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March 29, 2007



Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, South Dakota 57501-5070

Dear Executive Director Gerpen:

Otter Tail Power Company is pleased to present for the South Dakota Public Utilities Commission's review our proposed South Dakota Energy Efficiency Partnership Plan for 2008.

We are available to meet with the Commission as well as Staff on the details of this filing, and any other ideas the Commission may have to foster wise energy use by South Dakotans.

If you have any questions, please feel free to contact me at 218-739-8303.

Sincerely,

/s/ Kim Pederson, Manager
Market Planning

Attachment

March 29, 2007

SOUTH DAKOTA ENERGY EFFICIENCY PARTNERSHIP

Otter Tail Power Company Energy Efficiency Plan

Otter Tail Power Company is pleased to present for the South Dakota Public Utilities Commission's consideration a one-year pilot plan to market energy efficiency to our South Dakota customers. The South Dakota Public Utilities Commission (PUC) has encouraged all investor-owned electric and natural gas utilities in South Dakota to be part of an Energy Efficiency Partnership (EEP) to significantly reduce energy use. Otter Tail Power Company looks forward to being part of that partnership.

We are in support of fostering wise energy use by South Dakotans. Our Energy Efficiency Plan, as proposed, includes programs for all customer classes and major end uses showing the greatest potential for energy savings. The Plan includes 10 programs intended to achieve approximately 1,325,497 kWh in annual energy savings at an approximate total cost of \$180,700. We would propose launching these programs January 1, 2008.

It would be our intention to evaluate this plan on an ongoing basis and propose any major modifications to the PUC in a timely fashion. Major modifications would include new programs, increases to proposed budgets by more than 30%, or closing programs. One of the most difficult to predict variables in our proposal is estimating labor. We have based our labor estimate on our history in Minnesota. However, we are not sure how South Dakotans will respond to the opportunity to participate in energy savings programs, and it may initially require more labor than our proposal indicates. As indicated, we'll monitor it closely and if we find our budgets need to be increased by more than 30%, we'll notify the South Dakota Commission Staff. We propose that the plan remain fairly flexible and dynamic, with minimal administrative overhead required both on our part and the PUC's.

While we are filing this as a one-year pilot, we would anticipate continuation of this effort as long as it remains cost-effective for us to do so, and adequate cost recovery is in place. By the end of 2008 we'll have a pretty solid understanding of what is working and what is not in South Dakota, and we encourage the PUC to engage in active dialogue with us on the same. Because we have significant history of managing a very cost-effective conservation improvement program in Minnesota, we have every reason to believe our plan will be quite successful in South Dakota. We propose that unless otherwise notified for the reasons stated above, the PUC can expect a rollover of the proposed portfolio, including approximate budgets and goals, into 2009 and 2010. Based on our practical experience, we likely would want to refile programs and budgets for 2011 and beyond, sometime in mid 2010.

The format of this 2008 proposal is as follows:

- Executive Summary and Goals
- Program descriptions
- Cost recovery mechanism and financial incentives
- Evaluation

I. EXECUTIVE SUMMARY

Programs

Otter Tail Power Company is proposing to launch a full portfolio of energy efficiency programs in South Dakota modeled after cost-effective programs with a proven track record currently operating in Minnesota. We have also analyzed our most recent 2002 DSM Potential Study to verify the potential for energy savings associated with these programs in South Dakota. A full program description is included as part of this plan. Briefly, the portfolio includes:

Residential/Farm

- Hotpacks (promotes more efficient electric water heating)
- Residential Demand Control (promotes efficient whole house energy management)
- Air source and Geothermal heat pumps (promotes efficient heating and cooling)
- Air Conditioning Control (promotes managing demand of cooling systems)
- Change a Light, Change the World (promotes efficient lighting)

Commercial/Industrial/Farm

- Grants (promotes efficient energy use in large customer facilities, such as adjustable speed drives, heat recovery, and process improvements)
- Motors (promotes high efficient motor installation)
- Lighting (promotes efficient lighting)
- Air source and Geothermal heat pumps (promotes efficient heating and cooling)

All sectors

- Advertising & Education
- Financing

Goals

South Dakota Data (Source: OTPCO 2006 Statistical Report)	
Customers	11,669
MWH sales	364,520 MWH
Retail revenue	\$22,885,568

