



**2005/2006 BIENNIAL PLAN
MINNESOTA NATURAL GAS
AND ELECTRIC CONSERVATION
IMPROVEMENT PROGRAM**

 **Xcel Energy**



414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

June 1, 2004

Glenn Wilson, Commissioner
Minnesota Department of Commerce
85 East 7th Place, Suite 500
St. Paul, MN 55101-2198

RE: ELECTRIC AND GAS CONSERVATION IMPROVEMENT PROGRAM BIENNIAL
PLAN FOR 2005 AND 2006
DOCKET NO. E,G002/CIP-04-

Dear Commissioner Wilson:

Northern States Power d/b/a Xcel Energy, ("Xcel Energy" or the "Company") submits for Minnesota Department of Commerce ("Department") review the 2005/2006 Conservation Improvement Program (CIP) Biennial Plan. The Company respectfully requests that the Department approve this filing to guide our Minnesota electric and natural gas conservation and load management activities for 2005 and 2006. The proposed Plan represents a budget of nearly \$81 million, 361 GWh in electric energy and 184 MW in demand savings, and 808,250 MCF in gas savings.

The 2005/2006 Biennial Plan fulfills Minn. Stat. §216B.241, subd. 2(a), which requires that public utilities file conservation improvement plans by June 1. In 2001 Xcel Energy received Department approval to file a combined gas and electric Biennial Plan, and continues this approach with the current filing.

By copy of this transmittal letter, Xcel Energy is notifying individuals on the service list of the document's availability. Requests to receive a copy of this filing, as well as any comments or questions, should be addressed to Bridget McLaughlin, Regulatory Analyst, at 612.330.2931 or bridget.mclaughlin@xcelenergy.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Grey S. Staples'.

GREY S. STAPLES
MANAGER, RESTRUCTURING & REGULATORY STRATEGY

c: CIP Service List (Letter Only)

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➤ Executive Summary

Northern States Power d/b/a Xcel Energy, (“Xcel Energy” or the “Company”) submits for Minnesota Department of Commerce (“Department”) review the 2005/2006 Conservation Improvement Program (CIP) Biennial Plan.¹ The Company respectfully requests that the Department approve this filing to guide the Company’s Minnesota electric and natural gas conservation and load management activities for 2005 and 2006. The proposed plan represents a budget of nearly \$81 million, electric energy savings of 361 GWh, electric demand savings of 170 MW, and gas energy savings of 808,250 MCF during the biennium.²

Xcel Energy is the fourth-largest combination electricity and natural gas energy company in the United States. We offer a comprehensive portfolio of energy-related products and services to 3.2 million electricity customers and 1.7 million natural gas customers. Northern States Power Company (Minnesota) is one of Xcel Energy’s largest regulated operating companies and is subject of the current filing.

Purpose and Scope

The 2005/2006 Biennial fulfills Minn. Stat. §216B.241, subd. 2(a), which requires that public utilities file conservation improvement plans by June 1. In 2001 Xcel Energy received Department approval to file a combined gas and electric Biennial Plan, and continues this approach with the current filing.³

In developing the current Biennial Plan, Xcel Energy took into account the relevant statutory and regulatory requirements and the Company’s years of experience managing conservation and load management programs in its service territory. Minn. Stat. 216B.241 (*Energy Conservation Improvement*) establishes the basis for utility Conservation Improvement Programs. In addition, Minn. Stat. §216B.2422 (*Resource planning; renewable energy*) imposes on public utilities requirements to fully consider conservation resources in determining the set of resource options used to meet customer electric service needs.⁴ Minnesota Rules Chapter 7690 (*Energy Conservation Improvement*) provides further detail with which to interpret the relevant statutory requirements.

The 2005/2006 Biennial, following a structure used for the last three Biennial Plans, breaks the Plan into the customer segments served, namely Commercial & Industrial, Small Business, Residential, and Low Income Energy Services. Additionally, the Planning and Research Segment includes indirect impact programs that support CIP direct impact programs and other statutorily required items (e.g. University of Minnesota Initiative for Renewable Energy and the Environment). The remaining sections of the Biennial Plan provide information about compliance with statutory and regulatory requirements

¹ We will refer to this document as the “2005/2006 Biennial”, “Biennial Plan” or the “Plan”.

² As discussed later in this section, these totals do not include budget, or electric energy and demand savings from alternative filings although the Company anticipates that such filings will contribute meaningfully to the Company’s finally approved totals.

³ The current variance request is within the Compliance with Rules and Statutes Section of this document.

⁴ No such similar requirement exists to meet gas customer service needs.

(Compliance and General Information), as well as cost-benefit analyses and technology assumptions (Appendix).

Xcel Energy tailors its marketing efforts to each customer segment based on the number of customers in the segment, relative energy and demand use of customers in the segment, and amount of conservation potential at a customer site. The Company generally uses a more personal sales approach for large commercial and industrial customers because they generally offer greater and more complex conservation and load management opportunities. In contrast, conservation potential for an individual residential customer is small and costs per participant need to be strictly controlled; therefore, for this segment, the Company relies more heavily on advertising and promotion.

In structuring our Biennial Plan in this manner, the Company requests that the Department approve the proposed goals and budgets by Segment. This approach will allow us greater flexibility in managing the cost effectiveness of our CIP. An overview of each Segment and its proposed goals and budgets follows.

Commercial & Industrial Segment

The C&I Segment is defined as customers with aggregated demand of over 500 kW or 200 MCF per day. Demand-side management (DSM) sales to this customer segment are achieved through Xcel Energy's account managers, end-use equipment vendors, and energy service companies (ESCOs). These sales channels have been highly successful because they couple relationship selling with a profitable source of business for external vendors.

The Company's proposed goals and budgets for the Commercial & Industrial Segment follow:

- 319.8 GWh in electric energy and 476,880 MCF in gas savings during the biennium;
- \$32.4 million in electric budget and \$2.1 million in gas budget during the biennium, and
- 3,582 electric and 564 gas participants during the biennium.

Xcel Energy targets the Commercial and Industrial (C&I) segment for the majority of the planned energy and demand savings in this Biennial Plan. Although economies of scale enable this customer segment to provide the lowest cost DSM per unit of energy saved, C&I conservation and load management is some of the most difficult to achieve over time. This occurs because C&I customers tend to require very short paybacks on investments and do not necessarily readily respond to traditional mass marketed appeals.

Small Business Segment

The electric Small Business Segment consists of a wide variety of businesses with demand of less than 500 kW and 200 MCF per day. Small Business customer questions and concerns are handled by the Company's Business Solutions Center. Typical customers include: light manufacturing, churches, restaurants, retail shops, strip malls, service establishments, and small office buildings. Energy usage varies by type of customer, but most businesses of this size have similar end-use applications including: lighting, space conditioning, process load, refrigeration, and water heating.

The Company's proposed goals and budgets for the Small Business segment during the biennium follow:

- 27.1 GWh in electric energy and 84,158 MCF of gas savings;
- \$7.8 million in electric budget and \$614,866 in gas budget; and
- 107,034 electric and 792 gas participants.

Residential Segment

Based on 2003 annual data, the Company's electric Residential Segment in Minnesota consists of over one million households including single-family dwellings, apartments and condominiums. The gas segment, which generally includes the St. Paul area and surrounding suburbs, consists of nearly 400,000 households.

The Company's proposed goals and budgets for the Residential Segment during the biennium follow:

- 12.2 GWh in electric energy and 224,650 MCF of gas savings;
- \$24.4 million in electric budget and \$2.5 million in gas budget; and
- 796,209 electric and 298,934 gas participants during the biennium.

This CIP Biennial Plan utilizes a balance of direct impact programs, indirect-impact services and traditional educational tools. Xcel Energy developed this plan to recognize that this market requires: choices of conservation opportunities that accommodate various lifestyles, convenient participation, and information to make wise energy choices presented in useable and understandable forms and formats.

Low Income Energy Services Segment

The Low-Income Energy Services Segment consists of the Low-Income Weatherization and Home Efficiency programs. The primary objective of the Low-Income Energy Services Segment is to reduce energy consumption in low-income customers' homes and thereby lower low-income customer bills.

Low-Income Weatherization will continue to be administered through Community Action Agencies (CAAs) throughout Xcel Energy's Minnesota service territory. CAAs are able to combine Xcel Energy's funding with DOE Weatherization Assistance funding, Emergency-Related Repair, and other agencies' funding, and have the infrastructure in place to effectively deliver weatherization services.

The Company's proposed goals and budgets for the Low-Income Energy Services Segment during the biennium follow:

- 2.2 GWh in electric energy and 22,554 MCF in gas savings;
- \$1.5 million in electric budget and \$1.4 million in gas budget, and
- 10,980 electric and 1,002 gas participants.

Planning and Research Segment

The Planning and Research Segment is a revised version of the Research, Planning and Development Segment included in the Company's 2003/2004 CIP Biennial Plan. This segment houses the indirect impact programs that are not directly affiliated with a specific direct impact program. Planning includes Regulatory Affairs and CIP Training; Research includes Product Development (subject to the Research and Development cap), Market Research (a portion of which is subject to the Evaluations cap) and funding for the University of Minnesota Initiative for Renewable Energy and the Environment.

The Company's proposed budgets for the Planning and Research Segment during the biennium are:

- \$7.3 million in electric budget and \$758,944 in gas budget.

Trends

Xcel Energy's 2005/2006 Biennial Plan does not embody significant overall changes from prior plans. Although shifts in program and segment goals and achievements continue to occur there are few notable wholesale modifications. The lack of significant change is a testament to the fact that most of the Company's programs are functioning well and that other factors that would drive major modifications (such as a severe economic slowdown, changes to resource plan goals, or statutory/regulatory changes, code changes) have been limited.

In the proposed plan, the Commercial & Industrial & Small Business Custom Efficiency, Energy Design Assistance, and Lighting Efficiency programs constitute approximately 71 percent of the total business program's energy savings goals and 62 percent of the Company's total CIP energy savings goals. This concentration generally results from the fact that major efficiency improvements for businesses exist in the areas of lighting, building envelope and general design, and industrial process changes. The most obvious example of the way the Company's CIP has adapted to changing marketplace needs is the approximately 176 percent increase in goals experienced by the Custom Efficiency program when compared with the 2003/2004 Biennial Plan. The Custom Efficiency program serves as the avenue for business customers with technology and process change projects that do not readily fit into one of the Company's prescriptive rebate programs. The Custom Efficiency model, although typically more resource-intensive than prescriptive business programs, provides opportunities for significant efficiency improvements within large and small businesses.

Other changes from the last Biennial Plan include⁵:

- Addition of the Distributed Generation Incentive program (The Department originally approved this program for 2004, and so the 2005/2006 Biennial is the first full biennium for the new program);
- Inclusion of Custom Efficiency Influenced Savings policy changes (The Department originally approved this policy as part of the Company's 2002 CIP Status Report and

⁵ For more detail, please refer to the Program Modifications table located in the Appendix of this Plan.

subsequently approved clarifications to the policy in 2003; 2005/2006 is the first Biennial Plan to include the policy. The Company is also requesting changes to the policy as part of the 2005/2006 Biennial Plan.);

- Addition of new lighting technologies, on-line energy assessments, and various Custom Efficiency technologies such as Energy Management Systems;
- Inclusion of funding for the University of Minnesota Initiative for Renewable Energy and the Environment (as required by 2003 amendments to Minn. Stat. §216B.241), and
- Continued integration of gas and electric programs in order to leverage efficiencies and market opportunities.

Goal Setting

Xcel Energy draws upon a variety of sources to develop its Biennial Plan. One of the major sources is the Integrated Resource Planning (IRP) process and the Company's continuing effort to comply with the DSM goals established by the Minnesota Public Utilities Commission (MPUC) in its 2000-2014 Resource Plan *Order (Docket No. E-002/RP-00-787)*.⁶ The Company strongly believes that the goals embodied in the current proposal maintain our ability to meet the aggressive requirements imposed in the 2000 resource plan.⁷ Xcel Energy is scheduled to file a new IRP in November 2004, which could affect goal setting for the 2007/2008 Biennial Plan.

The other major factors guiding development of the current Plan are Xcel Energy's understanding of the potential for cost effective conservation and load management within our service territory and known or anticipated changes in the marketplace during the 2005/2006 biennium. In 2003, Xcel Energy completed a comprehensive assessment of conservation potential within the Company's Minnesota service territory. Although the detailed results from this assessment will find their most meaningful manifestation in the Company's upcoming November 2004 IRP filing, results related to specific technologies and customer segments have also helped guide goal setting. The most significant changes in the Company's marketplace that can be foreseen, though, are expected to come from modifications to the Minnesota State Energy Code. By the Company's estimates, these modifications when implemented will reduce CIP potential by about 20 GWh per year.⁸

By increasing minimum efficiencies and establishing new equipment standards, changes to the State Energy Code likely constitute some of the most cost effective means by which to effect greater levels of conservation and energy efficiency. However, in terms of Xcel Energy's CIP, such changes reduce the amount of energy and demand savings for which the Company can take credit. This occurs because such energy and demand savings will take place whether or not Xcel Energy encourages their adoption.

⁶ The relationship between the current Biennial filing and goals from the 2000-2014 Resource Plan is further discussed in the Compliance and General Information section of this document.

⁷ As discussed in the Compliance and General Information section, Xcel Energy committed in its 2002 Resource Plan update to maintain its commitment to the 2000 Plan Ordered goals.

⁸ Although not incorporated into the 2005/2006 Biennial Plan, the increase in federal minimum efficiency standards for residential central air conditioning units will have a substantial effect on Xcel Energy's 2007/2008 Residential Segment.

In the current Biennial Plan, Xcel Energy has assumed that revisions to the Minnesota Energy Code will be adopted for the 2005/2006 biennium. These revisions will be particularly apparent in goals for the Company's Energy Design Assistance (EDA) program, as EDA is the main program that deals with new commercial construction.

Xcel Energy used these parameters to help develop the energy and demand savings and budget goals included in the current filing. For the electric portion of the Biennial Plan, marketing staff started with the 2005 IRP goal of 225 GWh and reserved approximately 27 GWh for presumed alternative filings. The Company, in turn, further subtracted 20 GWh, which was the estimated reduction in available energy savings caused by changes to the State Energy Code. The result was an "in-house" target of approximately 178 GWh.

Using the 178 GWh target as a guide, Xcel Energy's marketing staff built program goals and budgets based on historical achievements and knowledge about the specific segments and technologies. In certain cases, certain programs such as Custom Efficiency and Recommissioning were forced to increase goals to make up for anticipated losses to programs such as Energy Design Assistance. The anticipated net 207 GWh in 2005 and 208 GWh in 2006 overall goals (including anticipated alternative filings) compare favorably with the kWh goals the Department approved for the 2003/2004 Biennial (208 GWh for 2003 and 209 GWh for 2004).

For the gas portion of the Biennial Plan, the Company attempted to keep consistent with 2003/2004 energy savings and spending goals.

The Company proposes ambitious but reasonable overall electric goals of approximately 207 GWh for 2005 and 208 GWh for 2006.⁹ Because Xcel Energy has run comprehensive conservation and load management programs for well over a decade, the potential to achieve cost effective conservation and load management is lessening. This occurs because there is a finite amount of cost effective available conservation and load management. It should be noted, though, that cost effectiveness as it applies to conservation and load management is not static; rather, with each Biennial Plan and, more directly, with each Resource Plan, the Company updates its understanding of electric and gas system costs that conservation and load management programs defer or avoid. If one assumes that avoided costs are fixed, then the cost to achieve various levels of conservation and load management is increasing, mainly due to high levels of saturation for more efficient technologies.

Historical Achievements

The 2005/2006 CIP Biennial Plan continues Xcel Energy's longstanding commitment to demand-side management. Although DSM activities in many states around the country have ebbed and flowed with changes to laws regarding electric and gas utility regulation and differing philosophical views about the most appropriate way to stimulate more efficient use of energy, Minnesota and Xcel Energy as its largest utility have generally maintained a fairly consistent approach to DSM as manifest in the CIP program. This longstanding commitment and dedication to excellence in running cost effective conservation and load management programs places the Company among the nation's top utilities in terms of energy and demand saved.

⁹ Again this total includes 27 GWh from anticipated alternative filings.

Between 1992 and 2003, Xcel Energy has invested over \$450 million (nominal) resulting in 3,147 GWh of electric energy savings, 1,439 MW of electric demand savings and an estimated 3,429 MCF of natural gas demand and 3,428,537 MCF of gas energy savings.

Conclusion

Northern States Power d/b/a Xcel Energy submits for Department of Commerce approval the 2005/2006 CIP Biennial Plan. The Plan does not constitute a significant change from the 2003/2004 Biennial Plan and continues to meet the aggressive Resource Plan goals for conservation and load management established by the Minnesota Public Utilities Commission. The Company respectfully requests that the Department approve this filing and the goals and budget provided herein.

Xcel Energy
 Total CIP
 Project Information Sheet

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$10,182,324	\$1,569,613	\$11,751,936
Utility Administration	\$2,227,083	\$322,686	\$2,549,769
Other Project Administration	\$3,528,473	\$153,374	\$3,681,847
Advertising/Promotion	\$3,360,132	\$292,508	\$3,652,640
Evaluations	\$532,134	\$89,828	\$621,962
R&D	\$400,000	\$0	\$400,000
Incentives (Rebates)	\$14,776,979	\$1,102,490	\$15,879,469
Other	\$1,799,934	\$151,013	\$1,950,947
Less Revenues	(\$151,820)	(\$32,100)	(\$183,920)
Total Budget	\$36,655,238	\$3,649,411	\$40,304,650
Total Number of Participants	458,907	150,646	
Total En. Savings-Generator (kWh)	179,974,955		
Total En. Savings-Meter (kWh)	181,348,066		
Total Demand Savings Generator (kW)	86,063		
Total Natural Gas Energy Savings (MCF)		404,125	
Project Type Percentage Expenditure			
Residential			
Small Business			
C&I Combined			
Other: R&D			
Low-Income Participation (%)			
Participants (#)			
Budget (\$)			
Renter Participation (%)			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$761	\$28,809,271	
B/C Ratio	24.12	2.39	
Participant B/C Results			
Net Present Value	\$815	\$47,674,429	
B/C Ratio	INF	2.25	
Rate Impact B/C Results			
Net Present Value	(\$51)	\$13,807,010	
B/C Ratio	0.94	1.42	
Revenue Requirements B/C Results			
Net Present Value	-\$585	\$39,728,939	
B/C Ratio	4.42	6.95	
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact			
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)			
Lighting			
Process			
Motor			
Refrigeration			
Space Cooling			
Space Heating			
Water Heating			
Weatherization			
General/Other			
Ratemaking treatment: expensed	X	X	

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$10,375,211	\$1,649,644	\$12,024,855
Utility Administration	\$2,279,424	\$312,823	\$2,592,247
Other Project Administration	\$3,499,196	\$153,979	\$3,653,175
Advertising/Promotion	\$3,396,301	\$293,378	\$3,689,679
Evaluations	\$567,509	\$90,304	\$657,813
R&D	\$400,000	\$0	\$400,000
Incentives (Rebates)	\$14,542,522	\$1,102,490	\$15,645,012
Other	\$1,799,934	\$151,013	\$1,950,947
Less Revenues	(\$151,820)	(\$42,100)	(\$193,920)
Total Budget	\$36,708,277	\$3,711,531	\$40,419,808
Total Number of Participants	459,198	150,646	
Total En. Savings-Generator (kWh)	181,272,824		
Total En. Savings-Meter (kWh)	182,568,062		
Total Demand Savings Generator (kW)	84,375		
Total Natural Gas Energy Savings (MCF)		404,125	
Project Type Percentage Expenditure			
Residential			
Small Business			
C&I Combined			
Other: R&D			
Low-Income Participation (%)			
Participants (#)			
Budget (\$)			
Renter Participation (%)			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$804	\$28,809,271	
B/C Ratio	61.62	2.39	
Participant B/C Results			
Net Present Value	\$840	\$47,674,429	
B/C Ratio	INF	2.25	
Rate Impact B/C Results			
Net Present Value	(\$42)	\$13,807,010	
B/C Ratio	0.95	1.42	
Revenue Requirements B/C Results			
Net Present Value	\$597	\$39,728,939	
B/C Ratio	4.44	6.95	
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact			
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)			
Lighting			
Process			
Motor			
Refrigeration			
Space Cooling			
Space Heating			
Water Heating			
Weatherization			
General/Other			
Ratemaking treatment: expensed	X	X	

➤ Total Minnesota Electric CIP

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$293	\$293	\$293	\$293
T & D	N/A	178	178	178	178
Marginal Energy	N/A	285	285	285	285
Externality Willingness	N/A	N/A	N/A	N/A	39
Subtotal	N/A	\$755	\$755	\$755	\$794
Xcel Energy Project Costs					
Subtotal	N/A	\$171	\$171	\$171	\$171
Subtotal	N/A	\$171	\$170.88	\$171	\$171
Revenue Reduction	\$676	N/A	\$635	\$0	\$0
Subtotal	\$676	N/A	\$635.42	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$291	N/A	N/A	\$286	\$286
Incremental O&M	(364)	N/A	N/A	(358)	(358)
Rebates	(65)	N/A	N/A	(65)	(65)
Subtotal	(\$139)	N/A	N/A	(\$138)	(\$138)
Net Present Benefit (Cost)	\$815	\$585	(\$50.86)	\$723	\$761
Net Benefit (Cost) per kWh Lifetime	\$0.065	\$0.047	(\$0.004)	\$0.058	\$0.061
Net Present Benefit (Cost) per Generator	\$2,001	\$1,434	(\$125)	\$1,773	\$1,868
Benefit Cost Ratio	INF	4.42	0.94	22.94	24.12

Project Assumptions:

Measure Lifetime (Years)	15
(A) Gross Load Factor at Customer (LF)	9.65%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	845
(C) Free Driver/Free Rider Factor (Energy)	93.2%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	788
(E) Transmission Loss Factor	6.1%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	839
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	98.4%
(G) Net Customer kW: (F)*(C)=	0.984
(H) Coincidence Factor at Generator	38.89%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.408

* Xcel Energy Project Cost per kWh Lifetime \$0.014
* Xcel Energy Project Cost per kW at Gen \$419.2

➤ Total Minnesota Electric CIP

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$297	\$297	\$297	\$297
T & D	N/A	183	183	183	183
Marginal Energy	N/A	290	290	290	290
Externality Willingness	N/A	N/A	N/A	N/A	47
Subtotal	N/A	\$771	\$771	\$771	\$818
Xcel Energy Project Costs					
Subtotal	N/A	\$173	\$173	\$173	\$173
Revenue Reduction	\$679	N/A	\$639	\$0	\$0
Subtotal	\$679	N/A	\$639.19	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$294	N/A	N/A	\$290	\$290
Incremental O&M	(389)	N/A	N/A	(383)	(383)
Rebates	(67)	N/A	N/A	(67)	(67)
Subtotal	(\$162)	N/A	N/A	(\$160)	(\$160)
Net Present Benefit (Cost)	\$840	\$597	(\$42.09)	\$757	\$804
Net Benefit (Cost) per kWh Lifetime	\$0.066	\$0.047	(\$0.003)	\$0.059	\$0.063
Net Present Benefit (Cost) per Generator	\$2,075	\$1,474	(\$104)	\$1,869	\$1,986
Benefit Cost Ratio	INF	4.44	0.95	58.07	61.62

Project Assumptions:

Measure Lifetime (Years)	15
(A) Gross Load Factor at Customer (LF)	9.85%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	863
(C) Free Driver/Free Rider Factor (Energy)	93.3%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	804
(E) Transmission Loss Factor	6.1%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	856
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	98.4%
(G) Net Customer kW: (F)*(C)=	0.984
(H) Coincidence Factor at Generator	38.66%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.405

* Xcel Energy Project Cost per kWh Lifetime \$0.014
* Xcel Energy Project Cost per kW at Gen \$428.1

Total Minnesota Electric CIP

	2005	2006
(A) Gross Customer kW reduction per participant	0.47	0.46
(B1) Free Driver/Free Rider Factor (Demand)	98.4%	98.4%
(C) Net Customer kW reduction per participant: (A)*(B1)=	0.46	0.45
(D) Coincident factor	38.9%	38.7%
(E) Transmission Loss Factor	6.1%	6.1%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.19	0.19
(G) Gross kWh/Year saved per Customer kW	845	863
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	395	398
(B) Free Driver/Free Rider Factor (Energy)	93.2%	93.3%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	368	371
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	392	395
(K) Estimated participant penetration rates	458,907	459,198
Total Gross customer kW reduction: (A)*(K)=	214,511	211,665
Total Net Customer kW reduction: (C)*(K)=	211,144	208,298
Total Net Summer Generator kW reduction: (F)*(K)=	86,063	84,375
Total Gross kWh reduction at Customer per year: (H)*(K)=	169,032,992	182,568,062
Total Net kWh reduction at Customer per year: (I)*(K)=	179,974,955	170,252,988
Total Net kWh reduction at Generator per year: (J)*(K)=	179,974,955	181,272,824
Total Budget	\$ 36,655,238	\$ 36,708,277

➤ Total Minnesota Electric Conservation

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test (\$/kW)	Utility Test (\$/kW)	Rate Impact Test (\$/kW)	Total Resource Test (\$/kW)	Societal Test (\$/kW)
Avoided Revenue Requirements					
Generation	N/A	\$578	\$578	\$578	\$578
T & D	N/A	\$353	\$353	\$353	\$353
Marginal Energy	N/A	\$1,033	\$1,033	\$1,033	\$1,033
Externality Willingness	N/A	N/A	N/A	N/A	\$142
Subtotal	N/A	\$1,965	\$1,965	\$1,965	\$2,107
Xcel Energy Project Costs					
Xcel Energy Project Costs	N/A	\$489	\$489	\$489	\$489
Subtotal	N/A	\$489	\$489	\$489	\$489
Revenue Reduction					
Revenue Reduction	\$1,872	N/A	\$1,722	\$0	\$0
Subtotal	\$1,872	N/A	\$1,722	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,068	N/A	N/A	\$1,006	\$1,006
Incremental O&M	-\$1,338	N/A	N/A	-\$1,261	-\$1,261
Rebates	-\$241	N/A	N/A	-\$241	-\$241
Subtotal	-\$511	N/A	N/A	-\$496	-\$496
Net Present Benefit (Cost)	\$2,383	\$1,476	-\$246	\$1,971	\$2,113
Net Benefit (Cost) per kWh Lifetime	\$0.044	\$0.027	(\$0.005)	\$0.036	\$0.039
Net Present Benefit (Cost) per Generator	\$3,161	\$1,957	(\$327)	\$2,614	\$2,803
Benefit Cost Ratio	INF	4.02	0.89	INF	INF

Project Assumptions:

Measure Lifetime (Years)	18
(A) Gross Load Factor at Customer (LF)	35.09%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	3,074
(C) Free Driver/Free Rider Factor (Energy)	93.1%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	2,863
(E) Transmission Loss Factor	6.1%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	3,048
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	94.2%
(G) Net Customer kW: (F)*(C)=	0.942
(H) Coincidence Factor at Generator	75.16%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.754

* Xcel Energy Project Cost per kWh Lifetime \$0.009
* Xcel Energy Project Cost per kW at Gen \$648.7

➤ Total Minnesota Electric Conservation

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test (\$/kW)	Utility Test (\$/kW)	Rate Impact Test (\$/kW)	Total Resource Test (\$/kW)	Societal Test (\$/kW)
Avoided Revenue Requirements					
Generation	N/A	\$574	\$574	\$574	\$574
T & D	N/A	\$361	\$361	\$361	\$361
Marginal Energy	N/A	\$1,037	\$1,037	\$1,037	\$1,037
Externality Willingness	N/A	N/A	N/A	N/A	\$169
Subtotal	N/A	\$1,972	\$1,972	\$1,972	\$2,142
Xcel Energy Project Costs					
Subtotal	N/A	\$488	\$488	\$488	\$488
Revenue Reduction	\$1,842	N/A	\$1,699	\$0	\$0
Subtotal	\$1,842	N/A	\$1,699	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,065	N/A	N/A	\$1,004	\$1,004
Incremental O&M	(\$1,407)	N/A	N/A	(\$1,326)	(\$1,326)
Rebates	(\$243)	N/A	N/A	(\$243)	(\$243)
Subtotal	(\$585)	N/A	N/A	(\$565)	(\$565)
Net Present Benefit (Cost)	\$2,427	\$1,484	-\$215	\$2,049	\$2,218
Net Benefit (Cost) per kWh Lifetime	\$0.047	\$0.029	(\$0.004)	\$0.040	\$0.043
Net Present Benefit (Cost) per Generator	\$3,241	\$1,981	(\$287)	\$2,736	\$2,962
Benefit Cost Ratio	INF	4.04	0.90	INF	INF

Project Assumptions:

Measure Lifetime (Years)	17
(A) Gross Load Factor at Customer (LF)	34.18%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	2,994
(C) Free Driver/Free Rider Factor (Energy)	93.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	2,783
(E) Transmission Loss Factor	6.1%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	2,963
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	94.2%
(G) Net Customer kW: (F)*(C)=	0.942
(H) Coincidence Factor at Generator	74.63%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.749

* Xcel Energy Project Cost per kWh Lifetime \$0.009
* Xcel Energy Project Cost per kW at Gen \$652.3

Total Minnesota Electric Conservation

	2005	2006
(A) Gross Customer kW reduction per participant	0.14	0.14
(B1) Free Driver/Free Rider Factor (Demand)	94.2%	94.2%
(C) Net Customer kW reduction per participant: (A)*(B1)=	0.13	0.13
(D) Coincident factor	75.2%	74.6%
(E) Transmission Loss Factor	6.1%	6.1%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.11	0.10
(G) Gross kWh/Year saved per Customer kW	3,074	2,994
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	429	418
(B) Free Driver/Free Rider Factor (Energy)	93.1%	93.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	400	389
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	425	414
(K) Estimated participant penetration rates	418,294	418,594
Total Gross customer kW reduction: (A)*(K)=	58,363	58,492
Total Net Customer kW reduction: (C)*(K)=	54,996	55,125
Total Net Summer Generator kW reduction: (F)*(K)=	41,468	41,281
Total Gross kWh reduction at Customer per year: (H)*(K)=	179,425,579	175,114,006
Total Net kWh reduction at Customer per year: (I)*(K)=	167,110,505	162,798,931
Total Net kWh reduction at Generator per year: (J)*(K)=	177,918,904	173,332,124
Total Budget	\$ 28,546,082	\$ 28,571,221

► Total Minnesota Electric Load Management

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$186	\$186	\$186	\$186
T & D	N/A	112	112	112	112
Marginal Energy	N/A	5	5	5	5
Externality Willingness	N/A	N/A	N/A	N/A	0
Subtotal	N/A	\$303	\$303	\$303	\$304
Xcel's Project Costs					
Subtotal	N/A	\$52	\$52	\$52	\$52
Revenue Reduction	\$229	N/A	\$229	\$0	\$0
Subtotal	\$229	N/A	\$229	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$229	\$252	\$22	\$252	\$252
Net Benefit (Cost) per kWh Lifetime	\$1,297	\$1,422	\$0.125	\$1,422	\$1,424
Net Present Benefit (Cost) per Generator	\$803	\$881	\$78	\$881	\$882
Benefit Cost Ratio	INF	5.84	1.08	5.84	5.85

Project Assumptions:

Measure Lifetime (Years)	14
(A) Gross Load Factor at Customer (LF)	0.14%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	12
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	12
(E) Transmission Loss Factor	6.5%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	13
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	26.72%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.286

* Xcel Project Cost per kWh Lifetime

\$0.294

* Xcel Project Cost per kW at Gen

\$181.8

► Total Minnesota Electric Load Management

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$191	\$191	\$191	\$191
T & D	N/A	115	115	115	115
Marginal Energy	N/A	5	5	5	5
Externality Willingness	N/A	N/A	N/A	N/A	0
Subtotal	N/A	\$312	\$312	\$312	\$312
Xcel Energy Project Costs					
Subtotal	N/A	\$53	\$53	\$53	\$53
Revenue Reduction	\$235	N/A	\$235	\$0	\$0
Subtotal	\$235	N/A	\$235	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$235	\$258	\$24	\$258	\$259
Net Benefit (Cost) per kWh Lifetime	\$1.458	\$1.607	\$0.149	\$1.607	\$1.610
Net Present Benefit (Cost) per Generator	\$834	\$919	\$85	\$919	\$920
Benefit Cost Ratio	INF	5.87	1.08	5.87	5.87

Project Assumptions:

Measure Lifetime (Years)	14
(A) Gross Load Factor at Customer (LF)	0.13%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	12
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	12
(E) Transmission Loss Factor	0.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	12
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	28.13%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.281

* Xcel Energy Project Cost per kWh Lifetime	\$0.330
* Xcel Energy Project Cost per kW at Gen	\$188.8

Total Minnesota Electric Load Management

	2005	2006
(A) Gross Customer kW reduction per participant	3.84	3.77
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	3.84	3.77
(D) Coincident factor	26.7%	28.1%
(E) Transmission Loss Factor	6.5%	0.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1.10	1.06
(G) Gross kWh/Year saved per Customer kW	12	12
(H) Gross kWh reduction per participant at Customer per year: (A)*	46	43
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)	46	43
(J) Net kWh reduction per participant at Generator per year: (I)/(1-I	49	43
(K) Estimated participant penetration rates	40,613	40,604
Total Gross customer kW reduction: (A)*(K)=	156,148	153,173
Total Net Customer kW reduction: (C)*(K)=	156,148	153,173
Total Net Summer Generator kW reduction: (F)*(K)=	44,596	43,094
Total Gross kWh reduction at Customer per year: (H)*(K)=	1,870,336	1,761,558
Total Net kWh reduction at Customer per year: (I)*(K)=	1,870,336	1,761,558
Total Net kWh reduction at Generator per year: (J)*(K)=	1,999,366	1,761,558
Total Budget	\$ 8,109,156	\$ 8,137,055

Conservation Improvement Program (CIP)

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

**Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Company: Xcel Energy (Natural Gas)
Project: Total CIP w/ Indirect Participants

Summary Information

Input Data

1) Retail Rate (\$/MCF) =	\$8.81
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Uni/Yr) =	\$93.88
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

15) Utility Project Costs (First Year)	
Administrative Costs =	\$1,201,486
Direct Operating Costs =	\$1,350,435
Incentive Costs =	\$1,097,490
Total Utility Project Costs =	\$3,649,411
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$1,299,577
Direct Operating Costs =	\$1,368,300
Incentive Costs =	\$1,097,490
Total Utility Project Costs =	\$3,765,367
16) Direct Participant Costs (\$/Part.) =	51.5
17) Other Participant Costs (Annual \$/Part.) =	0.7
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	4.08%
20) Avg. Consumption (MCF/Part.) =	66.7
21) Avg. MCF/Part. Saved (First Year Program) =	2.7
21a) Avg. MCF/Part. Saved (Second Year Program) =	2.7
22) Number of Participants (First Year Program) =	150,145
22a) Number of Participants (Second Year Program) =	150,145
23) Incentive/Participant (First Year Program) =	\$7
23a) Incentive/Participant (Second Year Program) =	\$7

Company: Xcel Energy (Natural Gas)
Project:

Cost Summary

Utility Cost per Participant (First Year) =	\$24.31
Utility Cost per participant (Second Year) =	\$25.08
Total Energy Reduction (MCF)	12,251,867
Societal Cost per MCF	\$1.68
Cost per Participant per MCF (First Year) =	\$28.10
Cost per Participant per MCF (Second Year) =	\$28.39

Test Results

	NPV	B/C
Cost Comparison Test	\$13,822,716	1.42
Revenue Requirements Test	\$39,744,644	6.97
Societal Benefit Test	\$28,824,976	2.40
Participant Test	\$47,688,559	2.25

XVTX
III

Conservation Improvement Program (CIP)

Company: Xcel Energy (Natural Gas)
 Project: Total CIP Direct Participants & Costs Only

Input Data

1) Retail Rate (\$/MCF) =	\$8.81
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.88
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$867,189
Direct Operating Costs =	\$1,002,755
Incentive Costs =	\$1,097,490
Total Utility Project Costs =	\$2,967,434
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$876,210
Direct Operating Costs =	\$1,010,638
Incentive Costs =	\$1,097,490
Total Utility Project Costs =	\$2,984,338
16) Direct Participant Costs (\$/Part.) =	362.61
17) Other Participant Costs (Annual \$/Part.) =	4.80
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	4.08%
20) Avg. Consumption (MCF/Part.) =	470.12
21) Avg. MCF/Part. Saved (First Year Program) =	19.18
21a) Avg. MCF/Part. Saved (Second Year Program) =	19.18
22) Number of Participants (First Year Program) =	21,295
22a) Number of Participants (Second Year Program) =	21,295
23) Incentive/Participant (First Year Program) =	\$52
23a) Incentive/Participant (Second Year Program) =	\$52

Conservation Improvement Program (CIP)
 BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: Xcel Energy (Natural Gas)
 Project:

Cost Summary

Utility Cost per Participant (First Year) =	\$139.35
Utility Cost per participant (Second Year) =	\$140.15
Total Energy Reduction (MCF)	12,251,867
Societal Cost per MCF	\$1.58
Cost per Participant per MCF (First Year) =	\$26.43
Cost per Participant per MCF (Second Year) =	\$26.48

Test Results

	NPV	B/C
Cost Comparison Test	\$15,133,517	1.48
Revenue Requirements Test	\$41,055,446	8.68
Societal Benefit Test	\$30,135,778	2.56
Participant Test	\$61,364,267	4.07

XTX

2005 Goals								
	Electric Participation	Electric Budget	Electric Marketing Demand (kW)	Electric Generator Demand (kW)	Electric Generator Energy (kWh)	Gas Participation	Gas Budget	Gas Energy Savings (MCF)
Commercial & Industrial Segment								
Boiler Efficiency	-	-	-	-	-	233	\$500,000	150,984
Compressed Air Efficiency	69	\$568,815	1,742	1,680	11,026,822	-	-	-
Cooling Efficiency	70	\$1,229,434	3,526	2,849	5,338,750	-	-	-
Custom Efficiency	194	\$2,691,600	9,422	5,944	46,761,803	19	\$280,050	59,175
DG Incentive Program	7	\$490,000	-	-	-	-	-	-
Energy Analysis	13	\$72,976	-	-	-	3	\$7,434	-
Energy Design Assistance	37	\$4,900,000	7,661	7,563	25,995,330	5	\$150,000	22,785
Financing	10	\$61,349	-	-	-	2	\$23,519	-
Lighting Efficiency	459	\$2,682,357	8,141	7,162	38,144,197	-	-	-
Motor Efficiency	278	\$1,451,316	7,096	2,617	17,995,083	-	-	-
Recommissioning	49	\$876,410	2,240	1,769	7,009,368	20	\$75,403	5,500
Refrigeration Efficiency	9	\$395,000	1,080	812	6,001,055	-	-	-
Roofing Efficiency	3	\$128,250	513	471	283,938	-	-	-
Energy Reduction Savings	47	\$369,750	15,725	7,938	611,674	-	-	-
Saver's Switch for Business	545	\$350,561	3,205	999	81,171	-	-	-
Commercial & Industrial Total	1,790	\$16,267,818	60,351	39,804	159,249,192	282	\$1,036,406	238,444
Conservation Total	1,168	\$14,923,182	41,421	30,867	158,556,348	277	\$1,005,453	238,444
Load Management Total	592	\$720,311	18,930	8,936	692,844	-	-	-
Non-Impacts	30	\$624,325	-	-	-	5	\$30,953	-
Small Business Segment								
Boiler Efficiency	-	-	-	-	-	189	\$130,474	20,034
Compressed Air Efficiency	14	\$72,976	188	183	987,355	-	-	-
Cooling Efficiency	120	\$389,716	808	645	1,021,248	-	-	-
Custom Efficiency	57	\$308,350	678	385	3,467,263	45	\$50,610	16,755
Energy Analysis	115	\$198,189	-	-	-	25	\$47,233	-
Energy Design Assistance	4	\$120,000	243	240	547,777	5	\$23,010	1,780
Financing	66	\$59,366	-	-	-	2	\$7,745	-
Furnace Efficiency	-	-	-	-	-	130	\$45,698	3,510
Lamp Recycling	48,066	\$81,420	-	-	-	-	-	-
Lighting Efficiency	176	\$207,097	990	881	4,466,118	-	-	-
Motor Efficiency	46	\$76,795	267	171	998,682	-	-	-
Refrigeration Efficiency	10	\$45,000	100	53	500,004	-	-	-
Roofing Efficiency	70	\$365,500	1,462	1,341	710,862	-	-	-
Energy Reduction Savings	16	\$65,250	2,775	1,566	122,613	-	-	-
Saver's Switch for Business	4,905	\$1,869,693	28,841	8,988	730,535	-	-	-
Small Business Total	53,665	\$3,859,352	36,352	14,454	13,552,457	396	\$304,770	42,079
Conservation Total	497	\$1,585,434	4,736	3,900	12,699,310	369	\$249,792	42,079
Load Management Total	4,921	\$1,934,943	31,616	10,554	853,148	-	-	-
Non-Impacts	48,247	\$338,975	-	-	-	27	\$54,978	-
Residential Segment								
Consumer Education	175,000	\$229,146	-	-	-	125,000	\$69,018	-
Energy Star	14,000	\$5,679,141	8,992	6,514	3,739,917	5,900	\$612,176	70,800
Energy Loans	100	\$70,110	-	-	-	60	\$35,114	-
High-Efficiency Showerheads	-	-	-	-	-	14,000	\$130,327	27,580
Home Efficiency	-	-	-	-	-	248	\$252,448	13,945
Home Energy Audit	8,130	\$478,527	-	-	-	4,259	\$158,961	-
Home Lighting Direct Purchase	40,086	\$242,225	2,125	73	1,825,169	-	-	-
Lamp Recycling	125,546	\$125,735	-	-	-	-	-	-
Saver's Switch	35,100	\$5,453,902	105,602	25,105	510,060	-	-	-
Residential Total	397,962	\$12,278,786	116,719	31,692	6,075,146	149,467	\$1,258,044	112,325
Conservation Total	54,086	\$5,921,366	11,117	6,587	5,565,086	20,148	\$994,951	112,325
Load Management Total	35,100	\$5,453,902	105,602	25,105	510,060	0	\$0	0
Non-Impacts	308,776	\$903,518	-	-	-	129,319	\$263,093	0
Low-Income Energy Services Segment								
Low Income Home Efficiency	-	-	-	-	-	20	\$24,238	706
Low Income Weatherization	5,490	\$756,800	1,089	113	1,098,160	481	\$693,000	10,571
Low-Income Total	5,490	\$756,800	1,089	113	1,098,160	501	\$717,238	11,277
Planning & Research Segment								
Planning								
CIP Training		\$75,000	-	-	-	-	-	-
DSM Regulatory Affairs		\$636,129	-	-	-	-	\$70,681	-
Research								
CIP Market Research		\$581,419	-	-	-	-	\$111,259	-
CIP Product Development		\$400,000	-	-	-	-	-	-
University of Minnesota IREE		\$1,799,934	-	-	-	-	\$151,013	-
Planning & Research Total		\$3,492,482	-	-	-	-	\$332,953	-
Total 2005 Minnesota CIP	458,907	\$36,655,238	214,511	86,063	179,974,955	150,646	\$3,649,411	404,125

2006 Goals									
	Electric Participation	Electric Budget	Electric Marketing Demand (kW)	Electric Generator Demand (kW)	Electric Generator Energy (kWh)	Gas Participation	Gas Budget	Gas Energy Savings (MCF)	
Commercial & Industrial Segment									
Boiler Efficiency	-	-	-	-	-	233	\$504,558	150,984	
Compressed Air Efficiency	69	\$573,195	1,742	1,680	11,026,822	-	-	-	
Cooling Efficiency	70	\$1,233,327	3,526	2,849	5,338,750	-	-	-	
Custom Efficiency	199	\$2,752,400	9,963	6,286	49,436,736	19	\$283,550	59,175	
DG Incentive	7	\$490,000	-	-	-	-	-	-	
Energy Analysis	13	\$75,506	-	-	-	3	\$7,932	-	
Energy Design Assistance	40	\$4,600,000	6,836	6,749	23,195,937	5	\$151,059	22,785	
Financing	10	\$63,139	-	-	-	2	\$24,037	-	
Lighting Efficiency	459	\$2,692,037	8,141	7,162	38,144,197	-	-	-	
Motor Efficiency	278	\$1,457,516	7,096	2,617	17,995,083	-	-	-	
Recommissioning	52	\$975,236	2,720	2,148	8,511,376	20	\$76,416	5,500	
Refrigeration Efficiency	9	\$396,494	1,080	812	6,001,055	-	-	-	
Roofing Efficiency	3	\$128,800	513	471	283,938	-	-	-	
Energy Reduction Savings	38	\$369,750	12,750	6,436	495,952	-	-	-	
Saver's Switch for Business	545	\$352,807	3,205	999	81,171	-	-	-	
Commercial & Industrial Total	1,792	\$16,160,207	57,574	38,209	160,531,018	282	\$1,847,552	238,444	
Conservation Total	1,179	\$14,809,005	41,619	30,775	159,953,896	277	\$1,015,583	238,444	
Load Management Total	583	\$722,557	15,955	7,435	577,122	-	-	-	
Non-Impacts	30	\$628,645	-	-	-	5	\$31,969	-	
Small Business Segment									
Boiler Efficiency	-	-	-	-	-	189	\$131,431	20,034	
Compressed Air Efficiency	14	\$73,619	188	183	987,355	-	-	-	
Cooling Efficiency	120	\$392,530	808	645	1,021,248	-	-	-	
Custom Efficiency	62	\$324,600	738	419	3,774,101	45	\$51,010	16,755	
Energy Analysis	115	\$207,216	-	-	-	25	\$49,329	-	
Energy Design Assistance	3	\$99,000	114	113	256,982	5	\$23,777	1,780	
Financing	66	\$61,019	-	-	-	2	\$7,935	-	
Furnace Efficiency	-	-	-	-	-	130	\$46,614	3,510	
Lamp Recycling	48,066	\$82,063	-	-	-	-	-	-	
Lighting Efficiency	176	\$208,757	990	881	4,466,118	-	-	-	
Motor Efficiency	46	\$77,891	267	171	998,682	-	-	-	
Refrigeration Efficiency	10	\$45,524	100	53	500,004	-	-	-	
Roofing Efficiency	70	\$366,670	1,462	1,341	710,862	-	-	-	
Energy Reduction Savings	16	\$65,250	2,775	1,566	122,613	-	-	-	
Saver's Switch for Business	4,905	\$1,901,802	13,230	8,988	730,535	-	-	-	
Small Business Total	53,669	\$3,905,941	20,672	14,361	13,568,500	396	\$310,096	42,079	
Conservation Total	501	\$1,583,591	4,667	3,806	12,715,352	369	\$252,832	42,079	
Load Management Total	4,921	\$1,967,052	16,005	10,554	853,148	-	-	-	
Non-Impacts	48,247	\$350,298	-	-	-	27	\$57,264	-	
Residential Segment									
Consumer Education	175,000	\$158,988	-	-	-	125,000	\$50,838	-	
Energy Loans	100	\$70,968	-	-	-	60	\$35,493	-	
Energy Star	14,000	\$5,564,279	8,992	6,514	3,739,917	5,900	\$614,132	70,800	
High-Efficiency Showerheads	-	-	-	-	-	14,000	\$131,304	27,580	
Home Efficiency	-	-	-	-	-	248	\$253,179	13,945	
Home Energy Audit	8,415	\$489,964	-	-	-	4,259	\$174,972	-	
Home Lighting Direct Purchase	40,086	\$243,612	2,125	73	1,825,169	-	-	-	
Lamp Recycling	125,546	\$126,058	-	-	-	-	-	-	
Saver's Switch	35,100	\$5,447,446	105,602	25,105	510,060	-	-	-	
Residential Total	398,247	\$12,101,315	116,719	31,692	6,075,146	149,467	\$1,259,918	112,325	
Conservation Total	54,086	\$5,807,891	11,117	6,587	5,565,086	20,148	\$998,615	112,325	
Load Management Total	35,100	\$5,447,446	105,602	25,105	510,060	0	\$0	0	
Non-Impacts	309,061	\$845,978	-	-	-	\$129,319	\$261,303	-	
Low-Income Energy Services Segment									
Low Income Home Efficiency	-	-	-	-	-	20	\$24,308	706	
Low Income Weatherization	5,490	\$756,800	1,089	113	1,098,160	481	\$693,000	10,571	
Low-Income Total	5,490	\$756,800	1,089	113	1,098,160	501	\$717,308	11,277	
Planning & Research Segment									
Planning									
CIP Training	-	\$75,000	-	-	-	-	-	-	
DSM Regulatory Affairs	-	\$737,154	-	-	-	-	\$81,906	-	
Research									
CIP Market Research	-	\$771,925	-	-	-	-	\$143,738	-	
CIP Product Development	-	\$400,000	-	-	-	-	-	-	
University of Minnesota IREE	-	\$1,799,934	-	-	-	-	\$151,013	-	
Planning & Research Total	-	\$3,784,013	-	-	-	-	\$376,657	-	
Total 2006 Minnesota CIP	459,198	\$36,708,276	196,054	84,375	181,272,824	150,646	\$3,711,531	404,125	

➤ **Compliance with Rules and Statutes**

This section outlines the relevant portions of Minn. Stat. and Rules applicable to the 2005/2006 Biennial Plan.

