Appendix D

Demand Side Management Data

Appendix D.1
Xcel Energy Demand Side Management ("DSM") Data

Minnesota Rule 7849.0290 requires that an application for a Certificate of Need include information regarding the applicant's conservation and load management programs (collectively, "Demand Side Management" or "DSM"). This information is presented below for Xcel Energy.

Minnesota Rule 7849.0290 requires that an application must include:

A. The name of the committee, department, or individual responsible for the applicant's energy conservation and efficiency programs, including load management;

Lee Gabler, Director, DSM and Renewable Operations is responsible for Xcel Energy's demand-side management (conservation and load management) programs.

B. A list of the applicant's energy conservation and efficiency goals and objectives;

Xcel Energy's[1] proposed 2010-2012 Triennial Plan[2] represents a budget of over $240 million, energy savings of 1,116 GWh and demand savings of 315 MW over the three years.

C. A description of the specific energy conservation and efficiency programs the applicant has considered, a list of those that have been implemented, and the reasons why the other programs have not been implemented;

Minn. Stat. § 216B.2401, states "it is the energy policy of the state of Minnesota to achieve annual energy savings equal to 1.5 percent of annual retail energy sales of electricity and natural gas unless modified by the Commissioner." The minimum energy savings goal is 1 percent of retail sales. The energy savings may occur directly through energy conservation improvement programs and rate design, and indirectly through energy codes and appliance standards, programs designed to transform the market or change consumer behavior, energy savings resulting from efficiency improvements to the utility infrastructure and system, and other efforts to promote energy efficiency and energy conservation.

Additionally, Minn. Stat. § 216B.241, Subd. 1a requires Xcel Energy to spend at least 2 percent of its electric gross operating revenue ("GOR") on electric conservation programs and 0.5 percent of its gas GOR on gas conservation programs.

To comply with the minimum spending requirement, Xcel Energy offers an extensive portfolio of programs. In general, these programs can be categorized as direct or indirect. Further, the direct programs can be categorized as prescriptive or custom.

Direct programs result in quantifiable energy savings. The Lighting Efficiency program, for example, offers rebates for the installation of energy efficient lighting within our business customer segment. Prescriptive programs use technical assumptions based on stipulated or deemed technical

[1] Northern States Power Company, a Minnesota corporation.
[2] Docket No. E,G002/CIP-09-198.

assumptions that are assigned to measures in order to calculate gross energy and demand savings. The rebates and savings are predetermined based on the deemed technical assumptions. Custom programs use technical assumptions that are specific to the actual measure characteristics in order to calculate the energy and demand savings. The rebates and savings vary with the measure. Further, direct programs can be categorized as conservation or load management programs. Load management programs are specifically designed to manage peak load.

At this time, indirect programs do not result in quantifiable energy savings. They are largely information-based and are intended to create customer awareness as well as encourage customers to participate in our direct impact programs.

Table 1 below includes a list of our comprehensive program offerings over the last ten years. Please note that some of the programs have been discontinued, modified or incorporated into other programs.

Table 1

Business Segment
Conservation
Commercial Heating Efficiency f.k.a. Boiler Efficiency
Commercial Real Estate
Compressed Air Efficiency
Commercial Audit and Contract Management
Computer Efficiency
Cooling Efficiency
Custom Efficiency
Data Center Efficiency
Distributed Generation Incentive
Efficiency Controls
Energy Assets
Energy Design Assistance (EDA)
Energy Design Assistance - Business New Construction
Energy Efficient Buildings – Business New Construction
Energy Efficient Rebate
Energy Management Systems
Food Service
Furnace Efficiency
Government Conservation
Heat Recovery Rebate
Industrial Efficiency
Lighting Efficiency
Market Transformation – Computer Efficiency
Market Transformation – Vending Efficiency
Motor & Drive Efficiency f.k.a Motor Efficiency

Business Segment
Process Efficiency
Recommissioning
Refrigeration Efficiency
Roofing Efficiency
Segment Efficiency
Load Management
Electric Rates Savings f.k.a Peak Controlled Rates
Business Saver's Switch
Indirect Impact
Business Education
Energy Advisory Service
Energy Analysis
Energy Financing
Lamp Recycling
School Financing
Turn Key Services

Residential Segment
Conservation
Central AC Quality Installation
ENERGY STAR Homes
ENERGY STAR Rebates
Energy Efficiency Showerheads f.k.a High-Efficiency Showerheads
Home Efficiency
Home Lighting Direct Purchase
Home Performance with ENERGY STAR
Insulation Rebate Program
Refrigerator Recycling
Residential Cooling
Home Energy Squad f.k.a Residential Quick Fix
Premier Home
School Education Kits
Water Heater Rebates
Load Management
Residential Saver's Switch
Indirect Impact
Consumer Education
Energy Loans
Home Energy Audits
Lamp Recycling
Energy Efficiency Support Services

Low-Income Segment
Conservation
Conservation Kits
Home Electric Savings
Low Income Weatherization
Home Energy Squad – Low Income f.k.a. Residential Quick Fix

Research, Evaluation & Pilots
Annex 49 Pilot
Energy Feedback Pilot

For more details on our current business, residential and low-income programs, see the Xcel Energy website at http://www.xcelenergy.com.

Xcel Energy's Product Development department continually analyzes potential measures and concepts to add to our program portfolio offering. Products or programs are selected for development based on several criteria including, but not limited to energy efficiency potential, ability to develop quickly, longevity of the offering (i.e. how long until it become the standard), level of market barriers and risk (technological, press, market, education) among others.

D. A description of the major accomplishments that have been made by the applicant with respect to energy conservation and efficiency

The 2010-2012 CIP Triennial Plan continues Xcel Energy's long-standing commitment to DSM. Although DSM activities in many states around the country have ebbed and flowed, Minnesota and Xcel Energy as its largest utility have generally maintained a consistent approach to DSM. This long-standing 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 and most innovative programs.

Between 1992 and 2011, Xcel Energy has invested over $983 million (nominal) resulting in 5,749 GWh of electric energy savings, and an estimated 11 million Dth of natural gas savings. The total electric energy savings from 1992 through 2011 present is equivalent to avoiding the need to build over nine 250 MW power plants. The following graphs highlight electric and natural gas achievements and spending between 2002 and 2011. 2011 achievements and spend are currently being reviewed by the Department of Commerce.