2008 South Dakota Energy Efficiency Plan				
Customer Class	Budget	Annual KWH savings	Annual KW savings	Annual Participants
Residential	\$52,000	269,337	197.2 kW	1,995
Commercial/Industrial/Farm	\$102,200	1,056,160	246.4 kW	45
Indirect impact (all sectors)	\$26,500	n/a	n/a	608
Totals	\$180,700	1,325,497	443.6 kW	2,648

II. PROGRAM DESCRIPTIONS

The following individual programs are outlined in detail below:

Residential:

- HotPacks
- Change a Light, Change the World
- Air Conditioning Control
- Residential Demand Control (RDC)

Residential & Commercial:

- Heat pumps – air source and geothermal

Commercial, Industrial & Farm:

- Lighting
- Motors
- Grants

Indirect impact projects – all sectors

- Financing
- Advertising & Education

HOTPACKS (New, Residential)

A. PROJECT DESCRIPTION AND JUSTIFICATION

Water heating is the second biggest energy cost in the average home. Otter Tail Power Company offers rebates on new or replacement electric water heaters 80 gallons or larger that are put on an off-peak rate. Residential customers who receive a rebate will also receive a HOTPACK kit as will other reported customers who have installed an electric water heater.

The HOTPACK consists of a water-saver showerhead, a flow tester, a kitchen and bath aerator, pipe wrap or tape, a water temperature gauge card, and instructions for installation of these items.

Promotion

HOTPACKS will "piggy back" our water heating rebate program. The rebate program is planned to be promoted through direct mail, bill inserts, bill return envelopes, billboards, radio, and newspaper.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

	2008
KWH – Generator	28,548
Cost / KWH	\$0.14
KW – Generator	5.859
Cost / KW	\$683

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$3,000
Incentives	\$1,000
Total	\$4,000
Participation	40

CHANGE A LIGHT, CHANGE THE WORLD (New, Residential)

A. PROJECT DESCRIPTION AND JUSTIFICATION

The Change a Light, Change the World Project consists of a joint effort between Midwest Energy Efficiency Alliance (MEEA), participating electric utilities, and various hardware retailers and cooperatives. The project aims to increase the market share for ENERGY STAR qualified compact fluorescent lamps (CFLs) while educating both consumers and retailers about the benefits of CFLs.

Otter Tail proposes to participate in the 2008 Change a Light, Change the World project. The Company plans to work with Wisconsin Energy Conservation Corporation (WECC) to develop, implement, and administer the project. WECC has contracted with utilities throughout Wisconsin and Minnesota to recruit and train participating retailers and to provide program administration services.

A typical household spends about \$90 per year, or 10 to 15 percent of its annual electric bill on lighting, mostly due to inefficient light fixtures and bulbs. On average, ENERGY STAR qualified CFL bulbs cost less than half as much to operate as incandescent bulbs, resulting in an average annual energy savings of \$4 to \$6 per bulb replaced.

Other benefits of ENERGY STAR CFL lamps include:

- 1) Lamp life—one CFL bulb can last as long as 10 standard incandescent bulbs, saving consumers as much as \$35 over the life a single CFL bulb.**
- 2) Fire safety—not only do ENERGY STAR CFL lamps help consumers save money and energy; they also reduce home fire hazards. All ENERGY STAR labeled lighting follows National Fire Protection Association (NFPA) guidelines for fire safety. CFL bulbs generate 90 percent less heat than incandescent bulbs while remaining cool to the touch.**

Promotion

The Change a Light, Change the World project will rely on the following promotional methods: retailer training & recruitment, targeted advertising, instant - time of sale- rebates on Energy Star qualified CFLs, point of sale materials, and possibly a cooperative advertising budget for participating retailers.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

	2008
KWH – Generator	153,503
Cost / KWH	\$0.07
KW – Generator	21.546
Cost / KW	\$515

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$8,250
Incentives	\$2,850
Total	\$11,100
Participation	1,900

AIR CONDITIONING CONTROL (New, Residential)

A. PROJECT DESCRIPTION AND JUSTIFICATION

The Air Conditioning Control program will add to Otter Tail Power Company's extensive portfolio of demand and price response programs. About one-third of the Company's residential and small commercial customers in South Dakota are participating in one or another of the Company's demand response programs. Through these programs, the Company has made significant progress in ensuring that its winter and summer demand is responsive to electric prices.

Residential customers who enroll in the program will receive a \$5 credit for 4 months – June, July, August, and September. A controller is installed to cycle customer-cooling loads on a schedule of 15 minutes on followed by 15 minutes off throughout peak periods. Otter Tail cycles load to both maintain system reliability and to reduce the need to purchase high-priced spot market electricity. During normal summers, control of air conditioners is projected to occur for no more than 300 hours, controlling at an average of six to eight hours at a time. However, these are both estimates.