➤ **Biennial Plan Filing Requirements**

Minn. Stat. §216B.241, subd. 2(a) requires that public utilities file conservation improvement plans by June 1.

➤ **Combined Electric and Gas Variance Request**

Xcel Energy requests a variance to Minn. Rule 7690.0500 to allow for a combined natural gas and electric CIP filing. The variance was originally granted in the December 21, 2001 Decision in Docket Nos. E002/CIP-99-1057.03 and G002/CIP-98-723.02.

➤ **Minimum Spending Requirements**

Minn. Stat. §216B.241, subd. 1(a) states that:

Each public utility shall spend and invest for energy conservation improvements under this subdivision and subdivision 2 the following amounts:

- (1) for a utility that furnishes gas service, 0.5 percent of its gross operating revenues from service provided in the state; (emphasis added)
- (2) for a utility that furnishes electric service, 1.5 percent of its gross operating revenues from service provided in the state; and
- (3) for a utility that furnishes electric service and that operates a nuclear-powered electric generating plant within the state, two percent of its gross operating revenues from service provided in the state. (emphasis added)

Electric Minimum Spending Requirements	
2003 Gross Operating Revenue (GOR) ¹⁰	\$1,836,186,023
2003 CIP Exempt Customer Revenue ¹¹	\$ 36,251,550
Adjusted GOR	\$1,799,937,473
Statutory Spending Requirement (Percent of GOR)	2.0%
2005/2006 Minimum Spending Requirements	\$ 35,998,749
2005 Proposed Electric Spending	\$ 36,655,238
2006 Proposed Electric Spending	\$ 36,708,276
Proposed Budget Approximate Percent of 2003 GOR	2.04%

¹⁰ 2003 Minnesota Annual Jurisdictional Report E-30

¹¹ The 2003/2004 electric exempt customer revenue inadvertently excluded the main account for International Paper. The minimum spending requirements reported in the 2003/2004 CIP Biennial Plan should have been lower than originally calculated.

Natural Gas Minimum Spending Requirements:	
2003 Gross Operating Revenue (GOR) ¹²	\$615,157,089
2003 CIP Exempt Customer Revenue	\$11,105,240
Adjusted GOR	\$604,051,849
Statutory Spending Requirement (Percent of GOR)	0.5%
2005/2006 CIP Minimum Spending Requirements	\$3,020,259
2005 Proposed Natural Gas Spending	\$3,649,411
2006 Proposed Natural Gas Spending	\$3,711,531
Approximate Proposed Percent of CIP Funding of 2003 GOR	0.61%

➤ **Low Income Requirement**

Minn. Stat. §216B.241, subd. 2(f) states that:

(f) The commissioner shall ensure that a portion of the money spent on residential conservation improvement programs is devoted to programs that directly address the needs of renters and low-income persons, in proportion to the amount the utility has historically spent on such programs based on the most recent three-year average relative to the utility's total conservation spending under this section, unless an insufficient number of appropriate programs are available.

The Company interprets the low-income requirement to specifically target low-income customers, and does not track programs that serve renters as a specific population. The Company's Low-Income Energy Services Segment exclusively focuses on low-income customers and is used as the basis for meeting the statutory requirement.

Low Income Achievements 3-Year Average

Electric	Participation	Spending	Gen kW	Gen kWh	Total CIP Spending	LI as a % of Total
2001	1,997	\$570,702	44	405,026	\$37,154,938	1.54%
2002	1,140	\$472,160	35	284,953	\$38,328,482	1.23%
2003	1,898	\$634,300	49	287,136	\$42,164,788	1.50%
3 Year Average	1,678	\$559,054	43	325,705	\$39,216,069	1.42%
Gas	Participation	Spending	MCF		Total CIP Spending	LI as a % of Total
2001	360	\$625,716	13,346		\$3,297,906	18.97%
2002	398	\$610,238	6,510		\$2,715,615	22.47%
2003	466	\$596,564	11,858		\$3,933,423	15.17%
3 Year Average	408	\$610,839	10,571		\$3,315,648	18.87%

¹² 2003 Minnesota Annual Jurisdictional Report P-38 & 39

➤ Lighting Requirement

Minn. Stat. §216B.241, subd. 5 requires the Company to include, as part of its CIP, a project to “strongly encourage the use of fluorescent and high intensity discharge lamps”. The statute also requires the Company to establish a program to reclaim or recycle fluorescent and high intensity discharge lamps. Xcel Energy has met these requirements in its C&I Segment through its Lighting Efficiency program. In the Small Business Segment, the Company has met the requirements through its Lighting Efficiency and Lamp Recycling programs. In the Residential Segment compliance is met through the Home Lighting Direct Purchase, Consumer Education and Residential Lamp Recycling programs.

➤ Evaluation Spending Cap

Minn. Stat. §216B.241, subd. 2(h) prohibits a utility from spending more than 3 percent of its minimum-spending requirement on “program pre-evaluation, testing and monitoring and audit and evaluation”. The Company’s proposed evaluation spending for electric is \$532,134 (1.5 percent) in 2005 and \$567,509 (1.6 percent) in 2006. The proposed spending for gas is \$89,828 (3.0 percent) in 2005 and \$90,304 (3.0 percent) in 2006.

➤ Research and Development Spending Cap

Minn. Stat. §216B.241, subd. 2(c) prohibits a utility from spending more than 10 percent of its minimum-spending requirement on research and development projects. The Company’s proposed R&D spending for electric is \$400,000 (1.1 percent) in 2005 and \$400,000 (1.1 percent) in 2006. The Company has not budgeted for any gas R&D.

➤ Renewable Energy Research

Minn. Stat. §216B.241, subd. 6 requires a public utility with nuclear facilities to contribute five percent of its minimum gas and electric spending requirement to support basic and applied research and demonstration activities at the University of Minnesota Initiative for Renewable Energy and the Environment (U of M IREE). Xcel Energy has met this requirement in its 2005/2006 CIP Biennial Plan proposal to annually contribute to the U of M IREE \$1,799,934 from its electric budget and \$151,013 from its gas budget.

➤ Distributed Energy Resources

Minn. Stat. §216B.2411 (*Distributed Energy Resources*) authorizes a public utility to spend up to five percent of its minimum-spending requirement on distributed energy resources (DG). In the 2005/2006 CIP Biennial Plan, the Company proposes to include as an indirect impact C&I program the Distributed Generation Incentive program. Total program costs equal \$490,000 in 2005 and \$490,000 in 2006, or approximately 1.4 percent of Xcel Energy’s minimum electric spending requirement.

➤ Support of Integrated Resource Plan Goals

In establishing energy and demand savings goals for the Conservation Improvement Program, Xcel Energy seeks direction from regulatory and statutory requirements and the Company's own understanding of demand-side management (DSM) potential within its service territory. The specific regulatory requirements that guide electric goal setting include Minnesota Public Utilities Commission decisions in Docket Nos. E-002/RP-00-787 (*In the Matter of Northern States Power Company d/b/a Xcel Energy's Application for Approval of its 2000-2014 Resource Plan*) and E-002/RP-02-2065 (*In the Matter of Northern States Power Company's Application for Approval of its 2003-2017 Resource Plan*). The specific statutory requirements that guide goal setting include the provisions of Minn. Stat. Chapter 216B and its implementing Rules.

In its August 29, 2001 Order Approving Xcel Energy's 2000-2014 Resource Plan, As Modified, the Minnesota PUC required that the Company adhere to goals associated with the "175 percent incentive scenario," which includes 3,253 cumulative GWh and 1,174 cumulative MW over the planning period. On March 9, 2004, the PUC approved Xcel Energy's request to withdraw its 2003-2017 Resource Plan and, implicitly, left in place the need for the Company to proceed with the 2000 Resource Plan's ordered goals. As shown in the table below, the Company has worked very hard to achieve the savings that are derived from these goals. To date, as reported in our annual Status Reports, we have exceeded energy and demand savings goals for fewer dollars than projected.¹³

CIP Energy and Demand Savings vs. IRP

Year	IRP Spending Goal (millions)	Spending Achievements (millions)	Achieved (-) Goal Spending (millions)	IRP Demand Goal (MW)	Demand Achievements (MW)	Achieved (-) Goal Demand Achievements (MW)	IRP Energy Goal (GWh)	Energy Achievements (GWh)	Achieved (-) Goal Demand Achievements (GWh)
2000	\$33	\$35	\$2	84	116	32	182	246	64
2001	\$33	\$40	\$7	84	139	55	176	254	78
2002	\$68	\$41	-\$27	108	121	13	244	267	23
2003	\$64	\$42	-\$22	90	110	20	231	245	14
2004	\$62	\$42	-\$20	83	94	11	224	212	-12
2005	\$66	\$37	-\$29	80	86	6	225	207	-18.1
2006	\$66	\$37	-\$29	79	84	5	226	208	-17.7
Surplus/Deficit vs. IRP			-\$119			142			131.2

We note that the actual or estimated GWh and MW numbers reported in the table above are the achievements (and projected achievements) as reported in the Company's annual CIP Status Reports. The load management portion of these numbers will not directly correlate with the amount of load management the Company has under contract. This result occurs because Xcel Energy's Status Reports provide gross energy and demand savings achieved by the Company from the approved CIP program. The Status Report, which examines the prior year's accomplishments against goal, does not include reductions in total load under control resulting from customers leaving the load management program or degradation of per switch kW over time.

¹³ All budget numbers are in nominal dollars. Numbers for 2004 are projections based on goal. Proposed goals for the 2005 and 2006 Plan, including anticipated alternative filings, are also included for reference.

For Resource Planning purposes, it is important to consider Xcel Energy's conservation and net load management achievements. The table below presents the IRP MW goals along with reported amounts of MW from conservation and load management activities. It also provides the net incremental amount of load management as registered on the Northern States Power-Minnesota system. The last column displays the cumulative difference between IRP MW goals and the sum of MW from conservation and net load management.

CIP and System Realized Demand Savings vs. IRP

Year	IRP	Biennial	Status Report			System Realized	Totals	
	Demand Goal (MW)	Demand Goal (MW)	Conservation Program Demand Achievements (MW)	Load Management Program Demand Achievements (MW)	Total Demand Achievements (MW)	Net Load Management Increase (MW)	Net Demand Achievements (MW)	Surplus / Deficit vs. IRP
2000	84	85	53	64	117	54	107	23
2001	84	93	61	78	139	35	96	35
2002	108	96	64	57	121	28	92	19
2003	90	85	59	52	111	2	61	-10
2004	83	94	60	34	94	34	94	1
2005	80	86	41	45	87	33	74	-5
2006	79	84	41	43	86	32	73	-10

As presented above, based on amounts of load management and conservation currently proposed in the 2005/2006 Biennial plan and expectations regarding changes in the amount of system-realized load management, the Company falls into a slight deficit against its MW IRP goals in 2005 and 2006.¹⁴

Recognizing this potential shortfall against IRP goals, Xcel Energy is taking steps to increase its load management program performance. One such step is the implementation of changes to the Residential Saver's Switch program to incorporate technology improvements developed by Xcel Energy's engineers and Cannon Technologies. These technology improvements will allow the Company to increase per switch load reductions for Saver's Switch participants. The Minnesota Public Utility Commission on May 26, 2004 approved the Company's request to revise its Saver's Switch tariff in order to implement this new technology in 2004 (Docket No. E002/M-04-370). With actions such as these, Xcel Energy believes that the GWh and MW goals proposed for the 2005/2006 Biennial plan are consistent with the goals established by the Minnesota Public Utilities Commission in its August 29, 2001 Order approving the 175 percent incentive scenario.

While we are taking steps to address the issue, we also believe that, in many respects, we are reaching levels of saturation for load management programs that will make it difficult to substantially increase programmatic achievements. For example, approximately one in five NSP-MN residential customers has a Saver's Switch installed on their air conditioner and the Company has more than 2,500 business customers on its Electric Reduction Savings (formerly "Peak Controlled Rates") program. In addition to high levels of saturation,

¹⁴ The projected amount of "Net Load Management Increase" for 2005 and 2006 are based on currently proposed goals.

increased environmental regulation of customer back-up generation will likely further hinder the ability to grow the business load management programs.

The Market Assessment Study performed by a team of consultants including Summit Blue Consulting, RER (Itron), and Xenergy (KEMA), identified that the potential for conservation and load management in our service area is lessening. New building codes are anticipated to take effect during the 2005/2006 biennium, which will cut roughly 20 GWh from potential savings. Through creative realignment, the Company believes it has compensated for this result in the short-run, but notes that these goals will be more difficult to achieve over the planning period. Further, market saturation and the reduced ability to take CIP credit for new constructions energy savings will make achieving the targeted goals more challenging as we move forward.

Our commitment in this filing is to stay on track with the Commission's 2000 Integrated Resource Planning goal. However, we caution that this goal should be viewed as a "stretch goal" and not a "business-as-usual" goal. Without simply raising the cost of CIP (for example, through higher rebate amounts), which brings with it policy issues related to free riders and the appropriate role of CIP in the total level of conservation achieved in society, we believe that our plan to meet current goals is aggressive and will be difficult to sustain over the long run.

Further, in November 2004, Xcel Energy will file a new Resource Plan covering the 2005-2019 planning period. As part of this plan, the Company will likely propose new DSM goals, goals that will indicate the optimum level of DSM relative to other resources available to meet customer load growth. In so doing, the Company will evaluate DSM in relation to other resource alternatives, a process which is not completed for the Biennial. To the extent changes in goals may be appropriate, we will seek to incorporate these changes in our Resource Plan filing, taking into account the Company's achievements against goals in the 2000 Resource Plan, and the feasibility of continuing to plan for the savings through the planning period. We would then work in prospective CIP filings to implement any changes that the Commission's order in the upcoming Resource Plan proceeding requires.

2005/2006 CIP Biennial Segments and Programs

➤ Commercial and Industrial Segment

Segment Description:

The Commercial and Industrial (C&I) Segment contributes the majority of Xcel Energy's planned conservation and load management achievements in this Biennial Plan. Planned achievements of 319.8 GWh and 476,880 MCF over the two-year period account for 89 percent of the total electric energy savings goal and 59 percent of the total natural gas goal. While C&I customers typically have the largest DSM projects, driving down cost per GWh or MCF saved, this trend is slowing due to increased saturation and market conditions.

The C&I Segment consists of business customers with aggregated electric demand over 500 kW. Conservation and Load management sales to this customer segment are primarily accomplished via Xcel Energy's account managers, end-use equipment vendors or trade allies, and energy services companies. Although sales to C&I customers typically require personal visits, Xcel Energy also utilizes newsletters, customer events, and direct mail to reach this customer segment.

Segment Highlights:

C&I segment energy savings will come primarily from the following four programs: Custom Efficiency, Energy Design Assistance, Lighting Efficiency, and Boiler Efficiency. This Biennial Plan includes significant changes for some of these programs to more accurately account for their impacts in Xcel Energy's CIP.

The Custom Efficiency program contributes 96.2 GWh and 118,350 MCF of planned C&I achievement. During 2003, Xcel Energy received approval from the Department of Commerce (DOC) for 1) six unique scenarios for calculating Custom Efficiency project savings; and 2) a specific process for authorizing Influenced Savings projects. Also in 2003, the Company launched the new Energy Management Systems (EMS) program. The EMS program utilizes the Custom Efficiency preapproval process.

The Energy Design Assistance (EDA) program contributes 49.2 GWh and 45,570 MCF of planned C&I achievement. As detailed in the following pages, this program's planned achievement is seriously hampered by two important market changes. First, although new construction starts are increasing, the average square footage per project is decreasing. Second, anticipated Minnesota Energy Code changes will increase minimum efficiencies and new equipment standards, thereby further decreasing the potential conservation impact for each new commercial construction project. These trends have been incorporated into the EDA goals for this Biennial Plan.

The Lighting Efficiency program 76.3 GWh of planned C&I electric achievement. Lighting Efficiency continues to be a mainstay of Xcel Energy's CIP. Higher levels of market saturation are requiring more individualized sales efforts to reach remaining retrofit customers. Further, new lighting technologies have been added to combat this trend and help maintain the Lighting Efficiency program's large contribution to the C&I segment's planned achievements.

The Boiler Efficiency program contributes 301,968 MCF of planned C&I natural gas achievement. Xcel Energy's customers are more aware of natural gas price volatility than ever before and, therefore, are more likely to participate in gas business conservation programs. Marketing efforts have increased program awareness among our target markets, and our account managers and trade allies have been effective at working with Xcel Energy customers to improve their boiler system efficiencies.

Lastly, the load management programs continue to provide Xcel Energy with cost effective DSM. The Electric Reduction Savings program, formerly Peak Controlled Rates, has significant controllable load under contract in Minnesota. A new notification system has been implemented during the spring of 2004 that will enhance communication efficiency.

Xcel Energy
Commercial & Industrial Segment
Project Information Sheet

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$4,097,813	\$313,476	\$4,411,289
Utility Administration	\$854,814	\$115,665	\$970,479
Other Project Administration	\$331,406	\$25,143	\$356,549
Advertising/Promotion	\$1,297,357	\$105,602	\$1,402,959
Evaluations	\$19,559	\$0	\$19,559
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$9,669,870	\$477,420	\$10,147,290
Other	\$0	\$0	\$0
Less Revenues	(\$3,000)	(\$900)	(\$3,900)
Total Budget	\$16,267,818	\$1,036,406	\$17,304,224
Total Number of Participants	1,790	282	
Total En. Savings-Generator (kWh)	159,249,192		
Total En. Savings-Meter (kWh)	162,009,315		
Total Demand Savings Generator (kW)	39,804		
Total Natural Gas Energy Savings (MCF)		238,444	
Project Type Percentage Expenditure			
Residential			
Commercial			
Industrial			
C&I Combined	100%	100%	
Other: R&D			
Low-Income Participation (%)	N/A	N/A	
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A	N/A	
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$1,974	\$22,160,227	
B/C Ratio	INF	4.30	
Participant B/C Results			
Net Present Value	\$2,124	\$38,128,097	
B/C Ratio	INF	7.21	
Rate Impact B/C Results			
Net Present Value	(\$110)	\$12,342,180	
B/C Ratio	0.94	1.84	
Revenue Requirements B/C Results			
Net Present Value	\$1,398	\$25,216,742	
B/C Ratio	6.19	14.46	
Project Type			
Audit/Info	X	X	
R&D			
Renewable			
Direct Impact	X	X	
Type of Incentive			
Loan/Grant	X	X	
Rebate	X	X	
Direct Installation			
End-Use Target (%)			
Lighting	37%	0%	
Process	22%	0%	
Motor	7%	6%	
Refrigeration	12%	0%	
Space Cooling	18%	27%	
Space Heating	0%	66%	
Water Heating	0%	0%	
Weatherization	0%	0%	
General/Other	5%	1%	
Ratemaking treatment: expensed	X	X	

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$3,999,755	\$320,696	\$4,320,451
Utility Administration	\$878,086	\$119,139	\$997,225
Other Project Administration	\$315,522	\$25,143	\$340,665
Advertising/Promotion	\$1,304,353	\$106,054	\$1,410,407
Evaluations	\$20,146	\$0	\$20,146
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$9,645,345	\$477,420	\$10,122,765
Other	\$0	\$0	\$0
Less Revenues	(\$3,000)	(\$900)	(\$3,900)
Total Budget	\$16,160,207	\$1,047,552	\$17,207,759
Total Number of Participants	1,792	282	
Total En. Savings-Generator (kWh)	160,531,018		
Total En. Savings-Meter (kWh)	163,214,231		
Total Demand Savings Generator (kW)	38,209		
Total Natural Gas Energy Savings (MCF)		238,444	
Project Type Percentage Expenditure			
Residential			
Commercial			
Industrial			
C&I Combined	100%	100%	
Other: R&D			
Low-Income Participation (%)	N/A	N/A	
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A	N/A	
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$2,156	\$22,160,227	
B/C Ratio	INF	4.30	
Participant B/C Results			
Net Present Value	\$2,257	\$38,128,097	
B/C Ratio	INF	7.21	
Rate Impact B/C Results			
Net Present Value	(\$89)	\$12,342,180	
B/C Ratio	0.95	1.84	
Revenue Requirements B/C Results			
Net Present Value	\$1,462	\$25,216,742	
B/C Ratio	6.21	14.46	
Project Type			
Audit/Info	X	X	
R&D			
Renewable			
Direct Impact	X	X	
Type of Incentive			
Loan/Grant	X	X	
Rebate	X	X	
Direct Installation			
End-Use Target (%)			
Lighting	37%	0%	
Process	22%	0%	
Motor	7%	6%	
Refrigeration	12%	0%	
Space Cooling	18%	27%	
Space Heating	0%	66%	
Water Heating	0%	0%	
Weatherization	0%	0%	
General/Other	5%	1%	
Ratemaking treatment: expensed	X	X	

➤ **Commercial & Industrial Segment Total**

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$478	\$478	\$478	\$478
T & D	N/A	291	291	291	291
Marginal Energy	N/A	899	899	899	899
Externality Willingness	N/A	N/A	N/A	N/A	123
Subtotal	N/A	\$1,667	\$1,667	\$1,667	\$1,791
Xcel Energy's Project Costs					
Subtotal	N/A	\$270	\$270	\$270	\$270
Revenue Reduction	\$1,653	N/A	\$1,507	\$0	\$0
Subtotal	\$1,653	N/A	\$1,507	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$827	N/A	N/A	\$781	\$781
Incremental O&M	(1,146)	N/A	N/A	(1,082)	(1,082)
Rebates	(152)	N/A	N/A	(152)	(152)
Subtotal	(\$471)	N/A	N/A	(\$453)	(\$453)
Net Present Benefit (Cost)	\$2,124	\$1,398	(\$110)	\$1,851	\$1,974
Net Benefit (Cost) per kWh Lifetime	\$0.055	\$0.036	(\$0.003)	\$0.048	\$0.051
Net Present Benefit (Cost) per Generator	\$3,040	\$2,001	(\$157)	\$2,649	\$2,826
Benefit Cost Ratio	INF	6.19	0.94	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	30.64%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	2,684
(E) Free Driver/Free Rider Factor (Energy)	92.4%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	2,480
(G) Transmission Loss Factor	6%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	2,639
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	94.4%
(K) Net Customer kW: (I)*(J)=	0.944
(L) Coincidence Factor at Generator	69.54%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.699

* Xcel Energy Project Cost per kWh Lifetime

\$0.007

* Xcel Energy Project Cost per kW at Gen

\$385.9

➤ Commercial & Industrial Segment Total

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$489	\$489	\$489	\$489
T & D	N/A	308	308	308	308
Marginal Energy	N/A	945	945	945	945
Externality Willingness	N/A	N/A	N/A	N/A	157
Subtotal	N/A	\$1,742	\$1,742	\$1,742	\$1,900
Xcel Energy's Project Costs					
Subtotal	N/A	\$281	\$281	\$281	\$281
Revenue Reduction	\$1,696	N/A	\$1,551	\$0	\$0
Subtotal	\$1,696	N/A	\$1,551	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$866	N/A	N/A	\$815	\$815
Incremental O&M	(1,265)	N/A	N/A	(1,191)	(1,191)
Rebates	(162)	N/A	N/A	(162)	(162)
Subtotal	(\$561)	N/A	N/A	(\$538)	(\$538)
Net Present Benefit (Cost)	\$2,257	\$1,462	(\$89)	\$1,999	\$2,156
Net Benefit (Cost) per kWh Lifetime	\$0.054	\$0.035	(\$0.002)	\$0.048	\$0.052
Net Present Benefit (Cost) per Generator	\$3,202	\$2,074	(\$126)	\$2,836	\$3,059
Benefit Cost Ratio	INF	6.21	0.95	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	32.36%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	2,835
(E) Free Driver/Free Rider Factor (Energy)	92.5%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	2,621
(G) Transmission Loss Factor	6%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	2,788
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	94.2%
(K) Net Customer kW: (I)*(J)=	0.942
(L) Coincidence Factor at Generator	70.38%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.705

* Xcel Energy Project Cost per kWh Lifetime

\$0.007

* Xcel Energy Project Cost per kW at Gen

\$398.2

Commercial & Industrial Segment Total

	2005	2006
(A) Gross Customer kW reduction per participant	33.72	32.13
(B1) Free Driver/Free Rider Factor (Demand)	94.4%	94.2%
(C) Net Customer kW reduction per participant: (A)*(B1)=	31.83	30.25
(D) Coincident factor	69.54%	70.38%
(E) Transmission Loss Factor	6%	6%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	23.55	22.65
(G) Gross kWh/Year saved per Customer kW	2,684	2,835
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	90,508	91,079
(B) Free Driver/Free Rider Factor (Energy)	92.4%	92.5%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	83,628	84,207
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	88,966	89,582
(K) Estimated participant penetration rates	1,790	1,792
Total Gross customer kW reduction: (A)*(K)=	60,351	57,574
Total Net Customer kW reduction: (C)*(K)=	56,983	54,206
Total Net Summer Generator kW reduction: (F)*(K)=	39,804	38,209
Total Gross kWh reduction at Customer per year: (H)*(K)=	162,009,315	163,214,231
Total Net kWh reduction at Customer per year: (I)*(K)=	149,694,241	150,899,157
Total Net kWh reduction at Generator per year: (J)*(K)=	159,249,192	160,531,018
 Total Budget	 \$ 16,267,818	 \$ 16,160,207

➤ **Commercial & Industrial Segment Conservation Total**

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$616	\$616	\$616	\$616
T & D	N/A	377	377	377	377
Marginal Energy	N/A	1,305	1,305	1,305	1,305
Externality Willingness	N/A	N/A	N/A	N/A	180
Subtotal	N/A	\$2,298	\$2,298	\$2,298	\$2,477
Xcel Energy's Project Costs					
	N/A	\$360	\$360	\$360	\$360
Subtotal	N/A	\$360	\$360	\$360	\$360
Revenue Reduction	\$2,352	N/A	-2,141	\$0	\$0
Subtotal	\$2,352	N/A	\$2,141	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,206	N/A	N/A	\$1,108	\$1,108
Incremental O&M	(1,670)	N/A	N/A	(1,535)	(1,535)
Rebates	(221)	N/A	N/A	(221)	(221)
Subtotal	(\$686)	N/A	N/A	(\$648)	(\$648)
Net Present Benefit (Cost)	\$3,038	\$1,937	(\$203)	\$2,586	\$2,765
Net Benefit (Cost) per kWh Lifetime	\$0.043	\$0.027	(\$0.003)	\$0.037	\$0.039
Net Present Benefit (Cost) per Generator	\$3,746	\$2,388	(\$250)	\$3,187	\$3,409
Benefit Cost Ratio	INF	6.38	0.92	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	18
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	44.47%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	3,896
(E) Free Driver/Free Rider Factor (Energy)	92.4%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	3,598
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	3,828
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	91.9%
(K) Net Customer kW: (I)*(J)=	0.919
(L) Coincidence Factor at Generator	83.00%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.811

* Xcel Energy Project Cost per kWh Lifetime

\$0.005

* Xcel Energy Project Cost per kW at Gen

\$444

➤ Commercial & Industrial Segment Conservation Total

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$607	\$607	\$607	\$607
T & D	N/A	385	385	385	385
Marginal Energy	N/A	1,304	1,304	1,304	1,304
Externality Willingness	N/A	N/A	N/A	N/A	217
Subtotal	N/A	\$2,296	\$2,296	\$2,296	\$2,513
Xcel Energy's Project Costs					
Subtotal	N/A	\$356	\$356	\$356	\$356
Revenue Reduction	\$2,299	N/A	\$2,098	\$0	\$0
Subtotal	\$2,299	N/A	\$2,098	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,198	N/A	N/A	\$1,101	\$1,101
Incremental O&M	(1,750)	N/A	N/A	(1,608)	(1,608)
Rebates	(224)	N/A	N/A	(224)	(224)
Subtotal	(\$776)	N/A	N/A	(\$731)	(\$731)
Net Present Benefit (Cost)	\$3,075	\$1,940	(\$158)	\$2,671	\$2,888
Net Benefit (Cost) per kWh Lifetime	\$0.046	\$0.029	(\$0.002)	\$0.040	\$0.044
Net Present Benefit (Cost) per Generator	\$3,822	\$2,412	(\$196)	\$3,320	\$3,590
Benefit Cost Ratio	INF	6.45	0.94	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	18
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	43.07%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	3,773
(E) Free Driver/Free Rider Factor (Energy)	92.2%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	3,477
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	3,699
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	91.9%
(K) Net Customer kW: (I)*(J)=	0.919
(L) Coincidence Factor at Generator	82.28%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.805

* Xcel Energy Project Cost per kWh Lifetime \$0.005
* Xcel Energy Project Cost per kW at Gen \$442.3

Commercial & Industrial Segment Conservation Total

	2005	2006
(A) Gross Customer kW reduction per participant	35.46	35.30
(B1) Free Driver/Free Rider Factor (Demand)	91.9%	91.9%
(C) Net Customer kW reduction per participant: (A)*(B1)=	32.58	32.44
(D) Coincident factor	83.00%	82.28%
(E) Transmission Loss Factor	6%	6%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	28.77	28.40
(G) Gross kWh/Year saved per Customer kW	3,896	3,773
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	138,149	133,190
(B) Free Driver/Free Rider Factor (Energy)	92.4%	92.2%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	127,605	122,745
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	135,750	130,580
(K) Estimated participant penetration rates	1,168	1,179
Total Gross customer kW reduction: (A)*(K)=	41,421	41,619
Total Net Customer kW reduction: (C)*(K)=	38,054	38,252
Total Net Summer Generator kW reduction: (F)*(K)=	30,867	30,775
Total Gross kWh reduction at Customer per year: (H)*(K)=	161,358,042	157,031,389
Total Net kWh reduction at Customer per year: (I)*(K)=	149,042,967	144,716,314
Total Net kWh reduction at Generator per year: (J)*(K)=	158,556,348	153,953,526
Total Budget	\$14,923,182	\$14,809,005

➤ Commercial & Industrial Segment Load Management Total

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$176	\$176	\$176	\$176
T & D	N/A	103	103	103	103
Marginal Energy	N/A	9	9	9	9
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$288	\$288	\$288	\$288
Xcel Energy's Project Costs					
Subtotal	N/A	\$38	\$38	\$38	\$38
Revenue Reduction	\$122	N/A	\$122	\$0	\$0
Subtotal	\$122	N/A	\$122	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$122	\$250	\$128	\$250	\$250
Net Benefit (Cost) per kWh Lifetime	\$0.498	\$1.019	\$0.521	\$1.019	\$1.022
Net Present Benefit (Cost) per Generator	\$258	\$529	\$270	\$529	\$530
Benefit Cost Ratio	INF	7.56	1.80	7.56	7.58

Project Assumptions:

(A) Measure Lifetime (Years)	7
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	0.39%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	34
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	34
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	37
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	44.38%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.472

* Xcel Energy Project Cost per kWh Lifetime	\$0.155
* Xcel Energy Project Cost per kW at Gen	\$80.6

➤ Commercial & Industrial Segment Load Management Total

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$182	\$182	\$182	\$182
T & D	N/A	107	107	107	107
Marginal Energy	N/A	9	9	9	9
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$298	\$298	\$298	\$299
Xcel Energy's Project Costs					
Subtotal	N/A	\$45	\$45	\$45	\$45
Revenue Reduction	\$123	N/A	\$123	\$0	\$0
Subtotal	\$123	N/A	\$123	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$123	\$253	\$130	\$253	\$254
Net Benefit (Cost) per kWh Lifetime	\$0.486	\$0.998	\$0.512	\$0.998	\$1.001
Net Present Benefit (Cost) per Generator	\$265	\$543	\$278	\$543	\$545
Benefit Cost Ratio	INF	6.59	1.77	6.59	6.60

Project Assumptions:

(A) Measure Lifetime (Years)	7
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	0.39%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	34
(E) Free Driver/Free Rider Factor (Energy)	100%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	34
(G) Transmission Loss Factor	6%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	36
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	43.80%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.466

* Xcel Energy Project Cost per kWh Lifetime \$0.179
* Xcel Energy Project Cost per kW at Gen \$97.2

Commercial & Industrial Segment Load Management Total

	2005	2006
(A) Gross Customer kW reduction per participant	31.98	27.37
(B1) Free Driver/Free Rider Factor (Demand)	100%	100%
(C) Net Customer kW reduction per participant: (A)*(B1)=	31.98	27.37
(D) Coincident factor	44.38%	43.80%
(E) Transmission Loss Factor	6%	6%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	15.10	12.75
(G) Gross kWh/Year saved per Customer kW	34	34
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	1,100	931
(B) Free Driver/Free Rider Factor (Energy)	100%	100%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	1,100	931
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	1,170	990
(K) Estimated participant penetration rates	592	583
Total Gross customer kW reduction: (A)*(K)=	18,930	15,955
Total Net Customer kW reduction: (C)*(K)=	18,930	15,955
Total Net Summer Generator kW reduction: (F)*(K)=	8,936	7,435
Total Gross kWh reduction at Customer per year: (H)*(K)=	651,274	542,495
Total Net kWh reduction at Customer per year: (I)*(K)=	651,274	542,495
Total Net kWh reduction at Generator per year: (J)*(K)=	692,844	577,122
 Total Budget	 \$ 720,311	 \$ 722,557

Conservation Improvement Program (CIP)

Company: Xcel Energy (Natural Gas)
 Project: C&I Segment w/ Indirect Participants

Input Data

1) Retail Rate (\$/MCF) =	\$8.33
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.88
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2008
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$304,224
Direct Operating Costs =	\$259,762
Incentive Costs =	\$472,420
Total Utility Project Costs =	\$1,036,408
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$309,596
Direct Operating Costs =	\$265,536
Incentive Costs =	\$472,420
Total Utility Project Costs =	\$1,047,552
16) Direct Participant Costs (\$/Part.) =	8,510.0
17) Other Participant Costs (Annual \$/Part.) =	241.4
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	2.76%
20) Avg. Consumption (MCF/Part.) =	30,596.2
21) Avg. MCF/Part. Saved (First Year Program) =	845.5
21a) Avg. MCF/Part. Saved (Second Year Program) =	845.5
22) Number of Participants (First Year Program) =	282
22a) Number of Participants (Second Year Program) =	282
23) Incentive/Participant (First Year Program) =	\$1,675
23a) Incentive/Participant (Second Year Program) =	\$1,675

**Conservation Improvement Program (CIP)
 BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Summary Information

Company: Xcel Energy (Natural Gas)
 Project: C&I Segment w/ Indirect Participants

Cost Summary

Utility Cost per Participant (First Year) =	\$3,675.20
Utility Cost per participant (Second Year) =	\$3,714.72
Total Energy Reduction (MCF)	7,152,930
Societal Cost per MCF	\$0.94
Cost per Participant per MCF (First Year) =	\$14.70
Cost per Participant per MCF (Second Year) =	\$14.74

Test Results

	NPV	B/C
Cost Comparison Test	\$12,343,797	1.84
Revenue Requirements Test	\$25,218,359	14.48
Societal Benefit Test	\$22,161,843	4.30
Participant Test	\$38,128,098	7.21

Conservation Improvement Program (CIP)

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

**Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Company: Xcel Energy (Natural Gas)
Project: C&I Segment Direct Participants & Costs Only

Summary Information

Company: Xcel Energy (Natural Gas)
Project:

Input Data

1) Retail Rate (\$/MCF) =	\$8.33
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0781
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

15) Utility Project Costs (First Year)	
Administrative Costs =	\$284,909
Direct Operating Costs =	\$248,124
Incentive Costs =	\$472,420
Total Utility Project Costs =	\$1,005,453
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$289,403
Direct Operating Costs =	\$253,760
Incentive Costs =	\$472,420
Total Utility Project Costs =	\$1,015,583
16) Direct Participant Costs (\$/Part.) =	8,663.66
17) Other Participant Costs (Annual \$/Part.) =	245.77
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	2.81%
20) Avg. Consumption (MCF/Part.) =	31,148.52
21) Avg. MCF/Part. Saved (First Year Program) =	874.43
21a) Avg. MCF/Part. Saved (Second Year Program) =	874.43
22) Number of Participants (First Year Program) =	277
22a) Number of Participants (Second Year Program) =	277
23) Incentive/Participant (First Year Program) =	\$1,705
23a) Incentive/Participant (Second Year Program) =	\$1,705

Cost Summary

Utility Cost per Participant (First Year) =	\$3,629.79
Utility Cost per participant (Second Year) =	\$3,666.36
Total Energy Reduction (MCF)	7,266,502
Societal Cost per MCF	\$0.92
Cost per Participant per MCF (First Year) =	\$14.34
Cost per Participant per MCF (Second Year) =	\$14.38

Test Results

	NPV	B/C
Cost Comparison Test	\$12,625,981	1.85
Revenue Requirements Test	\$25,704,961	15.16
Societal Benefit Test	\$22,676,838	4.41
Participant Test	\$38,816,466	7.33

➤ Commercial and Industrial Conservation

A. Description

1. Boiler Efficiency

The Boiler Efficiency program targets natural gas savings for commercial and industrial (C&I) customers who use natural gas or dual-fuel boilers for heating or process loads. The rebates are designed to promote the installation of high-efficiency boilers and boiler system auxiliaries that improve combustion and seasonal efficiency. The objective is to provide education and incentives that motivate customers to run boilers at optimum efficiency and offset incremental costs associated with the tune-up or modification of existing boiler systems.

1) Energy Efficient Boiler Systems

Xcel Energy has standardized minimum efficiency levels that exceed those contained in the 1999 Minnesota State Energy Code and proposed standards established by ASHRAE 90.1 and the Federal Energy Management Program (FEMP).

Rebates are based on the following:

- Incentives are weighted with respect to efficiency. The higher efficiency equipment purchased, the larger the incentive; and
- Incentives are based on the whole “boiler system” which can include combinations of controls and features that increase the overall system combustion and/or seasonal efficiency.

Capacity (MBH)	Hot Water Boilers	Low Pressure Steam Boiler	High Pressure Steam Boiler	Rebate Cap per Boiler System
< 301	83% AFUE	83% AFUE	81.5% AFUE	\$750
301-1,000	83%	83%	81.5%	\$2,500
1,001-10,000	83%	83%	81.5%	\$5,000
>10,001	83%	83%	81.5%	\$7,500
Rebate	\$400/MMBTUH + \$150/MMBTUH x (EFF-83)	\$500/MMBTUH + \$250/MMBTUH x (EFF-83)	\$300/MMBTUH + \$150/MMBTUH x (Eff-81.5)	

Notes:

- 1 -Boiler must use natural gas fuel as the primary fuel but can have dual fuel capability for backup.
- 2 -Efficiency based on either thermal or combustion efficiency (natural gas fuel) or efficiency determined from a combustion analyzer test (boiler systems with optional controls).
- 3 -MMBTUH is based on boiler input capacity.
- 4 -AFUE (Annual Fuel Utilization Efficiency Rating).

2) Retrofit Controls, Heat Recovery and System Improvements

The performance of a boiler system can be enhanced with controls, heat recovery systems and system efficiency improvements. Xcel Energy proposes to rebate the following: (Note: All rebates based on equipment cost.)

- a) Boiler Tune-Ups: 25% up to \$250
 - Boiler Tune-Ups include:
 - Adjusting draft control;
 - Installing flue restrictions;
 - Checking adequacy of the combustion
 - Cleaning fire-side of the heat exchanger;
 - Sealing the combustion chamber; and
 - Uprate or derate the fuel input.

- b) Boiler Efficiency Retrofits:
 - Modular Burner Controls
 - 5 to 1 Turndown Ratio Minimum 25% up to \$2,500
 - 10 to 1 Turndown Ratio or Greater 25% up to \$5,000
 - Turbulators 25% up to \$400
 - O₂ Trim Controls 25% up to \$5,000
 - Outdoor Air Reset Controls 25% up to \$500
 - Stack Dampers 25% up to \$250

- c) Boiler System Improvements:
 - Steam Trap Replacement/Parts: 25 % up to \$250/trap maximum of \$10,000

Modifications:

Stack Economizers, blowdown heat recovery, self-contained radiator valves, and piping insulation are now being evaluated under the gas Custom Efficiency program. The variability in energy savings for these technologies requires them to be evaluated on a case-by-case basis. Based on three years of financial trends, the Company is extending from six months to one year the effective date for accepting invoices for Boiler efficiency improvements.

2. Compressed Air Efficiency

The objective of the Compressed Air Efficiency program is to encourage customers to operate their compressed air systems as efficiently as possible. The focus of this program is a systems approach as well as an equipment approach. A leaky and/or inefficient system can waste thousands of dollars per year. This program offers funding for compressed air efficiency studies and incentives through the Custom Efficiency program for installing projects that offer energy savings over standard options.

Efficiency Studies:

This study is intended for customers with electric driven air compressors, with total capacity of at least 50 horsepower (hp) that operate at least 40 hours per week. The primary target market for this product is an industrial customer with over 500 kW of demand. However, we encourage all customers with at least 50 hp or greater to consider participating in a study. It is very important for customers to size their systems in relation to their specific production needs.

The study consists of utilizing an authorized Xcel Energy contractor to perform an efficiency study of the customer's compressed air system. Evaluation tasks involve establishing system baseline by measuring supply and demand, identifying and tagging leaks, and making system recommendations with associated paybacks. Xcel Energy partially funds the study costs, dependent on compressor size:

- 50 to 74 hp – Xcel Energy pays 100% of study costs up to \$2,000.
- 75 to 99 hp – Xcel Energy pays 100% of study costs up to \$2,500.
- 100 hp and greater – Xcel Energy pays up to 75 percent of study costs up to \$15,000.

Preapproval is required and payment is contingent on the customer making repairs resulting in reducing estimated air-loss by a minimum of 50 percent.

Compressed Air:

Custom Efficiency incentives are available to offset the cost of energy-efficient equipment for the customer's compressed air system to improve the overall system operation. Each case is individually evaluated, and incentives are determined based on expected kW demand savings for the entire compressed air system. Customers who have 50 hp or greater can earn incentives of up to \$200 per kW saved if they participate in a study. If customers choose not to participate in a study, they can earn incentives of up to \$50 per kW saved. Customers with systems of less than 50 hp can qualify for Custom Efficiency incentives of up to \$200 per kW saved.

Modifications:

None.

3. Cooling Efficiency

The Cooling Efficiency program provides financial incentives for energy efficient electric cooling equipment. The program offers incentives for most of the air conditioning technologies available to customers and encourages the highest practical efficiency in each category. Funding for cooling system replacement Engineering Assistance Studies is available. Xcel Energy funds up to 50 percent of the customer's study cost (not to exceed \$15,000). Minimum cooling system efficiency requirements exceed the 1999 State Energy Code and increasingly reward higher efficiencies. The Cooling Efficiency program continues to offer chiller rebates on a full load or part load value.

The Cooling Efficiency program includes the following components:

- Packaged Terminal Air Conditioners (PTAC)
- Water Source Heat Pumps
- Rooftop Units
- Split Systems
- Condensers
- Chillers

- Oversized Cooling Towers
- Variable Air Volume (VAV) box.

Cooling Efficiency requirements and incentives include:

Equipment	EER (Energy efficiency Rating)	IPLV (Integrated Part Load Value)	Base Rebate (\$/ton)	Incremental Rebate (\$/ton per 0.1 EER above base)
PTAC Units with Electric Resistance with Heat Pump Heating	9.20 9.20		\$7.50 \$7.50	\$1.25 \$2.50
Water Source Heat Pumps	12.00*		\$10.00	\$1.00
Rooftop Units <65,000 Bruh	11.00 SEER		\$14.00	\$4.00
65,000 ≤ x <135,000	10.30	10.60	\$14.00	\$4.00
135,000 ≤ x < 240,000	9.70	9.90	\$14.00	\$4.00
240,000 ≤ x <760,000	9.50	9.70	\$14.00	\$4.00
≥ 760,000	9.20	9.40	\$14.00	\$4.00
Split Systems <65,000 Bruh	SEER 13.0 - 13.4 13.5 - 13.9 14.0 +		\$250 \$300 \$350	N/A
Condensing Units 65,000 ≤ X <135,000	10.30		\$14.00	\$4.00
≥ 135,000	10.10		\$14.00	\$4.00
Chillers (Full Load)	Base Full Load kW/ton	Base Load NPLV	Base rebate \$/ton	Incremental rebate, \$/ton per 0.010 kW/ ton_below base
<150 tons (Screw and Centrifugal)	0.650	N/A	\$20.00	\$5.00
≥ 150 tons (Screw and Centrifugal)	0.600	N/A	\$20.00	\$5.00
Chillers (Part Load) ≥ 150 tons	0.600	.560	\$17.50	\$2.00
Oversized Cooling Towers - \$3/nominal tower ton				
VAV Boxes - \$200/VAV box				

Rebates are available on a dollar per ton basis with an incremental rebate based on the dollar per ton per 0.1 EER above the base minimum efficiencies (for chillers, rebates are based on a dollar/ton per 0.01 kW/ton below base). The incentive calculation rewards customers who choose equipment that is more energy-efficient than the minimum requirements. Centrifugal chillers over 150 tons will qualify for rebates based on either the full or part load efficiency requirements. To qualify for rebates on part load efficiency, the chiller must also meet full load minimums.

Air conditioning equipment, which is not covered under the Cooling Efficiency prescriptive rebate but which saves energy, will be evaluated under the Custom Efficiency program. This aspect of the program allows for the evaluation of innovative technology that can become the efficiency mainstays of the future. Technologies such as energy recovery ventilators, evaporative condensing systems

and air economizer retrofits are all projects that may be evaluated in the Custom Efficiency – Cooling program.

Modifications:

Cooling Efficiency proposes to raise rebate levels for rooftop units in all sizes by 40 percent to bring the program in line with market equipment cost increases. The program also proposes to match split systems under 65,000 btuh with the Residential Segment's Energy Star Central A/C program rebate levels to improve consistency within Xcel Energy's CIP.

Despite continued marketing efforts, two years with no customer participation and no future prospects have caused Xcel Energy to discontinue the prescriptive Gas Cooling program. Any future projects will be evaluated on a case-by-case basis through the Custom Efficiency – Gas program. Xcel Energy believes that the price volatility for natural gas is making it difficult for customers to choose this technology. However, Xcel Energy is committed to encouraging the most appropriate and economic system for its customers.

4. Custom Efficiency

The Custom Efficiency program was designed to encourage customers to implement energy saving projects or process changes that are not covered by our prescriptive equipment programs. Since energy applications and building system complexity can vary greatly by customer type, this program addresses the unique needs of our customers and encourages them to develop and implement innovative, cost effective energy-efficient measures. To encourage implementation of efficiency measures, Xcel Energy uses a systems approach to provide customized incentives. The Company also helps customers quantify the greater non-energy related benefits of these applications by considering other items such as maintenance and process improvements. Each application is reviewed for cost effectiveness before a Custom Efficiency incentive is offered.