Figure 1: CIP Electric Expenditures and Achievements 2002-2011

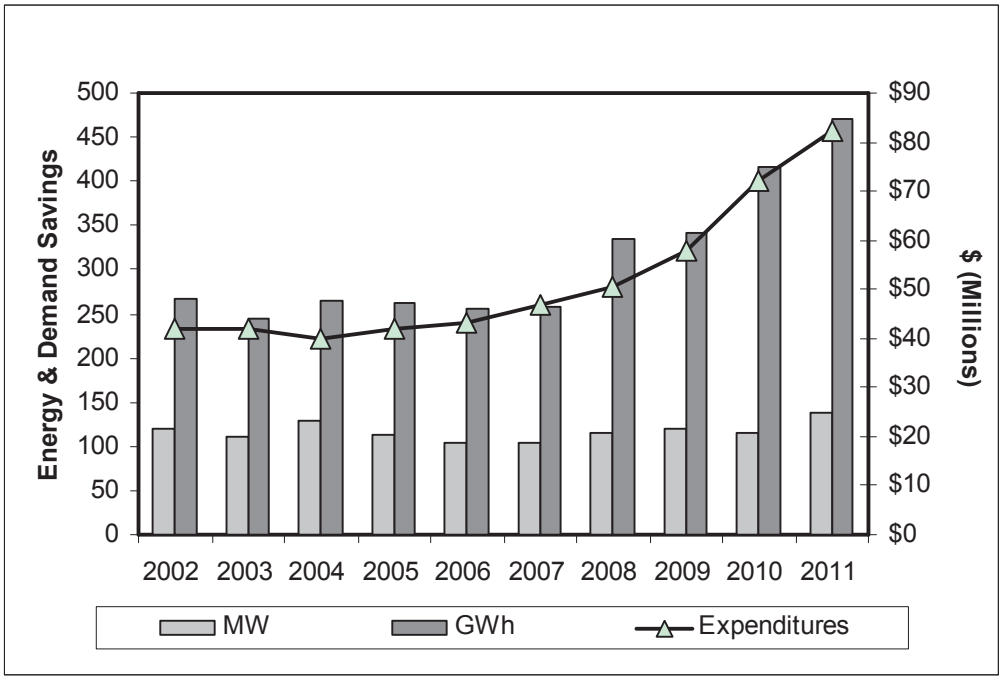
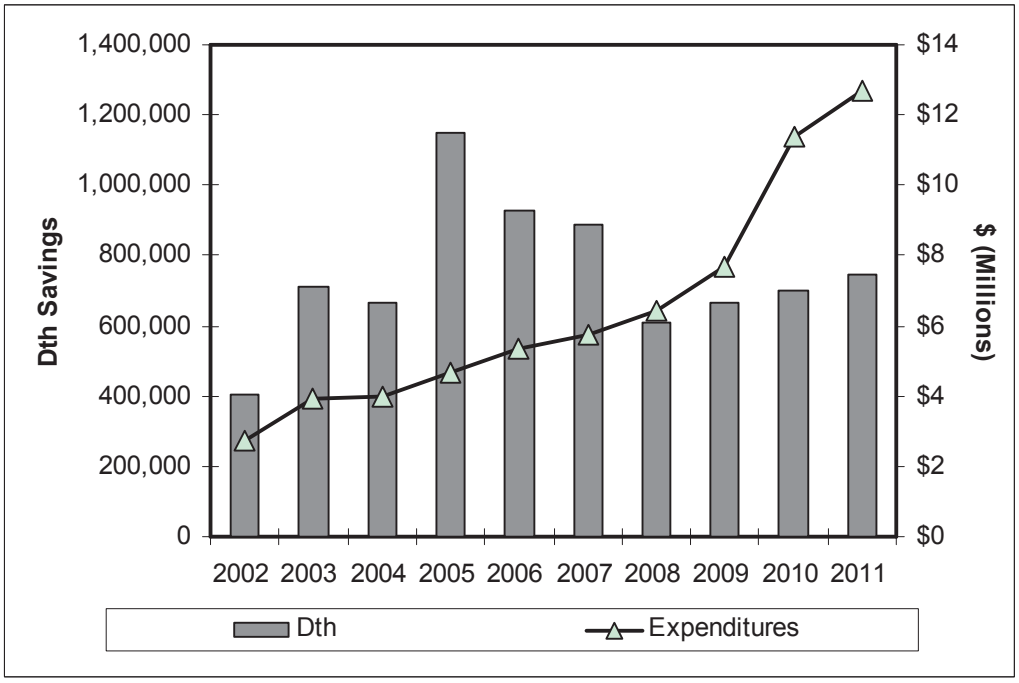


Figure 2: CIP Gas Expenditures and Achievements 2002-2011



E. A description of the applicant's future plans through the forecast years with respect to energy conservation and efficiency

On August 5, 2009, the Commission approved our immediate (2010-2012) plans for DSM through our 2008-2022 Resource Plan[3]. Due to the significantly higher goals required from The Next Generation Act of 2007, we proposed to ramp our goals up by 2013 to our highest energy savings potential levels. The table below illustrates our proposed energy and demand savings from 2010-2025. In the next Resource Plan filing, we are required to model higher energy savings scenarios, as requested by intervenors.

In 2011 we reached 1.53 percent of sales and significantly exceeded our goals. In the short term, we expect to continue to achieve 1.5 percent of sales and will strive to sustain this level of savings over the next several years. We will investigate those opportunities during our next planning process. In addition, we will continue to investigate and evaluate new potential programs and measures available within the marketplace for their cost-effective applicability within our next Resource and DSM Triennial Plans. These actions may take place within our Product Development group, market potential studies and program evaluations.

Approved 2008-2022 Resource Plan DSM Energy and Demand Savings Levels

	Energy Savings (MWh)	% of Triennial Goal Sales	Demand Savings EE (MW)	Demand Savings EE (MW) (1.1% Scenario)	Energy Savings (MWh) (1.1% Scenario)	Budget (EE Only) - Nominal Dollars
2010	358,217	1.15%	114	105	327,830	$127,974,675
2011	373,792	1.20%	123	109	333,150	$136,690,307
2012	404,941	1.30%	127	106	338,214	$151,575,882
2013	420,951	1.30%	133	108	342,812	$161,287,349
2014	420,951	1.30%	130	107	346,999	$165,093,730
2015	420,951	1.30%	128	107	350,960	$168,989,942
2016	437,189	1.30%	140	113	354,831	$179,650,710
2017	437,189	1.30%	145	119	358,812	$183,890,467
2018	437,189	1.30%	148	123	362,920	$188,230,282
2019	452,789	1.30%	154	125	367,214	$199,547,245
2020	452,789	1.30%	169	139	371,585	$204,256,560
2021	452,789	1.30%	169	140	376,016	$209,077,015
2022	467,626	1.30%	175	142	380,478	$221,024,049
2023	467,626	1.30%	175	144	385,001	$226,240,217
2024	467,626	1.30%	175	146	389,621	$231,579,486
2025	482,389	1.30%	180	147	394,296	$244,528,511

3 Docket No. E-002/RP-07-1572

F. A quantification of the manner by which these programs affect or help determine the forecast provided in response to part 7849.0270, subpart 2, a list of their total costs by program, and a discussion of their expected effects in reducing the need for new generation and transmission facilities

Load forecasts are based on historical data. Therefore, the forecasted annual peak demand for electricity and annual energy consumed reflect the savings due to DSM programs that have been implemented in the past. Because load forecasts are based on historic load data, a certain amount of continued DSM is already included in the forecast. This "amount" is known as embedded DSM and is roughly equal to the average annual DSM achievements obtained during the historical years. Thus, the energy and demand savings as ordered in the Resource Plan are not fully reflected in the forecasts. However, the forecast does include the historical or embedded DSM amount.

The energy and demand goals ordered in the 2008 Resource Plan are fully reflected in the resource planning analysis that determines future generation needs. An estimate of the embedded DSM is added to the load forecast in Strategist to derive an estimate of peak and energy as if no DSM were going to be implemented in future years. Then the approved DSM goals are subtracted from the modified forecast to calculate net peak and energy forecasts. If embedded DSM were not added to the load forecast, DSM would be double counted and the forecasts would consistently be too low.

Below is a list of our proposed 2010-2012 DSM programs including their individual proposed budgets, energy and demand savings. Following the annual tables is a three year Triennial Plan roll-up.