Research conducted by other utilities has shown that load control customers are not aware that their air conditioners are being cycled. These results were substantiated by us through a participant survey conducted in 2002, and has allowed us to conclude that cycling air-conditioning units did not normally inconvenience customers. An additional finding of Otter Tail's survey was that customers signed up for the program in response to their belief that it was a way to positively impact environmental concerns.

Promotion

The program will target residential customers with central air conditioning systems that are not currently controlled. Commercial customers will not be targeted for this program. The target group will be found through analysis of summer usage. Direct mail or bill inserts may be used as our primary marketing methods.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

	2008
KWH – Generator	1,468
Cost / KWH	\$8.58
KW – Generator *	31.830
Cost / KW	\$396

* The DSManager modeling software provides coincident peak-load reduction information, which is reported for all projects. Since Otter Tail Power Company is currently a winter-peaking utility, air conditioning projects - such as air-source heat pumps and air-conditioning control do not affect our winter peak. However, we have included summer on-peak demand reduction for these programs in our tables.

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$12,000
Incentives	\$600
Total	\$12,600
Participation	30

RESIDENTIAL DEMAND CONTROL

(New, Residential)

A. PROJECT DESCRIPTION AND JUSTIFICATION

The Residential Energy and Demand Control (RDC) Project is a close-to-real-time pricing project based on the installation and use of a special monitoring device that will notify customers of the need to curtail or reduce energy demand from major energy-consuming appliances in their homes during periods of high demand on Otter Tail's generation, transmission, and distribution systems. Customers benefit from a reduced energy rate as well as a cash incentive to help offset the costs of installing the Residential Energy and Demand Control equipment in their home.

The rate structure applying to customers who install the RDC system is based on separate charges for demand (capacity) and energy. The rate encourages customers to better manage their energy use, especially by limiting energy use during utility peak demand periods. This Project is particularly beneficial in helping customers understand how they can respond to wholesale market fluctuations and reduce overall demand for energy and capacity.

The RDC technology itself is highly effective because it enables customers to retain control over which end uses in their homes are interrupted by the RDC system. Customers can choose to pay a higher price in order to use more energy during periods of high demand if they desire, or they can pay less for their home energy use by using less energy during times of peak demand.

The Project assists Otter Tail in controlling its load during system peak times and in emergency conditions and continues to offer significant demand savings potential. Load management in general offers the utility an exceptional opportunity to make better use of existing generation facilities, reduce the costs of service, and better recognize and meet customer needs. In addition, the RDC Project significantly alters consumers' electricity consumption patterns, thereby making them a partner in the energy efficiency business.

South Dakota has an existing approved electric rate for residential demand control customers (Rate Designation R-03S, Code 42-241). Through this Project as part of South Dakota Energy Efficiency Partnership, Otter Tail Power Company is proposing that customers would receive a cash rebate incentive of \$300 for installing an RDC on the 241 rate.

Promotion

We plan to capitalize on existing customer awareness of the RDC program in South Dakota through bill inserts and printed materials.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

	2008
KWH – Generator	4,836
Cost / KWH	\$2.05
KW – Generator	52.754
Cost / KW	\$188

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$7,500
Incentives	\$2,400
Total	\$9,900
Participation	8

HEAT PUMPS

(New, Residential & Commercial)

A. PROJECT DESCRIPTION AND JUSTIFICATION

End-use market

Space heating accounts for about 8% of total energy use in the U.S. In the residential sector, energy use for space heating accounts for nearly half of U.S. household site energy consumption. About one-third of residences in the U.S. are electrically heated, with 2/3 of homes relying on standard efficiency resistance heating technologies and 1/3 relying on higher efficiency heat pumps.

Commercial space heating also offers an opportunity for energy savings. In any typical year, the total amount of energy used for commercial space heating in the U.S. doubles that used for space cooling. Electricity accounts for heating 29% of all commercial floor space in the U.S. with packaged HVAC systems being the most popular heating plant for commercial customers in the U.S.

The Heat Pump Project targets residential and commercial customers currently using or considering the installation of standard efficiency resistance heating and cooling systems. The program offers cash rebate incentives to customers for replacing standard efficiency electric systems with higher efficiency heat pump systems or for purchasing high efficiency equipment for first-time retrofit or new construction installations.