This program encourages innovative energy conservation through the following features:

- “Custom” rebates based on expected savings up to 50 percent of incremental costs and up to \$200 per kW saved or \$2 per MCF saved.
- Engineering assistance to help determine project viability, energy savings, and business case development. Xcel Energy pays up to 50 percent of the study cost (not to exceed \$15,000).

The Custom Efficiency program is primarily marketed by Xcel Energy account managers due to the “custom” aspect of the program. Customers may have difficulty conceptualizing which projects qualify or what information needs to be submitted for the analysis because of the broad nature of the program.

The Custom Efficiency review process for custom incentives has three steps:

1. The customer submits an application for preapproval – The application must be submitted, and subsequently preapproved, prior to project/product

- purchase or installation. The application form requests a description of the project, operating hours and estimated demand and energy savings.
2. Xcel Energy conducts an Engineering review of application – A professional engineer reviews the proposal with emphasis on the demand and energy savings of the proposed system relative to industry standards and the interactive energy effects of the system components. Projects must pass the Societal and Participant Tests, and to qualify for an incentive, the project must have a payback of 1 – 15 years.
 3. Xcel Energy notifies the customer if the project qualifies for a rebate. Xcel Energy offers incentives of up to \$200 per kW saved and up to \$2 per MCF saved.

The Custom Efficiency process is used for conservation opportunities not covered by other programs. Custom Efficiency is available for, but not limited to, the following applications:

- Compressed air systems and components;
- Motors and motor systems;
- Lighting;
- Refrigeration systems and components;
- Cooling systems and components; and
- Custom – all other (heat recovery, humidification, welders, controls, etc.).

Xcel Energy's Custom Efficiency program offers incentives based on energy savings for new equipment purchases and process changes that exceed standard efficiency options. They tend to be unique to each customer's business. Xcel Energy uses six different ways to analyze conservation projects. The type of analysis used is matched with the conservation project circumstances to best reflect true energy savings. Following are descriptions for the Custom Efficiency calculation scenarios the Company employs:

- **Option 1:** Xcel Energy customer replaces old equipment with new more efficient equipment. Xcel Energy will offer an incentive to a customer if s/he replaces an old inefficient system with a new more efficient system. Production or output remains constant.
- **Option 2:** Xcel Energy customer purchases more efficient equipment than standard equipment for new construction or added production. Xcel Energy will offer a rebate to the customer if s/he buys the more efficient equipment instead of standard efficiency equipment. Production or output will increase accordingly.
- **Option 3:** Xcel Energy customer replaces more than one piece of old equipment with one new more efficient piece of equipment. Xcel Energy will offer a rebate for a customer to replace multiple old inefficient systems with one new more efficient system. Production or output remains constant.

- **Option 4:** Xcel Energy customer increases production with current old equipment by adding a second shift or adds production using new more efficient equipment. Xcel Energy will offer a rebate to the customer to buy a new more efficient system that can handle the increased production instead of adding a second shift to an old inefficient system. Production or output would double.
- **Option 5:** Xcel Energy customer adds standard efficiency production to an old inefficient existing line or replaces the old line with a new larger standard efficiency line. Xcel Energy will offer a rebate for the customer to replace an old inefficient system with a new more efficient system. Rebates and energy savings will be given for the production or output levels of the original production level.
- **Option 6:** Xcel Energy customer adds standard efficiency production to an old inefficient existing line or replaces the old line with a new larger high efficiency line. Xcel Energy will offer a rebate for the customer to buy the most efficient equipment instead of standard efficiency equipment. Production or output will increase accordingly, and total energy and demand savings are considered on a case-by-case basis.

Influenced Savings

The term "Influenced Savings" refers to projects for which Xcel Energy played a significant role in the customer's decision to implement an energy efficiency measure, and for which the customer participated in the normal Custom Efficiency project submission process, including a preapproval review, yet whose cost-effectiveness analysis, benefit-cost tests, or payback period failed. Effectively, these are projects that differ in one significant way from other projects – a rebate was not paid. For such projects, Xcel Energy denies the customer any rebate for their efficiency measure, but claims Influenced Savings in order to appropriately account in the Company's conservation results for the implementation of the higher energy efficiency technology and to recognize the often significant labor investment involved in the project.

In January 2004, the Commissioner approved Influenced Savings projects under the following guidelines:

- Preapproval analysis must be conducted prior to purchase and installation.
- Projects must pass the Participant and Societal tests. Xcel Energy understands that projects that fail the payback period of 1 - 15 years are eligible for Influenced Savings if they meet all other Influenced Savings guidelines herein.
- Projects 2 GWh and greater require separate Department of Commerce review. All other projects will be reviewed as part of the Status Report.
- Influenced Savings cannot account for more than 1% of Xcel Energy's annual CIP achievements.
- Documentation must be provided to show that Xcel Energy's involvement was an important factor that caused the customer to implement the energy savings measures.

Xcel Energy respectfully requests that the Commissioner modify the Influenced Savings guidelines to permit:

- Influenced Savings claims of up to four percent of the Company's annual CIP achievements, and
- Consideration for energy savings credit for projects that stem from recommendations proposed in an Engineering Assistance Study.

The change from one to four percent would, based on the total CIP goals filed in the 2005/2006 Biennial, increase the cap on Influenced Savings projects to 7.483 generator GWh and 16,165 MCF in 2005 and 7.594 generator GWh and 16,165 MCF in 2006. The reasoning for the proposed changes is as follows:

- *Preapproval analysis* – The Custom Efficiency preapproval analysis makes the customer aware of the energy savings option. The analysis results help the customer build the business case justification to select the more efficient option.
- *Channel of distribution* – The Custom Efficiency program is primarily marketed by Xcel Energy account managers due to the “custom” aspect of the program. Customers may have difficulty conceptualizing which projects qualify or what information needs to be submitted for the analysis because of the broad nature of the program. Xcel Energy reviews over 1,100 projects per year. Of this number, only 350 or approximately 30% are approved and rebated.

Engineering Assistance Studies are one component of the Custom Efficiency program. Xcel Energy is requesting that the Commissioner allow Influenced Savings claims identified in our Engineering Assistance Studies are implemented within one year from the final payment of the study. The study-induced savings would fall within the Influenced Savings cap of four percent of our annual CIP achievements. All Influenced Savings project guidelines listed above would apply except the first guideline, which requires a preapproval analysis prior to purchase and installation. Xcel Energy recommends claiming credit for these projects because we believe it more accurately represents our involvement for the following reasons:

Formal process - There is a formal process to preapprove Engineering Assistance Study funding levels and scope. The level of funding is based on estimated energy savings for the project.

- **Study scope** - The scope of the studies is focused on a particular end-use or process versus broad applications. Opportunities unique to the customer's operation would not be identified without the study.
- **Recommendations** - Customers are made aware of energy conservation opportunities from the studies recommendations. Many opportunities identified in the study are very cost effective with lucrative short payback periods and don't require additional incentives to encourage implementation.

Xcel Energy appreciates the Commissioner's consideration of the above two proposed modifications to the existing Influenced Savings guidelines within the Custom Efficiency program.

Modifications:

In the 2003/2004 biennium, the Custom Efficiency program offered a prescriptive gas rebate for thermostats, infrared heaters and hot water heaters. The incentive was for 15 percent of equipment costs up to \$1,500 whichever was the lesser of the two. Xcel Energy is no longer offering prescriptive incentives for these end-uses due to cost effectiveness.

Energy Management Systems (EMS) is a new Xcel Energy CIP business program that was launched in second quarter 2003. This program uses the current Custom Efficiency preapproval process to measure electric energy savings for adding control points to an existing system, or to install a new core system that controls multiple energy-using functions within a building (i.e. lighting, cooling, ventilation, etc.).

5. Distributed Generation Incentive Program

The Distributed Generation (DG) Incentive Program was launched in May of 2004. This program will provide funding to offset the costs of emerging DG technology. Xcel Energy electric and gas customers in Minnesota will be eligible to participate with system installations utilizing microturbines, fuel cells, Stirling engines, and other types of emerging technology continuous generation.

Eligible systems will be designed for continuous operation (8760 hrs/yr), and have higher efficiency with lower emissions as compared to coal-fired generation. A higher level of funding (\$/kW) will be available for Combined Heat & Power (CHP), Combined Cooling Heating & Power (CCHP) systems, and systems using methane-rich biogas as fuel.

The following rebate structure has been established for the incentive program:

	Eligible Technologies	Fuel Source	Minimum System Efficiency	Maximum System Efficiency	Maximum % of Project Costs	Incentive Level
Level 1	Microturbines, fuel cells, Stirling engines; no CHP	Bio-gas	25%	250 kW	35%	\$1,250/kW
Level 2	Level 1 technologies with CHP or CCHP	Natural Gas	65%	250 kW	30%	\$1,000/kW
Level 3	Level 1 technologies with CHP or CCHP	Bio-gas	65%	250 kW	40%	\$1,500/kW

These rebate structures are based on customer type (electric, gas, or both), efficiency of the system and fuel used. The rebate amount will increase as system efficiency increases in order to promote installation of higher efficiency systems. Rebate awards will have a \$/kW or percent of equipment cost maximum amount. The lower of the amounts will be awarded to provide rebates to various projects with the

limited funding available for the DG incentives. Simple payback for qualifying distributed generation systems will be no less than two years and no greater than fifteen.

In 2006, the DG Incentive Program will be evaluated to determine if the program should be converted to direct impact for 2007/2008 biennium.

Modifications:

None

6. Energy Analysis

The goal of this indirect impact program is to provide a low-cost way for commercial and industrial (C&I) customers to learn how their businesses use energy today and to identify measures that will help them save energy and reduce operating costs in the future. This service focuses on a customer's core energy efficiency opportunities. Participants in the analyses receive a report they can use as a basis for prioritizing and making energy decisions. Xcel Energy targets customers who will be motivated to take action and implement the energy conservation measures that are suggested.

- a. **Online Energy Assessment** – provides basic technical and economic assessment information per regional averages and information input by the customer into the tool. This free tool is available for customer use at: www.xcelenergy.com. The tool will help customers identify energy saving strategies that they can implement at their business.
- b. **On-site Energy Assessment** – provides technical and economic assessment information per an on-site audit performed by one of Xcel Energy's contracted auditors. This full facility audit includes an energy end-use profile and rate analysis. The audit also identifies and helps prioritize energy saving projects. The assessment price paid by the customer is \$200 for buildings less than 25,000 square feet or \$300 for buildings equal to or greater than 25,000 square feet.

If a customer has both Xcel Energy electric and natural gas service, the assessment is counted as two participants (one electric participant and one gas participant) since the assessment analyzes both services.

Modifications:

Engineering Assistance Studies are now located within the end-use programs (Custom Efficiency, Refrigeration Efficiency, Cooling Efficiency).

7. Energy Design Assistance

For new construction and major renovations, Energy Design Assistance (EDA) influences building owners, architects, and engineers to include energy-efficient systems and equipment in their designs and actual construction. Participants benefit from professional energy consulting and comprehensive, whole-building energy analysis to provide information on costs, savings and payback to aid in decision-making. Xcel Energy also provides financial incentives to building owners for implementing energy-efficient system strategies in the new space, as well as compensation to customers' architects and engineers for any additional program

efforts. With 2005 starting the 13th year of this program as part of Xcel Energy's CIP offering, over 200 architects and engineers have participated in the program and many are now repeat Energy Design Assistance participants.

Goals for the Energy Design Assistance program have been set lower than prior years due to potential Minnesota State Energy Code revisions. Potential Minnesota State Energy Code revisions include increases in minimum efficiencies and new equipment standards. These changes will directly impact the EDA program by potentially lowering the amount of energy savings credit achieved, particularly in areas such as cooling efficiency. The possible decrease in EDA savings has been estimated at 34 percent.

EDA projects that will be verified in 2005 began design and construction in 2003 or 2004. These projects will be completed under the current Energy Code. Therefore, the EDA goal is higher in 2005 than in 2006. Depending on when the new Energy Code is made effective, 2006 may represent the completion and verification of more projects being calculated at the new Energy Code levels. The Company has assumed that the code will become effective in 2006.

Another reason for lower targets is the construction trend toward smaller buildings and building types that tend to have less energy saving potential. The year 2003 saw a record setting *number* of project starts in the Energy Design Assistance program, but the *lowest* average square footage per project. This construction trend will impact 2005 and 2006 program results.

The Energy Design Assistance program consists of two levels of service: Custom Consulting and Plan Review.

Custom Consulting:

Custom Consulting provides customers and their architects and engineers with custom information for their building on the savings, costs and paybacks of energy efficient options. This well-executed service provides information for a design team to make informed tradeoff decisions between costs, savings and technologies. Energy Design Assistance offers a system model of anticipated energy performance with hourly, whole-building computer simulations (utilizing the Department of Energy's *DOE2e* modeling system). Multiple combinations of different energy system strategies are modeled independently, providing the design team with a choice of solutions. Custom Consulting focuses on modeling various building systems (HVAC, lighting, window glazing, controls) to determine their interactive effects on energy use and summer peak kW savings.

Custom Consulting provides financial incentives to the building owner for implementing the comprehensive energy conservation strategies and also includes measurement and verification processes to ensure that the selected strategies are installed and operating as intended.

The target market for Custom Consulting includes projects in new construction and major renovations of existing buildings over 50,000 square feet that are early in the

design process. Projects too far along in the design process to incorporate potential energy savings are referred to Xcel Energy's individual technology programs.

Electric rebates to building owners range from \$170 to \$275 per kW saved based on the percent of peak kW saved. The baseline for these rebate calculations is the estimated peak kW the building would have used if built to simply comply with the Minnesota State Energy Code. In Xcel Energy's natural gas service territory, natural gas incentives are provided at \$2.00 per MMBTU saved. Customers are also provided the design assistance, verification, and validation services that are part of Custom Consulting

Modifications:

None.

Plan Review:

Plan Review offers a streamlined program for cost-effective delivery to smaller new construction/major renovation projects 15,000 to 50,000 square feet. Like Custom Consulting, Plan Review makes recommendations for energy-efficient upgrades and promotes their adoption during the design phase of new construction projects. Differing from a Custom Consulting energy model, a Plan Review professional engineer reviews Construction Documents for a customer's project. The program focuses on energy conservation measures for the following: heating and cooling strategies, lighting, building envelope insulation, windows, controls, and discount rate programs. Incentives to building owners are \$170 to \$200 per peak kW saved and \$2.00 per MMBTU saved in Xcel Energy's natural gas service territory. Plan Review is also provided free of charge to customers.

Modifications:

A Plan Review analysis conducted in late 2003 proved that Xcel Energy could cost-effectively reduce the minimum qualifying square footage from 25,000 to 15,000. The modification, which broadens the potential market for this product, was effective January 2004.

8. Financing

Financing is used as a tool to help promote and sell Xcel Energy's electric and natural gas conservation products and services. Financing helps customers pay for the costs of purchasing and installing energy-efficient equipment that qualifies for our electric and natural gas conservation programs. Loans are reviewed and generated through a third-party bank. Customers pay their loan installments via their Xcel Energy bill. This program offers customers competitive financing rates, and the potential energy savings are used to help offset loan payments. Minimum loan is \$1,000. Maximum term is 60 months. The customer uses their incentive/rebate/study funding to buy down the loan amount or interest rate.

Modifications:

Xcel Energy introduced a new subsidized rate option for customers. If the customer chooses the subsidized rate, they are authorizing Xcel Energy to use their rebate dollars to buy down the interest rate from the bank. The subsidized rate is

customized for each loan and could get as low as zero percent. The customer still has the option to choose the standard bank market rate and use their rebate to buy down the loan amount.

9. Lighting Efficiency

Xcel Energy offers rebates to customers who purchase and install qualifying energy-efficient lighting products in existing and new construction buildings.

The target market consists of customers with inefficient lighting in their buildings and customers who are constructing new buildings. Lighting continues to have one of the largest impact contributions to the business segments however, as the market continues to approach saturation, sales efforts become much more individualized in an effort to reach the remaining customers who have not retrofitted their entire facilities. Marketing efforts have continued to introduce new lighting technologies to the Lighting Efficiency program in order to encourage customers to adopt increased efficiency lighting.

Xcel Energy Lighting Rebate Schedule:

Technology	Retrofit Rebates (per unit)	New Construction Rebates (per unit)
<i>Fluorescent lamps with electronic ballasts</i>		
T8 & T8 high output (HO)	\$5.00-\$10.00	\$1.00-\$1.75
Super T8	\$11.00-\$20.00	\$2.25-\$4.50
T5	\$10.00-\$16.00	\$2.00-\$2.50
Reflectors	\$0.50/sq ft	N/A
<i>High-bay fluorescent fixtures with electronic ballasts</i>		
6 or 8-lamp high-bay T8	\$75.00	\$12.00*
4-lamp high-bay T5 HO	\$75.00*	\$12.00*
<i>Hardwired Compact fluorescent fixtures</i>	\$8.00-\$24.00	\$3.00-\$8.00
<i>Industrial multi-CFL fixtures</i>	\$25.00	N/A
<i>High intensity discharge fixtures</i>		
High pressure sodium and metal halide	\$17.00-\$45.00	\$6.00
Pulse start metal halide	\$25.00-\$65.00	\$6.00-\$18.00
<i>Controls</i>		
Occupancy sensors	\$12.00-\$36.00	N/A
Photocells	\$12.00	N/A
<i>LED</i>		
LED exit signs and retrofit kits	\$6.00	N/A
LED traffic signals (red and green balls and red arrows)	\$15.00-\$65.00	N/A
LED pedestrian signals	\$25.00-\$40.00	N/A

*New product offering

Modifications:

In 2003, multi-lamp fluorescent fixtures and LED red traffic arrows were approved for retrofit rebates. In 2004, Super T8 Fluorescent Systems were approved for retrofit and new construction rebates. These new products are listed in the chart above.

Xcel Energy respectfully requests approval to add the following new products to the Lighting Rebate Schedule:

- Multi-lamp fluorescent fixtures (6 or 8-lamp high-bay T8 fixture) – New Construction

- High-bay T5 high output fluorescent lamps with electronic ballasts – Retrofit and New Construction

Technical information and cost benefit analysis have been provided in attachments to this segment.

After review of the cost benefit and assumption information for each technology, Xcel Energy determined that the following equipment rebates should be removed or lowered:

Equipment	2003/2004 Rebate		2005/2006 Rebate	
	Retrofit	New Construction	Retrofit	New Construction
Fluorescent T8 fixture 4' or less 1 & 2 lamp	\$9.00	\$1.75	\$5.00	\$1.00
Fluorescent T8 fixture 4' or less 3 & 4 lamp	\$15.00	\$2.25	\$10.00	\$1.15
Screw-in CFL <18W	\$4.00	\$1.00	N/A	N/A
Screw-in CFL 19W – 32W	\$9.00	\$1.75	N/A	N/A
Screw-in CFL >33W	\$12.00	\$1.75	N/A	N/A
Hardwired CFL <18W	\$4.00	\$1.00	\$8.00	\$3.00
Hardwired CFL 19W – 32W	\$9.00	\$1.75	\$18.00	\$5.00
Hardwired CFL 33W to 56W	\$12.00	\$1.75	\$24.00	\$8.00
Industrial multi-CFL fixtures		\$8.00		N/A
Metal halide and high pressure sodium 151W – 250W	\$28.00	\$6.00	\$28.00	N/A
Metal halide and high pressure sodium >251W	\$45.00	\$10.00	\$45.00	N/A
Metal halide and high pressure sodium (all wattage ranges) with 2-level automatic switching	\$30.00- \$65.00		N/A	
Pulse start metal halide (all wattage ranges) with 2-level automatic switching	\$35.00- \$85.00		N/A	
New construction auto controls on all equipment		\$1.25-\$15.00		N/A

Lastly, the New Construction Lighting program currently takes demand savings of 0.3-watts/square foot of lighted area. We determined it would be more accurate to take credit by the equipment being installed, similar to how we do with Retrofits.

The revised New Construction methodology determines a savings level for a given type of fixture by comparing its energy use to the less costly, lower efficiency standard option.

10. Motor Efficiency

The Motor Efficiency program provides customer rebates to support the installation of premium efficient motors and energy-efficient adjustable speed drives (ASDs) in existing and new construction facilities.

Premium efficiency motors are designed to reduce internal loss, generate less heat, and outlast standard energy efficient equipment. By installing NEMA Premium™ efficiency motors, customers can reduce downtime, maintenance and labor costs, as well as increase the quality of output.

Installing ASDs can increase a customer's overall machine operating efficiency while saving energy and reducing maintenance costs. ASDs to lower costs by extending the productive life of a motor as a result of reduced stresses and fewer revolutions.

Motor Efficiency offers the following rebates for installing premium efficiency motors and/or ASDs:

Description	Horsepower (hp)	Rebate Amount
Plan A: New NEMA Premium™ motor application (due to new equipment installation or burnout)	1 hp – 200 hp	\$5/hp
Plan B: Upgrading an existing operating motor to a NEMA Premium efficiency motor	1 hp – 200 hp	\$16.50/hp
ASDs	1 hp – 200 hp	\$30/hp
Custom motor or ASD applications	N/A*	Individually determined under the Custom Efficiency program

**Custom motor evaluations may include, but are not limited to: motors and ASDs over 200 hp; replacement of oversized motors with properly sized motors; or implementing overall process improvement resulting in energy and demand savings due to new motors.*

Prescriptive motor rebates cover motors from one horsepower to 200 horsepower when they meet or exceed the NEMA Premium efficiency standards and offer the following features:

- AC polyphase induction motor;
- Squirrel cage rotor design;
- National Electrical Manufacturers Association (NEMA) design B torque characteristic; and
- Synchronous speeds of 3600, 1800, or 1200 RPM.

Prescriptive ASD rebates cover ASDs from one horsepower to 200 horsepower when they:

- Operate at least 4,000 hours per year;
- Run at two or more operating points less than 55 percent loaded, 75 percent of the time;
- Are tied to an automated control system;
- Are installed on qualifying applications; and
- Have a true power factor of 0.90 and above.

Modifications:

On May 1, 2003 it was determined that ASDs over 200 hp should be evaluated through the Custom Efficiency program. The change provides consistency between the motor and ASD rebate offerings and allows for more accurate energy saving calculations for large horsepower ASDs.

NEMA Premium™ Motor Efficiency Standards

HP	Open Drip-Proof (ODP)			Totally Enclosed Fan-Cooled (TEFC)		
	1200 RPM	1800 RPM	3600 RPM	1200 RPM	1800 RPM	3600 RPM
1	82.5	85.5	77.0	82.5	85.5	77.0
1.5	86.5	86.5	84.0	87.5	86.5	84.0
2	87.5	86.5	85.5	88.5	86.5	85.5
3	88.5	89.5	85.5	89.5	89.5	86.5
5	89.5	89.5	86.5	89.5	89.5	88.5
7.5	90.2	91.0	88.5	91.0	91.7	89.5
10	91.7	91.7	89.5	91.0	91.7	90.2
15	91.7	93.0	90.2	91.7	92.4	91.0
20	92.4	93.0	91.0	91.7	93.0	91.0
25	93.0	93.6	91.7	93.0	93.6	91.7
30	93.6	94.1	91.7	93.0	93.6	91.7
40	94.1	94.1	92.4	94.1	94.1	92.4
50	94.1	94.5	93.0	94.1	94.5	93.0
60	94.5	95.0	93.6	94.5	95.0	93.6
75	94.5	95.0	93.6	94.5	95.4	93.6
100	95.0	95.4	93.6	95.0	95.4	94.1
125	95.0	95.4	94.1	95.0	95.4	95.0
150	95.4	95.8	94.1	95.8	95.8	95.0
200	95.4	95.8	95.0	95.8	96.2	95.4

* Nominal Full Load Efficiencies

11. Recommissioning

The Recommissioning program, formerly named Building Recommissioning, is designed to assist Xcel Energy's electric and/or natural gas commercial and industrial customers improve the efficiency of existing buildings' operating systems. The program supports the investigation and implementation plan to improve the existing

building's operation and maintenance with the combined goal of reducing energy use, obtaining energy cost savings for customers and reducing peak electric demand for Xcel Energy.

Recommissioning entails the systematic investigation of building equipment system operations for comparison to intended or design operation by focusing on the existing building's HVAC and building controls. Recommissioning is intended to "tune-up" existing functional systems to run as efficiently as possible through low or no cost improvements and is not intended for diagnosis of retrofit opportunities.

Xcel Energy offers rebates for recommissioning studies and/or implementing recommissioning measures.

Recommissioning study incentives:

Xcel Energy funds up to 50 percent of the customer's Recommissioning study cost (up to \$15,000).

Implementation incentives:

- Customers can qualify for up to \$200 per kW and up to \$2.00 per MCF saved for implementing recommissioning measures.
- If a customer chooses not to use our study funding and commissions a study on their own, they still can qualify for implementation incentives as long as the study meets our criteria.
- Customers may receive implementation rebates for measures with paybacks between 1 and 15 years. If we have already provided the customer a study rebate, we will take credit for implemented measures with less than a one-year or greater than a 15-year payback. Xcel Energy believes that because we have co-funded the study to find the savings measures, we do not need to provide an additional rebate for measures that fail the payback period. Without having completed the study, the customer most likely was not aware of the opportunity to save energy.
- Measures that save kWh only are converted to "implied kW" savings by dividing kWh by 8760 (the average operating hours per year). Xcel Energy will then give an incentive of up to \$200 per kW based on the calculated kW savings.
- As directed by the Department of Commerce in 2003 regarding secondary credit for the Custom Efficiency Program, Recommissioning will offer rebates and take credit for measures that have secondary benefits in addition to on-site energy benefits. These secondary benefits could include purchased chilled water, city water, et al. The electricity 'embedded' in these secondary benefits will be added to the on-site reductions.

Modifications:

Customers who complete a study will be counted towards the Company's participant goal. In prior years, Xcel Energy only counted customers who implemented recommissioning measures. This modification improves our ability to track all customers influenced by Xcel Energy CIP programs.

12. Refrigeration Efficiency

The Refrigeration Efficiency program influences customers to choose more energy efficient refrigeration equipment and associated operations by providing rebates. By using the Custom Efficiency pre-approval process and cost benefit model, the Refrigeration program has strengthened its presence in specialized markets with unique refrigeration needs. To encourage evaluation and improvement of refrigeration systems Xcel Energy funds up to 50 percent of engineering study costs up to \$15,000.

Refrigeration Efficiency applications include both chlorofluoro carbon (CFC)-based and ammonia-based refrigeration systems such as those used in refrigerated warehouses, food processing plants or ice arenas. Refrigeration systems can represent 30 to 70 percent of the energy used in these facilities. A systems approach examines proposed energy saving strategies by modeling the interactive energy effects of the refrigeration system components. Each application is reviewed individually through the Custom Efficiency process, and rebates are based on the energy savings and demand reductions.

Modifications:

None.

13. Roofing Efficiency

The Roofing Efficiency program is designed to encourage business customers to install Energy Star approved roofing materials that will improve the efficiency of their facility by deflecting solar heat gain through their roof. This program uses the current Custom Efficiency preapproval process to measure electric energy savings and offers incentives up to \$200 per kW saved.

The target market for the program is customers whose existing roofs have little insulation and low reflectivity. To qualify for a Roofing Efficiency rebate the customer's facility must be air conditioned and have an economizer on the air conditioning system.

Modifications:

Per the Roofing Reflectants Evaluation filed on January 15, 2004, Xcel Energy added the requirement that all Roofing Efficiency projects must have an economizer on the air conditioning system.

B. Project Information Sheet

Project Information Sheets are provided at the end of this section.

C. Effect on Peak Demand and Energy Consumption & List of Assumptions for each Technology

All services in the Energy Analysis program are indirect impact, having no measurable conservation. Xcel Energy uses this program to encourage overall energy conservation and to direct customers into other specific end-use products that result in direct demand and energy reductions.

All services in the Financing Program are indirect impact, having no direct measurable conservation impact. Xcel Energy uses this program to encourage overall energy conservation and to direct customers into other specific end-use products that result in direct demand and energy reduction savings.

Effects on peak demand and energy consumption are provided in the Project Information Sheets and Benefit/Cost Analyses located at the end of this segment. Technology assumptions are also provided at the end of this segment.

D. Relationship of Program to Resource Plan

As part of Xcel Energy's Conservation Improvement Program, this program will support attainment of Xcel Energy's Resource Plan DSM goals. Not applicable to natural gas utilities.

E. Cost Effectiveness

See Project Information Sheet.

F. Estimated Low-Income and Renter Participation

See Project Information Sheet.

G. Budget

See Project Information Sheet.

H. Ratemaking Treatment & Cost-Recovery Method

The ratemaking and cost-recovery procedures for this CIP follow those approved by the Minnesota Public Utilities Commission in Docket Nos. E002/GR-92-1185, G002/GR-97-1606, and E,G-999/CI-98-1759.

I. Participation

See Project Information Sheet.

J. Involvement of Community Energy Organizations

Providers of these services are selected through a bidding process. Local energy firms provide the majority of the activity.

Community-based energy experts perform many of the energy analysis necessary to deliver C&I programs to customers. For Energy Design Assistance Custom Consulting, the design assistance is performed by The Weidt Group, and the measurement and verification are performed by Herzog/Wheeler & Associates. For Energy Design Assistance Plan Review, three qualified engineers are picked in an RFP process to provide these services. For Recommissioning, local engineering firms and recommissioning providers may perform studies for their customers.

K. Evaluation Plan

All products will continue to be evaluated through the product management process of tracking the market: interacting with manufacturers, vendors, and customers, and reviewing the effects of promotion and other market activities.

All buildings participating in Energy Design Assistance will be subject to verification upon project completion. A consultant or representative of Xcel Energy will perform a site validation before an incentive check is issued to the building owner.

Xcel Energy will conduct an assessment to evaluate the market, process and/or impact of the following programs:

- Boiler Efficiency
- Lighting Efficiency
- Motor Efficiency
- Large C&I Peak Control Program

L. Renewable Energy Information
See Distributed Generation Incentive Program

M. Additional Information
N/A

**Xcel Energy
Commercial & Industrial Boiler Efficiency
Project Information Sheet**

Cost Components	2005 Budget			2006 Budget		
	Electric	Gas	Total	Electric	Gas	Total
Project Delivery		\$111,606	\$111,606		\$114,504	\$114,504
Utility Administration		\$47,281	\$47,281		\$48,699	\$48,699
Other Project Administration		\$20,043	\$20,043		\$20,043	\$20,043
Advertising/ Promotion		\$61,070	\$61,070		\$61,312	\$61,312
Evaluation Labor & Expenses		\$0	\$0		\$0	\$0
Incentives		\$260,000	\$260,000		\$260,000	\$260,000
Revenue		\$0	\$0		\$0	\$0
Total Budget	\$0	\$500,000	\$500,000	\$0	\$504,558	\$504,558
Total Number of Participants		233			233	
Total En. Savings-Generator (kWh)						
Total En. Savings-Meter (kWh)						
Total Demand Savings Generator (kW)						
Total Natural Gas Energy Savings (MCF)		150.984			150.984	
Project Type Percentage Expenditure						
Commercial & Industrial		100%			100%	
Small Business						
Consumer						
Low Income						
Other						
Low-Income Participation (%)		N/A			N/A	
Participants (#)						
Budget (\$)						
Renter Participation (%)		N/A			N/A	
Participants (#)						
Budget (\$)						
Societal B/C Results						
Net Present Value		\$16,332,293			\$16,332,293	
B/C Ratio		9.36			9.36	
Participant B/C Results						
Net Present Value		\$26,312,022			\$26,312,022	
B/C Ratio		17.02			17.02	
Rate Impact B/C Results						
Net Present Value		\$8,099,500			\$8,099,500	
B/C Ratio		1.89			1.89	
Revenue Requirements B/C Results						
Net Present Value		\$16,252,185			\$16,252,185	
B/C Ratio		19.02			19.02	
Project Type						
Audit/Info						
R&D						
Renewable						
Direct Impact		X			X	
Type of Incentive						
Loan/Grant						
Rebate		X			X	
Direct Installation						
End-Use Target (%)						
Lighting		0%			0%	
Process		0%			0%	
Motor		0%			0%	
Refrigeration		0%			0%	
Space Cooling		0%			0%	
Space Heating		100%			100%	
Water Heating		0%			0%	
Weatherization		0%			0%	
General/Other		0%			0%	
Rate-making treatment: expensed		X			X	

Conservation Improvement Program (CIP)

Company: Xcel Energy (Natural Gas)
Project: C&I Boiler Efficiency

Input Data

1) Retail Rate (\$/MCF) =	\$8.33
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$100,000
Direct Operating Costs =	\$140,000
Incentive Costs =	\$260,000
Total Utility Project Costs =	\$500,000
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$100,000
Direct Operating Costs =	\$144,558
Incentive Costs =	\$260,000
Total Utility Project Costs =	\$504,558
16) Direct Participant Costs (\$/Part.) =	\$3,830.00
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	1.85%
20) Avg. Consumption (MCF/Part.) =	35,027.03
21) Avg. MCF/Part. Saved (First Year Program) =	648.00
21a) Avg. MCF/Part. Saved (Second Year Program) =	648.00
22) Number of Participants (First Year Program) =	233
22a) Number of Participants (Second Year Program) =	233
23) Incentive/Participant (First Year Program) =	\$1,118
23a) Incentive/Participant (Second Year Program) =	\$1,118

**Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Summary Information

Company: Xcel Energy (Natural Gas)
Project: C&I Boiler Efficiency

Cost Summary

Utility Cost per Participant (First Year) =	\$2,145.92
Utility Cost per participant (Second Year) =	\$2,165.48
Total Energy Reduction (MCF)	4,529,520
Societal Cost per MCF	\$0.43
Cost per Participant per MCF (First Year) =	\$8.91
Cost per Participant per MCF (Second Year) =	\$8.94

Test Results

	NPV	B/C
Cost Comparison Test	\$8,099,500	1.89
Revenue Requirements Test	\$16,252,185	19.02
Societal Benefit Test	\$16,332,293	9.36
Participant Test	\$26,312,022	17.02

Xcel Energy
Commercial & Industrial Compressed Air Efficiency
Project Information Sheet

	2005 Budget			2006 Budget		
	Electric	Gas	Total	Electric	Gas	Total
Cost Components						
Project Delivery	\$93,438		\$93,438	\$96,241		\$96,241
Utility Administration	\$43,799		\$43,799	\$45,113		\$45,113
Other Project Administration	\$7,300		\$7,300	\$7,300		\$7,300
Advertising/Promotion	\$22,260		\$22,260	\$22,523		\$22,523
Evaluations	\$0		\$0	\$0		\$0
R&D	\$0		\$0	\$0		\$0
Incentives (Rebates)	\$402,018		\$402,018	\$402,018		\$402,018
Other	\$0		\$0	\$0		\$0
Less Revenues	\$0		\$0	\$0		\$0
Total Budget	\$568,815	\$0	\$568,815	\$573,195	\$0	\$573,195
Total Number of Participants	69			69		
Total En. Savings-Generator (kWh)	11,026,822			11,026,822		
Total En. Savings-Meter (kWh)	10,365,213			10,365,213		
Total Demand Savings Generator (kW)	1,680			1,680		
Total Natural Gas Energy Savings (MCF)						
Project Type Percentage Expenditure						
Commercial & Industrial	100%			100%		
Small Business						
Consumer						
Low Income						
Other						
Low-Income Participation (%)	N/A			N/A		
Participants (#)						
Budget (\$)						
Renter Participation (%)	N/A			N/A		
Participants (#)						
Budget (\$)						
Societal B/C Results						
Net Present Value	\$2,420			\$2,485		
B/C Ratio	4.16			4.24		
Participant B/C Results						
Net Present Value	\$2,390			\$2,390		
B/C Ratio	6.44			6.44		
Rate Impact B/C Results						
Net Present Value	(\$235)			(\$176)		
B/C Ratio	0.93			0.94		
Revenue Requirements B/C Results						
Net Present Value	\$2,594			\$2,652		
B/C Ratio	8.94			9.06		
Project Type						
Audit/Info	X			X		
R&D						
Renewable						
Direct Impact	X			X		
Type of Incentive						
Loan/Grant						
Rebate	X			X		
Direct Installation						
End-Use Target (%)						
Lighting	0%			0%		
Process	85%			85%		
Motor	0%			0%		
Refrigeration	0%			0%		
Space Cooling	0%			0%		
Space Heating	0%			0%		
Water Heating	0%			0%		
Weatherization	0%			0%		
General/Other	15%			15%		
Rate-making treatment: expensed	X			X		

► **Commercial & Industrial Segment Compressed Air Efficiency**

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$753	\$753	\$753	\$753
T & D	N/A	460	460	460	460
Marginal Energy	N/A	1,707	1,707	1,707	1,707
Externality Willingness	N/A	N/A	N/A	N/A	265
Subtotal	N/A	\$2,921	\$2,921	\$2,921	\$3,186
Xcel Energy's Project Costs					
Subtotal	N/A	\$327	\$327	\$327	\$327
Revenue Reduction	\$2,829	N/A	\$2,829	\$0	\$0
Subtotal	\$2,829	N/A	\$2,829	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,053	N/A	N/A	\$1,053	\$1,053
Incremental O&M	(383)	N/A	N/A	(383)	(383)
Rebates	(231)	N/A	N/A	(231)	(231)
Subtotal	\$439	N/A	N/A	\$439	\$439
Net Present Benefit (Cost)	\$2,390	\$2,594	(\$235)	\$2,155	\$2,420
Net Benefit (Cost) per kWh Lifetime	\$0.022	\$0.024	(\$0.002)	\$0.020	\$0.022
Net Present Benefit (Cost) per Generator	\$2,478	\$2,690	(\$243)	\$2,235	\$2,510
Benefit Cost Ratio	6.44	8.94	0.93	3.81	4.16

Project Assumptions:

Measure Lifetime (Years)	17
Customer Rate	General Service
(A) Gross Load Factor at Customer (LF)	67.92%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	5,950
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	5,950
(E) Transmission Loss Factor	6.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	6,330
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	90.65%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.964

* Xcel Energy Project Cost per kWh Lifetime

\$0.003

* Xcel Energy Project Cost per kW at Gen

\$338.6

➤ Commercial & Industrial Segment Compressed Air Efficiency

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$772	\$772	\$772	\$772
T & D	N/A	461	461	461	461
Marginal Energy	N/A	1,748	1,748	1,748	1,748
Externality Willingness	N/A	N/A	N/A	N/A	272
Subtotal	N/A	\$2,981	\$2,981	\$2,981	\$3,253
Xcel Energy's Project Costs					
Subtotal	N/A	\$329	\$329	\$329	\$329
Revenue Reduction	\$2,829	N/A	\$2,829	\$0	\$0
Subtotal	\$2,829	N/A	\$2,829	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,053	N/A	N/A	\$1,053	\$1,053
Incremental O&M	(383)	N/A	N/A	(383)	(383)
Rebates	(231)	N/A	N/A	(231)	(231)
Subtotal	\$439	N/A	N/A	\$439	\$439
Net Present Benefit (Cost)	\$2,390	\$2,652	(\$176)	\$2,213	\$2,485
Net Benefit (Cost) per kWh Lifetime	\$0.022	\$0.024	(\$0.002)	\$0.020	\$0.023
Net Present Benefit (Cost) per Generator	\$2,478	\$2,750	(\$183)	\$2,295	\$2,577
Benefit Cost Ratio	6.44	9.06	0.94	3.88	4.24

Project Assumptions:

Measure Lifetime (Years)	17
Customer Rate	General Service
(A) Gross Load Factor at Customer (LF)	67.92%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	5,950
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	5,950
(E) Transmission Loss Factor	6.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	6,330
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	90.65%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.964

* Xcel Energy Project Cost per kWh Lifetime

\$0.003

* Xcel Energy Project Cost per kW at Gen

\$341.2

Commercial & Industrial Segment Compressed Air Efficiency

	2005	2006
(A) Gross Customer kW reduction per participant	25.25	25.25
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	25.25	25.25
(D) Coincident factor	90.6%	90.6%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	24.35	24.35
(G) Gross kWh/Year saved per Customer kW	5,950	5,950
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	150,220	150,220
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	150,220	150,220
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	159,809	159,809
(K) Estimated participant penetration rates	69	69
Total Gross customer kW reduction: (A)*(K)=	1,742	1,742
Total Net Customer kW reduction: (C)*(K)=	1,742	1,742
Total Net Summer Generator kW reduction: (F)*(K)=	1,680	1,680
Total Gross kWh reduction at Customer per year: (H)*(K)=	10,365,213	10,365,213
Total Net kWh reduction at Customer per year: (I)*(K)=	10,365,213	10,365,213
Total Net kWh reduction at Generator per year: (J)*(K)=	11,026,822	11,026,822
Total Budget	\$ 568,815	\$ 573,195

Xcel Energy
Commercial & Industrial Cooling Efficiency
Project Information Sheet

	2005 Budget			2006 Budget		
	Electric	Gas	Total	Electric	Gas	Total
Cost Components						
Project Delivery	\$127,854		\$127,854	\$129,890		\$129,890
Utility Administration	\$53,856		\$53,856	\$55,471		\$55,471
Other Project Administration	\$30,000		\$30,000	\$30,000		\$30,000
Advertising/Promotion	\$178,070		\$178,070	\$178,312		\$178,312
Evaluations	\$0		\$0	\$0		\$0
R&D	\$0		\$0	\$0		\$0
Incentives (Rebates)	\$839,654		\$839,654	\$839,654		\$839,654
Other	\$0		\$0	\$0		\$0
Less Revenues	\$0		\$0	\$0		\$0
Total Budget	\$1,229,434	\$0	\$1,229,434	\$1,233,327	\$0	\$1,233,327
Total Number of Participants	70			70		
Total En. Savings-Generator (kWh)	5,338,750			5,338,750		
Total En. Savings-Meter (kWh)	5,018,425			5,018,425		
Total Demand Savings Generator (kW)	2,849			2,849		
Total Natural Gas Energy Savings (MCF)						
Project Type Percentage Expenditure						
Commercial & Industrial	100%			100%		
Small Business						
Consumer						
Low Income						
Other						
Low-Income Participation (%)	N/A			N/A		
Participants (#)						
Budget (\$)						
Renter Participation (%)	N/A			N/A		
Participants (#)						
Budget (\$)						
Societal B/C Results						
Net Present Value	\$1,185			\$1,229		
B/C Ratio	2.80			2.87		
Participant B/C Results						
Net Present Value	\$756			\$772		
B/C Ratio	3.45			3.50		
Rate Impact B/C Results						
Net Present Value	\$353			\$379		
B/C Ratio	1.25			1.26		
Revenue Requirements B/C Results						
Net Present Value	\$1,417			\$1,459		
B/C Ratio	5.06			5.17		
Project Type						
Audit/Info						
R&D						
Renewable						
Direct Impact	X			X		
Type of Incentive						
Loan/Grant						
Rebate	X			X		
Direct Installation						
End-Use Target (%)						
Lighting	0%			0%		
Process	0%			0%		
Motor	0%			0%		
Refrigeration	0%			0%		
Space Cooling	100%			100%		
Space Heating	0%			0%		
Water Heating	0%			0%		
Weatherization	0%			0%		
General/Other	0%			0%		
Ratemaking treatment: expensed	X			X		

► Commercial & Industrial Segment Cooling Efficiency

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$719	\$719	\$719	\$719
T & D	N/A	441	441	441	441
Marginal Energy	N/A	605	605	605	605
Externality Willingness	N/A	N/A	N/A	N/A	76
Subtotal	N/A	\$1,766	\$1,766	\$1,766	\$1,842
Xcel Energy's Project Costs					
Xcel Energy's Project Costs	N/A	\$349	\$349	\$349	\$349
Subtotal	N/A	\$349	\$349	\$349	\$349
Revenue Reduction					
Revenue Reduction	\$1,064	N/A	\$1,064	\$0	\$0
Subtotal	\$1,064	N/A	\$1,064	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$544	N/A	N/A	\$544	\$544
Incremental O&M	0	N/A	N/A	0	0
Rebates	(236)	N/A	N/A	(236)	(236)
Subtotal	\$308	N/A	N/A	\$308	\$308
Net Present Benefit (Cost)	\$756	\$1,417	\$353	\$1,109	\$1,185
Net Benefit (Cost) per kWh Lifetime	\$0.025	\$0.047	\$0.012	\$0.037	\$0.039
Net Present Benefit (Cost) per Generator	\$936	\$1,754	\$436	\$1,372	\$1,466
Benefit Cost Ratio	3.45	5.06	1.25	2.69	2.80

Project Assumptions:

(A) Measure Lifetime (Years)	20
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	16.25%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	1,423
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	1,423
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	1,514
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	75.96%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.808

* Xcel Energy Project Cost per kWh Lifetime

\$0.012

* Xcel Energy Project Cost per kW at Gen

\$431.5

► Commercial & Industrial Segment Cooling Efficiency

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$737	\$737	\$737	\$737
T & D	N/A	452	452	452	452
Marginal Energy	N/A	620	620	620	620
Externality Willingness	N/A	N/A	N/A	N/A	78
Subtotal	N/A	\$1,809	\$1,809	\$1,809	\$1,887
Xcel Energy's Project Costs					
Subtotal	N/A	\$350	\$350	\$350	\$350
Revenue Reduction	\$1,080	N/A	\$1,080	\$0	\$0
Subtotal	\$1,080	N/A	\$1,080	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$544	N/A	N/A	\$544	\$544
Incremental O&M	0	N/A	N/A	0	0
Rebates	(236)	N/A	N/A	(236)	(236)
Subtotal	\$308	N/A	N/A	\$308	\$308
Net Present Benefit (Cost)	\$772	\$1,459	\$379	\$1,151	\$1,229
Net Benefit (Cost) per kWh Lifetime	\$0.025	\$0.048	\$0.013	\$0.038	\$0.041
Net Present Benefit (Cost) per Generator	\$955	\$1,806	\$469	\$1,424	\$1,520
Benefit Cost Ratio	3.50	5.17	1.26	2.75	2.87

Project Assumptions:

(A) Measure Lifetime (Years)	20
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	16.25%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	1,423
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	1,423
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	1,514
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	75.96%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.808

* Xcel Energy Project Cost per kWh Lifetime

\$0.012

* Xcel Energy Project Cost per kW at Gen

\$432.9

Commercial & Industrial Segment Cooling Efficiency

	2005	2006
(A) Gross Customer kW reduction per participant	50.37	50.37
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	50.37	50.37
(D) Coincident factor	76.0%	76.0%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	40.70	40.70
(G) Gross kWh/Year saved per Customer kW	1,423	1,423
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	71,692	71,692
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	71,692	71,692
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	76,268	76,268
(K) Estimated participant penetration rates	70	70
Total Gross customer kW reduction: (A)*(K)=	3,526	3,526
Total Net Customer kW reduction: (C)*(K)=	3,526	3,526
Total Net Summer Generator kW reduction: (F)*(K)=	2,849	2,849
Total Gross kWh reduction at Customer per year: (H)*(K)=	5,018,425	5,018,425
Total Net kWh reduction at Customer per year: (I)*(K)=	5,018,425	5,018,425
Total Net kWh reduction at Generator per year: (J)*(K)=	5,338,750	5,338,750
 Total Budget	 \$ 1,229,434	 \$ 1,233,327

Xcel Energy
Commercial & Industrial Segment Custom Efficiency
Project Information Sheet

