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PUBLIC UTILITIES COMMISSION

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March 29, 2006

Ms. Jean Jewell
Commission Secretary
Idaho Public Utilities Commission
472 West Washington Street
PO Box 83720
Boise, Idaho 83.720-0074

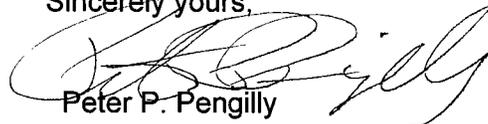
RE: Time-of-Day and Energy Watch Pilot Programs Final Report
Case No. IPC-E-05-02

Dear Ms. Jewell:

Enclosed please find an original and seven copies of Idaho Power's Time-of-Day and Energy Watch Pilot Programs final report. This report is filed in compliance with Idaho Public Utilities Commission Order No. 29737.

If you have questions regarding this report, please direct them to Maggie Brilz at 388-2848 or me at 388-2281.

Sincerely yours,



Peter P. Pengilly

PPP:ma
Enclosures

c: Ric Gale
Maggie Brilz

**TIME-OF-DAY AND ENERGY WATCH PILOT PROGRAMS
FINAL REPORT**

APR 29 PM 3:37
IDaho Public Utilities Commission

INTRODUCTION:

On February 2, 2005, Idaho Power Company (Idaho Power or the Company) filed a request with the Idaho Public Utilities Commission (the Commission) to implement two pilot programs for residential customers in the Emmett Valley. On March 22, 2005, the Commission issued Order No. 29737 approving Schedule 4, the Energy Watch Pilot Program, and Schedule 5, the Time-of-Day Pilot Program. These time-variant pricing programs offered customers with Advanced Meter Reading (AMR) capability the opportunity to reduce their electric bills by shifting some of their usage to lower priced time periods. By shifting their usage, the participants could help reduce the Company's loads during peak hours. The special summer rates for these programs were in effect from June 1 to August 31, 2005.

The Time-of-Day Pilot Program is a time-of-use (TOU) pricing program, and the Energy Watch Pilot Program is a critical peak pricing (CPP) program. TOU and CPP programs require special metering that can provide subtotals of energy consumption for different periods when different rates are in effect. The meter data must be collected, validated, and integrated into the billing system to produce the monthly bills. One purpose of the pilot programs was to test the new AMR and meter data management systems and their integration with the Company's Customer Information System (CIS) for billing.

The pilot programs allowed Idaho Power to investigate the Company's customers' response to and satisfaction with the programs, to evaluate the impact of the programs on peak loads and customer bills, and to test the feasibility and scalability of using the new AMR system together with the existing billing system to implement these programs.

In April and May of 2005, Idaho Power promoted and solicited customer participation in the Energy Watch and Time of Day Pilot Programs in the Emmett Valley. The

application deadline for customers to apply to participate in these programs was May 15, 2005. This enabled the Company to convert the participants to these new rate schedules within its CIS and begin billing them by June 1, 2005. A set of the promotional and communication materials used for the Energy Watch and Time-of-Day Pilot Programs is included as (*Attachment A*).

In September 2005, Northwest Research Group conducted a telephone survey for Idaho Power residential customers in the Emmett Valley to determine customer awareness and perceptions of the two pilot programs and of the new AMR technology in general. The survey included participants and non-participants in both programs. In October, Northwest Research Group presented the survey results in a report entitled *Idaho Power Emmett Study: Final Report (Attachment B)*.

The Company selected RLW Analytics (RLW) to perform an impact evaluation of the two pilot programs to determine the effects of the programs on customers' peak loads, energy consumption, and monthly bills. In January 2006, RLW delivered its evaluation, *Residential Time-of-Day and Energy Watch Pilot Program Analysis: Final Report (Attachment C)*.

PROGRAM DESIGN:

In an effort to design time-of-use and critical peak pricing programs that customers would understand and be willing to volunteer to participate in, the Company contracted with McFain & Associates Research to conduct focus groups with Emmett customers. Two separate focus groups were conducted on December 7, 2004 at Idaho Power's Emmett office. These focus groups demonstrated to Idaho Power that time-variant pricing programs were a new concept to most of Idaho Power's customers and that the promotion of these programs would require an extensive education component. The pilot programs were designed to be similar to traditional programs operated by other electric utilities. While some programs at other utilities combine elements of TOU and CPP

rates, after consideration of the focus groups' comments, Idaho Power decided to keep the programs simple and separate. The Company believed that by designing the Energy Watch Pilot Program to be independent of time-of-use pricing, the program would be easier for customers to understand, easier for the Company to market to potential participants, and allow for a separate evaluation of each pricing strategy.

Time-of-Day Program:

The Time-of-Day program has three pricing blocks during the summer months of June, July, and August.

The following chart shows the time blocks and pricing used during the summer of 2005.

Time-of-Day Program Summer Pricing 2005

Price Block	Days	Hours	Cents / kWh
On-Peak	Mon - Fri	1 p.m. - 9 p.m.	6.8686¢ / kWh
Mid-Peak	Mon - Fri	7 a.m. - 1 p.m.	6.1717¢ / kWh
Off-Peak	Mon - Fri	9 p.m. - 7 a.m.	5.3004¢ / kWh
Off-Peak	Sat, Sun, July 4th	all hours	5.3004¢ / kWh

Energy Watch Program:

Traditional critical peak pricing programs usually overlay critical peak pricing on top of a time-of-use pricing structure. The Energy Watch program is a simplified critical peak pricing program. For all hours other than during Energy Watch events participants pay a flat energy rate during the months of June, July and August. During an Energy Watch event, participants pay a significantly higher rate. Energy Watch events can be called on up to ten weekdays between June 15 and August 15 between the hours of 5:00-9:00 p.m.

Participants' electricity rate during Energy Watch events increases to 20¢ per kWh. For all hours outside Energy Watch events, participants pay an energy rate equal to the 0-300 kWh energy rate under rate Schedule 1. Idaho Power's standard summer residential rate under Schedule 1 is 5.428¢ per kWh for 0-300 kWh and 6.0936¢ per kWh for all usage greater than 300 kWh.

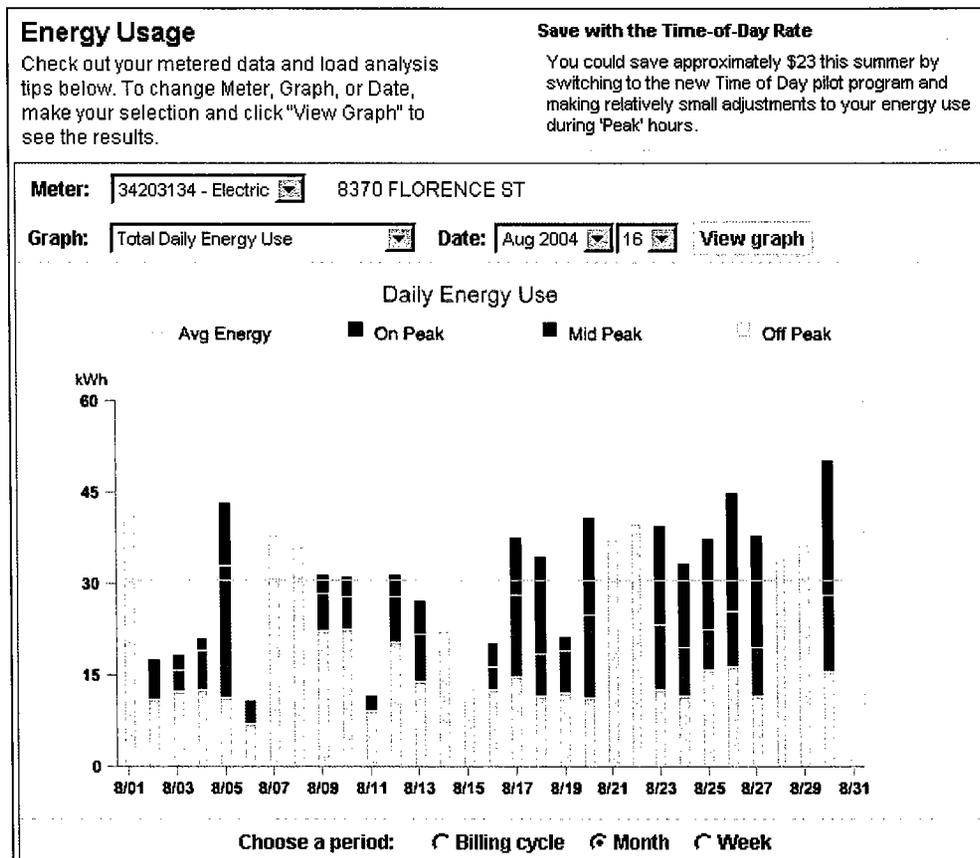
Energy Watch participants were notified of Energy Watch events by telephone and email (where available) by 4:00 p.m. the day preceding an Energy Watch event. The Company utilized an autodialing system with live operators for the first notification call for each Energy Watch event. The autodialing system delivered recorded messages for up to two successive calls if personal contact with the participant was not made.

PROGRAM PROMOTION:

Idaho Power offered three separate programs to Emmett Valley residents during the summer of 2005: Energy Watch, Time-of-Day, and A/C Cool Credit, Idaho Power's residential air conditioner cycling demand response program. Solicitation for participation in all three programs occurred simultaneously. However, customers were eligible to participate in only one of the programs and were asked to specify their choice. All together approximately 5,000 Emmett Valley customers received information for participation in the Time-of-Day and Energy Watch Pilot Programs. The Company used a combination of promotional techniques. Potential participants received letters, brochures, and postcards by direct mail. Company personnel participated in interviews which resulted in articles in the local newspaper, specifically the Messenger Index. Idaho Power also ran advertisements in the Messenger Index describing the programs and inviting customers to participate. Company representatives appeared at the Emmett Lions Club, the Emmett Senior Center, and the local Albertson's market to promote the programs. Through all the promotional materials, customers were invited to visit the Company's Web site or utilize Idaho Power's Customer Service Center for additional

information. Attachment A contains a set of the Company's promotional and communications materials.

Idaho Power utilized a third party software vendor, Nexus Energy Software (Nexus), to provide customers access to their AMR hourly energy usage through Idaho Power's Web site. Potential participants were able to view their individual hourly usage data for the summer of 2004 and use a bill comparison tool to evaluate if they would benefit from the Time-of-Day program. Customers interested in the Energy Watch program could view their hourly usage to evaluate how much energy they might typically use during an Energy Watch event. Since Energy Watch events are not scheduled for specific days, estimating an individual's potential bill impact from participating in the Energy Watch program was not possible. The following figure illustrates the Nexus display.



Promotion of Time-of-Day Display

During the promotional phase of the Time-of-Day and Energy Watch programs thirty-five potential participants accessed their usage data through the Nexus Energy Software. Of the 170 customers who applied to participate in the Time-of-Day or Energy Watch programs, twenty-four viewed their previous summer's usage prior to signing up for a program. Customers who did not have Internet access or who preferred to have the Company provide usage information could contact Idaho Power's call center to have a printed version of the hourly load graph and bill comparison mailed to them.

PROGRAM ENROLLMENT:

The Time-of-Day Pilot Program had 97 customers apply to participate and the Energy Watch Pilot Program had 80 customers apply to participate. Three Time-of-Day applicants and one Energy Watch applicant also signed up for Idaho Power's A/C Cool Credit program. When given the choice of which program to participate in, all four opted to participate in the A/C Cool Credit program. Two Time-of-Day participants and three Energy Watch participants quit the programs during the summer. This resulted in a total of 168 program participants, 92 participants in the Time-of-Day program and 76 participants in the Energy Watch program by the end of August 2005. This participation represents about a 3.5% response rate for the Time-of-Day and Energy Watch programs combined with a 2.3% attrition rate*.

PROGRAM OPERATION:

Idaho Power strove to operate the Energy Watch and Time-of-Day programs in a manner that was reflective of fully deployed and widely available programs. In this way the viability and scalability of these programs could be tested. Idaho Power attempted to automate as many of the operational aspects of these programs as possible, however, more manual intervention than initially anticipated was required in order to operate the

* Excluding those customers who signed up for more than one program and opted to participate in the A/C Cool Credit program

Energy Watch and Time-of-Day programs successfully. The issues requiring manual intervention must be overcome in order to make these programs more scalable in the future and to assure accurate and timely billing, customer satisfaction, and make these programs more cost effective for the Company.

One area where manual intervention was necessary is referred to as a 'virtual' meter exchange in Idaho Power's CIS. For each customer participating in these programs, it was necessary to reconfigure their meter type in Idaho Power's CIS. The meter type must be converted to accept time-variant consumptive values rather than traditional monthly subtractive meter readings. Currently this is a manual process and no automated means exist to reconfigure these meter types within Idaho Power's CIS. Because of the need to reconfigure each participant's meter if time-variant pricing programs are implemented on mass scale, Idaho Power will need to modify its CIS to enable an automated approach. This modification was too costly and time intensive to accomplish for the Time-of-Day and Energy Watch Pilot Programs.

Because of the manual 'virtual' meter exchange process, the Company chose to remove customers from these programs in the event that they moved during the pilot program offering. If a participant moved, they were assigned to the standard residential rate at their new residence. It was difficult to track a customer's movement particularly when they moved out of the Emmett Valley. If they moved within the Emmett Valley where these programs were offered, it was difficult to manually accomplish the 'virtual' meter exchange quickly enough to assure accurate and timely billing. When customers disconnect at one location, the Company does not always immediately know where the customer's new location will be or if it will even be within the Company's service territory.

Another aspect of the time-variant pricing programs that ultimately required manual intervention was the aggregation and estimation of hourly usage data into billable units

and the hand entry of the billable units into the CIS. In order to automate this process, Idaho Power had purchased the Itron EE Meter Data Management System (MDMS) in the summer of 2004 to validate, estimate, and aggregate meter usage data and create a file to be passed to Idaho Power's CIS. The inability of the MDMS to pass acceptance testing prior to or during the pilot programs prevented this process from being automated. Because of the inability to electronically create a billing file to pass to the CIS, it was necessary to manually enter this information into Idaho Power's CIS and also necessary to manually check it for accuracy before customers could be billed. A meter data management system that is dependable, accurate, scalable, and able to integrate with other computer systems is essential for offering time-variant pricing programs on a larger scale.

For the Energy Watch program, the Company called nine Energy Watch events between June 15th and August 15th. Idaho Power's program manager met with the day-ahead energy schedulers daily at 10 a.m. to assess whether an Energy Watch event should be called. At this time the energy schedulers and program manager decided if an Energy Watch event should be called for the following day. The decision to call an Energy Watch event was primarily based on forecast temperature, market prices, and energy availability. The Company also called Energy Watch events throughout the summer in order to test the processes and procedures needed to operate the program and to assess customer response and acceptance. The Company called Energy Watch events on: July 7, July 13, July 15, July 21, July 27, July 29, August 4, August 9, and August 11.

The customer notification by telephone of the Energy Watch customers on the day prior to an Energy Watch event was very labor intensive. The Company attempted to contact every Energy Watch participant for each Energy Watch event using live operators on the first notification call. If the participant was not reached on the first call, an autodialing system delivered recorded messages for up to two successive calls announcing an Energy Watch event. The decision to call an Energy Watch event was made at approximately 11

a.m. and participant notification by email and telephone was completed by 4:00 p.m. on the day preceding an Energy Watch event.

The following table displays the results of the telephone notification.

Date	Live Operator Connects	Recording Connects Customers	Recording Connects Machines	No Answer	Busy	Immediate Hang-ups	Opted Out	Forwarded
7/7/2005	31	13	28	2	1	3		
7/13/2005	33	11	24	4	1	2	1	1
7/15/2005	34	11	25	2	0	4		1
7/21/2005	36	3	30	2	1	3		1
7/27/2005	39	5	28	1	3		1	
7/29/2005	40	4	25	1	1	4		
8/4/2005	40	7	23	1	1	3		
8/9/2005	40	7	23	1	1	3		
8/11/2005	35	9	27			3		1
Average	36	8	26	2	1	3	1	1

Results of Telephone Contact of Energy Watch Customers

For the pilot program this method of telephone contact was valuable to obtain immediate customer feed-back. For example, several customers voiced their concern about having consecutive Energy Watch events and many customers did not like having Energy Watch events on Fridays. This information was anecdotal but was valuable to obtain as the pilot program was operated.

Thirty-two of the Energy Watch participants had email addresses and were notified via email in addition to telephone notification. Energy Watch event notification via email worked well. It was fast, efficient, and the customer feed-back was positive. In order to expedite customer notification of Energy Watch events for any critical peak pricing programs in the future, the Company would prefer using email notification and autodialed recorded messages.

PROGRAM RESULTS:

In September 2005, Idaho Power contracted with Northwest Research Group, Inc. to conduct a survey to determine the awareness and perceptions of Idaho Power's service since installing the new AMR technology and to gain awareness and perceptions of the Time-of-Day and Energy Watch programs. A telephone survey targeting 560 customers with AMR capability was conducted in Idaho Power's Emmett Valley. Four hundred customers that did not choose to participate in the pricing programs and 160 program participants were targeted for the survey. Surveys were completed with 406 non-participants and 127 program participants (66 Time-of-Day and 61 Energy Watch participants).

For survey results, see *Northwest Research Group's Final Report (Attachment B)*.

The Company contracted with RLW to validate the hourly data and to evaluate the peak impacts, energy impacts, and bill impacts for the Energy Watch and Time-of-Day participants. RLW also analyzed weather data to determine the relationship between weather and peak reduction for these programs.

In order to analyze the impacts of the Time-of-Day and the Energy Watch programs, RLW selected a control group for each program from the general population pool of Emmett customers. The control groups were selected by examining the correlation between the energy usage patterns of pilot program participants and the customers in the control group pool during the summer of 2004. A control group of approximately five "similar" customers was selected for each pilot program participant. The hourly usage data collected in the summer of 2004 was not always contiguous because of the fact that the Company was installing a new AMR system at the same time it was collecting hourly data. Although the 2004 hourly data was non-contiguous and not suitable for load and bill analysis comparisons, it was very adequate for selecting control groups. A control group of 420 customers was selected for the Time-of-Day program and a control group of 357 customers was selected for the Energy Watch program.

For the results of this analysis, see Attachment C, a copy of the RLW Analytic's final report.

FUTURE OF THE TIME-OF-DAY AND ENERGY WATCH PROGRAMS:

On March 3, 2005, the Company filed Case No. IPC-E-06-5 with the Commission requesting that the Company be allowed to continue to offer the Time-of-Day and Energy Watch pilot programs until April 1, 2007. Continuing these programs will enable Idaho Power to test new marketing strategies, to continue refining and testing electronic data transfer, billing, and customer related issues. The Company anticipates testing the automation of several of the operations needed to offer the Time-of-Day and Energy Watch Programs in the summer of 2006. In the filing the Company proposed to make very few changes to the Energy Watch program and to increase the price differential between the pricing blocks for the Time-of-Day program. By implementing new pricing differentials for the Time-of-Day program, the Company can evaluate potential changes in customer electric usage and price elasticity. For the 2006 program, the Company also proposed to require that customers have a minimum monthly usage of 300 kWh in order to participate in the programs.

In general, the customer survey information, data analysis, and information obtained from speaking directly to program participants indicates that most customers were reasonably satisfied with the Time-of-Day and Energy Watch pilot programs offered in 2005.

ATTACHMENTS:

Attachment A: **Time-of-Day and Energy Watch promotional materials**

Attachment B: **Idaho Power Emmett Study**

Northwest Research Group
225 North 9th Street, Suite 200
Boise, ID 83702

Attachment C: **Residential Time-of-Day and Energy Watch Pilot Program Analysis**

RLW Analytics
2 Hyde Road
Clarklake, MI 49234

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UTILITIES COMMISSION

Attachment A

**Learn About Summer Programs
Now Available to our
Emmett Valley Customers**

**Saturday, April 30
10 a.m. to 4 p.m.
Albertson's, 640 Hwy 16 in Emmett**



A/C Cool Credit + Time-of-Day + Energy Watch



Visit with Idaho Power representatives to learn more about these voluntary programs that may reduce your power bill and help us reduce demand on the electrical system this summer.

The deadline for participation in one of these programs is May 15. For more information visit www.idahopower.com/EnergyCenter or call 388.2323.

If you have already signed up for one of these programs, thank you for your participation.



Messenger Index



Tuesday March 21, 2006

Serving Gem County, Idaho,
since 1893

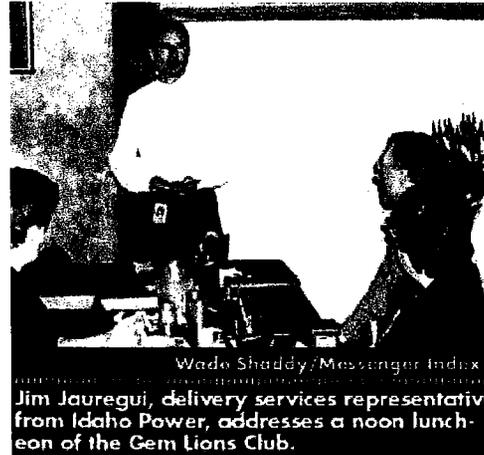
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Idaho Power offers special programs to Gem County customers

by Leah Hopkins

As we experience year after year of drought, hydroelectric power gets more expensive. Idaho Power has chosen Emmett as a testing ground for some innovative billing programs. They encourage customers to conserve during times of peak usage.



Wade Shaddy/Messenger Index
Jim Jauregui, delivery services representative from Idaho Power, addresses a noon luncheon of the Gem Lions Club.

These programs will be facilitated by the new automated meters installed in Emmett last year. They are offered for residents to participate in voluntarily.

Energy Watch

In Energy Watch, residential customers who have AMR (Advanced Meter Reading) in the Emmett Valley would be charged the lowest residential rate during all times of day, for the entire summer, except for four-hour Energy Watch time blocks, which would occur 5-9 p.m. on 10 different days between June 15 and Aug. 15.

The current residential rate is 5.1 cents per kWh for the first 300 kWh you use and 5.7 cents for all kWh over 300 kWh used.

Under this example, participants in Energy Watch would be charged 5.1 cents per kWh for all usage except for the Energy Watch hours (10 time blocks). During the time blocks, the price will be expensive-more than 20 cents per kWh, or about four times the normal rate.

However, customers will be notified by telephone and/or email the day prior to Energy Watch being activated. During the Energy Watch hours, customers will be encouraged to use as little energy as possible.

Emmett Weather



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as possible.

A kWh is the unit Idaho Power uses to measure your electricity usage each month. One kilowatt-hour is 1,000 watts of electricity used for one hour. For example, if you operate a 1,000-watt microwave for one hour, or if you operate a 100-watt light bulb for 10 hours, each will use one kilowatt-hour of electricity.

Time-of-Day

Time-of-Day is a voluntary program where residential customers who have AMR (Advanced Meter Reading) in the Emmett Valley would pay three different prices for electricity during June, July and August, depending on what time of day it's used: On-Peak time is the most expensive, Off-Peak is least expensive and Mid-Peak is in between.

The Time-of-Day periods for the program are:

- On-Peak: 1-9 p.m. weekdays, except holidays (about 6.4 cents per kWh)
- Mid-Peak: 7 a.m. to 1 p.m. weekdays, except holidays (about 5.8 cents per kWh)
- Off-Peak: 9 p.m. to 7 a.m. weekdays. Saturdays, Sundays and holidays are entirely Off-Peak (about 4.9 cents per kWh)

During the non-summer months, the price per kWh is 5.1 cents for all electricity, no matter how much you use or when you use it. The Time-of-Day program will remain in effect until April 1, 2006.

All Idaho Power rates will change as of June 1, but the On-Peak price will remain about 30 percent greater than the Off-Peak price, and the Mid-Peak price will remain about 17 percent greater than the Off-Peak price.

A/C Cool Credit

This method is for customers who have a necessity for electricity during periods of heavy use in the summer. Idaho Power will install a "switch" on or near participants' air conditioning units that will allow the company to manage their air conditioners by turning them on and off for a limited period of time. In essence, a small effort on the part of individual customers results in a big difference in the amount of electricity needed on hot summer afternoons.

Only customers with central air will be able to participate in this one. Renters may participate by filling out a landlord approval form, available by calling 866-865-COOL.

Emmett Messenger-Index Copyright © 2006

A/C Cool Credit ☉ Time-of-Day ☉ Energy Watch

April 2005

Dear Customer,

Recently, you received information about some new innovative programs that Idaho Power is offering our residential customers in the Emmett area this summer:

- ☉ A/C Cool Credit
- ☉ Time-of-Day
- ☉ Energy Watch

REMEMBER - To participate in one of these programs, you must take action by May 15.

Learn more about these voluntary programs that may lower your power bill and help us reduce demand on the electrical system this summer. Visit with Idaho Power representatives at your local Albertson's store, 640 Hwy 16, on Saturday, April 30 from 10 a.m. to 4 p.m. You will also find program information and application forms, at the Energy Center at www.idahopower.com.

If you have already signed up for one of these programs, thank you for your participation.

If you have any questions call us at 388.2323.

Thank you,
Idaho Power Company



IDAHO POWER COMPANY
P.O. BOX 70
BOISE, IDAHO 83707

Presort First Class
U.S. Postage
PAID
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Permit #34



Time-of-Day



www.idahopower.com



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NECESSARY
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IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 68 BOISE ID

POSTAGE WILL BE PAID BY ADDRESSEE
Time-of-Day Program Manager
IDAHO POWER COMPANY
P.O. BOX 70
BOISE ID 83707-9952



Participating in the optional Time-of-Day program may save you money—and help reduce peak demand on the electrical system.

Southern Idaho's summer months place the greatest demand on our electrical system. Many thousands of air conditioning units cooling homes and businesses throughout the valley coincides with the agricultural irrigation season, creating an ever-increasing need for power during the hot afternoon and evening hours. That's why we'd like you to consider rethinking your energy use this summer and join our Time-of-Day program. If everyone makes a small effort to be mindful of energy use during these high demand periods this summer, the entire community benefits from a more stable, reliable electric system.

Time-of-Day (weekdays only)	Summer Energy Time Periods	Rates*
1 p.m.-9 p.m.	On-Peak	6.4 cents per kWh
7 a.m.-1 p.m.	Mid-Peak	5.8 cents per kWh
9 p.m.-7 a.m.	Off-Peak	4.9 cents per kWh

You pay the indicated rate above in addition to the PCA (Power Cost Adjustment) of approximately 5/10 of a cent per kWh.

*These rates are shortened for ease in reading. Please refer to the enclosed Frequently Asked Questions to compare these rates to current rates.

This program requests that you monitor your energy use on weekdays only—weekend and holiday monitoring is not required on the Time-of-Day program. By shifting your heaviest electricity use to certain time blocks, you could realize energy cost savings.

If you choose to use less energy during high-demand times of the day, you'll help reduce the demand on the system, pay less for your electricity and possibly reduce your overall power bill.

For instance, if you can delay using your dishwasher, oven or washing machine until after 9 p.m. on weekdays, you will be placing less demand on the system and paying a lower rate for the electricity you use when running that dishwasher at another time. It helps balance the demand for electricity with the supply and may result in a lower power bill.

Why Should I Change My Energy Use Habits?

On the Time-of-Day program, you may pay less for the electricity you use. The off-peak rate is 4.9 cents per kWh, compared to the

on-peak rate of 6.4 cents per kWh. For shifting your energy consumption from the daytime hours to the late evening hours, you are rewarded by paying the lowest rate for electricity.

Consider this example in which 10 kWh of electricity (about the amount of electricity consumed to run two loads of laundry) are used during the on- and mid-peak hours compared to during the off-peak hours.

If you use 10 kWh during:	You'll Pay:	The Difference:
On-Peak Hours	10 kWh x 6.4 cents	30% more than during Off-Peak hours
Mid-Peak Hours	10 kWh x 5.8 cents	17% more than during Off-Peak hours
Off-Peak Hours	10 kWh x 4.9 cents	

How Do I Decide to Participate?

After going to www.idahopower.com, log in or register from our E-Services page to check out the links from our ENERGYsmart Tools page. Use the "ENERGYsmart Energy Usage" link to see graphs of your meter data from last summer and usage analysis tips. Or you can access the ENERGYsmart Energy Shift Calculator to see how shifting energy use during the day can save you money.

See the enclosed Frequently Asked Questions to compare the rates you are paying today with the Time-of-Day rates.

How Do I Apply?

Simply complete the attached, postage-paid card with your service address information and return it to Idaho Power. You may also call Customer Service at 388-2323 for more information or to sign up. When prompted by our Power Assistance Line (PAL), please say "residential services," then say "programs" when prompted again.

Participation in this program is voluntary and is limited to 150 households. Applications will be approved on a first-come-first-served basis. The deadline to apply is May 15, 2005.

Please note that although Idaho Power Company is offering three optional programs this summer—A/C Cool Credit, Time-of-Day, and Energy Watch—you are eligible to participate in only one of them. This will allow us to independently assess each program on its own merits.

Application Card

Yes! Please accept my application to participate in Idaho Power Company's **Time-of-Day** program.

Name on Idaho Power account _____ Date _____

Service Address _____

City _____ ZIP _____

Day Phone _____ Evening Phone _____

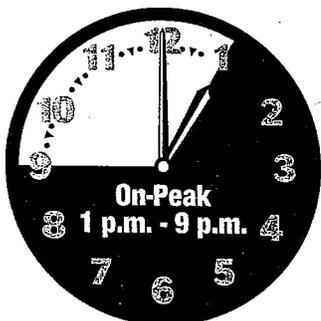
E-mail _____

I understand that I can participate in only ONE of the following special programs offered by Idaho Power this summer:

- Time-of-Day
- Energy Watch
- A/C Cool Credit

I am choosing to participate in **Time-of-Day**.