Otter Tail has structured the Heat Pumps Project with separate energy, demand, and cost effectiveness goals for the following market segments:

1. Residential air source heat pumps;
2. Commercial air source heat pumps;
3. Residential geothermal heat pumps; and,
4. Commercial geothermal heat pumps.

Energy Star standards will be used to meet rebate qualifications.

Technology

The definition of a heat pump is “a device that extracts energy from one substance and transfers it to another at a higher temperature. A heat pump takes low-temperature heat from an outdoor source (such as the air, ground, groundwater, or surface water) and mechanically concentrates it to produce high-temperature heat. Since most of the heat is simply moved (pumped) from the outdoor source to the indoors, the amount of electricity required to deliver it is typically less than would be required if using electric heat directly.

Heat pumps are available in a number of configurations, with the following two being the most popular:

1) *Air to air*

The most common type of heat pumps, air-to-air (air source) units are used widely for residential heating and cooling. Outdoor air is the source of heat, with this heat delivered to the house as hot air, either through duct systems or air handlers. Air to air heat pumps that heat the home year-round without supplemental resistance electric heat are not yet widely available. However, an all-electric heating system taking advantage of

a heat pump's high efficiency characteristics and resistance electric heat for severe weather operates at an average over-all efficiency of about 140%, compared to a standard electric resistance heating system operating at 100% efficiency.

2) Ground source heat pump (GSHP).

Also called geothermal heat pumps, these devices are most often used in the coldest climates where the ground temperature is significantly warmer and less variable than outside air temperatures. Because of the consistent, steady ground temperatures, geothermal heat pumps often boast efficiencies of up to 400%.

Promotion

The Heat Pump Project will be promoted through bill stuffers, printed materials and DVDs, as well as newspaper ads and articles.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

2008	Residential Air Source	Residential Geothermal	Commercial Air Source	Commercial Geothermal
KWH – Generator	32,621	48,361	16,520	14,066
Cost / KWH	\$0.27	\$0.12	\$0.42	\$0.19
KW – Generator *	50.232	34.934	9.738	9.724
Cost / KW	\$175	\$160	\$719	\$278

* The DSManager modeling software provides coincident peak-load reduction information, which is reported for all projects. Since Otter Tail Power Company is currently a winter-peaking utility, air conditioning projects - such as air-source heat pumps and air-conditioning control do not affect our winter peak. However, we have included summer on-peak demand reduction for these programs in our tables.

C. PROJECT BUDGET & PARTICIPATION

2008	Residential Air Source	Residential Geothermal	Commercial Air Source	Commercial Geothermal
Project Delivery & Administration	\$3,730	\$2,500	\$3,280	\$1,860
Incentives	\$5,070	\$3,100	\$3,720	\$840
Total	\$8,800	\$5,600	\$7,000	\$2,700
Participation	13	4	6	1

LIGHTING

(New, Commercial, Industrial & Farm)

A. PROJECT DESCRIPTION AND JUSTIFICATION

Lighting in the United States uses 656 terrawatt hours of electricity annually, accounting for about 18 percent of the nation’s total electricity use. Of this total, the commercial and industrial sectors account for about 88 percent. Although electricity used for lighting purposes continues to grow annually, electricity demand for other end uses has been growing faster, so lighting as a percentage of total electricity use has actually declined in recent years.

The energy efficiency of specific *new* lighting products has improved, but opportunities still exist for improvements in existing commercial, industrial, and farm buildings. An estimated half a billion incandescent downlights operate in the United States. Converting 2/3 of these fixtures used in residential markets alone would save customers \$3 billion per year in energy costs and free up approximately seven MW of electric capacity.

Otter Tail’s Lighting Project focuses on replacing inefficient lighting systems with new and retrofit systems based on more efficient technology. Typical retrofit applications include:

- Inefficient incandescent to screw-in compact fluorescent lamp;
- Inefficient fluorescent systems (T12 lamps and magnetic ballasts) to high efficiency fluorescent systems (electronic ballasts with T5 and T8 lamps);
- LED lighting; and,
- High efficiency pulse start metal halide.

Promotion

Otter Tail plans to use the following resources to promote the Lighting Project: print and mail resources to educate consumers and vendors, and personal contacts with energy management representatives from Otter Tail Power Company,

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

	2008
KWH – Generator	280,176
Cost / KWH	\$0.08
KW – Generator	69.991
Cost / KW	\$320

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$10,403
Incentives	\$11,997
Total	\$22,400
Participation	12

MOTORS

(New, Commercial, Industrial & Farm)

A. PROJECT DESCRIPTION AND JUSTIFICATION

About half of the world's electricity flows through electric motors, resulting in a total electric bill of \$90 billion for motor-driven systems in the U.S. Since such an immense amount of energy and money are devoted to motor-driven systems, even seemingly small improvements in motor efficiency can yield huge savings.