	2005 Budget		
	Electric	Gas	Total
Cost Components			
Project Delivery	\$182,862	\$81,340	\$264,202
Utility Administration	\$215,768	\$27,888	\$243,656
Other Project Administration	\$89,875	\$4,500	\$94,375
Advertising/Promotion	\$213,695	\$37,972	\$251,667
Evaluations	\$0	\$0	\$0
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$1,989,400	\$128,350	\$2,117,750
Other	\$0	\$0	\$0
Less Revenues	\$0	\$0	\$0
Total Budget	\$2,691,600	\$280,050	\$2,971,650
Total Number of Participants	194	19	
Total En. Savings-Generator (kWh)	46,761,803		
Total En. Savings-Meter (kWh)	43,956,095		
Total Demand Savings Generator (kW)	5.944		
Total Natural Gas Energy Savings (MCF)		59,175	
Project Type Percentage Expenditure			
Commercial & Industrial	100%	100%	
Small Business			
Consumer			
Low Income			
Other			
Low-Income Participation (%)	N/A	N/A	
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A	N/A	
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$7,998	\$3,047,012	
B/C Ratio	INF	1.74	
Participant B/C Results			
Net Present Value	\$8,217	\$6,873,953	
B/C Ratio	INF	2.66	
Rate Impact B/C Results			
Net Present Value	(\$460)	\$3,021,901	
B/C Ratio	0.85	1.82	
Revenue Requirements B/C Results			
Net Present Value	\$2,367	\$6,217,174	
B/C Ratio	9.28	13.28	
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X	X	
Type of Incentive			
Loan/Grant			
Rebate	X	X	
Direct Installation			
End-Use Target (%)			
Lighting	0%	0%	
Process	100%	100%	
Motor	0%	0%	
Refrigeration	0%	0%	
Space Cooling	0%	0%	
Space Heating	0%	0%	
Water Heating	0%	0%	
Weatherization	0%	0%	
General/Other	0%	0%	
Rate-making treatment: expensed	X	X	

	2006 Budget		
	Electric	Gas	Total
	\$188,346	\$83,790	\$272,136
	\$222,242	\$28,728	\$250,970
	\$89,875	\$4,500	\$94,375
	\$213,937	\$38,182	\$252,119
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$2,038,000	\$128,350	\$2,166,350
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$2,752,400	\$283,550	\$3,035,950
	199	19	
	49,456,736		
	46,489,332		
	6,286		
		59,175	
	100%	100%	
	N/A	N/A	
	N/A	N/A	
	\$8,078	\$3,047,012	
	INF	1.74	
	\$8,217	\$6,873,953	
	INF	2.66	
	(\$386)	\$3,021,901	
	0.88	1.82	
	\$2,441	\$6,217,174	
	9.84	13.28	
	X	X	
	X	X	
	0%	0%	
	100%	100%	
	0%	0%	
	0%	0%	
	0%	0%	
	0%	0%	
	0%	0%	
	0%	0%	
	0%	0%	
	X	X	

➤ Commercial & Industrial Segment Custom Efficiency

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$538	\$538	\$538	\$538
T & D	N/A	330	330	330	330
Marginal Energy	N/A	1,784	1,784	1,784	1,784
Externality Willingness	N/A	N/A	N/A	N/A	241
Subtotal	N/A	\$2,652	\$2,652	\$2,652	\$2,894
Xcel Energy's Project Costs					
Subtotal	N/A	\$286	\$286	\$286	\$286
Revenue Reduction	\$2,827	N/A	\$2,827	N/A	N/A
Subtotal	\$2,827	N/A	\$2,827	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$2,229	N/A	N/A	\$2,229	\$2,229
Incremental O&M	(7,408)	N/A	N/A	(7,408)	(7,408)
Rebates	(211)	N/A	N/A	(211)	(211)
Subtotal	(\$5,390)	N/A	N/A	(\$5,390)	(\$5,390)
Net Present Benefit (Cost)	\$8,217	\$2,367	(\$460)	\$7,756	\$7,998
Net Benefit (Cost) per kWh Lifetime	\$0.087	\$0.025	(\$0.005)	\$0.082	\$0.085
Net Present Benefit (Cost) per Generator	\$13,025	\$3,752	(\$730)	\$12,295	\$12,678
Benefit Cost Ratio	INF	9.28	0.85	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	19
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	53.26%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	4,665
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	4,665
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	4,963
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	59.3%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.631

* Xcel Energy Project Cost per kWh Lifetime
* Xcel Energy Project Cost per kW at Gen

\$0.003
\$452.8

➤ Commercial & Industrial Segment Custom Efficiency

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$552	\$552	\$552	\$552
T & D	N/A	338	338	338	338
Marginal Energy	N/A	1,828	1,828	1,828	1,828
Externality Willingness	N/A	N/A	N/A	N/A	247
Subtotal	N/A	\$2,717	\$2,717	\$2,717	\$2,965
Xcel Energy's Project Costs					
	N/A	\$276	\$276	\$276	\$276
Subtotal	N/A	\$276	\$276	\$276	\$276
Revenue Reduction	\$2,827	N/A	\$2,827	N/A	N/A
Subtotal	\$2,827	N/A	\$2,827	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$2,229	N/A	N/A	\$2,229	\$2,229
Incremental O&M	(\$7,408)	N/A	N/A	(7,408)	(7,408)
Rebates	(\$211)	N/A	N/A	(211)	(211)
Subtotal	(\$5,390)	N/A	N/A	(\$5,390)	(\$5,390)
Net Present Benefit (Cost)	\$8,217	\$2,441	(\$386)	\$7,830	\$8,078
Net Benefit (Cost) per kWh Lifetime	\$0.087	\$0.026	(\$0.004)	\$0.083	\$0.086
Net Present Benefit (Cost) per Generator	\$13,856	\$4,116	(\$651)	\$13,205	\$13,622
Benefit Cost Ratio	INF	9.84	0.88	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	19
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	53.26%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	4,665
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	4,665
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	4,963
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	59.3%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.631

* Xcel Energy Project Cost per kWh Lifetime

\$0.003

* Xcel Energy Project Cost per kW at Gen

\$437.8

Commercial & Industrial Segment Custom Efficiency

	2005	2006
(A) Gross Customer kW reduction per participant	48.57	50.08
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	48.57	50.08
(D) Coincident factor	59.3%	59.3%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	30.64	31.59
(G) Gross kWh/Year saved per Customer kW	4,665	4,665
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	226,578	233,615
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	226,578	233,615
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	241,040	248,526
(K) Estimated participant penetration rates	194	199
Total Gross customer kW reduction: (A)*(K)=	9,422	9,965
Total Net Customer kW reduction: (C)*(K)=	9,422	9,965
Total Net Summer Generator kW reduction: (F)*(K)=	5,944	6,286
Total Gross kWh reduction at Customer per year: (H)*(K)=	43,956,095	46,489,332
Total Net kWh reduction at Customer per year: (I)*(K)=	43,956,095	46,489,332
Total Net kWh reduction at Generator per year: (J)*(K)=	46,761,803	49,456,736
Total Budget	\$ 2,691,600	\$ 2,752,400

Conservation Improvement Program (CIP)

Company: **Xcel Energy (Natural Gas)**
 Project: **C&I Custom Efficiency**

Input Data

1) Retail Rate (\$/MCF) =	\$8.33
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$151,700
Direct Operating Costs =	\$0
Incentive Costs =	\$128,350
Total Utility Project Costs =	\$280,050
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$155,200
Direct Operating Costs =	\$0
Incentive Costs =	\$128,350
Total Utility Project Costs =	\$283,550
16) Direct Participant Costs (\$/Part.) =	\$72,137.00
17) Other Participant Costs (Annual \$/Part.) =	\$3,583.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	45.09%
20) Avg. Consumption (MCF/Part.) =	6,908.00
21) Avg. MCF/Part. Saved (First Year Program) =	3,114.47
21a) Avg. MCF/Part. Saved (Second Year Program) =	3,114.47
22) Number of Participants (First Year Program) =	19
22a) Number of Participants (Second Year Program) =	19
23) Incentive/Participant (First Year Program) =	\$6,755
23a) Incentive/Participant (Second Year Program) =	\$6,755

Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: **Xcel Energy (Natural Gas)**
 Project: **C&I Custom Efficiency**

Cost Summary

Utility Cost per Participant (First Year) =	\$14,739.47
Utility Cost per participant (Second Year) =	\$14,923.68
Total Energy Reduction (MCF)	1,775,250
Societal Cost per MCF	\$2.32
Cost per Participant per MCF (First Year) =	\$29.04
Cost per Participant per MCF (Second Year) =	\$29.10

Test Results

	NPV	B/C
Cost Comparison Test	\$3,021,901	1.82
Revenue Requirements Test	\$6,217,174	13.28
Societal Benefit Test	\$3,047,012	1.74
Participant Test	\$6,873,953	2.66

**Xcel Energy
Commercial & Industrial DG Incentive
Project Information Sheet**

	2005 Budget		
	Electric	Gas	Total
Cost Components			
Project Delivery	\$3,000		\$3,000
Utility Administration	\$26,055		\$26,055
Other Project Administration	\$250		\$250
Advertising/Promotion	\$10,695		\$10,695
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$450,000		\$450,000
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$490,000	\$0	\$490,000
Total Number of Participants	7		
Total En. Savings-Generator (kWh)			
Total En. Savings-Meter (kWh)			
Total Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Low-Income Participation (%)			
Participants (#)			
Budget (\$)			
Renter Participation (%)			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value			
B/C Ratio			
Participant B/C Results			
Net Present Value			
B/C Ratio			
Rate Impact B/C Results			
Net Present Value			
B/C Ratio			
Revenue Requirements B/C Results			
Net Present Value			
B/C Ratio			
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact			
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting			
Process			
Motor			
Refrigeration			
Space Cooling			
Space Heating			
Water Heating			
Weatherization			
General/Other	100%		
Ratemaking treatment: expensed	X		

	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$3,000		\$3,000
Utility Administration	\$26,835		\$26,835
Other Project Administration	\$250		\$250
Advertising/Promotion	\$9,915		\$9,915
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$450,000		\$450,000
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$490,000	\$0	\$490,000
Total Number of Participants	7		
Total En. Savings-Generator (kWh)			
Total En. Savings-Meter (kWh)			
Total Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Low-Income Participation (%)			
Participants (#)			
Budget (\$)			
Renter Participation (%)			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value			
B/C Ratio			
Participant B/C Results			
Net Present Value			
B/C Ratio			
Rate Impact B/C Results			
Net Present Value			
B/C Ratio			
Revenue Requirements B/C Results			
Net Present Value			
B/C Ratio			
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact			
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting			
Process			
Motor			
Refrigeration			
Space Cooling			
Space Heating			
Water Heating			
Weatherization			
General/Other	100%		
Ratemaking treatment: expensed	X		

**Xcel Energy
Commercial & Industrial Energy Design Assistance
Project Information Sheet**

	2005 Budget		
	Electric	Gas	Total
Cost Components			
Project Delivery	\$2,875,167	\$90,985	\$2,966,152
Utility Administration	\$85,959	\$11,445	\$97,404
Other Project Administration	\$17,325	\$0	\$17,325
Advertising/Promotion	\$351,045	\$2,000	\$353,045
Evaluations	\$0	\$0	\$0
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$1,570,505	\$45,570	\$1,616,075
Other	\$0	\$0	\$0
Less Revenues	\$0	\$0	\$0
Total Budget	\$4,900,000	\$150,000	\$5,050,000
Total Number of Participants	37	5	
Total En. Savings-Generator (kWh)	25,995,330		
Total En. Savings-Meter (kWh)	24,435,610		
Total Demand Savings Generator (kW)	7,563		
Total Natural Gas Energy Savings (MCF)		22,785	
Project Type Percentage Expenditure			
Commercial & Industrial	100%	100%	
Small Business			
Consumer			
Low Income			
Other			
Low-Income Participation (%)	N/A	N/A	
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A	N/A	
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$1,909	\$2,436,411	
B/C Ratio	3.03	8.54	
Participant B/C Results			
Net Present Value	\$1,874	\$4,085,507	
B/C Ratio	7.25	29.21	
Rate Impact B/C Results			
Net Present Value	(\$136)	\$1,088,069	
B/C Ratio	0.95	1.73	
Revenue Requirements B/C Results			
Net Present Value	\$2,039	\$2,318,391	
B/C Ratio	4.19	9.58	
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X	X	
Type of Incentive			
Loan/Grant			
Rebate	X	X	
Direct Installation	X	X	
End-Use Target (%)			
Lighting	35%	0%	
Process	25%	0%	
Motor	0%	0%	
Refrigeration	0%	0%	
Space Cooling	30%	50%	
Space Heating	0%	50%	
Water Heating	0	0%	
Weatherization	0%	0%	
General/Other	10%	0%	
Rate-making treatment: expensed	X	X	

	2006 Budget		
	Electric	Gas	Total
	\$2,754,471	\$91,700	\$2,846,171
	\$88,537	\$11,789	\$100,326
	\$0	\$0	\$0
	\$355,612	\$2,000	\$357,612
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$1,401,380	\$45,570	\$1,446,950
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$4,600,000	\$151,059	\$4,751,059
	40	5	
	23,195,937		
	21,804,181		
	6,749		
		22,785	
	100%	100%	
	N/A	N/A	
	N/A	N/A	
	\$1,970	\$2,436,411	
	3.00	8.54	
	\$1,907	\$4,085,507	
	7.36	29.21	
	(\$136)	\$1,088,069	
	0.95	1.73	
	\$2,071	\$2,318,391	
	4.08	9.58	
	X	X	
	X	X	
	35%	0%	
	25%	0%	
	0%	0%	
	0%	0%	
	30%	50%	
	0%	50%	
	0	0%	
	0%	0%	
	10%	0%	
	X	X	

► **Commercial & Industrial Segment Energy Design Assistance**

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$868	\$868	\$868	\$868
T & D	N/A	533	533	533	533
Marginal Energy	N/A	1,278	1,278	1,278	1,278
Externality Willingness	N/A	N/A	N/A	N/A	170
Subtotal	N/A	\$2,678	\$2,678	\$2,678	\$2,849
Xcel Energy's Project Costs					
Subtotal	N/A	\$640	\$640	\$640	\$640
Revenue Reduction	\$2,174	N/A	\$2,174	N/A	N/A
Subtotal	\$2,174	N/A	\$2,174	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$505	N/A	N/A	\$505	\$505
Incremental O&M	0	N/A	N/A	0	0
Rebates	(205)	N/A	N/A	(205)	(205)
Subtotal	\$300	N/A	N/A	\$300	\$300
Net Present Benefit (Cost)	\$1,874	\$2,039	(\$136)	\$1,739	\$1,909
Net Benefit (Cost) per kWh Lifetime	\$0.028	\$0.030	(\$0.002)	\$0.026	\$0.028
Net Present Benefit (Cost) per Generator	\$1,899	\$2,065	(\$138)	\$1,761	\$1,934
Benefit Cost Ratio	7.25	4.19	0.95	2.85	3.03

Project Assumptions:

(A) Measure Lifetime (Years)	20
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	36.41%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	3,190
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	3,190
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	3,393
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	92.80%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.987

* Xcel Energy Project Cost per kWh Lifetime
* Xcel Energy Project Cost per kW at Gen

\$0.009
\$647.9

► **Commercial & Industrial Segment Energy Design Assistance**

**Net Present Worth Benefit Analysis
2006 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$889	\$889	\$889	\$889
T & D	N/A	546	546	546	546
Marginal Energy	N/A	1,309	1,309	1,309	1,309
Externality Willingness	N/A	N/A	N/A	N/A	175
Subtotal	N/A	\$2,744	\$2,744	\$2,744	\$2,918
Xcel Energy's Project Costs					
Subtotal	N/A	\$673	\$673	\$673	\$673
Revenue Reduction	\$2,207	N/A	\$2,207	N/A	N/A
Subtotal	\$2,207	N/A	\$2,207	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$505	N/A	N/A	\$505	\$505
Incremental O&M	0	N/A	N/A	0	0
Rebates	(205)	N/A	N/A	(205)	(205)
Subtotal	\$300	N/A	N/A	\$300	\$300
Net Present Benefit (Cost)	\$1,907	\$2,071	(\$136)	\$1,771	\$1,945
Net Benefit (Cost) per kWh Lifetime	\$0.028	\$0.031	(\$0.002)	\$0.026	\$0.029
Net Present Benefit (Cost) per Generator	\$1,932	\$2,097	(\$138)	\$1,793	\$1,970
Benefit Cost Ratio	7.36	4.08	0.95	2.82	3.00

Project Assumptions:

(A) Measure Lifetime (Years)	20
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	36.41%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	3,190
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	3,190
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	3,393
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	92.80%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.987

* Xcel Energy Project Cost per kWh Lifetime

\$0.010

* Xcel Energy Project Cost per kW at Gen

\$681.6

Commercial & Industrial Segment Energy Design Assistance

	2005	2006
(A) Gross Customer kW reduction per participant	207.05	170.90
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	207.05	170.90
(D) Coincident factor	92.8%	92.8%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	204.41	168.72
(G) Gross kWh/Year saved per asdomer kW	3,190	3,190
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	660,422	545,105
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	660,422	545,105
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	702,576	579,898
(K) Estimated participant penetration rates	37	40
Total Gross customer kW reduction: (A)*(K)=	7,661	6,836
Total Net liteomer kW reduction: (C)*(K)=	7,661	6,836
Total Net Summer Generator kW reduction: (F)*(K)=	7,563	6,749
Total Gross kWh reduction at Customer per year: (H)*(K)=	24,435,610	21,804,181
Total Net kWh reduction at Customer per year: (I)*(K)=	24,435,610	21,804,181
Total Net kWh reduction at Generator per year: (J)*(K)=	25,995,330	23,195,937
Total Budget	\$ 4,900,000	\$ 4,600,000

Conservation Improvement Program (CIP)

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Conservation Improvement Program (CIP)

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: Xcel Energy (Natural Gas)
 Project: C&I Energy Design Assistance

Summary Information

Company: Xcel Energy (Natural Gas)
 Project: C&I Energy Design Assistance

Input Data

Cost Summary

1) Retail Rate (\$/MCF) =	\$8.33
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

15) Utility Project Costs (First Year)	
Administrative Costs =	\$23,879
Direct Operating Costs =	\$80,551
Incentive Costs =	\$45,570
Total Utility Project Costs =	\$150,000
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$24,594
Direct Operating Costs =	\$80,895
Incentive Costs =	\$45,570
Total Utility Project Costs =	\$151,059
16) Direct Participant Costs (\$/Part.) =	\$15,000.00
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	25.00%
20) Avg. Consumption (MCF/Part.) =	18,228.00
21) Avg. MCF/Part. Saved (First Year Program) =	4,557.00
21a) Avg. MCF/Part. Saved (Second Year Program) =	4,557.00
22) Number of Participants (First Year Program) =	5
22a) Number of Participants (Second Year Program) =	5
23) Incentive/Participant (First Year Program) =	\$9,114
23a) Incentive/Participant (Second Year Program) =	\$9,114

Utility Cost per Participant (First Year) =	\$30,000.00
Utility Cost per participant (Second Year) =	\$30,211.80
Total Energy Reduction (MCF)	683,550
Societal Cost per MCF	\$0.47
Cost per Participant per MCF (First Year) =	\$9.87
Cost per Participant per MCF (Second Year) =	\$9.92

Test Results

	NPV	B/C
Cost Comparison Test	\$1,088,069	1.73
Revenue Requirements Test	\$2,318,391	9.58
Societal Benefit Test	\$2,436,411	8.54
Participant Test	\$4,085,507	29.21

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**Xcel Energy
Commercial & Industrial Lighting Efficiency
Project Information Sheet**

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$211,332		\$211,332
Utility Administration	\$105,576		\$105,576
Other Project Administration	\$6,000		\$6,000
Advertising/Promotion	\$177,070		\$177,070
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$2,182,379		\$2,182,379
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$2,682,357	\$0	\$2,682,357
Total Number of Participants	459		
Total En. Savings-Generator (kWh)	38,144,197		
Total En. Savings-Meter (kWh)	35,855,545		
Total Demand Savings Generator (kW)	7,162		
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Other			
Low-Income Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$1,133		
B/C Ratio	1.61		
Participant B/C Results			
Net Present Value	\$1,066		
B/C Ratio	1.70		
Rate Impact B/C Results			
Net Present Value	(\$154)		
B/C Ratio	0.95		
Revenue Requirements B/C Results			
Net Present Value	\$2,435		
B/C Ratio	8.39		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting	100%		
Process	0%		
Motor	0%		
Refrigeration	0%		
Space Cooling	0%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$217,603		\$217,603
Utility Administration	\$108,743		\$108,743
Other Project Administration	\$6,000		\$6,000
Advertising/Promotion	\$177,312		\$177,312
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$2,182,379		\$2,182,379
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$2,692,037	\$0	\$2,692,037
Total Number of Participants	459		
Total En. Savings-Generator (kWh)	38,144,197		
Total En. Savings-Meter (kWh)	35,855,545		
Total Demand Savings Generator (kW)	7,162		
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Other			
Low-Income Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$1,204		
B/C Ratio	1.65		
Participant B/C Results			
Net Present Value	\$1,105		
B/C Ratio	1.73		
Rate Impact B/C Results			
Net Present Value	(\$126)		
B/C Ratio	0.96		
Revenue Requirements B/C Results			
Net Present Value	-\$2,502		
B/C Ratio	8.57		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting	100%		
Process	0%		
Motor	0%		
Refrigeration	0%		
Space Cooling	0%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

► **Commercial & Industrial Segment Lighting Efficiency**

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$721	\$721	\$721	\$721
T & D	N/A	440	440	440	440
Marginal Energy	N/A	1,604	1,604	1,604	1,604
Externality Willingness	N/A	N/A	N/A	N/A	220
Subtotal	N/A	\$2,765	\$2,765	\$2,765	\$2,985
Xcel Energy's Project Costs					
	N/A	\$329	\$329	\$329	\$329
Subtotal	N/A	\$329	\$329	\$329	\$329
Revenue Reduction	\$2,589	N/A	\$2,589	\$0	\$0
Subtotal	\$2,589	N/A	\$2,589	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,264	N/A	N/A	\$1,264	\$1,264
Incremental O&M	527	N/A	N/A	527	527
Rebates	(268)	N/A	N/A	(268)	(268)
Subtotal	\$1,523	N/A	N/A	\$1,523	\$1,523
Net Present Benefit (Cost)	\$1,066	\$2,435	(\$154)	\$913	\$1,133
Net Benefit (Cost) per kWh Lifetime	\$0.013	\$0.029	(\$0.002)	\$0.011	\$0.013
Net Present Benefit (Cost) per Generator	\$1,212	\$2,768	(\$175)	\$1,037	\$1,288
Cost Benefit Ratio	1.70	8.39	0.95	1.49	1.61

Project Assumptions:

(A) Measure Lifetime (Years)	18
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	50.28%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	4,404
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	4,404
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	4,685
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	82.70%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.880

* Xcel Energy Project Cost per kWh Lifetime

\$0.004

* Xcel Energy Project Cost per kW at Gen

\$374.5

➤ **Commercial & Industrial Segment Lighting Efficiency**

**Net Present Worth Benefit Analysis
2006 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$738	\$738	\$738	\$738
T & D	N/A	451	451	451	451
Marginal Energy	N/A	1,643	1,643	1,643	1,643
Externality Willingness	N/A	N/A	N/A	N/A	226
Subtotal	N/A	\$2,832	\$2,832	\$2,832	\$3,058
Xcel Energy's Project Costs					
Subtotal	N/A	\$331	\$331	\$331	\$331
Revenue Reduction	\$2,628	N/A	\$2,628	\$0	\$0
Subtotal	\$2,628	N/A	\$2,628	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,264	N/A	N/A	\$1,264	\$1,264
Incremental O&M	527	N/A	N/A	527	527
Rebates	(268)	N/A	N/A	(268)	(268)
Subtotal	\$1,523	N/A	N/A	\$1,523	\$1,523
Net Present Benefit (Cost)	\$1,105	\$2,502	(\$126)	\$979	\$1,204
Net Benefit (Cost) per kWh Lifetime	\$0.013	\$0.030	(\$0.001)	\$0.012	\$0.014
Net Present Benefit (Cost) per Generator	\$1,256	\$2,844	(\$144)	\$1,113	\$1,369
Cost Benefit Ratio	1.73	8.57	0.96	1.53	1.65

Project Assumptions:

(A) Measure Lifetime (Years)	18
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	50.28%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	4,404
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	4,404
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	4,685
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	82.70%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.880

* Xcel Energy Project Cost per kWh Lifetime

\$0.004

* Xcel Energy Project Cost per kW at Gen

\$375.9

Commercial & Industrial Segment Lighting Efficiency

	2005	2006
(A) Gross Customer kW reduction per participant	17.74	17.74
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	17.74	17.74
(D) Coincident factor	82.7%	82.7%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	16	16
(G) Gross kWh/Year saved per Customer kW	4,404	4,404
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	78,117	78,117
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	78,117	78,117
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	83,103	83,103
(K) Estimated participant penetration rates	459	459
Total Gross customer kW reduction: (A)*(K)=	8,141	8,141
Total Net Customer kW reduction: (C)*(K)=	8,141	8,141
Total Net Summer Generator kW reduction: (F)*(K)=	7,162	7,162
Total Gross kWh reduction at Customer per year: (H)*(K)=	35,855,545	35,855,545
Total Net kWh reduction at Customer per year: (I)*(K)=	35,855,545	35,855,545
Total Net kWh reduction at Generator per year: (J)*(K)=	38,144,197	38,144,197
 Total Budget	 \$ 2,682,357	 \$ 2,692,037

**Xcel Energy
Commercial & Industrial Motor Efficiency
Project Information Sheet**

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$133,144		\$133,144
Utility Administration	\$66,688		\$66,688
Other Project Administration	\$1,600		\$1,600
Advertising/Promotion	\$153,070		\$153,070
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$1,096,814		\$1,096,814
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$1,451,316	\$0	\$1,451,316
Total Number of Participants	278		
Total Elec En. Savings-Generator (kWh)	17,995,083		
Total Elec En. Savings-Meter (kWh)	29,230,452		
Total Elec Demand Savings Generator (kW)	2,617		
Total Natural Gas Energy Savings (MCF)	N/A		
Total Natural Gas Demand Savings (MCF)	N/A		
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Low-Income Participation			
Participants (#)			
Budget (\$)			
Renter Participation			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$960		
B/C Ratio	2.61		
Participant B/C Results			
Net Present Value	\$1,846		
B/C Ratio	3.08		
Rate Impact B/C Results			
Net Present Value	(\$272)		
B/C Ratio	0.84		
Revenue Requirements B/C Results			
Net Present Value	\$1,225		
B/C Ratio	6.99		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting	0%		
Motor	100%		
Process	0%		
Refrigeration	0%		
Space Cooling/Dehumidification	0%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$137,101		\$137,101
Utility Administration	\$68,689		\$68,689
Other Project Administration	\$1,600		\$1,600
Advertising/Promotion	\$153,312		\$153,312
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$1,096,814		\$1,096,814
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$1,457,516	\$0	\$1,457,516
Total Number of Participants	278		
Total Elec En. Savings-Generator (kWh)	17,995,083		
Total Elec En. Savings-Meter (kWh)	29,230,452		
Total Elec Demand Savings Generator (kW)	2,617		
Total Natural Gas Energy Savings (MCF)	N/A		
Total Natural Gas Demand Savings (MCF)	N/A		
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Low-Income Participation			
Participants (#)			
Budget (\$)			
Renter Participation			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$997		
B/C Ratio	2.67		
Participant B/C Results			
Net Present Value	\$1,848		
B/C Ratio	3.08		
Rate Impact B/C Results			
Net Present Value	(\$240)		
B/C Ratio	0.86		
Revenue Requirements B/C Results			
Net Present Value	\$1,259		
B/C Ratio	7.13		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting	0%		
Motor	100%		
Process	0%		
Refrigeration	0%		
Space Cooling/Dehumidification	0%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

➤ Commercial & Industrial Segment Motor Efficiency

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$324	\$324	\$324	\$324
T & D	N/A	199	199	199	199
Marginal Energy	N/A	906	906	906	906
Externality Willingness	N/A	N/A	N/A	N/A	127
Subtotal	N/A	\$1,429	\$1,429	\$1,429	\$1,556
Xcel Energy's Project Costs					
Subtotal	N/A	\$205	\$205	\$205	\$205
Revenue Reduction	\$2,733	N/A	\$1,496	\$0	\$0
Subtotal	\$2,733	N/A	\$1,496	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,041	N/A	N/A	\$547	\$547
Incremental O&M	0	N/A	N/A	0	0
Rebates	(155)	N/A	N/A	(155)	(155)
Subtotal	\$886	N/A	N/A	\$392	\$392
Net Present Benefit (Cost)	\$1,846	\$1,225	(\$272)	\$832	\$960
Net Benefit (Cost) per kWh Lifetime	\$0.036	\$0.024	(\$0.005)	\$0.016	\$0.019
Net Present Benefit (Cost) per Generator	\$5,005	\$3,320	(\$737)	\$2,256	\$2,601
Benefit Cost Ratio	3.08	6.99	0.84	2.39	2.61

Project Assumptions:

(A) Measure Lifetime (Years)	20
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	47.02%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	4,119
(E) Free Driver/Free Rider Factor (Energy)	57.9%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	2,384
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	2,536
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	52.5%
(K) Net Customer kW: (I)*(J)=	0.525
(L) Coincidence Factor at Generator	65.99%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.369

* Xcel Energy Project Cost per kWh Lifetime

\$0.004

* Xcel Energy Project Cost per kW at Gen

\$554.5

➤ Commercial & Industrial Segment Motor Efficiency

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$332	\$332	\$332	\$332
T & D	N/A	204	204	204	204
Marginal Energy	N/A	928	928	928	928
Externality Willingness	N/A	N/A	N/A	N/A	130
Subtotal	N/A	\$1,464	\$1,464	\$1,464	\$1,594
Xcel Energy's Project Costs					
Subtotal	N/A	\$205	\$205	\$205	\$205
Subtotal	N/A	\$205	\$205	\$205	\$205
Revenue Reduction	\$2,735	N/A	\$1,498	\$0	\$0
Subtotal	\$2,735	N/A	\$1,498	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,041	N/A	N/A	\$547	\$547
Incremental O&M	0	N/A	N/A	0	0
Rebates	(155)	N/A	N/A	(155)	(155)
Subtotal	\$886	N/A	N/A	\$392	\$392
Net Present Benefit (Cost)	\$1,848	\$1,259	(\$240)	\$866	\$997
Net Benefit (Cost) per kWh Lifetime	\$0.036	\$0.025	(\$0.005)	\$0.017	\$0.020
Net Present Benefit (Cost) per Generator	\$5,010	\$3,412	(\$650)	\$2,348	\$2,702
Benefit Cost Ratio	3.08	7.13	0.86	2.45	2.67

Project Assumptions:

(A) Measure Lifetime (Years)	20
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	47.02%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	4,119
(E) Free Driver/Free Rider Factor (Energy)	57.9%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	2,384
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	2,536
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	52.5%
(K) Net Customer kW: (I)*(J)=	0.525
(L) Coincidence Factor at Generator	65.99%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.369

* Xcel Energy Project Cost per kWh Lifetime \$0.004
* Xcel Energy Project Cost per kW at Gen \$556.8

Commercial & Industrial Segment Motor Efficiency

	2005	2006
(A) Gross Customer kW reduction per participant	25.53	25.53
(B1) Free Driver/Free Rider Factor (Demand)	52.5%	52.5%
(C) Net Customer kW reduction per participant: (A)*(B1)=	13.41	13.41
(D) Coincident factor	66.0%	66.0%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	9.42	9.42
(G) Gross kWh/Year saved per Customer kW	4,119	4,119
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	105,146	105,146
(B) Free Driver/Free Rider Factor (Energy)	57.9%	57.9%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	60,847	60,847
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	64,731	64,731
(K) Estimated participant penetration rates	278	278
Total Gross customer kW reduction: (A)*(K)=	7,096	7,096
Total Net Customer kW reduction: (C)*(K)=	3,729	3,729
Total Net Summer Generator kW reduction: (F)*(K)=	2,617	2,617
Total Gross kWh reduction at Customer per year: (H)*(K)=	29,230,452	29,230,452
Total Net kWh reduction at Customer per year: (I)*(K)=	16,915,378	16,915,378
Total Net kWh reduction at Generator per year: (J)*(K)=	17,995,083	17,995,083
 Total Budget	 \$ 1,451,316	 \$ 1,457,516

➤ Commercial & Industrial Segment Recommissioning

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$340	\$340	\$340	\$340
T & D	N/A	198	198	198	198
Marginal Energy	N/A	505	505	505	505
Externality Willingness	N/A	N/A	N/A	N/A	73
Subtotal	N/A	\$1,044	\$1,044	\$1,044	\$1,117
Xcel Energy's Project Costs					
Subtotal	N/A	\$391	\$391	\$391	\$391
Subtotal	N/A	\$391	\$391	\$391	\$391
Revenue Reduction	\$940	N/A	\$940	N/A	N/A
Subtotal	\$940	N/A	\$940	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$752	N/A	N/A	\$752	\$752
Incremental O&M	(782)	N/A	N/A	(782)	(782)
Rebates	(344)	N/A	N/A	(344)	(344)
Subtotal	(\$374)	N/A	N/A	(\$374)	(\$374)
Net Present Benefit (Cost)	\$1,314	\$652	(\$287)	\$1,026	\$1,099
Net Benefit (Cost) per kWh Lifetime	\$0.060	\$0.030	(\$0.013)	\$0.047	\$0.050
Net Present Benefit (Cost) per Generator	\$1,663	\$826	(\$364)	\$1,299	\$1,392
Benefit Cost Ratio	INF	2.67	0.78	60.36	64.59

Project Assumptions:

(A) Measure Lifetime (Years)	7
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	33.58%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	2,941
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	2,941
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	3,129
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	74.2%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.790

* Xcel Energy Project Cost per kWh Lifetime

\$0.018

* Xcel Energy Project Cost per kW at Gen

\$495.4

➤ Commercial & Industrial Segment Recommissioning

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$348	\$348	\$348	\$348
T & D	N/A	203	203	203	203
Marginal Energy	N/A	517	517	517	517
Externality Willingness	N/A	N/A	N/A	N/A	75
Subtotal	N/A	\$1,069	\$1,069	\$1,069	\$1,144
Xcel Energy's Project Costs					
Subtotal	N/A	\$359	\$359	\$359	\$359
Revenue Reduction	\$954	N/A	\$954	N/A	N/A
Subtotal	\$954	N/A	\$954	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$702	N/A	N/A	\$702	\$702
Incremental O&M	(1027)	N/A	N/A	(1027)	(1027)
Rebates	(319)	N/A	N/A	(319)	(319)
Subtotal	(\$644)	N/A	N/A	(\$644)	(\$644)
Net Present Benefit (Cost)	\$1,598	\$710	(\$243)	\$1,355	\$1,430
Net Benefit (Cost) per kWh Lifetime	\$0.073	\$0.032	(\$0.011)	\$0.062	\$0.065
Net Present Benefit (Cost) per Generator	\$2,023	\$900	(\$308)	\$1,715	\$1,810
Benefit Cost Ratio	INF	2.98	0.81	(3.74)	(4.00)

Project Assumptions:

(A) Measure Lifetime (Years)	7
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	33.58%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	2,941
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	2,941
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	3,129
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	74.24%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.790

* Xcel Energy Project Cost per kWh Lifetime

\$0.016

* Xcel Energy Project Cost per kW at Gen

\$454.0

Commercial & Industrial Segment Recommissioning

	2005	2006
(A) Gross Customer kW reduction per participant	45.71	52.31
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	45.71	52.31
(D) Coincident factor	74.2%	74.2%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	36.11	41.31
(G) Gross kWh/Year saved per Customer kW	2,941	2,941
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	134,465	153,859
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	134,465	153,859
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	143,048	163,680
(K) Estimated participant penetration rates	49	52
Total Gross customer kW reduction: (A)*(K)=	2,240	2,720
Total Net Customer kW reduction: (C)*(K)=	2,240	2,720
Total Net Summer Generator kW reduction: (F)*(K)=	1,769	2,148
Total Gross kWh reduction at Customer per year: (H)*(K)=	6,588,806	8,000,693
Total Net kWh reduction at Customer per year: (I)*(K)=	6,588,806	8,000,693
Total Net kWh reduction at Generator per year: (J)*(K)=	7,009,368	8,511,376
Total Budget	\$ 876,410	\$ 975,236

Conservation Improvement Program (CIP)

Company: Xcel Energy (Natural Gas)
 Project: C&I Recommissioning

Input Data

1) Retail Rate (\$/MCF) =	\$8.33
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0781
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$9,330
Direct Operating Costs =	\$27,573
Incentive Costs =	\$38,500
Total Utility Project Costs =	\$75,403
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$9,609
Direct Operating Costs =	\$28,307
Incentive Costs =	\$38,500
Total Utility Project Costs =	\$76,416
16) Direct Participant Costs (\$/Part.) =	\$5,422.00
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	7
19) Avg. Energy Reduction (Project) =	2.25%
20) Avg. Consumption (MCF/Part.) =	12,222.50
21) Avg. MCF/Part. Saved (First Year Program) =	275.01
21a) Avg. MCF/Part. Saved (Second Year Program) =	275.01
22) Number of Participants (First Year Program) =	20
22a) Number of Participants (Second Year Program) =	20
23) Incentive/Participant (First Year Program) =	\$1,925
23a) Incentive/Participant (Second Year Program) =	\$1,925

Conservation Improvement Program (CIP)
 BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: Xcel Energy (Natural Gas)
 Project: C&I Recommissioning

Cost Summary

Utility Cost per Participant (First Year) =	\$3,770.15
Utility Cost per participant (Second Year) =	\$3,820.80
Total Energy Reduction (MCF)	77,002
Societal Cost per MCF	\$3.40
Cost per Participant per MCF (First Year) =	\$33.43
Cost per Participant per MCF (Second Year) =	\$33.61

Test Results

	NPV	B/C
Cost Comparison Test	\$47,963	1.16
Revenue Requirements Test	\$214,871	2.58
Societal Benefit Test	\$110,388	1.42
Participant Test	\$426,919	3.04

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➤ Commercial & Industrial Segment Refrigeration Efficiency

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$556	\$556	\$556	\$556
T & D	N/A	336	336	336	336
Marginal Energy	N/A	1,484	1,484	1,484	1,484
Externality Willingness	N/A	N/A	N/A	N/A	232
Subtotal	N/A	\$2,377	\$2,377	\$2,377	\$2,608
Xcel Energy's Project Costs					
Subtotal	N/A	\$366	\$366	\$366	\$366
Revenue Reduction	\$2,391	N/A	\$2,391	N/A	N/A
Subtotal	\$2,391	N/A	\$2,391	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$1,013	N/A	N/A	\$1,013	\$1,013
Incremental O&M	(314)	N/A	N/A	(314)	(314)
Rebates	(200)	N/A	N/A	(200)	(200)
Subtotal	\$499	N/A	N/A	\$499	\$499
Net Present Benefit (Cost)	\$1,891	\$2,011	(\$380)	\$1,512	\$1,743
Net Benefit (Cost) per kWh Lifetime	\$0.023	\$0.024	(\$0.005)	\$0.018	\$0.021
Net Present Benefit (Cost) per Generator	\$2,517	\$2,676	(\$505)	\$2,011	\$2,319
Benefit Cost Ratio	4.79	6.50	0.86	2.75	3.01

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	59.62%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	5,223
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	5,223
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	5,557
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	70.64%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.751

* Xcel Energy Project Cost per kWh Lifetime

\$0.004

* Xcel Energy Project Cost per kW at Gen

\$486.7

➤ Commercial & Industrial Segment Refrigeration Efficiency

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis for One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$570	\$570	\$570	\$570
T & D	N/A	\$345	\$345	\$345	\$345
Marginal Energy	N/A	\$1,520	\$1,520	\$1,520	\$1,520
Externality Willingness	N/A	N/A	N/A	N/A	\$237
Subtotal	N/A	\$2,435	\$2,435	\$2,435	\$2,672
Xcel Energy's Project Costs					
Subtotal	N/A	\$367	\$367	\$367	\$367
Revenue Reduction	\$2,391	N/A	\$2,391	N/A	N/A
Subtotal	\$2,391	N/A	\$2,391	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$1,013	N/A	N/A	\$1,013	\$1,013
Incremental O&M	(\$314)	N/A	N/A	(\$314)	(\$314)
Rebates	(\$200)	N/A	N/A	(\$200)	(\$200)
Subtotal	\$499	N/A	N/A	\$499	\$499
Net Present Benefit (Cost)	\$1,891	\$2,067	(\$323)	\$1,568	\$1,805
Net Benefit (Cost) per kWh Lifetime	\$0.023	\$0.025	(\$0.004)	\$0.019	\$0.022
Net Present Benefit (Cost) per Generator	\$2,517	\$2,751	(\$430)	\$2,087	\$2,402
Benefit Cost Ratio	4.79	6.63	0.88	2.81	3.08

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	59.62%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	5,223
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	5,223
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	5,557
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	70.64%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.751

* Xcel Energy Project Cost per kWh Lifetime \$0.004

* Xcel Energy Project Cost per kW at Gen \$488.5

Commercial & Industrial Segment Refrigeration Efficiency

	<u>2005</u>	<u>2006</u>
(A) Gross Customer kW reduction per participant	120.00	120.00
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	120.00	120.00
(D) Coincident factor	70.6%	70.6%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	90.18	90.18
(G) Gross kWh/Year saved per Customer kW	5,223	5,223
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	626,777	626,777
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	626,777	626,777
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	666,784	666,784
(K) Estimated participant penetration rates	9	9
Total Gross customer kW reduction: (A)*(K)=	1,080	1,080
Total Net Customer kW reduction: (C)*(K)=	1,080	1,080
Total Net Summer Generator kW reduction: (F)*(K)=	812	812
Total Gross kWh reduction at Customer per year: (H)*(K)=	5,640,992	5,640,992
Total Net kWh reduction at Customer per year: (I)*(K)=	5,640,992	5,640,992
Total Net kWh reduction at Generator per year: (J)*(K)=	6,001,055	6,001,055
 Total Budget	 \$ 395,000	 \$ 396,494

**Xcel Energy
Commercial & Industrial Roofing Efficiency
Project Information Sheet**

Cost Components	2005 Budget			2006 Budget		
	Electric	Gas	Total	Electric	Gas	Total
Project Delivery	\$0		\$0	\$0		\$0
Utility Administration	\$18,614		\$18,614	\$19,170		\$19,170
Other Project Administration	\$1,800		\$1,800	\$1,800		\$1,800
Advertising/Promotion	\$5,236		\$5,236	\$5,230		\$5,230
Evaluations	\$0		\$0	\$0		\$0
R&D	\$0		\$0	\$0		\$0
Incentives (Rebates)	\$102,600		\$102,600	\$102,600		\$102,600
Other	\$0		\$0	\$0		\$0
Less Revenues	\$0		\$0	\$0		\$0
Total Budget	\$128,250	\$0	\$128,250	\$128,800	\$0	\$128,800
Total Number of Participants	3			3		
Total En. Savings-Generator (kWh)	283,938			283,938		
Total En. Savings-Meter (kWh)	266,902			266,902		
Total Demand Savings Generator (kW)	471			471		
Total Natural Gas Energy Savings (MCF)						
Project Type Percentage Expenditure						
Commercial & Industrial	100%			100%		
Small Business						
Consumer						
Low Income						
Other						
Low-Income Participation (%)	N/A			N/A		
Participants (#)						
Budget (\$)						
Renter Participation (%)	N/A			N/A		
Participants (#)						
Budget (\$)						
Societal B/C Results						
Net Present Value	\$1,679			\$1,716		
B/C Ratio	INF			INF		
Participant B/C Results						
Net Present Value	\$941			\$941		
B/C Ratio	INF			INF		
Rate Impact B/C Results						
Net Present Value	\$710			\$747		
B/C Ratio	1.85			1.89		
Revenue Requirements B/C Results						
Net Present Value	\$1,300			\$1,337		
B/C Ratio	6.20			6.32		
Project Type						
Audit/Info						
R&D						
Renewable						
Direct Impact	X			X		
Type of Incentive						
Loan/Grant						
Rebate	X			X		
Direct Installation						
End-Use Target (%)						
Lighting	0%			0%		
Process	100%			100%		
Motor	0%			0%		
Refrigeration	0%			0%		
Space Cooling	0%			0%		
Space Heating	0%			0%		
Water Heating	0%			0%		
Weatherization	0%			0%		
General/Other	0%			0%		
Rate-making treatment: expensed	X			X		

➤ Commercial & Industrial Segment Roofing Efficiency

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$807	\$807	\$807	\$807
T & D	N/A	495	495	495	495
Marginal Energy	N/A	248	248	248	248
Externality Willingness	N/A	N/A	N/A	N/A	28
Subtotal	N/A	\$1,550	\$1,550	\$1,550	\$1,578
Xcel Energy's Project Costs					
Subtotal	N/A	\$250	\$250	\$250	\$250
Subtotal	N/A	\$250	\$250	\$250	\$250
Revenue Reduction					
Subtotal	\$590	N/A	\$590	N/A	N/A
Subtotal	\$590	N/A	\$590	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$1,672	N/A	N/A	\$1,672	\$1,672
Incremental O&M	(1,823)	N/A	N/A	(1,823)	(1,823)
Rebates	(200)	N/A	N/A	(200)	(200)
Subtotal	(\$351)	N/A	N/A	(\$351)	(\$351)
Net Present Benefit (Cost)	\$941	\$1,300	\$710	\$1,651	\$1,679
Net Benefit (Cost) per kWh Lifetime	\$0.085	\$0.117	\$0.064	\$0.149	\$0.152
Net Present Benefit (Cost) per Generator	\$1,025	\$1,416	\$773	\$1,798	\$1,828
Benefit Cost Ratio	INF	6.20	1.85	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	20
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	5.94%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	520
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	520
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	553
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	86.3%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.918

* Xcel Energy Project Cost per kWh Lifetime
* Xcel Energy Project Cost per kW at Gen

\$0.023
\$272.3

➤ Commercial & Industrial Segment Roofing Efficiency

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$827	\$827	\$827	\$827
T & D	N/A	507	507	507	507
Marginal Energy	N/A	254	254	254	254
Externality Willingness	N/A	N/A	N/A	N/A	28
Subtotal	N/A	\$1,588	\$1,588	\$1,588	\$1,616
Xcel Energy's Project Costs					
Subtotal	N/A	\$251	\$251	\$251	\$251
Revenue Reduction	\$590	N/A	\$590	N/A	N/A
Subtotal	\$590	N/A	\$590	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$1,672	N/A	N/A	\$1,672	\$1,672
Incremental O&M	(1,823)	N/A	N/A	(1,823)	(1,823)
Rebates	(\$200)	N/A	N/A	(200)	(200)
Subtotal	(\$351)	N/A	N/A	(\$351)	(\$351)
Net Present Benefit (Cost)	\$941	\$1,337	\$747	\$1,687	\$1,716
Net Benefit (Cost) per kWh Lifetime	\$0.085	\$0.121	\$0.067	\$0.152	\$0.155
Net Present Benefit (Cost) per Generator	\$1,090	\$1,549	\$865	\$1,955	\$1,988
Benefit Cost Ratio	INF	6.32	1.89	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	20
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	5.94%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	520
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	520
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	553
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	86.3%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.918

* Xcel Energy Project Cost per kWh Lifetime

\$0.023

* Xcel Energy Project Cost per kW at Gen

\$273.5

Commercial & Industrial Segment Roofing Efficiency

	2005	2006
(A) Gross Customer kW reduction per participant	171.00	171.00
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	171.00	171.00
(D) Coincident factor	86.3%	86.3%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	156.98	156.98
(G) Gross kWh/Year saved per Customer kW	520	520
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	88,967	88,967
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	88,967	88,967
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	94,646	94,646
(K) Estimated participant penetration rates	3	3
Total Gross customer kW reduction: (A)*(K)=	513	513
Total Net Customer kW reduction: (C)*(K)=	513	513
Total Net Summer Generator kW reduction: (F)*(K)=	471	471
Total Gross kWh reduction at Customer per year: (H)*(K)=	266,902	266,902
Total Net kWh reduction at Customer per year: (I)*(K)=	266,902	266,902
Total Net kWh reduction at Generator per year: (J)*(K)=	283,938	283,938
 Total Budget	 \$ 128,250	 \$ 128,800