IDAHO POWER
An IDACORP Company

Remember

When possible, shift your energy use to Off-Peak.



Time-of-Day

June - August

weekdays

1 p.m. - 9 p.m.	On-Peak	Most \$\$\$
7 a.m. - 1 p.m.	Mid-Peak	Less \$\$
9 p.m. - 7 a.m.	Off-Peak	Least \$

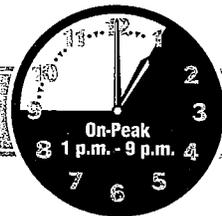
weekends & holidays

All Hours	Off-Peak	Least \$
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IDAHO POWER
An IDACORP Company

Remember

When possible, shift your energy use to Off-Peak.



Time-of-Day

June - August

weekdays

1 p.m. - 9 p.m.	On-Peak	Most \$\$\$
7 a.m. - 1 p.m.	Mid-Peak	Less \$\$
9 p.m. - 7 a.m.	Off-Peak	Least \$

weekends & holidays

All Hours	Off-Peak	Least \$
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IDAHO POWER COMPANY
P.O. BOX 70
BOISE, IDAHO 83707

May 19, 2005

We are pleased to inform you that you have been accepted into Idaho Power's Time-of-Day pilot program.

We appreciate your interest in participating in this program that will help reduce the demand on our electrical system during peak times this summer, as well as allow you the opportunity to pay less for your electricity and possibly reduce your overall power bill in June, July, and August.

Effective June 1, 2005, your power usage will be billed according to three separate time periods:

- On-Peak** between 1 p.m. and 9 p.m. weekdays (most expensive)
- Mid-Peak** between 7 a.m. and 1 p.m. weekdays (less expensive)
- Off-Peak** between 9 p.m. and 7 a.m. weekdays, all weekend hours, and the July 4th holiday (least expensive)

Your monthly bill will specify your usage for each of these time periods and reflect the rates for each. You may reduce your overall power bill during June, July, and August by using less energy during the On-Peak and Mid-Peak hours and shifting your usage to the Off-Peak hours.

Some of the appliances that use the most power in your home are the air conditioner, oven, clothes dryer, and electric water heater. To remember when the *On-Peak* periods (most expensive) are in effect, we have enclosed vinyl stickers you may adhere to some of your appliances to assist in considering whether use of the appliance could be shifted to the Off-Peak (least expensive) time period. While we don't recommend placing a vinyl sticker on your oven, place it nearby to remember that not only does an electric oven utilize electricity, it also warms your dwelling, which can cause an increase in your air conditioner use to cool your space.

As a customer with Advanced Meter Reading (AMR), you will have access to your electric usage data by either contacting us by phone or using your computer to utilize enhanced E-services tools at Idaho Power's Web site. If you choose to use your computer, go to E-services at www.idahopower.com and register as an Account Manager and you will be able to view your recent account data as well as energy efficiency tips and tools to help you better understand your energy usage. If you do not have Internet access, you may call Idaho Power at 388-2323 and request a printed copy be sent to you.

Please note that if you should move from your residence this summer, we cannot extend continuation in this program and your account would revert to standard residential rates.

Please feel free to contact us if you have any questions, requests, or need additional stickers. You may call Customer Service at 388-2323 from the Emmett Valley, or 1-800-488-6151, from elsewhere. When prompted by our Power Assistance Line (PAL), please say "residential services," then say "programs" when prompted again. Personal assistance is available weekdays from 7:30 a.m. to 6:30 p.m.

Again, thank you for participating in the Time of Day pilot program and taking action to help reduce demand on the electrical system during peak usage times.

Sincerely,

A handwritten signature in cursive script that reads "Pete Pengilly". The signature is fluid and stylized, with the first letters of the first and last names being prominent.

Pete Pengilly
Program Manager

Time-of-Day

Frequently Asked Questions

The following FAQs and answers will provide more details about Idaho Power's Time-of-Day program, available to customers in Emmett and Letha who have Advanced Meter Reading (AMR) meters.

What is the Time-of-Day program?

Time-of-Day is a voluntary program where residential customers who have AMR (Advanced Meter Reading) in the Emmett Valley would pay three different prices for electricity during the summer, depending on what time of day it's used: On-Peak time is the most expensive, Off-Peak is least expensive and Mid-Peak is in between.

The Time-of-Day periods for the program are:

- On-Peak: 1 to 9 p.m. weekdays, except holidays
- Mid-Peak: 7 a.m. to 1 p.m. weekdays, except holidays
- Off-Peak: 9 p.m. to 7 a.m. weekdays. Saturdays, Sundays and holidays are entirely Off-Peak.

How much would each of these blocks cost per kWh?

During the summer months (June, July and August), the price per kWh is:

- About 6.4 cents for On-Peak
- About 5.8 cents for Mid-Peak
- About 4.9 cents for Off-Peak

During the non-summer months the price per kWh is 5.1 cents for all electricity, no matter how much you use or when you use it. The Time-of-Day program will remain in effect until April 1, 2006. A kWh is the unit Idaho Power uses to measure your electricity usage each month. One kilowatt-hour is 1,000 watts of electricity used for one hour. For example, if you operate a 1,000-watt microwave oven for one hour, or if you operate a 100-watt light bulb for 10 hours, each will use one kilowatt-hour of electricity.

All Idaho Power rates will change as of June 1, 2005, but the On-Peak price will remain about 30 percent greater than the Off-Peak price, and the Mid-Peak price will remain about 17 percent greater than the Off-Peak price.

The PCA, or Power Cost Adjustment, of approximately $\frac{6}{10}$ of a cent will be charged for each kWh, regardless of the time block.

How does this cost compare to the current rate I pay for electricity?

Current residential rates are:

- Summer - 5.1 cents for the first 300 kWh, 5.7 cents for all electricity over 300 kWh
- Non-Summer - 5.1 cents for all electricity no matter how much you use, or when you use it
- The PCA, or Power Cost Adjustment, of approximately $\frac{6}{10}$ of a cent will be charged for each kWh

These rates will also change on June 1, 2005.

Why are the prices approximate and not firm?

Idaho Power implements an annual rate adjustment each June. Rates can go up or down. It is based in large part on what electricity production costs Idaho Power each year. This amount can fluctuate due to such factors as changes in water availability for hydro generation, fluctuations in the wholesale market for electricity, fuel costs or changes in the company's cost of doing business.

This year Idaho Power's base rates will also change slightly on June 1 because of the resolution of some issues still outstanding from its general rate case in 2004.

Why should I consider joining the Time-of-Day program?

The greatest demand for electricity in southern Idaho occurs during hot summer afternoons when residential and commercial air conditioners are used the most and the agricultural irrigation season is in full swing. The result is an ever-growing need for power at very specific, "peak" times during June, July and August.

By volunteering to partner with other residential customers in our Time-of-Day program, you can help reduce peak use when demand on the electric system is highest by shifting some of your usage from the daytime and early evening peak hours to the nighttime and weekend off-peak hours. And much like recycling, a small individual effort from many households can lead to powerful changes that benefit the entire community.

Without changing their energy use, some customers' electricity bills will go down on the Time-of-Day program, some will go up, and some will not change much at all. This program provides most customers an opportunity to save a little on their electricity bill, if they change the time of day and days of the week they use the most electricity.

How can I make an informed decision about whether or not to sign up?

Visit www.idahopower.com and log in as an Account Manager, or register to become one (you'll need a copy of your latest bill). Once you're logged in, Emmett AMR customers should check out the ENERGYsmart Energy Usage page and the ENERGYsmart Energy Shift Calculator.

The ENERGYsmart Energy Usage page provides usage analysis tips and graphs of how much energy you used last summer. Check out your usage for last summer to get an idea about how much electricity you might use this summer. Even if you don't log in as an Account Manager, you can still check out the ENERGYsmart Energy Shift Calculator. It's designed to help you identify the general results of shifting some of your energy use to a time of day that will be less expensive.

Bottom line, what types of customers would benefit from this program?

Customers willing and able to shift their major electricity use to Off-Peak hours may reduce their electricity bills. Customers who currently do not use much electricity during the On-Peak or Mid-Peak periods may also benefit from this program.

How do I sign up for the Time-of-Day program?

Residential customers in the Emmett Valley who are not already signed up for the A/C Cool Credit or Energy Watch programs are eligible. Complete the application card and mail it to us at: Idaho Power, Time-of-Day Program Manager, P.O. Box 70, Boise, ID, 83707.

You may also call Customer Service at 388-2323 from the Emmett Valley, or 1-800-488-6151, from elsewhere. When prompted by our Power Assistance Line (PAL), please say "residential services," then say "programs" when prompted again. Personal assistance is available weekdays from 7:30 a.m. to 6:30 p.m. Please note: Monday is our busiest day. It may be easier to reach us Tuesday through Friday.

Is there a deadline for signing up?

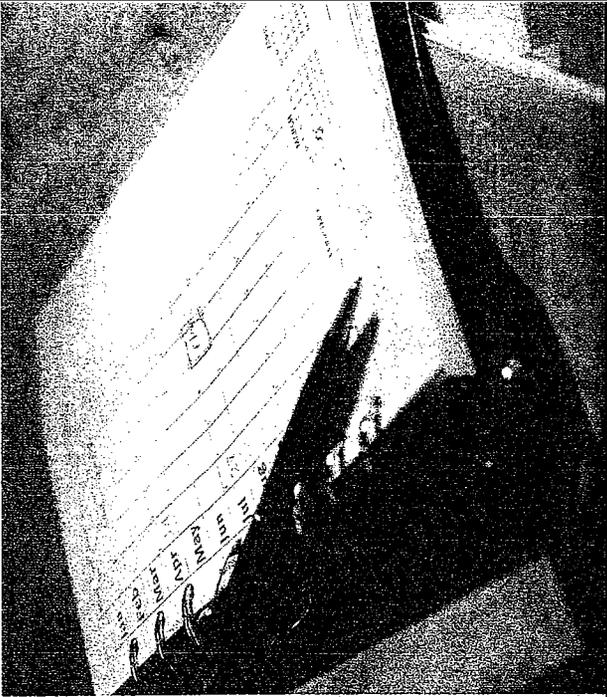
Yes. Eligible customers may sign up for the Time-of-Day program between April 5 and May 15, 2005.

Will the program be limited to a certain number of customers?

Yes. Participation in this program will be limited to 150 households.

Residential customers in the Emmett Valley have three energy-management programs (A/C Cool Credit, Time-of-Day and Energy Watch) they can choose from this summer. How many of these programs can I sign up for?

In order to allow Idaho Power to independently assess each program, customers will only be able to participate in one of these programs. Participation is voluntary.



Energy Watch



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 68 BOISE ID

POSTAGE WILL BE PAID BY ADDRESSEE
Energy Watch Program Manager
IDAHO POWER COMPANY
P.O. BOX 70
BOISE ID 83707-9952



Energy Watch is an optional program that will help reduce demands on our electric system during critical times this summer.

During a few hours on weekdays each summer, high demand for electricity by all customers can happen at the same time. As a result, Idaho Power's cost of supplying electricity under these circumstances becomes very high. If some customers volunteer to use less energy during these high-demand periods, they can help everyone. We're offering our Emmett Valley customers the opportunity to help reduce electricity demand during these peak demand periods.

How Does it Work?

Participating in Energy Watch means that you'll pay the same low rate for electricity for the majority of the summer. In return, Energy Watch requires that during a four-hour block of time for no more than 10 days this summer (between June 15 and August 15), the rate you pay will be considerably higher. **These four-hour blocks are called Energy Watch hours.**

Participants will be notified by phone and/or e-mail by 4 p.m. the day before Energy Watch hours are scheduled to begin. For example, Energy Watch hours will be implemented when the demand for electricity is very high and the energy supply becomes limited.

On a day when Energy Watch hours are in effect, participants would be asked to use as little electricity as possible between 5 and 9 p.m. This may mean grilling outdoors instead of using your stovetop. It could also be as simple as waiting until after 9 p.m. to do laundry or run your dishwasher.

On these 10 days, from 5 to 9 p.m., participants' energy will be very expensive—more than 20 cents per kWh—or about four times the normal rate. This rate is in effect only for the duration of that four-hour block; after that, your electricity use is once again billed at the lowest rate.

How Do I Decide to Participate?

After going to www.idahopower.com, log in or register from our E-Services page to check out the links from our ENERGYsmart Tools page. Use the "ENERGYsmart Energy Usage" link to see graphs of your meter data from last summer and usage analysis tips. Or you can access the ENERGYsmart Energy Shift Calculator to see how shifting energy use to times other than the Energy Watch hours may save you money. A small effort on your part can benefit your entire community. See the enclosed Frequently Asked Questions for additional information on the Energy Watch program.

How do I apply?

Simply complete the attached, postage-paid card with your electric service address information and return it to Idaho Power. You may also call Customer Service at 388-2323 for more information. When prompted by our Power Assistance Line (PAL), please say "residential services," then say "programs" when prompted again.

Participation in this program is voluntary and limited to 150 households. Applications will be approved on a first-come-first-served basis. **The deadline to apply is May 15, 2005.**

Please note that although Idaho Power Company is offering three optional programs this summer—A/C Cool Credit, Time-of-Day, and Energy Watch—you are eligible to participate in only one of them. This will allow us to independently assess each program on its own merits.

Application Card

Yes! Please accept my application to participate in Idaho Power Company's **Energy Watch** program.

Name on Idaho Power account _____ Date _____
Service Address _____
City _____ ZIP _____
Day Phone _____ Evening Phone _____
E-mail _____

I understand that I can participate in only ONE of the following special programs offered by Idaho Power this summer:

- Energy Watch
- Time-of-Day
- A/C Cool Credit

I am choosing to participate in **Energy Watch**.





Is tomorrow an Energy Watch Day?

Tomorrow ? **Energy Watch**



**Up to 10 weekdays
5 to 9 p.m. between
June 15 and August 15**

- Did Idaho Power call or email you today?
Check at www.idahopower.com.
- Energy Watch hours means electricity is four times more expensive than other hours. Use as little electricity as possible during these hours.

Is tomorrow an Energy Watch Day?

Tomorrow ? **Energy Watch**



**Up to 10 weekdays
5 to 9 p.m. between
June 15 and August 15**

- Did Idaho Power call or email you today?
Check at www.idahopower.com.
- Energy Watch hours means electricity is four times more expensive than other hours. Use as little electricity as possible during these hours.



IDAHO POWER COMPANY
P.O. BOX 70
BOISE, IDAHO 83707

May 19, 2005

We are pleased to inform you that you have been accepted into Idaho Power's Energy Watch pilot program.

We appreciate your interest in participating in this program that will help reduce the demand on our electrical system during peak times this summer, as well as allow you the opportunity to pay less for your electricity during the majority of the summer.

As a participant in this program, you may experience up to 10 Energy Watch Days from June 15 to August 15, 2005, that will affect the rate you pay for electricity during *four hours* each of those days. Idaho Power will be contacting you by telephone and e-mail (if you supplied your e-mail address) by 4 p.m. the day prior to an Energy Watch Day. In addition, Energy Watch notification information is available at Customer Service at www.idahopower.com.

On Energy Watch Days, between 5 and 9 p.m., the price you pay for electricity is expensive—more than \$0.20 per kWh, or about four times the normal rate. Outside of the Energy Watch hours, your electricity rate will be the lowest rate available to residential customers, or \$0.051 per kWh*. By comparison, customers not participating in Energy Watch will pay \$0.057 per kWh* for all energy consumed over 300 kilowatt-hours. Your monthly bill will specify your usage for these time periods and reflect these rates.

Remember that in this program you are encouraged to use as little energy as possible during the Energy Watch hours. Some of the appliances that use the most power in your home are the air conditioner, oven, clothes dryer, and electric water heater. To remember when it's an Energy Watch Day, we have enclosed vinyl stickers you may adhere to some of your appliances to assist in considering whether use of the appliance could be shifted until the Energy Watch hours are over. While we don't recommend placing a vinyl sticker on your oven, place it nearby to remember that not only does an electric oven utilize electricity it also warms your dwelling which can cause an increase in your air conditioner use to cool your space. The stickers are reusable and may be removed for use on the next Energy Watch Day.

As a customer with Advanced Meter Reading (AMR), you will have access to your electric usage data by either contacting us by phone or using your computer to utilize enhanced E-services tools at Idaho Power's Web site. If you choose to use your computer, go to E-services at www.idahopower.com and register as an Account Manager and you will be able to view your recent account data as well as energy efficiency tips and tools to help you better understand your energy usage. If you do not have Internet access, you may call Idaho Power at 388-2323 and request a printed copy be sent to you.

*Idaho Power currently has a request before the Idaho Public Utilities Commission to increase its rates by 6.3%. If this request is approved by the Commission, your charges under the Energy Watch pilot program will increase to \$0.054 per kWh compared to \$0.061 per kWh for non-participants.

Please note that if you should move from your residence this summer, we cannot extend continuation in this program and your account would revert back to standard residential rates.

We realize this is a new program and questions may arise as the summer progresses. Please feel free to contact us if you have any questions, requests, or need additional stickers. You may call Customer Service at 388-2323 from the Emmett Valley, or 1-800-488-6151, from elsewhere. When prompted by our Power Assistance Line (PAL), please say "residential services," then say "programs" when prompted again. Personal assistance is available weekdays from 7:30 a.m. to 6:30 p.m.

Again, thank you for participating in this summer's Energy Watch pilot program, and taking action to help reduce demand on the electrical system during peak usage times.

Sincerely

A handwritten signature in cursive script that reads "Pete Pengilly". The signature is written in black ink and is positioned above the printed name.

Pete Pengilly
Program Manager

Energy Watch

Frequently Asked Questions

What is Energy Watch?

Energy Watch is a voluntary program where residential customers who have AMR (Advanced Meter Reading) in the Emmett Valley would be charged the lowest residential rate during all times of day, for the entire summer, except for the four-hour Energy Watch time blocks on 10 days between June 15 and August 15, 2005. Although Energy Watch hours span only a few months, the Energy Watch program will remain in effect until April 1, 2006.

The current residential summer rate is 5.1 cents per kWh for the first 300 kWh you use and 5.7 cents for all kWh over 300 kWh used. Under this example, you would be charged 5.1 cents per kWh for all usage outside the Energy Watch hours. In addition, the PCA (Power Cost Adjustment) of approximately 6/10 of a cent also is charged for each kWh.

A kWh is the unit Idaho Power uses to measure your electricity usage each month. One kilowatt-hour is 1,000 watts of electricity used for one hour. For example, if you operate a 1,000-watt microwave for one hour, or if you operate a 100-watt light bulb for 10 hours, each will use one kilowatt-hour of electricity.

How would the Energy Watch program work?

Under the Energy Watch program you would be charged the lower rate of 5.1 cents per kWh, except during Energy Watch hours. During those 10 days, for four hours per day between 5 and 9 p.m., the price will be expensive—more than 20 cents per kWh, or about four times the normal rate. Customers will be notified by telephone and/or e-mail the day prior to Energy Watch being activated. During the Energy Watch hours, customers will be encouraged to use as little energy as possible.

Why should I consider joining Energy Watch?

The greatest demand for electricity in southern Idaho occurs during hot summer afternoons when air conditioners are used the most and Idaho's farmers are pumping water to their fields. The result is an ever-growing need for power at very specific, "peak" times during June, July and August.

By volunteering to partner with other residential customers in our Energy Watch program, you can help reduce peak electricity use when demand on the company's system is highest. And much like recycling, a small individual effort from many households can lead to powerful changes that benefit the entire community.

You may save money by being on the Energy Watch program. It depends on when you use electricity and how willing you are to reduce your usage during a few hours of the summer. However, if you sign up for the program but don't change your usage patterns, your electricity bill will probably go up.

Customers willing to curtail their energy use significantly during the 10, four-hour time blocks may reduce their electricity bills. For example, shift workers who aren't home during those hours, or customers who have low energy usage between 5 and 9 p.m., also may benefit from the program.

Here are some additional ideas for reducing your energy use on the Energy Watch program: make sure your house cools overnight and then, first thing in the morning while it is still cool outside, close all windows and window coverings. During the 5 to 9 p.m. time frame, if you are able to get out of the house and go someplace cool, like swimming, or to the movies, that would be great. You also could turn off your electric water heater during those hours, prepare the evening meal on a barbecue, turn off all televisions, raise the temperature on the air conditioner, and not run the dishwasher, clothes washer or clothes dryer to reduce energy use.

How can I make an informed decision about whether or not to sign up?

Visit www.idahopower.com and log in as an Account Manager, or register to become one (you'll need a copy of your latest bill).

Once you're logged in, Emmett Valley AMR customers check out the "ENERGYsmart Energy Usage" link and the ENERGYsmart Energy Shift Calculator. You'll find usage analysis tips and graphs of how much energy you used last summer on the ENERGYsmart Energy Usage page. You'll be able to see your energy usage from last summer to get an idea about how much electricity you might use this summer.

You don't have to be an Account Manager to check out the ENERGYsmart Energy Shift Calculator. It's designed to help you identify the results of shifting some of your energy use to a lower-cost time.

How do I sign up for Energy Watch?

Residential customers in the Emmett Valley who are not already signed up for the Time-of-Day or A/C Cool Credit programs are eligible. Between April 5 and May 15, 2005, complete the application card and mail it to us at: Idaho Power, Energy Watch Program Manager, P.O. Box 70, Boise, ID, 83707.

You may also call Customer Service at 388-2323 from the Emmett Valley, or 1-800-488-6151, from elsewhere. When prompted by our Power Assistance Line (PAL), please say "residential services," then say "programs" when prompted again. Personal assistance is available weekdays from 7:30 a.m. to 6:30 p.m. Please note: Monday is our busiest day. It may be easier to reach us Tuesday through Friday.

Is there a deadline for signing up?

Yes. Eligible customers may sign up for the Energy Watch program between April 5 and May 15, 2005.

Will the program be limited to a certain number of customers?

Yes. Participation in this program will be limited to 150 households.

Residential customers in the Emmett Valley have three energy management programs (A/C Cool Credit, Time-of-Day and Energy Watch) they can choose from this summer. How many of these programs can I sign up for?

In order to allow Idaho Power to independently assess each program, customers will only be able to participate in one of these programs. Participation is voluntary.



**IDAHO
POWER®**

An IDACORP Company

IDAHO POWER COMPANY
P.O. BOX 70
BOISE, IDAHO 83707

April 5, 2005

Dear Emmett Valley Customer:

We are pleased to offer you options this summer that may reduce your power bill and help us reduce demand on Idaho Power's electrical system during the peak summer months. Because you live in the Emmett area, you are a member of a select group of our customers uniquely qualified to be among the first to try these innovative, voluntary programs.

Last year, Idaho Power changed out the electric meters in your community and installed new automated meters as part of the Advanced Meter Reading (AMR) program. AMR technology allows us to collect customers' energy usage information on an hourly basis by shipping data over power lines. One of the intended benefits of AMR is to improve customer service by giving you the ability to participate in pricing and demand-side management programs designed to help you reduce energy usage or shift the times when you use the largest amounts of electricity.

The Emmett area was chosen to launch these programs due to the community's unique characteristics that will provide us an opportunity to evaluate the capabilities of AMR under different geographic and climatic conditions. Now that the AMR technology is in place, you have pricing options available this summer.

The enclosed brochures describe three offerings:

- **A/C Cool Credit.** This program pays you \$7 per month during the summer to allow Idaho Power to cycle your air conditioning unit on and off for 15-minute intervals under certain conditions.
- **Energy Watch.** Idaho Power offers you the lowest, standard residential rate for electricity all summer, with the exception of ten, four-hour blocks. We will notify you when energy rates will be considerably higher so you can plan to reduce your energy use during these scheduled Energy Watch hours.
- **Time-of-Day.** This program encourages you to conserve your energy use during the warm, daytime hours by encouraging you to shift your usage to later in the day when you will pay a lower rate.

Please note that you may participate in only one of the three programs.

Each program offers you the opportunity to participate in shifting energy consumption during peak usage times this summer. This is important because during the summer most customers have a need for electricity during the same time frame. In order to deliver the needed electricity, Idaho Power is taking steps to ensure power is there for everyone. Idaho Power is examining ways customers can benefit, while at the same time encouraging usage during off-peak times.

We encourage you to take a close look at the enclosed information designed to help you make the choice that is right for you. Keep in mind that you do have the choice of not participating in any of the programs. We hope, however, that you will take part in one of these important programs.

Regards,

Celeste Becia
A/C Cool Credit Program Manager

Pete Pengilly
Energy Watch and Time-of-Day Program Manager

March 29, 2006

MARCH 29 PM 3:37

UTILITIES COMMISSION

Attachment B

Summary

Project Overview

In April and May of 2005, Idaho Power offered Emmett area customers the opportunity to participate in one of three programs during the summer of 2005. For this study, Idaho Power focused on two of the three programs – Time-of-Day and Energy Watch. These pricing programs provided customers the opportunity to reduce their electric bills by shifting their usage off of hours when the cost to provide energy is the highest onto hours of the day for which the cost to provide energy is lower.

In September 2005, Idaho Power contracted with Northwest Research Group, Inc. to conduct a survey to determine the awareness and perceptions of Idaho Power's service since installing the new metering technology and to gain awareness and perceptions of the two recent pricing programs. A telephone survey of 400 general Advanced Meter Reading (AMR) customers that did not participate in the pricing programs and 160 program participants was administered to Idaho Power's Emmett area customers. Surveys were completed with 406 non-participants and 127 program participants (66 Time-of-Day and 61 Energy Watch participants).

The overall objectives of this study are to help Idaho Power understand the perceptions of AMR customers with regard to service and ability to gather relevant energy usage information and to measure customers' perceptions and awareness of the two pricing programs offered in the summer of 2005. It will also help gain an understanding of whether or not these customers would like to participate in similar future programs.

Key Findings

Characteristics of Program Participants and Non-Participants

There were few demographic or household characteristics that differentiated program participants from non-participants. This would suggest that the simplicity of the two programs had universal appeal.

Program participants are more likely than non-participants to live in a single-family home – 88 percent compared with 78 percent, respectively.

Table 1: Characteristics of Program Participants and Non-Participants

	All Respondents (n = 533)	Participants (n = 127)	Non-Participants (n = 406)
Single-family home	81%	88%	78%
Multi-family home (duplex, triplex, apartment)	3%	1%	3%
Manufactured / mobile home	16%	11%	17%

General Attitudes toward Idaho Power

Overall Satisfaction

All survey respondents were asked if they are satisfied or dissatisfied with the level of service they receive from Idaho Power. Responses were recorded on a 5-point satisfaction scale where “1” means “very dissatisfied” and “5” means “very satisfied.”

Overall, Emmett area residents are satisfied with the level of service they receive from Idaho Power – 61 percent are very satisfied and 33 percent are somewhat satisfied. Emmett area residents electing to participate in the pricing programs are more positive toward Idaho Power than are non-participants – 71 percent compared to 57 percent of “very satisfied,” respectively.

Table 2: Overall Level of Satisfaction by Participants and Non-Participants

Level of Satisfaction	Total (n=533)	Participants (n=127)	Non-Participants (n=406)
Very Satisfied	61%	71%	57%
Somewhat Satisfied	33%	27%	35%
Neutral	2%	1%	2%
Dissatisfied	5%	2%	6%
Mean*	4.47	4.67	4.41

**Mean is based on a 5-point scale where “1” means “very dissatisfied” and “5” means “very satisfied.”*

Satisfaction with Idaho Power within the Past Twelve Months

In addition to collecting Emmett customers’ overall satisfaction levels, respondents were asked if their level of satisfaction with Idaho Power has become stronger, weaker, or stayed the same over the past 12 months. Responses were recorded on a 5-point scale where “1” means “much weaker” and “5” means “much stronger.”

While the majority (84%) of all respondents say there has been no change in their satisfaction with Idaho Power within the past 12 months, program participants are more likely than non-participants to suggest their satisfaction levels have increased – 15 percent (7% somewhat stronger + 8% much stronger) compared with 8 percent (4% somewhat stronger + 4% much stronger), respectively.

Table 3: Level of Satisfaction within the Past Twelve Months by Participants and Non-Participants

Level of Satisfaction	Total (n=533)	Participants (n=127)	Non-participants (n=406)
Much Stronger	5%	8%	4%
Somewhat Stronger	5%	7%	4%
Stayed the Same	84%	79%	85%
Somewhat Weaker	4%	5%	4%
Much Weaker	2%	1%	2%
Mean*	3.06	3.17	3.02

**Mean is based on a 5-point scale where “1” means “much weaker” and “5” means “much stronger.”*

Satisfaction with How Well Idaho Power Provides Information

Finally, respondents were asked to indicate the extent to which they agreed or disagreed with three statements about how well Idaho Power provides information to its customers. Responses were recorded on a 5-point scale where “1” means “strongly disagree” and “5” means “strongly agree.”

Overall, Emmett residents agree that Idaho Power does a good job keeping customers informed. Consistent with the overall satisfaction scores, program participants are more likely than non-participants to feel that Idaho Power does a good job keeping customers informed. Notably, program participants are more likely than non-participants to agree that Idaho Power does a good job of providing information to help them make decisions about the best time to use electricity. There were a few differences between the Energy Watch and Time-of-Day participants, but Time-of-Day participants were slightly more inclined to say that Idaho Power provided information to make decisions on the best time to use electricity.