Many devices in the world today that use energy cost much more to purchase than the energy they use in a single year. For example, a typical automobile costs about 20 times as much to purchase as it costs in fuel to run each year. The lifetime costs of electric motors are completely opposite. A motor running 4,000 hours per year will consume on order of ten times its capital cost's worth of electricity every year, and roughly two hundred times its capital cost over a 20-year lifetime.

The goal of the Motor Project is to educate dealers and customers on the benefits of installing new and replacement electric motors that meet the NEMA Premium efficiency requirements. The Project provides cash incentives to customers for the purchase of NEMA Premium rated electric motors.

Promotion

Otter Tail will print and mail resources to educate consumers and vendors, and personal contacts with energy management representatives from Otter Tail Power Company to promote the motors program.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

	2008
KWH – Generator	57,594
Cost / KWH	\$0.23
KW – Generator	8.555
Cost / KW	\$1,531

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$7,600
Incentives	\$5,500
Total	\$13,100
Participation	22

GRANTS

(New, Commercial, Industrial & Farm)

A. PROJECT DESCRIPTION AND JUSTIFICATION

The Grant project pays incentives to commercial and industrial customers for energy saving installations, including new energy-efficient equipment and process changes. The Grant Project is a comprehensive project, designed to cover energy saving applications outside of normal project guidelines.

Impact savings estimates from Energy Grants come directly from the customer, who submits detailed information showing demand and energy savings for each proposed measure. The Company then verifies the feasibility of the proposed savings, and if necessary, makes modifications to the submitted figures. Otter Tail Power Company offers assistance to our commercial and industrial customers to help them determine the energy and demand savings necessary in developing a grant proposal.

End-use metering is also an option for verifying impact savings. In addition, the customer often works with internal or third party engineers to determine and verify savings. Currently, each Grant Proposal is studied to see if the existing metering arrangement is appropriate for the proposed measure, or if additional equipment should be employed.

Promotion

Otter Tail will use print and mail resources to educate consumers and vendors, and will utilize personal contacts between customers and energy management representatives from Otter Tail Power Company to promote the Grant program.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

	2008
KWH – Generator	687,804
Cost / KWH	\$0.08
KW – Generator	148.472
Cost / KW	\$384

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$17,000
Incentives	\$40,000
Total	\$57,000
Participation	4

FINANCING

(New, Residential, Commercial, Industrial & Farm)

A. PROJECT DESCRIPTION AND JUSTIFICATION

Otter Tail Power Company's customer financing project is designed to provide low interest loans for energy efficiency improvement projects currently included in our Energy Efficiency Partnership. These improvements include, but would not be limited to, lighting, motors, variable speed drives, process improvements, and heat pumps.

Financing applies to new equipment, materials, and contract labor for installation. Customer's internal labor is not covered.

The customer will be charged a low interest rate of approximately 2.9% at the time of loan origination.

The subsidy charged to the Energy Efficiency Partnership Tracker Account will be calculated using Otter Tail's cost of capital. The difference between the interest expense at our after tax cost of capital and the interest expense at the customers' rate is the cost associated with subsidizing the interest. The interest subsidy, loan defaults, and associated administration would be charged monthly to the EEP tracker.

Loans would be financed at up to 80% of the total project cost with a maximum loan term of five years. Loans will be repaid on the customer's service bill. Financing will be available to those Otter Tail customers who have a favorable credit rating and have a satisfactory 12-month electric utility payment history. Otter Tail will review all applications internally and loans over \$5,000 will require special credit checks and will be secured.

Customers will be allowed either the low interest financing or the rebate but not both.

Promotion

This project will be marketed primarily through our marketing supervisors and representatives, who have contact with our customers through other EEP projects. The Project will serve as a tool to promote energy efficiency improvements across all conservation end uses. In addition, the project will be marketed through all applicable project promotions.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

Energy and demand impacts will result from the Financing Project, but the individual impacts will be credited to the appropriate project. Therefore, it is difficult to determine cost-effectiveness at this time.