2010 Program Costs and Impacts

2010	Electric Participants	Electric Budget	Customer kW	Generator kW	Generator kWh	Gas Participants	Gas Budget	Dth Savings
Business Segment								
Commercial Heating Efficiency						304	1,265,238	221,818
Commercial Real Estate	55	$635,417	808	690	3,004,195	8	$30,290	1,495
Compressed Air Efficiency	373	$2,067,507	3,860	3,659	26,321,602			
Cooling Efficiency	206	$1,906,924	3,366	2,427	6,083,882			
Custom Efficiency	128	$3,018,198	5,168	2,890	25,440,451	43	$655,024	69,215
Data Center Efficiency	10	$713,796	1,022	1,100	7,689,482			
Efficiency Controls	70	$1,304,328	2,280	741	16,090,860	21	$190,162	15,750
Energy Design Assistance-Business New Construction	63	$4,455,564	6,876	6,868	25,186,059	9	$211,058	20,826
Energy Efficient Buildings-Business New Construction	18	$362,504	766	765	2,915,863	9	$42,439	6,767
Furnace Efficiency						209	$100,219	4,014
Lighting Efficiency	416	$2,721,510	5,491	5,033	20,000,014			
Market Transformation - Computer Efficiency	23,251	$260,812	442	476	2,620,085			
Market Transformation - Vending Efficiency	9	$41,700	54	52	497,439			
Motor & Drive Efficiency	714	$2,902,950	5,761	4,820	30,574,217			
Process Efficiency	101	$5,756,733	6,680	4,799	37,912,052	27	$1,444,907	138,608
Recommissioning	101	$2,050,038	2,898	1,485	14,518,829	20	$103,091	12,178
Business Segment Energy Efficiency Total	**25,514**	**$28,197,980**	**45,472**	**35,805**	**218,855,030**	**650**	**$4,042,428**	**490,672**
Business Saver's Switch	1,164	$1,979,611	25,385	8,342	49,598			
Electric Rate Savings	110	$627,550	25,000	12,610	887,589			
Business Segment Load Management Total	**1,274**	**$2,607,161**	**50,385**	**20,952**	**937,187**			
Business Education	13,323	$237,392				1,817	$35,923	
Energy Advisory Service	63	$98,679				7	$6,685	
Energy Analysis	275	$293,668				128	$113,995	
Lamp Recycling	30,146	$30,000						
Turn-Key Services								
Indirect Business Subtotal	**43,807**	**$659,739**				**1,952**	**$156,603**	
Business Segment Total	**70,595**	**$31,464,880**	**95,857**	**56,757**	**219,792,217**	**2,602**	**$4,199,031**	**490,672**
Residential Segment								
Energy Efficient Showerhead Program	1,500	$16,308	2,700		401,864	8,500	$92,415	11,169
ENERGY STAR Homes	1,115	$394,908	314	181	1,385,005	654	$751,377	36,493
Heating System Rebate						5,500	$1,589,077	75,997
Home Lighting	275,000	$3,174,033	52,360	4,597	62,150,759			
Home Performance with ENERGY STAR	175	$177,142	305	111	316,614	175	$530,393	5,784
Insulation Rebate Program	70	$26,282	247		245,291	930	$349,174	14,063
Refrigerator Recycling	2,000	$407,608	468	283	2,394,060			
Residential Cooling	10,000	$3,122,290	6,962	6,868	5,071,837			
Residential Quick Fix Efficiency Service	2,700	$474,607	2,957	600	2,032,553	2,700	$661,082	18,936
School Education Kits	10,000	$301,267	5,888	91	1,947,399	10,000	$265,498	17,007
Water Heating Rebate						1,050	$231,573	3,288
Residential Segment Energy Efficiency Total	**302,560**	**$8,094,445**	**72,201**	**12,730**	**75,945,383**	**29,509**	**$4,470,589**	**182,737**
Load Management Segment - Residential Saver's Switch	**21,000**	**$6,479,078**	**63,302**	**19,970**	**171,406**			
Consumer Education	412,949	$726,144				363,498	$488,998	
Home Energy Audits	3,077	$363,363				2,030	$177,197	
Lamp Recycling	224,964	$181,980						
Energy Efficiency Support Services		$443,940					$664,110	
Indirect Residential Subtotal	640,990	$1,715,427				365,528	$1,330,305	
Residential Segment Total	**964,550**	**$16,288,949**	**135,503**	**32,700**	**76,116,789**	**395,037**	**$5,800,894**	**182,737**
Low Income Segment								
Conservation Kits	15,000	$569,014	17,324	398	7,128,430	15,000	$290,159	40,524
Home Electric Savings Program	1,416	$969,633	397	120	803,660			
Single Family Weatherization Program						295	$864,093	3,624
Low Income Segment Total	**16,416**	**$1,538,647**	**17,721**	**517**	**7,932,090**	**15,295**	**$1,154,252**	**44,148**
Planning Segment								
Advertising & Promotion		$2,000,000					$500,000	
Application Development & Maintenance		$960,000					$240,000	
CIP Training		$139,910					$48,308	
Regulatory Affairs		$530,154					$108,229	
Planning Segment Total		**$3,630,064**					**$896,537**	
Research, Evaluations & Pilots Segment								
Market Research		$951,558					$228,319	
Product Development		$903,400					$199,200	
Annex 49 Pilot	4	$5,436	19	18	177,224	4	$72,216	5,750
Energy Feedback Pilot	35,225	$272,203	683	105	6,345,530	35,000	$271,303	62,471
Product Development Total	**35,229**	**$1,181,039**	**702**	**123**	**6,522,754**	**35,004**	**$542,719**	**68,221**
Research, Evaluations & Pilots Segment Total	**35,229**	**$2,132,597**	**702**	**123**	**6,522,754**	**35,004**	**$771,038**	**68,221**
PORTFOLIO SUBTOTAL	**1,086,790**	**$55,055,138**	**249,784**	**90,097**	**310,363,850**	**447,938**	**$12,821,752**	**785,778**
Renewable Energy Segment-Solar*Rewards	**414**	**$5,003,198**	**2,046**	**1,062**	**2,791,427**			
Anticipated Alternative Filings								
CEE County Government Initiative		$300,000					$40,000	
CEE One Stop Efficiency Shop		$11,500,000		10,253	37,847,872			
Energy Smart		$300,000						
Anticipated Alternative Filings Total		**$12,100,000**		**10,253**	**37,847,872**		**$40,000**	
Assessments Segment		**$1,318,120**					**$361,442**	
Electric Utility Infrastructure								
Supply Side Resources Segment - U of M IREE		**$1,270,986**					**$97,230**	
PORTFOLIO TOTAL	**1,087,204**	**$74,747,442**	**251,830**	**101,412**	**351,003,149**	**447,938**	**$13,320,424**	**785,778**