Table 4: Level of Satisfaction of How Well Idaho Power Provides Information to its Customers

	All Respondents (n = 533)	Total Participants (n = 127)	Time-of-Day (n=66)	Energy Watch (n=61)	Non- Participants (n = 406)
Overall	4.33	4.64	4.64	4.63	4.23
Provided information to make decisions about the best time to use electricity	4.35	4.72	4.77	4.67	4.24
Provided information to make decisions on the best time to use electricity efficiently	4.31	4.54	4.53	4.55	4.24
Kept you informed about changes that could affect your account	4.31	4.65	4.63	4.67	4.20

**Mean based on a 5-point scale where “1” means “strongly disagree” and “5” means “strongly agree.”*

Awareness of New AMR Meter

Respondents were asked a series of questions to measure their awareness of the new Advanced Meter Reading (AMR) system. Responses were recorded on an 11-point scale where “0” means “not at all aware” and “10” means “very aware.”

Emmett residents are moderately aware of the new Advanced Meter Reading or AMR program – overall mean of 6.57 on an 11-point scale where “10” means “very aware” and “5” represents the mid-point. Residents are most aware that a new meter has been installed. They are least aware that they can get their household’s hourly and daily electricity usage information on Idaho Power’s website.

Program participants are more aware of the unique benefits of the new meter than are non-participants. Of the two programs, the Energy Watch participants are the most aware of the unique benefits. Notably, program participants are more aware of the ability to get their household's electricity usage information by visiting the utility's website.

Table 5: Awareness of the New AMR Meter

	All Respondents (n = 533)	Total Participants (n = 127)	Time-of-Day (n=66)	Energy Watch (n=61)	Non-Participants (n = 406)
Overall Awareness	6.57	7.59	7.44	7.75	6.26
Installed a new AMR meter on your residence in the past 18 months	7.69	8.25	8.18	8.32	7.51
No longer have a meter reader coming on to your property on a monthly basis	7.11	7.87	7.75	8.00	6.87
AMR meter is read remotely	6.96	8.03	7.91	8.17	6.62
Ability to get hourly and daily electricity usage information on Idaho Power's website	4.52	6.17	5.86	6.51	4.02

**Mean based on an 11-point scale where "0" means "not at all aware" and "10" means "very aware."*

Non-Participants

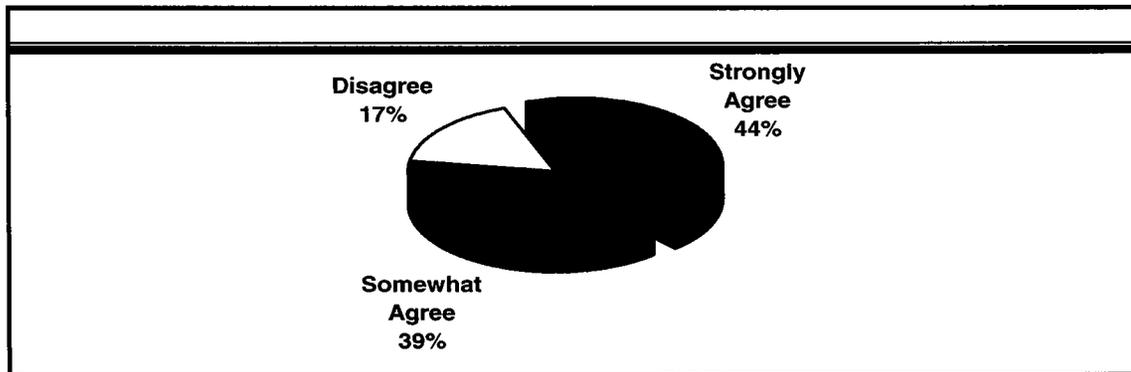
Awareness of Time-of-Day and Energy Watch Programs

Respondents who did not participate in the programs were asked if they were aware that two pricing programs were available to Emmett area residents this past summer. Fifty-five percent (55%) of respondents were aware of these programs.

Customers who were aware of the two programs (n=221) were asked how they first learned about the Time-of-Day and Energy Watch programs that Idaho Power offered to Emmett area residents. The majority of the respondents first learned about the programs through a mailing from Idaho Power (64%) and a message on their Idaho Power bill (30%).

In addition, non-participants who are aware of the two programs (n=221) were asked if they had received enough information from Idaho Power to help make the decision about whether or not to participate in the Time-of-Day or Energy Watch programs. Responses were recorded on a 5-point scale where “1” means “strongly disagree” and “5” means “strongly agree.” Over four out of five (83%) non-participants agreed that they received enough information about these programs.

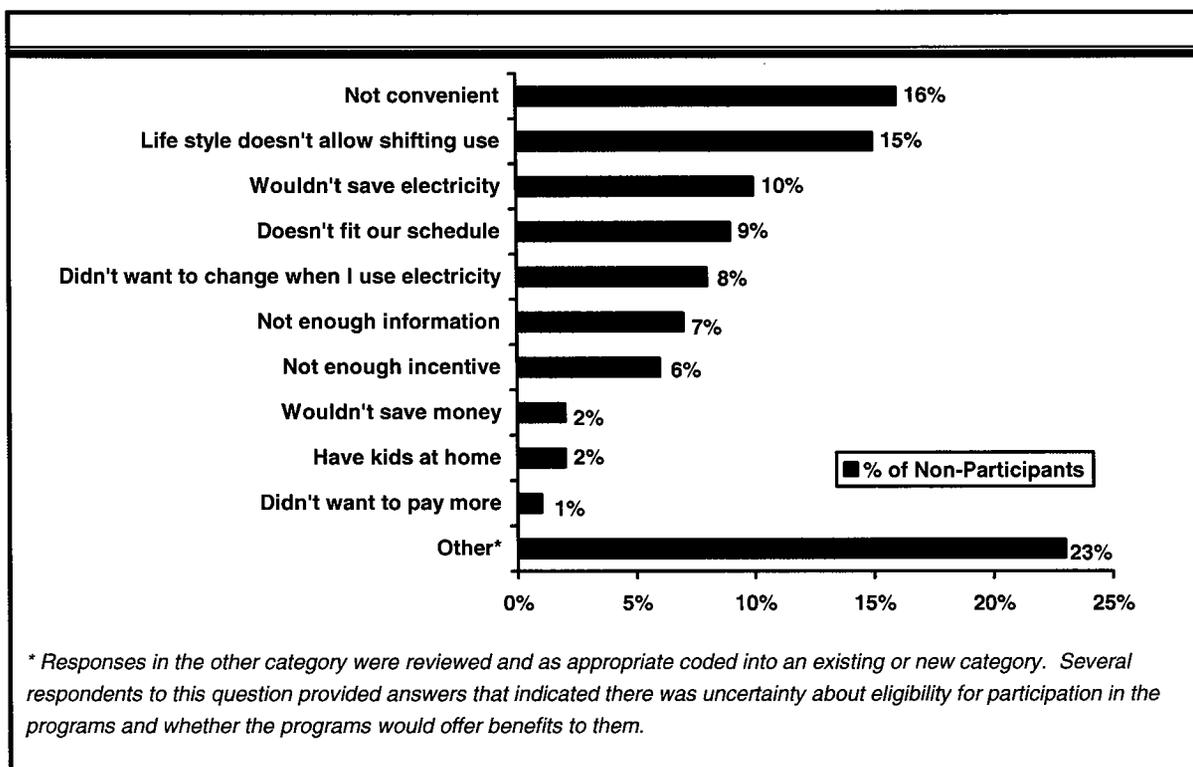
Figure 1: Non-participants: Agreement on Receiving Enough Information about the Two Pricing Programs



Reasons for Not Participating in the Time-of-Day or Energy Watch Programs

To determine why Emmett area customers did not participate in the two pricing programs, residents were asked to provide the main reason why they chose not to participate. The reasons cited most often included: not convenient (16%), lifestyle doesn't allow shifting of electricity use (15%), not believing it would save electricity (10%), and feeling it would not fit their schedule (9%).

Figure 2: Non-Participants: Reasons for Not Participating in One of the Two Pricing Programs



Participants

Information Sources

Emmett area customers who participated in the Time-of-Day or Energy Watch programs were asked how they first learned about the two programs. Like non-participants, program participants were most likely to hear about the programs through a mailing from Idaho Power (65%) and a message on their Idaho Power bill (25%).

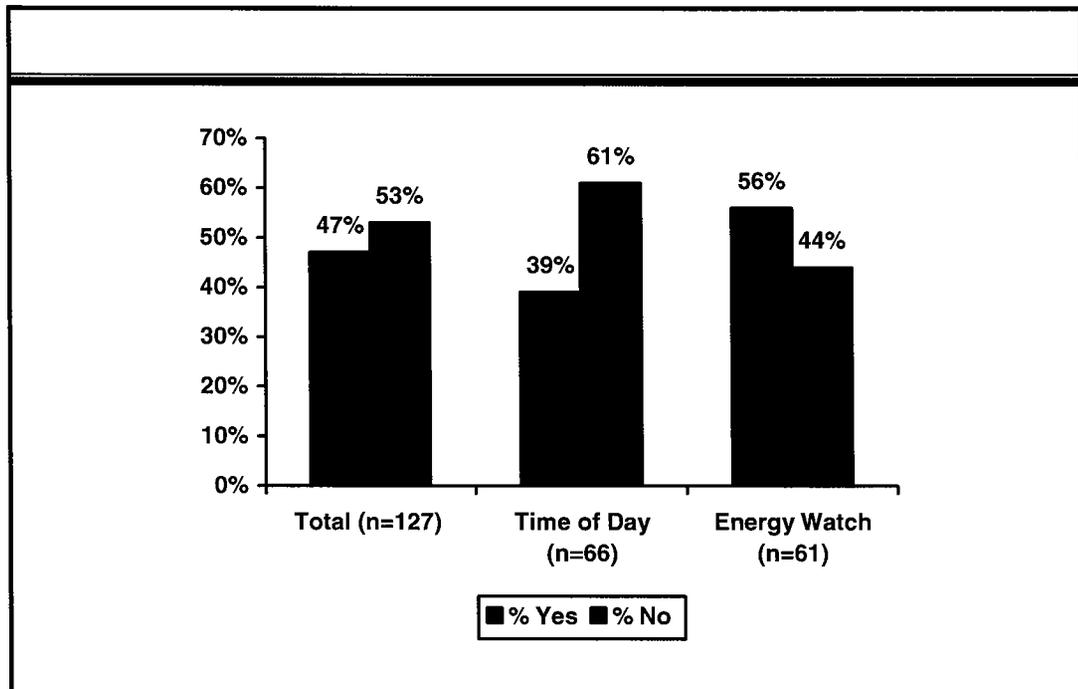
Relatively few (16% overall) participants used their hourly electricity usage information to make their decision about participating in the programs.

Overall, program participants agree that they received enough information about the programs. They were most likely to agree that they received adequate information before and during the program. However, residents would have liked to have more information from Idaho Power at the completion of the program, especially participants in the Energy Watch program.

Lifestyle Changes

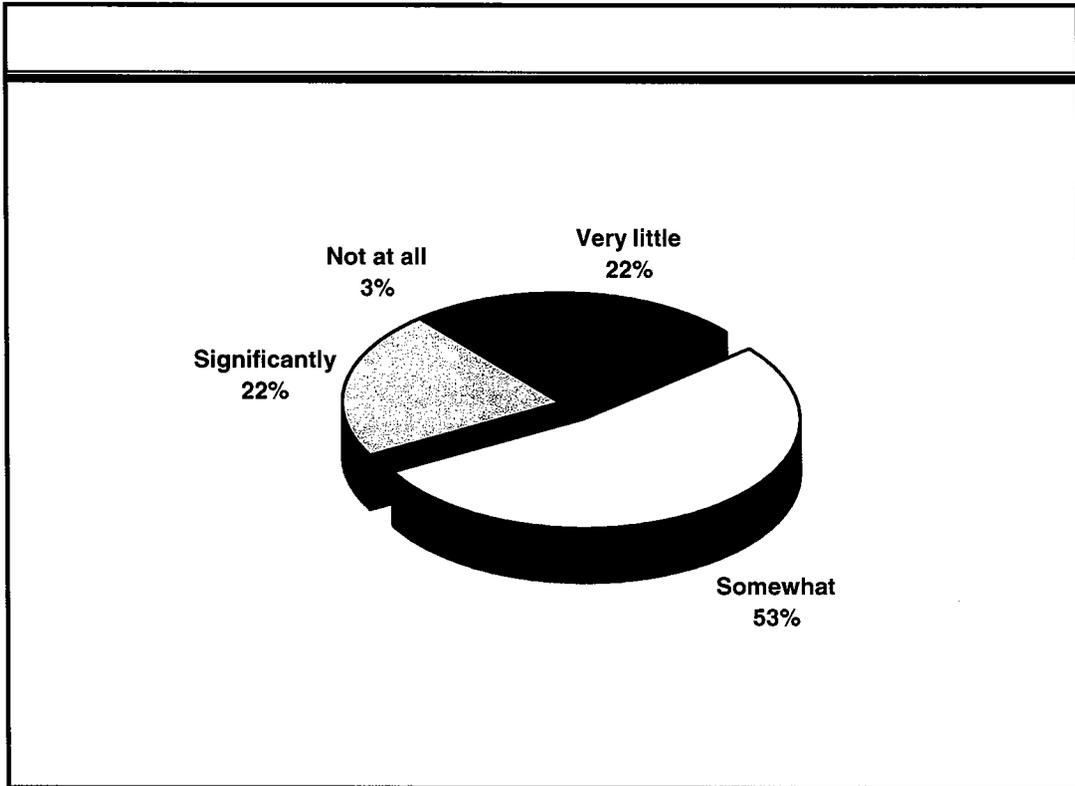
Participants were asked if their participation in the Time-of-Day or Energy Watch program affected their lifestyle in anyway. Overall, fifty-three percent (53%) of program participants feel that their lifestyle had not changed. Participants in the Energy Watch program indicated that their lifestyle changed more than those customers who participated in the Time-of-Day program (56 percent versus 39 percent, respectively).

Figure 3: Overall Lifestyle Changes by Participating in One of the Two Pricing Programs



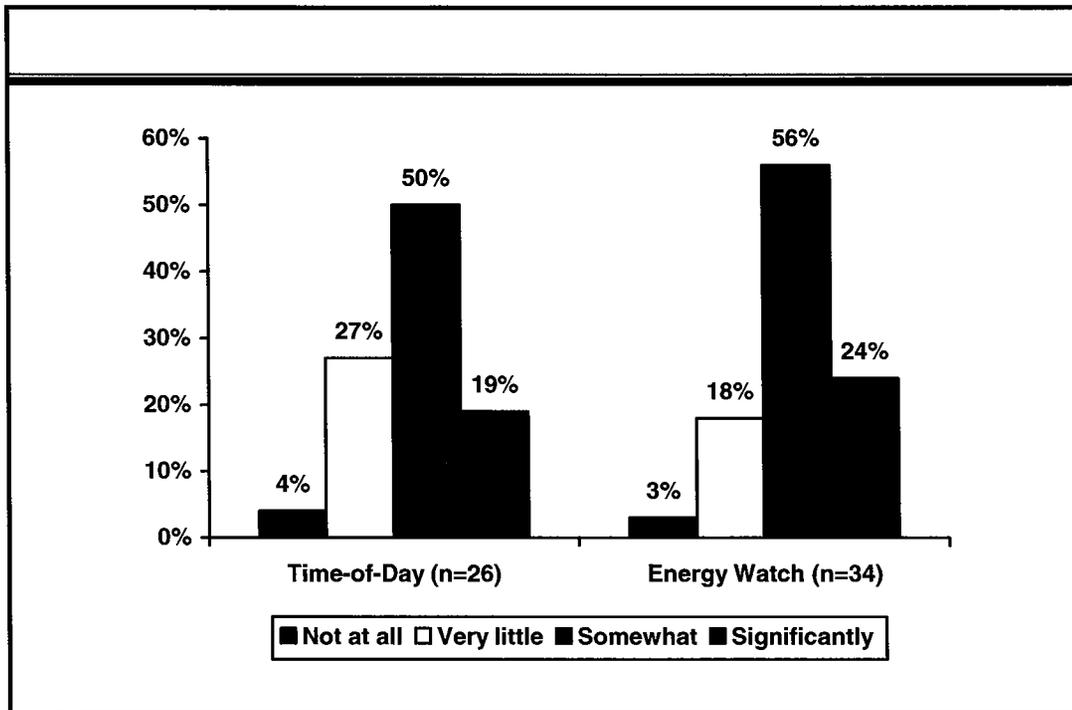
As a follow-up for those program participants (n=60) who said their lifestyle had changed where asked how dramatically was their lifestyle changed by participating in one of these programs. For those participants who proclaimed that their lifestyle had changed, 53 percent feel their lifestyle had somewhat changed and only 22 percent feel their lifestyle had changed significantly.

Figure 4: How Dramatically Participants Lifestyles Had Changed



Of those customers who said their lifestyle had changed as a result of participating in one of these programs, 24 percent of the Energy Watch participants said their lifestyle changed significantly and 56 percent said their lifestyle had changed somewhat. Nineteen percent (19%) of Time-of-Day participants said that their lifestyle changed significantly with another 50 percent saying their lifestyle had changed somewhat. It is important to note that the cell sizes of those responding to this question is relatively small (n=26 for Time-of-Day and n=34 for Energy Watch participants). Care, therefore should be used in interpreting these results.

Figure 5: How Dramatically Participants Lifestyles Had Changed by Type of Participant



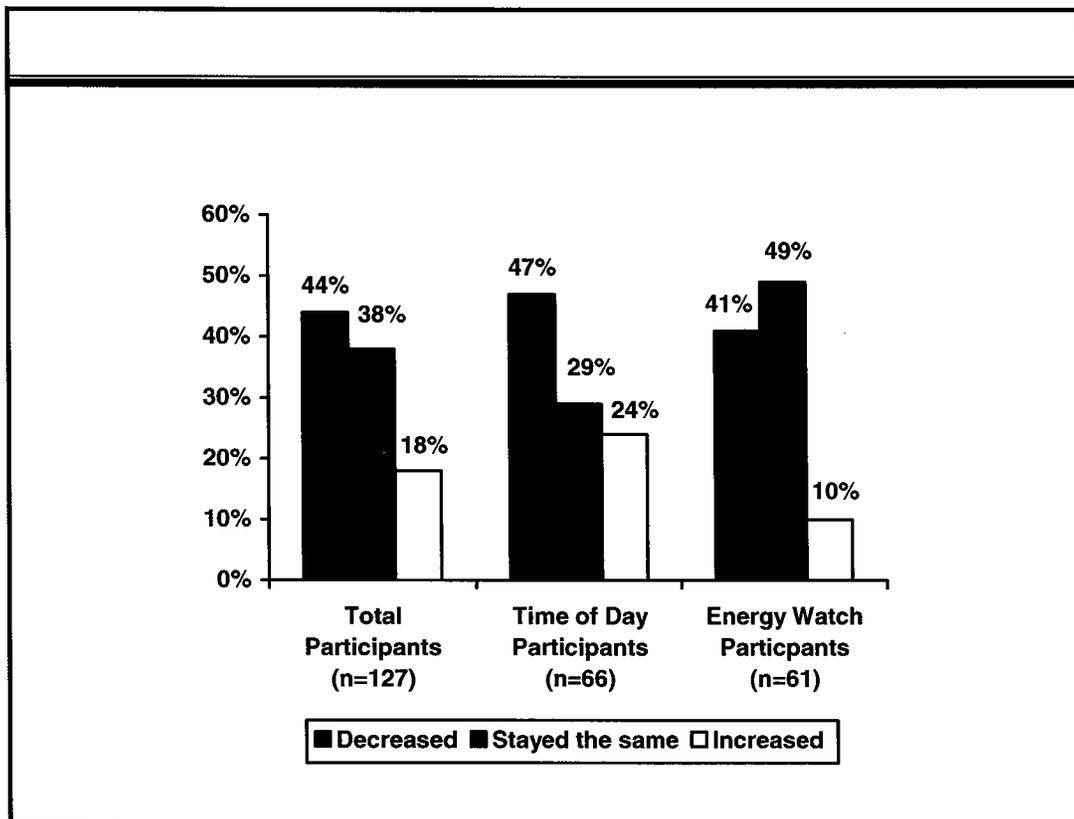
As a follow-up to asking about lifestyle changes, residents who felt their lifestyles had changed were asked what the most significant change in their lifestyle was in order to reduce their electricity usage. Overall, program participants indicated that laundry (26%) and household temperature / comfort (26%) were the most significant changes in their lifestyle.

Time-of-Day participants are more likely to indicate that the most significant change to their household lifestyle was laundry (60%). Energy Watch program participants are more likely to indicate that household temperature / comfort was the most significant change to their household lifestyle (36%). Again, because of the small cell sizes of those responding to this question (n=26 for Time-of-Day and n=34 for Energy Watch participants) care should be used in interpreting these results.

Changes in the Electricity Bill

In addition to lifestyle changes, program participants (n=127) were asked if their electricity bill changed as a result of participating in one of the two pricing programs. Most Energy Watch program participants felt their bill had decreased (41%) or stayed the same (49%). Time-of-Day participants also felt their bill decreased (47%), but 24 percent of them felt their bill had increased and 29 percent felt it stayed the same.

Figure 6: Changes in the Electricity Bill by Type of Participant



Likelihood of Participating in Time-of-Day and/or Energy Watch Programs in the Future

Emmett area customers who participated in one of the two pricing programs were asked how likely they would be to participate in the Time-of-Day or Energy Watch Programs if Idaho Power offered them again. Responses were recorded on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”

Overall, Emmett residents who participated in the programs would be likely to participate in the programs in the future – 22 percent are “somewhat likely” and 60 percent are “very likely” with little difference between Energy Watch and Time-of-Day participants. Participants who felt their electricity bill decreased are more likely to participate in these programs in the future compared to those who felt their bill stayed the same or increased – overall mean rating of 4.64.

Table 6: Likelihood of Participating in One of the Two Pricing Programs in the Future by Reported Change in Bill

Likelihood of Future Participation	Total (n=127)	Reported Change in Bill		
		Decreased (n=47)	Stayed the Same (n=41)	Increased (n=19)
Very Likely	60%	79%	48%	32%
Somewhat Likely	22%	15%	33%	21%
Neither Likely Nor Unlikely	1%	--	--	5%
Somewhat Unlikely	10%	4%	8%	26%
Very Unlikely	8%	2%	13%	16%
Mean*	4.16	4.64	3.95	3.26

**Mean based on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”*

Participants were also asked how likely they were to recommend the Time-of-Day and Energy Watch programs to their friends and family if the programs were offered again. Responses were recorded on the same 5-point scale where “1” means “very unlikely” and “5” means “very likely.”

Customers who participated in one of the pricing programs in the summer of 2005, in general, are likely to recommend these programs to their friends and family, but there were some differences depending on which of the two programs the customer participated in. Although not significant, a slightly higher percentage of customers who participated in the Energy Watch program were inclined to recommend the program than those who participated in the Time-of-Day program – 79 percent versus 74 percent, respectively. The most notable difference though was with the percentage of customers who said they definitely would not recommend the Time-of-Day program (20%) versus those who would not recommend the Energy Watch program (8%). In addition, customers who participated in either of the pricing programs are more likely to recommend the pricing programs if they felt their electricity bill had decreased because of participating in the programs.

Table 7: Likelihood of Recommending One of the Pricing Programs by Type of Participant

Likelihood of Recommending	Total Participants (n=127)	Time-of-Day (n=66)	Energy Watch (n=61)
Very Likely	50%	46%	54%
Somewhat Likely	26%	28%	25%
Neither Likely Nor Unlikely	1%	--	2%
Somewhat Unlikely	9%	6%	11%
Very Unlikely	14%	20%	8%
Mean*	3.89	3.74	4.05

**Mean based on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”*

Study Conclusions

Overall, Emmett area customers (both non-participants and program participants) are satisfied with the level of service they receive from Idaho Power. In addition, Emmett customers' satisfaction level has stayed constant within the past twelve (12) months.

The most effective means to provide customers with information about new programs and services is by direct mail and/or information provided with the bill.

The majority of non-participants was aware of the Time-of-Day and Energy Watch programs and agreed that Idaho Power gave them enough information about these two programs. However, non-participants did not want to participate in these programs because they did not feel the programs were convenient or would save enough electricity. In addition, they did not want to change when they use electricity and they felt there was not enough incentive to participate. Idaho Power may wish to conduct additional research to understand what types of programs would be perceived as convenient and would incent people to participate.

As for the Emmett customers who participated in one of these programs, they were satisfied with the programs and would participate in the programs again if they were offered to them. Participants also agreed that they would recommend the Time-of-Day and Energy Watch programs to their family and friends especially if they felt their electricity bill decreased. Past program participants represent a significant opportunity for boosting future participation by having them serve as advocates and/or providing them with an incentive to get a friend or neighbor to participate.

In order for Idaho Power to acquire more customers interested in these types of programs, Idaho Power will need to show the non-participants the benefits of participating in Time-of-Day and Energy Watch programs. One of the main reasons why the non-participants do not want to be a part of these programs is because they think they will lose control over when they can use their electricity. Based upon the verbatim responses from this study, there seemed to be confusion for a number of customers who elected not to participate in either the Time-of-Day or Energy Watch programs with the direct load control program that was offered by Idaho Power during the same time period. In the course of the survey, it was stated very explicitly that the questions were being asked about the Time-of-Day and Energy Watch programs and not the AC Cool Credit program. Despite this, a number of customers still commented on either not having air conditioning or using swamp coolers so thinking they were ineligible to participate in either of these programs. A number of customers also cited being gone for the summer as the reason for not participating. If the program ran beyond one season, Idaho Power may see more participation.

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Study Background & Objectives

In April and May of 2005, Idaho Power offered Emmett area customers the opportunity to participate in one of three programs during the summer of 2005. For this study, Idaho Power focused on two of the three programs – Time-of-Day and Energy Watch. These pricing programs provided customers the opportunity to reduce their electric bills by shifting their usage off of hours when the cost to provide energy is the highest onto hours of the day for which the cost to provide energy is lower.

In September 2005, Idaho Power contracted with Northwest Research Group, Inc. to conduct a survey to determine the awareness and perceptions of Idaho Power's service since installing new metering technology and to also gain awareness and perceptions of the two recent pricing programs. A telephone survey of 400 general advanced meter reading (AMR) customers that did not participate in the pricing programs and 160 program participants was administered to Idaho Power's Emmett area customers. The results of the study are 406 non-participants and 127 program participants (66 Time-of-Day and 61 Energy Watch participants).

This study is to help Idaho Power understand the perceptions of AMR customers with regard to service and ability to gather relevant energy usage information and to measure customers' perceptions and awareness of the two pricing programs offered in the summer of 2005. It will also help gain an understanding of whether or not these customers would like to participate in a program such as these in the future.

This report begins with a discussion of the study's *major findings* focusing on awareness and perceptions. *Study conclusions* are then presented. The report ends with a detailed description *about the study methodology* and an *appendix* with detailed information and a copy of the questionnaire. Complete tabulations of all of the data, broken down by key respondent characteristics, are published under a separate cover.

Major Findings

Characteristics of Program Participants and Non-Participants

There were few demographic or household characteristics that differentiated program participants from non-participants. This would suggest that the simplicity of the two programs had universal appeal.

Program participants are more likely than non-participants to live in a single-family home.

Table 8: Characteristics of Program Participants and Non-Participants

	All Respondents (n = 533)	Participants (n = 127)	Non-Participants (n = 406)
Single-family home	81%	88%	78%
Multi-family home (duplex, triplex, apartment)	3%	1%	3%
Manufactured / mobile home	16%	11%	17%

Impression of Idaho Power

Overall Impression

All survey respondents were asked if they are satisfied or dissatisfied with the level of service they receive from Idaho Power. Responses were recorded on a 5-point satisfaction scale where “1” means “very dissatisfied” and “5” means “very satisfied.”

Overall, Emmett area residents are satisfied with the level of service they receive from Idaho Power – 61 percent are very satisfied and 33 percent are somewhat satisfied. Emmett area residents electing to participate in the pricing programs are more positive toward Idaho Power than are non-participants – overall mean rating of 4.67 versus 4.41, respectively.

Table 9: Overall Level of Satisfaction by Participants and Non-Participants

Level of Satisfaction	All Respondents (n = 533)	Participants (n = 127)	Non-Participants (n = 406)
Very Satisfied	61%	71%	57%
Somewhat Satisfied	33%	27%	35%
Neither Satisfied nor Dissatisfied	2%	1%	2%
Dissatisfied	5%	2%	6%
Mean	4.47	4.67	4.41

**Mean is based on a 5-point scale where "1" means "very dissatisfied" and "5" means "very satisfied."*

Non-Participants

For non-participants (n=406), nearly three out of five (57%) respondents are very satisfied with the level of service they receive from Idaho Power. The level of satisfaction also stays consistent by the length of time as an Idaho Power customer.

Table 10: Non-Participants: Level of Satisfaction by Length of Time as an Idaho Power Customer

	Length Of Time As An Idaho Power Customer				
	Total (n = 406)	Less than 1 year (n = 3)	1 to 10 Years (n = 87)	11 to 25 Years (n = 108)	26 Years or More (n = 203)
Very Satisfied	57%	33%	55%	60%	58%
Somewhat Satisfied	35%	67%	36%	34%	34%
Neutral	2%	0%	1%	2%	1%
Dissatisfied	6%	0%	8%	4%	6%
Mean*	4.41	4.33	4.34	4.48	4.41

**Mean is based on a 5-point scale where "1" means "very dissatisfied" and "5" means "very satisfied."*

Program Participants

As noted, program participants (n=127) are more satisfied than non-participants with the level of service. More than seven out of ten (71%) program participants are very satisfied, giving the company an overall mean rating of 4.67. This may suggest that attitudes toward Idaho Power may be a significant factor in customers' decisions to participate in energy programs.