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$10,500
Interest Subsidy and defaults	\$2,000
Total	\$12,500
Participation	8

ADVERTISING AND EDUCATION

(New, Residential, Commercial, Industrial & Farm)

A. PROJECT DESCRIPTION AND JUSTIFICATION

The goal of advertising and education efforts is to inform, persuade, remind, and add value. Advertising and education makes individuals aware of product options, informs them about those options, and assists the individual in making decisions about a course of action or purchase. Effective advertising and education prepares an individual to respond when a need or opportunity arises. This likely does not occur simultaneously with the message being received, but has an effect, non-the-less, on decisions made.

Energy-efficiency advertising and education programs can (1) inform customers about available programs offered, (2) persuade them to contact Otter Tail Power Company for assistance, or try a particular energy-efficient product such as energy-efficiency appliances or lighting, (3) teach energy efficient behaviors and the benefits of those behaviors.

The range and complexity of energy related decisions consumers must make continue to multiply. This is due to the variety of energy-powered technologies used in modern life; the variety of construction materials available; the number of construction techniques represented in today's housing stock; and the number of options available for heating, cooling, and ventilation systems.

The primary purpose of this project is educational outreach targeting residential customers and children across economic groups from within the Otter Tail Power Company customer base. The program objective is to promote consumer awareness of energy-saving practices and to educate both today's consumers and future consumers to help prepare them to make lifestyle choices and buying decisions that maximize energy efficiency and savings.

Primary program components include educational materials including newsletter articles and literature; web based educational information, and offering educational assemblies to school aged children and their teachers.

1. Literature, newsletters, general information.

Appropriate literature and material will be located and ordered or developed and produced as companion pieces to the education effort that will take place through advertising and web-based education. Customers will be offered educational materials as free resources as a part of the advertising campaigns, in educational displays at home shows, school visits, in local company office in the South Dakota service territory, and online through the Company web sites at otpc.com or conservingelectricity.com. In addition, conservation information will be published through a bimonthly newsletter for residential customers.

2. Educational assemblies for teachers and school aged children.

The Energy Connection program is a production and tour offered by the Minnesota Science Museum. The energy tour will be offered free to selected schools in South Dakota in the spring of 2008 for implementation in 2008. The goal will be to provide the assembly program to at least 4 schools. The assembly program targets students in grades 4 – 6 with interactive displays and activities to develop an understanding of energy, alternative fuels and energy resources used to generate electricity, and

energy conservation methods to use at home and at school. The program is supplemented with workshop and materials for teachers to assist them in meeting their energy education requirements for grades 4 – 6.

The objective of the program is to educate approximately 400 students on energy use, its impact on the environment, and how behavior and technology interact. In addition, a minimum of at least 200 pieces of energy efficient literature will be distributed to customers upon their request.

The project will also support other advertising efforts in specific projects.

B. LONG TERM DEMAND SIDE MANAGEMENT GOALS

This project is not a direct impact project; therefore no estimates have been made to determine any effects on peak demand or energy consumption.

C. PROJECT BUDGET & PARTICIPATION

	2008
Project Delivery & Administration	\$14,000
Total	\$14,000
Participation	600

III. COST RECOVERY AND FINANCIAL INCENTIVE

Cost recovery, tracker account, and carrying charge

As discussed with South Dakota Commission staff and consistent with our current Minnesota Conservation Improvement Program process, Otter Tail Power Company has established a balancing account to track South Dakota conservation costs, including a carrying charge for the time value of the money invested in energy efficiency projects, incurred by the Company. The tracker will also account for amounts collected from customers through the conservation cost recovery charge. The conservation cost recovery charge would be collected monthly as a percent of customers' total bills, excluding sales tax. For billing purposes, the cost recovery charge would be combined with other charges as part of the Energy Adjustment that appears on customers' electric service bills. We are not currently recovering any of these costs in base rates; therefore, we propose the conservation cost recovery mechanism as an appropriate means to recover costs associated with developing and implementing the South Dakota Energy Efficiency Partnership.

The South Dakota Energy Efficiency Partnership account was established on February 1, 2007, when the Company started active development of an energy efficiency plan for South Dakota. We propose the tracker be allowed to build through December 31, 2008, at which point the Company will notify the South Dakota Commission on March 1, 2009 of the tracker balance, including carrying charges and any applicable incentives (discussed in the next section, generally referred to as financial incentive or bonus), as well as any offsets or adjustments. The Company proposes that the monthly carrying charge be equivalent to the Company's currently approved rate of return.