2011 Program Costs and Impacts

2011	Electric Participants	Electric Budget	Customer kW	Generator kW	Generator kWh	Gas Participants	Gas Budget	Dth Savings
Business Segment								
Commercial Heating Efficiency						304	1,338,017	221,818
Commercial Real Estate								
Compressed Air Efficiency	420	$2,532,898	4,666	4,424	31,667,218			
Cooling Efficiency	229	$2,013,323	3,408	2,468	6,112,294			
Custom Efficiency	154	$3,563,725	6,112	3,496	30,253,803	50	$733,175	70,318
Data Center Efficiency	11	$776,592	1,226	1,319	9,227,378			
Efficiency Controls	71	$1,390,655	2,313	752	16,320,729	24	$221,600	18,000
Energy Design Assistance-Business New Construction	62	$4,895,586	6,846	6,839	25,078,607	8	$232,716	19,120
Energy Efficient Buildings-Business New Construction	20	$399,225	851	851	3,239,848	10	$50,089	7,519
Furnace Efficiency						222	$136,999	4,256
Lighting Efficiency	440	$2,893,031	5,773	5,297	21,000,018			
Market Transformation - Computer Efficiency	25,125	$324,364	542	583	3,234,486			
Market Transformation - Vending Efficiency	9	$41,800	54	52	497,439			
Motor & Drive Efficiency	915	$3,442,944	6,911	5,785	36,626,728			
Process Efficiency	101	$6,278,844	6,896	4,920	39,408,781	27	$1,536,622	138,608
Recommissioning	108	$2,201,652	3,092	1,585	15,476,361	24	$119,540	14,885
Business Segment Energy Efficiency Total	**27,664**	**$30,754,638**	**48,690**	**38,368**	**238,143,690**	**669**	**$4,368,758**	**494,524**
Business Saver's Switch	1,164	$2,036,351	25,385	8,342	49,598			
Electric Rate Savings	110	$640,838	25,000	12,610	887,589			
Business Segment Load Management Total	**1,274**	**$2,677,189**	**50,385**	**20,952**	**937,187**			
Business Education	13,323	$238,972				1,817	$36,138	
Energy Advisory Service	138	$153,738				15	$8,788	
Energy Analysis	295	$344,968				132	$146,999	
Lamp Recycling	31,653	$32,000						
Turn-Key Services	8	$301,176				5	$36,296	
Indirect Business Subtotal	**45,417**	**$1,070,854**				**1,969**	**$228,221**	
Business Segment Total	**74,355**	**$34,502,681**	**99,075**	**59,320**	**239,080,877**	**2,638**	**$4,596,979**	**494,524**
Residential Segment								
Energy Efficient Showerhead Program	1,500	$17,080	2,700		401,864	8,500	$96,789	11,169
ENERGY STAR Homes	1,172	$418,384	333	192	1,465,518	687	$785,469	38,467
Heating System Rebate						5,500	$1,631,938	75,997
Home Lighting	250,000	$2,893,018	47,600	4,179	51,878,595			
Home Performance with ENERGY STAR	200	$209,690	340	121	345,415	200	$540,810	6,618
Insulation Rebate Program	74	$27,511	259		257,555	977	$365,500	14,766
Refrigerator Recycling	4,000	$789,924	936	565	4,788,120			
Residential Cooling	11,001	$3,415,117	7,659	7,555	5,579,647			
Residential Quick Fix Efficiency Service	3,000	$506,308	3,286	666	2,185,358	3,000	$732,663	21,040
School Education Kits	20,000	$597,356	11,775	183	3,490,850	20,000	$527,946	34,014
Water Heating Rebate						1,050	$233,192	3,288
Residential Segment Energy Efficiency Total	**290,947**	**$8,874,388**	**74,888**	**13,460**	**70,392,924**	**39,914**	**$4,914,307**	**205,358**
Load Management Segment - Residential Saver's Switch	**21,000**	**$6,641,978**	**63,302**	**19,970**	**171,406**			
Consumer Education	423,273	$751,839				373,085	$525,028	
Home Energy Audits	3,231	$372,262				2,088	$179,987	
Lamp Recycling	236,212	$194,913						
Energy Efficiency Support Services		$374,240					$560,570	
Indirect Residential Subtotal	662,716	$1,693,254				375,173	$1,265,585	
Residential Segment Total	**974,663**	**$17,209,621**	**138,190**	**33,430**	**70,564,330**	**415,087**	**$6,179,892**	**205,358**
Low Income Segment								
Conservation Kits	15,000	$597,228	17,324	398	7,128,430	15,000	$303,678	40,524
Home Electric Savings Program	1,375	$1,003,824	397	120	803,660			
Single Family Weatherization Program						408	$865,955	6,038
Low Income Segment Total	**16,375**	**$1,601,052**	**17,721**	**517**	**7,932,090**	**15,408**	**$1,169,633**	**46,562**
Planning Segment								
Advertising & Promotion		$2,100,000					$525,000	
Application Development & Maintenance		$1,008,000					$252,000	
CIP Training		$144,278					$49,971	
Regulatory Affairs		$544,080					$111,533	
Planning Segment Total		**$3,796,358**					**$938,504**	
Research, Evaluations & Pilots Segment								
Market Research		$1,828,035					$310,452	
Product Development		$885,900					$201,000	
Annex 49 Pilot								
Energy Feedback Pilot	35,225	$215,958	683	105	6,345,530	35,000	$215,058	62,471
Product Development Total	**35,225**	**$1,101,858**	**683**	**105**	**6,345,530**	**35,000**	**$416,058**	**62,471**
Research, Evaluations & Pilots Segment Total	**35,225**	**$2,929,892**	**683**	**105**	**6,345,530**	**35,000**	**$726,510**	**62,471**
PORTFOLIO SUBTOTAL	**1,100,618**	**$60,039,604**	**255,670**	**93,373**	**323,922,826**	**468,132**	**$13,611,517**	**808,916**
Renewable Energy Segment-Solar*Rewards	**414**	**$5,003,198**	**2,046**	**1,062**	**2,791,427**			
Anticipated Alternative Filings								
CEE County Government Initiative								
CEE One Stop Efficiency Shop		$12,600,000		11,392	42,053,191			
Energy Smart		$315,000						
Anticipated Alternative Filings Total		**$12,915,000**		**11,392**	**42,053,191**			
Assessments Segment		**$1,318,120**					**$361,442**	
Electric Utility Infrastructure								
Supply Side Resources Segment - U of M IREE								
PORTFOLIO TOTAL	**1,101,032**	**$79,275,922**	**257,716**	**105,827**	**368,767,444**	**468,132**	**$13,972,959**	**808,916**