There is a relationship between length of residence and satisfaction among program participants, with program participants living in the area fewer (10 or less) years being more satisfied than long-time residents.

Table 11: Participants: Level of Satisfaction by Length of Time as an Idaho Power Customer

Length Of Time As An Idaho Power Customer					
	Total (n = 127)	Less than 1 year (n = 1)	1 to 10 Years (n = 34)	11 to 25 Years (n = 26)	26 Years or More (n = 66)
Very Satisfied	71%	100%	85%	69%	64%
Somewhat Satisfied	27%	0%	15%	27%	33%
Neutral	1%	0%	0%	0%	2%
Dissatisfied	2%	0%	0%	4%	2%
Mean*	4.67	5.00	4.85	4.62	4.59

**Mean is based on a 5-point scale where "1" means "very dissatisfied" and "5" means "very satisfied."*

Change in Satisfaction with Idaho Power within the Past Twelve Months

In addition to collecting Emmett area customers' overall satisfaction levels, respondents were asked if their level of satisfaction with Idaho Power has become stronger, weaker, or stayed the same over the past 12 months. Responses were recorded on a 5-point scale where "1" means "much weaker" and "5" means "much stronger."

The majority (84%) of all respondents said there has been no change in their level of satisfaction with Idaho Power within the past 12 months.

Emmett customers who did not participate in the pricing programs are more likely to say that their satisfaction with Idaho Power has stayed the same within the past year. In fact, there are only 8 percent of non-participants who say that their satisfaction with Idaho Power has become stronger.

While the majority (79%) of program participants also say there has been no change in their satisfaction they are more likely than non-participants to say their level of satisfaction has increased – 15 percent say it is stronger (8% much stronger + 7% stronger).

Table 12: Level of Satisfaction within the Past Twelve Months by Participants and Non-Participants

Level of Satisfaction	All Respondents (n = 533)	Participants (n = 127)	Non-Participants (n = 406)
Much Stronger	5%	8%	4%
Somewhat Stronger	5%	7%	4%
Stayed the Same	84%	79%	85%
Somewhat Weaker	4%	5%	4%
Much Weaker	2%	1%	2%
Mean*	3.06	3.17	3.02

**Mean is based on a 5-point scale where "1" means "much weaker" and "5" means "much stronger."*

Satisfaction with How Well Idaho Power Provides Information

Emmett customers were asked to indicate the degree to which they agree or disagree with a series of statements with regard to how well Idaho Power provides information to its customers. Statements included: informed customers about changes that may affect their accounts, provided information to help make decisions on how to use electricity efficiently, and provided information to help make decisions about the best time to use electricity. Responses were recorded on a 5-point scale where “1” means “strongly disagree” and “5” means “strongly agree.”

Overall, Emmett residents agree that Idaho Power does a good job keeping customers informed.

Consistent with the overall satisfaction scores, program participants are more likely than non-participants to feel that Idaho Power does a good job keeping customers informed.

Notably, program participants are more likely than non-participants to agree that Idaho Power does a good job of providing information to help them make decisions about the best time to use electricity. More than three out of four (78%) program participants strongly agree with this statement compared to just over half (52%) of program non-participants. The participants in the Time-of-Day program responded slightly more favorably than the Energy Watch participants – 80 percent “strongly agree” versus 75 percent “strongly agree.”

Program participants are also more likely than non-participants to feel the utility does a good job of keeping them informed about changes that could affect their account – 69 percent of participants strongly agree with this statement compared to 51 percent of non-participants.

Table 13: Level of Satisfaction of How Well Idaho Power Provides Information to its Customers

	All Respondents (n = 533)	Total Participants (n = 127)	Time-of-Day (n=66)	Energy Watch (n=61)	Non- Participants (n = 406)
Overall	4.33	4.64	4.64	4.63	4.23
Provided information to make decisions about the best time to use electricity	4.35	4.72	4.77	4.67	4.24
Provided information to make decisions on the best time to use electricity efficiently	4.31	4.54	4.53	4.55	4.24
Kept you informed about changes that could affect your account	4.31	4.65	4.63	4.67	4.20

**Mean based on a 5-point scale where “1” means “strongly disagree” and “5” means “strongly agree.”*

Awareness of New AMR Meter

Respondents were asked a series of statements to measure their overall awareness of their new Advanced Meter Reading, or AMR meter. Respondents were asked if they are aware that Idaho Power installed a new AMR meter in the past 18 months, their AMR meter is read remotely, they no longer have a meter reader coming on to their property on a monthly basis, and they have the ability to get their hourly and daily electricity usage information from Idaho Power’s website. Responses were recorded on an 11-point scale where “0” means “not at all aware” and “10” means “very aware.”

Emmett residents are moderately aware of the new AMR program – overall mean of 6.57 on an 11-point scale where “10” means “very aware” and “5” represents the mid-point.

Residents are most aware that a new meter has been installed. There is no significant difference in awareness of this fact between participants and non-participants – 69 percent of program participants are very aware that the new meter has been installed compared with 64 percent of non-participants. There were also no significant differences between participants of the Time-of-Day and Energy Watch programs – 70 percent of Energy Watch participants are “very aware” and 68 percent of Time-of-Day participants are “very aware.”

Of the items queried, Emmett residents are least aware that they can get their household’s hourly and daily electricity usage information on Idaho Power’s website.

Program participants are more aware of the unique benefits of the new meter than are non-participants. Notably, they are more aware of the ability to get their household’s electricity usage information by visiting the utility’s website (Time-of-Day 40 percent, Energy Watch 39 percent, and non-participants 20 percent “very aware”). This may be due to their level of involvement with the recent pricing programs offered by Idaho Power.

Table 14: Awareness of the New AMR Meter

	All Respondents (n = 533)	Total Participants (n = 127)	Time-of-Day (n=66)	Energy Watch (n=61)	Non-Participants (n = 406)
Overall Awareness	6.57	7.59	7.44	7.75	6.26
Installed a new AMR meter on your residence in the past 18 months	7.69	8.25	8.18	8.32	7.51
No longer have a meter reader coming on to your property on a monthly basis	7.11	7.87	7.75	8.00	6.87
AMR meter is read remotely	6.96	8.03	7.91	8.17	6.62
Ability to get hourly and daily electricity usage information on Idaho Power’s website	4.52	6.17	5.86	6.51	4.02

**Mean based on an 11-point scale where “0” means “not at all aware” and “10” means “very aware.”*

Interest in Knowing Household Electricity Usage

Respondents were asked their need for or interest in knowing their household's hourly or daily electricity usage.

More than two out of five (43%) Emmett residents suggest they are interested in knowing their daily usage. While somewhat more participants than non-participants suggest they would like to know their daily usage, this difference is not statistically significant. Time-of-Day participants indicated a slightly stronger interest in getting daily electricity usage (52%) than those who participated in the Energy Watch program (47%).

Somewhat fewer (37%) Emmett residents want to know their hourly usage. However, more program participants are interested in this information than are non-participants – 47 percent compared with 33 percent, respectively. In addition, slightly more Energy Watch participants want this information (52%) compared to Time-of-Day participants (42%).

Table 15: Interest in Knowing Household Electricity Usage

	% Interested in Knowing				
	All Respondents (n = 533)	Total Participants (n = 127)	Time-of-Day* (n=66)	Energy Watch* (n=61)	Non-Participants (n = 406)
Daily Usage	43%	50%	52%	47%	40%
Hourly Usage	37%	47%	42%	52%	33%

* Caution: Because of small sample sizes, care should be used when interpreting these results

Use of Idaho Power's Website for Electricity Usage Information

Emmett residents were asked if they have ever gone to Idaho Power's website for their electricity usage information.

Fewer than one out of ten (9%) Emmett residents have ever gone to Idaho Power's website for electricity usage information. Not surprisingly, younger residents (those between 25 and 64 years of age) are more likely than those over 65 to have used the website to obtain information – 39 percent of those between 25 and 64 have gone to Idaho Power's website to obtain information about their energy consumption compared to just 7 percent of those 65 and older.

Program participants are nearly four times as likely as non-participants to have visited Idaho Power's website for electricity usage information – 19 percent compared to 5 percent, respectively. In addition, 26 percent of participants in the Energy Watch program are more likely to have visited Idaho Power's website compared to the Time-of-Day participants.

Table 16: Use of Idaho Power’s Website for Electricity Usage Information

	All Respondents (n = 533)	Total Participants (n = 127)	Time-of-Day* (n=66)	Energy Watch* (n=61)	Non- Participants (n = 406)
Used Idaho Power’s Website for Electricity Usage Information	9%	19%	12%	26%	5%
Did Not Use Idaho Power’s Website for Electricity Usage Information	91%	81%	88%	74%	95%

* Caution: Because of small sample sizes, care should be used when interpreting these results

Respondents were then asked how useful the electricity usage information they obtained on the website was. Responses were recorded on a 5-point scale where “1” means “very not useful” and “5” means “very useful.” Note that the cell sizes of those responding to this question is relatively small (n = 22 for both program participants and non-participants) due to the relatively low incidence of use noted above.

In general, users found the information on the website to be useful – 43 percent very useful and 39 percent somewhat useful. Program participants were somewhat more likely than non-participants to suggest the information was not useful. This difference, however, was not statistically significant, due in part to the small cell sizes. Care, therefore, should be used in interpreting this result. However, more usability testing of this specific web feature could be warranted.

Of those who found the site to be not useful (n = 8), half suggested making the site more user friendly. Other suggestions included making the information more relevant to their specific usage (2 participants) and providing more graphs (1 non-participant).

Table 17: How Useful the Electricity Usage Information Was on the Website

	All Respondents (n = 533)	Participants (n = 127)	Non-Participants (n = 406)
Very Useful	43%	45%	41%
Somewhat Useful	39%	27%	50%
Neutral	5%	9%	0%
Not Useful	14%	18%	10%
Mean*	4.05	3.91	4.18

*Mean is based on a 5-point scale where “1” means “very not useful” and “5” means “very useful.”

In addition, website visitors were asked if the electricity information provided on the website met their needs. Responses were recorded on a 5-point scale where “1” means “definitely did not meet needs” and “5” means “definitely met needs.” Again, it is important to note that the cell sizes of those responding to this question is relatively small (n = 22 for both program participants and non-participants).

The majority of users said the information met their needs – 44 percent definitely met needs and 42 percent somewhat met needs. Again, program participants were somewhat more critical than non-participants – with 17 percent saying the information provided did not meet their needs. However, due to the small cell sizes, this difference is not statistically significant. Given the consistency of this finding, however, additional testing of this web page may be warranted.

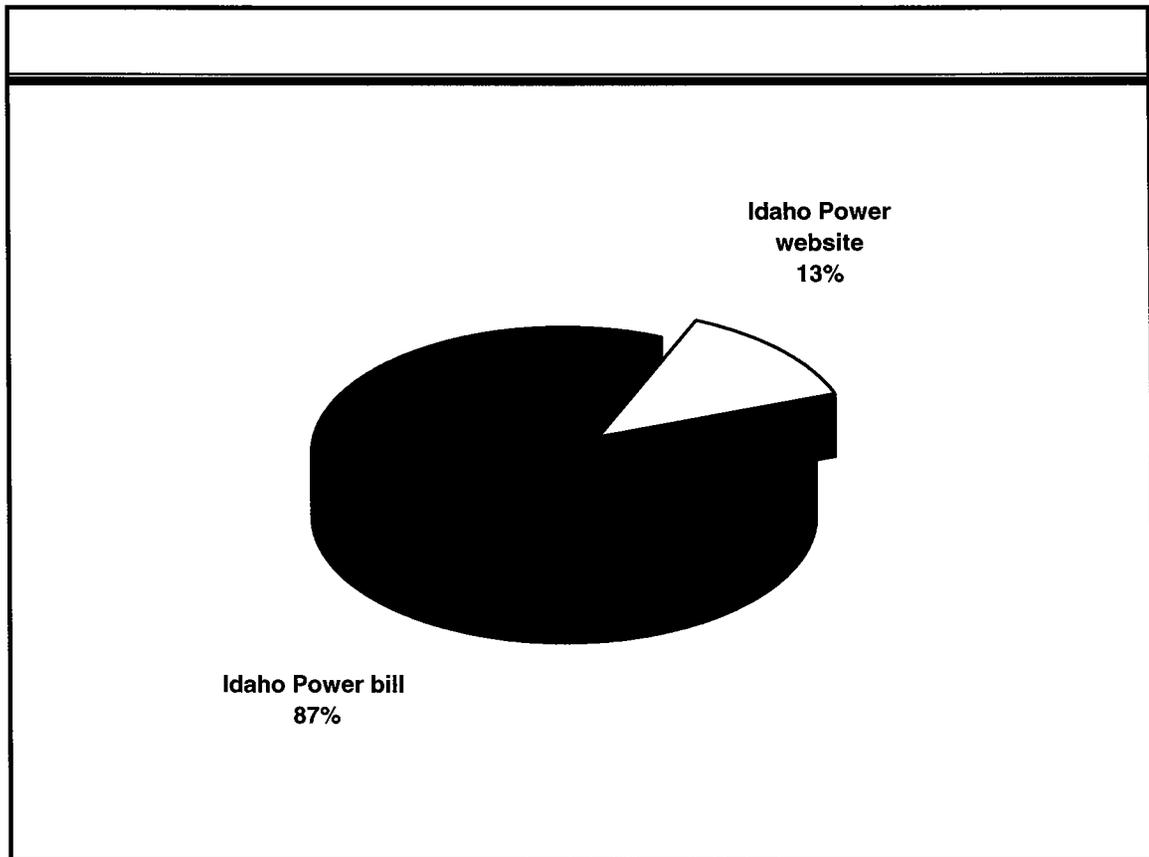
Table 18: The Information Provided on the Website Met / Did Not Meet the Needs of the Customer

	All Respondents (n = 533)	Participants (n = 127)	Non-Participants (n = 406)
Definitely Met Needs	44%	35%	55%
Somewhat Met Needs	42%	48%	36%
Did not Meet Needs	13%	17%	10%
Mean*	4.09	3.87	4.32
<i>*Mean is based on a 5-point scale where “1” means “definitely did not meet needs” and “5” means “definitely met needs.”</i>			

Finally, respondents were asked if they would prefer to see the electricity usage on their Idaho Power bill or on Idaho Power's website. Eighty-seven percent (87%) of all Emmett residents would rather get detailed information about their electricity usage on their Idaho Power bill. There was no difference between program participants and non-participants.

Younger participants (those less than 65) are more interested than those over 65 in getting information about electricity usage on the web site – 23 percent compared to 2 percent, respectively.

Figure 7: Preference on Where Customers Would Like to See Their Electricity Usage Information



Non-Participants

Awareness of Time-of-Day and Energy Watch Programs

Emmett customers who did not participate in the Time-of-Day or Energy Watch programs were asked if they were aware that two pricing programs were available to Emmett area residents this past summer. Fifty-five percent (55%) of respondents were aware of these programs.

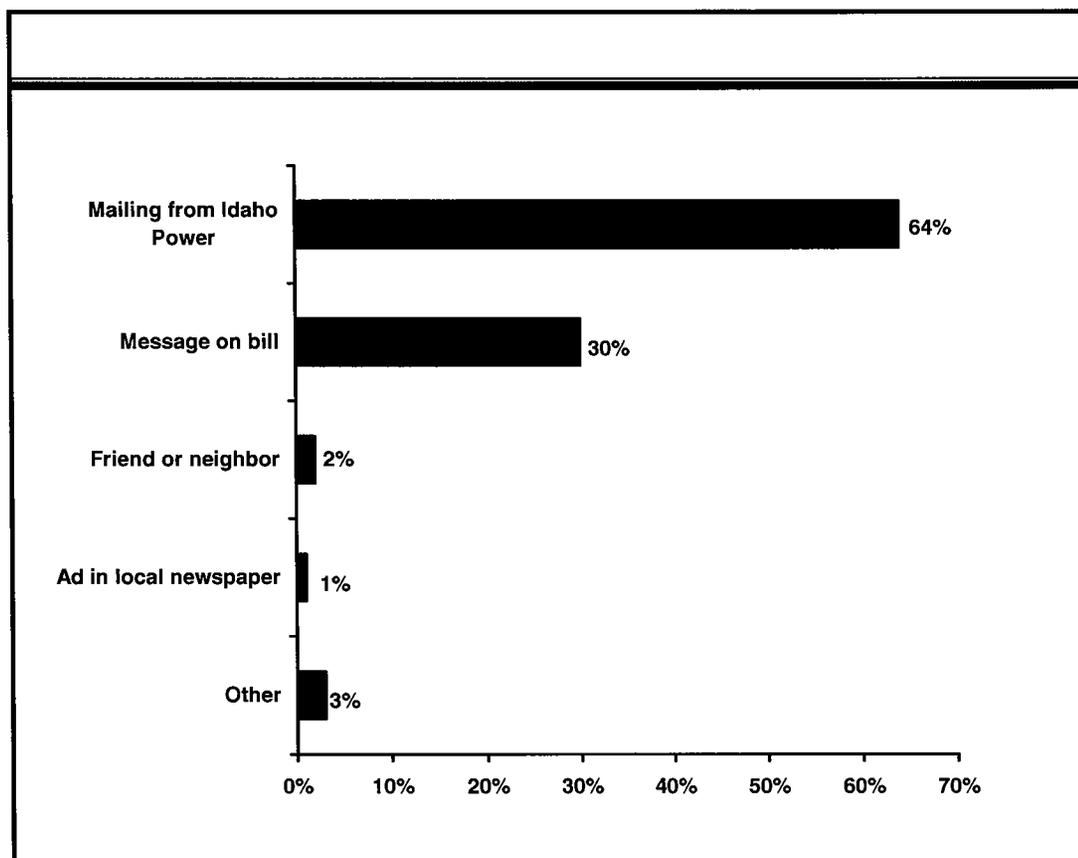
There were no differences in awareness by age. However, those living in the area for 10 or fewer years were more likely to be aware of the program than were those living in the area for 11 to 25 years – 66 percent aware compared to 48 percent, respectively.

Customers who were aware of the two programs (n=221), were asked how they first learned about the Time-of-Day and Energy Watch programs that Idaho Power offered to Emmett area residents. The majority of the respondents first learned about the programs through a mailing from Idaho Power (64%) or in a message on their Idaho Power bill (30%).

Participants between the ages of 25 and 44 were more likely to recall receiving a mailing from Idaho Power (74%) while those between 45 and 64 were more likely to recall seeing a message on their bill (36%).

Men were more likely than women to recall receiving a mailing – 72 percent compared with 57 percent, respectively.

Figure 8: Non-Participants: How They First Learned About the Two Pricing Programs



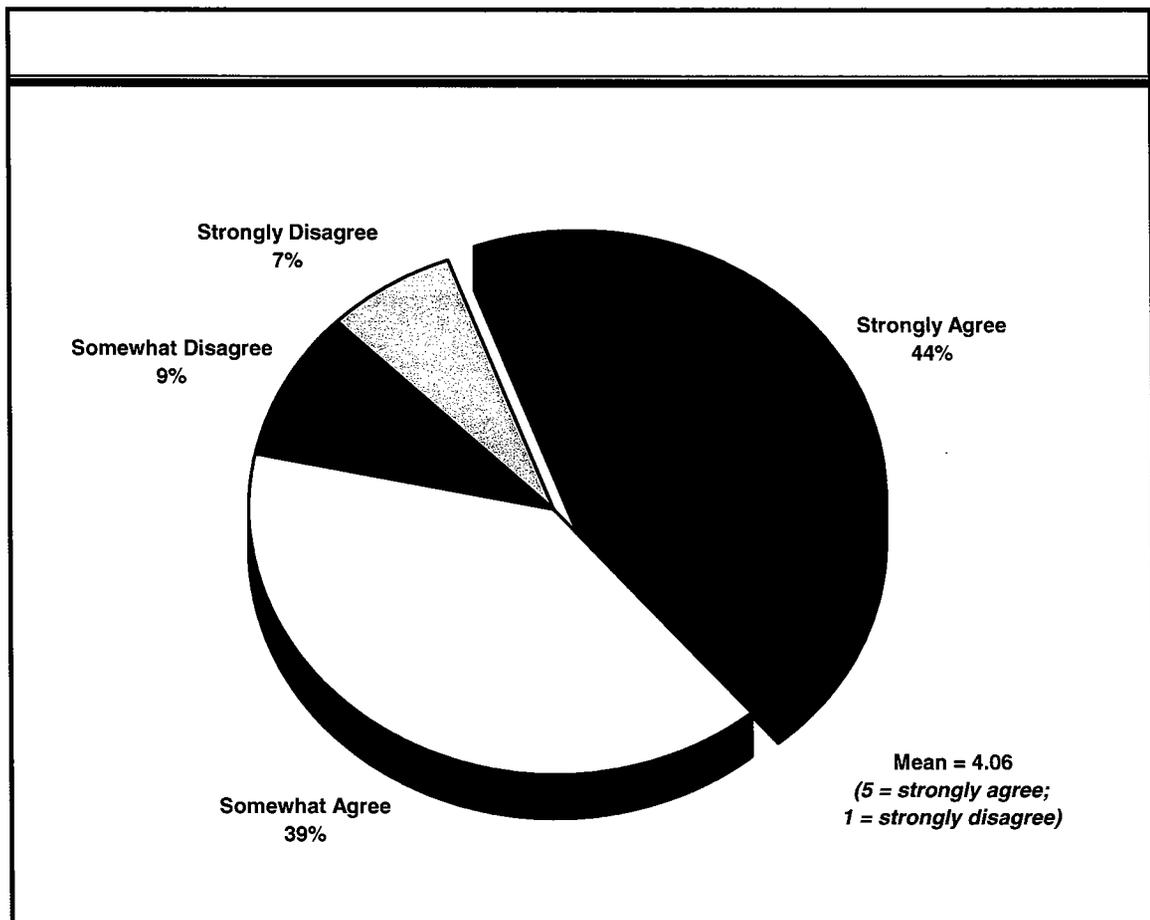
In addition, non-participants who were aware of the two programs (n=221) were asked if they had received enough information from Idaho Power to help make the decision about whether or not to participate in the Time-of-Day or Energy Watch programs. Responses were recorded on a 5-point scale where “1” means “strongly disagree” and “5” means “strongly agree.”

Over four out of five (83%) non-participants agreed that they received enough information about these programs to make their decision.

Non-participants between the ages of 45 and 64 and, to a lesser extent, those 65 and older were more likely to agree that they had received adequate information than did those less than 45 years of age.

Although Emmett non-participants feel they received adequate information to make their decision about participating in the pricing programs, 88 percent of the respondents did not use the hourly electricity usage information to make their decision to not participate in the programs.

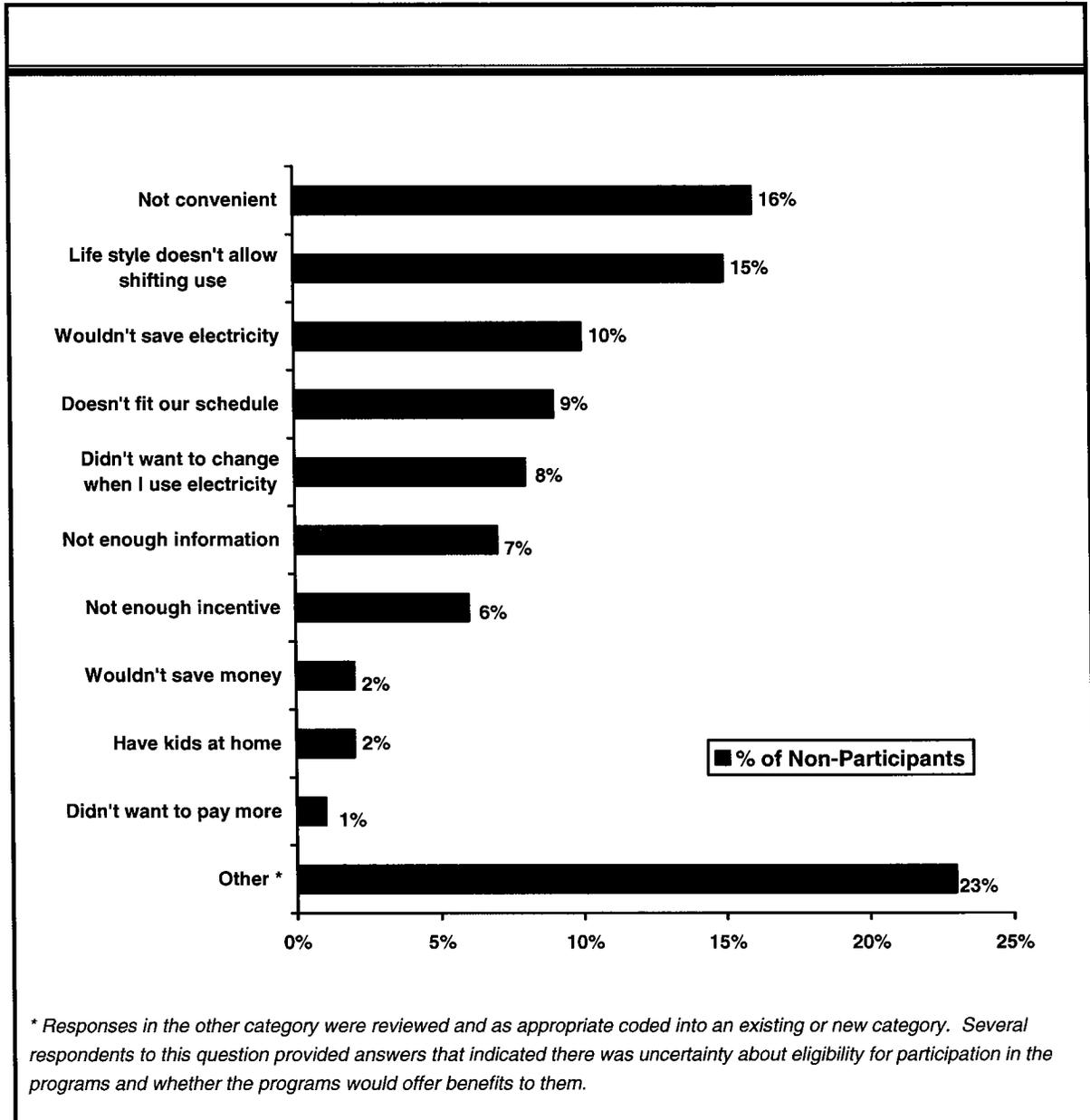
Figure 9: Extent to Which Non-Participants Agree / Disagree They Received Adequate Information to Make Decision to Participate / Not Participate in the Two Pricing Programs



Reasons for Not Participating in Time-of-Day or Energy Watch Programs

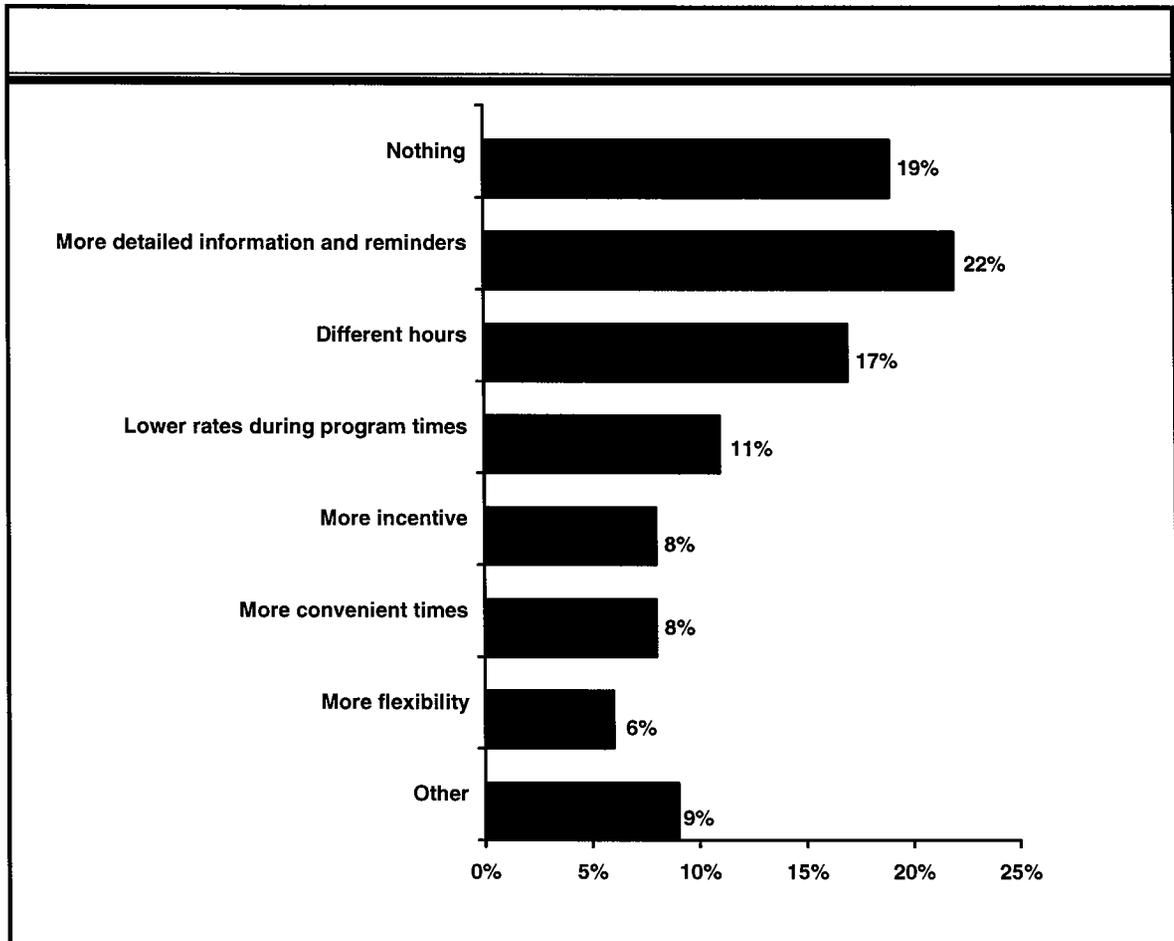
In order to determine why Emmett area customers chose not to participate in the two pricing programs, residents were asked the main reason why they didn't participate. The main reasons cited by respondents were the following: not convenient (16%), life style doesn't allow shifting of electricity use (15%), wouldn't save electricity (10%), and doesn't fit schedule (9%).

