------------------|--|--|--|----------------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | |
| | Test | Test | Impact | Resource | Test | Lifetime (Weighted on Generator kWh) | A | | 13.3 years |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | Annual Hours | B | | 8760 |
| Benefits | | | | | | Gross Customer kW | C | | 1 kW |
| Avoided Revenue Requirements | | | | | | Generator Peak Coincidence Factor | D | | 16.52% |
| Generation | N/A | \$341,611 | \$341,611 | \$341,611 | \$341,611 | Gross Load Factor at Customer | E | | 14.19% |
| T & D | N/A | \$60,957 | \$60,957 | \$60,957 | \$60,957 | Transmission Loss Factor (Energy) | F | | 5.358% |
| Marginal Energy | N/A | \$1,315,693 | \$1,315,693 | \$1,315,693 | \$1,315,693 | Transmission Loss Factor (Demand) | G | | 6.808% |
| Environmental Externality | N/A | N/A | N/A | N/A | \$299,546 | Societal Net Benefit (Cost) | H | | \$473 |
| Subtotal | N/A | \$1,718,261 | \$1,718,261 | \$1,718,261 | \$2,017,807 | Program Summary per Participant | | | |
| Participant Benefits | | | | | | Gross kW Saved at Customer | I | | 0.56 kW |
| Bill Reduction - Electric | \$6,137,553 | N/A | N/A | N/A | N/A | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | 0.10 kW |
| Rebates from Xcel Energy | \$130,745 | N/A | N/A | \$130,745 | \$130,745 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | 699 kWh |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | 738 kWh |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | | |
| Subtotal | \$6,268,298 | N/A | N/A | \$130,745 | \$130,745 | Total Participants | J | | 7,041 |
| Total Benefits | | | | | | Total Budget | K | | \$168,925 |
| | \$6,268,298 | \$1,718,261 | \$1,718,261 | \$1,849,006 | \$2,148,552 | Gross kW Saved at Customer | $(J \times I)$ | | 3,956.02 kW |
| Costs | | | | | | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | 701 kW |
| Utility Project Costs | | | | | | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | 4,918,317 kWh |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | 5,196,773 kWh |
| Utility Administration | N/A | \$31,232 | \$31,232 | \$31,232 | \$31,232 | Societal Net Benefits | $(J \times I \times H)$ | | \$1,870,079 |
| Advertising & Promotion | N/A | \$6,948 | \$6,948 | \$6,948 | \$6,948 | Utility Program Cost per kWh Lifetime | | | |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | |
| Rebates | N/A | \$130,745 | \$130,745 | \$130,745 | \$130,745 | | | | \$0.0024 |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | | | | \$241 |
| Subtotal | N/A | \$168,925 | \$168,925 | \$168,925 | \$168,925 | Net Benefit (Cost) | | | |
| Utility Revenue Reduction | | | | | | | | | \$6,158,749 |
| Revenue Reduction - Electric | N/A | N/A | \$6,137,553 | N/A | N/A | Benefit/Cost Ratio | | | |
| Subtotal | N/A | N/A | \$6,137,553 | N/A | N/A | | | | 57.22 |
| Participant Costs | | | | | | | | | 10.17 |
| Incremental Capital Costs | \$109,548 | N/A | N/A | \$109,548 | \$109,548 | | | | 0.27 |
| Incremental O&M Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | 6.64 |
| Subtotal | \$109,548 | N/A | N/A | \$109,548 | \$109,548 | | | | 7.72 |
| Total Costs | | | | | | | | | |
| | \$109,548 | \$168,925 | \$6,306,478 | \$278,473 | \$278,473 | | | | |
| Net Benefit (Cost) | | | | | | | | | |
| | \$6,158,749 | \$1,549,336 | (\$4,588,216) | \$1,570,533 | \$1,870,079 | | | | |
| Benefit/Cost Ratio | | | | | | | | | |
| | 57.22 | 10.17 | 0.27 | 6.64 | 7.72 | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