Type of Measure	High Efficiency Product/ Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Electric Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate of Annual Customer kWh Savings	Estimate of Customer kW Savings	Estimate of Peak Generator kW Savings
C&I Compressed Air													
Compressed Air Study	Leaks Found and Repaired	Not Applicable	Existing System in which Leaks Have Not Been Repaired	Not Applicable	19	Facility	General Service	5	\$366/kW Average	\$4,076	135,303	16.614	15.410
Compressed Air Custom	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	1,419	Customer kW	General Service	20	\$200/kW average	\$1,154	5,451	28.400	28.100
C&I Cooling Efficiency													
Cooling Efficiency Prescriptive	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	2,926	Customer kW	General Service	20	\$240	\$544	1,345	45.000	35.800
Cooling Efficiency Custom	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	300	Customer kW	General Service	20	\$189	\$544	2,268	60.000	56.460
C&I Custom Efficiency Electric													
Custom Efficiency	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	9,422	Customer kW	General Service	19	\$211/kW average	\$2,229	4,665	48.570	30.700
C&I Energy Design Assistance Electric													
Energy Design Assistance 2005	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	7,661	Customer kW	General Service	20	\$205	\$505	3,190	207.054	204.410
Energy Design Assistance 2006	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	7,661	Customer kW	General Service	20	\$205	\$505	3,190	170.900	168.720
C&I Prescriptive Lighting													
T8 Ballasts, 4 ft. or less, 1 and 2 lamp	T8 ballasts	86 lm/W	T12 ballasts	60 lm/W	57,586	fixture	General Service	18	\$6	\$53	68	0.016	0.015
T8 Ballasts, 4 ft. or less, 3 and 4 lamp	T8 ballasts	86 lm/W	T12 ballasts	60 lm/W	49,160	fixture	General Service	18	\$10	\$35	145	0.034	0.031
T8 Ballasts, Length > 4 ft. and <= 8 ft., 1 and 2 lamp	T8 ballasts	86 lm/W	T12 ballasts	60 lm/W	2,774	fixture	General Service	18	\$9	\$56	178	0.042	0.038
High-Bay Fluorescent T8, 6 and 8 lamp	T8 ballasts	110 lm/W	Metal Halide	100 lm/W	6,490	fixture	General Service	18	\$75	\$265	1,047	0.248	0.223
Super T8 1 and 2 Lamp	Super T8 Lamps and Ballasts	103 lm/W	T12 lamps and ballasts	60 lm/W	4,564	fixture	General Service	18	\$11	\$40	148	0.035	0.032

Type of Measure	High Efficiency Product/ Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Electric Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate of Annual Customer kWh Savings	Estimate of Customer kW Savings	Estimate of Peak Generator kW Savings
C&I Prescriptive Lighting (continued)													
Super T8 3 and 4 Lamp	Super T8 Lamps and Ballasts	103 lm/W	T12 lamps and ballasts	60 lm/W	4,682	fixture	General Service	18	\$20	\$44	284	0.067	0.060
T5 Ballasts 1 and 2 Lamp	T5 ballasts	100 lm/W	T12 ballasts	60 lm/W	841	fixture	General Service	18	\$10	\$27	62	0.015	0.013
T5 Ballasts 3 and 4 Lamp	T5 ballasts	100 lm/W	T12 ballasts	60 lm/W	165	fixture	General Service	18	\$16	\$52	251	0.059	0.054
T5 Ballasts HO	T5 HO ballasts	110 lm/W	Metal Halide	60 lm/W	1,064	fixture	General Service	18	\$75	\$270	956	0.226	0.204
CFL, 33 to 56W	CFL	65 lm/W	Incandescent	10 lm/W	818	fixture	General Service	18	\$5	\$30	548	0.130	0.117
Industrial Multi-CFL	Multi-CFL	95 lm/W	Mercury Vapor, HPS, MH	70 lm/W	11	fixture	General Service	18	\$25	\$125	728	0.172	0.155
High Intensity Discharge (HID), <= 150W	MH, HPS	100 lm/W	Incandescent/Mercury Vapor	35 lm/W	320	fixture	General Service	18	\$17	\$179	366	0.088	0.078
HID, 151 to 250W	MH, HPS	100 lm/W	Incandescent/Mercury Vapor	35 lm/W	58	fixture	General Service	18	\$28	\$173	673	0.159	0.143
HID, 251 to 1000W	MH, HPS	100 lm/W	Incandescent/Mercury Vapor	35 lm/W	485	fixture	General Service	18	\$45	\$180	2,601	0.615	0.554
Pulse-Start Metal Halide, < 175W	Pulse Start Metal Halide	110 lm/W	HPS, MH	70 lm/W	574	fixture	General Service	18	\$25	\$161	363	0.088	0.077
Pulse-Start Metal Halide, 176W-319W	Pulse Start Metal Halide	110 lm/W	HPS, MH	70 lm/W	574	fixture	General Service	18	\$40	\$281	654	0.155	0.139
Pulse-Start Metal Halide, 320W-749W	Pulse Start Metal Halide	110 lm/W	HPS, MH	70 lm/W	5,864	fixture	General Service	18	\$55	\$285	588	0.139	0.125
Pulse-Start Metal Halide, 750W+	Pulse Start Metal Halide	110 lm/W	HPS, MH	70 lm/W	652	fixture	General Service	18	\$65	\$381	1,134	0.268	0.242
Reflector	High efficiency reflector	Not Applicable	No reflector	Not applicable	55,130	ft2	General Service	18	\$0.50	\$12	41	0.010	0.009
Wall mount occupancy sensor	Occupancy Sensor	Not applicable	No occupancy sensor	Not applicable	913	fixture	General Service	18	\$12	\$60	338	0.080	0.072
Ceiling mount occupancy sensor	Occupancy Sensor	Not applicable	No occupancy sensor	Not applicable	191	fixture	General Service	18	\$36	\$175	888	0.210	0.189
Photocell	Photocell	Not applicable	No sensor	Not applicable	2	fixture	General Service	18	\$12	\$80	381	0.090	0.081

Type of Measure	High Efficiency Product / Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Electric Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate of Annual Customer kWh Savings	Estimate of Customer kW Savings	Estimate of Peak Generator kW Savings
C&I Prescriptive Lighting (continued)													
Exit sign retrofit and replacement	Light Emitting Diodes (LED)	10 lm/W	Incandescent	10 lm/W	3,716	fixture	General Service	18	\$6	\$175	140	0.033	0.030
12" Red Light Emitting Diode (LED) Traffic Signal	LED	10 lm/W	Incandescent	10 lm/W	5,199	fixture	General Service	18	\$65	\$125	567	0.134	0.121
8" Red LED Traffic Signal	LED	10 lm/W	Incandescent	10 lm/W	11	fixture	General Service	18	\$15	\$85	250	0.059	0.053
12" Green LED Traffic Signal	LED	10 lm/W	Incandescent	10 lm/W	764	fixture	General Service	18	\$65	\$275	550	0.130	0.117
8" Green LED Traffic Signal	LED	10 lm/W	Incandescent	10 lm/W	11	fixture	General Service	18	\$40	\$175	233	0.055	0.050
Pedestrian Traffic Signal 12" Size and larger	LED	10 lm/W	Incandescent	10 lm/W	268	fixture	General Service	18	\$40	\$175	254	0.060	0.054
Pedestrian Traffic Signal 9" Size	LED	10 lm/W	Incandescent	10 lm/W	782	fixture	General Service	18	\$25	\$175	254	0.060	0.054
RED LED Traffic Arrow Signal	LED	10 lm/W	Incandescent	10 lm/W	563	fixture	General Service	18	\$25	\$134	516	0.122	0.110
C&I New Construction Lighting													
T8 Ballasts, 4 ft. or less, 1 and 2 lamp	T8 ballasts	86 lm/W	T12 ballasts	60 lm/W	5,744	fixture	General Service	18	\$1.00	\$2.03	8	0.002	0.002
T8 Ballasts, 4 ft. or less, 3 and 4 lamp	T8 ballasts	86 lm/W	T12 ballasts	60 lm/W	7,734	fixture	General Service	18	\$1.15	\$4.41	70	0.016	0.015
T8 Ballasts, Length > 4 ft. and <= 8 ft., 1 and 2 lamp	T8 ballasts	86 lm/W	T12 ballasts	60 lm/W	919	fixture	General Service	18	\$1.75	\$6.30	86	0.020	0.018
High-Bay Fluorescent T8, 6 and 8 lamp	T8 ballasts	110 lm/W	Metal Halide	100 lm/W	645	fixture	General Service	18	\$12.00	\$85.00	1,047	0.248	0.223
Super T8 1 and 2 Lamp	Super T8 Lamps and Ballasts	103 lm/W	T12 lamps and ballasts	60 lm/W	871	fixture	General Service	18	\$2.25	\$7.80	148	0.035	0.032
Super T8 3 and 4 Lamp	Super T8 Lamps and Ballasts	103 lm/W	T12 lamps and ballasts	60 lm/W	871	fixture	General Service	18	\$1.00	\$7.80	148	0.035	0.032
T5 Ballasts 1 and 2 Lamp	T5 ballasts	100 lm/W	T12 ballasts	60 lm/W	602	fixture	General Service	18	\$2.00	\$18.11	132	0.031	0.028
T5 Ballasts 3 and 4 Lamp	T5 ballasts	100 lm/W	T12 ballasts	60 lm/W	189	fixture	General Service	18	\$2.50	\$21.54	247	0.058	0.053
T5 Ballasts HO	T5 HO ballasts	110 lm/W	T12 ballasts	60 lm/W	215	fixture	General Service	18	\$12.00	\$90.00	956	0.226	0.204

Type of Measure	High Efficiency Product/ Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Electric Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate of Annual Customer kWh Savings	Estimate of Customer kW Savings	Estimate of Peak Generator kW Savings
C&I New Construction Lighting (continued)													
High Intensity Discharge (HID), <= 150W	MH, HPS	100 lm/W	Incandescent/Mercury Vapor	35 lm/W	2,170	fixture	General Service	18	\$8.00	\$91.93	368	0.086	0.078
Pulse-Start Metal Halide, < 175W	Pulse Start Metal Halide	110 lm/W	HPS, MH	70 lm/W	2,660	fixture	General Service	18	\$8.00	\$72.24	302	0.072	0.064
Pulse-Start Metal Halide, 176W-319W	Pulse Start Metal Halide	110 lm/W	HPS, MH	70 lm/W	296	fixture	General Service	18	\$8.00	\$118.81	654	0.155	0.139
Pulse-Start Metal Halide, 320W-749W	Pulse Start Metal Halide	110 lm/W	HPS, MH	70 lm/W	1,373	fixture	General Service	18	\$12.00	\$49.84	588	0.139	0.125
Pulse-Start Metal Halide, 750W+	Pulse Start Metal Halide	110 lm/W	HPS, MH	70 lm/W	153	fixture	General Service	18	\$18.00	\$70.80	1,134	0.268	0.242
C&I Custom Lighting													
Custom Lighting	Varies	Varies	Varies	Varies	18	project	General Service	18	\$200	\$33,128	282,400	41	34
C&I Motor Efficiency													
ASDs	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	5,102	Customer kW	General Service	20	\$141	\$1,000	3,657	34	22
New Motors	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	230	Customer kW	General Service	20	\$83	\$692	6,892	9	7
Replacement Motors	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	997	Customer kW	General Service	20	\$206	\$1,363	6,892	11	8
Custom Motors	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	767	Customer kW	General Service	20	\$200	\$1,000	2,758	45	35
C&I Recommissioning Electric													
Recommissioning	Optimized Building Systems	Improved System Efficiency	Existing Building System - Not Tuned or Optimized	Existing System Efficiency	12	Facility	General Service	7	Study - Up to 50%, up to \$15,000 Measures - \$200/kW, \$2/MCF	\$89,902	487,952/611	166	154
C&I Refrigeration Efficiency													
Custom Refrigeration	Systems Approach	Varies	Varies	Varies	8	Project	General Service	15	\$200/kW Average	\$121,560	622,800	120	90
C&I Roofing Efficiency													
Roofing Efficiency	Energy Star Roof	Energy Star Roof	Old or less Eff.	Old or less Eff.	513	Customer kW	General Service	20	\$200/kW average	\$1,672	520	171	157

Type of Measure	High Efficiency Product / Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Gas Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate O&M Savings per participant per yr	Estimate of MCF Savings per Participant	Present MCF Consumption per Participant
C&I Boiler Efficiency													
Boiler Efficiency	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	150,984	MCF	Large Commercial Firm	15	\$1.72/MCF average	\$3,630	\$0	648	35,027
C&I Custom Efficiency Gas													
Custom Efficiency	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	59,175	MCF	Large Commercial Firm	15	\$2.17/MCF average	\$72,137	\$3,583	3,114	6,908
C&I Energy Design Assistance Gas													
Energy Design Assistance	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	22,785	MCF	Large Commercial Firm	15	\$2.00/MCF average	\$15,000	\$0	4,557	18,228
C&I Recommissioning Gas													
Recommissioning	Optimized Building Systems	Improved System Efficiency	Existing Building System - Not Tuned or Optimized	Existing System Efficiency	12	Facility	Large Commercial Firm	7	Study - Up to 50%, up to \$15,000 Measures - \$200/kW, \$2/MCF	\$89,902	\$0	611	12,223

➤ Commercial and Industrial Load Management

A. Load Management

Xcel Energy's commercial and industrial electric customers have two load management options, Electric Reduction Savings and Saver's Switch[®]. These products offer customers rate discounts if they agree to assist Xcel Energy by reducing electric load on days with peak demand for electricity (control periods).

Electric Reduction Savings

The Electric Reduction Savings program, formerly the Peak Controlled Rates program, is Xcel Energy's largest load management product, offering discounts to business customers who agree to reduce their electric usage during times of high demand on the electric system. Participants save as much as 60 percent on demand charges the over entire year for the demand they agree to reduce during control periods.

Electric Reduction Savings and Saver's Switch are generally utilized on hot, humid summer weekdays when Xcel Energy's load in the Mid-Continent Area Power Pool (MAPP) region is expected to exceed peak capacity. Controls may also occur during times when, in Xcel Energy's opinion, the reliability of the system may be at risk.

The target market for the Electric Reduction Savings program is commercial and industrial customers interested in reducing their monthly electric bills and who are willing and able reduce at least 50 kW during control periods. Currently, the Electric Reduction Savings program is promoted directly through Xcel Energy's sales force.

Saver's Switch[®]

Saver's Switch is Xcel Energy's secondary load management product for commercial and industrial customers. Customers who either choose not to participate in Electric Reduction Savings or do not qualify can elect to join Saver's Switch.

Saver's Switch participants receive electric bill discounts during the summer months for agreeing to have Xcel Energy control electric central air conditioners during times of peak electric demand. Approximately five percent of Saver's Switch participants are commercial and industrial customers.

In addition to enrolling new participants, the Saver's Switch maintenance program will continue in 2005/2006. Maintenance of units maximizes load relief from existing participants and prolongs unit life. Additionally, Xcel Energy is proactively replacing 150 switches each in 2005 and 2006 that have been identified by our vendor as having a faulty microchip that could lead to a higher failure rate. The equipment vendor will fund the change outs.

Saver's Switch is promoted through a combination of marketing materials and Xcel Energy's sales force. Customers are initially contacted via direct mail and newsletters and are followed up by the sales force.

Electric Reduction Savings and Saver's Switch have been successful products for Xcel Energy. These products have offset the need for additional generation and have helped reduce the impact of escalating demand and prices for peak electricity. As a result, all Xcel Energy's customers have benefited from the features of Electric Reduction Savings and Saver's Switch.

Modifications:

None

B. Project Information Sheet

Project Information Sheets are provided at the end of this section.

C. Effect on Peak Demand and Energy Consumption & List of Assumptions for each Technology

Effects on peak demand and energy consumption are provided in the Project Information Sheets and Benefit/Cost Analyses located at the end of this section. Technology assumptions are also provided at the end of this section.

D. Relationship of Program to Resource Plan

As part of Xcel Energy's Conservation Improvement Program, this product will support attainment of Xcel Energy's Resource Plan DSM goals. Not applicable to natural gas utilities.

E. Cost Effectiveness

See Project Information Sheet.

F. Estimated Low-Income and Renter Participation

See Project Information Sheet.

G. Budget

See Project Information Sheet.

H. Ratemaking Treatment & Cost-Recovery Method

The ratemaking and cost-recovery procedures for this CIP follow those approved by the Minnesota Public Utilities Commission in Docket Nos. E002/GR-92-1185, G002/GR-97-1606, and E,G-999/CI-98-1759.

I. Participation

See Project Information Sheet.

J. Involvement of Community Energy Organizations

N/A

K. Evaluation Plan

Continual review of accomplishments and expenditures are made throughout the year to verify energy achievements and cost effectiveness. Load research is analyzed at the end of each control season to evaluate load relief from Xcel Energy's load management products.

L. Renewable Energy Information

N/A

M. Additional Information

As required in 2004, Xcel Energy will continue tracking stand-by generators used for compliance with new Electric Reduction Savings contracts in 2005 and 2006.

Xcel Energy
Commercial & Industrial Electric Reduction Savings
Project Information Sheet

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$104,087		\$104,087
Utility Administration	\$78,983		\$78,983
Other Project Administration	\$107,848		\$107,848
Advertising/Promotion	\$78,832		\$78,832
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$0		\$0
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$369,750	\$0	\$369,750
Total Number of Participants	47		
Total En. Savings-Generator (kWh)	611,674		
Total En. Savings-Meter (kWh)	574,973		
Total Demand Savings Generator (kW)	7,938		
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Other			
Low-Income Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	245.74		
B/C Ratio	11.45		
Participant B/C Results			
Net Present Value	122.48		
B/C Ratio	INF		
Rate Impact B/C Results			
Net Present Value	122.57		
B/C Ratio	1.84		
Revenue Requirements B/C Results			
Net Present Value	245.05		
B/C Ratio	11.42		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)	N/A		
Lighting			
Process			
Motor			
Refrigeration			
Space Cooling			
Space Heating			
Water Heating			
Weatherization			
General/Other			
Ratemaking treatment: expensed	X		

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$104,087		\$104,087
Utility Administration	\$78,983		\$78,983
Other Project Administration	\$107,848		\$107,848
Advertising/Promotion	\$78,832		\$78,832
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$0		\$0
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$369,750	\$0	\$369,750
Total Number of Participants	38		
Total En. Savings-Generator (kWh)	495,952		
Total En. Savings-Meter (kWh)	466,195		
Total Demand Savings Generator (kW)	6,436		
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Other			
Low-Income Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	246.82		
B/C Ratio	9.51		
Participant B/C Results			
Net Present Value	124.32		
B/C Ratio	INF		
Rate Impact B/C Results			
Net Present Value	121.80		
B/C Ratio	1.79		
Revenue Requirements B/C Results			
Net Present Value	246.12		
B/C Ratio	9.49		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)	N/A		
Lighting			
Process			
Motor			
Refrigeration			
Space Cooling			
Space Heating			
Water Heating			
Weatherization			
General/Other			
Ratemaking treatment: expensed	X		

► Commercial & Industrial Segment Electric Reduction Savings

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$165	\$165	\$165	\$165
T & D	N/A	95	95	95	95
Marginal Energy	N/A	8	8	8	8
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$269	\$269	\$269	\$269
Xcel Energy's Project Costs					
Subtotal	N/A	\$24	\$24	\$24	\$24
Subtotal	N/A	\$24	\$24	\$24	\$24
Revenue Reduction					
Subtotal	\$122	N/A	\$122	N/A	N/A
Subtotal	\$122	N/A	\$122	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$122	\$245	\$123	\$245	\$246
Net Benefit (Cost) per.kWh Lifetime	\$0.630	\$1.260	\$0.630	\$1.260	\$1.263
Net Present Benefit (Cost) per Generator	\$243	\$485	\$243	\$485	\$487
Benefit Cost Ratio	INF	11.42	1.84	11.42	11.45

Project Assumptions:

(A) Measure Lifetime (Years)	5
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	0.42%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	37
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	37
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	39
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	47.45%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.505

* Xcel Energy Project Cost per kWh Lifetime \$0.121
* Xcel Energy Project Cost per kW at Gen \$46.6

➤ Commercial & Industrial Segment Electric Reduction Savings

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$169	\$169	\$169	\$169
T & D	N/A	\$98	\$98	\$98	\$98
Marginal Energy	N/A	\$9	\$9	\$9	\$9
Externality Willingness	N/A	N/A	N/A	N/A	\$1
Subtotal	N/A	\$275	\$275	\$275	\$276
Xcel Energy's Project Costs					
Subtotal	N/A	\$29	\$29	\$29	\$29
Revenue Reduction	\$124	N/A	\$124	N/A	N/A
Subtotal	\$124	N/A	\$124	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	\$0	N/A	N/A	\$0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$124	\$246	\$122	\$246	\$247
Net Benefit (Cost) per kWh Lifetime	\$0.639	\$1.265	\$0.626	\$1.265	\$1.269
Net Present Benefit (Cost) per Generator	\$246	\$488	\$241	\$488	\$489
Benefit Cost Ratio	INF	9.49	1.79	9.49	9.51

Project Assumptions:

(A) Measure Lifetime (Years)	5
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	0.42%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	37
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	37
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	39
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	47.45%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.505

* Xcel Energy Project Cost per kWh Lifetime \$0.149
 * Xcel Energy Project Cost per kW at Gen \$57.4

Commercial & Industrial Segment Electric Reduction Savings

	2005	2006
(A) Gross Customer kW reduction per participant	334.57	335.53
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	334.57	335.53
(D) Coincident factor	47.4%	47.4%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	168.89	169.37
(G) Gross kWh/Year saved per Customer kW	37	37
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	12,233	12,268
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	12,233	12,268
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	13,014	13,051
(K) Estimated participant penetration rates	47	38
Total Gross customer kW reduction: (A)*(K)=	15,725	12,750
Total Net Customer kW reduction: (C)*(K)=	15,725	12,750
Total Net Summer Generator kW reduction: (F)*(K)=	7,938	6,436
Total Gross kWh reduction at Customer per year: (H)*(K)=	574,973	466,195
Total Net kWh reduction at Customer per year: (I)*(K)=	574,973	466,195
Total Net kWh reduction at Generator per year: (J)*(K)=	611,674	495,952
Total Budget	\$ 369,750	\$ 369,750

**Xcel Energy
Commercial & Industrial Saver's Switch
Project Information Sheet**

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$189,294		\$189,294
Utility Administration	\$28,370		\$28,370
Other Project Administration	\$63,118		\$63,118
Advertising/Promotion	\$50,220		\$50,220
Evaluations	\$19,559		\$19,559
R&D	\$0		\$0
Incentives (Rebates)	\$0		\$0
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$350,561	\$0	\$350,561
Total Number of Participants	545		
Total En. Savings-Generator (kWh)	81,171		
Total En. Savings-Meter (kWh)	76,300		
Total Demand Savings Generator (kW)	999		
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Other			
Low-Income Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$273		
B/C Ratio	3.50		
Participant B/C Results			
Net Present Value	\$119		
B/C Ratio	INF		
Rate Impact B/C Results			
Net Present Value	\$153		
B/C Ratio	1.67		
Revenue Requirements B/C Results			
Net Present Value	\$272		
B/C Ratio	3.49		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)			
Lighting	0%		
Process	0%		
Motor	0%		
Refrigeration	0%		
Space Cooling	100%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$187,161		\$187,161
Utility Administration	\$29,221		\$29,221
Other Project Administration	\$64,559		\$64,559
Advertising/Promotion	\$51,720		\$51,720
Evaluations	\$20,146		\$20,146
R&D	\$0		\$0
Incentives (Rebates)	\$0		\$0
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$352,807	\$0	\$352,807
Total Number of Participants	545		
Total En. Savings-Generator (kWh)	81,171		
Total En. Savings-Meter (kWh)	76,300		
Total Demand Savings Generator (kW)	999		
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial	100%		
Small Business			
Consumer			
Low Income			
Other			
Low-Income Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Renter Participation (%)	N/A		
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$282		
B/C Ratio	3.56		
Participant B/C Results			
Net Present Value	\$119		
B/C Ratio	INF		
Rate Impact B/C Results			
Net Present Value	\$161		
B/C Ratio	1.70		
Revenue Requirements B/C Results			
Net Present Value	\$281		
B/C Ratio	3.55		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)			
Lighting	0%		
Process	0%		
Motor	0%		
Refrigeration	0%		
Space Cooling	100%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

► Commercial & Industrial Segment Saver's Switch

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$231	\$231	\$231	\$231
T & D	N/A	139	139	139	139
Marginal Energy	N/A	11	11	11	11
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$381	\$381	\$381	\$382
Xcel Energy's Project Costs					
Subtotal	N/A	\$109	\$109	\$109	\$109
Subtotal	N/A	\$109	\$109	\$109	\$109
Revenue Reduction	\$119	N/A	\$119	\$0	\$0
Subtotal	\$119	N/A	\$119	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$119	\$272	\$153	\$272	\$273
Net Benefit (Cost) per kWh Lifetime	\$0.314	\$0.716	\$0.402	\$0.716	\$0.718
Net Present Benefit (Cost) per Generator	\$382	\$873	\$490	\$873	\$876
Benefit Cost Ratio	INF	3.49	1.67	3.49	3.50

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	Small General Service
(C) Gross Load Factor at Customer (LF)	0.27%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	24
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	24
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	25
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	29.29%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.312
Reduction at Customer kW/unit	5.880
Peak Reduction at Customer kW/unit	2.176

* Xcel Energy Project Cost per kWh Lifetime

\$0.288

* Xcel Energy Project Cost per kW at Gen

\$351.0

➤ Commercial & Industrial Segment Saver's Switch

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$236	\$236	\$236	\$236
T & D	N/A	143	143	143	143
Marginal Energy	N/A	11	11	11	11
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$391	\$391	\$391	\$392
Xcel Energy's Project Costs					
Subtotal	N/A	\$110	\$110	\$110	\$110
Revenue Reduction	\$119	N/A	\$119	\$0	\$0
Subtotal	\$119	N/A	\$119	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$119	\$281	\$161	\$281	\$282
Net Benefit (Cost) per kWh Lifetime	\$0.314	\$0.738	\$0.425	\$0.738	\$0.741
Net Present Benefit (Cost) per Generator	\$382	\$900	\$518	\$900	\$904
Benefit Cost Ratio	INF	3.55	1.70	3.55	3.56

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	Small General Service
(C) Gross Load Factor at Customer (LF)	0.27%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	24
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	24
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	25
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	29.29%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.312
Reduction at Customer kW/unit	5.880
Peak Reduction at Customer kW/unit	2.176

* Xcel Energy Project Cost per kWh Lifetime	\$0.290
* Xcel Energy Project Cost per kW at Gen	\$353.3

Commercial & Industrial Segment Saver's Switch

	2005	2006
(A) Gross Customer kW reduction per participant	5.88	5.88
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	5.88	5.88
(D) Coincident factor	29.3%	29.3%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	1.83	1.83
(G) Gross kWh/Year saved per Customer kW	24	24
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	140	140
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	140	140
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	149	149
(K) Estimated participant penetration rates	545	545
Total Gross customer kW reduction: (A)*(K)=	3,205	3,205
Total Net Customer kW reduction: (C)*(K)=	3,205	3,205
Total Net Summer Generator kW reduction: (F)*(K)=	999	999
Total Gross kWh reduction at Customer per year: (H)*(K)=	76,300	76,300
Total Net kWh reduction at Customer per year: (I)*(K)=	76,300	76,300
Total Net kWh reduction at Generator per year: (J)*(K)=	81,171	81,171
Total Budget	\$ 350,561	\$ 352,807

Type of Measure	High Efficiency Product / Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Electric Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate of Annual Customer kWh Savings	Estimate of Customer kW Savings	Estimate of Peak Generator Savings
C&I Saver's Switch													
New Installations	Utility load control of air conditioner	Not Applicable	No air conditioner load control	Not Applicable	1,735	Customer kW	General Service -AC Rider	15	Not Applicable	\$0	30	5.880	2.310
Maintenance	Utility load control of air conditioner	Not Applicable	Bad air conditioner load control	Not Applicable	1,470	Customer kW	General Service -AC Rider	15	Not Applicable	\$0	18	5.880	1.260

➤ Small Business Segment

Segment Description:

The Small Business Segment consists of an extensive variety of businesses with usage less than 500 kW or 200 MCF. Typical customers include light manufacturing, churches, restaurants, retail shops, strip malls, service establishments, and small office buildings. Energy usage varies by type of customer, but most businesses in this segment have energy usage concentrated in the following end uses: lighting, space conditioning, process load, refrigeration, and water heating.

Planned energy saving achievements for the Small Business Segment are 27.1 GWh and 84,158 MCF during this Biennial Plan which account for 8 percent of the electric and 10 percent of the gas CIP achievements.

Xcel Energy's strategy for the Small Business Segment is to continue building awareness of our CIP programs, and subsequently drive participation, by leveraging our Business Solutions Center to handle customer calls and our trade allies to effectively sell CIP programs to their customers in Xcel Energy's service area. Further marketing efforts for this segment include newsletters, customer events, and direct mail to reach target customers.

Small Business Segment energy savings will come primarily from the Lighting Efficiency and Motor Efficiency programs, secondarily from the Energy Design Assistance, Boiler Efficiency, and Furnace Efficiency programs.

Similar to the C&I segment, the Lighting Efficiency program continues to be a mainstay of Xcel Energy's Small Business CIP. New lighting technologies, high bay lighting in particular, are planned to have an increased impact within this segment.

The Motor Efficiency program is popular among Small Business customers because of the impact of our trade allies marketing NEMA Premium™ efficient motors and energy efficient adjustable speed drives within Xcel Energy's service area.

The Boiler Efficiency program is the largest natural gas conservation program in the Small Business segment. As we see in the C&I segment, our customers are more aware of natural gas price volatility recently and have increased interest in gas conservation programs to help control their utility expenses.

**Xcel Energy
Small Business Segment
Project Information Sheet**

	2005 Budget			2006 Budget		
	Electric	Gas	Total	Electric	Gas	Total
Cost Components						
Project Delivery	\$1,564,828	\$108,696	\$1,673,524	\$1,592,424	\$112,601	\$1,705,025
Utility Administration	\$376,608	\$47,764	\$424,372	\$387,133	\$49,187	\$436,320
Other Project Administration	\$617,418	\$17,590	\$635,008	\$631,088	\$17,590	\$648,678
Advertising/Promotion	\$349,638	\$28,650	\$378,288	\$354,369	\$28,650	\$383,019
Evaluations	\$0	\$0	\$0	\$0	\$0	\$0
R&D	\$0	\$0	\$0	\$0	\$0	\$0
Incentives (Rebates)	\$970,859	\$107,070	\$1,077,929	\$960,927	\$107,070	\$1,067,997
Other	\$0	\$0	\$0	\$0	\$0	\$0
Less Revenues	(\$20,000)	(\$5,000)	(\$25,000)	(\$20,000)	(\$5,000)	(\$25,000)
Total Budget	\$3,859,352	\$304,770	\$4,164,122	\$3,905,941	\$310,096	\$4,216,037
Total Number of Participants	53,665	396		53,669	396	
Total En. Savings-Generator (kWh)	13,552,457			13,568,500		
Total En. Savings-Meter (kWh)	12,739,310			12,754,390		
Total Demand Savings Generator (kW)	14,454			14,361		
Total Natural Gas Energy Savings (MCF)		42,079			42,079	
Project Type Percentage Expenditure						
Residential						
Small Business	100%	100%		100%	100%	
C&I Combined						
Other: R&D						
Low-Income Participation (%)	N/A	N/A		N/A	N/A	
Participants (#)						
Budget (\$)						
Renter Participation (%)	N/A	N/A		N/A	N/A	
Participants (#)						
Budget (\$)						
Societal B/C Results						
Net Present Value	\$621	\$1,800,194		\$645	\$1,800,194	
B/C Ratio	INF	1.55		INF	1.55	
Participant B/C Results						
Net Present Value	\$430	\$4,770,224		\$449	\$4,770,224	
B/C Ratio	INF	2.52		INF	2.52	
Rate Impact B/C Results						
Net Present Value	\$174	\$1,888,394		\$178	\$1,888,394	
B/C Ratio	1.41	1.65		1.42	1.65	
Revenue Requirements B/C Results						
Net Present Value	\$489	\$4,217,601		\$498	\$4,217,601	
B/C Ratio	5.60	8.52		5.63	8.52	
Project Type						
Audit/Info	X	X		X	X	
R&D						
Renewable						
Direct Impact	X	X		X	X	
Type of Incentive						
Loan/Grant	X	X		X	X	
Rebate	X	X		X	X	
Direct Installation	X	X		X	X	
End-Use Target (%)						
Lighting	68%	0%		68%	0%	
Process	4%	0%		4%	0%	
Motor	14%	46%		14%	46%	
Refrigeration	4%	0%		4%	0%	
Space Cooling	5%	23%		5%	23%	
Space Heating	3%	31%		3%	31%	
Water Heating	0%	0%		0%	0%	
Weatherization	0%	0%		0%	0%	
General/Other	2%	0%		2%	0%	
Rate-making treatment: expensed	X	X		X	X	

➤ **Small Business Segment Total**

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$289	\$289	\$289	\$289
T & D	N/A	175	175	175	175
Marginal Energy	N/A	131	131	131	131
Externality Willingness	N/A	N/A	N/A	N/A	17
Subtotal	N/A	\$595	\$595	\$595	\$612
Xcel Energy's Project Costs					
Subtotal	N/A	\$106	\$106	\$106	\$106
Revenue Reduction	\$315	N/A	\$315	\$0	\$0
Subtotal	\$315	N/A	\$315	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$156	N/A	N/A	\$156	\$156
Incremental O&M	(246)	N/A	N/A	(246)	(246)
Rebates	(26)	N/A	N/A	(26)	(26)
Subtotal	(\$115)	N/A	N/A	(\$115)	(\$115)
Net Present Benefit (Cost)	\$430	\$489	\$174	\$604	\$621
Net Benefit (Cost) per kWh Lifetime	\$0.078	\$0.089	-\$0.032	\$0.110	\$0.113
Net Present Benefit (Cost) per Generator	\$1.082	\$1.229	\$437	\$1,519	\$1,562
Benefit Cost Ratio	INF	5.60	1.41	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	4.00%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	350
(E) Free Driver/Free Rider Factor (Energy)	100%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	350
(G) Transmission Loss Factor	6%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	373
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	37.38%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.398

* Xcel Energy Project Cost per kWh Lifetime

\$0.019

* Xcel Energy Project Cost per kW at Gen

\$267.0

➤ Small Business Segment Total

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$294	\$294	\$294	\$294
T & D	N/A	178	178	178	178
Marginal Energy	N/A	134	134	134	134
Externality Willingness	N/A	N/A	N/A	N/A	18
Subtotal	N/A	\$606	\$606	\$606	\$624
Xcel Energy's Project Costs					
Subtotal	N/A	\$108	\$108	\$108	\$108
Revenue Reduction	\$320	N/A	\$320	\$0	\$0
Subtotal	\$320	N/A	\$320	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$158	N/A	N/A	\$158	\$158
Incremental O&M	(262)	N/A	N/A	(262)	(262)
Rebates	(26)	N/A	N/A	(26)	(26)
Subtotal	(\$129)	N/A	N/A	(\$129)	(\$129)
Net Present Benefit (Cost)	\$449	\$498	\$178	\$628	\$645
Net Benefit (Cost) per kWh Lifetime	\$0.082	\$0.090	\$0.032	\$0.114	\$0.117
Net Present Benefit (Cost) per Generator	\$1,135	\$1,259	\$451	\$1,586	\$1,630
Benefit Cost Ratio	INF	5.63	1.42	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	4.01%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	352
(E) Free Driver/Free Rider Factor (Energy)	100%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	352
(G) Transmission Loss Factor	6%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	374
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	37.20%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.396

* Xcel Energy Project Cost per kWh Lifetime	\$0.020
* Xcel Energy Project Cost per kW at Gen	\$272.0

Small Business Segment Total

	2005	2006
(A) Gross Customer kW reduction per participant	0.68	0.68
(B1) Free Driver/Free Rider Factor (Demand)	100%	100%
(C) Net Customer kW reduction per participant: (A)*(B1)=	0.68	0.68
(D) Coincident factor	37.38%	37.20%
(E) Transmission Loss Factor	6%	6%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.27	0.27
(G) Gross kWh/Year saved per Customer kW	350	352
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	237	238
(B) Free Driver/Free Rider Factor (Energy)	100%	100%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	237	238
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	253	253
(K) Estimated participant penetration rates	53,665	53,669
Total Gross customer kW reduction: (A)*(K)=	36,352	36,283
Total Net Customer kW reduction: (C)*(K)=	36,352	36,283
Total Net Summer Generator kW reduction: (F)*(K)=	14,454	14,361
Total Gross kWh reduction at Customer per year: (H)*(K)=	12,739,310	12,754,390
Total Net kWh reduction at Customer per year: (I)*(K)=	12,739,310	12,754,390
Total Net kWh reduction at Generator per year: (J)*(K)=	13,552,457	13,568,500
Total Budget	\$ 3,859,352	\$ 3,905,941

➤ **Small Business Segment Conservation Total**

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$702	\$702	\$702	\$702
T & D	N/A	430	430	430	430
Marginal Energy	N/A	934	934	934	934
Externality Willingness	N/A	N/A	N/A	N/A	125
Subtotal	N/A	\$2,066	\$2,066	\$2,066	\$2,192
Xcel Energy's Project Costs					
Subtotal	N/A	\$335	\$335	\$335	\$335
Revenue Reduction	\$1,606	N/A	\$1,606	\$0	\$0
Subtotal	\$1,606	N/A	\$1,606	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,200	N/A	N/A	\$1,200	\$1,200
Incremental O&M	(1,885)	N/A	N/A	(1,885)	(1,885)
Rebates	(201)	N/A	N/A	(201)	(201)
Subtotal	(\$885)	N/A	N/A	(\$885)	(\$885)
Net Present Benefit (Cost)	\$2,491	\$1,732	\$126	\$2,617	\$2,742
Net Benefit (Cost) per kWh Lifetime	\$0.049	\$0.034	\$0.002	\$0.052	\$0.054
Net Present Benefit (Cost) per Generator	\$3,025	\$2,103	\$153	\$3,178	\$3,330
Benefit Cost Ratio	INF	6.17	1.07	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	19
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	28.77%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	2,521
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	2,521
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	2,681
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	77.40%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.823

* Xcel Energy Project Cost per kWh Lifetime \$0.007

* Xcel Energy Project Cost per kW at Gen \$406.5

➤ **Small Business Segment Conservation Total**

**Net Present Worth Benefit Analysis
2006 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$711	\$711	\$711	\$711
T & D	N/A	435	435	435	435
Marginal Energy	N/A	968	968	968	968
Externality Willingness	N/A	N/A	N/A	N/A	130
Subtotal	N/A	\$2,114	\$2,114	\$2,114	\$2,244
Xcel Energy's Project Costs					
Subtotal	N/A	\$340	\$340	\$340	\$340
Revenue Reduction	\$1,664	N/A	\$1,664	\$0	\$0
Subtotal	\$1,664	N/A	\$1,664	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$1,230	N/A	N/A	\$1,230	\$1,230
Incremental O&M	(2,034)	N/A	N/A	(2,034)	(2,034)
Rebates	(202)	N/A	N/A	(202)	(202)
Subtotal	(\$1,006)	N/A	N/A	(\$1,006)	(\$1,006)
Net Present Benefit (Cost)	\$2,670	\$1,774	\$110	\$2,779	\$2,910
Net Benefit (Cost) per kWh Lifetime	\$0.052	\$0.035	\$0.002	\$0.054	\$0.057
Net Present Benefit (Cost) per Generator	\$3,273	\$2,175	\$135	\$3,408	\$3,567
Benefit Cost Ratio	INF	6.21	1.05	INF	INF

Project Assumptions:

(A) Measure Lifetime (Years)	19
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	29.24%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	2,561
(E) Free Driver/Free Rider Factor (Energy)	100%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	2,561
(G) Transmission Loss Factor	6%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	2,725
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	76.67%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.816

* Xcel Energy Project Cost per kWh Lifetime

\$0.007

* Xcel Energy Project Cost per kW at Gen

\$417.3

Small Business Segment Conservation Total

	2005	2006
(A) Gross Customer kW reduction per participant	9.53	9.32
(B1) Free Driver/Free Rider Factor (Demand)	100%	100%
(C) Net Customer kW reduction per participant: (A)*(B1)=	9.53	9.32
(D) Coincident factor	77.40%	76.67%
(E) Transmission Loss Factor	6%	6%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	7.85	7.60
(G) Gross kWh/Year saved per Customer kW	2,521	2,561
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	24,019	23,857
(B) Free Driver/Free Rider Factor (Energy)	100%	100%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	24,019	23,857
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	25,552	25,380
(K) Estimated participant penetration rates	497	501
Total Gross customer kW reduction: (A)*(K)=	4,736	4,667
Total Net Customer kW reduction: (C)*(K)=	4,736	4,667
Total Net Summer Generator kW reduction: (F)*(K)=	3,900	3,806
Total Gross kWh reduction at Customer per year: (H)*(K)=	11,937,351	11,952,431
Total Net kWh reduction at Customer per year: (I)*(K)=	11,937,351	11,952,431
Total Net kWh reduction at Generator per year: (J)*(K)=	12,699,310	12,715,352
Total Budget	\$ 1,585,434	\$ 1,588,591

➤ **Small Business Segment Load Management Total**

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$227	\$227	\$227	\$227
T & D	N/A	137	137	137	137
Marginal Energy	N/A	11	11	11	11
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$374	\$374	\$374	\$375
Xcel Energy's Project Costs					
Xcel Energy's Project Costs	N/A	\$61	\$61	\$61	\$61
Subtotal	N/A	\$61	\$61	\$61	\$61
Revenue Reduction					
Revenue Reduction	\$121	N/A	\$121	\$0	\$0
Subtotal	\$121	N/A	\$121	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	-	N/A	N/A	-	-
Rebates	-	N/A	N/A	-	-
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$121	\$313	\$192	\$313	\$314
Net Benefit (Cost) per kWh Lifetime	\$0.318	\$0.821	\$0.503	\$0.821	\$0.824
Net Present Benefit (Cost) per Generator	\$363	\$938	\$574	\$938	\$941
Benefit Cost Ratio	INF	6.11	2.05	6.11	6.13

Project Assumptions:

(A) Measure Lifetime (Years)	14
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	0.29%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	25
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	25
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	27
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	31.38%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.334

* Xcel Energy Project Cost per kWh Lifetime \$0.161
* Xcel Energy Project Cost per kW at Gen \$183.3

➤ Small Business Segment Load Management Total

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$232	\$232	\$232	\$232
T & D	N/A	140	140	140	140
Marginal Energy	N/A	11	11	11	11
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$383	\$383	\$383	\$384
Xcel Energy's Project Costs					
	N/A	\$62	\$62	\$62	\$62
Subtotal	N/A	\$62	\$62	\$62	\$62
Revenue Reduction					
	\$122	N/A	\$122	\$0	\$0
Subtotal	\$122	N/A	\$122	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	-	N/A	N/A	-	-
Rebates	-	N/A	N/A	-	-
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$122	\$321	\$200	\$321	\$322
Net Benefit (Cost) per kWh Lifetime	\$0.319	\$0.843	\$0.524	\$0.843	\$0.845
Net Present Benefit (Cost) per Generator	\$364	\$962	\$598	\$962	\$965
Benefit Cost Ratio	INF	6.16	2.09	6.16	6.18

Project Assumptions:

(A) Measure Lifetime (Years)	14
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	0.29%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	25
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	25
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	27
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	31.38%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.334

* Xcel Energy Project Cost per kWh Lifetime \$0.163
 * Xcel Energy Project Cost per kW at Gen \$186.4

Small Business Segment Load Management Total

	2005	2006
(A) Gross Customer kW reduction per participant	6.42	6.42
(B1) Free Driver/Free Rider Factor (Demand)	100%	100%
(C) Net Customer kW reduction per participant: (A)*(B1)=	6.42	6.42
(D) Coincident factor	31.4%	33.4%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	2.14	2.14
(G) Gross kWh/Year saved per Customer kW	25	25
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	163	163
(B) Free Driver/Free Rider Factor (Energy)	100%	100%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	163	163
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	173	163
(K) Estimated participant penetration rates	4,921	4,921
Total Gross customer kW reduction: (A)*(K)=	31,616	31,616
Total Net Customer kW reduction: (C)*(K)=	31,616	31,616
Total Net Summer Generator kW reduction: (F)*(K)=	10,554	10,554
Total Gross kWh reduction at Customer per year: (H)*(K)=	801,959	801,959
Total Net kWh reduction at Customer per year: (I)*(K)=	801,959	801,959
Total Net kWh reduction at Generator per year: (J)*(K)=	853,148	801,959
 Total Budget	 \$ 1,934,943	 \$ 1,967,052

Conservation Improvement Program (CIP)

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

**Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Company: **Xcel Energy (Natural Gas)**
Project: **Small Business Segment w/ Indirect Participants**

Summary Information

Company: **Xcel Energy (Natural Gas)**
Project:

Input Data

1) Retail Rate (\$/MCF) =	\$8.40
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

15) Utility Project Costs (First Year)	
Administrative Costs =	\$110,847
Direct Operating Costs =	\$86,853
Incentive Costs =	\$107,070
Total Utility Project Costs =	\$304,770
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$113,628
Direct Operating Costs =	\$89,398
Incentive Costs =	\$107,070
Total Utility Project Costs =	\$310,096
16) Direct Participant Costs (\$/Part.) =	3,137.2
17) Other Participant Costs (Annual \$/Part.) =	86.2
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	7.93%
20) Avg. Consumption (MCF/Part.) =	1,339.0
21) Avg. MCF/Part. Saved (First Year Program) =	106.2
21a) Avg. MCF/Part. Saved (Second Year Program) =	106.2
22) Number of Participants (First Year Program) =	396
22a) Number of Participants (Second Year Program) =	396
23) Incentive/Participant (First Year Program) =	\$270
23a) Incentive/Participant (Second Year Program) =	\$270

Cost Summary

Utility Cost per Participant (First Year) =	\$769.54
Utility Cost per participant (Second Year) =	\$782.99
Total Energy Reduction (MCF)	1,261,784
Societal Cost per MCF	\$2.60
Cost per Participant per MCF (First Year) =	\$37.60
Cost per Participant per MCF (Second Year) =	\$37.73

Test Results

	NPV	B/C
Cost Comparison Test	\$1,897,376	1.66
Revenue Requirements Test	\$4,226,582	8.66
Societal Benefit Test	\$1,809,176	1.55
Participant Test	\$4,770,237	2.52

Conservation Improvement Program (CIP)

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Company: Xcel Energy (Natural Gas)
 Project: Small Business Segment Direct Participants & Costs Only

Input Data

1) Retail Rate (\$/MCF) =	\$8.40
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

15) Utility Project Costs (First Year)	
Administrative Costs =	\$70,328
Direct Operating Costs =	\$72,394
Incentive Costs =	\$107,070
Total Utility Project Costs =	\$249,792
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$71,121
Direct Operating Costs =	\$74,641
Incentive Costs =	\$107,070
Total Utility Project Costs =	\$252,832
16) Direct Participant Costs (\$/Part.) =	3,366.76
17) Other Participant Costs (Annual \$/Part.) =	92.51
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	7.93%
20) Avg. Consumption (MCF/Part.) =	1,436.92
21) Avg. MCF/Part. Saved (First Year Program) =	114.00
21a) Avg. MCF/Part. Saved (Second Year Program) =	114.00
22) Number of Participants (First Year Program) =	369
22a) Number of Participants (Second Year Program) =	369
23) Incentive/Participant (First Year Program) =	\$290
23a) Incentive/Participant (Second Year Program) =	\$290

Conservation Improvement Program (CIP)
 BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: Xcel Energy (Natural Gas)
 Project:

Cost Summary

Utility Cost per Participant (First Year) =	\$676.87
Utility Cost per participant (Second Year) =	\$685.11
Total Energy Reduction (MCF)	1,262,118
Societal Cost per MCF	\$2.52
Cost per Participant per MCF (First Year) =	\$36.28
Cost per Participant per MCF (Second Year) =	\$36.35

Test Results

	NPV	B/C
Cost Comparison Test	\$1,998,760	1.72
Revenue Requirements Test	\$4,328,582	10.59
Societal Benefit Test	\$1,911,259	1.60
Participant Test	\$4,772,655	2.52

➤ Small Business Load Management

A. Description

Electric Reduction Savings and Saver's Switch[®] are both available to small business customers. Please refer to Commercial and Industrial (C&I) Load Management description for general information about these load management products.