Figure 10: Non-Participants: Reasons for Not Participating in One of the Two Pricing Programs



In addition to finding out why Emmett customers didn't participate in the programs, respondents were asked what would make the Time-of-Day or Energy Watch Programs more appealing so that they might consider participating in a similar program in the future. Respondents would like to have more detailed information and reminders (22%), different hours (17%), and lower rates during program times (11%). Nineteen percent (19%) of non-participants proclaimed that there was nothing Idaho Power could do to make the pricing programs more appealing.

Figure 11: Non-Participants: What Would Make the Time-of-Day or Energy Watch Programs More Appealing?



Participants

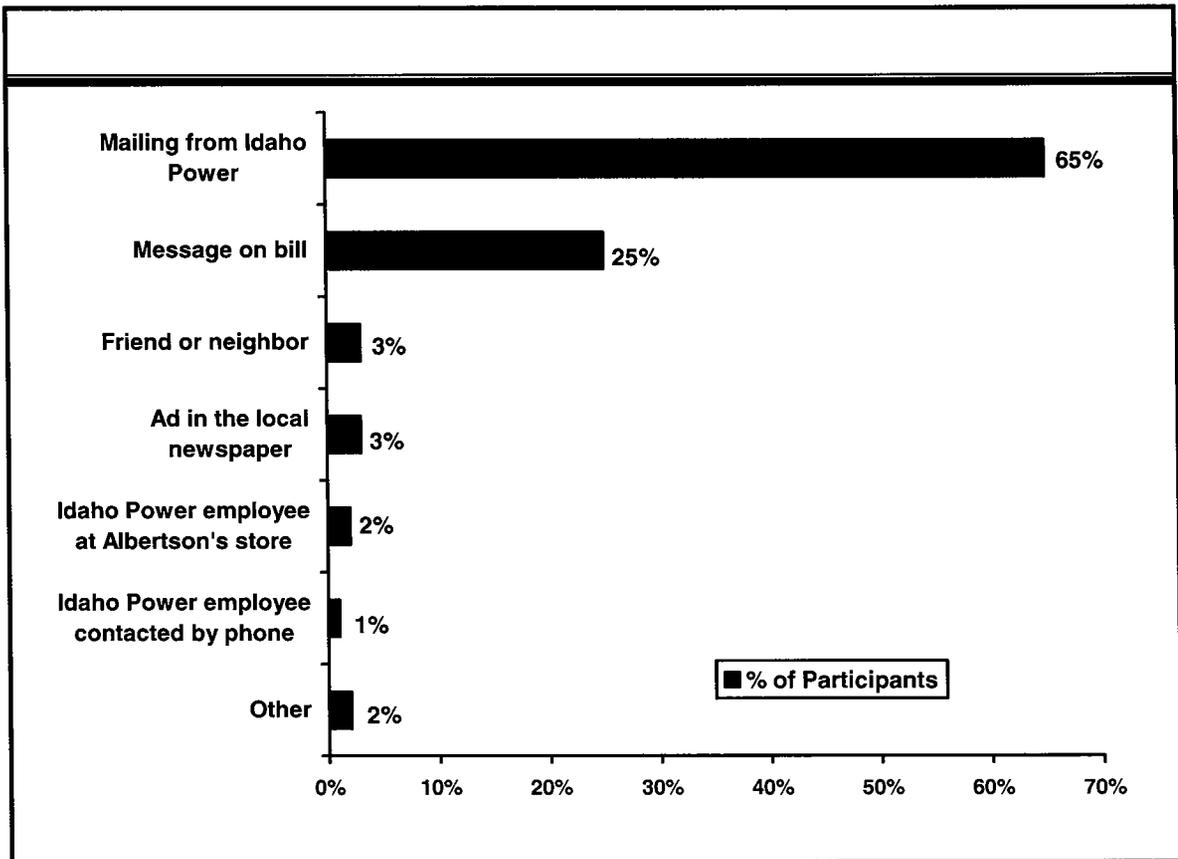
Information Sources

How Participants Learned about the Programs

Emmett area customers who participated in the Time-of-Day or Energy Watch programs were asked how they first learned about the two programs.

Like non-participants, program participants were most likely to hear about the programs through a mailing from Idaho Power (65%) and a message on their Idaho Power bill (25%).

Figure 12: How Participants Learned About the Two Pricing Programs



Satisfaction with Information Received About Programs

Program participants were asked a series of statements about the information they received during different states of the programs. Respondents were asked if Idaho Power adequately explained the program options, if they received the information needed from Idaho Power during the program, and if they received the information needed from Idaho Power at the completion of the program. Responses were recorded on a 5-point scale where “1” means “strongly disagree” and “5” means “strongly agree.”

Overall, participants agree that they received enough information about the programs. They were most likely to agree that they received adequate information before and during the program. However, residents would have liked to have more information from Idaho Power at the completion of the program, especially the participants in the Energy Watch program.

Although program participants received enough information about the pricing programs, 84 percent of the respondents did not use their hourly electricity usage information to make their decision about participating in the programs.

Table 19: Participants: Satisfaction with the Information Received About the Two Pricing Programs

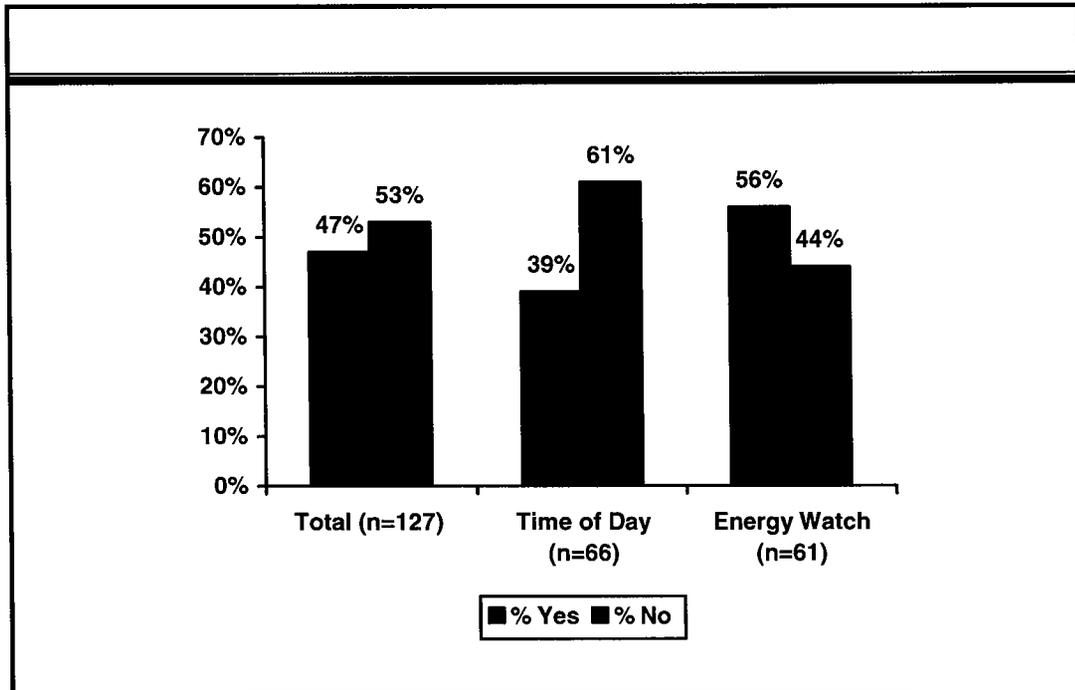
	Adequately Explained Program Options	Received Information Needed During the Program	Received Information Needed After Program
Strongly Agree	76%	76%	65%
Somewhat Agree	20%	19%	18%
Disagree	4%	6%	16%
Mean*	4.69	4.63	4.21

**Mean is based on a 5-point scale where “1” means “strongly disagree” and “5” means “strongly agree.”*

Lifestyle Changes

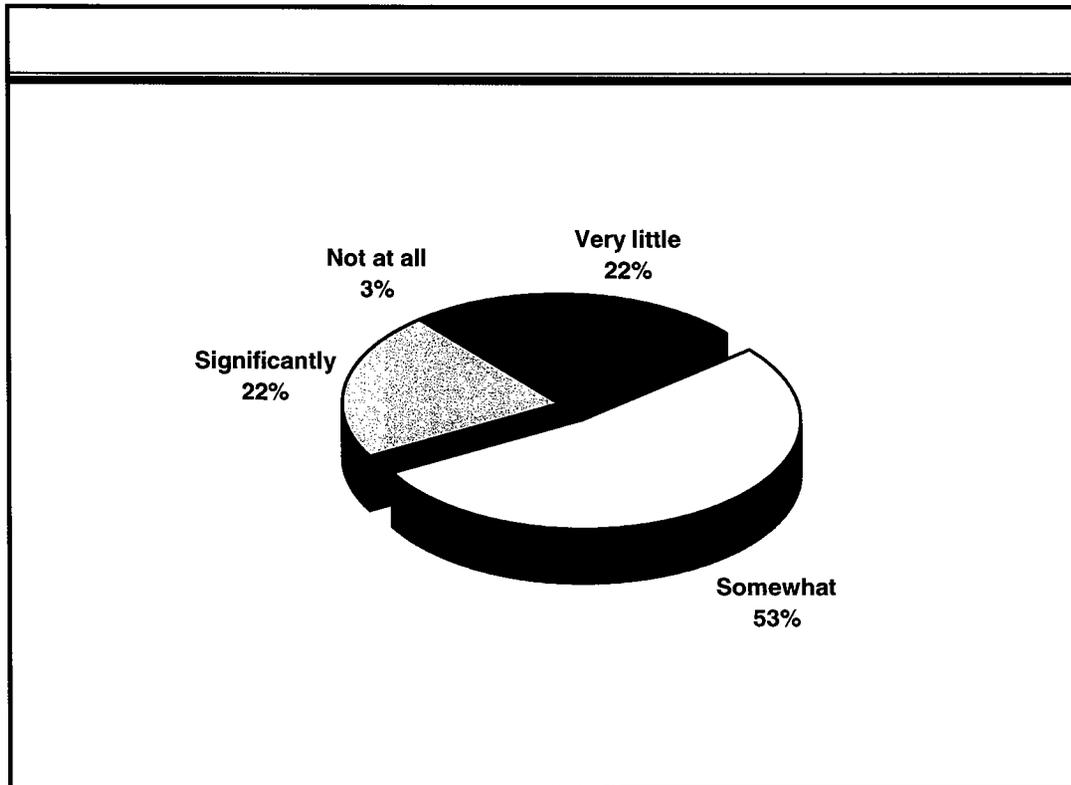
Participants were asked if their participation in the Time-of-Day or Energy Watch program affected their lifestyle in anyway. Overall, fifty-three percent (53%) of program participants feel that their lifestyle had not changed. Participants in the Energy Watch program indicated that their lifestyle changed more than those customers who participated in the Time-of-Day program (56 percent versus 39 percent, respectively).

Figure 13: Overall Lifestyle Changes by Participating in One of the Two Pricing Programs



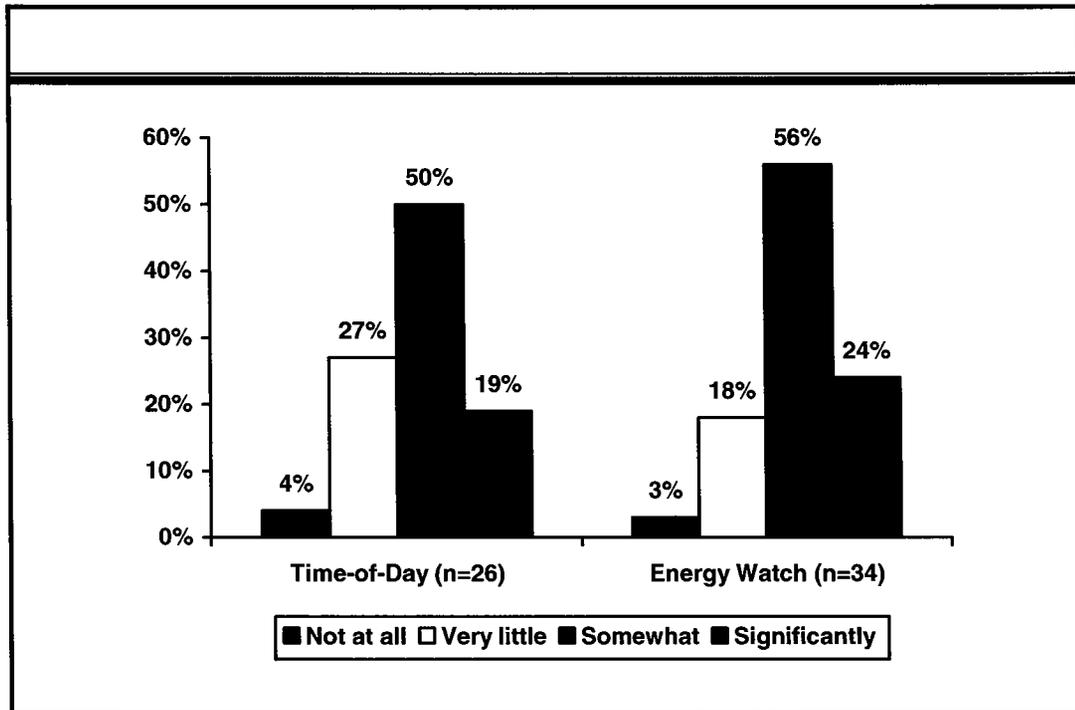
As a follow-up for those program participants (n=60) who said their lifestyle had changed where asked how dramatically was their lifestyle changed by participating in one of these programs. For those participants who proclaimed that their lifestyle had changed, 53 percent feel their lifestyle had somewhat changed and only 22 percent feel their lifestyle had changed significantly.

Figure 14: How Dramatically Participants Lifestyles Had Changed



Of those customers who said their lifestyle had changed as a result of participating in one of these programs, 24 percent of the Energy Watch participants said their lifestyle changed significantly and 56 percent said their lifestyle had changed somewhat. Nineteen percent (19%) of Time-of-Day participants said that their lifestyle changed significantly with another 50 percent saying their lifestyle had changed somewhat. It is important to note that the cell sizes of those responding to this question is relatively small (n=26 for Time-of-Day and n=34 for Energy Watch participants). Care, therefore should be used in interpreting these results.

Figure 15: How Dramatically Participants Lifestyles Had Changed by Type of Participant



As a follow-up to asking about lifestyle changes, residents who felt their lifestyles had changed were asked what the most significant change in their lifestyle was in order to reduce their electricity usage during certain hours. Overall, program participants indicated that laundry (26%) and household temperature / comfort (26%) were the most significant changes in their lifestyle.

It was apparent that the participants in these two programs responded very differently. Time-of-Day participants indicated that the most significant change to their household lifestyle was laundry (60%). Energy Watch program participants indicated that household temperature / comfort was the most significant change to their household lifestyle (36%). Again, because of the small cell sizes of those responding to this question (n=26 for Time-of-Day and n=34 for Energy Watch participants) care should be used in interpreting these results.

Figure 16: Time of Day Participants: The Most Significant Change in Their Lifestyle

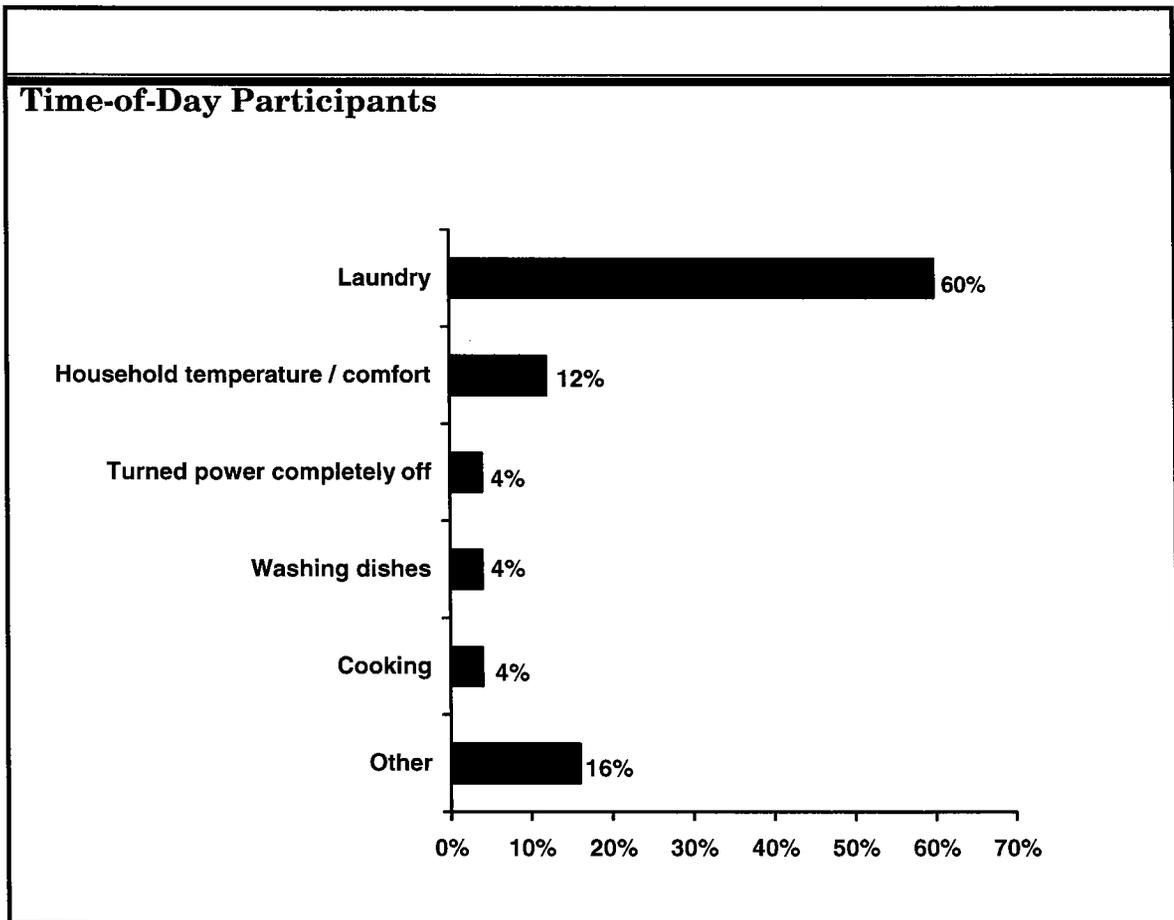
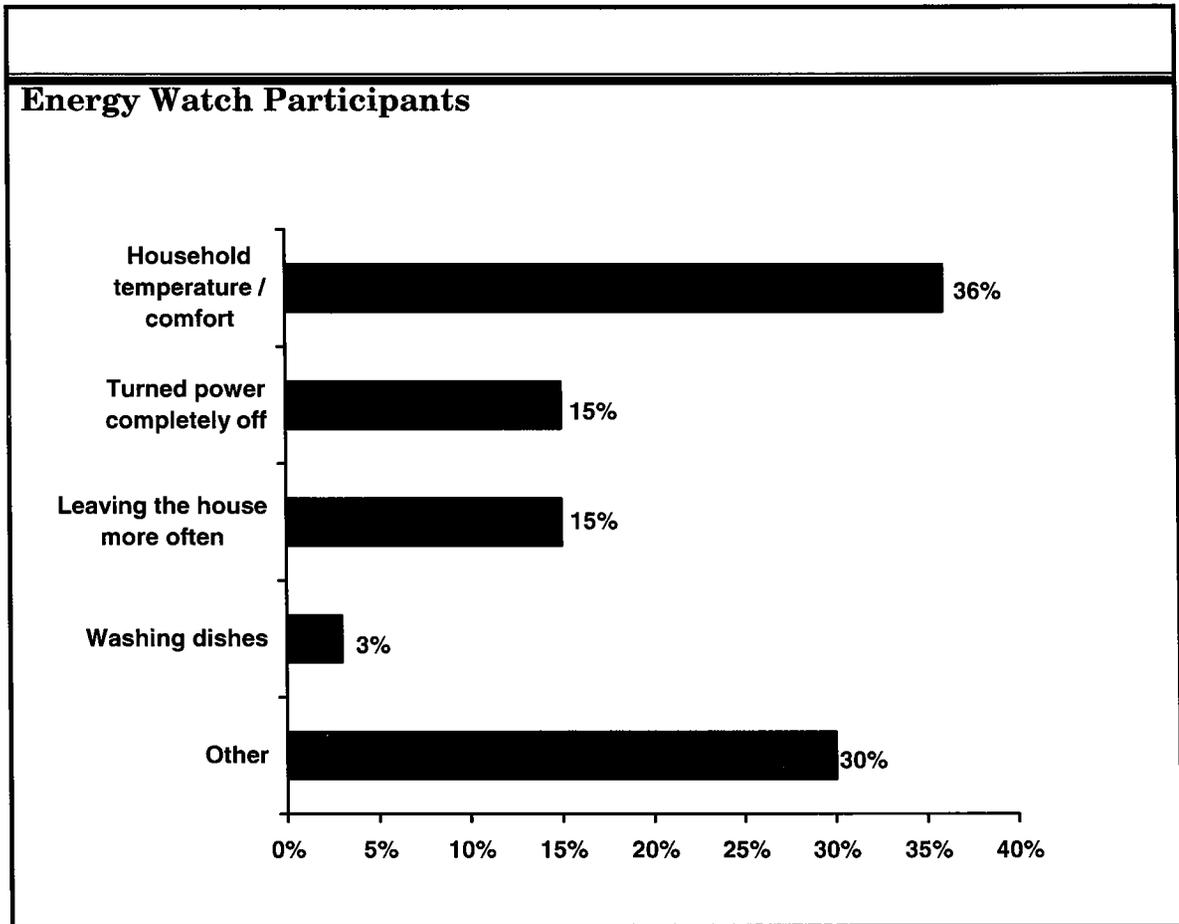


Figure 17: Energy Watch Participants: The Most Significant Change in Their Lifestyle

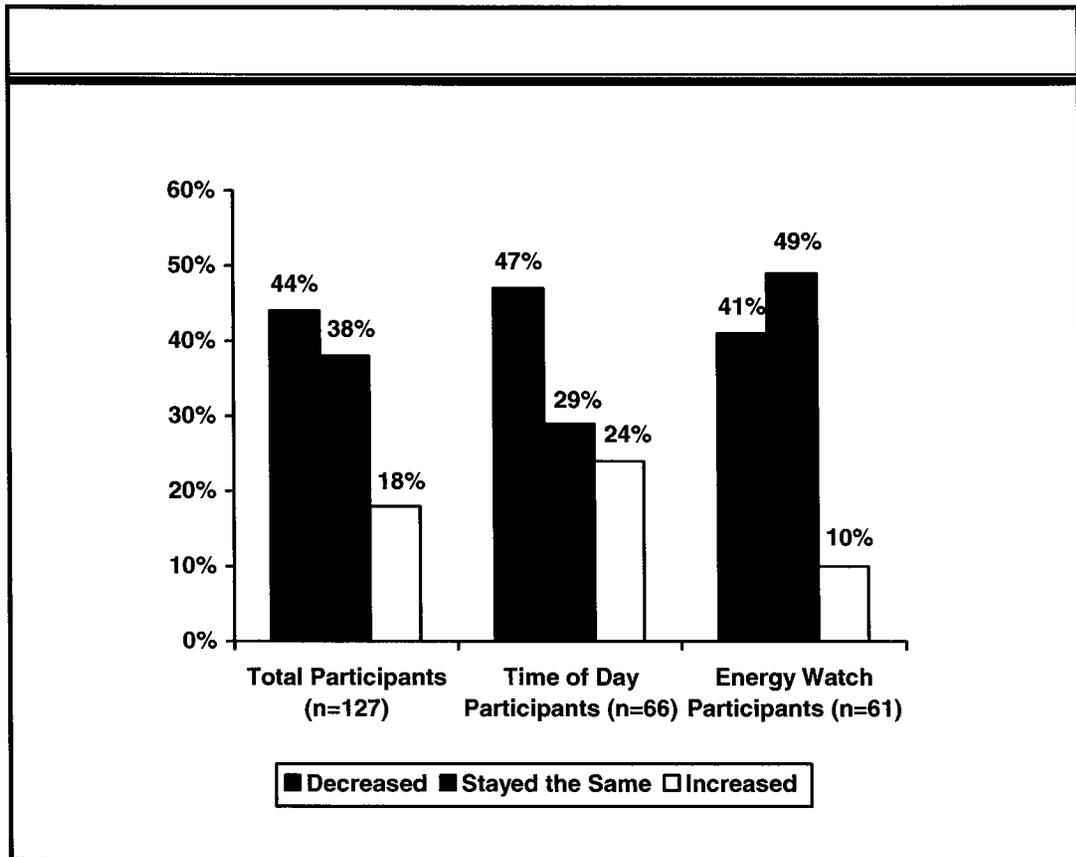


Changes in the Electricity Bill

In addition to lifestyle changes, program participants (n=127) were asked if their electricity bill changed as a result of participating in one of the two pricing programs. For the most part, 44 percent felt their bill had decreased, but 38 percent of program participants said that their bill had stayed the same.

Most Energy Watch program participants felt their bill decreased (41%) or stayed the same (49%). Time-of-Day participants also felt their bill decreased (47%), but 24 percent of them felt their bill increased and 29 percent felt it stayed the same.

Figure 18: Changes in the Electricity Bill by Type of Participant



Likelihood to Participate in Time-of-Day and/or Energy Watch Programs in the Future

Emmett area customers who participated in one of the two programs were asked how likely they would be to participate in the Time-of-Day or Energy Watch Programs if Idaho Power offered them again. Responses were recorded on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”

Overall, Emmett residents who participated in the programs would be likely to participate in the programs in the future – 22 percent are “somewhat likely” and 60 percent are “very likely” with little difference between Energy Watch and Time-of-Day participants. Residents who reported their electricity bill decreased are more likely to participate in these programs in the future compared to those whose bill stayed the same or increased.

Table 20: Likelihood of Participating in One of the Two Pricing Programs in the Future by Reported Change in Bill

Likelihood of Participating in the Future	Reported Change in Bill			
	Total (n=127)	Decreased (n=47)	Stayed the same (n=41)	Increased (n=19)
Very Unlikely	8%	2%	13%	16%
Somewhat Unlikely	10%	4%	8%	26%
Neither Likely Nor Unlikely	1%	--	--	5%
Somewhat Likely	22%	15%	33%	21%
Very Likely	60%	79%	48%	32%
Mean*	4.16	4.64	3.95	3.26

**Mean based on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”*

Residents who participated in the programs were also asked how likely they would be to recommend the Time-of-Day and Energy Watch programs to their friends and family if the programs were offered again. Responses were recorded on the same 5-point scale where “1” means “very unlikely” and “5” means “very likely.”

Customers who participated in one of the pricing programs in the summer of 2005, in general are likely to recommend these programs to their friends and family, but there were some differences depending on which of the two programs customers participated in. Although not significant, a slightly higher percentage of customers who participated in the Energy Watch program were inclined to recommend the program than those who participated in the Time-of-Day program – 79 percent versus 74 percent, respectively. The most notable difference though was with the percentage of customers who said they definitely would not recommend the Time-of-Day (20%) versus those who would not recommend in the Energy Watch program (8%). In addition, customers who participated in either of the pricing programs are more likely to recommend the pricing programs if they reported their electricity bill had decreased because of participating in the programs.

Table 21: Likelihood of Recommending One of the Pricing Programs by Type of Participant

Likelihood of Recommending	Total Participants (n=127)	Time-of-Day (n=66)	Energy Watch (n=61)
Very Likely	50%	46%	54%
Somewhat Likely	26%	28%	25%
Neither Likely Nor Unlikely	1%	--	2%
Somewhat Unlikely	9%	6%	11%
Very Unlikely	14%	20%	8%
Mean*	3.89	3.74	4.05

**Mean based on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”*

In addition to recommending the programs, participants were asked how likely they would be to participate in a similar program if it were offered year round. Responses were recorded on the same 5-point scale where “1” means “very unlikely” and “5” means “very likely.” Time-of-Day participants are slightly more likely to participate in a year-round program than are Energy Watch participants. Fifty-five percent (55%) of the Time-of-Day participants (n=66) stated that it was “very likely” they would participate in a year-round program and 41 percent of the Energy Watch participants (n=61) stated that they are “very likely” to participate in a year-round program.