| HEAT PUMP WATER HEATERS | | | | | | 2023 ELECTRIC | | | Actual |
|--|--------------------|------------------|-------------------|------------------|------------------|--|--|--|------------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | |
| | Test | Test | Impact | Resource | Test | Lifetime (Weighted on Generator kWh) | A | | 13.0 years |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | Annual Hours | B | | 8760 |
| Benefits | | | | | | Gross Customer kW | C | | 1 kW |
| Avoided Revenue Requirements | | | | | | Generator Peak Coincidence Factor | D | | 100.00% |
| Generation | N/A | \$606 | \$606 | \$606 | \$606 | Gross Load Factor at Customer | E | | 83.51% |
| T & D | N/A | \$108 | \$108 | \$108 | \$108 | Transmission Loss Factor (Energy) | F | | 5.630% |
| Marginal Energy | N/A | \$2,155 | \$2,155 | \$2,155 | \$2,155 | Transmission Loss Factor (Demand) | G | | 6.900% |
| Environmental Externality | N/A | N/A | N/A | N/A | \$443 | Societal Net Benefit (Cost) | H | | (\$920) |
| Subtotal | N/A | \$2,869 | \$2,869 | \$2,869 | \$3,311 | Program Summary per Participant | | | |
| Participant Benefits | | | | | | Gross kW Saved at Customer | I | | 0.35 kW |
| Bill Reduction - Electric | \$10,355 | N/A | N/A | N/A | N/A | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | 0.38 kW |
| Rebates from Xcel Energy | \$1,200 | N/A | N/A | \$1,200 | \$1,200 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | 2,563 kWh |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | 2,716 kWh |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | | |
| Subtotal | \$11,555 | N/A | N/A | \$1,200 | \$1,200 | Total Participants | J | | 3 |
| Total Benefits | | | | | | Total Budget | K | | \$2,951 |
| Costs | | | | | | Gross kW Saved at Customer | $(J \times I)$ | | 1.05 kW |
| Utility Project Costs | | | | | | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | 1 kW |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | 7,689 kWh |
| Utility Administration | N/A | \$1,751 | \$1,751 | \$1,751 | \$1,751 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | 8,148 kWh |
| Advertising & Promotion | N/A | \$0 | \$0 | \$0 | \$0 | Societal Net Benefits | $(J \times I \times H)$ | | (\$966) |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kWh Lifetime | | | |
| Rebates | N/A | \$1,200 | \$1,200 | \$1,200 | \$1,200 | \$0.0279 | | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | |
| Subtotal | N/A | \$2,951 | \$2,951 | \$2,951 | \$2,951 | \$2,614 | | | |
| Utility Revenue Reduction | | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$10,355 | N/A | N/A | | | | |
| Subtotal | N/A | N/A | \$10,355 | N/A | N/A | | | | |
| Participant Costs | | | | | | | | | |
| Incremental Capital Costs | \$2,352 | N/A | N/A | \$2,352 | \$2,352 | | | | |
| Incremental O&M Costs | \$174 | N/A | N/A | \$174 | \$174 | | | | |
| Subtotal | \$2,526 | N/A | N/A | \$2,526 | \$2,526 | | | | |
| Total Costs | | | | | | | | | |
| | \$2,526 | \$2,951 | \$13,307 | \$5,478 | \$5,478 | | | | |
| Net Benefit (Cost) | \$9,029 | (\$83) | (\$10,438) | (\$1,409) | (\$966) | | | | |
| Benefit/Cost Ratio | 4.57 | 0.97 | 0.22 | 0.74 | 0.82 | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