1. Electric Reduction Savings Program

Xcel Energy's Electric Reduction Savings Program, formally the Peak Controlled Rates program, provides small business customers the opportunity to participate in the same rate discounts as large-use customers. Many business customers in this segment do not have electric demands high enough to participate in Electric Reduction Savings, so Saver's Switch offers a similar opportunity for discounts.

Modifications:

None.

2. Saver's Switch

Saver's Switch is the primary load management program for small business customers. Saver's Switch is an attractive product to small business customers because of the ease of enrollment, qualification, and summer savings. The main qualifier for a customer is that they have forced central air conditioning. Participation in Saver's Switch is free and customers enroll through Xcel Energy promotions such as newsletters, direct mail, telemarketing, and site visits. Approximately 95 percent of Saver's Switch business participants are small business customers.

Xcel Energy expanded its Saver's Switch maintenance program in 2003-2004 to the Small Business and Commercial & Industrial Segments and will continue to maintain switches in 2005-2006. The purpose for maintenance is to maximize the existing load relief and prolong unit life. In addition to maintenance of units that are identified as no longer working, our equipment vendor identified a faulty microchip that could lead to an increased failure rate switches installed in 2001-2002. The goal is to complete the change out effort of the potentially faulty units by 2006. The vendor will fund these change outs.

Saver's Switch is promoted to small business customers through a combination of marketing materials and Xcel Energy's sales force. Customers are contacted through direct mail, newsletters, telemarketing, and direct sales.

Modifications:

None

B. Project Information Sheet

Project Information Sheets are provided at the end of this section.

- C. Effect on Peak Demand and Energy Consumption & List of Assumptions for each Technology**
Effects on peak demand and energy consumption are provided in the Project Information Sheets and Benefit/Cost Analyses located at the end of this section. Technology assumptions are also provided at the end of this section.
- D. Relationship of Program to Resource Plan**
As part of Xcel Energy's Conservation Improvement Program, these programs will support attainment of Xcel Energy's Resource Plan DSM goals. Not applicable to natural gas utilities.
- E. Cost Effectiveness**
See Project Information Sheet.
- F. Estimated Low-Income and Renter Participation**
See Project Information Sheet.
- G. Budget**
See Project Information Sheet.
- H. Ratemaking Treatment & Cost-Recovery Method**
The ratemaking and cost-recovery procedures for this CIP follow those approved by the Minnesota Public Utilities Commission in Docket Nos. E002/GR-92-1185, G002/GR-97-1606, and E,G-999/CI-98-1759.
- I. Participation**
See Project Information Sheet at the end of this section.
- J. Involvement of Community Energy Organizations**
Xcel Energy utilizes local electrical & HVAC contractors for the installation of the Saver's Switch device at customer businesses.
- K. Evaluation Plan**
A process evaluation was completed in 2000 for the Electric Reduction Savings program. Continual review of accomplishments and expenditures are made throughout the year to verify conservation achievements and cost effectiveness.
- L. Renewable Energy Information**
N/A
- M. Additional Information**
As required in 2004, Xcel Energy will continue tracking stand-by generators used for compliance with new Electric Reduction Savings contracts in 2005 and 2006.

➤ Small Business Segment Electric Reduction Savings

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$184	\$184	\$184	\$184
T & D	N/A	106	106	106	106
Marginal Energy	N/A	10	10	10	10
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$300	\$300	\$300	\$301
Xcel Energy's Project Costs					
Subtotal	N/A	24	\$24	\$24	\$24
Subtotal	N/A	\$24	\$24	\$24	\$24
Revenue Reduction	\$144	N/A	\$144	N/A	N/A
Subtotal	\$144	N/A	\$144	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$144	\$277	\$133	\$277	\$278
Net Benefit (Cost) per kWh Lifetime	\$0.654	\$1.254	\$0.600	\$1.254	\$1.257
Net Present Benefit (Cost) per Generator	\$256	\$491	\$235	\$491	\$492
Benefit Cost Ratio	INF	12.78	1.79	12.78	12.81

Project Assumptions:

(A) Measure Lifetime (Years)	5
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	0.47%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	42
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	42
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	44
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	53.06%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.564

* Xcel Energy Project Cost per kWh Lifetime \$0.106

* Xcel Energy Project Cost per kW at Gen \$41.7

➤ Small Business Segment Electric Reduction Savings

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$189	\$189	\$189	\$189
T & D	N/A	\$109	\$109	\$109	\$109
Marginal Energy	N/A	\$10	\$10	\$10	\$10
Externality Willingness	N/A	N/A	N/A	N/A	\$1
Subtotal	N/A	\$308	\$308	\$308	\$309
Xcel Energy's Project Costs					
Xcel Energy's Project Costs	N/A	\$24	\$24	\$24	\$24
Subtotal	N/A	\$24	\$24	\$24	\$24
Revenue Reduction	\$147	N/A	\$147	N/A	N/A
Subtotal	\$147	N/A	\$147	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	\$0	N/A	N/A	\$0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$147	\$284	\$138	\$284	\$285
Net Benefit (Cost) per kWh Lifetime	\$0.663	\$1.287	\$0.624	\$1.287	\$1.290
Net Present Benefit (Cost) per Generator	\$260	\$504	\$244	\$504	\$505
Benefit Cost Ratio	INF	13.09	1.81	13.09	13.12

Project Assumptions:

(A) Measure Lifetime (Years)	5
(B) Customer Rate	General Service
(C) Gross Load Factor at Customer (LF)	0.47%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	42
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	42
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	44
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	53.06%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.564

* Xcel Energy Project Cost per kWh Lifetime \$0.106
* Xcel Energy Project Cost per kW at Gen \$41.7

Small Business Segment Electric Reduction Savings

	2005	2006
(A) Gross Customer kW reduction per participant	173.44	173.44
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	173.44	173.44
(D) Coincident factor	53.1%	53.1%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	97.90	97.90
(G) Gross kWh/Year saved per Customer kW	42	42
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	7,204	7,204
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	7,204	7,204
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	7,663	7,663
(K) Estimated participant penetration rates	16	16
Total Gross customer kW reduction: (A)*(K)=	2,775	2,775
Total Net Customer kW reduction: (C)*(K)=	2,775	2,775
Total Net Summer Generator kW reduction: (F)*(K)=	1,566	1,566
Total Gross kWh reduction at Customer per year: (H)*(K)=	115,256	115,256
Total Net kWh reduction at Customer per year: (I)*(K)=	115,256	115,256
Total Net kWh reduction at Generator per year: (J)*(K)=	122,613	122,613
 Total Budget	 \$ 65,250	 \$ 65,250

➤ Small Business Segment Saver's Switch

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$231	\$231	\$231	\$231
T & D	N/A	139	139	139	139
Marginal Energy	N/A	11	11	11	11
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$381	\$381	\$381	\$382
Xcel Energy's Project Costs					
Subtotal	N/A	\$65	\$65	\$65	\$65
Revenue Reduction	\$119	N/A	\$119	\$0	\$0
Subtotal	\$119	N/A	\$119	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$119	\$316	\$197	\$316	\$318
Net Benefit (Cost) per kWh Lifetime	\$0.314	\$0.833	\$0.519	\$0.833	\$0.836
Net Present Benefit (Cost) per Generator	\$382	\$1,016	\$633	\$1,016	\$1,019
Benefit Cost Ratio	INF	5.88	2.07	5.88	5.90

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	Small General Service
(C) Gross Load Factor at Customer (LF)	0.27%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	24
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	24
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	25
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	29.29%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.312
Reduction at Customer kW/unit	5.880
Peak Reduction at Customer kW/unit	2.176

* Xcel Energy Project Cost per kWh Lifetime

\$0.171

* Xcel Energy Project Cost per kW at Gen

\$208.0

➤ Small Business Segment Saver's Switch for Business

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$236	\$236	\$236	\$236
T & D	N/A	143	143	143	143
Marginal Energy	N/A	11	11	11	11
Externality Willingness	N/A	N/A	N/A	N/A	1
Subtotal	N/A	\$391	\$391	\$391	\$392
Xcel Energy's Project Costs					
Subtotal	N/A	\$66	\$66	\$66	\$66
Revenue Reduction	\$119	N/A	\$119	\$0	\$0
Subtotal	\$119	N/A	\$119	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	0	N/A	N/A	0	0
Rebates	0	N/A	N/A	0	0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$119	\$325	\$206	\$325	\$326
Net Benefit (Cost) per kWh Lifetime	\$0.314	\$0.855	\$0.541	\$0.855	\$0.857
Net Present Benefit (Cost) per Generator	\$382	\$1,042	\$660	\$1,042	\$1,045
Benefit Cost Ratio	INF	5.92	2.11	5.92	5.94

Project Assumptions:

(A) Measure Lifetime (Years)	15
(B) Customer Rate	Small General Service
(C) Gross Load Factor at Customer (LF)	0.27%
(D) Gross kWh/Year saved per Customer kW: (C)*(8760)=	24
(E) Free Driver/Free Rider Factor (Energy)	100.0%
(F) Net kWh/Year saved per Customer kW: (D)*(E)=	24
(G) Transmission Loss Factor	6.0%
(H) Net kWh/Year Saved at Generator per Customer kW: (F)/(1-(G))=	25
(I) Gross Customer kW	1
(J) Free Driver/Free Rider Factor (Demand)	100.0%
(K) Net Customer kW: (I)*(J)=	1.000
(L) Coincidence Factor at Generator	29.29%
(M) Generator Adjusted kW: (K)*(L)/(1-(G))=	0.312
Reduction at Customer kW/unit	5.880
Peak Reduction at Customer kW/unit	2.176

* Xcel Energy Project Cost per kWh Lifetime \$0.174

* Xcel Energy Project Cost per kW at Gen \$211.6

Small Business Segment Saver's Switch

	2005	2006
(A) Gross Customer kW reduction per participant	5.88	5.88
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	5.88	5.88
(D) Coincident factor	29.3%	29.3%
(E) Transmission Loss Factor	6.0%	6.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	1.83	1.83
(G) Gross kWh/Year saved per Customer kW	24	24
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	140	140
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	140	140
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	149	149
(K) Estimated participant penetration rates	4,905	4,905
Total Gross customer kW reduction: (A)*(K)=	28,841	28,841
Total Net Customer kW reduction: (C)*(K)=	28,841	28,841
Total Net Summer Generator kW reduction: (F)*(K)=	8,988	8,988
Total Gross kWh reduction at Customer per year: (H)*(K)=	686,703	686,703
Total Net kWh reduction at Customer per year: (I)*(K)=	686,703	686,703
Total Net kWh reduction at Generator per year: (J)*(K)=	730,535	730,535
 Total Budget	 \$ 1,869,693	 \$ 1,901,802

Type of Measure	High Efficiency Product / Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Electric Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate of Annual Customer kWh Savings	Estimate of Customer kW Savings	Estimate of Peak Generator kW Savings
SB Saver's Switch													
New Installation	Utility load control of air conditioner	Not Applicable	No air conditioner load control	Not Applicable	15,611	Customer kW	General Service -AC Rider	15	Not Applicable	\$0	30	5.880	2.310
Maintenance	Utility load control of air conditioner	Not Applicable	Bad air conditioner load control	Not Applicable	13,230	Customer kW	General Service -AC Rider	15	Not Applicable	\$0	10	5.880	1.260

➤ Residential Segment

Segment Description:

The Residential segment consists of over 1 million electric households and nearly 400,000 natural gas households. Primary energy usage for this segment includes lighting, cooling, and heating. The strategy for the Residential segment is to build awareness and provide consumers a mix of conservation offerings including direct impact products, indirect-impact services and educational tools. Xcel Energy will utilize the following methods to market its products and services: direct marketing, newsletters, call center support, dealer networks and an increased use of the Internet (www.xcelenergy.com).

Planned energy saving achievements for the Residential segment are 12.1 GWh and 224,650 MCF during the two year span of this Biennial Plan which account for 3 percent of the electric and 28 percent of the gas CIP achievements.

Dedicated programs, which exclusively address low-income programs, are addressed within the Low-Income segment write-up. Xcel Energy will continue to make available residential programs herein to all low-income consumers.

Segment Highlights:

Residential segment energy savings will come primarily from the ENERGY STAR® cooling, heating and lighting products. The major indirect-impact service, Home Energy Audits, is expanding and will offer consumers opportunities to learn about improving their energy efficiency by either a in-home audit or from accessing an online audit.

The ENERGY STAR program, which primarily focuses on cooling and heating rebates, continues to be the mainstay of the conservation portion of the Residential segment. Xcel Energy will continue to use 10 SEER and 13 SEER efficiencies for analytical and rebate purposes in 2005/06. Although the Company recognizes that the minimum SEER efficiency levels for central air conditioners is slated to increase in 2006, the unpredictability of dealer inventory and purchase cycles lead us pursue a two-year concurrent product offer and consumer message.

The Lighting product continues to promote the benefits of energy efficient lighting and sell bulbs directly to consumers via direct marketing and the Internet. Xcel Energy is planning to carry on its participation in the ENERGY STAR Change A Light, Change The World campaign.

The Home Energy Audit product is expanding to give consumers more flexibility and offerings. Consumers will have the option of participating in the new online audit tool or the standard in-home audit to receive educational tips to improve energy efficiency throughout their homes. Additionally, consumers who enroll for an in-home audit will have the new option of including infrared testing to further identify energy efficiency opportunities. These additions will increase awareness and participation while enhancing consumer benefits.

Xcel Energy also provides rate discounts as an incentive to participate in our load management product, Saver's Switch. For consumers with electric central air conditioning, Saver's Switch offers bill discounts in return for cycling air conditioners on hot summer afternoons when demand for electricity is at a peak. Xcel Energy will focus on enrolling new participants in addition to maintaining existing Saver's Switch units on the program.

With this Biennial filing, Xcel Energy has eliminated the Water Heater rebate product because it is no longer cost effective. The water heater National Appliance Energy Conservation Act (NAECA) standard increased the minimum efficiency for natural gas water from a .62 EF to a .67 EF on January 20, 2004.

Xcel Energy plans to notify consumers and participating dealers and retailers six months prior to the proposed program close date of December 31, 2004. Xcel Energy proposes to allow consumers six months after the date of purchases to submit Water Heater rebate applications for approval. Rebates will not be approved for applications submitted after June 30, 2005.

Xcel Energy
Residential Segment
Project Information Sheet

	2005 Budget		
	Electric	Gas	Total
Cost Components			
Project Delivery	\$3,404,981	\$414,451	\$3,819,432
Utility Administration	\$505,161	\$104,077	\$609,238
Other Project Administration	\$2,563,319	\$104,460	\$2,667,779
Advertising/Promotion	\$1,703,137	\$154,256	\$1,857,393
Evaluations	\$27,258	\$0	\$27,258
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$4,136,250	\$507,000	\$4,643,250
Other	\$0	\$0	\$0
Less Revenues	(\$61,320)	(\$26,200)	(\$87,520)
Total Budget	\$12,278,786	\$1,258,044	\$13,536,830
Total Number of Participants	397,962	149,467	
Total En. Savings-Generator (kWh)	6,075,146		
Total En. Savings-Meter (kWh)	5,589,134		
Total Demand Savings Generator (kW)	31,692		
Total Natural Gas Energy Savings (MCF)		112,325	
Project Type Percentage Expenditure			
Residential	100%	100%	
Small Business			
C&I Combined			
Other: R&D			
Low-Income Participation (%)			
Participants (#)			
Budget (\$)			
Renter Participation (%)			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value	\$214	\$5,138,808	
B/C Ratio	2.68	1.52	
Participant B/C Results			
Net Present Value	\$264	\$11,411,229	
B/C Ratio	13.15	1.75	
Rate Impact B/C Results			
Net Present Value	(\$53)	\$2,674,523	
B/C Ratio	0.87	1.23	
Revenue Requirements B/C Results			
Net Present Value	\$233	\$10,609,180	
B/C Ratio	3.22	3.99	
Project Type			
Audit/Info	X	X	
R&D			
Renewable			
Direct Impact	X	X	
Type of Incentive			
Loan/Grant	X	X	
Rebate	X	X	
Direct Installation	X	X	
End-Use Target (%)			
Lighting	27%	0%	
Process	0%	0%	
Motor	0%	0%	
Refrigeration	23%	0%	
Space Cooling	46%	0%	
Space Heating	0%	39%	
Water Heating	0%	49%	
Weatherization	4%	12%	
General/Other	0%	0%	
Rate-making treatment: expensed	X	X	

	2006 Budget		
	Electric	Gas	Total
	\$3,420,924	\$441,187	\$3,862,111
	\$519,204	\$88,797	\$608,001
	\$2,530,812	\$104,460	\$2,635,272
	\$1,727,579	\$154,674	\$1,882,253
	\$27,866	\$0	\$27,866
	\$0	\$0	\$0
	\$3,936,250	\$507,000	\$4,443,250
	\$0	\$0	\$0
	(\$61,320)	(\$36,200)	(\$97,520)
	\$12,101,315	\$1,259,918	\$13,361,233
	398,247	149,467	
	6,073,061		
	5,589,134		
	31,692		
		112,325	
	100%	100%	
	\$223	\$5,138,808	
	2.78	1.52	
	\$268	\$11,411,229	
	13.35	1.75	
	(\$47)	\$2,674,523	
	0.88	1.23	
	\$243	\$10,609,180	
	3.34	3.99	
	X	X	
	X	X	
	X	X	
	X	X	
	27%	0%	
	0%	0%	
	0%	0%	
	23%	0%	
	46%	0%	
	0%	39%	
	0%	49%	
	4%	12%	
	0%	0%	
	X	X	

➤ Residential Segment Total

**Net Present Worth Benefit Analysis
2005 Cost Benefit Summary
Analysis For One Customer kW**

	Participant Test (\$/kW)	Utility Test (\$/kW)	Rate Impact Test (\$/kW)	Total Resource Test (\$/kW)	Societal Test (\$/kW)
Avoided Revenue Requirements					
Generation	N/A	\$201	\$201	\$201	\$201
T & D	N/A	121	121	121	121
Marginal Energy	N/A	16	16	16	16
Externality Willingness	N/A	N/A	N/A	N/A	2
Subtotal	N/A	\$338	\$338	\$338	\$340
Xcel Energy Project Costs					
Subtotal	N/A	\$105	\$105	\$105	\$105
Revenue Reduction	\$286	N/A	\$286	\$0	\$0
Subtotal	\$286	N/A	\$286	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$55	N/A	N/A	\$55	\$55
Incremental O&M	0	N/A	N/A	0	0
Rebates	(34)	N/A	N/A	(34)	(34)
Subtotal	\$22	N/A	N/A	\$22	\$22
Net Present Benefit (Cost)	\$264	\$233	(\$53)	\$211	\$214
Net Benefit (Cost) per kWh Lifetime	\$0.336	\$0.297	(\$0.067)	\$0.269	\$0.272
Net Present Benefit (Cost) per Generator	\$972	\$859	(\$194)	\$779	\$787
Benefit Cost Ratio	13.15	3.22	0.87	2.67	2.68

Project Assumptions:

Measure Lifetime (Years)	15
(A) Gross Load Factor at Customer (LF)	0.55%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	48
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	48
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	52
(F) Gross Customer kW	1
(CI) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	24.98%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.272

* Xcel Energy Project Cost per kWh Lifetime \$0.134
* Xcel Energy Project Cost per kW at Gen \$387.4

➤ Residential Segment Total

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test (\$/kW)	Utility Test (\$/kW)	Rate Impact Test (\$/kW)	Total Resource Test (\$/kW)	Societal Test (\$/kW)
Avoided Revenue Requirements					
Generation	N/A	\$206	\$206	\$206	\$206
T & D	N/A	124	124	124	124
Marginal Energy	N/A	17	17	17	17
Externality Willingness	N/A	N/A	N/A	N/A	2
Subtotal	N/A	\$347	\$347	\$347	\$349
Xcel Energy Project Costs					
Subtotal	N/A	\$104	\$104	\$104	\$104
Revenue Reduction	\$290	N/A	\$290	\$0	\$0
Subtotal	\$290	N/A	\$290	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$55	N/A	N/A	\$55	\$55
Incremental O&M	0	N/A	N/A	0	0
Rebates	(34)	N/A	N/A	(34)	(34)
Subtotal	\$22	N/A	N/A	\$22	\$22
Net Present Benefit (Cost)	\$268	\$243	(\$47)	\$221	\$223
Net Benefit (Cost) per kWh Lifetime	\$0.341	\$0.309	(\$0.060)	\$0.282	\$0.284
Net Present Benefit (Cost) per Generator	\$988	\$895	(\$173)	\$815	\$823
Benefit Cost Ratio	13.35	3.34	0.88	2.76	2.78

Project Assumptions:

Measure Lifetime (Years)	15
(A) Gross Load Factor at Customer (LF)	0.55%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	48
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	48
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	52
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	24.98%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.272

* Xcel Energy Project Cost per kWh Lifetime \$0.132

* Xcel Energy Project Cost per kW at Gen \$381.8

Residential Segment Total

	2005	2006
(A) Gross Customer kW reduction per participant	0.29	0.29
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	0.29	0.29
(D) Coincident factor	25.0%	25.0%
(E) Transmission Loss Factor	8.0%	8.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.08	0.08
(G) Gross kWh/Year saved per Customer kW	48	48
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	14	14
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	14	14
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	15	15
(K) Estimated participant penetration rates	397,962	398,247
Total Gross customer kW reduction: (A)*(K)=	116,719	116,719
Total Net Customer kW reduction: (C)*(K)=	116,719	116,719
Total Net Summer Generator kW reduction: (F)*(K)=	31,692	31,692
Total Gross kWh reduction at Customer per year: (H)*(K)=	5,589,134	5,589,134
Total Net kWh reduction at Customer per year: (I)*(K)=	5,589,134	5,589,134
Total Net kWh reduction at Generator per year: (J)*(K)=	6,075,146	6,075,146
 Total Budget	 \$ 12,278,786	 \$ 12,101,315

➤ Residential Segment Conservation Total

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test (\$/kW)	Utility Test (\$/kW)	Rate Impact Test (\$/kW)	Total Resource Test (\$/kW)	Societal Test (\$/kW)
Avoided Revenue Requirements					
Generation	N/A	\$435	\$435	\$435	\$435
T & D	N/A	263	263	263	263
Marginal Energy	N/A	146	146	146	146
Externality Willingness	N/A	N/A	N/A	N/A	20
Subtotal	N/A	\$844	\$844	\$844	\$865
Xcel Energy Project Costs					
Subtotal	N/A	\$533	\$533	\$533	\$533
Revenue Reduction	\$331	N/A	\$331	\$0	\$0
Subtotal	\$331	N/A	\$331	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$581	N/A	N/A	\$581	\$581
Incremental O&M	0	N/A	N/A	0	0
Rebates	(353)	N/A	N/A	(353)	(353)
Subtotal	\$228	N/A	N/A	\$228	\$228
Net Present Benefit (Cost)	\$103	\$312	(\$19)	\$84	\$104
Net Benefit (Cost) per kWh Lifetime	\$0.013	\$0.039	(\$0.002)	\$0.010	\$0.013
Net Present Benefit (Cost) per Generator	\$174	\$526	(\$33)	\$141	\$175
Benefit Cost Ratio	-1.45	1.59	0.98	1.11	1.14

Project Assumptions:

Measure Lifetime (Years)	16
(A) Gross Load Factor at Customer (LF)	5.26%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	461
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	461
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	501
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	54.51%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.593

* Xcel Energy Project Cost per kWh Lifetime \$0.066
* Xcel Energy Project Cost per kW at Gen \$899.0

➤ Residential Segment Conservation Total

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW .

	Participant Test (\$/kW)	Utility Test (\$/kW)	Rate Impact Test (\$/kW)	Total Resource Test (\$/kW)	Societal Test (\$/kW)
Avoided Revenue Requirements					
Generation	N/A	\$446	\$446	\$446	\$446
T & D	N/A	270	270	270	270
Marginal Energy	N/A	149	149	149	149
Externality Willingness	N/A	N/A	N/A	N/A	21
Subtotal	N/A	\$865	\$865	\$865	\$886
Xcel Energy Project Costs					
Subtotal	N/A	\$522	\$522	\$522	\$522
Revenue Reduction	\$336	N/A	\$336	\$0	\$0
Subtotal	\$336	N/A	\$336	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$581	N/A	N/A	\$581	\$581
Incremental O&M	0	N/A	N/A	0	0
Rebates	(353)	N/A	N/A	(353)	(353)
Subtotal	\$228	N/A	N/A	\$228	\$228
Net Present Benefit (Cost)	\$108	\$343	\$7	\$114	\$135
Net Benefit (Cost) per kWh Lifetime	\$0.013	\$0.043	\$0.001	\$0.014	\$0.017
Net Present Benefit (Cost) per Generator	\$182	\$578	\$11	\$193	\$228
Benefit Cost Ratio	1.47	1.66	1.01	1.15	1.18

Project Assumptions:

Measure Lifetime (Years)	16
(A) Gross Load Factor at Customer (LF)	5.26%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	461
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	461
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	501
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	54.51%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.593

* Xcel Energy Project Cost per kWh Lifetime \$0.065
 * Xcel Energy Project Cost per kW at Gen \$881.7

Residential Segment Conservation Total

	2005	2006
(A) Gross Customer kW reduction per participant	0.21	0.21
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	0.21	0.21
(D) Coincident factor	54.5%	54.5%
(E) Transmission Loss Factor	8.0%	8.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.12	0.12
(G) Gross kWh/Year saved per Customer kW	461	461
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	95	95
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	95	95
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	103	103
(K) Estimated participant penetration rates	54,086	54,086
Total Gross customer kW reduction: (A)*(K)=	11,117	11,117
Total Net Customer kW reduction: (C)*(K)=	11,117	11,117
Total Net Summer Generator kW reduction: (F)*(K)=	6,587	6,587
Total Gross kWh reduction at Customer per year: (H)*(K)=	5,119,879	5,119,879
Total Net kWh reduction at Customer per year: (I)*(K)=	5,119,879	5,119,879
Total Net kWh reduction at Generator per year: (J)*(K)=	5,565,086	5,565,086
Total Budget	\$ 5,921,366	\$ 5,807,891

➤ Residential Segment Load Management Total

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test (\$/kW)	Utility Test (\$/kW)	Rate Impact Test (\$/kW)	Total Resource Test (\$/kW)	Societal Test (\$/kW)
Avoided Revenue Requirements					
Generation	N/A	\$176	\$176	\$176	\$176
T & D	N/A	\$106	\$106	\$106	\$106
Marginal Energy	N/A	\$3	\$3	\$3	\$3
Externality Willingness	N/A	N/A	N/A	N/A	0
Subtotal	N/A	\$285	\$285	\$285	\$285
Xcel Energy Project Costs					
	N/A	\$52	\$52	\$52	\$52
Subtotal	N/A	\$52	\$52	\$52	\$52
Revenue Reduction					
	\$281	N/A	\$281	\$0	\$0
Subtotal	\$281	N/A	\$281	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	\$0	N/A	N/A	\$0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$281	\$234	(\$47)	\$234	\$234
Net Benefit (Cost) per kWh Lifetime	\$4.363	\$3.626	(\$0.737)	\$3.626	\$3.629
Net Present Benefit (Cost) per Generator	\$1,182	\$982	(\$200)	\$982	\$983
Benefit Cost Ratio	INF	5.52	0.86	5.52	5.52

Project Assumptions:

Measure Lifetime (Years)	15
(A) Gross Load Factor at Customer (LF)	0.05%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	4
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	4
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	4
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	21.87%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.238

* Xcel Energy Project Cost per kWh Lifetime \$0.802
* Xcel Energy Project Cost per kW at Gen \$217.2

➤ Residential Segment Load Management Total

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test (\$/kW)	Utility Test (\$/kW)	Rate Impact Test (\$/kW)	Total Resource Test (\$/kW)	Societal Test (\$/kW)
Avoided Revenue Requirements					
Generation	N/A	\$180	\$180	\$180	\$180
T & D	N/A	\$109	\$109	\$109	\$109
Marginal Energy	N/A	\$3	\$3	\$3	\$3
Externality Willingness	N/A	N/A	N/A	N/A	\$0
Subtotal	N/A	\$292	\$292	\$292	\$292
Xcel Energy Project Costs					
Subtotal	N/A	\$52	\$52	\$52	\$52
Revenue Reduction	\$285	N/A	\$285	\$0	\$0
Subtotal	\$285	N/A	\$285	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	\$0	N/A	N/A	\$0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$285	\$241	(\$45)	\$241	\$241
Net Benefit (Cost) per kWh Lifetime	\$4.429	\$3.735	(\$0.694)	\$3.735	\$3.738
Net Present Benefit (Cost) per Generator	\$1,200	\$1,012	(\$188)	\$1,012	\$1,013
Benefit Cost Ratio	INF	5.66	0.87	5.66	5.67

Project Assumptions:

Measure Lifetime (Years)	15
(A) Gross Load Factor at Customer (LF)	0.05%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	4
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	4
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	4
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	21.87%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.238

* Xcel Energy Project Cost per kWh Lifetime \$0.801
* Xcel Energy Project Cost per kW at Gen \$217.0

Residential Segment Load Management Total

	2005	2006
(A) Gross Customer kW reduction per participant	3.01	3.01
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	3.01	3.01
(D) Coincident factor	21.9%	21.9%
(E) Transmission Loss Factor	8.0%	8.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.72	0.72
(G) Gross kWh/Year saved per Customer kW	4	4
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	13	13
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	13	13
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	15	15
(K) Estimated participant penetration rates	35,100	35,100
Total Gross customer kW reduction: (A)*(K)=	105,602	105,602
Total Net Customer kW reduction: (C)*(K)=	105,602	105,602
Total Net Summer Generator kW reduction: (F)*(K)=	25,105	25,105
Total Gross kWh reduction at Customer per year: (H)*(K)=	469,255	469,255
Total Net kWh reduction at Customer per year: (I)*(K)=	469,255	469,255
Total Net kWh reduction at Generator per year: (J)*(K)=	510,060	510,060
Total Budget	\$ 5,453,902	\$ 5,447,446

Conservation Improvement Program (CIP)

Company: **Xcel Energy (Natural Gas)**
 Project: **Residential Segment w/ Indirect Participants**

Input Data

1) Retail Rate (\$/MCF) =	\$8.82
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$659,199
Direct Operating Costs =	\$91,845
Incentive Costs =	\$507,000
Total Utility Project Costs =	\$1,258,044
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$688,695
Direct Operating Costs =	\$64,223
Incentive Costs =	\$507,000
Total Utility Project Costs =	\$1,259,918
16) Direct Participant Costs (\$/Part.) =	27.1
17) Other Participant Costs (Annual \$/Part.) =	
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	14.62%
20) Avg. Consumption (MCF/Part.) =	5.3
21) Avg. MCF/Part. Saved (First Year Program) =	0.78
21a) Avg. MCF/Part. Saved (Second Year Program) =	0.78
22) Number of Participants (First Year Program) =	149,467
22a) Number of Participants (Second Year Program) =	149,467
23) Incentive/Participant (First Year Program) =	\$3
23a) Incentive/Participant (Second Year Program) =	\$3

Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: **Xcel Energy (Natural Gas)**
 Project:

Cost Summary

Utility Cost per Participant (First Year) =	\$8.42
Utility Cost per participant (Second Year) =	\$8.43
Total Energy Reduction (MCF)	3,496,128
Societal Cost per MCF	\$2.47
Cost per Participant per MCF (First Year) =	\$45.58
Cost per Participant per MCF (Second Year) =	\$45.59

Test Results

	NPV	B/C
Cost Comparison Test	\$3,559,195	1.37
Revenue Requirements Test	\$10,979,144	5.85
Societal Benefit Test	\$5,462,991	1.64
Participant Test	\$10,880,432	1.78

Conservation Improvement Program (CIP)

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

**Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Company: Xcel Energy (Natural Gas)
Project: Residential Segment Direct Participants & Costs Only

Summary Information

Company: Xcel Energy (Natural Gas)
Project:

Input Data

1) Retail Rate (\$/MCF) =	\$8.82
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

15) Utility Project Costs (First Year)	
Administrative Costs =	\$487,951
Direct Operating Costs =	\$0
Incentive Costs =	\$507,000
Total Utility Project Costs =	\$994,951
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$491,615
Direct Operating Costs =	\$0
Incentive Costs =	\$507,000
Total Utility Project Costs =	\$998,615
16) Direct Participant Costs (\$/Part.) =	201.17
17) Other Participant Costs (Annual \$/Part.) =	-
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	14.62%
20) Avg. Consumption (MCF/Part.) =	23.00
21) Avg. MCF/Part. Saved (First Year Program) =	3.36
21a) Avg. MCF/Part. Saved (Second Year Program) =	3.36
22) Number of Participants (First Year Program) =	20,148
22a) Number of Participants (Second Year Program) =	20,148
23) Incentive/Participant (First Year Program) =	\$25
23a) Incentive/Participant (Second Year Program) =	\$25

Cost Summary

Utility Cost per Participant (First Year) =	\$49.38
Utility Cost per participant (Second Year) =	\$49.56
Total Energy Reduction (MCF)	2,031,871
Societal Cost per MCF	\$4.02
Cost per Participant per MCF (First Year) =	\$74.54
Cost per Participant per MCF (Second Year) =	\$74.59

Test Results

	NPV	B/C
Cost Comparison Test	\$1,592,422	1.26
Revenue Requirements Test	\$5,904,731	4.30
Societal Benefit Test	\$42,518	1.01
Participant Test	\$5,786,302	1.69

➤ Residential Segment Conservation

A. Description

1. Consumer Education

Consumer Education is an indirect-impact service that creates awareness and provides residential consumers with information on energy conservation. The goal is to encourage consumers to incorporate conservation habits into their everyday lives. The Residential Segment is demographically varied. To reach and impact this diverse market, energy conservation education needs to address different lifestyles, learning preferences and areas of interest. To appeal to this broad market, Xcel Energy provides a wide array of educational programs and products including:

- HeatShare Low Income workshops,
- Reference material publications,
- Reference material in Spanish and Hmong,
- A bi-monthly newsletter insert to all consumers, and
- Seminars and conference sponsorships for appropriate educational topics.

Modifications:

None.

2. Energy Loans Program

The Energy Loans program helps make energy efficient home improvements affordable. Energy Loans provides consumers with financing to cover the cost of purchasing and installing energy efficient equipment. Loans are provided by a third party bank, and require no down payment. Loans range from \$500 to \$10,000 with a maximum term of 60 months. The interest rate changes on a quarterly basis. Minimal processing fees are added to the loan amount: \$75 processing plus county filing fees. Consumers can opt to pay their loan installments via their Xcel Energy bill or directly to the bank.

To be eligible for a loan, applicants must be a Minnesota Xcel Energy residential consumer, purchase one of the 15 energy saving types of equipment listed below and be approved by the third party bank. The equipment must be ENERGY STAR rated or meet minimum efficiency levels.

Eligible Equipment:

- | | |
|-----------------------------|-----------------------------|
| • Central air conditioners; | • Air source heat pumps; |
| • Window air conditioners | • Ground source heat pumps; |
| • Boilers; | • Insulation; |
| • Ceiling fans; | • Radiant heat systems; |
| • Clothes washers; | • Refrigerators; |
| • Dehumidifiers; | • Ventilation fans; |
| • Gas fireplaces; | • Water heaters; |
| • Gas furnaces; | • Windows. |

To increase participation in 2005/2006, Xcel Energy will more aggressively promote the program through a variety of media including: cross marketing with central air conditioning and furnace rebates, bill inserts, newsletters and the Internet.

Modifications:

None.

3. ENERGY STAR®

Xcel Energy continues to dedicate resources toward increasing energy efficiency in residential homes by offering an ENERGY STAR program. This program will encourage consumers to conserve energy by purchasing energy-efficient appliances. Xcel Energy offers consumers information and incentives for purchasing the following ENERGY STAR-labeled appliances:

- Central Air Conditioners;
- Ground Source (Geothermal) Pumps;
- Electric Air Source Pumps;
- Room Air Conditioners;
- Furnaces, and
- Boilers.

ENERGY STAR is a national symbol of energy efficiency. The ENERGY STAR label was developed by the U.S. Department of Energy and the U.S. Environmental Protection Agency to help consumers identify energy-efficient products. ENERGY STAR qualified products are up to 30 percent more efficient than current federal minimum efficiency standards. The ENERGY STAR logo is attached to packaging, literature, advertising, and the products themselves, making it easy for consumers to identify those products and help save energy and the environment.

Heating and cooling dealers are an important communication vehicle for the ENERGY STAR program. Dealers are a vital link to the Company's marketing strategy because they interface directly with consumers and heavily influence the final buying decision. Dealer sales representatives explain program details and often complete the rebate application on the consumer's behalf. There are over 1,700 participating heating and cooling dealers located throughout our Minnesota service territory.

Xcel Energy's ENERGY STAR program provides many benefits, including:

- Motivates consumers to purchase energy efficient equipment by providing cash incentives to reduce the initial cost of equipment. This allows consumers to lower their energy bills, potentially offers more comfort and upgrades the value of their home.
- Helps communicate a consistent, easy to understand message. In making a purchase decision, consumers can identify the ENERGY STAR logo and check with Xcel Energy to ensure all minimum qualifications exist with the chosen appliance to obtain a rebate.

- Creates an umbrella platform so it can be integrated into other Xcel Energy conservation products. This potentially allows Xcel Energy to reach a broader audience by promoting products that include a nationally recognized seal of approval.

ENERGY STAR: Central Air Conditioners

The Xcel Energy seasonal energy efficiency rating (SEER) and rebate level is:

<u>Energy efficiency</u>	<u>Rebate</u>
13.0 SEER	\$250
13.5 SEER	\$300
14.0+ SEER	\$350

The Central Air Conditioner product has been successful since its inception in 1982 due to direct marketing efforts and use of our manufacturer, distributor and participating dealer networks. Promotional dollars and special incentives have an impact on pre-season purchasing behavior and other factors, such as weather, also affect sales patterns.

The 2005/2006 Biennial Plan represents a continuation of the 2003/2004 Biennial Plan using 10 SEER and 13 SEER efficiencies for analytical and rebate purposes. Xcel Energy recognizes that the change in the minimum SEER efficiency slated for 2006 will affect ENERGY STAR labeling considerations and force changes in the Company's rebate structure.

The unpredictability of dealer inventory and purchase cycles has led Xcel Energy to propose in the 2005/2006 Biennial filing a two-year concurrent product offer and message. Implementation of revised efficiency standards will be part of the 2007/2008 filing.

Xcel Energy respectfully requests that the Commissioner approve continuation of rebates for 13 SEER efficiency units in 2006 for the following additional reasons:

- *Consumer education:* Consumers, dealers, distributors and manufacturers will receive a consistent message for two years and notification that Xcel Energy requirements will change in 2007. Educating consumers about the value of higher efficiency may prove more challenging given the likely higher incremental equipment cost for 14+ SEER units.
- *Marketing implementation:* Collateral materials and media campaigns to consumers can be effectively used for a two-year plan lifecycle, rather than a one-year lifecycle.
- *Staffing:* An efficient use of personnel can be used over the two-year plan.
- *Product Availability:* Dealer inventory and new stock orders will be able to handle the modification with sufficient lead-time with their manufacturers and distributors.

ENERGY STAR: Ground Source (Geothermal) Pumps

Ground Source and Air Source pumps have provided whole-house cooling relief since 2002 when they were introduced as a project modification.

This serves a niche market of consumers who seek or who lack “traditional” cooling options. The success of this program has increased each year but represented less than 0.1 percent of total cooling activity. Because of the minimal activity and limited geographic areas of consumer interest, the marketing efforts used to promote these technologies are directed toward our existing HVAC dealer network and the Internet.

<u>Energy efficiency</u>	<u>Rebate</u>
14.0+ EER	\$350

ENERGY STAR: Electric Air Source Pumps

As with Ground Source Pumps, this product has increased in popularity but continues to serve a niche market of residential consumers. Xcel Energy will continue to offer this cooling technology with the following efficiency and rebate offering:

<u>Energy efficiency</u>	<u>Rebate</u>
13.0+ SEER	\$150

ENERGY STAR: Room Air Conditioners

Room air conditioning technology, which offers spot cooling relief, was introduced in 2001. The product has grown modestly since its inception. Xcel Energy realizes that this is a reactive product and is somewhat of an impulsive purchase that occurs typically after consecutive hot summer days. Promotional dollars and special incentives have limited impact on this pre-season purchasing behavior, and the advent of sustained periods of unseasonably hot weather is believed to drive consumers to purchase cooling relief from local retailers.

As an incentive to purchase these units, Xcel Energy is offering consumer rebates for energy efficient units meeting the following existing criteria:

<u>Energy efficiency</u>	<u>Rebate</u>
ENERGY STAR labeled	\$30

This product line is communicated to our consumers via direct mail, bill inserts, and Internet and retail channels.

ENERGY STAR: Furnace

Xcel Energy proposes to continue offering consumers a gas furnace rebate based on a two-tier efficiency schedule consistent with the 2003/2004 CIP Biennial Plan.

<u>Energy efficiency</u>	<u>Rebate</u>
90% AFUE	\$75
94% AFUE	\$100

ENERGY STAR: Boiler

Xcel Energy proposes to continue offering consumers a boiler rebate based on the following schedule:

<u>Energy efficiency</u>	<u>Rebate</u>
85% AFUE	\$100

The goal for furnace and boiler rebates was increased by 20 percent in the 2003/2004 Biennial. Over the past two years, Xcel Energy has experienced challenges in reaching the new goal. To proactively address this issue in 2005/2006, Xcel Energy proposes adding promotional funding to the furnace/boiler budget to increase participation by promoting to residential consumers and strengthening the participating dealer network.

Modifications:

Consumers will have 12 months from the date of purchase to submit an application for rebate. Applications submitted after 12 months will no longer be eligible for a rebate.

4. **High Efficiency Showerhead**

The High Efficiency Showerhead product has been highly successful by offering consumers free showerheads that lower water heater energy costs.

Xcel Energy proposes to continue the High Efficiency Showerhead program offering high efficiency showerheads to natural gas residential consumers. The showerheads help consumers save on hot water usage, thus saving energy and money.

The Company will promote high efficiency showerheads to consumers through direct mail to natural gas consumers. Consumers will submit their enrollment forms directly to the third-party showerhead vendor, who in turn will ship the showerhead and instructions directly to the consumer.

Modifications:

None.

5. **Home Efficiency**

The Home Efficiency program (formerly Premier Home) encourages homebuilders and homeowners to consider a "whole-house" approach to natural gas energy conservation. This approach combines energy saving construction methods with energy efficient appliances. Together they achieve significantly higher energy savings and provide the consumer with lower energy bills, fewer maintenance concerns, higher resale value and a more comfortable, quiet home.

Home Efficiency provides an incentive for homebuilders to promote and construct energy efficient residential homes. It offers free training, design assistance, construction site visits, blower door testing and ENERGY STAR certification.

Participants receive services from homebuilders valued at \$955. Included in the Low Income Segment, Home Efficiency offers an additional \$550 rebate per home for low-income customers living in subsidized housing.

Xcel Energy will more actively promote the Home Efficiency in 2005/2006 to attain a higher level of participation by builder and consumer, and thus achieve the increased energy savings goal. Promotion will focus on motivating and training builders in the metro and greater Minnesota areas. In addition, Xcel Energy will provide collateral materials for homebuilders to use with prospective clients.

Program Components

The following minimum energy conservation measures will be installed in each home:

1. Heating System

Natural gas furnaces must have an Annual Fuel Utilization Efficiency (AFUE) of 92 percent or greater and natural gas boilers must have an AFUE of 85 percent or higher.

2. Heat Recovery Ventilation

Heat recovery ventilators must have a minimum recovery efficiency performance of 45 percent (at -13°F) and 70 percent (at 32°F) or better. The heat recovery ventilator must be capable of continuous operation and delivery of an effective air change of 0.35 air changes per hour (ACH) or 15 cubic feet per minute (cfm) per bedroom plus an additional 15 cfm, whichever is greater.

3. Water Heating

Sealed combustion or power vented natural gas water heaters with an energy factor of 0.67 or better.

4. Auto Setback Thermostat

Participants receive a programmable thermostat. This will allow consumers to program the operation of their heating system to fit their lifestyle and conserve energy.

The energy design software allows homebuilders to flexibly interchange building equipment, insulation and windows. Homebuilders may select additional energy efficient options, beyond the requirements of the program, which can be evaluated for their effect on the home's energy efficiency.

On-site inspections are conducted at each home at critical construction milestones to ensure that the building is actually being built to meet all prescriptive and performance specifications. On-site inspections occur twice during the construction process – prior to drywall installation, and after installation of drywall and the ventilation system. A blower test is performed after the home is completed to help insure quality and compliance with the air tightness standards.

Modifications:

The water heater National Appliance Energy Conservation Act (NAECA) standard increased minimum efficiency from of natural gas water heaters from a 0.62 EF to a 0.67 EF in 2004. Xcel Energy has incorporated these changes into the Home Efficiency cost benefit assumptions.

6. Home Energy Audit

The Home Energy Audit program provides residential energy audits to Xcel Energy natural gas and/or electric consumers. The purpose of this product is to improve energy savings by influencing homeowners' and renters' behavior through conservation education. The program includes three product offerings: traditional home energy audits, an infrared audit option, and an on-line audit.

The essential elements of Xcel Energy audits are:

- Consumer energy bill analysis;
- Client assessment and education;
- Shell assessment;
- Mechanical and electrical equipment review;
- Written energy savings recommendations, and
- Optional blower door test.

Consumers will contribute a \$35 co-pay on their Xcel Energy bill after the audit is complete, and low-income consumers are exempt from the co-payment. Xcel Energy will market the traditional audits through various methods, including general consumer inquiries regarding their energy bill, direct mailings, bill inserts, newsletters and cross-marketing efforts with other Xcel Energy residential conservation programs.

Xcel Energy will offer a new infrared audit to non-low income natural gas consumers. This audit will include the standard elements with the addition of infrared imaging. Benefits of infrared testing include identifying insulation needs, moisture problems, and air leakage paths within walls, attics, windows and doors, as well as providing a quality check for existing insulation. Infrared testing, along with the required blower door test, will give consumers a more detailed list of structural conservation improvements available to them through non-invasive testing, thus increasing their potential savings. The \$35 co-pay for the standard audit is replaced with a \$100 co-pay for the infrared audit. Consumers will pay for this audit on their Xcel Energy bill.

Xcel Energy will also offer the addition of an online audit www.xcelenergy.com. Instead of paying for an audit that consists of a vendor visiting the home, consumers can use the online audit free-of-charge. The online audit requests that consumers enter information on their home: square footage, type of cooling and heating, age of the home and family size. The audit takes approximately 10 minutes and offers consumers suggestions on how to reduce their energy bill such as adding insulation, replacing old inefficient appliances, basic maintenance tips for heating systems, replacing old heating systems, as well as purchase of energy efficient products such

as showerheads and compact fluorescent lights. Once completing the audit, consumers will be given options of enrolling for the standard in-home audit or getting more information on Xcel Energy conservation rebate programs.

Modifications:

Infrared testing is now available to non-low income consumers for a \$100 co-pay. A free online audit is also available to consumers on the Xcel Energy website at www.xcelenergy.com.

7. Home Lighting Direct Purchase

Xcel Energy's Home Lighting Direct Purchase program increases the use of energy-efficient lighting products in the consumer market and helps consumers save money and energy. The program uses two components to sell compact fluorescent lights: direct sales and the ENERGY STAR Change-A-Light, Change The World promotion.

The direct sales component sells a wide variety of compact fluorescent bulbs (listed below) through a third party vendor at competitive prices. The actual sale and fulfillment of the bulbs are handled through the lighting vendor who manages and owns the entire lighting inventory.

Available Bulbs:

- Twist - wattages:
13/15/20/23/27/42
- Reflectors - indoor: 15 watt,
outdoor: 19 watt
- Globes: 15 watt
- Decorative – standard or
candelabra: 5 watt
- A-Line: 15 watt
- 3-Way Twist: 11/22/33 watt
- Capsule: 15 watt
- Bug Light: 15 watt
- Full Spectrum: 14/27 watt
- Dimmable: 20/25 watt
- Wet Location: 20 watt
- Torchiere fixture or
replacement bulbs: 58 watt

Xcel Energy promotes the bulbs through direct mail, bill inserts, newsletters and the Internet. The communications focus on financial benefits and environmental messages. Consumers can order bulbs via mail, phone, Internet and fax.