Table 22: Likelihood of Participating Year Round by Type of Participant

Likelihood of Participating Year-round	Total Participants (n=127)	Time-of-Day (n=66)	Energy Watch (n=61)
Very Likely	48%	55%	41%
Somewhat Likely	32%	29%	36%
Neither Likely Nor Unlikely	1%	--	2%
Somewhat Unlikely	8%	5%	12%
Very Unlikely	11%	11%	10%
Mean*	3.98	4.11	3.85

**Mean based on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”*

Finally, Emmett area customers who participated in the programs were asked how likely they were to participate in a similar program if the hours when electricity rates are the highest were changed slightly for these programs. Responses were recorded on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”

Overall, 86 percent of program participants would be likely to participate in a similar program if the electricity rates were changed slightly for these programs. Compared to Time-of-Day participants, Energy Watch participants are slightly more inclined to participate in a similar program if the hours are changed slightly – 88 percent versus 84 percent, respectively.

Table 23: Likelihood of Participating in a Similar Program by Type of Participant

Likelihood of Participating	Total Participants (n=127)	Time-of-Day (n=66)	Energy Watch (n=61)
Very Likely	45%	41%	48%
Somewhat Likely	41%	43%	40%
Neither Likely Nor Unlikely	2%	2%	2%
Somewhat Unlikely	6%	5%	7%
Very Unlikely	6%	9%	3%
Mean*	4.13	4.03	4.22

**Mean based on a 5-point scale where “1” means “very unlikely” and “5” means “very likely.”*

Suggestions to Improving the Time-of-Day and/or Energy Watch Programs

Program participants were asked if they had any suggestions that would make the Time-of-Day or Energy Watch Program more appealing. Approximately one-half of respondents proclaimed that they wouldn't change anything. Thirty-two percent (32%) of Time-of-Day participants and 14 percent of Energy Watch participants would like different hours during the program. In addition, 15 percent of Time-of-Day participants and 19 percent of Energy Watch participants would like a more convenient time for program participants.

Figure 19: Time of Day Participants: Suggestions to Improving the Program

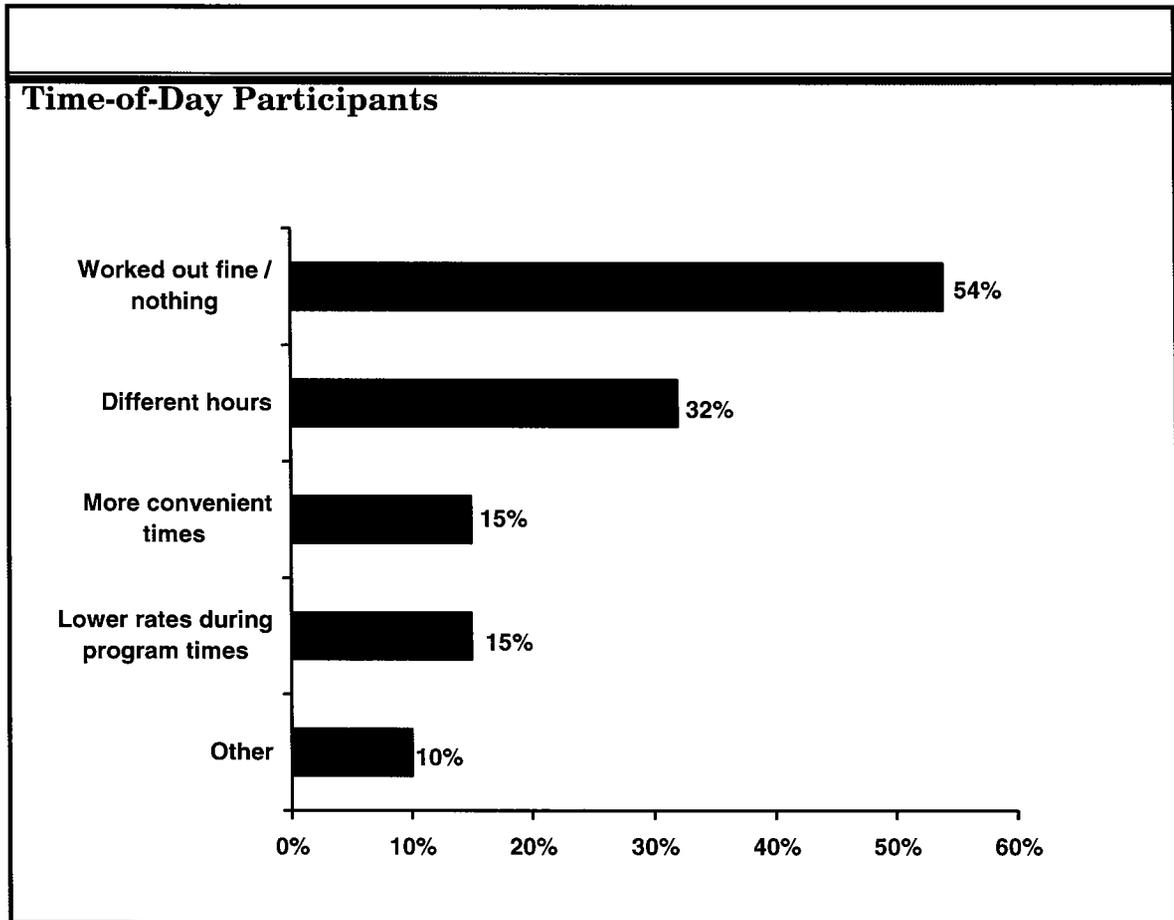
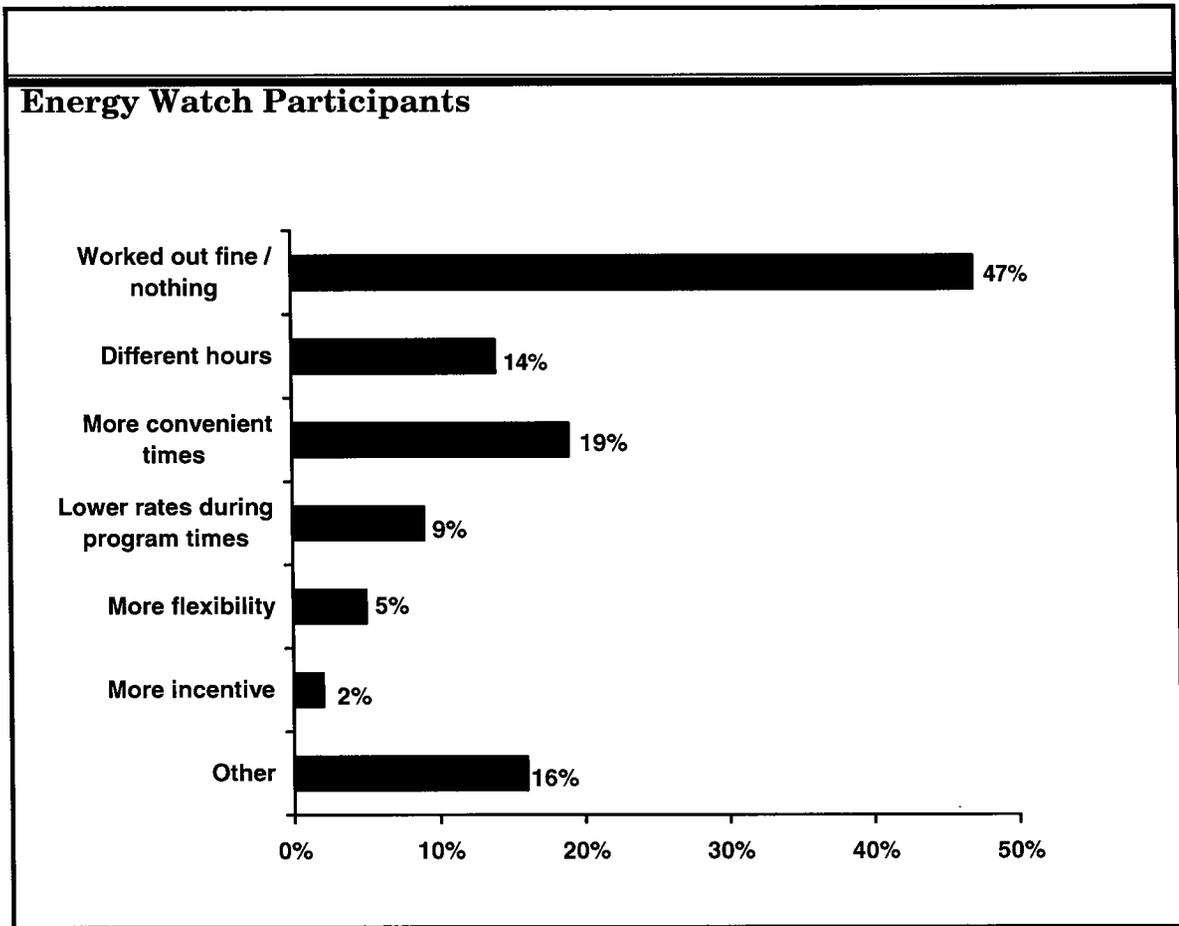


Figure 20: Energy Watch Participants: Suggestions to Improving the Program



Study Conclusions

Overall, Emmett area customers (both non-participants and program participants) are satisfied with the level of service they receive from Idaho Power. In addition, Emmett customers' satisfaction level has stayed constant within the past twelve (12) months.

The most effective means to provide customers with information about new programs and services is by direct mail and/or information provided with the bill.

The majority of non-participants was aware of the Time-of-Day and Energy Watch programs and agreed that Idaho Power gave them enough information about these two programs. However, non-participants did not want to participate in these programs because they did not feel the programs were convenient or would save enough electricity. In addition, they did not want to change when they use electricity and they felt there was not enough incentive to participate. Idaho Power may wish to conduct additional research to understand what types of programs would be perceived as convenient and would incent people to participate.

As for the Emmett customers who participated in one of these programs, they were satisfied with the programs and would participate in the programs again if they were offered to them. Participants also agreed that they would recommend the Time-of-Day and Energy Watch programs to their family and friends especially if they felt their electricity bill decreased. Past program participants represent a significant opportunity for boosting future participation by having them serve as advocates and/or providing them with an incentive to get a friend or neighbor to participate.

In order for Idaho Power to acquire more customers interested in these types of programs, Idaho Power will need to show the non-participants the benefits of participating in Time-of-Day and Energy Watch programs. One of the main reasons why the non-participants do not want to be a part of these programs is because they think they will lose control over when they can use their electricity. Based upon the verbatim responses from this study, there seemed to be confusion for a number of customers who elected not to participate in either the Time-of-Day or Energy Watch programs with the direct load control program that was offered by Idaho Power during the same time period. In the course of the survey, it was stated very explicitly that the question were being asked about the Time-of-Day and Energy Watch programs and not the AC Cool Credit program. Despite this, a number of customers still commented on either not having air conditioning or using swamp coolers so thinking they were ineligible to participate in either of these programs. A number of customers also cited being gone for the summer as the reason for not participating. If the program ran beyond one season, Idaho Power may see more participation.

Methodology

Questionnaire Design

Northwest Research Group, Inc. (NWRG) consulted with Idaho Power to design customized research questions. The customized questions included the following:

- ~ Overall impression of Idaho Power,
- ~ Overall awareness of AMR meter and energy usage information,
- ~ Non-participants awareness of Time-of-Day and Energy Watch programs,
- ~ Non-participants overall impression of Time-of-Day and Energy Watch programs,
- ~ Program participants overall impression of Time-of-Day and Energy Watch, and
- ~ Demographic questions.

The questionnaire used a variety of question formats, including closed single and multiple-response questions for all categorical data. In situations where not all potential responses could be anticipated, an “other” category was included. These results were then reviewed and, where appropriate, post-coded into the database. One open-ended question was included asking program participants if they had any other comments that they would like to make about the Time-of-Day and/or Energy Watch programs. Based on a review of these responses, a code list was developed to capture the range of responses. Results from the open-ended question were then coded and entered into the respondent database.

The survey was administered using computer-assisted telephone interviewing technology. The computer program automatically handled all skip and branching patterns. A copy of the customized questions included in the questionnaire may be found in the Appendix.

Sampling

The study is based on a sample of 400 non-participants and 160 program participants of the Energy Watch and/or Time-of-Day program. The sample is drawn and administered using a targeted listed sample provided by Idaho Power which included both non-participants and program participants living in Emmett.

Interviews were conducted between September 15 and September 28, 2005. NWRG conducted interviews daily until 9:00 p.m. and weekends during the afternoon and early evening hours. Each sample element was attempted up to five times to maximize the extent to which the sample represents the population. This method ensures that each household has a known probability of being selected for an interview. Northwest Research Group completed a total of 406 interviews among non-participants and 127 among program participants.

Final Interviewing Outcomes

Declining response rates resulting from the inability to reach households with targeted respondents at home and increasing refusal rates are of significant concern in telephone survey research. Strict calling procedures are used to maximize response rates including:

- ~ Scheduling call-back interviews as required to complete surveys at a convenient time.
- ~ Re-contacting individuals who initially refused to complete the survey at an alternative time to determine their willingness to complete. Note the majority of initial refusals to surveys occur prior to hearing the introduction. Moreover, the person answering the phone may not be the individual in the household scheduled to be interviewed.
- ~ Calling back households who do not answer or have busy numbers up to five times to maximize contact rates.

The response rate for the Idaho Power Emmett survey based on 2004 AAPOR (American Association for Public Opinion Research) formula is 83 percent for program participants and 26 percent for non-participants. Of those reached, only 1 percent of program participants refused and 7 of non-participants percent refused to complete the survey. This is significantly lower than the national average for RDD samples where the refusal rate is as high as 40 percent.

Appendix

Questionnaire

INTRODUCTION

INTRO Hello, this is _____ with Northwest Research Group, Inc. We are an independent research firm conducting a brief survey on behalf of Idaho Power and would like to include your opinions. The purpose of this study is to develop information about the overall perceptions and opinions of Idaho Power's customers. This study is being conducted for research purposes only and this call may be monitored and/or recorded for quality purposes.

[AS NEEDED: Let me assure you that this is not a sales call, and the information you give will be kept strictly confidential. If you want more information about NWRG, you may visit our web site www.nwrg.com.]

[AS NEEDED: The interview will only take 10 minutes of your time.]

SCR1 May I please speak with the person that is most responsible for paying the electricity bill at your **[ENTER FROM SAMPLE: HOME]**?

- 1 RESPONDENT AVAILABLE
- 2 RESPONDENT NOT AVAILABLE **[CTRL-END, SCHEDULE CALLBACK]**
- 3 NO, NOT INTERESTED **[SKIP TO THANK9; DISPOS = 5]**
- 7 LANGUAGE BARRIER **[SKIP TO THANK2; DISPOS = 10]**
- 9 DON'T KNOW / REFUSED **[SKIP TO THANK8; DISPOS=8]**

SCR2 Do you or does anyone in your household work for a public utility, utility commission, market research firm, or the media?

- 1 YES **[SKIP TO THANK9; DISPOS = 24]**
- 2 NO
- 8 DON'T KNOW **[SKIP TO THANK9; DISPOS = 8]**
- 9 REFUSED **[SKIP TO THANK9; DISPOS = 8]**

GENDER **[ENTER GENDER OF RESPONDENT]**

- 1 MALE
- 2 FEMALE

OVERALL IMPRESSION

ASK OF ALL PARTICIPANTS

Q1INT To start, I'd like to ask you a few questions related to your overall impressions of Idaho Power.

Q1 Overall, are you satisfied or dissatisfied with the level of service you receive from Idaho Power? Would that be very or somewhat satisfied / dissatisfied?

- 1 VERY DISSATISFIED
- 2 SOMEWHAT DISSATISFIED
- 3 NEITHER SATISFIED NOR DISSATISFIED
- 4 SOMEWHAT SATISFIED
- 5 VERY SATISFIED
- 9 DON'T KNOW / REFUSED

Q2 Has your level of satisfaction with Idaho Power become stronger, weaker or stayed the same over the past twelve (12) months? Would that be much or somewhat stronger / weaker?

- 1 MUCH WEAKER
- 2 SOMEWHAT WEAKER
- 3 STAYED THE SAME
- 4 SOMEWHAT STRONGER
- 5 MUCH STRONGER
- 9 DON'T KNOW / REFUSED

Q3 I am going to read you several statements about Idaho Power. As I read each one please tell me whether you agree or disagree with the statement.

Do you agree or disagree that [ENTER STATEMENT: Q3A – Q3C]? Would that be strongly or somewhat agree / disagree?

- 1 STRONGLY DISAGREE
- 2 SOMEWHAT DISAGREE
- 3 NEITHER AGREE NOR DISAGREE
- 4 SOMEWHAT AGREE
- 5 STRONGLY AGREE
- 9 DON'T KNOW / REFUSED

RANDOMIZE

Q3A Idaho Power has kept you informed about changes that may affect your account

Q3B Idaho Power has provided you with information to help make decisions about how to use electricity efficiently

Q3C Idaho Power has provided you with information to help make decisions about the best time to use electricity

Q4 Now I am now going to read you several statements about your electricity meter, which is an Advanced Meter Reading meter, or AMR meter. As I read each one please indicate whether you are aware or not aware of each of the pieces of information.

*Please use a scale from 0 to 10 where a "0" means that you are **not at all aware** and "10" means you are **very aware**. You may use any number from 0 to 10.*

How aware are you that [ENTER STATEMENT: Q4A-Q4D]?

0 NOT AT ALL AWARE
1
2
3
4
5
6
7
8
9
10 VERY AWARE
99 DON'T KNOW / REFUSED

RANDOMIZE

Q4A Idaho Power installed a new AMR meter on your residence within the past eighteen (18) months

Q4B Your AMR meter is read remotely

Q4C You no longer have a meter reader coming on to your property on a monthly basis

Q4D You have the ability to get your hourly and daily electricity usage information from Idaho Power's website

Q5 You may have noticed that your new AMR meter looks different than your previous meter. Is the information displayed on the AMR meter helpful in managing your electricity usage?

1 YES
2 NO
3 HAVEN'T NOTICED A DIFFERENCE IN THE METER
9 DON'T KNOW/REFUSED

Q6 Do you have a need or interest in knowing your hourly electricity usage?

1 YES
2 NO
9 DON'T KNOW/REFUSED

Q7 Do you have a need or interest in knowing your daily electricity usage?

1 YES
2 NO
9 DON'T KNOW/REFUSED

Q8 Have you ever gone to Idaho Power's web-site for your electricity usage information?

- 1 YES
- 2 NO [SKIP TO Q12]
- 9 DON'T KNOW/REFUSED [SKIP TO Q12]

Q9 [Q8=1] Was your electricity usage information on Idaho Power's web-site useful? Would that be very or somewhat useful / not useful?

- 1 VERY NOT USEFUL
- 2 SOMEWHAT NOT USEFUL
- 3 NEITHER USEFUL NOR NOT USEFUL
- 4 SOMEWHAT USEFUL [SKIP TO Q11]
- 5 VERY USEFUL-[SKIP TO Q11]
- 9 DON'T KNOW / REFUSED

Q10 [Q9=1-3] What suggestions do you have to make the information more useful?

DO NOT READ LIST

SELECT ALL THAT APPLY

- 1 MORE USER-FRIENDLY
- 2 MORE GRAPHS
- 3 MORE RELEVANT TO MY USAGE
- 6 OTHER [SPECIFY]
- 7 OTHER [SPECIFY]
- 8 OTHER [SPECIFY]
- 9 DON'T KNOW / REFUSED

Q11 [IF Q8=1] Did your electricity usage information on Idaho Power's web-site meet your needs? Would that be definitely or somewhat met / did not meet?

- 1 DEFINITELY DID NOT MEET NEEDS
- 2 SOMEWHAT DID NOT MEET NEEDS
- 3 NEITHER MET NOR DIDN'T MEET NEEDS
- 4 SOMEWHAT MET NEEDS
- 5 DEFINITELY MET NEEDS

Q12 [ALL] Where would you prefer to get detailed information about your electricity usage? On your monthly Idaho Power bill or on Idaho Power's web-site?

- 1 IDAHO POWER BILL
- 2 IDAHO POWER WEBSITE
- 9 DON'T KNOW/REFUSED

[EMMETT PROGRAM PARTICIPANTS [SKIP TO Q19 INT]]

EMMETT – NON-PROGRAM PARTICIPANTS

In April and May of 2005, Idaho Power offered Emmett area customers the opportunity to participate in one of three programs during the summer of 2005. Two of these programs, Time-of-Day and Energy Watch, were special pricing programs and the AC Cool Credit program allowed customers to receive credits on their electric bills for allowing Idaho Power to interrupt their air conditioners at certain times during the month. For the purposes of this survey, we will **ONLY** be discussing the Time-of-Day and Energy Watch programs.

Q13 Prior to this survey, were you aware the two pricing programs, Time-of-Day and Energy Watch, were available to Emmett area residents this past summer?

- 1 YES
- 2 NO [SKIP TO DEMOINT]
- 9 DON'T KNOW / REFUSED [SKIP TO DEMOINT]

Q14 How did you first learn about the Time-of-Day and Energy Watch programs that Idaho Power offered to Emmett area residents?

DO NOT READ LIST

- 1 MAILING FROM IDAHO POWER
- 2 AD IN THE LOCAL NEWSPAPER
- 3 IDAHO POWER EMPLOYEES AT LOCAL ALBERTSON'S STORE
- 4 FRIEND OR NEIGHBOR
- 5 MESSAGE ON BILL
- 6 OTHER [SPECIFY]
- 9 DON'T KNOW / REFUSED

Q15INT I'd now like to ask you a few questions about those pricing programs.

Q15 Do you agree or disagree that you received enough information from Idaho Power to help you make the decision about whether or not to participate in either the Time-of-Day or Energy Watch program? Would that be strongly or somewhat agree / disagree?

- 1 STRONGLY DISAGREE
- 2 SOMEWHAT DISAGREE
- 3 NEITHER AGREE NOR DISAGREE
- 4 SOMEWHAT AGREE
- 5 STRONGLY AGREE
- 9 DON'T KNOW / REFUSED

Q16 Did you use your hourly electricity usage information that was available on Idaho Power's web-site to help you make a decision about participating in one of these programs?

- 1 YES
- 2 NO
- 9 DON'T KNOW / REFUSED

Q17 What is the main reason you did not participate in either the Time-of-Day or Energy Watch Program?

DO NOT READ LIST

- 1 DIDN'T WANT TO CHANGE WHEN I USE ELECTRICITY
- 2 DIDN'T WANT TO PAY MORE FOR USAGE AT CERTAIN TIMES
- 3 PREFER FLAT RATE
- 4 LIFE STYLE DOESN'T ALLOW SHIFTING OF ELECTRICITY USE
- 5 HAVE KIDS AT HOME /HARD TO CONTROL ELECTRICITY USE
- 6 NOT CONVENIENT
- 7 DOESN'T FIT OUR SCHEDULE
- 8 TOO EXPENSIVE
- 9 WOULDN'T SAVE MONEY
- 10 WOULDN'T SAVE ELECTRICITY
- 11 NOT ENOUGH INCENTIVE
- 12 OTHER [SPECIFY]
- 13 DON'T KNOW / REFUSED
- 14 *Not enough Information*

Q18 What would make the Time-of-Day or Energy Watch Program more appealing to you so that you might consider participating in a similar program in the future?

DO NOT READ LIST

- 1 LOWER RATES DURING PROGRAM TIMES
- 2 MORE CONVENIENT TIMES FOR PROGRAM PARTICIPATION
- 3 MORE FLEXIBILITY
- 4 MORE INCENTIVE
- 5 DIFFERENT HOURS
- 6 OTHER [SPECIFY]
- 9 DON'T KNOW / REFUSED
- 7 *More detailed information and reminders*
- 8 *Nothing*

[EMMETT NON-PROGRAM PARTICIPANTS [SKIP TO DEMOINT]

EMMETT — PROGRAM PARTICIPANTS

In April and May of 2005, Idaho Power offered Emmett area customers the opportunity to participate in one of three programs during the summer of 2005. Two of these programs, Time-of-Day and Energy Watch, were special pricing programs and the AC Cool Credit program allowed customers to receive credits on their electric bills for allowing Idaho Power to interrupt their air conditioners at certain times during the month. For the purposes of this survey, we will **ONLY** be discussing the Time-of-Day and Energy Watch programs.

Q19INT Now, I'd like to ask you a few questions about the pricing program that you participated in this summer.

Q19 How did you first learn about the Time-of-Day and Energy Watch programs that Idaho Power offered to Emmett area residents?

DO NOT READ LIST

- 1 MAILING FROM IDAHO POWER
- 2 AD IN THE LOCAL NEWSPAPER
- 3 IDAHO POWER EMPLOYEES AT LOCAL ALBERTSON'S STORE
- 4 FRIEND OR NEIGHBOR
- 5 MESSAGE ON BILL
- 6 OTHER [**SPECIFY**]
- 9 DON'T KNOW / REFUSED
- 8 Idaho employee contacted by phone**

Q20 I am going to read you several statements about information related to the pricing programs. As I read each one please tell me whether you agree or disagree with the statement.

Do you agree or disagree that [**ENTER STATEMENT: Q20A-Q20C**]? Would that be strongly or somewhat agree / disagree?

- 1 STRONGLY DISAGREE
- 2 SOMEWHAT DISAGREE
- 3 NEITHER AGREE NOR DISAGREE
- 4 SOMEWHAT AGREE
- 5 STRONGLY AGREE
- 9 DON'T KNOW / REFUSED

RANDOMIZE

Q20A Idaho Power adequately explained the program options

Q20B You received the information you needed from Idaho Power during the program

Q20C You received the information you needed from Idaho Power at the completion of the program

Q21 Did you use your hourly electricity usage information that was available on Idaho Power's web-site to help you make a decision about participating in one of these programs?

- 1 YES
- 2 NO
- 9 DON'T KNOW / REFUSED

Q22 Did participating in this program affect your lifestyle in any way?

[AS NEEDED: Did it change the way you used electricity in your home in any way?]

- 1 YES
- 2 NO **[SKIP TO Q25]**
- 9 DON'T KNOW/REFUSED **[SKIP TO Q25]**

Q23 **[Q22 = 1]** How dramatically was your lifestyle affected by participating in this program? Was it affected significantly, somewhat, very little, or not at all?

- 1 NOT AT ALL
- 2 VERY LITTLE
- 3 SOMEWHAT
- 4 SIGNIFICANTLY
- 9 DON'T KNOW / REFUSED

Q24 **[Q22 =1]** What was the most significant change to your lifestyle in trying to reduce your electricity usage during certain hours?

DO NOT READ LIST

- 1 LAUNDRY
- 2 WASHING DISHES
- 3 HOUSEHOLD TEMPERATURE / COMFORT
- 4 COOKING
- 5 SHOWERING / BATHING
- 6 OTHER **[SPECIFY]**
- 9 DON'T KNOW / REFUSED
- 7 *Turned power completely off*
- 8 *Going out of house more often/not staying home*

- Q25 **[ALL]** How did your electricity bill change as a result of participating in the program? Did it decrease, stay the same or increase?
- 1 DECREASE
 - 2 STAY THE SAME
 - 3 INCREASE
 - 9 DON'T KNOW / REFUSED
- Q26 Would you be likely or unlikely to participate if the Time-of-Day and Energy Watch programs were offered again? Would that be very or somewhat likely / unlikely?
- 1 VERY UNLIKELY
 - 2 SOMEWHAT UNLIKELY
 - 3 NEITHER LIKELY NOR UNLIKELY
 - 4 SOMEWHAT LIKELY
 - 5 VERY LIKELY
 - 9 DON'T KNOW / REFUSED
- Q27 Would you be likely or unlikely to recommend the Time-of-Day and Energy Watch programs to your friends and family if they were offered again? Would that be very or somewhat likely / unlikely?
- 1 VERY UNLIKELY
 - 2 SOMEWHAT UNLIKELY
 - 3 NEITHER LIKELY NOR UNLIKELY
 - 4 SOMEWHAT LIKELY
 - 5 VERY LIKELY
 - 9 DON'T KNOW / REFUSED
- Q28 Would you be likely or unlikely to participate in a similar program if offered year round? Would that be very or somewhat likely / unlikely?
- 1 VERY UNLIKELY
 - 2 SOMEWHAT UNLIKELY
 - 3 NEITHER LIKELY NOR UNLIKELY
 - 4 SOMEWHAT LIKELY
 - 5 VERY LIKELY
 - 9 DON'T KNOW / REFUSED
- Q29 Would you be likely or unlikely to participate in a similar program if the hours when electricity rates are the highest were changed slightly for these programs? Would that be very or somewhat likely / unlikely?
- 1 VERY UNLIKELY
 - 2 SOMEWHAT UNLIKELY
 - 3 NEITHER LIKELY NOR UNLIKELY
 - 4 SOMEWHAT LIKELY
 - 5 VERY LIKELY
 - 9 DON'T KNOW / REFUSED

Q30 Do you have any suggestions that would make the Time-of-Day or Energy Watch Program more appealing?

**DO NOT READ LIST
SELECT ALL THAT APPLY**

- 1 LOWER RATES DURING PROGRAM TIMES
- 2 MORE CONVENIENT TIMES FOR PROGRAM PARTICIPATION
- 3 MORE FLEXIBILITY
- 4 MORE INCENTIVE
- 5 DIFFERENT HOURS
- 6 OTHER [SPECIFY]
- 7 OTHER [SPECIFY]
- 8 OTHER [SPECIFY]
- 9 DON'T KNOW / REFUSED
- 10 *No, it worked fine / Nothing*

Q31 Do you have any other comments that you would like to make regarding the Energy Watch or Time-of-Day program?

[OPEN-ENDED RESPONSE]

- 1 *Liked the program and was well satisfied.*
- 2 *Nothing / no comments*
- 3 *The program was okay (neutral response)*
- 4 *They didn't like the program at all / would never use it again*
- 5 *Other*
- 8 *Don't know*
- 9 *Refused*

DEMOGRAPHICS

DEMOINT The following questions are for classification purposes only. Your answers will remain strictly confidential and will only be used to help us group your answers.