2023 SD DSM Actual Cost-Effectiveness Analysis

| RESIDENTIAL DEMAND RESPONSE | | | | | | 2023 ELECTRIC | | | Actual | | |
|--|--------------------|------------------|------------------|------------------|------------------|--|--|-----------|-------------------|-----------|-----------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | | | |
| | Test | Test | Impact | Resource | Test | Lifetime (Weighted on Generator kWh) | A | | 10.1 years | | |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | Annual Hours | B | | 8760 | | |
| Benefits | | | | | | Gross Customer kW | C | | 1 kW | | |
| Avoided Revenue Requirements | | | | | | Generator Peak Coincidence Factor | D | | 38.09% | | |
| Generation | N/A | \$835,784 | \$835,784 | \$835,784 | \$835,784 | Gross Load Factor at Customer | E | | 0.10% | | |
| T & D | N/A | \$148,827 | \$148,827 | \$148,827 | \$148,827 | Transmission Loss Factor (Energy) | F | | 5.630% | | |
| Marginal Energy | N/A | \$8,767 | \$8,767 | \$8,767 | \$8,767 | Transmission Loss Factor (Demand) | G | | 6.900% | | |
| Environmental Externality | N/A | N/A | N/A | N/A | \$1,640 | Societal Net Benefit (Cost) | H | | \$141 | | |
| Subtotal | N/A | \$993,379 | \$993,379 | \$993,379 | \$995,019 | Program Summary per Participant | | | | | |
| Participant Benefits | | | | | | Gross kW Saved at Customer | I | | 2.39 kW | | |
| Bill Reduction - Electric | \$37,233 | N/A | N/A | N/A | N/A | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | 0.98 kW | | |
| Rebates from Xcel Energy | \$50,887 | N/A | N/A | \$50,887 | \$50,887 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | 20 kWh | | |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | 21 kWh | | |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | | | | |
| Subtotal | \$88,119 | N/A | N/A | \$50,887 | \$50,887 | Total Participants | J | | 1,669 | | |
| Total Benefits | | | | | | Total Budget | K | | \$478,689 | | |
| Total Benefits | \$88,119 | \$993,379 | \$993,379 | \$1,044,265 | \$1,045,905 | Gross kW Saved at Customer | $(J \times I)$ | | 3,987.53 kW | | |
| Costs | | | | | | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | 1,632 kW | | |
| Utility Project Costs | | | | | | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | 33,852 kWh | | |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | 35,872 kWh | | |
| Utility Administration | N/A | \$427,716 | \$427,716 | \$427,716 | \$427,716 | Societal Net Benefits | $(J \times I \times H)$ | | \$563,616 | | |
| Advertising & Promotion | N/A | \$87 | \$87 | \$87 | \$87 | Utility Program Cost per kWh Lifetime | | | | | |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | | | |
| Rebates | N/A | \$50,887 | \$50,887 | \$50,887 | \$50,887 | | | | \$1.3206 | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | | | | \$293 | | |
| Subtotal | N/A | \$478,689 | \$478,689 | \$478,689 | \$478,689 | Utility Revenue Reduction | | | | | |
| Utility Revenue Reduction | | | | | | Revenue Reduction - Electric | N/A | N/A | \$37,233 | N/A | |
| Subtotal | N/A | N/A | \$37,233 | N/A | N/A | Participant Costs | | | | | |
| Participant Costs | | | | | | Incremental Capital Costs | \$3,600 | N/A | N/A | \$3,600 | |
| Incremental Capital Costs | \$3,600 | N/A | N/A | \$3,600 | \$3,600 | Incremental O&M Costs | \$0 | N/A | N/A | \$0 | |
| Incremental O&M Costs | \$0 | N/A | N/A | \$0 | \$0 | Subtotal | \$3,600 | N/A | N/A | \$3,600 | |
| Subtotal | \$3,600 | N/A | N/A | \$3,600 | \$3,600 | Total Costs | | | | | |
| Total Costs | | | | | | Total Costs | \$3,600 | \$478,689 | \$515,922 | \$482,289 | \$482,289 |
| Net Benefit (Cost) | | | | | | Net Benefit (Cost) | \$84,519 | \$514,689 | \$477,457 | \$561,976 | \$563,616 |
| Benefit/Cost Ratio | | | | | | Benefit/Cost Ratio | 24.48 | 2.08 | 1.93 | 2.17 | 2.17 |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