The March 1, 2009, filing will also include the amount of the conservation cost recovery charge and will request approval to implement the charge on customers' bills, effective July 1, 2009. If the PUC determines that the Energy Efficiency Partnership should stay in place for subsequent years, the Company proposes providing a report to the Commission every March 1, thereafter. The report will show the EEP expenses, including carrying charges and incentives that are accounted for yearly in the tracker, and the amount recovered from customers through the cost recovery charge. The report will develop a new cost recovery charge based on the outstanding balance of the tracker account and request approval to implement the new charge effective each July 1.

Bonus/financial incentive

The Company proposes a financial incentive mechanism as part of a successful energy-efficiency partnership in South Dakota. We also invite a discussion on various ways to offset the disincentive associated with reduced sales through conservation.

Bonus for kilowatt-hours conserved

In order to ensure that an incentive is in place for utilities to engage in efficient and effective conservation, a bonus or financial incentive, based on project effectiveness, is included in this proposal.

The proposed bonus is based on the Company receiving a percentage of actual EEP spending for achieving exemplary energy savings. Specifics include:

- An incentive bonus would be activated only when:

- the utility achieves more than 100% of the proposed overall energy savings goal, and
 - the overall EEP portfolio is cost-effective (utility test > 1.0)
- The bonus would be based on a percentage of spending for direct-impact projects only (those that provide direct and measurable energy savings).
- The percent difference between actual energy savings and proposed energy savings (100%) is then applied to the direct-impact project dollars.
- The bonus would be capped at 130% of achieved savings, or 30% of EEP spending of direct-impact dollars.

Example: The utility proposes an EEP of \$150,000, with a proposed energy savings of 1.25 million kWh.

After year-end evaluation of the individual projects and the EEP as a whole, the following results were achieved:

- The benefit/cost test for the utility test is 2.5 (over 1.0)
- Energy savings resulted in 1.45 million kwh, or 116% of goal
- Since both requirements were met, a bonus is in place
- The utility spent \$155,000, of which \$122,000 was for direct-impact projects
- Bonus would be 16% of \$122,000 or \$14,152
- Bonus would be capped at 30%, or \$36,600

The financial bonus would be submitted to, reviewed, and approved by the Commission. Once approved, the bonus dollars would be added to the EEP tracker account for inclusion in the cost recovery charge.

Strategies to remove the disincentive associated with lost sales through conservation

There are a number of mechanisms that can reduce the disincentive associated with lost revenue through conservation or energy efficiency programs.

One method is lost margin recovery, where the lost margin is calculated and added to the Energy Efficiency tracker account. The lost margin per kilowatt-hour for a customer class is determined by the difference between the tariffed energy rate (without the fuel clause adjustment) and Otter Tail Power Company's base cost of fuel, as set in the Company's last general rate case. A weighted average of the five different energy charges among residential and farm tariffs is used. A lost margin would continue to be calculated on all kilowatt-hours conserved until the next general rate case or as ordered by the Commission. Recoverable lost margins will be added to the tracker account.

Another method would be to capitalize efficiency costs. Capitalizing allows for cost recovery over time. The appropriate amortization periods for program costs, balancing concern for rate impacts, would need to be examined. The return on energy efficiency investments is generally higher. To encourage energy efficiency investments over supply investments, regulators can authorize a return on investment that is slightly higher (e.g., 5 percent) for energy efficiency investments. Another approach is to share a percentage of the energy savings value, perhaps 5 to 20 percent with the utility.

One of the most talked about mechanisms is decoupling. A balancing account collects forecasted revenues, and rates are reset periodically to adjust for the difference between actual

revenues and forecasts. Other decoupling methods include a revenue-per-customer cap with a monthly or annual true up, or a revenue per customer mechanism.

Since decisions of this magnitude involve many stakeholders and because there are many options, the Company suggests that the Commission may be interested in opening up a dialogue to get input and direction on alternative lost margin recovery mechanisms.

IV. EVALUATION

Cost effectiveness

Otter Tail Power Company is pleased with the long-term cost-effectiveness of the proposed 2008 offering as is reflected in the benefit/cost ratios below:

2008 Energy Efficiency Plan - South Dakota				
Benefit / Cost Results				
Participant Test	Ratepayer Impact Test	Total Resource Test	Societal Test	Utility Test
2.70	1.04	3.29	3.17	7.41

DSManager Analysis

Otter Tail Power Company continues to use DSManager as the analysis tool for conservation programs. This tool uses IRP-Manager inputs to model our system demand and marginal costs. Currently the Company is reviewing other modeling tools for future use in DSM analysis.