2012 Program Costs and Impacts

2012	Electric Participants	Electric Budget	Customer kW	Generator kW	Generator kWh	Gas Participants	Gas Budget	Dth Savings
Business Segment								
Commercial Heating Efficiency						304	1,348,109	221,818
Commercial Real Estate								
Compressed Air Efficiency	490	$2,980,895	5,648	5,355	38,005,065			
Cooling Efficiency	279	$2,046,350	3,433	2,492	6,128,212			
Custom Efficiency	176	$4,228,193	7,544	4,333	37,808,710	51	$764,504	70,817
Data Center Efficiency	12	$840,397	1,430	1,539	10,765,275			
Efficiency Controls	72	$1,395,084	2,346	762	16,550,599	27	$241,018	20,250
Energy Design Assistance-Business New Construction	62	$5,015,614	7,166	7,158	26,247,910	8	$234,484	19,728
Energy Efficient Buildings-Business New Construction	30	$568,796	1,277	1,276	4,859,771	11	$65,759	8,271
Furnace Efficiency						240	$149,649	4,611
Lighting Efficiency	483	$3,105,707	6,373	5,836	23,250,018			
Market Transformation - Computer Efficiency	30,375	$442,567	761	819	4,578,543			
Market Transformation - Vending Efficiency	9	$41,900	54	52	497,439			
Motor & Drive Efficiency	994	$3,807,662	7,734	6,476	41,017,202			
Process Efficiency	108	$7,058,772	7,656	5,474	43,895,686	27	$1,500,020	138,608
Recommissioning	110	$2,250,290	3,157	1,618	15,795,538	27	$126,307	16,238
Business Segment Energy Efficiency Total	**33,199**	**$33,782,226**	**54,578**	**43,189**	**269,399,967**	**695**	**$4,429,850**	**500,342**
Business Saver's Switch	1,164	$2,086,837	25,385	8,342	49,598			
Electric Rate Savings	110	$654,098	25,000	12,610	887,589			
Business Segment Load Management Total	**1,274**	**$2,740,935**	**50,385**	**20,952**	**937,187**			
Business Education	13,323	$238,972				1,817	$36,138	
Energy Advisory Service	222	$219,866				24	$11,673	
Energy Analysis	304	$381,421				137	$155,945	
Lamp Recycling	33,235	$35,000						
Turn-Key Services	9	$314,520				6	$37,916	
Indirect Business Subtotal	**47,093**	**$1,189,779**				**1,984**	**$241,672**	
Business Segment Total	**81,566**	**$37,712,940**	**104,963**	**64,141**	**270,337,154**	**2,679**	**$4,671,522**	**500,342**
Residential Segment								
Energy Efficient Showerhead Program	1,500	$17,629	2,700		401,864	8,500	$99,901	11,169
ENERGY STAR Homes	1,244	$470,611	367	211	1,617,498	736	$820,015	41,981
Heating System Rebate						5,500	$1,687,969	75,997
Home Lighting	225,000	$2,612,899	42,840	3,761	43,531,041			
Home Performance with ENERGY STAR	225	$215,979	367	124	363,231	225	$571,352	7,452
Insulation Rebate Program	77	$28,856	272		270,556	1,026	$383,376	15,511
Refrigerator Recycling	5,000	$994,336	1,171	706	5,985,151			
Residential Cooling	12,000	$3,657,237	8,354	8,241	6,086,205			
Residential Quick Fix Efficiency Service	7,500	$1,157,020	8,215	1,666	5,295,719	7,500	$1,735,382	52,600
School Education Kits	20,000	$616,126	11,775	183	3,490,850	20,000	$543,578	34,014
Water Heating Rebate						1,050	$235,165	3,288
Residential Segment Energy Efficiency Total	**272,546**	**$9,770,693**	**76,062**	**14,893**	**67,042,114**	**44,537**	**$6,076,738**	**242,012**
Load Management Segment - Residential Saver's Switch	**21,000**	**$6,797,971**	**63,302**	**19,970**	**171,406**			
Consumer Education	433,854	$775,640				382,912	$540,806	
Home Energy Audits	3,392	$386,062				2,192	$189,124	
Lamp Recycling	248,023	$205,260						
Energy Efficiency Support Services		$385,510					$577,370	
Indirect Residential Subtotal	685,269	$1,752,472				385,104	$1,307,300	
Residential Segment Total	**978,815**	**$18,321,136**	**139,364**	**34,863**	**67,213,520**	**429,641**	**$7,384,038**	**242,012**
Low Income Segment								
Conservation Kits	15,000	$626,952	17,324	398	7,128,430	15,000	$318,401	40,524
Home Electric Savings Program	1,375	$1,037,857	397	120	803,660			
Single Family Weatherization Program						408	$891,563	6,038
Low Income Segment Total	**16,375**	**$1,664,809**	**17,721**	**517**	**7,932,090**	**15,408**	**$1,209,964**	**46,562**
Planning Segment								
Advertising & Promotion		$2,205,000					$551,250	
Application Development & Maintenance		$1,058,400					$264,600	
CIP Training		$149,741					$51,707	
Regulatory Affairs		$560,676					$115,548	
Planning Segment Total		**$3,973,817**					**$983,105**	
Research, Evaluations & Pilots Segment								
Market Research		$1,021,735					$209,435	
Product Development		$864,616					$202,854	
Annex 49 Pilot								
Energy Feedback Pilot	35,225	$113,839	683	105	6,345,530	35,000	$112,939	62,471
Product Development Total	**35,225**	**$978,455**	**683**	**105**	**6,345,530**	**35,000**	**$315,793**	**62,471**
Research, Evaluations & Pilots Segment Total	**35,225**	**$2,000,189**	**683**	**105**	**6,345,530**	**35,000**	**$525,228**	**62,471**
PORTFOLIO SUBTOTAL	**1,111,982**	**$63,672,892**	**262,730**	**99,626**	**351,828,294**	**482,728**	**$14,773,857**	**851,387**
Renewable Energy Segment-Solar*Rewards	**414**	**$5,003,198**	**2,046**	**1,062**	**2,791,427**			
Anticipated Alternative Filings								
CEE County Government Initiative								
CEE One Stop Efficiency Shop		$14,000,000		12,531	46,258,510			
Energy Smart		$330,000						
Anticipated Alternative Filings Total		**$14,330,000**		**12,531**	**46,258,510**			
Assessments Segment		**$1,318,120**					**$361,442**	
Electric Utility Infrastructure								
Supply Side Resources Segment - U of M IREE								
PORTFOLIO TOTAL	**1,112,396**	**$84,324,210**	**264,776**	**113,219**	**400,878,231**	**482,728**	**$15,135,299**	**851,387**

2010-2012 Triennial Plan Program Summary

Three Year Summary	Electric Participants	Electric Budget	Customer kW	Generator kW	Generator kWh	Gas Participants	Gas Budget
2010	1,087,204	$74,747,442	251,830	101,412	351,003,149	447,938	$13,320,424
2011	1,101,052	$79,275,922	257,716	105,827	368,767,444	468,132	$13,972,959
2012	1,112,396	$84,324,210	264,776	113,219	400,878,231	482,728	$15,135,299
2010 - 2012 Total	**3,300,632**	**$238,347,573**	**774,322**	**320,457**	**1,120,648,824**	**1,398,799**	**$42,428,682**

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Appendix D.2
Great River Energy Demand Side Management ("DSM") Data

Energy Conservation

Great River Energy has a robust portfolio of rebate programs, promotions and energy efficiency expertise. These programs help Great River Energy achieve the requirements outlined in The Next Generation Energy Act of 2007. In 2010, Great River Energy and its member cooperatives invested more than $25 million in the delivery of energy efficiency, conservation and demand side management programs. In 2010 these efforts resulted in over 219 million kilowatt-hours throughout Great River Energy's system.

Great River Energy and its member owners not only provide rebates to meet the Next Generation Energy Act goals, but also consider energy conservation and load management as an important resource in the planning process. Individual member-system participation goals are used in conjunction with Great River Energy's diversified demand assumptions and loss factors to calculate total system peak reduction. Great River Energy's goal is to maintain and enhance existing programs and continue to introduce new programs that provide net benefits to cooperative members, cooperatives and Great River Energy. The programs are designed to save natural resources and delay the need for additional transmission and/or generation resources.

Great River Energy's conservation programs are described in more detail below.

GREAT RIVER ENERGY DEMAND SIDE MANAGEMENT PROGRAMS

Minn. R. 7849.0290 requires that an application for a Certificate of Need include information regarding the applicant's conservation and load management programs (collectively "Demand Side Management" or "DSM"). This information is presented below for Great River Energy.

Minn. R. 7849.0290 requires that an application must include:

A. The name of the committee, department, or individual responsible for the applicants energy conservation and efficiency programs, including load management;

Great River Energy's Member Services Division is responsible for energy conservation and load management programs.

B. A list of the applicant's energy conservation and efficiency goals and objectives;

- Per Minnesota Statute 216B.241, Subd. 1c. Great River Energy's 2012 energy conservation goal for its member cooperatives is equal to 169,012,726 kWh at the generator. This figure represents 1.5% of GRE's members average weather normalized sales for 2008-2010, less sales to customers that have received formal CIP exemptions from the Minnesota Department of Commerce. The Minnesota Department of Commerce, Division of Energy Resources has approved GRE's 2012 program plan, which includes a broad array of programs that cover the residential, commercial, industrial and agricultural sectors.