| CONSUMER EDUCATION | | | | | | 2023 ELECTRIC | | | Actual |
|--|--------------------|------------------|------------------|------------------|------------------|--|--|-----------------|---------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | |
| | Test | Test | Impact | Resource | Test | | | | |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | | | | |
| Benefits | | | | | | Program Summary per Participant | | | |
| Avoided Revenue Requirements | | | | | | Gross kW Saved at Customer | I | 0.00 kW | |
| Generation | N/A | \$0 | \$0 | \$0 | \$0 | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | #DIV/0! |
| T & D | N/A | \$0 | \$0 | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | #DIV/0! |
| Marginal Energy | N/A | \$0 | \$0 | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | #DIV/0! |
| Environmental Externality | N/A | N/A | N/A | N/A | \$0 | Program Summary All Participants | | | |
| Subtotal | N/A | \$0 | \$0 | \$0 | \$0 | Total Participants | J | 24,675 | |
| Participant Benefits | | | | | | Total Budget | K | \$21,363 | |
| Bill Reduction - Electric | \$0 | N/A | N/A | N/A | N/A | Gross kW Saved at Customer | $(J \times I)$ | | 0.00 kW |
| Rebates from Xcel Energy | \$0 | N/A | N/A | \$0 | \$0 | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | #DIV/0! |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | #DIV/0! |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | #DIV/0! |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | Societal Net Benefits | $(J \times I \times H)$ | | #DIV/0! |
| Total Benefits | | | | | | Utility Program Cost per kWh Lifetime | | | #DIV/0! |
| | \$0 | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | #DIV/0! |
| Costs | | | | | | | | | |
| Utility Project Costs | | | | | | | | | |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Utility Administration | N/A | \$4,983 | \$4,983 | \$4,983 | \$4,983 | | | | |
| Advertising & Promotion | N/A | \$16,380 | \$16,380 | \$16,380 | \$16,380 | | | | |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Rebates | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | | | | |
| Subtotal | N/A | \$21,363 | \$21,363 | \$21,363 | \$21,363 | | | | |
| Utility Revenue Reduction | | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$0 | N/A | N/A | | | | |
| Subtotal | N/A | N/A | \$0 | N/A | N/A | | | | |
| Participant Costs | | | | | | | | | |
| Incremental Capital Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Incremental O&M Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Total Costs | | | | | | | | | |
| | \$0 | \$21,363 | \$21,363 | \$21,363 | \$21,363 | | | | |
| Net Benefit (Cost) | | | | | | | | | |
| | \$0 | (\$21,363) | (\$21,363) | (\$21,363) | (\$21,363) | | | | |
| Benefit/Cost Ratio | | | | | | | | | |
| | INF | - | - | - | - | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

PUBLIC

2023 SD DSM Actual Cost-Effectiveness Analysis

| RESIDENTIAL SEGMENT TOTAL | | | | | | 2023 ELECTRIC | | Actual |
|--|--------------------|------------------|------------------|------------------|------------------|--|--|------------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | |
| | Test | Test | Impact | Resource | Test | Lifetime (Weighted on Generator kWh) | A | 13.3 years |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | Annual Hours | B | 8760 |
| Benefits | | | | | | Gross Customer kW | C | 1 kW |
| Avoided Revenue Requirements | | | | | | Generator Peak Coincidence Factor | D | 27.36% |
| Generation | N/A | \$1,178,001 | \$1,178,001 | \$1,178,001 | \$1,178,001 | Gross Load Factor at Customer | E | 7.13% |
| T & D | N/A | \$209,892 | \$209,892 | \$209,892 | \$209,892 | Transmission Loss Factor (Energy) | F | 5.361% |
| Marginal Energy | N/A | \$1,326,615 | \$1,326,615 | \$1,326,615 | \$1,326,615 | Transmission Loss Factor (Demand) | G | 6.854% |
| Environmental Externality | N/A | N/A | N/A | N/A | \$301,629 | Societal Net Benefit (Cost) | H | \$304 |
| Subtotal | N/A | \$2,714,509 | \$2,714,509 | \$2,714,509 | \$3,016,137 | Program Summary per Participant | | |
| Participant Benefits | | | | | | Gross kW Saved at Customer | I | 0.24 kW |
| Bill Reduction - Electric | \$6,185,141 | N/A | N/A | N/A | N/A | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | |
| Rebates from Xcel Energy | \$182,831 | N/A | N/A | \$182,831 | \$182,831 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | |
| Subtotal | \$6,367,972 | N/A | N/A | \$182,831 | \$182,831 | Total Participants | J | 33,388 |
| Total Benefits | | | | | | Total Budget | K | \$671,929 |
| Costs | | | | | | Gross kW Saved at Customer | $(J \times I)$ | 7,944.60 kW |
| Utility Project Costs | | | | | | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | |
| Utility Administration | N/A | \$465,683 | \$465,683 | \$465,683 | \$465,683 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | |
| Advertising & Promotion | N/A | \$23,415 | \$23,415 | \$23,415 | \$23,415 | Societal Net Benefits | $(J \times I \times H)$ | |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kWh Lifetime | | |
| Rebates | N/A | \$182,831 | \$182,831 | \$182,831 | \$182,831 | Utility Program Cost per kW at Gen | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | \$0.0097 | | |
| Subtotal | N/A | \$671,929 | \$671,929 | \$671,929 | \$671,929 | \$288 | | |
| Utility Revenue Reduction | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$6,185,141 | N/A | N/A | | | |
| Subtotal | N/A | N/A | \$6,185,141 | N/A | N/A | | | |
| Participant Costs | | | | | | | | |
| Incremental Capital Costs | \$115,500 | N/A | N/A | \$115,500 | \$115,500 | | | |
| Incremental O&M Costs | \$174 | N/A | N/A | \$174 | \$174 | | | |
| Subtotal | \$115,675 | N/A | N/A | \$115,675 | \$115,675 | | | |
| Total Costs | | | | | | | | |
| | | | | | | | | |
| Net Benefit (Cost) | | | | | | | | |
| | | | | | | | | |
| Benefit/Cost Ratio | | | | | | | | |
| | | | | | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