DEMO1 Which of the following categories does your age fall into?

- 1 Under 25,
- 2 25 to 44,
- 3 45 to 64, or
- 4 65 or above?
- 9 DON'T KNOW / REFUSED

DEMO2 How long have you been an Idaho Power customer?

- 1 Less than 1 year,
- 2 1 to 10 years,
- 3 11 to 25 years,
- 4 26 years or more?
- 9 DON'T KNOW / REFUSED

EDUC What is the highest level of education you have completed?

- 1 Did not finish high school,
- 2 High school graduate / GED,
- 3 Some college / technical school,
- 4 Associate / other degree,
- 5 College degree,
- 6 Some graduate school, or

- 7 Graduate degree
- 9 DON'T KNOW / REFUSED

DWELL Which of the following best describes your home?

- 1 A single-family house not attached to any other dwelling,
- 2 A townhouse or condo,
- 3 A duplex or triplex,
- 4 An apartment,
- 5 A manufactured home,
- 6 A mobile home
- 7 OTHER [SPECIFY]
- 9 DON'T KNOW / REFUSED

HHSIZE *Including yourself* how many adults age 18 and older live in your home full-time?

- ___ ENTER ACTUAL NUMBER
- 99 DON'T KNOW / REFUSED

CHILD1 How many persons under the age of 18 do you have living at home full time?

- ___ ENTER ACTUAL NUMBER
- 99 DON'T KNOW / REFUSED

[IF CHILD = 0 OR 99, SKIP THANK1]

CHILD2 How many of these children are under the age of 5?

- ___ ENTER ACTUAL NUMBER
- 99 DON'T KNOW / REFUSED

CHILD3 How many of these children are age 6 to 12?

- ___ ENTER ACTUAL NUMBER
- 99 DON'T KNOW / REFUSED

CHILD4 How many of these children are age 13 to 17?

- ___ ENTER ACTUAL NUMBER
- 99 DON'T KNOW / REFUSED

THANK1 Thank you very much for your time. Your opinions are important to us! On behalf of Northwest Research Group and Idaho Power, I'd like to thank you for participating in our survey tonight / today. Have a good day / evening. [DISPOS = 40]

THANK2 I'm sorry, but we are only conducting English interviews today / tonight. Have a good day / evening. [DISPOS = 10]

THANK8 Those are all of the questions I have. I cannot continue with that information. Thank you for your time. [DISPOS = 8]

THANK9 Those are all of the questions we have. Have a good day / evening.

APR 10 2006
3:52
UTILITIES COMMISSION

Attachment C

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Idaho Power Company
Residential Time-of-Day and
Energy Watch Pilot Program Analysis
Final Report

January 2006

Prepared for
Idaho Power Company

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Idaho Power Company
Residential Time-of-Day and
Energy Watch Pilot Program Analysis
Final Report

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Idaho Power Company Residential Time-of-Day and Energy Watch Pilot Program Analysis

1 EXECUTIVE SUMMARY

The Time-of-Day (TOD) and Energy Watch (EW) Pilot Programs were approved by the Idaho Public Utilities Commission (IPUC) on March 22, 2005. The programs were in effect from June 1 to August 31, 2005. The goal of both programs is to test the ability of the AMR system to enable Idaho Power Company (IPCO) to offer time-variant programs and to ascertain the ability of these programs to reduce peak loads during the summer months. Offering these programs allowed IPCO to design, test, and implement program marketing plans, internal company processes, and workflow procedures. These programs were offered only to residential customers in the Emmett, Idaho area.

1.1 Summary of Results: Time-of-Day Pilot

Time-of-Day is a conventional time-of-use energy program in which participants are charged differing electricity rates for the following times and days of the weeks:

- On-peak (\$0.068686): Weekdays from 1pm to 9pm
- Mid-peak (\$0.061717): Weekdays from 7am to 1pm
- Off-Peak (\$0.053004): Weekdays from 9pm – 7am, and all hours weekends and holidays

At the end of August 2005, there were 92 time-of-day pilot program participants. The analysis was based on interval hourly load data collected through the advanced meter reading (AMR) system for 90 of the time-of-day test participants and a matched control group sample.

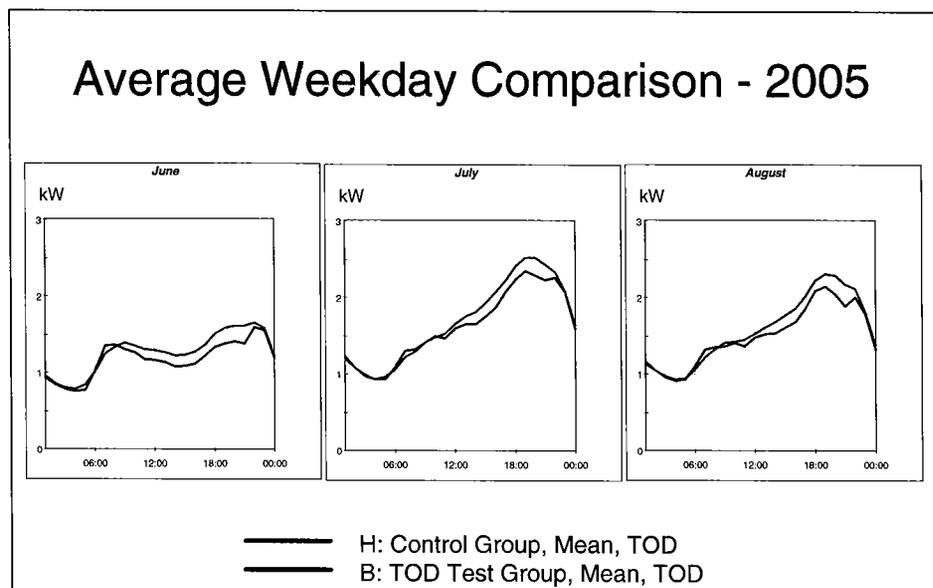


Figure Ex 1 – Average Weekday Comparison

Figure Ex 1 presents a series of graphs comparing the average weekday demand for the test group (i.e., time-of-day) customers and their control group counterparts. The graph indicates the average demand per customer during the average weekday period is lower for the test group customers when compared to the control group.

Table Ex 1 summarizes the energy usage associated with the test group and control group by time-of-use period. The table displays the average energy usage by month and for the entire summer along with the percentage of average total use each time-of-use period. In addition, the table presents the difference between the control group usage and the test group usage with positive numbers indicating that the test group used less energy than the control group in that particular period. Finally, the table includes the results of a statistical T-test that tests the hypothesis that the difference is statistically equal to zero. The T-test statistic along with the probability of getting a larger T-value is presented. The difference is deemed statistically significant at the 10% level if the $PR > |T|$ is less than 0.1000. During the summer of 2005 the test group on average used 54 kWh less during the on-peak period and 49 kWh more during the off-peak period. While the results were not statistically significant at the 10% level there was some empirical evidence to indicate that the time-of-day pilot participants reduced their use during the on-peak period with some shifting of load to the off-peak period.

Period	Total Use (kWh)		Percent of Total Use		Control-TOD Difference	T-Value	PR> T
	Control (n=420)	TOD Test (n=90)	Control (n=420)	TOD Test (n=90)			
June Usage							
On-Peak	181.79	167.99	19.9%	19.0%	13.80	1.30	0.1960
Mid-Peak	175.88	171.90	19.2%	19.4%	3.98	0.36	0.7208
Off-Peak	556.90	545.84	60.9%	61.6%	11.06	0.32	0.7461
June Usage	914.57	885.73	100.0%	100.0%	28.84	0.53	0.5956
July Usage							
On-Peak	265.05	239.10	21.2%	18.5%	25.95	1.55	0.1224
Mid-Peak	184.21	178.36	14.8%	13.8%	5.85	0.50	0.6177
Off-Peak	798.74	876.22	64.0%	67.7%	(77.48)	(0.28)	0.7774
July Usage	1,248.00	1,293.68	100.0%	100.0%	(45.68)	0.22	0.8231
August Usage							
On-Peak	264.81	251.04	23.7%	23.1%	13.77	0.87	0.3856
Mid-Peak	199.21	201.21	17.9%	18.5%	(2.00)	(0.16)	0.8757
Off-Peak	651.50	633.79	58.4%	58.4%	17.71	0.44	0.6592
August Usage	1,115.52	1,086.04	100.0%	100.0%	29.48	0.45	0.6536
Summer Usage: June - August							
On-Peak	711.65	658.13	21.7%	20.2%	53.52	1.33	0.1849
Mid-Peak	559.30	551.47	17.1%	16.9%	7.83	0.28	0.7777
Off-Peak	2,007.14	2,055.85	61.2%	63.0%	(48.71)	0.17	0.8652
Summer 05 Usage	3,278.09	3,265.45	100.0%	100.0%	12.64	0.45	0.6569

Table Ex 1 – Time-Of-Day Summary Results

Table Ex 2 presents a comparison of customer bills developed for the test group and control group participants under Rate Schedule¹ 1 (Standard) and Rate Schedule 5 (TOD). The table presents the mean and median bills for each group. For both groups, the average time-of-day bill is slightly lower than the standard residential bill. However, if we compare the control group under the standard bill and the time-of-day group under the TOD bill we see that the time-of-day

¹ A summary table of the rates is provided as a technical appendix to this report.

group saved \$10.57 for the three-month period. This is a reduction of 4.7% from the standard residential rate.

TOD Control Group Sample n=420 Customers									
Statistic	June		July		August		June Through August		
	TOD Rates	Standard Rates	TOD Rates	Standard Rates	TOD Rates	Standard Rates	TOD Rates	Standard Rates	Difference TOD-Std
Mean	\$61.69	\$62.66	\$82.76	\$84.98	\$75.09	\$76.43	\$219.54	\$224.07	(\$4.53)
Median	\$55.62	\$56.02	\$73.54	\$74.74	\$68.12	\$68.60	\$195.33	\$197.39	(\$0.03)
Test Group Sample n=90 Customers									
Statistic	June		July		August		June Through August		
	TOD Rates	Standard Rates	TOD Rates	Standard Rates	TOD Rates	Standard Rates	TOD Rates	Standard Rates	Difference TOD-Std
Mean	\$59.74	\$60.75	\$81.27	\$83.85	\$73.15	\$74.45	\$213.50	\$218.38	(\$4.88)
Median	\$53.48	\$53.65	\$74.38	\$76.21	\$64.98	\$66.51	\$194.19	\$197.74	(\$2.78)
Control Group Sample n=420 Customers and Test Group n=90 Customers									
Statistic	June		July		August		June Through August		
	Test TOD Rate	Control Std Rate	Test TOD Rate	Control Std Rate	Test TOD Rate	Control Std Rate	Test TOD Rate	Control Std Rate	Difference TOD-Std
Mean	\$59.74	\$62.66	\$81.27	\$84.98	\$73.15	\$76.43	\$213.50	\$224.07	(\$10.57)

Table Ex 2 – Time-of-Day Bill Comparisons

1.2 Summary of Results: Energy Watch Pilot

Energy Watch is a critical peak pricing pilot program with 76 participants² under which the participants receive notification the day before a critical peak event is called. A total of ten Energy Watch days per year can be called between the dates of June 15th and August 15th. The critical peak events have the following characteristics:

- Critical peak price (CPP) hours are from 5pm to 9pm
- All customers subject to CPP hours are provided day ahead notification
- CPP energy price is \$0.20 per kWh
- Non-CPP energy price is \$0.054280 per kWh

During 2005, a total of nine Energy Watch events were called. The Energy Watch impact evaluation utilized interval load data available for the test group participants and for a large matched control group. The Energy Watch participants showed dramatic reductions during the critical peak pricing events. Figure Ex 2 presents the average of all nine event days for the test group (red line) and control group (blue line). In aggregate, the maximum average load reduction per customer of 1.42 kW occurs at hour ending 7pm with the average load reduction calculated as 1.33 kW. The total savings during the curtailment period is estimated to be 5.31 kWh per customer. The morning increase on the curtailment days is very evident from the figure and averages less than 1 kWh.

² The analysis was conducted using 74 of the 76 Energy Watch participants.

Table Ex 3 presents a summary of the nine Energy Watch event days. As indicated, substantial load is reduced by the Energy Watch participants during the critical peak pricing events on every single event day. The maximum hourly load reduction per participant was 1.58 kW which occurred on August 09, 2005 at hour ending 8pm. The average hourly demand reduction was fairly consistent ranging from a low of 1.14 kW on August 11, 2005 to a high of 1.49 kW on August 9, 2005.

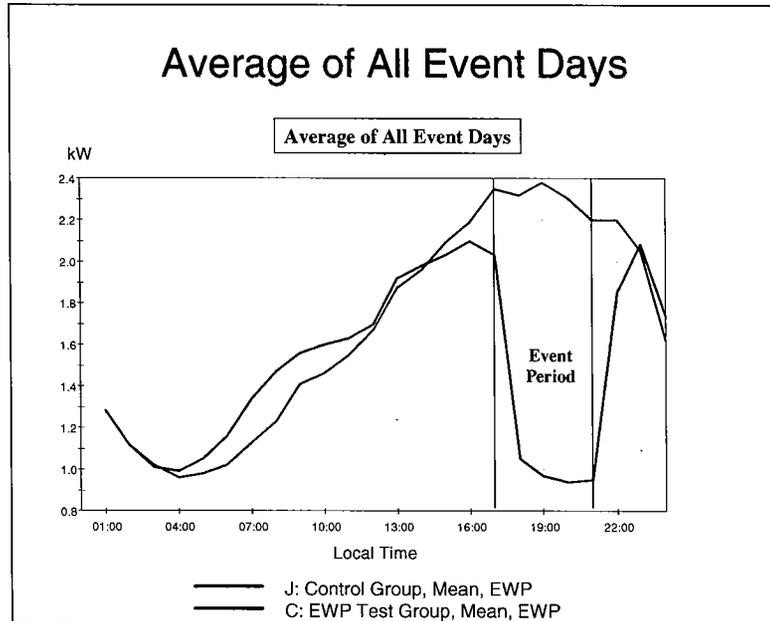


Figure Ex 2 – Energy Watch Program – Average Impacts

Hour Beginning	Hour Ending	Event Day Reductions (kW)									
		07-Jul	13-Jul	15-Jul	21-Jul	27-Jul	29-Jul	04-Aug	09-Aug	11-Aug	Average
5pm	6pm	1.17	1.38	1.23	1.38	1.03	1.26	1.39	1.50	1.07	1.27
6pm	7pm	1.46	1.52	1.30	1.47	1.35	1.36	1.53	1.44	1.32	1.42
7pm	8pm	1.46	1.42	1.28	1.33	1.34	1.29	1.47	1.58	1.17	1.37
8pm	9pm	1.33	1.33	1.31	1.17	1.27	1.10	1.37	1.43	1.01	1.26
Four-Hour Total		5.42	5.65	5.12	5.35	4.99	5.01	5.76	5.95	4.57	5.31
Average Hourly		1.36	1.41	1.28	1.34	1.25	1.25	1.44	1.49	1.14	1.33
Minimum Temp		63	66	66	68	61	70	63	72	61	66
Maximum Temp		94	93	104	106	96	99	101	97	90	98
Average Temp		78	80	86	89	78	88	80	85	76	82

Table Ex 3 – Energy Watch Program Summary

Table Ex 4 presents a comparison of customer bills developed for the Energy Watch test group and control group under Rate Schedule 1 (Standard) and Rate Schedule 4 (EW). The table presents the mean and median bills for each group. For both groups, the Energy Watch bill is slightly lower than the standard residential bill. This is an indication that applying this rate to the larger group results in customer savings without associated action. However, the Energy Watch group was successful in saving substantially more (over 2.5 times) than their control group counterparts. Comparing the Energy Watch participant bills to the control group standard bills result in a savings of \$22.26 for the three summer months. This is a 9.5% reduction from the average standard bill.

Residential Time-of-Day
Energy Watch Evaluations

EW Control Group Sample n=357 Customers									
Statistic	June		July		August		June Through August		
	EW Rates	Standard Rates	EW Rates	Standard Rates	EW Rates	Standard Rates	EW Rates	Standard Rates	Difference EWP-Std
Mean	\$60.65	\$65.01	\$90.97	\$89.10	\$78.36	\$79.91	\$229.98	\$234.02	(\$4.04)
Median	\$53.73	\$57.30	\$82.97	\$80.14	\$72.38	\$74.90	\$211.02	\$214.35	(\$2.23)
Test Group Sample n=74 Customers									
Statistic	June		July		August		June Through August		
	EW Rates	Standard Rates	EW Rates	Standard Rates	EW Rates	Standard Rates	EW Rates	Standard Rates	Difference EWP-Std
Mean	\$59.52	\$64.17	\$80.59	\$83.15	\$71.25	\$74.90	\$211.76	\$222.22	(\$10.46)
Median	\$52.19	\$55.59	\$75.32	\$78.35	\$69.82	\$73.22	\$208.83	\$219.64	(\$9.00)
Control Group Sample n=357 and Test Group Sample n=74 Customers									
Statistic	June		July		August		June Through August		
	Test EW Rate	Control Std Rate	Test EW Rate	Control Std Rate	Test EW Rate	Control Std Rate	Test EW Rate	Control Std Rate	Difference EWP-Std
Mean	\$59.52	\$65.01	\$80.59	\$89.10	\$71.25	\$79.91	\$211.76	\$234.02	(\$22.26)

Table Ex 4 – Energy Watch Bill Comparisons

Idaho Power Company Residential Time-of-Day and Energy Watch Pilot Program Analysis *Final Report*

2 INTRODUCTION

2.1 Pilot Programs

The Time-of-Day (TOD) and Energy Watch (EW) Pilot Programs are the result of the *Advanced Meter Reading (AMR) Phase One Implementation Plan* filed with the Idaho Public Utilities Commission (IPUC) in December 2003. In compliance with the IPUC Order No. 29362 issued October 24, 2003, Idaho Power Company (IPCO) filed the *Advanced Meter Reading (AMR) Phase One Implementation Plan* and committed to “investigate and file with the Commission load control and time-of-use pricing projects that utilize the AMR technology.” The resulting programs were the Time-of-Day and the Energy Watch pilot programs which were aimed at testing reducing residential summer peak loads in the Emmett area by using time-variant pricing. Both pilot programs were approved by the IPUC on March 22, 2005. The programs will be in effect from June 1 to April 1, 2006. The goal of both of these programs was to test the ability of the AMR system to enable IPCo to offer time-variant programs and to ascertain the ability of these programs to reduce peak loads during the summer months. Offering these programs allows Idaho Power to design, test, and implement program marketing plans, internal company processes, and workflow procedures. These programs were offered only to residential customers in the Emmett area.

Time-of-Day is a conventional time-of-use energy program in which participants are charged differing electricity rates for the following times and days of the weeks:

- On-peak (\$0.068686): Weekdays from 1pm to 9pm
- Mid-peak (\$0.061717): Weekdays from 7am to 1pm
- Off-Peak (\$0.053004): Weekdays from 9pm – 7am, and all hours weekends and holidays

The time-of-day pilot program analysis is based on data available for 90 of the 92 participants as of August 2005.

Energy Watch is a critical peak pricing pilot program with 76 participants under which the participants receive notification the day before a critical peak event is called. The analysis was based on data received on 74 of the 76 program participants. A total of ten Energy Watch days per year can be called between the dates of June 15th and August 15th. The critical peak events have the following characteristics:

- Critical peak price (CPP) hours are from 5pm to 9pm
- All customers subject to CPP hours are provided day ahead notification
- CPP energy price is \$0.20 per kWh
- Non-CPP energy price is \$0.054280 per kWh

A third program that promoted air conditioner cycling, not subject to this analysis, was marketed to the same set of customers. A total of 160 cycling customers from the Emmett area were signed up for the cycling program during the recruitment period.

2.2 Project Objectives

The primary goal of both programs is to test the effectiveness of time-variant programs in reducing peak summer loads. The evaluations are designed to analyze the impact of these programs on participants' loads, energy consumption, and on customer bills. In particular, the following variables are in play:

1. Demand reduction at the IPCO summer system peak period;
2. Energy conservation impacts across the summer season;
3. Change in energy use between the on-peak, mid-peak and off-peak periods;
4. Reduction in energy use during critical peak periods;
5. Temperature impacts on peak load reduction; and
6. Customer bill impacts.

2.3 Data Availability

The two pilot programs that require evaluation are aimed at reducing summer peak loads in the Emmett area. This area includes approximately 6,000 residential meter service points. Effectively, interval load data are available for all residential end users in the Emmett operating area beginning in May, 2004. The data are being collected using the Company's TWACS® and Itron's EE Meter Data Management System (MDMS). There were some issues encountered over the quality of the 2004 data, however, the 2005 data was found to be of high quality.

2.4 Program Marketing and Recruitment

All customers in the Emmett area were subject to the program marketing. The pilot programs received relatively modest acceptance with just 97 (1.6%) time-of-day and 80 (1.3%) Energy Watch participants recruited from a population of over 6,000 eligible participants. However, there were additional customers recruited into the Company's direct load control program during the recruitment.

2.5 Temperature Data

Figure 1 presents the hourly temperature data available from the Boise weather station from June 1, 2004 through August 31, 2005. The figure displays a conventional two-dimensional rendition of the hourly temperature (i.e., time on the x-axis and temperature on the y-axis) along with an EnergyPrint at the bottom of the figure. The EnergyPrint displays the temperature in three dimensions. For the horizontal EnergyPrint, time is represented on the y-axis, the day of the year is represented on the x-axis and the hourly temperature is presented as a color gradient with low temperatures in the black-blue spectrum and high temperatures in the yellow-white spectrum.

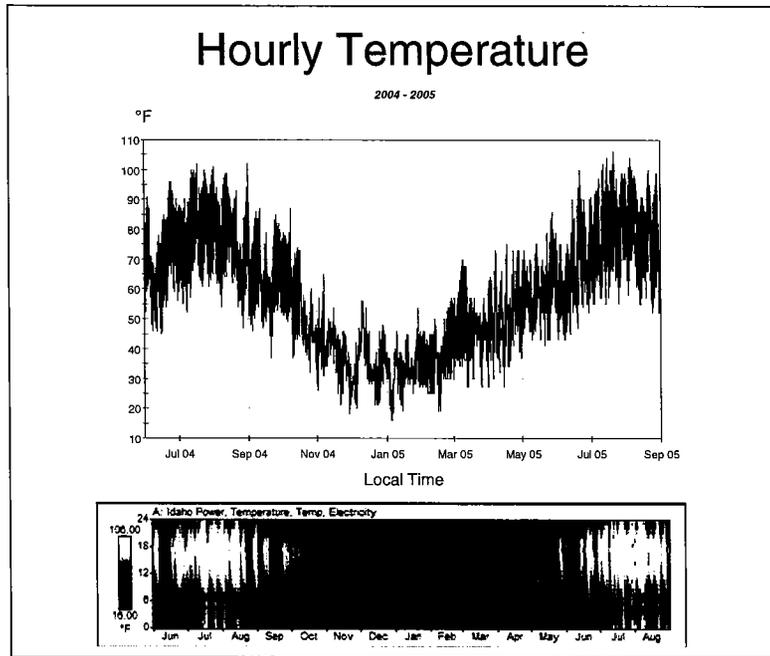


Figure 1 – Hourly Temperature Data

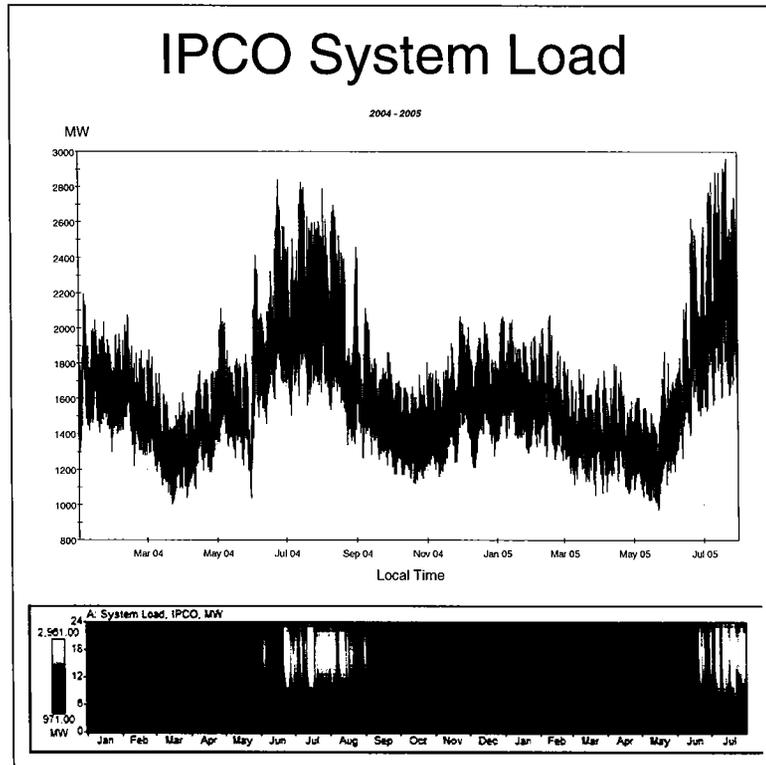


Figure 2 – IPCO System Load

2.6 IPCO System Load Data

Figure 2 presents a graphical representation of the IPCO system load. The load is clearly summer sensitive with the highest loads occurring between mid-June and mid-September. Similar to Figure 1, the figure displays a conventional two-dimensional rendition of the load (i.e., time on the x-axis and magnitude of load on the y-axis) along with an EnergyPrint at the bottom of the figure. For the horizontal EnergyPrint, time is represented on the y-axis, the day of the year is represented on the x-axis and the load is presented as a color gradient with low levels of load in the black-blue spectrum and high levels of load in the yellow-white spectrum. The EnergyPrint shows an interesting overview of the data for the period January 1, 2004 through July 31, 2005.

Table 1 presents selected demand and energy characteristics for the IPCO system peak. The table presents the monthly energy use, timing of the system peak demand, the system peak demand and the load factor. Summary statistics are provided for calendar year 2004 and 12-months ending July 31, 2005. In 2005, the IPCO system peaked at a demand of 2,961 MW on Friday, July 22, at hour ending 4pm. In contrast the non-summer peak reached a demand of 2,196 MW and occurred on Thursday, January 5, 2004 at hour ending 5pm.

Month	Monthly Energy Use (MWh)	System Load, IPCO, MW Maximum At	Peak Demand (MW)	Load Factor (%)
Jan-04	1,262,021	Mon Jan 5, 2004 7:00PM	2,196	77.2%
Feb-04	1,118,448	Fri Feb 13, 2004 8:00AM	2,072	77.6%
Mar-04	1,024,024	Wed Mar 3, 2004 8:00AM	1,877	73.3%
Apr-04	1,035,756	Fri Apr 16, 2004 9:00AM	1,758	81.8%
May-04	1,191,052	Tue May 4, 2004 7:00PM	2,109	75.9%
Jun-04	1,435,560	Thu Jun 24, 2004 5:00PM	2,843	70.1%
Jul-04	1,588,613	Wed Jul 14, 2004 6:00PM	2,825	75.6%
Aug-04	1,462,721	Mon Aug 2, 2004 6:00PM	2,792	70.4%
Sep-04	1,171,774	Wed Sep 1, 2004 5:00PM	2,395	68.0%
Oct-04	1,072,443	Mon Oct 25, 2004 8:00AM	1,735	83.1%
Nov-04	1,095,064	Tue Nov 30, 2004 8:00AM	2,063	73.7%
Dec-04	1,223,245	Mon Dec 20, 2004 7:00PM	2,033	80.9%
Jan-05	1,235,913	Wed Jan 5, 2005 7:00PM	2,063	80.5%
Feb-05	1,057,128	Thu Feb 17, 2005 8:00AM	2,072	75.9%
Mar-05	1,054,495	Tue Mar 1, 2005 8:00AM	1,812	78.2%
Apr-05	1,001,399	Thu Apr 14, 2005 8:00AM	1,796	77.4%
May-05	1,018,004	Sat May 28, 2005 6:00PM	1,863	73.5%
Jun-05	1,272,357	Tue Jun 21, 2005 4:00PM	2,622	67.4%
Jul-05	1,641,727	Fri Jul 22, 2005 4:00PM	2,961	74.5%
Jan-Dec 04	14,680,721	Thu Jun 24, 2004 5:00PM	2,843	58.8%
12-Mths Jul 05	14,306,270	Fri Jul 22, 2005 4:00PM	2,961	55.2%

Table 1 – IPCO System Peak Information

Figure 3 presents graphs of the non-summer and summer system peaks. The non summer peak is bimodal with early morning and early evening peaks of similar magnitude. The summer system peak shows a substantial amount of summer afternoon load.