Xcel Energy intends to participate in the national ENERGY STAR Change A Light, Change The World promotion. In this promotion Xcel Energy and a bulb manufacturer combine funds and provide direct incentives in the form of instant rebates for the purchase of compact fluorescent bulbs. The promotion period lasts for 45 days and the bulbs have typically been sold through an ENERGY STAR participating hardware store chain. Xcel Energy leverages the national ENERGY STAR campaign to promote a consistent nationwide message and cut promotion costs. The bulbs are promoted through print advertising and public relations efforts.

8. Lamp Recycling

Lamp Recycling provides consumers with two convenient disposal methods for fluorescent light bulbs: local participating hardware stores and county hazardous waste sites. The program helps consumers dispose of the compact fluorescent lighting and prevents mercury-based lighting products from entering the waste stream while fulfilling Xcel Energy's obligations under Minn. Stat. §216B.241, Subd. 5.

Xcel Energy provides an incentive to recycle by offering \$0.50 discount coupons to consumers who take bulbs to one of the 100 nearby participating hardware stores and reimbursement to 21 participating county recycling centers that provide free fluorescent bulb recycling to residential consumers. Consumers receive these benefits for recycling up to 10 bulbs per year.

Lamp Recycling is promoted through the county, city and hardware store promotional efforts and through Xcel Energy cross-marketing efforts.

Modifications:

None.

B. Project Information Sheet

Project Information Sheets are provided at the end of this section.

C. Effect on Peak Demand and Energy Consumption & List of Assumptions for each Technology

Effects on peak demand and energy consumption are provided in the Project Information Sheets and Benefit/Cost Analyses located at the end of this section. Technology assumptions are also provided at the end of this section.

D. Relationship of Program to Resource Plan

As part of Xcel Energy's Conservation Improvement Program, this portfolio will support attainment of Xcel Energy's Resource Plan DSM goals. Not applicable to natural gas utilities.

E. Cost Effectiveness

See Project Information Sheet.

F. Estimated Low-Income and Renter Participation

See Project Information Sheet.

G. Budget

See Project Information Sheet.

H. Ratemaking Treatment & Cost-Recovery Method

The ratemaking and cost-recovery procedures for this CIP follow those approved by the Minnesota Public Utilities Commission in Docket Nos. E002/GR-92-1185, G002/GR-97-1606, and E,G-999/CI-98-1759.

I. Participation

See Project Information Sheet.

J. Involvement of Community Energy Organizations

Xcel Energy provides compact fluorescent light bulbs at no charge to the Center for Energy and Environment for neighborhood workshops.

Home Energy Audit providers are selected through competitive bid. Selected providers are local energy services firms.

Low-income housing organizations can participate in the Home Efficiency program. Subsidized housing is eligible for a \$550 rebate for each home that meets Home Efficiency requirements.

K. Evaluation Plan

Xcel Energy is planning to conduct an evaluation of the Home Lighting Direct Purchase product in 2005. The evaluation will focus on product information, pricing, promotion, distribution, awareness, market transformation, free ridership, free drivership, and fluorescent light bulb disposal.

The Home Energy Audit product has budgeted to conduct a survey in 2005 and 2006 to measure ongoing customer satisfaction and the value proposition of the product offering.

For additional information regarding evaluation plans, please see the Market Research section of the Planning & Research Segment.

All products will continue to be evaluated through the product management process of tracking the market: interacting with manufactures, vendors and consumers, and reviewing the effects of promotion and other market activities.

L. Renewable Energy Information

N/A

M. Additional Information

None.

Xcel Energy
Residential Consumer Education
Project Information Sheet

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$90,734	\$19,672	\$110,406
Utility Administration	\$27,605	\$18,674	\$46,279
Other Project Administration	\$0	\$0	\$0
Advertising/Promotion	\$110,807	\$30,672	\$141,479
Evaluations	\$0	\$0	\$0
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$0	\$0	\$0
Other	\$0	\$0	\$0
Less Revenues	\$0	\$0	\$0
Total Budget	\$229,146	\$69,018	\$298,164
Total Number of Participants	175,000	125,000	
Total En. Savings-Generator (kWh)			
Total En. Savings-Meter (kWh)			
Total Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer	100%	100%	
Low Income			
Low-Income Participation (%)			
Participants (#)	26,250	18,750	
Budget (\$)	2,291	1,380	
Renter Participation (%)			
Participants (#)	875	1,250	
Budget (\$)	1,146	690	
Societal B/C Results			
Net Present Value			
B/C Ratio			
Participant B/C Results			
Net Present Value			
B/C Ratio			
Rate Impact B/C Results			
Net Present Value			
B/C Ratio			
Revenue Requirements B/C Results			
Net Present Value			
B/C Ratio			
Project Type			
Audit/Info	X	X	
R&D			
Renewable			
Direct Impact			
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)			
Lighting	0%	0%	
Process	0%	0%	
Motor	0%	0%	
Refrigeration	0%	0%	
Space Cooling	0%	0%	
Space Heating	0%	0%	
Water Heating	0%	0%	
Weatherization	0%	0%	
General/Other	100%	100%	
Ratemaking treatment: expensed	X	X	

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$82,865	\$20,142	\$103,007
Utility Administration	\$28,433	\$0	\$28,433
Other Project Administration	\$0	\$0	\$0
Advertising/Promotion	\$47,690	\$30,696	\$78,386
Evaluations	\$0	\$0	\$0
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$0	\$0	\$0
Other	\$0	\$0	\$0
Less Revenues	\$0	\$0	\$0
Total Budget	\$158,988	\$50,838	\$209,826
Total Number of Participants	175,000	125,000	
Total En. Savings-Generator (kWh)			
Total En. Savings-Meter (kWh)			
Total Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer	100%	100%	
Low Income			
Low-Income Participation (%)			
Participants (#)	26,250	18,750	
Budget (\$)	1,590	1,017	
Renter Participation (%)			
Participants (#)	875	1,250	
Budget (\$)	795	508	
Societal B/C Results			
Net Present Value			
B/C Ratio			
Participant B/C Results			
Net Present Value			
B/C Ratio			
Rate Impact B/C Results			
Net Present Value			
B/C Ratio			
Revenue Requirements B/C Results			
Net Present Value			
B/C Ratio			
Project Type			
Audit/Info	X	X	
R&D			
Renewable			
Direct Impact			
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)			
Lighting	0%	0%	
Process	0%	0%	
Motor	0%	0%	
Refrigeration	0%	0%	
Space Cooling	0%	0%	
Space Heating	0%	0%	
Water Heating	0%	0%	
Weatherization	0%	0%	
General/Other	100%	100%	
Ratemaking treatment: expensed	X	X	

**Xcel Energy
Residential Energy Star
Project Information Sheet**

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$479,320	\$27,809	\$507,129
Utility Administration	\$120,801	\$37,367	\$158,168
Other Project Administration	\$29,932	\$0	\$29,932
Advertising/Promotion	\$912,838	\$40,000	\$952,838
Evaluations	\$0	\$0	\$0
R&D	\$0		\$0
Incentives (Rebates)	\$4,136,250		\$4,136,250
Other	\$0	\$507,000	\$507,000
Less Revenues	\$0	\$0	\$0
Total Budget	\$5,679,141	\$612,176	\$6,291,317
Total Number of Participants	14,000	5,900	
Total En. Savings-Generator (kWh)	3,739,917		
Total En. Savings-Meter (kWh)	3,440,724		
Total Demand Savings Generator (kW)	6,514		
Total Natural Gas Energy Savings (MCF)		70,800	
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer	100%		
Low Income			
Low-Income Participation (%)			
Participants (#)	140	118	
Budget (\$)	56,791	12,244	
Renter Participation (%)			
Participants (#)	70	59	
Budget (\$)	28,396	6,122	
Societal B/C Results			
Net Present Value	\$115	\$1,802,933	
B/C Ratio	1.13	1.27	
Participant B/C Results			
Net Present Value	\$47	\$7,427,549	
B/C Ratio	1.17	2.03	
Rate Impact B/C Results			
Net Present Value	\$48	\$2,434,867	
B/C Ratio	1.05	1.43	
Revenue Requirements B/C Results			
Net Present Value	\$373	\$6,942,703	
B/C Ratio	1.59	7.30	
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting	0%		
Process	0%		
Motor	0%		
Refrigeration	30%		
Space Cooling	50%		
Space Heating	20%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Ratemaking treatment: expensed	X		

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$483,599	\$28,644	\$512,243
Utility Administration	\$124,425	\$38,488	\$162,913
Other Project Administration	\$29,932	\$0	\$29,932
Advertising/Promotion	\$990,073	\$40,000	\$1,030,073
Evaluations	\$0	\$0	\$0
R&D	\$0		\$0
Incentives (Rebates)	\$3,936,250		\$3,936,250
Other	\$0	\$507,000	\$507,000
Less Revenues	\$0	\$0	\$0
Total Budget	\$5,564,279	\$614,132	\$6,178,411
Total Number of Participants	14,000	5,900	
Total En. Savings-Generator (kWh)	3,739,917		
Total En. Savings-Meter (kWh)	3,440,724		
Total Demand Savings Generator (kW)	6,514		
Total Natural Gas Energy Savings (MCF)		70,800	
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer	100%		
Low Income			
Low-Income Participation (%)			
Participants (#)	140	118	
Budget (\$)	55,643	12,283	
Renter Participation (%)			
Participants (#)	70	59	
Budget (\$)	27,821	6,141	
Societal B/C Results			
Net Present Value	\$152	\$1,802,933	
B/C Ratio	1.17	1.27	
Participant B/C Results			
Net Present Value	\$52	\$7,427,549	
B/C Ratio	1.19	2.03	
Rate Impact B/C Results			
Net Present Value	\$80	\$2,434,867	
B/C Ratio	1.08	1.43	
Revenue Requirements B/C Results			
Net Present Value	\$410	\$6,942,703	
B/C Ratio	1.66	7.30	
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting	0%		
Process	0%		
Motor	0%		
Refrigeration	30%		
Space Cooling	50%		
Space Heating	20%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Ratemaking treatment: expensed	X		

➤ Residential Segment Energy Star

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$534	\$534	\$534	\$534
T & D	N/A	\$323	\$323	\$323	\$323
Marginal Energy	N/A	\$147	\$147	\$147	\$147
Externality Willingness	N/A	N/A	N/A	N/A	\$20
Subtotal	N/A	\$1,004	\$1,004	\$1,004	\$1,024
Xcel Energy's Project Costs					
Subtotal	N/A	\$632	\$632	\$632	\$632
Revenue Reduction	\$325	N/A	\$325	\$0	\$0
Subtotal	\$325	N/A	\$325	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$714	N/A	N/A	\$714	\$714
Incremental O&M	\$0	N/A	N/A	0	\$0
Rebates	(\$437)	N/A	N/A	(\$437)	(\$437)
Subtotal	\$278	N/A	N/A	\$278	\$278
Net Present Benefit (Cost)	\$47	\$373	\$48	\$95	\$115
Net Benefit (Cost) per kWh Lifetime	\$0.006	\$0.050	\$0.006	\$0.013	\$0.015
Net Present Benefit (Cost) per Generator	\$65	\$514	\$66	\$131	\$158
Benefit Cost Ratio	1.17	1.59	1.05	1.10	1.13

Project Assumptions:

Measure Lifetime (Years)	18
Customer Rate	Residential Service
(A) Gross Load Factor at Customer (LF)	4.37%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	383
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	383
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	416
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	66.65%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.724

* Xcel Energy Project Cost per kWh Lifetime

\$0.085

* Xcel Energy Project Cost per kW at Gen

\$871.8

➤ Residential Segment Energy Star

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test S/kW	Utility Test S/kW	Rate Impact Test S/kW	Total Resource Test S/kW	Societal Test S/kW
Avoided Revenue Requirements					
Generation	N/A	\$547	\$547	\$547	\$547
T & D	N/A	\$331	\$331	\$331	\$331
Marginal Energy	N/A	\$151	\$151	\$151	\$151
Externality Willingness	N/A	N/A	N/A	N/A	\$20
Subtotal	N/A	\$1,029	\$1,029	\$1,029	\$1,049
Xcel Energy's Project Costs					
	N/A	\$619	\$619	\$619	\$619
Subtotal	N/A	\$619	\$619	\$619	\$619
Revenue Reduction					
	\$330	N/A	\$330	\$0	\$0
Subtotal	\$330	N/A	\$330	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$714	N/A	N/A	\$714	\$714
Incremental O&M	\$0	N/A	N/A	0	\$0
Rebates	(\$437)	N/A	N/A	(\$437)	(\$437)
Subtotal	\$278	N/A	N/A	\$278	\$278
Net Present Benefit (Cost)	\$52	\$410	\$80	\$132	\$152
Net Benefit (Cost) per kWh Lifetime	\$0.007	\$0.055	\$0.011	\$0.018	\$0.020
Net Present Benefit (Cost) per Generator	\$72	\$566	\$111	\$183	\$210
Benefit Cost Ratio	1.19	1.66	1.08	1.15	1.17

Project Assumptions:

Measure Lifetime (Years)	18
Customer Rate	Residential Service
(A) Gross Load Factor at Customer (LF)	4.37%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	383
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	383
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	416
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	66.65%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.724

* Xcel Energy Project Cost per kWh Lifetime

\$0.083

* Xcel Energy Project Cost per kW at Gen

\$854.2

Residential Segment Energy Star

	2005	2006
(A) Gross Customer kW reduction per participant	0.64	0.64
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	0.64	0.64
(D) Coincident factor	66.6%	66.6%
(E) Transmission Loss Factor	8.0%	8.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.47	0.47
(G) Gross kWh/Year saved per Customer kW	383	383
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	246	246
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	246	246
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	267	267
(K) Estimated participant penetration rates	14,000	14,000
Total Gross customer kW reduction: (A)*(K)=	8,992	8,992
Total Net Customer kW reduction: (C)*(K)=	8,992	8,992
Total Net Summer Generator kW reduction: (F)*(K)=	6,514	6,514
Total Gross kWh reduction at Customer per year: (H)*(K)=	3,440,724	3,440,724
Total Net kWh reduction at Customer per year: (I)*(K)=	3,440,724	3,440,724
Total Net kWh reduction at Generator per year: (J)*(K)=	3,739,917	3,739,917
 Total Budget	 \$ 5,679,141	 \$ 5,564,279

Conservation Improvement Program (CIP)

Company: **Xcel Energy (Natural Gas)**
 Project: **Residential Energy Star Heating**

Input Data

1) Retail Rate (\$/MCF) =	\$8.82
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0781
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$105,176
Direct Operating Costs =	\$0
Incentive Costs =	\$507,000
Total Utility Project Costs =	\$612,176
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$107,132
Direct Operating Costs =	\$0
Incentive Costs =	\$507,000
Total Utility Project Costs =	\$614,132
16) Direct Participant Costs (\$/Part.) =	\$621.00
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	11.54%
20) Avg. Consumption (MCF/Part.) =	104.00
21) Avg. MCF/Part. Saved (First Year Program) =	12.00
21a) Avg. MCF/Part. Saved (Second Year Program) =	12.00
22) Number of Participants (First Year Program) =	5,900
22a) Number of Participants (Second Year Program) =	5,900
23) Incentive/Participant (First Year Program) =	\$86
23a) Incentive/Participant (Second Year Program) =	\$86

**Conservation Improvement Program (CIP)
 BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Summary Information

Company: **Xcel Energy (Natural Gas)**
 Project: **Residential Energy Star Heating**

Cost Summary

Utility Cost per Participant (First Year) =	\$103.76
Utility Cost per participant (Second Year) =	\$104.09
Total Energy Reduction (MCF)	2,124,000
Societal Cost per MCF	\$3.19
Cost per Participant per MCF (First Year) =	\$60.40
Cost per Participant per MCF (Second Year) =	\$60.42

Test Results

	<u>NPV</u>	<u>B/C</u>
Cost Comparison Test	\$2,434,867	1.43
Revenue Requirements Test	\$6,942,703	7.30
Societal Benefit Test	\$1,802,933	1.27
Participant Test	\$7,427,549	2.03

Xcel Energy
Residential High-Efficiency Showerheads
Project Information Sheet

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery		\$0	\$0
Utility Administration		\$4,060	\$4,060
Other Project Administration		\$104,460	\$104,460
Advertising/ Promotion		\$21,807	\$21,807
Evaluation Labor & Expenses		\$0	\$0
Incentives		\$0	\$0
Revenue		\$0	\$0
Total Budget	\$0	\$130,327	\$130,327
Total Number of Participants		14,000	
Total En. Savings-Generator (kWh)			
Total En. Savings-Meter (kWh)			
Total Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)		27,580	
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer		100%	
Low Income			
Low-Income Participation (%)			
Participants (#)		2,100	
Budget (\$)		19,549	
Renter Participation (%)			
Participants (#)		700	
Budget (\$)		6,516	
Societal B/C Results			
Net Present Value		\$3,105,439	
B/C Ratio		14.22	
Participant B/C Results			
Net Present Value		\$5,220,655	
B/C Ratio		44.22	
Rate Impact B/C Results			
Net Present Value		\$1,142,573	
B/C Ratio		1.57	
Revenue Requirements B/C Results			
Net Present Value		\$2,898,592	
B/C Ratio		13.34	
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact		X	
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation		X	
End-Use Target (%)			
Lighting		0%	
Process		0%	
Motor		0%	
Refrigeration		0%	
Space Cooling		0%	
Space Heating		0%	
Water Heating		100%	
Weatherization		0%	
General/Other		0%	
Rate-making treatment: expensed		X	

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery		\$0	\$0
Utility Administration		\$5,013	\$5,013
Other Project Administration		\$104,460	\$104,460
Advertising/ Promotion		\$21,831	\$21,831
Evaluation Labor & Expenses		\$0	\$0
Incentives		\$0	\$0
Revenue		\$0	\$0
Total Budget	\$0	\$131,304	\$131,304
Total Number of Participants		14,000	
Total En. Savings-Generator (kWh)			
Total En. Savings-Meter (kWh)			
Total Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)		27,580	
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer		100%	
Low Income			
Low-Income Participation (%)			
Participants (#)		2,100	
Budget (\$)		19,696	
Renter Participation (%)			
Participants (#)		700	
Budget (\$)		6,565	
Societal B/C Results			
Net Present Value		\$3,105,439	
B/C Ratio		14.22	
Participant B/C Results			
Net Present Value		\$5,220,655	
B/C Ratio		44.22	
Rate Impact B/C Results			
Net Present Value		\$1,142,573	
B/C Ratio		1.57	
Revenue Requirements B/C Results			
Net Present Value		\$2,898,592	
B/C Ratio		13.34	
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact		X	
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation		X	
End-Use Target (%)			
Lighting		0%	
Process		0%	
Motor		0%	
Refrigeration		0%	
Space Cooling		0%	
Space Heating		0%	
Water Heating		100%	
Weatherization		0%	
General/Other		0%	
Rate-making treatment: expensed		X	

Conservation Improvement Program (CIP)

Company: Xcel Energy (Natural Gas)
Project: Residential High-Eff. Showerheads

Input Data

1) Retail Rate (\$/MCF) =	\$8.82
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/UnitYr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$130,327
Direct Operating Costs =	\$0
Incentive Costs =	\$0
Total Utility Project Costs =	\$130,327
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$131,304
Direct Operating Costs =	\$0
Incentive Costs =	\$0
Total Utility Project Costs =	\$131,304
16) Direct Participant Costs (\$/Part.) =	\$0.00
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	19.85%
20) Avg. Consumption (MCF/Part.) =	9.92
21) Avg. MCF/Part. Saved (First Year Program) =	1.97
21a) Avg. MCF/Part. Saved (Second Year Program) =	1.97
22) Number of Participants (First Year Program) =	14,000
22a) Number of Participants (Second Year Program) =	14,000
23) Incentive/Participant (First Year Program) =	\$0
23a) Incentive/Participant (Second Year Program) =	\$0

Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: Xcel Energy (Natural Gas)
Project:

Cost Summary

Utility Cost per Participant (First Year) =	\$9.31
Utility Cost per participant (Second Year) =	\$9.38
Total Energy Reduction (MCF)	827,400
Societal Cost per MCF	\$0.28
Cost per Participant per MCF (First Year) =	\$4.73
Cost per Participant per MCF (Second Year) =	\$4.76

Test Results

	NPV	B/C
Cost Comparison Test	\$1,142,573	1.57
Revenue Requirements Test	\$2,898,592	13.34
Societal Benefit Test	\$3,105,439	14.22
Participant Test	\$5,220,655	44.22

Conservation Improvement Program (CIP)

Company: Xcel Energy (Natural Gas)
Project: Residential Home Efficiency

Input Data

1) Retail Rate (\$/MCF) =	\$8.82
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2008
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$252,448
Direct Operating Costs =	\$0
Incentive Costs =	\$0
Total Utility Project Costs =	\$252,448
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$253,179
Direct Operating Costs =	\$0
Incentive Costs =	\$0
Total Utility Project Costs =	\$253,179
16) Direct Participant Costs (\$/Part.) =	\$1,570.00
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	31.10%
20) Avg. Consumption (MCF/Part.) =	180.80
21) Avg. MCF/Part. Saved (First Year Program) =	56.23
21a) Avg. MCF/Part. Saved (Second Year Program) =	56.23
22) Number of Participants (First Year Program) =	248
22a) Number of Participants (Second Year Program) =	248
23) Incentive/Participant (First Year Program) =	\$0
23a) Incentive/Participant (Second Year Program) =	\$0

**Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Summary Information

Company: Xcel Energy (Natural Gas)
Project: Residential Home Efficiency

Cost Summary

Utility Cost per Participant (First Year) =	\$1,017.94
Utility Cost per participant (Second Year) =	\$1,020.88
Total Energy Reduction (MCF)	418,342
Societal Cost per MCF	\$2.76
Cost per Participant per MCF (First Year) =	\$46.03
Cost per Participant per MCF (Second Year) =	\$46.08

Test Results

	NPV	B/C
Cost Comparison Test	\$242,385	1.18
Revenue Requirements Test	\$1,130,247	3.49
Societal Benefit Test	\$535,421	1.46
Participant Test	\$1,931,537	3.56

**Xcel Energy
Residential Home Energy Audits
Project Information Sheet**

Cost Components	2005 Budget			2006 Budget		
	Electric	Gas	Total	Electric	Gas	Total
Project Delivery	\$368,992	\$151,081	\$520,073	\$379,345	\$176,308	\$555,653
Utility Administration	\$48,170	\$13,803	\$61,973	\$48,504	\$14,217	\$62,721
Other Project Administration	\$9,000	\$0	\$9,000	\$9,000	\$0	\$9,000
Advertising/Promotion	\$113,685	\$20,277	\$133,962	\$114,435	\$20,647	\$135,082
Evaluations	\$0	\$0	\$0	\$0	\$0	\$0
R&D	\$0	\$0	\$0	\$0	\$0	\$0
Incentives (Rebates)	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0
Less Revenues	(\$61,320)	(\$26,200)	(\$87,520)	(\$61,320)	(\$36,200)	(\$97,520)
Total Budget	\$478,527	\$158,961	\$637,488	\$489,964	\$174,972	\$664,936
Total Number of Participants	8,130	4,259		8,415	4,259	
Total En. Savings-Generator (kWh)						
Total En. Savings-Meter (kWh)						
Total Demand Savings Generator (kW)						
Total Natural Gas Energy Savings (MCF)						
Project Type Percentage Expenditure						
Commercial & Industrial						
Small Business						
Consumer	100%	100%		100%	100%	
Low Income						
Low-Income Participation (%)						
Participants (#)	81	85		84	85	
Budget (\$)	4,785	3,179		4,900	3,499	
Renter Participation (%)						
Participants (#)	41	43		42	43	
Budget (\$)	2,393	1,590		2,450	1,750	
Societal B/C Results						
Net Present Value						
B/C Ratio						
Participant B/C Results						
Net Present Value						
B/C Ratio						
Rate Impact B/C Results						
Net Present Value						
B/C Ratio						
Revenue Requirements B/C Results						
Net Present Value						
B/C Ratio						
Project Type						
Audit/Info	X	X		X	X	
R&D						
Renewable						
Direct Impact						
Type of Incentive						
Loan/Grant						
Rebate						
Direct Installation						
End-Use Target (%)						
Lighting	10%	0%		10%	0%	
Process	0%	0%		0%	0%	
Motor	0%	0%		0%	0%	
Refrigeration	5%	0%		5%	0%	
Space Cooling	50%	0%		50%	0%	
Space Heating	15%	35%		15%	35%	
Water Heating	5%	20%		5%	20%	
Weatherization	0%	30%		0%	30%	
General/Other	15%	15%		15%	15%	
Ratemaking treatment: expensed	X	X		X	X	

**Xcel Energy
Residential Home Lighting Direct Purchase
Project Information Sheet**

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$7,073		\$7,073
Utility Administration	\$38,345		\$38,345
Other Project Administration	\$0		\$0
Advertising/Promotion	\$196,807		\$196,807
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$0		\$0
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$242,225	\$0	\$242,225
Total Number of Participants	40,086		
Total En. Savings-Generator (kWh)	1,825,169		
Total En. Savings-Meter (kWh)	1,679,156		
Total Demand Savings Generator (kW)	73		
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer	100%		
Low Income			
Low-Income Participation (%)			
Participants (#)	401		
Budget (\$)	2,422		
Renter Participation (%)			
Participants (#)	200		
Budget (\$)	1,211		
Societal B/C Results			
Net Present Value	\$58		
B/C Ratio	1.43		
Participant B/C Results			
Net Present Value	\$338		
B/C Ratio	18.81		
Rate Impact B/C Results			
Net Present Value	(\$303)		
B/C Ratio	0.36		
Revenue Requirements B/C Results			
Net Present Value	\$54		
B/C Ratio	1.47		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation	X		
End-Use Target (%)			
Lighting	100%		
Process	0%		
Motor	0%		
Refrigeration	0%		
Space Cooling	0%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$7,286		\$7,286
Utility Administration	\$39,495		\$39,495
Other Project Administration	\$0		\$0
Advertising/Promotion	\$196,831		\$196,831
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$0		\$0
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$243,612	\$0	\$243,612
Total Number of Participants	40,086		
Total En. Savings-Generator (kWh)	1,825,169		
Total En. Savings-Meter (kWh)	1,679,156		
Total Demand Savings Generator (kW)	73		
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer	100%		
Low Income			
Low-Income Participation (%)			
Participants (#)	401		
Budget (\$)	2,436		
Renter Participation (%)			
Participants (#)	200		
Budget (\$)	1,218		
Societal B/C Results			
Net Present Value	\$62		
B/C Ratio	1.46		
Participant B/C Results			
Net Present Value	\$344		
B/C Ratio	19.10		
Rate Impact B/C Results			
Net Present Value	(\$305)		
B/C Ratio	0.36		
Revenue Requirements B/C Results			
Net Present Value	\$57		
B/C Ratio	1.50		
Project Type			
Audit/Info			
R&D			
Renewable			
Direct Impact	X		
Type of Incentive			
Loan/Grant			
Rebate			
Direct Installation	X		
End-Use Target (%)			
Lighting	100%		
Process	0%		
Motor	0%		
Refrigeration	0%		
Space Cooling	0%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

► Residential Segment Home Lighting Direct Purchase

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$17	\$17	\$17	\$17
T & D	N/A	\$10	\$10	\$10	\$10
Marginal Energy	N/A	\$141	\$141	\$141	\$141
Externality Willingness	N/A	N/A	N/A	N/A	\$22
Subtotal	N/A	\$168	\$168	\$168	\$190
Xcel Energy's Project Costs					
Subtotal	N/A	\$114	\$114	\$114	\$114
Revenue Reduction	\$357	N/A	\$357	N/A	N/A
Subtotal	\$357	N/A	\$357	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$19	N/A	N/A	\$19	\$19
Incremental O&M	\$0	N/A	N/A	0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$19	N/A	N/A	\$19	\$19
Net Present Benefit (Cost)	\$338	\$54	(\$303)	\$35	\$58
Net Benefit (Cost) per kWh Lifetime	\$0.049	\$0.008	(\$0.044)	\$0.005	\$0.008
Net Present Benefit (Cost) per Generator	\$9,868	\$1,575	(\$8,847)	\$1,021	\$1,677
Benefit Cost Ratio	18.81	1.47	0.36	1.26	1.43

Project Assumptions:

Measure Lifetime (Years)	8
Customer Rate	Residential Service
(A) Gross Load Factor at Customer (LF)	9.02%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	790
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	790
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	859
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	3.16%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.034
kWh/Year Saved at Customer per unit	43
kWh/Year Saved at Generator per unit	47
Reduction at Customer kW/unit	0.054
Peak Reduction at Generator kW/unit	0.034

* Xcel Energy Project Cost per kWh Lifetime

\$0.017

* Xcel Energy Project Cost per kW at Gen

\$3,323.3

➤ Residential Segment Home Lighting Direct Purchase

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$18	\$18	\$18	\$18
T & D	N/A	\$10	\$10	\$10	\$10
Marginal Energy	N/A	\$144	\$144	\$144	\$144
Externality Willingness	N/A	N/A	N/A	N/A	\$23
Subtotal	N/A	\$172	\$172	\$172	\$195
Xcel Energy's Project Costs					
Subtotal	N/A	\$115	\$115	\$115	\$115
Revenue Reduction	\$363	N/A	\$363	N/A	N/A
Subtotal	\$363	N/A	\$363	N/A	N/A
Participants' Net Costs					
Incremental Capital	\$19	N/A	N/A	\$19	\$19
Incremental O&M	\$0	N/A	N/A	0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$19	N/A	N/A	\$19	\$19
Net Present Benefit (Cost)	\$344	\$57	(\$305)	\$38	\$62
Net Benefit (Cost) per kWh Lifetime	\$0.050	\$0.008	(\$0.044)	\$0.006	\$0.009
Net Present Benefit (Cost) per Generator	\$10,024	\$1,675	(\$8,903)	\$1,121	\$1,793
Benefit Cost Ratio	19.10	1.50	0.36	1.29	1.46

Project Assumptions:

Measure Lifetime (Years)	8
Customer Rate	Residential Service
(A) Gross Load Factor at Customer (LF)	9.02%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	790
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	790
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	859
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	3.16%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.034
kWh/Year Saved at Customer per unit	43
kWh/Year Saved at Generator per unit	47
Reduction at Customer kW/unit	0.054
Peak Reduction at Generator kW/unit	0.034

* Xcel Energy Project Cost per kWh Lifetime

\$0.017

* Xcel Energy Project Cost per kW at Gen

\$3,342.3

Residential Segment Home Lighting Direct Purchase

	2005	2006
(A) Gross Customer kW reduction per participant	0.053	0.053
(B1) Free Driver/Free Rider Factor (Demand)	1.0	1.0
(C) Net Customer kW reduction per participant: (A)*(B1)=	0.053	0.053
(D) Coincident factor	3.16%	3.16%
(E) Transmission Loss Factor	8.0%	8.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.00	0.00
(G) Gross kWh/Year saved per Customer kW	790	790
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	42	42
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	42	42
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	46	46
(K) Estimated participant penetration rates	40,086	40,086
Total Gross customer kW reduction: (A)*(K)=	2,125	2,125
Total Net Customer kW reduction: (C)*(K)=	2,125	2,125
Total Net Summer Generator kW reduction: (F)*(K)=	73	73
Total Gross kWh reduction at Customer per year: (H)*(K)=	1,679,156	1,679,156
Total Net kWh reduction at Customer per year: (I)*(K)=	1,679,156	1,679,156
Total Net kWh reduction at Generator per year: (J)*(K)=	1,825,169	1,825,169
Total Budget	\$ 242,225	\$ 243,612

Xcel Energy
Residential Lamp Recycling
Project Information Sheet

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$105,052		\$105,052
Utility Administration	\$5,683		\$5,683
Other Project Administration	\$0		\$0
Advertising/Promotion	\$15,000		\$15,000
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$0		\$0
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$125,735	\$0	\$125,735
Total Number of Participants	125,546		
Total En. Savings-Generator (kWh)			
Total En. Savings-Meter (kWh)			
Total Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer	100%		
Low Income			
Low-Income Participation (%)			
Participants (#)	1,255		
Budget (\$)	1,257		
Renter Participation (%)			
Participants (#)	628		
Budget (\$)	629		
Societal B/C Results			
Net Present Value			
B/C Ratio			
Participant B/C Results			
Net Present Value			
B/C Ratio			
Rate Impact B/C Results			
Net Present Value			
B/C Ratio			
Revenue Requirements B/C Results			
Net Present Value			
B/C Ratio			
Project Type			
Audit/Info	X		
R&D			
Renewable			
Direct Impact			
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting	100%		
Process	0%		
Motor	0%		
Refrigeration	0%		
Space Cooling	0%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$105,204		\$105,204
Utility Administration	\$5,854		\$5,854
Other Project Administration	\$0		\$0
Advertising/Promotion	\$15,000		\$15,000
Evaluations	\$0		\$0
R&D	\$0		\$0
Incentives (Rebates)	\$0		\$0
Other	\$0		\$0
Less Revenues	\$0		\$0
Total Budget	\$126,058	\$0	\$126,058
Total Number of Participants	125,546		
Total En. Savings-Generator (kWh)			
Total En. Savings-Meter (kWh)			
Total Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer	100%		
Low Income			
Low-Income Participation (%)			
Participants (#)	1,255		
Budget (\$)	1,261		
Renter Participation (%)			
Participants (#)	628		
Budget (\$)	630		
Societal B/C Results			
Net Present Value			
B/C Ratio			
Participant B/C Results			
Net Present Value			
B/C Ratio			
Rate Impact B/C Results			
Net Present Value			
B/C Ratio			
Revenue Requirements B/C Results			
Net Present Value			
B/C Ratio			
Project Type			
Audit/Info	X		
R&D			
Renewable			
Direct Impact			
Type of Incentive			
Loan/Grant			
Rebate	X		
Direct Installation			
End-Use Target (%)			
Lighting	100%		
Process	0%		
Motor	0%		
Refrigeration	0%		
Space Cooling	0%		
Space Heating	0%		
Water Heating	0%		
Weatherization	0%		
General/Other	0%		
Rate-making treatment: expensed	X		

Type of Measure	High Efficiency Product/ Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Electric Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate of Annual Customer kWh Savings	Estimate of Customer kW Savings	Estimate of Peak Generator kW Savings
Res Energy Star Electric													
Central A/C	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	8,888	Customer kW	Res. Rate	18	\$438	\$715	384	0.685	0.494
Room A/C	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	80	Customer kW	Res. Rate	13	\$375	\$750	239	0.080	0.087
Ground Source Heat Pumps	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	4	Customer kW	Res. Rate	18	\$269	\$654	384	1.250	0.637
Air Source Heat Pumps	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	19	Customer kW	Res. Rate	18	\$170	\$284	384	0.864	0.440
Res Home Lighting Direct Purchase													
Home Lighting Direct Purchase	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	2,125	Customer kW	Res. Rate	8	\$0	\$19	790	0.053	0.002

Type of Measure	High Efficiency Product / Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Gas Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost	Estimate O&M Savings per participant per yr	Estimate of MCF Savings per Participant	Present MCF Consumption per Participant
Res Energy Star Gas													
Heating System Rebate	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	70,800	MCF	Residential Firm Service	15	\$7	\$621	\$0	12	104.000
Res High Efficiency Showerheads													
Showerheads	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	27,580	MCF	Residential Firm Service	15	\$0	\$0	\$0	2	9.923
Res Home Efficiency													
Home Efficiency	New or Misc. Systems	New or Misc. Systems	Old or less Eff.	Old or less Eff.	13,945	MCF	Residential Firm Service	15	\$0	\$1,570	\$0	56	180.800

➤ Residential Segment Load Management

A. Description

Saver's Switch[®], the sole residential load management product, offers consumers a rate discount for helping Xcel Energy manage electric peak demand periods during the summer months. A small control device is installed at the consumer's home that allows Xcel Energy to remotely cycle their enrolled equipment on and off during peak demand periods. Consumers with central air conditioning or central air conditioning and an electric water heating are eligible to participate.

1. Saver's Switch

Saver's Switch has been a successful product for Xcel Energy since it originated in 1990. It has helped reduce the impact of escalating demand for peak electricity. As a result, all Xcel Energy consumers have benefited from peak day load reduction, which helps provide reliable electricity.

Participants on the air conditioning program receive a 15 percent discount on their June through September electric energy charges. Participants receive an additional two percent discount on their electric energy charges for electric bills issued throughout the year (January – December) for enrolling their electric water heater.

Saver's Switch is promoted through mass-market channels. All consumers are informed about the program via direct mail, bill inserts, the Internet and telemarketing.

In addition to installing new Saver's Switch units and maintaining existing units that have failed, the Company's hardware vendor has identified a faulty microprocessor chip that could lead to an increased failure rate for units installed or maintained in 2001-02. The vendor has agreed to fund expenses related to replacing the faulty microprocessor.

Xcel Energy will update the replaced units with a new adaptive algorithm technology that was implemented in 2004. This will increase load relief over the standard technology that was installed through 2003 and improve program integrity. Xcel Energy will fund the costs related to the upgrade in technology since the original units were purchased with the standard technology.

Modifications:

In Xcel Energy's continuing effort to maximize the Saver's Switch product's effectiveness, the Company has developed a new approach to cycling central air conditioning units. The new technology would shift the control methodology from 15 minutes on/15 minutes off to a control amount necessary to achieve a 50 percent reduction in demand per air conditioner during the control period. The result will be increased load reduction per switch and increased customer satisfaction for customers with properly sized air conditioners.

On May 26, 2004, the Minnesota Public Utilities Commission approved the Company's request to modify its residential Saver's Switch tariff to allow the operation of the new switch using the different control methodology. The new technology will be installed on new participants' central air conditioners and as part of ongoing maintenance to existing switches.

B. Project Information Sheet

Project Information Sheets are provided at the end of this section.

C. Effect on Peak Demand and Energy Consumption & List of Assumptions for each Technology

Effects on peak demand and energy consumption are provided in the Project Information Sheets and Benefit/Cost Analyses located at the end of this section. Technology assumptions are also provided at the end of this section.

D. Relationship of Program to Resource Plan

As part of Xcel Energy's Conservation Improvement Program, this program will support attainment of Xcel Energy's Resource Plan DSM goals. Not applicable to natural gas utilities.

E. Cost Effectiveness

See Project Information Sheet.

F. Estimated Low-Income and Renter Participation

See Project Information Sheet.

G. Budget

See Project Information Sheet.

H. Ratemaking Treatment & Cost-Recovery Method

The ratemaking and cost-recovery procedures for this CIP follow those approved by the Minnesota Public Utilities Commission in Docket Nos. E002/GR-92-1185, G002/GR-97-1606, and E,G-999/CI-98-1759.

I. Participation

See Project Information Sheet.

J. Involvement of Community Energy Organizations

Saver's Switch installation vendors are selected through competitive bid. Selected vendors are local electrical contractors who provide installation, service and maintenance support.

K. Evaluation Plan

Load Research evaluations are conducted annually to verify load reduction for forecasting purposes. Continual review of accomplishments and expenditures are made throughout the year to verify conservation achievements and cost effectiveness. Saver's Switch equipment inventory will be reconciled on a monthly and quarterly basis as part of a process improvement plan started in 2003.

L. Renewable Energy Information

N/A.

M. Additional Information

None.

➤ Residential Segment Saver's Switch

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$176	\$176	\$176	\$176
T & D	N/A	\$106	\$106	\$106	\$106
Marginal Energy	N/A	\$3	\$3	\$3	\$3
Externality Willingness	N/A	N/A	N/A	N/A	\$0
Subtotal	N/A	\$285	\$285	\$285	\$285
Xcel Energy's Project Costs					
	N/A	\$52	\$52	\$52	\$52
Subtotal	N/A	\$52	\$52	\$52	\$52
Revenue Reduction					
	\$281	N/A	\$281	\$0	\$0
Subtotal	\$281	N/A	\$281	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	\$0	N/A	N/A	\$0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$281	\$234	(\$47)	\$234	\$234
Net Benefit (Cost) per kWh Lifetime	\$3.878	\$3.223	(\$0.655)	\$3.223	\$3.225
Net Present Benefit (Cost) per Generator	\$1,182	\$982	(\$200)	\$982	\$983
Benefit Cost Ratio	INF	5.52	0.86	5.52	5.52

Project Assumptions:

Measure Lifetime (Years)	15
(A) Gross Load Factor at Customer (LF)	0.05%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	4
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	4
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	5
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	21.87%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.238
kWh/Year Saved at Customer per unit	13
kWh/Year Saved at Generator per unit	15
Reduction at Customer kW/unit	3.009
Peak Reduction at Generator kW/unit	0.658

* Xcel Energy Project Cost per kWh Lifetime

\$0.713

* Xcel Energy Project Cost per kW at Gen

\$217.2

➤ Residential Segment Saver's Switch

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$180	\$180	\$180	\$180
T & D	N/A	\$109	\$109	\$109	\$109
Marginal Energy	N/A	\$3	\$3	\$3	\$3
Externality Willingness	N/A	N/A	N/A	N/A	\$0
Subtotal	N/A	\$292	\$292	\$292	\$292
Xcel Energy's Project Costs					
Subtotal	N/A	\$52	\$52	\$52	\$52
Revenue Reduction	\$285	N/A	\$285	\$0	\$0
Subtotal	\$285	N/A	\$285	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$0	N/A	N/A	\$0	\$0
Incremental O&M	\$0	N/A	N/A	\$0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$0	N/A	N/A	\$0	\$0
Net Present Benefit (Cost)	\$285	\$241	(\$45)	\$241	\$241
Net Benefit (Cost) per kWh Lifetime	\$3.937	\$3.320	(\$0.617)	\$3.320	\$3.322
Net Present Benefit (Cost) per Generator	\$1.200	\$1.012	(\$188)	\$1,012	\$1,013
Benefit Cost Ratio	INF	5.66	0.87	5.66	5.67

Project Assumptions:

Measure Lifetime (Years)	15
(A) Gross Load Factor at Customer (LF)	0.05%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	4
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	4
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	5
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	21.87%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.238
kWh/Year Saved at Customer per unit	13
kWh/Year Saved at Generator per unit	15
Reduction at Customer kW/unit	3.009
Peak Reduction at Generator kW/unit	0.658

* Xcel Energy Project Cost per kWh Lifetime

\$0.712

* Xcel Energy Project Cost per kW at Gen

\$217.0

Residential Segment Saver's Switch

	2005	2006
(A) Gross Customer kW reduction per participant	3.01	3.01
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	3.01	3.01
(D) Coincident factor	21.9%	21.9%
(E) Transmission Loss Factor	8.0%	8.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(1-E)=	0.72	0.72
(G) Gross kWh/Year saved per Customer kW	4	4
(H) Gross kWh reduction per participant at Customer per year: (A)*(G)=	13	13
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)=	13	13
(J) Net kWh reduction per participant at Generator per year: (I)/(1-E)=	15	15
(K) Estimated participant penetration rates	35,100	35,100
Total Gross customer kW reduction: (A)*(K)=	105,602	105,602
Total Net Customer kW reduction: (C)*(K)=	105,602	105,602
Total Net Summer Generator kW reduction: (F)*(K)=	25,105	25,105
Total Gross kWh reduction at Customer per year: (H)*(K)=	469,255	469,255
Total Net kWh reduction at Customer per year: (I)*(K)=	469,255	469,255
Total Net kWh reduction at Generator per year: (J)*(K)=	510,060	510,060
Total Budget	\$ 5,453,902	\$ 5,447,446

Type of Measure	High Efficiency Product / Technology Description	Efficient Product Efficiency Level	Baseline Product/ Technology Description	Baseline Product Efficiency Level	Expected Annual Product Volume	Units	Electric Rate	Life of Product (years)	Rebate Level	Estimate of Participant's Incremental Cost*	Estimate of Annual Customer kWh Savings	Estimate of Customer kW Savings	Estimate of Peak Generator kW Savings
Res Saver's Switch													
New Installation - A/C Only	Utility load control of air conditioner	Not Applicable	No air conditioner load control	Not Applicable	30,000	Customer kW	Res AC Rate	15	Not Applicable	\$0	8	3.000	1.272
New Installation - A/C and Water Heater	Utility load control of air conditioner & electric water heater	Not Applicable	No air conditioner/water heater load control	Not Applicable	602	Customer kW	Res AC-Wtr Rate	15	Not Applicable	\$0	7	6.020	1.592
Maintenance	Utility load control of air conditioner	Not Applicable	Bad air conditioner load control	Not Applicable	75,000	Customer kW	Res AC Rate	15	Not Applicable	\$0	3	3.000	0.489

➤ Low-Income Energy Services Segment

A. Description

The Low-Income Energy Services Segment consists of the Low-Income Weatherization Program. This product analyzes gas and electric consumption for low-income customers and provides certain products that assist in lowering energy bills. Funding sources for the program remain separated by gas and electric and the benefits are determined by the services provided by Xcel Energy. Customers served by Xcel Energy gas and electric service will have access to CIP funded improvements that cover both commodities.

A major component of the program is home energy education. Trained agency employees provide education materials and explain customer's energy usage. Xcel Energy does not claim energy savings associated with the education component, but positive feedback from agencies and customers has been positive. Basic materials such as refrigerator thermometers and cleaning brushes are left for the customers use.

Program Components

The proposed product will follow current state and federal guidelines for weatherization as designed and modified by the Federal Department of Energy (DOE) Low-Income Weatherization Assistance Program (WAP). Major components of weatherization services include:

- DOE standard energy audit including a blower door test;
- Mechanical repairs to ensure safety prior to weatherization work;
- Detailed specifications for all weatherization measures;
- Work assigned to appropriate contractors;
- Sidewall and attic insulation;
- Insulation of tuck-under garages, foundations, crawlspaces, and rim joists where needed;
- Blower door-assisted air sealing;
- Outdoor venting of dryers and exhaust fans;
- Quality control through inspections and on-site supervision;
- Post-work diagnostic mechanical testing; and
- Client satisfaction through follow-up inspections and surveys.

In addition to the DOE prescribed weatherization components, Xcel Energy's Weatherization product proposes to also include the following:

1. Limited funding for furnace replacement

Heating system replacements would be allowed only for income eligible, owner-occupied residences and would follow the same rules as those for heating system replacements through the ENERGY STAR Program. Customers experiencing an immediate health and safety issue may receive priority. Xcel Energy does require prior approval for all special circumstances.

Total funding for heating system replacement through the Low-Income Weatherization product would be limited to \$120,000 (50 participants @ \$2,400).

2. Limited funding for refrigerator, freezer, and air conditioner recycling and/or replacement

Xcel Energy contracted agencies will perform energy audits and analysis of energy consumption. As part of this analysis, refrigerators, freezers and air conditioners may be tested for energy efficiency. If these appliances meet the criteria for replacement, Xcel Energy will provide a new appliance to the household. For refrigerators and freezers, a co-payment will be required for a period of ten months. An air conditioner will be replaced at no cost to the household. Xcel Energy works with appliance provider if special circumstances exist with installation. However, prior approval is needed for any variations.

All work will be specified on a house-by-house basis, with the auditor and/or crew determining the most efficient, cost-effective measures and the method of installation.

Administration

The proposed product will continue to be administered through community action agencies (CAAs) throughout Xcel Energy's service territory in Minnesota. Because the CAAs are able to combine Xcel Energy's weatherization funding with the DOE Weatherization Assistance funding, Emergency-Related Repair funding, and other agencies' funding, and because they have the infrastructure in place to effectively deliver weatherization services, Xcel Energy believes they are best positioned to deliver necessary weatherization services to the target market. Xcel Energy continues to work with providers in effort to provide comprehensive services to low-income

Eligibility Requirements

Qualifying participants must meet the following requirements:

- Participant must be an Xcel Energy electric or natural gas customer living in Minnesota,
- Participant must be a residential customer (four-unit dwelling or less),
- Participant must be a single-family homeowner or an owner or renter of a one- to four-unit rental property (renters must have landlord/owner approval. For rental properties with a single meter, Xcel Energy will fund 50 percent up to \$2,500).
- Majority of participant's income must be equal to or less than 50 percent of the state median income guideline, and
- For refrigerator, freezer and air conditioner replacement, participant must have Xcel Energy electric service.