| REGULATORY AFFAIRS | | | | | | 2023 ELECTRIC | | | Actual |
|--|-----------------------------------|-------------------------------|-----------------------------------|--------------------------------------|--------------------------------|--|--|-----------------|---------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant Test (\$Total) | Utility Test (\$Total) | Rate Impact Test (\$Total) | Total Resource Test (\$Total) | Societal Test (\$Total) | Program "Inputs" per Customer kW | | | |
| Benefits | | | | | | Lifetime (Weighted on Generator kWh) | A | 0.0 | years |
| Avoided Revenue Requirements | | | | | | Annual Hours | B | 8760 | |
| Generation | N/A | \$0 | \$0 | \$0 | \$0 | Gross Customer kW | C | 1 | kW |
| T & D | N/A | \$0 | \$0 | \$0 | \$0 | Generator Peak Coincidence Factor | D | #DIV/0! | |
| Marginal Energy | N/A | \$0 | \$0 | \$0 | \$0 | Gross Load Factor at Customer | E | #DIV/0! | |
| Environmental Externality | N/A | N/A | N/A | N/A | \$0 | Transmission Loss Factor (Energy) | F | 0.000% | |
| Subtotal | N/A | \$0 | \$0 | \$0 | \$0 | Transmission Loss Factor (Demand) | G | 0.000% | |
| | | | | | | Societal Net Benefit (Cost) | H | #DIV/0! | |
| Participant Benefits | | | | | | Program Summary per Participant | | | |
| Bill Reduction - Electric | \$0 | N/A | N/A | N/A | N/A | Gross kW Saved at Customer | I | #DIV/0! | |
| Rebates from Xcel Energy | \$0 | N/A | N/A | \$0 | \$0 | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | #DIV/0! |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | #DIV/0! |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | #DIV/0! |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | | |
| Total Benefits | \$0 | \$0 | \$0 | \$0 | \$0 | Total Participants | J | 0 | |
| Costs | | | | | | Total Budget | K | \$12,335 | |
| Utility Project Costs | | | | | | Gross kW Saved at Customer | $(J \times I)$ | | #DIV/0! |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | #DIV/0! |
| Utility Administration | N/A | \$12,335 | \$12,335 | \$12,335 | \$12,335 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | #DIV/0! |
| Advertising & Promotion | N/A | \$0 | \$0 | \$0 | \$0 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | #DIV/0! |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Societal Net Benefits | $(J \times I \times H)$ | | #DIV/0! |
| Rebates | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kWh Lifetime | #DIV/0! | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | #DIV/0! | | |
| Subtotal | N/A | \$12,335 | \$12,335 | \$12,335 | \$12,335 | | | | |
| Utility Revenue Reduction | | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$0 | N/A | N/A | | | | |
| Subtotal | N/A | N/A | \$0 | N/A | N/A | | | | |
| Participant Costs | | | | | | | | | |
| Incremental Capital Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Incremental O&M Costs | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | | | | |
| Total Costs | \$0 | \$12,335 | \$12,335 | \$12,335 | \$12,335 | | | | |
| Net Benefit (Cost) | \$0 | (\$12,335) | (\$12,335) | (\$12,335) | (\$12,335) | | | | |
| Benefit/Cost Ratio | INF | - | - | - | - | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