- Per Great River Energy's load management programs, the goal is to maximize the value of current load management programs by identifying new revenue streams available in a FERC approved ISO market. Opportunities include load management as market energy, regulation and/or reserves.

A description of the specific energy conservation and efficiency programs that the applicant has considered, a list of those that have been implemented and the reasons why the other programs have not been implemented;

Each year, Great River Energy conducts feasibility studies on potential programs. Programs with verifiable energy reductions and no market barriers that are found to be cost effective are implemented. Programs that are difficult to quantify with market barriers, or are not cost effective are not added to the program portfolio.

A brief description of each program, by program type, that allows Great River Energy to achieve its strategic conservation and load management goals is provided below.

INDIRECT CONSERVATION PROGRAMS

Energy Education

Member cooperatives assist residential and commercial/industrial customers to help make them aware of the available energy conservation and energy efficiency programs through brochures, bill inserts, radio advertisements, newsletters, workshops, fairs, trade shows, and one-on-one consultation.

Residential Electrical Evaluation and Consultation

The residential electrical evaluation and consultation program is targeted at customers who contact their member cooperative and express concern over their electrical usage. When a customer contacts their cooperative representative, the representative reviews general appliance usage and costs with the customer. The review provides an overview of the customer's energy usage and provides suggestions on various means by which the customer can conserve energy.

DIRECT CONSERVATION PROGRAMS - RESIDENTIAL

Energy Assessments/Audits

Members offer free or reduced cost energy audits for residential and commercial customers. Cooperatives have staff specifically trained to conduct basic audits. In addition to the basic audits, participating members work with local Community Action Programs (CAP) agencies to target low-income households that could benefit from energy conservation education.

Commercial consumers are provided with either a walk-through energy audit performed by cooperative staff or a more comprehensive audit performed by a professional consultant. Costs for the comprehensive audit are typically shared 50 percent by Great River Energy, through the distribution cooperative, and 30 percent by the customer.

Residential Cooling

Residential air conditioning is a critical load to Great River Energy and its member distribution cooperatives. High-efficiency air conditioners improve system load factor, reduce peak capacity requirements, improve system efficiencies, and lower customer's cooling costs. Great River Energy, through its member cooperatives, provides a rebate for central air conditioners that have a Seasonal Energy Efficiency Ratio (SEER) of 13 or greater. This increased efficiency results in energy and demand savings during Great River Energy's critical summer period.

Residential Air Source Heat Pump (ASHP)

ASHPs provide summer cooling and spring/fall heating in residential or commercial installations. ASHPs are sized for cooling. In the cooling mode, the ASHP functions as a central air conditioner and is load managed during the summer per Great River Energy's cycled air conditioning control strategy. In the heating mode, the ASHP provides very efficient space heating to a temperature of approximately 20 degrees F. At this temperature the ASHP automatically shuts off and the secondary heating system (typically a natural gas or liquid propane furnace) heats the home. If conditions should require load control, Great River Energy also has the ability to control ASHPs

during the heating season. ASHPs help Great River Energy improve load factor, reduce peak capacity requirements, and improve system efficiencies.

Quality Installation Program for Central Air Conditioners and Air Source Heat Pumps

In addition to offering equipment rebates, GRE and its member cooperatives provide additional incentives for quality installation of high-efficient central air conditioners and air-source heat pumps. In order to generate maximum electric energy savings, it is essential that the equipment is installed correctly and according to manufacturer's specifications. The quality installation program seeks to validate four components of the installation:

1) Air flow
2) Duct Sealing
3) Proper sizing
4) Refrigerant charge

New central air conditioners and air source heat pumps with an overall efficiency of 13 SEER or higher are eligible. The system must be matched, which means the outdoor condenser unit and the indoor evaporator coil are designed by the manufacturer to work together to provide top performance and maximum efficiency.

Residential HVAC Tune-Up

Rebates are available to members who hire a registered and/or professional Heating Ventilation and Air Conditioning (HVAC) contractor to perform a tune-up of an existing, working Cycled Air Conditioner (CAC) or ASHP. This program is designed to improve the efficiency and maintain the operation of CACs and ASHPs.

Residential Cycled Air Conditioning and ASHP

The cycled air conditioning program provides customers with an incentive to allow Great River Energy to cycle (15 minutes on, 15 minutes off) their central air conditioner during periods of high peak demand. The cycling provides approximately one kilowatt (kW) of demand reduction per air conditioner. Air conditioning is a critical load to the member distribution cooperatives and to Great River Energy. The program helps improve system load factor, reduce peak capacity requirements, and improve system efficiencies.

Residential Geothermal

Ground Source Heat Pumps (GSHPs) have proven to be one of the most efficient space conditioning options with the added potential of significant energy savings. Acceptance of this technology continues to grow nationwide. GSHPs use the latent heat in the earth as a heat sink and a heat source. By utilizing a series of buried heavy-duty plastic pipes filled with a food-grade antifreeze solution as the heat transfer medium, GSHPs are highly efficient in both heating and cooling modes. This high efficiency results in reduced kWh usage in the cooling season and can also significantly reduce the total energy used to heat a home when compared to alternative heating systems. Along with the kilowatt hour (kWh) savings, there is capacity savings when the GSHP is part of the load management program.

Income Eligible: AC Tune-UP

Participating member distribution cooperatives offer air conditioning tune-ups to low-income customers in conjunction with local CAP agencies. The role of a CAP agency is to help identify customers that would benefit from this service and to provide instruction to local HVAC service vendors authorized under this program to provide tune-ups. The tune-up service includes:

- Cleaning condenser coil
- Checking Freon level and pressures
- Checking indoor filter
- Testing all controls
- Blowing out drain line
- Visually inspecting the entire system
- Educating homeowner on operation

The low-income air conditioner tune-up program improves air conditioner efficiency, which in turn lowers the customer's energy bill.

Income Eligible

Participating member distribution cooperatives provide renters or rental property owners with help to improve the energy efficiency of the property. Programs include high efficiency space heating and cooling, lighting retrofit, appliance replacement, energy saving water kits, Habitat for Humanity, and air conditioner tune-ups.

Residential Lighting

Lighting makes up ten percent of a typical home's electricity consumption. The home lighting program is an energy conservation program in the form of a rebate that encourages the conversion from incandescent lighting to more energy efficient lighting – particularly compact fluorescent lighting (CFLs) and light emitting diodes (LEDs). Promotions are also offered throughout the year at major retailers for instant in-store savings (Wal-Mart and Target).

Bulb Recycling

This program is designed to support Minn. Stat. §115A.932 to encourage residential members to properly recycle CFLs. Great River Energy offers $0.50 per lamp rebate through local retailers. Free recyling was available in 2008-2009 through participating Menards stores.

High Efficiency Water Heat

Customers replacing old inefficient electric water heaters with new high efficiency electric water heaters receive a cash rebate from a participating distribution cooperative. The minimum acceptable water heater has insulation of R16 or greater, and an energy efficiency factor of 0.92. The average water heater replaced has an efficiency factor of 0.82 or less.

Residential Dual Fuel and Pool Heat

Dual fuel space heating is a heating option for the conditioned living space in residential customers' homes that use only electric heat as the primary heat source. Cooperative members must have a

backup heat source (propane or fuel oil) to provide heat to the entire living area or pool. Member incentives may include all or a portion of the costs to install load controls on equipment.