Discount Rates – 2008

Otter Tail Power Company has used the following discount rates as inputs to DSManager. The Societal discount rate uses the 20-year T-bill rate as of March 1, 2007.

Participant Test	Ratepayer Impact Test	Total Resource Test	Societal Test	Utility Test
10.75%	8.0%	4.78%	4.78%	8.0%

Externality Values

For the 2008 Filing, Otter Tail's final low and high range externality values are calculated to be \$0.2999/MWh for the low range and \$1.6638/MWh for the high range. The Company has applied the high range externality value of \$1.6638/MWh to all projects.

Benefit – Cost Tests

Otter Tail Power Company uses DSManager software to calculate benefit-cost test results for each direct-impact project, along with aggregate for the entire EEP portfolio including indirect impact project costs. Externality costs are used in the analysis. Results for the individual programs are listed in Appendix A.

Electronic Transfer of Data

Electronic data will be supplied to you upon request. Please notify the Company of your specific data requirements.

Confidentiality of Data

Much of the data used in EEP analysis, specifically that which would be transferred electronically, is considered proprietary. Such data is considered confidential and for Commission use only.

V. SUMMARY

Otter Tail Power Company is pleased to be a partner in South Dakota's Energy Efficiency Plan. Our plan as proposed includes:

- 10 programs covering major end uses in residential, commercial, industrial and farm sectors
- Annual energy savings of 1,325,497 kwh
- Budget of \$180,700
- Cost recovery
- Financial incentive
- Minimal administrative overhead

Company representatives are available to answer any questions you might have. We look forward to your response.

**2008 SOUTH DAKOTA ENERGY EFFICIENCY PLAN
 OTTER TAIL POWER COMPANY
 March 30, 2007**

APPENDIX A

	PROPOSED 2008 GOALS						BENEFIT / COST TEST RESULTS				
	ENERGY SAVINGS (KWH)	DEMAND SAVINGS (KW)	PROPOSED BUDGET	PART.	COST / KWH	COST / KW	PART. TEST	RATE PAYER IMPACT TEST	TOTAL RES. TEST	SOCIETY TEST	UTILITY TEST
DIRECT IMPACT PROJECTS											
RESIDENTIAL											
HotPacks	28,548	5.859	\$4,000	40	\$0.14	\$683	INF.	1.13	4.09	4.16	2.87
Residential Demand Control	4,836	52.754	\$9,900	8	\$2.05	\$188	9.94	0.87	6.45	6.08	7.44
Air Source Heat Pumps - Residential *	32,621	50.232	\$8,800	13	\$0.27	\$175	3.21	1.58	6.17	6.00	11.68
Geothermal Heat Pumps - Residential	48,361	34.934	\$5,600	4	\$0.12	\$160	2.29	1.17	3.60	3.46	16.82
Air Conditioning Control *	1,468	31.830	\$12,600	30	\$8.58	\$396	INF.	4.02	5.54	5.54	4.23
Change A Light	153,503	21.546	\$11,100	1,900	\$0.07	\$515	18.06	0.74	4.19	4.09	3.09
Total - Residential	269,337	197.156	\$52,000	1,995	\$0.19	\$264					
COMMERCIAL											
Grant	687,804	148.472	\$57,000	4	\$0.08	\$384	2.10	1.10	3.11	3.01	11.70
Motors	57,594	8.555	\$13,100	22	\$0.23	\$1,531	9.53	0.56	3.85	3.59	3.39
Lighting	280,176	69.991	\$22,400	12	\$0.08	\$320	2.85	0.93	3.06	2.93	9.68
Air Source Heat Pumps - Commercial *	16,520	9.738	\$7,000	6	\$0.42	\$719	3.20	0.89	2.91	2.80	3.11
Geothermal Heat Pumps - Commercial	14,066	9.724	\$2,700	1	\$0.19	\$278	2.24	0.96	2.65	2.54	6.98
Total - Commercial	1,056,160	246.480	\$102,200	45	\$0.10	\$415					
Total - Direct Impact	1,325,497	443.636	\$154,200	2,040	\$0.12	\$348					
INDIRECT IMPACT PROJECTS											
Financing			\$12,500	8							
Advertising & Education			\$14,000	600							
Total - Indirect Impact			\$26,500	608							
TOTAL - ALL PROGRAMS	1,325,497	443.636	\$180,700	2,648	\$0.14	\$407	2.70	1.04	3.29	3.17	7.41

* Air conditioning programs include summer load reductions, which are not coincident to the system winter-peak