| PLANNING SEGMENT TOTAL | | | | | | 2023 ELECTRIC | | | Actual | | |
|---|-------------|-----------|-----------|-----------|-----------|---|--|------------|---------------|------------|------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | | | |
| | Test | Test | Impact | Resource | Test | | | | | | |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | | | | | | |
| Benefits | | | | | | Program Summary per Participant | | | | | |
| Avoided Revenue Requirements | | | | | | Gross kW Saved at Customer | I | | #DIV/0! | | |
| Generation | N/A | \$0 | \$0 | \$0 | \$0 | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | #DIV/0! | | |
| T & D | N/A | \$0 | \$0 | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | #DIV/0! | | |
| Marginal Energy | N/A | \$0 | \$0 | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | #DIV/0! | | |
| Environmental Externality | N/A | N/A | N/A | N/A | \$0 | Program Summary All Participants | | | | | |
| Subtotal | N/A | \$0 | \$0 | \$0 | \$0 | Total Participants | J | | 0 | | |
| Participant Benefits | | | | | | Total Budget | K | | \$12,335 | | |
| Bill Reduction - Electric | \$0 | N/A | N/A | N/A | N/A | Gross kW Saved at Customer | $(J \times I)$ | | #DIV/0! | | |
| Rebates from Xcel Energy | \$0 | N/A | N/A | \$0 | \$0 | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | #DIV/0! | | |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | #DIV/0! | | |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | #DIV/0! | | |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | Societal Net Benefits | $(J \times I \times H)$ | | #DIV/0! | | |
| Total Benefits | | | | | | Utility Program Cost per kWh Lifetime | | | #DIV/0! | | |
| | \$0 | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | #DIV/0! | | |
| Costs | | | | | | Utility Project Costs | | | | | |
| Utility Project Costs | | | | | | Customer Services | N/A | \$0 | \$0 | \$0 | |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Utility Administration | N/A | \$12,335 | \$12,335 | \$12,335 | |
| Utility Administration | N/A | \$12,335 | \$12,335 | \$12,335 | \$12,335 | Advertising & Promotion | N/A | \$0 | \$0 | \$0 | |
| Advertising & Promotion | N/A | \$0 | \$0 | \$0 | \$0 | Measurement & Verification | N/A | \$0 | \$0 | \$0 | |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Rebates | N/A | \$0 | \$0 | \$0 | |
| Rebates | N/A | \$0 | \$0 | \$0 | \$0 | Other | N/A | \$0 | \$0 | \$0 | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | Subtotal | N/A | \$12,335 | \$12,335 | \$12,335 | |
| Subtotal | N/A | \$12,335 | \$12,335 | \$12,335 | \$12,335 | Utility Revenue Reduction | | | | | |
| Utility Revenue Reduction | | | | | | Revenue Reduction - Electric | N/A | N/A | \$0 | N/A | N/A |
| Revenue Reduction - Electric | N/A | N/A | \$0 | N/A | N/A | Subtotal | N/A | N/A | \$0 | N/A | N/A |
| Subtotal | N/A | N/A | \$0 | N/A | N/A | Participant Costs | | | | | |
| Participant Costs | | | | | | Incremental Capital Costs | \$0 | N/A | N/A | \$0 | \$0 |
| Incremental Capital Costs | \$0 | N/A | N/A | \$0 | \$0 | Incremental O&M Costs | \$0 | N/A | N/A | \$0 | \$0 |
| Incremental O&M Costs | \$0 | N/A | N/A | \$0 | \$0 | Subtotal | \$0 | N/A | N/A | \$0 | \$0 |
| Subtotal | \$0 | N/A | N/A | \$0 | \$0 | Total Costs | | | | | |
| Total Costs | | | | | | | \$0 | \$12,335 | \$12,335 | \$12,335 | \$12,335 |
| Net Benefit (Cost) | | | | | | | \$0 | (\$12,335) | (\$12,335) | (\$12,335) | (\$12,335) |
| Benefit/Cost Ratio | | | | | | | INF | - | - | - | - |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