Hot Water Savings

This program offers an opportunity for residential members to purchase and install a variety of energy saving water equipment at a significantly reduced price. The kit includes Hower head, kitchen aerator, bathroom aerators, hot water temperature card, and teflon tape to assist with the installation. Kits are provided at no cost to income-eligible members and CAP agencies for installation in income-eligible properties.

Electric Vehicle and ChargeWise[SM]

Great River Energy provides a specific rate for charging on and off-road electric vehicles such as Plug-in Hybrid Electric Vehicles (PHEV), golf carts, forklifts, etc., which can operate "around-the-clock" from a nightly eight hour charge. Great River Energy will rebate up to $500 of the installation cost for the ChargeWise[SM] kit. The ChargeWise[SM] program requires the program participant be a residential customer of an all requirements member.

DIRECT CONSERVATION PROGRAMS – COMMERCIAL, INDUSTRIAL, and AGRICULTURE (CI&A)

Agriculture

Agricultural prescriptive and custom rebates are available to members for the installation of various typs of high efficiency agricultural equipment. Rebates are offered for the following applications:

- Ventilation
- Dairy-Free Heater
- Dairy Plate Cooler
- Hog Farrowing
- Compressor Heat Recovery Systems
- Scroll Compressors for Bulk Tank
- Low Pressure Irrigation Systems
- Livestock Water Heaters

Compressed Air

This program rebates members for installing compressed air systems, equipment updates or system improvements that result in lower energy usage.

Custom

The CI&A energy grant and rebate program provides cash incentives to qualified applicants for energy efficiency improvements to their business, industry, or farm. Interested customers must complete a grant application form, which describes the intended energy efficiency improvement measures and calculates the expected energy and demand savings. The individual member cooperative evaluates the proposal for viability and cost effectiveness, and those that rank the

highest are awarded grants to help offset the cost of their project. Grant funds are typically used for the installation of high efficiency lighting, motors, adjustable speed drives, refrigeration compressors, high efficiency air conditioning, and other energy-conserving equipment. The program also includes a New Construction Rebate for Lighting and Motors. This rebate is on a per fixture basis or on the horsepower rating of the motor.

Energy Assessments/Audits

Members offer free or reduced cost energy audits for residential and commercial customers. Cooperatives have staff specifically trained to conduct basic audits. In addition to the basic audits, participating members work with local CAP agencies to target low-income households that could benefit from energy conservation education.

Commercial consumers are provided with either a walk-through energy audit performed by cooperative staff or a more comprehensive audit performed by a professional consultant. Costs for the comprehensive audit are typically shared 50 percent by Great River Energy, through the distribution cooperative, and 50 percent by the customer.

COMMERCIAL HEATING VENTILATION AND AIR CONDITIONING (HVAC)

Program rebates are offered to members for qualifying commercial cooling equipment installation. Only new and complete central air conditioning units and remote condensing unit retrofits qualify.

Commercial GSHPs

GSHPs have proven to be one of the most efficient space conditioning options with the added potential of significant energy savings. This high efficiency results in the reduction of kWh usage in the cooling season and can also significantly reduce the total energy used to heat a building when compared to alternative heating systems. A number of building types are able to take advantage of the benefits of heating and cooling with GSHPs and the program targets schools, churches, and other commercial and industrial buildings where appropriate.

Commercial New Construction Lighting

Prescriptive and custom rebates are available for lighting projects in retrofit, new construction and LED traffic signal retrofit applications. Specific dollar amounts, per fixture, vary based on the type of luminaries installed, lamp wattage, length and number of lamps per fixture.

Commercial Retrofit Lighting

Rebates are offered for retrofit lighting projects in existing structures. They are determined individually, based on equipment being removed and replaced with more efficient lighting or controls. For projects not covered by the perscriptive rebate application form, a custom rebate will calculate the energy savings and determine the rebate amount.

Commercial Motors and Drives

This program offers rebates for new or existing retail businesses. Rebates are determined on an individual basis using the perscriptive rebate forms for the motors and drives being installed. Motors that meet the National Electrical Manufacturers Association (NEMA) Premium Efficiency Motor Standards for retrofit applications are eligible.

Commercial Whole Building Energy Efficiency

Member cooperatives provide energy efficient educational materials and speakers for little or no cost to members at community meetings, key account meetings and other public informational gatherings. Member cooperatives also offer design assistance, building commissioning, building recommissioning, and audits that are specific for the commercial, industrial, or agricultural members needs.

Vending Controls

Rebates are available for control devices that are either occupancy or moisture sensor-based installed on beverage vending machines, glass-front beverage machine coolers or glass-front refrigerated display case doors.

DIRECT LOAD CONTROL PROGRAMS

Interruptible CI&A Loads

The Interruptible CI&A Loads Program provides a reduced electric rate to CI&A customers that can reduce their demand by a minimum of 25 kW during periods of high demand.

Interruptible Irrigation

Interruptible commercial irrigation systems, generally agricultural, turf growers, or golf courses, can be interrupted once per day for up to four hours.

Dual Fuel Space Heating

Dual fuel space heating systems are a combination of interruptible electric and non-electric space heating. Both the primary and secondary heating systems are sized for the entire heating load of the home. During periods of high electric demand, the interruptible electric heating system is shut off and the secondary (non-electric) heating system heats the home.

Electric Thermal Storage (ETS) Space Heating

The ETS space heating program uses off-peak electric energy to provide 100% of a home's heating requirements. During the nightly eight-hour ETS charge time, heat is stored in a water or ceramic medium. There are three commonly available storage heating configurations: central furnaces, room or dispersed heaters, and slab. Customers receive a special off-peak rate in return for allowing Great River Energy to control their systems each day during the on-peak hours.

Electric Thermal Storage (ETS) Water Heating

The ETS water heating program uses off-peak electric energy coupled with a high efficient water heater with sufficient storage capacity to supply the user's hot water needs. The water heaters are charged between 11:00 pm and 7:00 am each evening.

Interruptible Water Heating

Interruptible water heaters can be interrupted during periods of high electric demand for up to eight hours per day. Customers receive a special interruptible rate in return for allowing Great River Energy to control their water heaters during peak periods.

Electric Thermal Storage (ETS) Pool Heating

The ETS pool heating program uses off-peak electric energy to heat water for swimming pools. Swimming pools can be sufficiently heated during the nightly eight-hour off-peak charge time. Member distribution cooperatives provide participants a reduced electric rate for the ability to interrupt this load during the on-peak hours.

Off Peak Electric Vehicles and "ChargeWise[SM]"

The Electric Vehicle and "ChargeWise[SM]" program charges electric vehicle batteries using only off-peak energy between 11:00 pm and 7:00 nightly. Examples of qualifying vehicles are electric forklifts, golf carts, and residential PHEVs and EVs.

WELLSPRING RENEWABLE ENERGY PROGRAM

The Wellspring renewable wind energy program is a voluntary "green pricing" program that offers wind-generated electricity to cooperative members. Great River Energy was the first utility in the five-state region to offer such a program. Green pricing is a voluntary service that allows members the opportunity to purchase 100 kWh blocks of renewable energy and pay a premium on their electric bill to cover the incremental cost.

EVALUATED PROGRAMS

Pool Pump

The Pool Pump program is currently available on a pilot basis. The program is available to members that have an in-ground swimming pool. Members replacing an old inefficient pump with a new high efficiency pump can receive a rebate from their participating distribution cooperative.