Please see attached "Allowed Measures" table for specific fuel requirements for certain electric and natural gas weatherization measures.

Marketing

The primary method used to attract participants to this product is referrals. The majority of referrals come from the Energy Assistance Program with additional

referrals anticipated through collaboration with Energy Cents Coalition and the Home Energy Audit product. In addition to referrals, two articles will be placed in newsletters accompanying customers' bills. If additional marketing is needed, direct mail will be utilized.

Modifications:

None

B. Project Information Sheet

Project Information Sheets are provided at the end of this section.

C. Effect on Peak Demand and Energy Consumption & List of Assumptions for each Technology

Effects on peak demand and energy consumption are provided in the Project Information Sheets and Benefit/Cost Analyses located at the end of this section. Technology assumptions are also provided at the end of this section.

D. Relationship of Program to Resource Plan

As part of Xcel Energy's Conservation Improvement Program, this program will support attainment of Xcel Energy's Resource Plan DSM goals. Not applicable to natural gas utilities.

E. Cost Effectiveness

See Project Information Sheet.

F. Estimated Low-Income and Renter Participation

This product is designed exclusively for low-income customers. See the Project Information Sheet for more details on low-income and renter participation and budgets.

G. Budget

See Project Information Sheet.

H. Ratemaking Treatment & Cost-Recovery Method

The ratemaking and cost-recovery procedures for this CIP follow those approved by the Minnesota Public Utilities Commission in Docket Nos. E002/GR-92-1185, G002/GR-97-1606, and E,G-999/CI-98-1759.

I. Participation

See Project Information Sheet.

J. Involvement of Community Energy Organizations

This product will be administered through community organizations in Xcel Energy's Minnesota service territory.

K. Evaluation Plan

Xcel Energy will support local evaluation plans of agencies that may measure all services provided to a household. Xcel Energy also recognizes that the MN Department of

Commerce will be conducting a comprehensive analysis of CIP programs, including low-income gas and electric programs.

L. Renewable Energy Information
N/A

M. Additional Information
None.

**Xcel Energy
Low Income Energy Services
Project Information Sheet**

	2005 Budget			2006 Budget		
	Electric	Gas	Total	Electric	Gas	Total
Cost Components						
Project Delivery	\$805,000	\$696,158	\$1,501,158	\$805,000	\$696,208	\$1,501,208
Utility Administration	\$0	\$680	\$680	\$0	\$700	\$700
Other Project Administration	\$9,300	\$5,400	\$14,700	\$9,300	\$5,400	\$14,700
Advertising/Promotion	\$10,000	\$4,000	\$14,000	\$10,000	\$4,000	\$14,000
Evaluations	\$0	\$0	\$0	\$0	\$0	\$0
R&D	\$0	\$0	\$0	\$0	\$0	\$0
Incentives (Rebates)	\$0	\$11,000	\$11,000	\$0	\$11,000	\$11,000
Other	\$0	\$0	\$0	\$0	\$0	\$0
Less Revenues	(\$67,500)	\$0	(\$67,500)	(\$67,500)	\$0	(\$67,500)
Total Budget	\$756,800	\$717,238	\$1,474,038	\$756,800	\$717,308	\$1,474,108
Total Number of Participants	5,490	501		5,490	501	
Total En. Savings-Generator (kWh)	1,098,160			1,098,160		
Total En. Savings-Meter (kWh)	1,010,307			1,010,307		
Total Demand Savings Generator (kW)	113			113		
Total Natural Gas Energy Savings (MCF)		11,277			11,277	
Project Type Percentage Expenditure						
Commercial & Industrial						
Small Business						
Consumer						
Low Income	100%			100%		
Low-Income Participation (%)						
Participants (#)	55	10		55	10	
Budget (\$)	7,568	14,345		7,568	14,346	
Renter Participation (%)						
Participants (#)	27	5		27	5	
Budget (\$)	3,784	7,172		3,784	7,173	
Societal B/C Results						
Net Present Value	(\$583)	\$36,131		(\$575)	\$36,131	
B/C Ratio	0.36	1.03		0.36	1.03	
Participant B/C Results						
Net Present Value	\$287	\$2,032,631		\$294	\$2,032,631	
B/C Ratio	2.36	550.58		2.40	550.58	
Rate Impact B/C Results						
Net Present Value	(\$901)	(\$716,589)		(\$902)	(\$716,589)	
B/C Ratio	0.24	0.63		0.25	0.63	
Revenue Requirements B/C Results						
Net Present Value	(\$404)	(\$43,192)		(\$397)	(\$43,192)	
B/C Ratio	0.42	0.97		0.43	0.97	
Project Type						
Audit/Info						
R&D						
Renewable						
Direct Impact	X	X		X	X	
Type of Incentive						
Loan/Grant						
Rebate	X	X		X	X	
Direct Installation						
End-Use Target (%)						
Lighting	24%	0%		24%	0%	
Process	0%	0%		0%	0%	
Motor	0%	0%		0%	0%	
Refrigeration	39%	0%		39%	0%	
Space Cooling	5%	0%		5%	0%	
Space Heating	0%	0%		0%	0%	
Water Heating	0%	0%		0%	0%	
Weatherization	32%	100%		32%	100%	
General/Other	0%	0%		0%	0%	
Rate-making treatment: expensed	X	X		X	X	

➤ Low Income Energy Services

Net Present Worth Benefit Analysis 2005 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$63	\$63	\$63	\$63
T & D	N/A	\$37	\$37	\$37	\$37
Marginal Energy	N/A	\$191	\$191	\$191	\$191
Externality Willingness	N/A	N/A	N/A	N/A	\$31
Subtotal	N/A	\$291	\$291	\$291	\$322
Xcel Energy's Project Costs					
	N/A	\$695	\$695	\$695	\$695
Subtotal	N/A	\$695	\$695	\$695	\$695
Revenue Reduction	\$497	N/A	\$497	\$0	\$0
Subtotal	\$497	N/A	\$497	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$210	N/A	N/A	\$210	\$210
Incremental O&M	\$0	N/A	N/A	0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$210	N/A	N/A	\$210	\$210
Net Present Benefit (Cost)	\$287	(\$404)	(\$901)	(\$614)	(\$583)
Net Benefit (Cost) per kWh Lifetime	\$0.030	(\$0.043)	(\$0.095)	(\$0.065)	(\$0.061)
Net Present Benefit (Cost) per Generator	\$2,753	(\$3,879)	(\$8,650)	(\$5,897)	(\$5,596)
Benefit Cost Ratio	2.36	0.42	0.24	0.32	0.36

Project Assumptions:

Measure Lifetime (Years)	9
Customer Rate	Residential Service
(A) Gross Load Factor at Customer (LF)	10.59%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	928
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	928
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	1,008
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	9.59%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.104

* Xcel Energy Project Cost per kWh Lifetime

\$0.073

* Xcel Energy Project Cost per kW at Gen

\$6,670.2

➤ Low Income Energy Services

Net Present Worth Benefit Analysis 2006 Cost Benefit Summary Analysis For One Customer kW

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	\$64	\$64	\$64	\$64
T & D	N/A	\$38	\$38	\$38	\$38
Marginal Energy	N/A	\$196	\$196	\$196	\$196
Externality Willingness	N/A	N/A	N/A	N/A	\$32
Subtotal	N/A	\$298	\$298	\$298	\$330
Xcel Energy's Project Costs					
Subtotal	N/A	\$695	\$695	\$695	\$695
Revenue Reduction	\$505	N/A	\$505	\$0	\$0
Subtotal	\$505	N/A	\$505	\$0	\$0
Participants' Net Costs					
Incremental Capital	\$210	N/A	N/A	\$210	\$210
Incremental O&M	\$0	N/A	N/A	0	\$0
Rebates	\$0	N/A	N/A	\$0	\$0
Subtotal	\$210	N/A	N/A	\$210	\$210
Net Present Benefit (Cost)	\$294	(\$397)	(\$902)	(\$607)	(\$575)
Net Benefit (Cost) per kWh Lifetime	\$0.031	(\$0.042)	(\$0.095)	(\$0.064)	(\$0.060)
Net Present Benefit (Cost) per Generator	\$2,825	(\$3,811)	(\$8,654)	(\$5,829)	(\$5,520)
Benefit Cost Ratio	2.40	0.43	0.25	0.33	0.36

Project Assumptions:

Measure Lifetime (Years)	9
Customer Rate	Residential Service
(A) Gross Load Factor at Customer (LF)	10.59%
(B) Gross kWh/Year saved per Customer kW: (A)*(8760)=	928
(C) Free Driver/Free Rider Factor (Energy)	100.0%
(D) Net kWh/Year saved per Customer kW: (B)*(C)=	928
(E) Transmission Loss Factor	8.0%
Net kWh/Year Saved at Generator per Customer kW: (D)/(1-(E))=	1,008
(F) Gross Customer kW	1
(C1) Free Driver/Free Rider Factor (Demand)	100.0%
(G) Net Customer kW: (F)*(C)=	1.000
(H) Coincidence Factor at Generator	9.59%
Generator Adjusted kW: (G)*(H)/(1-(E))=	0.104

* Xcel Energy Project Cost per kWh Lifetime

\$0.073

* Xcel Energy Project Cost per kW at Gen

\$6,670.2

Low Income Energy Services

	2005	2006
(A) Gross Customer kW reduction per participant	0.20	0.20
(B1) Free Driver/Free Rider Factor (Demand)	100.0%	100.0%
(C) Net Customer kW reduction per participant: (A)*(B1)=	0.20	0.20
(D) Coincident factor	9.6%	9.6%
(E) Transmission Loss Factor	8.0%	8.0%
(F) Net Summer Generator kW reduction per participant: (C)*(D)/(0.02	0.02
(G) Gross kWh/Year saved per Customer kW	928	928
(H) Gross kWh reduction per participant at Customer per year: (A)*	184	184
(B) Free Driver/Free Rider Factor (Energy)	100.0%	100.0%
(I) Net kWh reduction per participant at Customer per year: (B)*(H)	184	184
(J) Net kWh reduction per participant at Generator per year: (I)/(1-I	200	200
(K) Estimated participant penetration rates	5,490	5,490
Total Gross customer kW reduction: (A)*(K)=	1,089	1,089
Total Net Customer kW reduction: (C)*(K)=	1,089	1,089
Total Net Summer Generator kW reduction: (F)*(K)=	113	113
Total Gross kWh reduction at Customer per year: (H)*(K)/1000=	1,010,307	1,010,307
Total Net kWh reduction at Customer per year: (I)*(K)/1000=	1,010,307	1,010,307
Total Net kWh reduction at Generator per year: (J)*(K)/1000=	1,098,160	1,098,160
Total Budget	\$ 756,800	\$ 756,800

Conservation Improvement Program (CIP)

Company: Xcel Energy (Natural Gas)
 Project: Low-Income Energy Services Segment

Input Data

1) Retail Rate (\$/MCF) =	\$8.82
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$24,001
Direct Operating Costs =	\$682,237
Incentive Costs =	\$11,000
Total Utility Project Costs =	\$717,238
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$24,071
Direct Operating Costs =	\$682,237
Incentive Costs =	\$11,000
Total Utility Project Costs =	\$717,308
16) Direct Participant Costs (\$/Part.) =	\$60.74
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	20.35%
20) Avg. Consumption (MCF/Part.) =	110.51
21) Avg. MCF/Part. Saved (First Year Program) =	22.49
21a) Avg. MCF/Part. Saved (Second Year Program) =	22.49
22) Number of Participants (First Year Program) =	501
22a) Number of Participants (Second Year Program) =	501
23) Incentive/Participant (First Year Program) =	\$22
23a) Incentive/Participant (Second Year Program) =	\$22

**Conservation Improvement Program (CIP)
 BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis**

Summary Information

Company: Xcel Energy (Natural Gas)
 Project:

Cost Summary

Utility Cost per Participant (First Year) =	\$1,433.04
Utility Cost per participant (Second Year) =	\$1,433.18
Total Energy Reduction (MCF)	337,669
Societal Cost per MCF	\$3.92
Cost per Participant per MCF (First Year) =	\$66.42
Cost per Participant per MCF (Second Year) =	\$66.43

Test Results

	NPV	B/C
Cost Comparison Test	(\$726,261)	0.64
Revenue Requirements Test	(\$9,614)	0.99
Societal Benefit Test	\$39,954	1.03
Participant Test	\$2,125,652	34.89

Conservation Improvement Program (CIP)

Company: **Xcel Energy (Natural Gas)**
 Project: **Low-Income Weatherization**

Input Data

1) Retail Rate (\$/MCF) =	\$8.82
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2008
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$10,763
Direct Operating Costs =	\$682,237
Incentive Costs =	\$0
Total Utility Project Costs =	\$693,000
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$10,763
Direct Operating Costs =	\$682,237
Incentive Costs =	\$0
Total Utility Project Costs =	\$693,000
16) Direct Participant Costs (\$/Part.) =	\$0.00
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	20.00%
20) Avg. Consumption (MCF/Part.) =	110.00
21) Avg. MCF/Part. Saved (First Year Program) =	22.00
21a) Avg. MCF/Part. Saved (Second Year Program) =	22.00
22) Number of Participants (First Year Program) =	481
22a) Number of Participants (Second Year Program) =	481
23) Incentive/Participant (First Year Program) =	\$0
23a) Incentive/Participant (Second Year Program) =	\$0

Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: **Xcel Energy (Natural Gas)**
 Project: **Low-Income Weatherization**

Cost Summary

Utility Cost per Participant (First Year) =	\$1,442.25
Utility Cost per participant (Second Year) =	\$1,440.75
Total Energy Reduction (MCF)	317,295
Societal Cost per MCF	\$3.92
Cost per Participant per MCF (First Year) =	\$65.56
Cost per Participant per MCF (Second Year) =	\$65.49

Test Results

	NPV	B/C
Cost Comparison Test	(\$716,589)	0.63
Revenue Requirements Test	(\$43,192)	0.97
Societal Benefit Test	\$36,131	1.03
Participant Test	\$2,032,631	550.58

Conservation Improvement Program (CIP)

Company: **Xcel Energy (Natural Gas)**
 Project: **Low-Income Home Efficiency**

Input Data

1) Retail Rate (\$/MCF) =	\$8.82
Escalation Rate =	2.10%
2) Commodity Cost (\$/MCF) =	\$4.58
Escalation Rate =	2.10%
3) Demand Cost (\$/Unit/Yr) =	\$93.86
Escalation Rate =	2.10%
4) Peak Reduction Factor =	1.00%
5) Variable O&M (\$/MCF) =	\$0.0761
Escalation Rate =	2.10%
6) Environmental Damage Factor =	\$0.3000
Escalation Rate =	2.17%
7) Total Sales =	78,428,047
Growth Rate =	0.60%
8) Total Customers =	395,842
Growth Rate =	2.20%
9) Utility Discount Rate =	7.47%
10) Social Discount Rate =	4.72%
11) General Input Data Year =	2003
12) Project Analysis Year 1 =	2005
12a) Project Analysis Year 2 =	2006
13) Effective Fed & State Income Tax Rate =	41.37%
14) Net Operating Income Before Taxes as % Total Operating Income	6.75%

BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

15) Utility Project Costs (First Year)	
Administrative Costs =	\$13,238
Direct Operating Costs =	\$0
Incentive Costs =	\$11,000
Total Utility Project Costs =	\$24,238
15a) Utility Project Costs (Second Year)	
Administrative Costs =	\$13,308
Direct Operating Costs =	\$0
Incentive Costs =	\$11,000
Total Utility Project Costs =	\$24,308
16) Direct Participant Costs (\$/Part.) =	\$1,520.00
17) Other Participant Costs (Annual \$/Part.) =	\$0.00
Escalation Rate =	2.10%
18) Project Life (Years) =	15
19) Avg. Energy Reduction (Project) =	28.74%
20) Avg. Consumption (MCF/Part.) =	122.80
21) Avg. MCF/Part. Saved (First Year Program) =	35.29
21a) Avg. MCF/Part. Saved (Second Year Program) =	35.29
22) Number of Participants (First Year Program) =	20
22a) Number of Participants (Second Year Program) =	20
23) Incentive/Participant (First Year Program) =	\$550
23a) Incentive/Participant (Second Year Program) =	\$550

Conservation Improvement Program (CIP)
BENCOST FOR GAS CIPS-- Cost-Effectiveness Analysis

Summary Information

Company: **Xcel Energy (Natural Gas)**
 Project: **Low-Income Home Efficiency**

Cost Summary

Utility Cost per Participant (First Year) =	\$1,211.90
Utility Cost per participant (Second Year) =	\$1,215.40
Total Energy Reduction (MCF)	21,176
Societal Cost per MCF	\$3.70
Cost per Participant per MCF (First Year) =	\$77.41
Cost per Participant per MCF (Second Year) =	\$77.51

Test Results

	<u>NPV</u>	<u>B/C</u>
Cost Comparison Test	(\$8,345)	0.91
Revenue Requirements Test	\$36,597	1.84
Societal Benefit Test	\$7,043	1.09
Participant Test	\$98,416	2.68

➤ Planning & Research Segment

A. Description¹⁵

The Planning and Research Segment is a revised version of the Research, Planning and Development Segment included in the Company's 2003/2004 CIP Biennial Plan. This segment includes indirect impact programs that are not directly affiliated with a specific direct impact program. The Segment includes a Planning section, which consists of DSM Regulatory Affairs and CIP Training, and a Research section, which consists of Product Development and Market Research. The Segment also includes funding for the University of Minnesota Initiative for Renewable Energy and the Environment.

Planning

Planning provides overall electric and natural gas planning and analysis, CIP-related regulatory compliance and CIP-related training for Xcel Energy's marketing and sales staff.

The overall scope of the Planning segment includes:

- Providing strategic direction for Xcel Energy's CIP
- Ensuring CIP-related regulatory compliance
- Guiding Xcel Energy internal policy issues related to CIP
- Training Xcel Energy's Marketing & Sales staff for effective performance

DSM Regulatory Affairs manages all CIP regulatory filings (including the annual CIP Status Report and the Biennial filing), directs cost-benefit analyses, provides tracking tools for energy conservation achievements, and analyzes and prepares cost recovery reports. The group also provides procedures for effectively addressing requirements for the CIP regulatory process. These functions are needed to ensure a cohesive and high-quality CIP that meets legal requirements as well as the expectations of Xcel Energy's customers, regulators and staff.

In addition, regulatory affairs supports the DSM component of resource planning, conducts economic analyses of CIP projects, and provides strategic evaluation planning and internal policy guidance. These functions are needed to ensure the cost effectiveness of CIP, to ensure the quality of CIP impact estimates, help generate ideas for future CIP projects, establish programmatic consistency, and manage CIP-related marketing information.

Modifications:

None.

CIP Training provides Xcel Energy's marketing and sales staff current and consistent information on electric and natural gas energy-efficiency issues, updates on Xcel Energy CIP products and services, and DSM marketing and sales strategy and techniques.

¹⁵ A separate project information sheet is provided for each Planning and Research section to clearly show cost details.

Training modules are provided for both skills and areas of knowledge, such as the certification process that is now required for all customer service representatives. The functions provided by CIP Training ensure Xcel Energy provides its customers with a knowledgeable, competent customer service staff.

Modifications:

None

Research

The research component provides market research and evaluation, screening of new DSM products, and limited concept testing.

The overall scope of Research and Development includes:

- Evaluate achieved energy and demand savings
- Quantify the various levels of market potential for projects (technical, economic and achievable)
- Provide segment and target market information
- Analyze overall effects of Xcel Energy's CIP program on customers' usage and overall system peak demand and system energy usage
- Measure overall customer satisfaction with Xcel Energy's DSM efforts
- Develop new DSM programs

CIP Product Development

CIP Product Development identifies, assesses, and develops new conservation, load management, and renewable energy products and services. This work enables Xcel Energy to identify and promote promising new conservation and load management opportunities for its customers.

The product development process begins with ideas and concepts from customers, regulators, energy professionals, and Xcel Energy staff. Time is spent on further research of the ideas, evaluation and screening, and sometimes testing of particular product ideas as we work through the development process. The process can also address making improvements to existing products in the area of operational efficiency, cost reduction, or customer satisfaction.

During 2005/2006, CIP product development will review promising business and residential energy efficiency technologies in an effort to augment the Company's current mix of rebated products. Product Development will continue to research and evaluate Distributed Generation (DG) technologies.

Modifications:

In 2003 and 2004 Product Development managed R&D demonstrations of emerging DG technologies and developed a Distributed Generation Incentive Program. Future Product Development DG funding will support continuing research and evaluation of the industry.

CIP Market Research

CIP Market Research provides leadership and technical management to effect large-scale assessment studies like the Home Use study and the energy awareness and interest around CIP conservation efforts. Market research to support CIP programs is placed into two categories – *General Research* provides overall informational support for CIP programs and is not subject to the Evaluations cap. *Program Specific Research* includes evaluations conducted on individual programs to enhance their effectiveness. Program specific research is subject to the Evaluations cap.

Planned General & Program Specific Research Projects for 2005/2006 include:

General Research

- Residential: Energy Conservation Awareness Attitude and Usage Study
- Business: Energy Conservation Awareness Attitude and Usage Study
- Dun & Bradstreet small business list refresh
- Home Use Study
- Minnesota newsletter research evaluation
- Assessment of newsletter recall

Program-Specific Research (subject to Evaluations cap)

- Business Motors/ASD Program Evaluation
- Business Lighting Program Evaluation
- Boilers Program Evaluation
- Business Distributed Generation Evaluation
- Residential Lighting Program Evaluation
- Residential Energy Audits
- Large C&I Peak Control Program Evaluation
- Compressed Air in Small Business

Market Research Budget Component	2005		2006	
	Electric	Gas	Electric	Gas
General CIP Research	\$96,102	\$21,432	\$252,428	\$53,434
CIP Program Specific Research	\$485,317	\$89,828	\$519,497	\$90,304
Total	\$581,419	\$111,260	\$771,925	\$143,738

Modifications:

The CIP Market Research budget now includes the combined amounts for labor *and* program-specific evaluations. Historically, the evaluations were incorporated into the program-specific budgets while labor was held separately in the Market Research budget.

University of Minnesota Initiative for Renewable Energy and the Environment
Xcel Energy has included in the Planning and Research Segment funding for the Initiative for Renewable Energy and the Environment (U of M IREE) at the University of Minnesota.

Minn. Stat. §216B.241, Subd. 6, requires Xcel Energy to contribute to the U of M IREE five percent of the Company's minimum gas and electric spending requirements. The contribution supports basic and applied research and demonstration activities for the

development of renewable energy sources and technologies. As approved by the Commissioner of the Department of Commerce on December 16, 2003, the University of Minnesota has no reporting obligation to Xcel Energy as part of this contribution and, therefore, these expenditures are not part of our calculation of the 10 percent limit on research and development projects under Minn. Stat. §216B.241, Subd. 2 (c).

Modifications:

None

C. Project Information Sheet

Project Information Sheets are provided at the end of the project.

D. Effect on Peak Demand and Energy Consumption & List of Assumptions for each Technology

All services in the Planning & Research Segment are indirect impact, having no measurable conservation. Xcel Energy uses this program to meet CIP-related regulatory requirements and to develop modifications and new products for the future.

D. Relationship of Program to Resource Plan

As part of Xcel Energy's Conservation Improvement Program, this program supports Xcel Energy's analysis of and compliance with Resource Plan DSM goals.

E. Cost Effectiveness

Work done by this group enhances the overall CIP effort, ensuring the best possible cost-effectiveness and outcome for Xcel Energy's CIP.

F. Estimated Low-Income and Renter Participation

See Project Information Sheet.

G. Budget

See Project Information Sheets. Details of the program budgets are provided below.

Planning

Planning Budget	2005 Electric	2005 Gas	2006 Electric	2006 Gas
Regulatory Affairs	\$636,129	\$70,681	\$737,154	\$81,906
Training	\$75,000		\$75,000	
Total	\$711,129	\$70,681	\$812,154	\$81,906

Research

Research Budget	2005 Electric	2005 Gas	2006 Electric	2006 Gas
Product Development	\$400,000		\$400,000	
Market Research	\$581,419	\$111,259	\$771,925	\$143,738
Total	\$981,419	\$111,259	\$1,171,925	\$143,738

University of Minnesota Initiative on Renewable Energy and the Environment

	2005 Electric	2005 Gas	2006 Electric	2006 Gas
U of M IREE	\$1,799,934	\$151,013	\$1,799,934	\$151,013

H. Ratemaking Treatment & Cost-Recovery Method

The ratemaking and cost-recovery procedures for this CIP follow those approved by the Minnesota Public Utilities Commission in Docket Nos. E002/GR-92-1185, G002/GR-97-1606, and E,G-999/CI-98-1759.

I. Participation

See Project Information Sheet.

J. Involvement of Community Energy Organizations

Xcel Energy will seek input on DSM efforts from Community Energy Organizations through the CIP Advisory Group.

The Company is engaged in an ongoing dialogue with stakeholders over their role in the U of M IREE; however, the Company does not control the budget for this program.

K. Evaluation Plan

CIP Market Research – Please see information listed above.

L. Renewable Energy Information

U of M IREE - Although this program is specifically targeted at advancing renewables technologies, Xcel Energy has no specific role in the program's activities.

M. Additional Information

None.

Xcel Energy
 Planning
 Project Information Sheet

Cost Components	2005 Budget		
	Electric	Gas	Total
Project Delivery	\$213,600	\$15,400	\$229,000
Utility Administration	\$490,500	\$54,500	\$545,000
Other Project Administration	\$7,029	\$781	\$7,810
Advertising/Promotion	\$0	\$0	\$0
Evaluations	\$0	\$0	\$0
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$0	\$0	\$0
Other	\$0	\$0	\$0
Less Revenues	\$0	\$0	\$0
Total Budget	\$711,129	\$70,681	\$781,810
Total Number of Participants			
Total Elec En. Savings-Generator (kWh)			
Total Elec En. Savings-Meter (kWh)			
Total Elec Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)			
Total Natural Gas Demand Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer			
Other	100%	100%	
Low-Income Participation			
Participants (#)			
Budget (\$)			
Renter Participation			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value			
B/C Ratio			
Participant B/C Results			
Net Present Value			
B/C Ratio			
Rate Impact B/C Results			
Net Present Value			
B/C Ratio			
Revenue Requirements B/C Results			
Net Present Value			
B/C Ratio			
Project Type			
Audit/Info			
R&D	X	X	
Renewable			
Direct Impact			
Type of Incentive	N/A	N/A	
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)	N/A	N/A	
Cooking			
Lighting			
Motor			
Process			
Refrigeration			
Space Cooling/Dehumidification			
Space Heating			
Water Heating			
Weatherization			
General/Other	100%	100%	
Rate-making treatment: expensed	X	X	

Cost Components	2006 Budget		
	Electric	Gas	Total
Project Delivery	\$304,680	\$25,520	\$330,200
Utility Administration	\$495,000	\$55,000	\$550,000
Other Project Administration	\$12,474	\$1,386	\$13,860
Advertising/Promotion	\$0	\$0	\$0
Evaluations	\$0	\$0	\$0
R&D	\$0	\$0	\$0
Incentives (Rebates)	\$0	\$0	\$0
Other	\$0	\$0	\$0
Less Revenues	\$0	\$0	\$0
Total Budget	\$812,154	\$81,906	\$894,060
Total Number of Participants			
Total Elec En. Savings-Generator (kWh)			
Total Elec En. Savings-Meter (kWh)			
Total Elec Demand Savings Generator (kW)			
Total Natural Gas Energy Savings (MCF)			
Total Natural Gas Demand Savings (MCF)			
Project Type Percentage Expenditure			
Commercial & Industrial			
Small Business			
Consumer			
Other	100%	100%	
Low-Income Participation			
Participants (#)			
Budget (\$)			
Renter Participation			
Participants (#)			
Budget (\$)			
Societal B/C Results			
Net Present Value			
B/C Ratio			
Participant B/C Results			
Net Present Value			
B/C Ratio			
Rate Impact B/C Results			
Net Present Value			
B/C Ratio			
Revenue Requirements B/C Results			
Net Present Value			
B/C Ratio			
Project Type			
Audit/Info			
R&D	X	X	
Renewable			
Direct Impact			
Type of Incentive	N/A	N/A	
Loan/Grant			
Rebate			
Direct Installation			
End-Use Target (%)	N/A	N/A	
Cooking			
Lighting			
Motor			
Process			
Refrigeration			
Space Cooling/Dehumidification			
Space Heating			
Water Heating			
Weatherization			
General/Other	100%	100%	
Rate-making treatment: expensed	X	X	

Xcel Energy
 Research & Development
 Project Information Sheet

Cost Components	2005 Budget			2006 Budget		
	Electric	Gas	Total	Electric	Gas	Total
Project Delivery	\$96,102	\$21,432	\$117,533	\$252,428	\$53,434	\$305,862
Utility Administration	\$0	\$0	\$0	\$0	\$0	\$0
Other Project Administration	\$0	\$0	\$0	\$0	\$0	\$0
Advertising/Promotion	\$0	\$0	\$0	\$0	\$0	\$0
Evaluations	\$485,317	\$89,828	\$575,145	\$519,497	\$90,304	\$609,801
R&D	\$400,000	\$0	\$400,000	\$400,000	\$0	\$400,000
Incentives (Rebates)	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$1,799,934	\$151,013	\$1,950,947	\$1,799,934	\$151,013	\$1,950,947
Less Revenues	\$0	\$0	\$0	\$0	\$0	\$0
Total Budget	\$2,781,353	\$262,272	\$3,043,625	\$2,971,860	\$294,751	\$3,266,611
Total Number of Participants						
Total Elec En. Savings-Generator (kWh)						
Total Elec En. Savings-Meter (kWh)						
Total Elec Demand Savings Generator (kW)						
Total Natural Gas Energy Savings (MCF)						
Total Natural Gas Demand Savings (MCF)						
Project Type Percentage Expenditure						
Commercial & Industrial						
Small Business						
Consumer						
Other	100%	100%		100%	100%	
Low-Income Participation						
Participants (#)						
Budget (\$)						
Renter Participation						
Participants (#)						
Budget (\$)						
Societal B/C Results						
Net Present Value						
B/C Ratio						
Participant B/C Results						
Net Present Value						
B/C Ratio						
Rate Impact B/C Results						
Net Present Value						
B/C Ratio						
Revenue Requirements B/C Results						
Net Present Value						
B/C Ratio						
Project Type						
Audit/Info						
R&D	X	X		X	X	
Renewable						
Direct Impact						
Type of Incentive	N/A	N/A		N/A	N/A	
Loan/Grant						
Rebate						
Direct Installation						
End-Use Target (%)	N/A	N/A		N/A	N/A	
Cooking						
Lighting						
Motor						
Process						
Refrigeration						
Space Cooling/Dehumidification						
Space Heating						
Water Heating						
Weatherization						
General/Other	100%	100%		100%	100%	
Rate-making treatment: expensed	X	X		X	X	

➤ Budget Categories

The following chart indicates which expenses are attributed to each CIP budget category in this filing.

<i>Budget Category</i>	Components
Project Delivery	<ul style="list-style-type: none"> • <i>Internal</i> sales, internal fulfillment and program support activities associated with delivering a program directly to the customer. • <i>External</i> fulfillment and program support activities associated with delivering a program directly to the customer.
Utility Administration	Equipment costs, equipment repair, telephone line rental, and leases for Saver's Switch [®] transmitters. Training, educational seminars, pamphlets, videos, and computer games. Other materials and supplies.
Other Project Administration	<ul style="list-style-type: none"> • Project planning, development and implementation. Marketing and support staff including product managers, marketing assistants, developers, technical support staff, and inside contract labor associated with program planning, development, and implementation. • Auditors, installation contractors, vendors, technical consultants, fulfillment contractors and alternative providers Xcel Energy contracts with to provide DSM services.
Advertising and Promotion	TV, radio, newspaper and print media; direct promotion and sales support materials; postage, promotional events; contracted outbound telephone sales; communication staff and others.
Evaluations	Internal market research staff, market research consultants, program evaluation expenses.
R&D	Internal product development staff, product development external consultants, product development research activities.
Incentives (Rebates)	Customer rebates, finance interest subsidies, subsidies for engineering studies, and trade incentives.
Other	University of Minnesota Initiative for Renewable Energy and the Environment
Revenues	Program-related income that offsets the overall expense (e.g. income from audits, customer portion of cost sharing). All revenues are credited back to the program.

➤ **Net Present Worth Electric Benefit/Cost Analysis Key**

**2005/2006 CIP Biennial Plan
Net Present Worth Benefit/Cost Analysis
For One Customer kW**

	Participant Test \$/kW	Utility Test \$/kW	Rate Impact Test \$/kW	Total Resource Test \$/kW	Societal Test \$/kW
Avoided Revenue Requirements					
Generation	N/A	A1	A1	A1	A1
T & D	N/A	A2	A2	A2	A2
Marginal Energy	N/A	A3	A3	A3	A3
Externality Willingness	N/A	N/A	N/A	N/A	A4
Subtotal	N/A	A	A	A	A
Xcel Energy's Project Costs					
Subtotal	N/A	B	B	B	B
Revenue Reductions					
Subtotal	C	N/A	C	N/A	N/A
Participants' Net Costs					
Incremental Capital	D1	NA	NA	D1	D1
Incremental O&M	D2	NA	NA	D2	D2
Rebates	D3	NA	NA	D3	D3
Subtotal	D	NA	NA	D	D
Net Present Benefit (Cost)	E=(C-D)	E=(A-B)	E=(A-B-C)	E=(A-B-D)	E=(A-B-D)
Net Benefit (Cost) per kWh Lifetime	G=E/F/H	G=E/F/H	G=E/F/H	G=E/F/H	G=E/F/H
Net Present Benefit (Cost) per Generator	E/(NG)	E/(NG)	E/(NG)	E/(NG)	E/(NG)
Benefit Cost Ratio	C/D	A/B	A/(B+C)	A/(B+D)	A/(B+D)

The Benefit/Cost ratio is the sum of all benefits divided by all costs. All negative costs (e.g. A or D) are considered benefits.

Explanation of Inputs

N/A = Not applicable

A1 = Generated reduced

A2 = Transmission and distribution reduced

A3 = Marginal energy reduced

A4 = Willingness (added) avoided

A = Total reduced revenue requirements

B1 = Xcel Energy's project costs

B = Xcel Energy's total project costs

C = Xcel Energy's lost revenues due to project

D1 = Participants incremental capital investment before rebate

D2 = Participants increased O&M (Benefit)

D3 = Rebate from Xcel Energy (benefit)

D = Participant new investment for project

E = Net present worth benefit (cost) per customer kW

F = Generator kWh saved per year per Customer kW

H = Program lifetime (Number of Years)

NG = Generator adjusted (corrected for line losses)

General Assumptions

Discount Rate = 7.95%

Inflation Rate = Varies by year and specific input - overall rate assumed 2.44% through 2014, 3.43% beyond

Transmission and Distribution Avoided Costs = \$41.78/kW-year

Generation Avoided Capacity Costs = \$73.79/kW-year

Environmental Externality values derived from values provided in MPUC Docket No. E999/CI-00-1636 (4/24/03 Update)

Loadshapes determined by Regional Economic Research, Inc.

➤ **General Inputs for the 2005/2006 Gas CIP BENCOST Model**

The margins, rates and “costs included in rates” used in the General Inputs of the Gas CIP BENCOST model were approved as part of Xcel Energy’s most recent gas rate case (Docket No. G002/GR-97-1606) and went into effect in March 1999. The Company has updated these rates according to the guidelines provided in the Department of Commerce Advocacy Staff’s March 12, 2004 BENCOST memo to Minnesota public utilities (“Staff BENCOST Memo”).

BENCOST Input 1 (Retail Rate)

This value reflects the Company’s currently approved tariff rate adjusted for the average purchased gas adjustment (PGA) for January, February, and March 2003. This value does not include the annual true-up adjustment or the annual CIP Adjustment Factor.

Retail Rate (\$/MCF)

Month	Residential	Small Comm Firm	Large Comm Firm	Medium Interrupt
January	7.34	6.92	6.86	4.88
February	7.98	7.56	7.50	5.52
March	11.13	10.71	10.65	8.68
TOTAL	(Average 8.82)	(Average 8.40)	(Average 8.33)	(Average 6.36)

Annual Escalation Rate

The Annual Escalation Rate of 2.10 percent was provided in the Staff BENCOST Memo. This value was calculated using the average projected annual change between 2003 and 2019 of a the “Chained Price Index-Household Natural Gas” provided by Data Resources Incorporated.

BENCOST Input 2 (Commodity Cost)

The Commodity Cost, \$4.58 per MCF, was provided in the Staff BENCOST Memo. This value was calculated by deflating the U.S. Energy Information Administration’s project wellhead price for natural gas in 2019 (\$6.39/MCF) by the annual escalation rate provided above.

BENCOST Input 3 (Demand Cost)

The Demand Cost, \$93.86, equals the Minnesota Total Demand (line 10) divided by the MN State Design Day (line 11) in Schedule A, Page 3 of the Company’s February 27, 2003 Derivation of Current PGA Costs (effective March 2, 2003). Interruptible customers do not have demand costs.

BENCOST Input 4 (Peak Reduction Conversion Factor)

The Peak Reduction Conversion Factor, 1 percent, was provided in the Staff BENCOST Memo. This value represents an estimate of the percent of energy savings occurring on system peak.

BENCOST Input 5 (Variable O&M)

The Variable O&M input, \$0.0761 per MCF, is the Company's best estimate of its variable Operations and Maintenance (O&M) costs, and is generally equal to its minimum transportation flexible rate.

BENCOST Input 6 (Environmental Damage Factor)

The Environmental Damage Factor, \$0.30 per MCF saved, was provided in the Staff BENCOST Memo.

BENCOST Input 7 (Total Sales)

This value represents the total normalized MCF sales for calendar year 2003 excluding gas consumed by the Company, gas delivered to others for resale, and gas that is unaccounted for. Total Sales is reported on pages 38 and 39 of Xcel Energy's 2003 Gas Jurisdictional Annual Report. Total sales for 2003 were 78,428,047 MCF. An average growth rate of 0.6 percent was derived from sales data reported in Xcel Energy's Gas Minnesota Jurisdictional Annual Reports for 2001, 2002 and 2003. This information is detailed in the table below.

Year	MCF	Percent Change
2003	78,428,047	4.1%
2002	75,309,927	2.9%
2001	73,170,668	-5.4%
Average Growth Rate		0.6%

BENCOST Input 8 (Total Customers)

This value is the Company's total number of retail (sales and transportation) gas customers in Minnesota. Total Customers is reported on pages 38 and 39 of Xcel Energy's 2003 Gas Jurisdictional Annual Report. Xcel Energy had a total of 395,842 natural gas customers in 2003. An average growth rate of 2.2 percent was derived from customer data reported in Xcel Energy's Minnesota Gas Jurisdictional Annual Reports for 2001, 2002 and 2003. This information is detailed in the table below.

Year	Customers	Percent Change
2003	395,842	2.2%
2002	387,362	2.0%
2001	379,584	2.5%
Average Growth Rate		2.2%

BENCOST Input 9 (Utility Discount Rate)

The Discount Rate of 7.47 percent is Xcel Energy's after-tax weighted average cost of capital from its 1998 rate case.

BENCOST Input 10 (Societal Discount Rate)

The Social Discount Rate, 4.72 percent, was provided in the Staff BENCOST Memo.

BENCOST Input 11 (General Input Data Year)

The General Input Data Year, 2003, was provided in the Staff BENCOST Memo.

BENCOST Input 12 and 12a (Project Analysis Years 1 and 2)

The Project Analysis Years are the years over which Xcel Energy's CIP Biennial Plan will be effective, 2005 and 2006, respectively.

BENCOST Input 13 (Effective Federal and State Income Tax Rate)

The Effective Federal and State Income Tax Rate of 41.37 percent is the value approved Xcel Energy's most recent rate case.

BENCOST Input 14 (Net Operating Income Before Taxes as % of Total Operating Income)

This value is the amount of net operating income before taxes for 2003 divided by the total operating income. This figure is used to estimate the actual tax portion of lost revenues from CIP projects, as reported in the Xcel Energy's 2003 Gas Jurisdictional Annual Report, page 2.

Parameter	2003
Operating Income (Bottom Line)	\$31,339
Income Taxes (FERC Accts 409.1 to 411.4)	\$9,963
Pretax Net Operating Income	\$41,302
Operating Revenue (FERC Acct 400)	\$612,190
Pretax Net Operating Income/Operating Revenue	6.75%

➤ 2005/2006 CIP Biennial Program Modifications

Segment	Program	Modification
<i>Commercial & Industrial</i>	Boiler Efficiency	Stack Economizers, blowdown heat recovery, self-contained radiator valves, and piping insulation are now being evaluated under the gas Custom Efficiency program. The variability in energy savings for these technologies requires them to be evaluated on a case-by-case basis. In addition, the Boiler Efficiency program will extend the effective date to accept invoices from 6 months to 1 year.
	Cooling Efficiency	Cooling Efficiency proposes to raise rebate levels for rooftop units in all sizes by 40 percent to bring it in line with market equipment cost increases. The program also proposes to match split systems under 65,000 btuh with the residential program's rebate levels to improve consistency within Xcel Energy's CIP.
	Custom Efficiency	The Custom Efficiency program offered a prescriptive gas incentive for thermostats, infrared heaters and hot water heaters. Xcel Energy is no longer offering prescriptive incentives for these end-uses due to cost effectiveness.
	Custom Efficiency	Energy Management Systems (EMS) is a new Xcel Energy business program that was launched in second quarter 2003. This program uses the current Custom Efficiency preapproval process to measure electric energy savings for adding control points to an existing system, or to install a new core system that controls multiple energy-using functions within a building (i.e. lighting, cooling, ventilation, etc.).
	Custom Efficiency	Xcel Energy is requesting that the Commissioner modify the Influenced Savings guidelines to allow: <ul style="list-style-type: none"> • Influenced Savings claims of up to four percent of the Company's annual CIP achievements, and • Consideration for energy savings credit for projects that stem from recommendations proposed in an Engineering Assistance Study.
	Energy Analysis	Engineering Assistance Studies are now located within the end-use programs (Custom Efficiency, Refrigeration Efficiency, Cooling Efficiency).
	Energy Design Assistance – Plan Review	We will cost-effectively reduce the minimum qualifying square footage from 25,000 to 15,000 to broaden the potential market. This modification was effective January 2004.

Segment	Program	Modification
<i>Commercial & Industrial</i>	Financing	Xcel Energy introduced a new subsidized rate option for customers. If the customer chooses the subsidized rate, they are authorizing Xcel Energy to use their rebate dollars to buy down the interest rate from the bank. The subsidized rate is customized for each loan and could get as low as zero percent. The customer still has the option to choose the standard bank market rate and use their rebate to buy down the loan amount.
	Lighting Efficiency	In 2003, the Department approved the addition of multi-lamp fluorescent fixture and LED red traffic arrows retrofits to the list of rebated lighting technologies. In 2004, Super T8 Fluorescent Systems were approved for retrofit and new construction rebates.
	Lighting Efficiency	Xcel Energy requests approval to add the following new products to the Lighting Rebate Schedule: <ul style="list-style-type: none"> • Multi-lamp fluorescent fixtures (6 or 8-lamp high-bay T8 fixture) – New Construction • High-bay T5 high output fluorescent lamps with electronic ballasts – Retrofit and New Construction
	Motors Efficiency	On May 1, 2003 it was determined that ASDs over 200 hp should be evaluated through the Custom Efficiency program. The change provides consistency between the motor and ASD rebate offerings and more importantly allows for more accurate energy saving calculations for large horsepower ASDs.
	Recommissioning	Customers who complete a study will be counted towards our participant goal. In prior years, we only counted customers who implemented recommissioning measures. This modification improves our ability to track all customers influenced by Xcel Energy CIP programs.
	Roofing Efficiency	All Roofing Efficiency projects must have an economizer on the air conditioning system.
<i>Small Business</i>	Boiler Efficiency	Based on 3 years of financial trends, the Boiler Efficiency program plans to extend the effective date to accept invoices from 6 months to 1 year.
	Cooling Efficiency	Cooling Efficiency will raise rebate levels for rooftop units in all sizes by 40 percent to bring them in line with market equipment cost increases. The program also plans to match split systems under 65,000 btuh with the residential program's rebate levels to improve consistency within Xcel Energy's CIP.

Segment	Program	Modification
<i>Small Business</i>	Custom Efficiency	The Custom Efficiency program offered a prescriptive gas incentive for thermostats, infrared heaters and hot water heaters. The rebate was 15 percent of equipment costs or \$1,500 whichever was the lesser of the two. Xcel Energy is no longer offering prescriptive incentives for these end-uses due to cost effectiveness.
	Energy Analysis	Engineering Assistance Studies are now located within the end use programs (i.e. Custom Efficiency, Refrigeration Efficiency, Cooling Efficiency).
	Energy Design Assistance - Plan Review	Xcel Energy will cost-effectively reduced the minimum qualifying square footage from 25,000 to 15,000 to broaden the potential market. This modification was effective January 2004.
	Financing	Xcel Energy introduced a new subsidized rate option that the customer can choose. If the customer chooses the subsidized rate, they are authorizing Xcel Energy to use their rebate dollars to buy down the interest rate from the bank. The subsidized rate is customized for each loan and could get as low as zero percent. The customer still has the option to choose the standard bank market rate and use their rebate to buy down the loan amount.
	Lighting Efficiency	In 2003, multi-lamp fluorescent fixtures and LED red traffic arrows were approved for retrofit rebates. In 2004, Super T8 Fluorescent Systems were approved for retrofit and new construction rebates.
	Lighting Efficiency	Xcel Energy is requesting approval to add the following new products to the Lighting Rebate Schedule: <ul style="list-style-type: none"> • Multi-lamp fluorescent fixtures – New Construction • High-bay T5 high output fluorescent lamps with electronic ballasts – Retrofit and New Construction
	Lighting Efficiency	The New Construction Lighting program currently takes demand savings of 0.3 watts/square foot of lighted area. To be more accurate, it was determined that the Company should take credit based on equipment installed, consistent with the retrofit program. The revised New Construction methodology determines a savings level for a given type of fixture by comparing its energy use to the less costly, lower efficiency standard option.
<i>Small Business</i>	Motor Efficiency	On May 1, 2003 it was determined that ASDs over 200 hp should be evaluated through the Custom Efficiency program. The change provides consistency between the motor and ASD rebate offerings and more importantly allows for more accurate energy saving calculations for large horsepower ASDs.

Segment	Program	Modification
<i>Small Business</i>	Roofing Efficiency	Per the Roofing Reflectants Evaluation filed on January 15, 2004, Xcel Energy added the requirement that all Roofing Efficiency projects must have an economizer on the air conditioning system.
<i>Residential</i>	ENERGY STAR	Customers will have 12 months from the date of purchase to submit an application for rebate. Applications submitted after 12 months will no longer be eligible for a rebate.
	Home Efficiency Program	The water heater National Appliance Energy Conservation Act (NAECA) standard increased minimum efficiency from of natural gas water heaters from a .62 EF to a .67 EF in 2004. Xcel Energy has incorporated these changes into the Home Efficiency cost benefit assumptions.
	Home Energy Audit	Infrared testing is now available to non-low income consumers for a \$100 co-pay. A free online audit is also available to consumers on the Xcel Energy website at www.xcelenergy.com .
<i>Planning & Research</i>	Product Development	In 2003 and 2004 Product Development managed R&D demonstrations of emerging Distributed Generation (DG) technologies as well as developed a Distributed Generation Incentive Program. Future DG funding will be directed to our new Distributed Generation Incentive Program as well as continuing with research and evaluation of the industry. It is our intent to pass on the knowledge gained from our demonstration projects in order to enable customers to purchase and install high-efficiency, low-emissions, new technology DG. Currently approved for implementation in 2004, the Distributed Generation Incentive Program is submitted within this biennial filing to continue in 2005 and 2006.