PUBLIC

2023 SD DSM Actual Cost-Effectiveness Analysis

| PORTFOLIO TOTAL | | | | | | 2023 ELECTRIC | | | Actual |
|--|--------------------|------------------|------------------|------------------|------------------|--|--|--|----------------------|
| 2023 Net Present Cost Benefit Summary Analysis For All Participants | | | | | | Input Summary and Totals | | | |
| | Participant | Utility | Rate | Total | Societal | Program "Inputs" per Customer kW | | | |
| | Test | Test | Impact | Resource | Test | Lifetime (Weighted on Generator kWh) | A | | 13.6 years |
| | (\$Total) | (\$Total) | (\$Total) | (\$Total) | (\$Total) | Annual Hours | B | | 8760 |
| Benefits | | | | | | Gross Customer kW | C | | 1 kW |
| Avoided Revenue Requirements | | | | | | Generator Peak Coincidence Factor | D | | 29.61% |
| Generation | N/A | \$1,345,686 | \$1,345,686 | \$1,345,686 | \$1,345,686 | Gross Load Factor at Customer | E | | 9.00% |
| T & D | N/A | \$239,793 | \$239,793 | \$239,793 | \$239,793 | Transmission Loss Factor (Energy) | F | | 5.163% |
| Marginal Energy | N/A | \$1,791,432 | \$1,791,432 | \$1,791,432 | \$1,791,432 | Transmission Loss Factor (Demand) | G | | 6.784% |
| Environmental Externality | N/A | N/A | N/A | N/A | \$405,094 | Societal Net Benefit (Cost) | H | | \$306 |
| Subtotal | N/A | \$3,376,911 | \$3,376,911 | \$3,376,911 | \$3,782,005 | Program Summary per Participant | | | |
| Participant Benefits | | | | | | Gross kW Saved at Customer | I | | 0.25 kW |
| Bill Reduction - Electric | \$7,789,484 | N/A | N/A | N/A | N/A | Net coincident kW Saved at Generator | $(I \times D) / (1 - G)$ | | 0.08 kW |
| Rebates from Xcel Energy | \$300,456 | N/A | N/A | \$300,456 | \$300,456 | Gross Annual kWh Saved at Customer | $(B \times E \times I)$ | | 196 kWh |
| Incremental Capital Savings | \$0 | N/A | N/A | \$0 | \$0 | Net Annual kWh Saved at Generator | $(B \times E \times I) / (1 - F)$ | | 207 kWh |
| Incremental O&M Savings | \$0 | N/A | N/A | \$0 | \$0 | Program Summary All Participants | | | |
| Subtotal | \$8,089,940 | N/A | N/A | \$300,456 | \$300,456 | Total Participants | J | | 33,442 |
| Total Benefits | | | | | | Total Budget | K | | \$841,563 |
| | \$8,089,940 | \$3,376,911 | \$3,376,911 | \$3,677,367 | \$4,082,461 | Gross kW Saved at Customer | $(J \times I)$ | | 8,330.50 kW |
| Costs | | | | | | Net coincident kW Saved at Generator | $(I \times D) / (1 - G) \times J$ | | 2,647 kW |
| Utility Project Costs | | | | | | Gross Annual kWh Saved at Customer | $(B \times E \times I) \times J$ | | 6,568,791 kWh |
| Customer Services | N/A | \$0 | \$0 | \$0 | \$0 | Net Annual kWh Saved at Generator | $((B \times E \times I) / (1 - F)) \times J$ | | 6,926,422 kWh |
| Utility Administration | N/A | \$517,478 | \$517,478 | \$517,478 | \$517,478 | Societal Net Benefits | $(J \times I \times H)$ | | \$2,547,338 |
| Advertising & Promotion | N/A | \$23,629 | \$23,629 | \$23,629 | \$23,629 | Utility Program Cost per kWh Lifetime | | | |
| Measurement & Verification | N/A | \$0 | \$0 | \$0 | \$0 | Utility Program Cost per kW at Gen | | | |
| Rebates | N/A | \$300,456 | \$300,456 | \$300,456 | \$300,456 | \$0.0090 | | | |
| Other | N/A | \$0 | \$0 | \$0 | \$0 | \$318 | | | |
| Subtotal | N/A | \$841,563 | \$841,563 | \$841,563 | \$841,563 | | | | |
| Utility Revenue Reduction | | | | | | | | | |
| Revenue Reduction - Electric | N/A | N/A | \$7,789,484 | N/A | N/A | | | | |
| Subtotal | N/A | N/A | \$7,789,484 | N/A | N/A | | | | |
| Participant Costs | | | | | | | | | |
| Incremental Capital Costs | \$616,150 | N/A | N/A | \$616,150 | \$616,150 | | | | |
| Incremental O&M Costs | \$77,409 | N/A | N/A | \$77,409 | \$77,409 | | | | |
| Subtotal | \$693,559 | N/A | N/A | \$693,559 | \$693,559 | | | | |
| Total Costs | | | | | | | | | |
| | \$693,559 | \$841,563 | \$8,631,047 | \$1,535,123 | \$1,535,123 | | | | |
| Net Benefit (Cost) | | | | | | | | | |
| | \$7,396,381 | \$2,535,348 | (\$5,254,136) | \$2,142,245 | \$2,547,338 | | | | |
| Benefit/Cost Ratio | | | | | | | | | |
| | 11.66 | 4.01 | 0.39 | 2.40 | 2.66 | | | | |

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.