PC Power Management

Connexus Energy, Dakota Electric, and Minnesota Valley Electric Cooperative are currently evaluating PC Power Management based on the "Electricity Savings Opportunities for Home Electronics and Other Plug-In Devices in Minnesota Homes". The report was completed in 2010 by the Energy Center of Wisconsin. The program allows a member to download an internet application that manages the energy used by a home PC based on an energy use profile that automatically switches the computer to a hibernate mode when it is not used for a predetermined length of time.

Data Centers
Data center rebates are not a specific program, rather they are covered under the custom grant program or by individual measures done at the site (HVAC, Lighting, Controls, etc.)

Battery Energy Storage
The intent of the program was to store off-peak energy in lead acid batteries to be discharged during the on-peak hours. Great River Energy's analysis showed that the cost of the units and the kWh capacity was not able to yield a positive return on investment, via energy arbitrage, over the life of the unit.

Ice Energy Storage
The potential to store off-peak energy in large insulated vessels to be discharged during on-peak hours was investigated. The units are deployed in conjunction with existing commercially packaged HVAC rooftop units. When the HVAC unit calls for cooling, a pump circulates coolant through coils in the ice and transfers the cold fluid to a separate condenser installed in the HVAC unit. The program was not found to be cost effective.

C. A description of the major accomplishments that have been made by the applicant with respect to energy conservation and efficiency;

Conservation and Efficiency

Great River Energy has met the CIP goals outlined not only in 2010 when the legislation took effect, but also the goals established internally for 2008 and 2009. Additional information on the success of the conservation and load management programs is provided in the tables on the following page.

2008: 78,000,000 kWhs saved (0.7% of member sales)
2009: 94,000,000 kWhs saved (0.85% of member sales)
2010 All Requirements Members: 183,926,700 kWh saved at the generator equaling 2.1% of member sales.
2011 All Requirements Members (preliminary): 145,951,628 kWh saved at the generator equaling 1.68%* of member sales.

** Twenty (20) all-requirements members purchase all of the power and energy needed to satisfy their electricity sales from Great River Energy, with limited exceptions for amounts historically supplied by the Western Area Power Administration ("WAPA") or from renewable generation facilities directly interconnected at a distribution level. Great River Energy has the responsibility and obligation to plan for and supply all of the future power and energy needs of the all-requirements member rate class.*

Eight (8) fixed members purchase a finite contractual amount of power and energy from Great River Energy that does not change based on their current actual use or need. As such, the energy conservation savings achieved by the fixed members does not reduce Great River Energy's power supply obligations or impact its need for future generation resources. Some fixed members purchase power and energy historically supplied by WAPA or from renewable generation facilities directly interconnected at the distribution level. The fixed members have made arrangements for

other wholesale suppliers to assume responsibility and obligation to plan for and supply all of their future power and energy needs.

Generator kWh savings add 11.5% to the energy savings that are realized at the end use member. This amount is an average reflecting the line-losses that occur through the Transmission and Distribution of electricity to end use members.

CIP Savings and Expenditures – All Requirements Members Only Great River Energy 2008-2010						
CIP Year	**Annual kWh**	**Lifetime kWh (based on average measure lifetime)**	**Annual KW**	**Aggregate KW (based on measure of lifetime)**	**Annual CIP Spending**	**Aggregate CIP Spending**
2008	70,432,275	880,403,438	125,825	125,825	$16,248,830	$16,248,830
2009	79,467,727	998,114,651	77,418	203,243	$18,759,091	$35,007,921
2010	117,226,945	1,441,891,424	41,634	244,877	$20,598,092	$55,606,013
2011	91,961,746	1,149,521,825	32,781	277,659	***Pending***	***Pending***
Total	**359,088,693**	**4,469,931,337**	**277,658**	**277,658**	**$55,606,013***	**$55,606,013***

*****Total amounts do not include spending for 2011, GRE and its all-requirement member cooperatives spent approximately $8,000,000 on participant incentives in 2011. All additional costs associated with the delivery, administration, evaluation, and advertising and promotion of these programs is being collected. Historically these costs have represented more than 100% of the costs associated with participant incentives.

Demand Side Management

Additional Controlled Load Great River Energy 2008-2010			
Additional Controlled Load Installed by Customer Class			
	2008	**2009**	**2010**
Residential	170	176	180
Commercial	178	183	190
Total**	**337**	**349**	**360**

Total Controlled Load Installed by Load Type			
	2008	**2009**	**2010**
Dual Fuel	132	137	140
Cycled Air Conditioning	121	127	130
Interruptible Water Heating	38	39	40
Irrigation	37	39	40
Interruptible C&I	141	144	150
Total KW	**469**	**486**	**500**

** Total control does not equal the sum of commercial and residential due to the differences in residential and commercial capabilities across control seasons. Total control values are derived from historical summer control performance.

D. A description of the applicants future plans through the forecast years with respect to energy conservation and efficiency.

Great River Energy and its Members have developed a robust portfolio of energy efficiency programs that provide measureable value for member-consumers in Minnesota. These programs are a dynamic and active part of Great River Energy's planning and daily operations and provide member-consumers with options for managing their energy use and associated costs.

The key to maintaining success hinges on the ability to promote current programs while developing new programs that find a sustainable balance between reducing energy and maintaining member-consumer satisfaction. Success can be seen not only in the achievement of conservation goals but also in the creation of new programs. An ongoing goal at Great River Energy is to create new programs that provide more opportunities for member-consumer participation. On average, Great River Energy creates two new energy efficiency programs each year. Recent goals have been achieved by reaching out and partnering with large retailers such as Wal-Mart and, Target. Continuing to reach out to local retailers and others across the industry will enable Great River Energy to identify new opportunities that will lead to successful achievement of its strategic conservation goals.

E. A quantification of the manner by which these programs affect or help determine the forecast provided in response to part 7849.0270 subpart 2, a list of their total costs by programs, and a discussion of their expected effects in reducing the need for new generation and transmission facilities.

Energy Conservation and Demand Side Management Budgets 2012-2013**			
	2012 Budget	**2013 Proposed**	**2014 Proposed**
Energy Conservation			
Residential	$6,394,148	$6,394,148	$6,394,148
Commercial	$2,605,852	$2,605,852	$2,605,852
Income Eligible	$1,189,076	$1,189,076	$1,189,076
Total	**$10,189,076**	**$10,189,076**	**$10,189,076**
Demand Side Management			
Residential	$6,178,798	$6,178,798	$6,178,798
Commercial	$388,839	$388,839	$388,839
Total	**$6,567,638**	**$6,567,638**	**$6,567,638**
Total Budget	**$16,756,714**	**$16,756,714**	**$16,756,714**

**2012-2014 Budget projections are based on the statutory mandated spending requirements and will change with changes in subsequent years revenues. Currently Minnesota Statutes §216B.241, Subd. 1b. requires that cooperative associations spend a minimum of 1.5% of their gross operating revenues from service provided in the state, excluding gross operating revenues from service provided to large electric customer facilities indirectly through a distribution cooperative electric association. Cooperatives are allowed to use 50% of this minimum spending requirement on load management program expenditures.

The effect of energy conservation and load management programs on load is implicit in Great River Energy's forecasts. The forecast is calculated using raw load data, and does not make any adjustments that attempt to measure the impact of energy efficiency or load management activities.

DSM and conservation programs do have a significant effect in reducing the need for new resource additions. In aggregate, Great River Energy's load management programs are capable of reducing summer and winter peak loads by 15%.

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