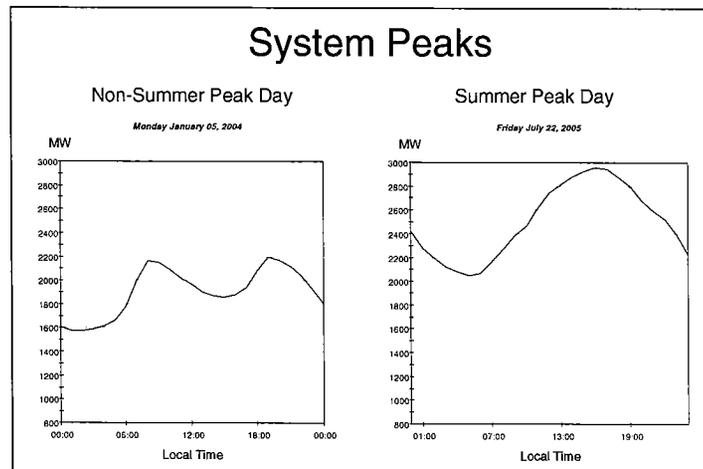


Figure 3 – Non-Summer versus Summer System Peaks

3 TIME-OF-DAY (TOD) PILOT EVALUATION

In this section we examine the impact evaluation of the Time-of-Day Pilot program. Time-of-Day is a conventional time-of-use energy program in which participants are charged differing electricity rates for the following times and days of the week:

- On-peak (\$0.068686): Weekdays from 1pm to 9pm
- Mid-peak (\$0.061717): Weekdays from 7am to 1pm
- Off-Peak (\$0.053004): Weekdays from 9pm – 7am, weekends and holidays

The time-of-day impact evaluation uses hourly interval load data in a test-control experimental design. The test group is comprised of 90 Emmett area customers recruited into the time-of-day pilot program. The control group was developed by statistically selecting customers that were similar to the pilot participants based on their summer 2004 hourly load.

3.1 TOD Pilot Program Participants

A total of 90 pilot program participants were available for use in the Time-of-Day Pilot Evaluation. A simple average was constructed for the pilot program participants and is displayed in Figure 4. The light blue areas in the EnergyPrints are indicative of data unavailable due to problems with the AMR data collection network. The majority of the data challenges occurred in 2004 with the best data available for the June 1, 2005 through August 31, 2005 summer period. The average demand ranged from a low of 0.58 kW to a high of 3.93 kW. The average peak demand for the TOD program participants occurred on Friday, December 24, 2004 at hour ending 9am.

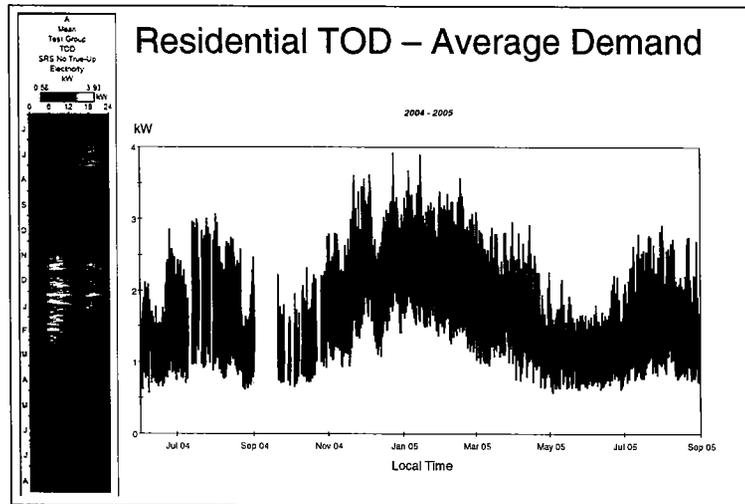


Figure 4 – Residential TOD Average Demand

Table 2 presents summary information for the residential TOD participants for the 2005 summer period. The average peak demand is estimated to be 2.91 kW and occurred on Sunday, July 31, 2005 at hour ending 7pm. The average summer energy usage is estimated to be 3,181 kWh yielding a summer load factor of 49.5%.

Month	Monthly Use (kWh)	Peak Occurred at	Peak Demand (kW)	Load Factor (%)
Jun-05	852	Wed Jun 22, 2005 8:00PM	2.20	53.8%
Jul-05	1,195	Sun Jul 31, 2005 7:00PM	2.91	55.3%
Aug-05	1,135	Mon Aug 22, 2005 6:00PM	2.74	55.7%
Summer 05	3,181	Sun Jul 31, 2005 7:00PM	2.91	49.5%

Table 2 – Average Demand and Energy Usage Characteristics

Figure 5 displays the average load during the 2005 summer period.

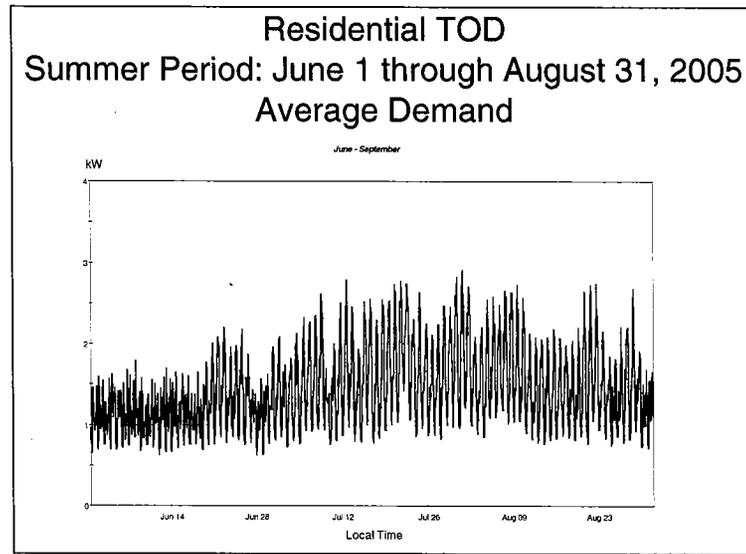


Figure 5 – Residential TOD Summer Load

3.2 TOD Control Group Participants

To analyze the impacts of the time-of-day rate, a control group was selected from the general population pool of Emmett customers. The control group was determined by examining the correlation between the pilot program participants and customers in the control group pool during the summer of 2004. A control group of five “similar” customers was selected for each pilot program participant. Figure 6 presents the average load developed for the TOD control group. Consistent with the TOD test group, the control group shows some data challenges associated with the summer and early Fall 2004 periods. The maximum demand for the control group, 3.43 kW, also occurred in the winter on Wednesday, January 5, 2005 at 7pm.

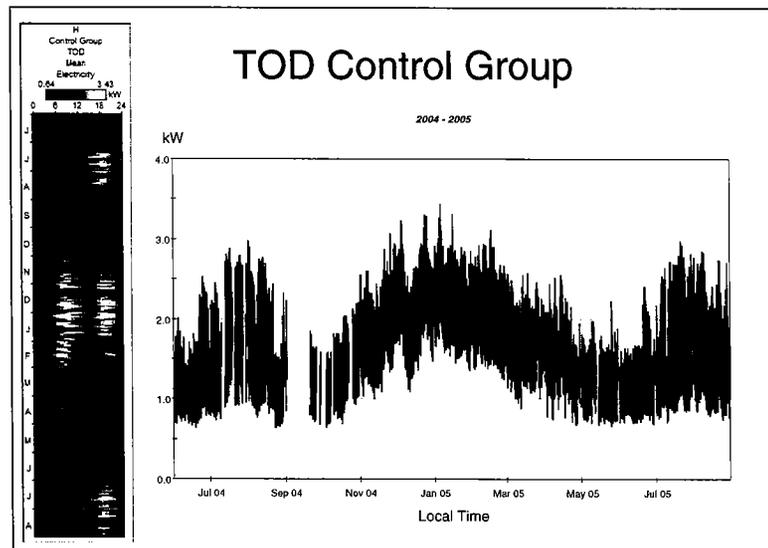


Figure 6 – TOD Control Group

Figure 7 and Figure 8 present selected comparisons for the TOD test group with the TOD control group. Please note, the early June period was eliminated due to scarcity of data. As evidenced by the figures, the control group does a good job of tracking the load of the TOD test group particularly during the 2004 summer class peak period.

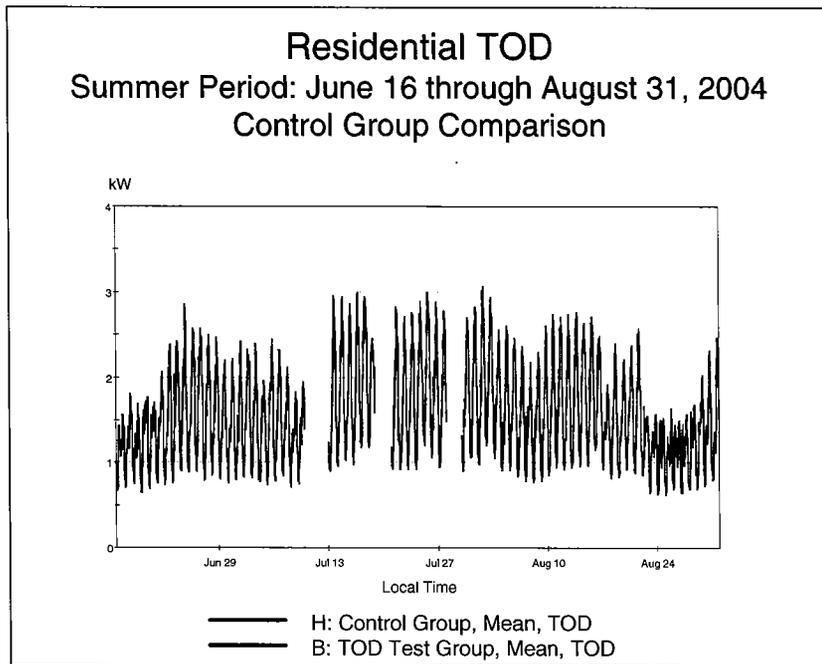


Figure 7 – Pre Period Comparison

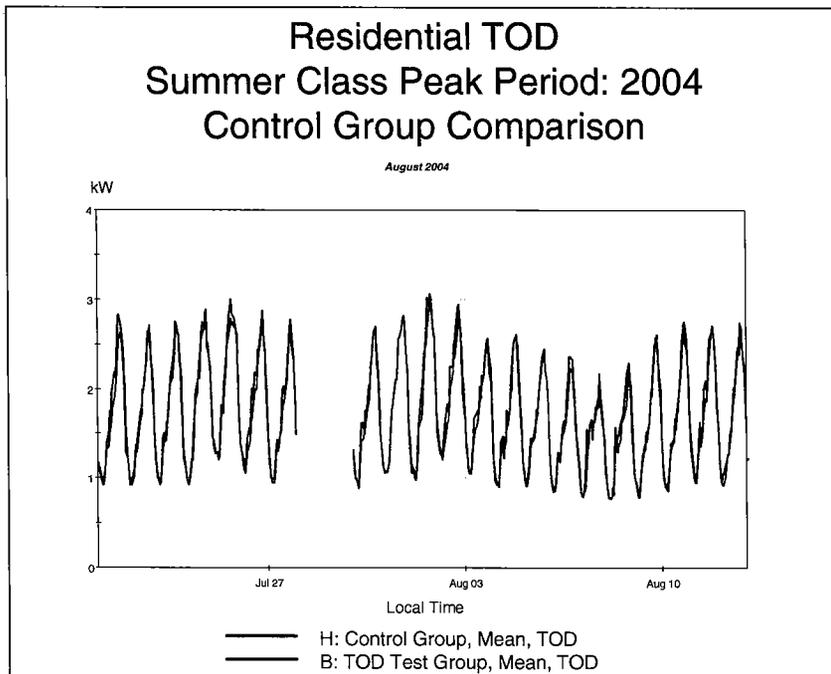


Figure 8 – 2004 Summer Class Peak Comparison

Figure 9 and Figure 10 highlight how well the control group matches the test group by presenting average weekdays and weekend days for June, July and August. The control group and test group lines mirror one another.

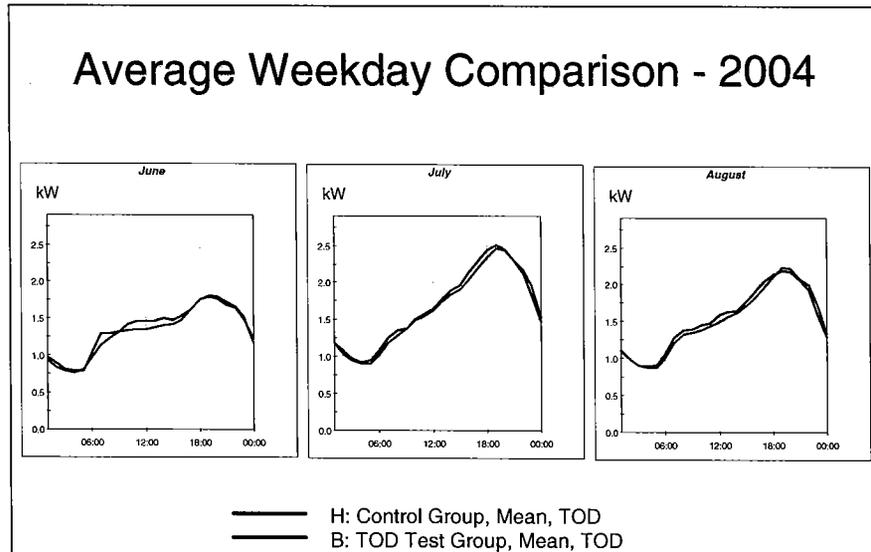


Figure 9 – Pre-Period Average Weekday Comparisons

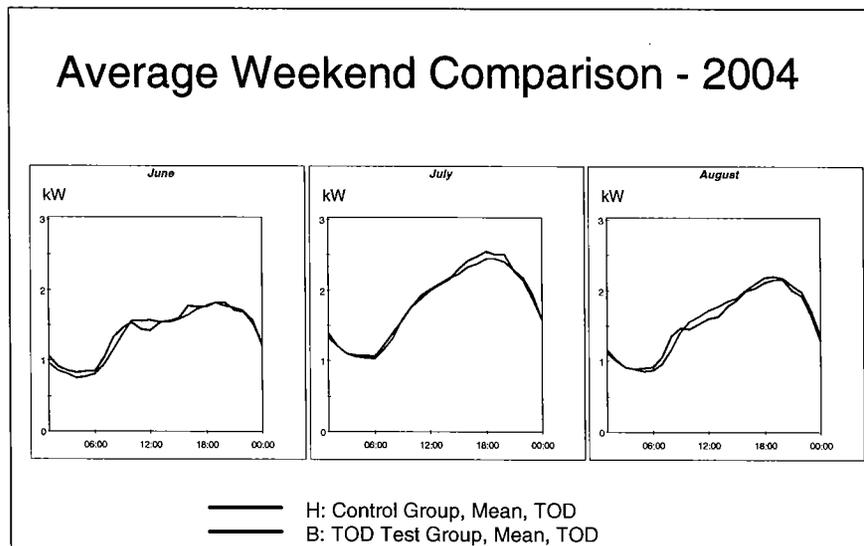


Figure 10 – Pre-Period Average Weekend Day Comparisons

Table 3 presents a comparison of the 2004 pre-period consumption per customer for the control group and test group by time-of-use periods. Please note, regression techniques were used to model load for the 2004 missing periods to yield a full complement of data for analysis. The control group used an estimated 3,331 kWh during the summer compared to 3,371 kWh for the test group. The difference of 40 kWh was within 1.2%. The percentage of usage on peak was identical, i.e., 30.5%, for both the control and test groups. The control group peaked at 2.97 kW during off peak compared to 3.06 kW for the test group.

Period	Measure	Off Peak All Other Hours	Mid Peak Wkdays: 7am-1pm	On Peak Wkdays: 1pm-9pm	Total
TOD Control Group					
Summer 2004	kWh	1,754.5	561.7	1,014.9	3,331.1
Summer 2004	% of Total	52.7%	16.9%	30.5%	100%
Summer 2004	kW	2.97	2.11	2.90	2.97
Summer 2004	Load Factor	46.01%	67.23%	66.28%	50.8%
TOD Test Group					
Summer 2004	kWh	1,760.4	582.8	1,028.1	3,371.2
Summer 2004	% of Total	52.2%	17.3%	30.5%	100%
Summer 2004	kW	3.06	2.40	2.98	3.06
Summer 2004	Load Factor	41.12%	55.76%	59.2%	49.9%
Differences (TOD Test - TOD Control)					
Summer 2004	kWh	5.8	21.1	13.2	40.1
Summer 2004	% Difference	0.3%	3.8%	1.3%	1.2%
Summer 2004	% of Total Difference	0.5%	-0.4%	0.0%	
Summer 2004	Delta Load Factor	4.89%	11.47%	7.12%	0.90%

Table 3 – 2004 Pre Period Consumption Comparison

Given these results, we were confident that the control group provided a reasonable basis for analyzing the test group under the test-control experimental design.

3.3 2005 Time-of-Day Results

This section presents the findings associated with the Time-of-Day program impact evaluation.

3.3.1 Average Weekday and Weekend Day Comparisons

Figure 11 and Figure 12 present the average weekday and weekend day comparisons for the control and test groups. Unlike the 2004 graphs, the 2005 average weekday graphs show a load reduction during the afternoon and early evening periods. Recall the on-peak period was defined as weekdays between 1pm and 9pm with mid-peak defined as weekdays between 7am and 1pm. All other hours were off-peak. While the June 2005 weekend graph shows some load reduction, the July and August weekend graphs show nearly identical loads.

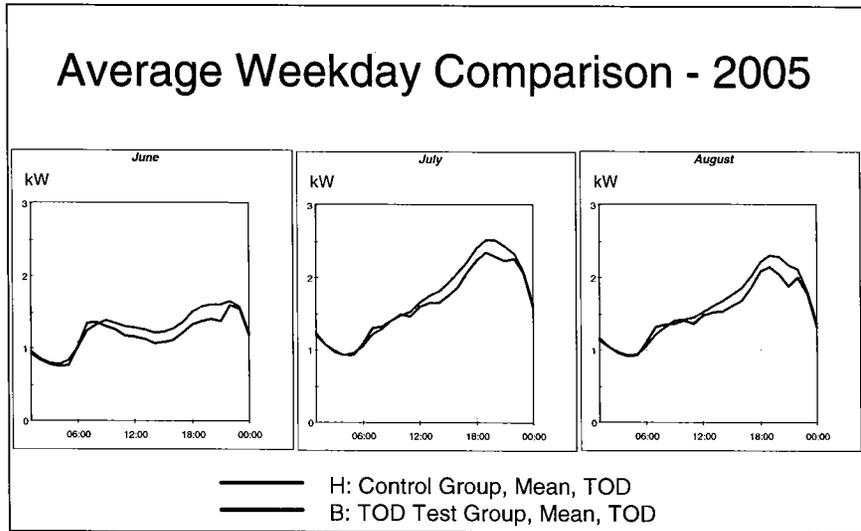


Figure 11 – 2005 Average Weekday Comparisons

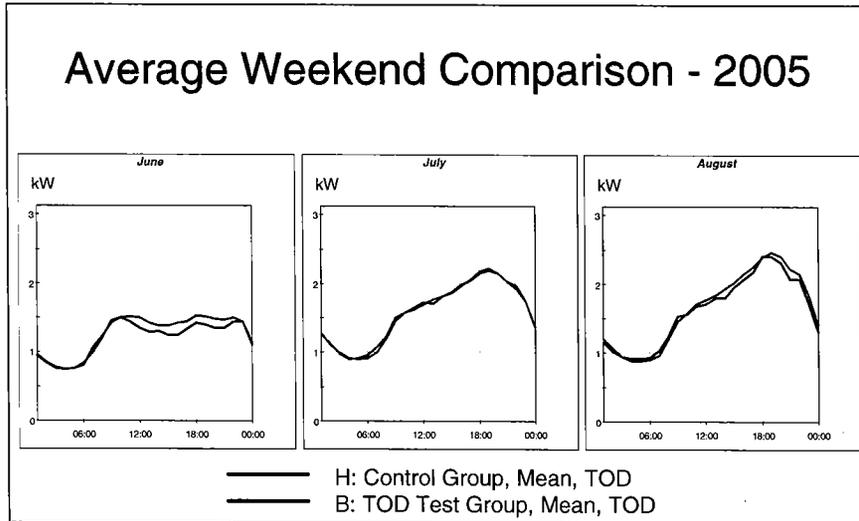


Figure 12 – 2005 Average Weekend Comparisons

3.3.2 Monthly and Seasonal Energy Use

To test the significance of the load reduction, we calculated the monthly and seasonal energy use per period. These are presented in Table 4. The table presents the on-peak, mid-peak and off-peak energy usage by month and season for the control and test groups along with the percentage of use in each period and the overall difference. For July, the control group averages approximately 1,248 kWh with 265 kWh consumed during the on-peak, 184 kWh in the mid-peak and 799 kWh in the off-peak. In contrast, the time-of-day group averages approximately 1,294 kWh with 239 kWh consumed during the on-peak, 178 kWh during the mid-peak and 876 kWh during the off-peak. The percentage of on-peak use for the control group was 21.2% compared to 18.5% for the time-of-day group.

Residential Time-of-Day
Energy Watch Evaluations

Period	Average Use (kWh)		Percent of Total Use		Control-TOD Difference
	Control (n=420)	TOD Test (n=90)	Control (n=420)	TOD Test (n=90)	
June Usage					
On-Peak	181.79	167.99	19.9%	19.0%	13.80
Mid-Peak	175.88	171.90	19.2%	19.4%	3.98
Off-Peak	556.90	545.84	60.9%	61.6%	11.06
June Usage	914.57	885.73	100.0%	100.0%	28.84
July Usage					
On-Peak	265.05	239.10	21.2%	18.5%	25.95
Mid-Peak	184.21	178.36	14.8%	13.8%	5.85
Off-Peak	798.74	876.22	64.0%	67.7%	(77.48)
July Usage	1,248.00	1,293.68	100.0%	100.0%	(45.68)
August Usage					
On-Peak	264.81	251.04	23.7%	23.1%	13.77
Mid-Peak	199.21	201.21	17.9%	18.5%	(2.00)
Off-Peak	651.50	633.79	58.4%	58.4%	17.71
August Usage	1,115.52	1,086.04	100.0%	100.0%	29.48
Summer Usage: June - August					
On-Peak	711.65	658.13	21.7%	20.2%	53.52
Mid-Peak	559.30	551.47	17.1%	16.9%	7.83
Off-Peak	2,007.14	2,055.85	61.2%	63.0%	(48.71)
Summer 05 Usage	3,278.09	3,265.45	100.0%	100.0%	12.64

Table 4 – 2005 Time-of-Day Usage Comparisons

To test the significance of the various numbers presented in Table 4, we set up a statistical T-test to examine the null hypothesis that the various sets of numbers between the control group and the test group are statistically the same. In the lexicon of statistics, the null hypothesis is that the control group and test group means are equal (i.e., $H_0: \mu_{\text{control}} = \mu_{\text{test}}$) and the alternative hypothesis is that the control group is not equal to the test group (i.e., $H_a: \mu_{\text{control}} \neq \mu_{\text{test}}$).

Period	Average Use (kWh)		Percent of Total Use		Control-TOD Difference	T-Value	PR> T
	Control (n=420)	TOD Test (n=90)	Control (n=420)	TOD Test (n=90)			
June Usage							
On-Peak	181.79	167.99	19.9%	19.0%	13.80	1.30	0.1960
Mid-Peak	175.88	171.90	19.2%	19.4%	3.98	0.36	0.7208
Off-Peak	556.90	545.84	60.9%	61.6%	11.06	0.32	0.7461
June Usage	914.57	885.73	100.0%	100.0%	28.84	0.53	0.5956
July Usage							
On-Peak	265.05	239.10	21.2%	18.5%	25.95	1.55	0.1224
Mid-Peak	184.21	178.36	14.8%	13.8%	5.85	0.50	0.6177
Off-Peak	798.74	876.22	64.0%	67.7%	(77.48)	(0.28)	0.7774
July Usage	1,248.00	1,293.68	100.0%	100.0%	(45.68)	0.22	0.8231
August Usage							
On-Peak	264.81	251.04	23.7%	23.1%	13.77	0.87	0.3856
Mid-Peak	199.21	201.21	17.9%	18.5%	(2.00)	(0.16)	0.8757
Off-Peak	651.50	633.79	58.4%	58.4%	17.71	0.44	0.6592
August Usage	1,115.52	1,086.04	100.0%	100.0%	29.48	0.45	0.6536
Summer Usage: June - August							
On-Peak	711.65	658.13	21.7%	20.2%	53.52	1.33	0.1849
Mid-Peak	559.30	551.47	17.1%	16.9%	7.83	0.28	0.7777
Off-Peak	2,007.14	2,055.85	61.2%	63.0%	(48.71)	0.17	0.8652
Summer 05 Usage	3,278.09	3,265.45	100.0%	100.0%	12.64	0.45	0.6569

Table 5 – T-Test Analysis Results

Table 5 presents the results of the T-test analysis and includes the T-Value and the probability of getting a larger T-Value (i.e., $PR>|T|$). For all three months and the summer season, the null hypothesis cannot be rejected for any period indicating that there was not a statistical change in the usage of the time-of-day participants when compared to the control group. However, there

was some indication that there was some reduction of load during the on-peak periods and an increase in off-peak periods, particularly for July and the overall summer season. For the on-peak period, the probability of getting a higher T-value is 0.1849 for the 2005 summer season providing some indication that the reduction of 54 kWh is statistically significant at the 80% level.

3.3.3 System Peak Demand Reduction

Figure 13 presents the test and control groups on the summer system peak day, Friday, July 22, 2005 at hour ending 4pm. The control group displays a peak that is approximately 0.24 kW higher than the test group. The T-statistic associated with this demand is 1.26 with a p-value of 0.2084 indicating that the difference is not significant at the 90% level.

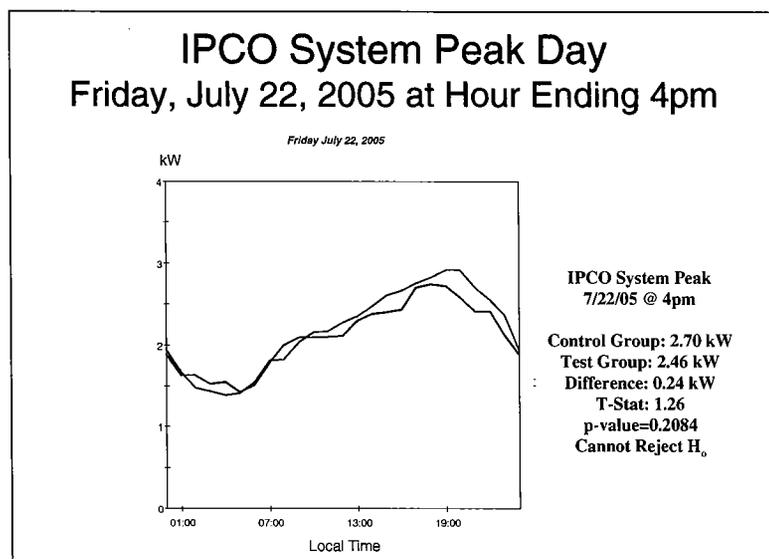


Figure 13 – System Peak Reduction

3.3.4 Bill Comparisons

Table 6 presents a summary of the bill³ analysis conducted for the evaluation. The table presents the standard residential bill versus the time-of-day bill for the time-of-day control group and the test group. The table presents the analysis results monthly and in aggregate for the summer 2005 period June through August. The table presents the mean bill along with select statistics associated with the distribution of bills, e.g., the 10th percentile, the 1st quartile, the median, the 3rd quartile, and the 90th percentile. In addition, the average difference and the distribution statistics of the difference are presented. For the time-of-day control group customers the mean summer season bill was \$224.07 under the standard rate. If these customers would have been billed under the time-of-day rate their bill would have decreased \$4.52 to \$219.54. At most points along the distribution the time-of-day bill was slightly lower than the standard bill. This indicates that there would be some free riders associated with the current time-of-day offering but the customers would not save very much money (i.e., a savings of \$1.51 per month or approximately 2%).

³ The customer bills were calculated based on the service charge, the energy charge and the power cost adjustment. A summary table of the rates is provided as a technical appendix to this report.

Residential Time-of-Day
Energy Watch Evaluations

TOD Control Group Sample n=420 Customers									
	June		July		August		June Through August		
Statistic	TOD Rates	Standard Rates	TOD Rates	Standard Rates	TOD Rates	Standard Rates	TOD Rates	Standard Rates	Difference TOD-Std
Mean	\$61.69	\$62.66	\$82.76	\$84.98	\$75.09	\$76.43	\$219.54	\$224.07	(\$4.52)
10th Percentile	\$30.34	\$29.71	\$37.28	\$37.19	\$35.57	\$34.81	\$107.73	\$107.57	\$1.61
1st Quartile	\$39.90	\$39.91	\$53.69	\$54.39	\$48.05	\$48.40	\$145.50	\$146.68	(\$0.03)
Median	\$55.62	\$56.02	\$73.54	\$74.74	\$68.12	\$68.60	\$195.33	\$197.39	(\$3.04)
3rd Quartile	\$79.24	\$79.99	\$102.97	\$106.77	\$94.54	\$96.09	\$274.87	\$282.11	(\$7.57)
90th Percentile	\$98.98	\$102.37	\$142.66	\$148.75	\$126.48	\$128.23	\$366.13	\$378.23	(\$12.55)
Test Group Sample n=90 Customers									
	June		July		August		June Through August		
Statistic	TOD Rates	Standard Rates	TOD Rates	Standard Rates	TOD Rates	Standard Rates	TOD Rates	Standard Rates	Difference TOD-Std
Mean	\$59.74	\$60.75	\$81.27	\$83.85	\$73.15	\$74.45	\$213.50	\$218.38	(\$4.88)
10th Percentile	\$30.83	\$30.38	\$35.78	\$36.39	\$34.68	\$34.87	\$106.36	\$106.25	\$0.85
1st Quartile	\$40.42	\$39.99	\$55.59	\$56.28	\$48.72	\$48.78	\$147.34	\$150.70	(\$0.51)
Median	\$53.48	\$53.65	\$74.38	\$76.21	\$64.98	\$66.51	\$194.19	\$197.74	(\$2.78)
3rd Quartile	\$72.08	\$73.78	\$99.93	\$103.66	\$93.19	\$96.20	\$261.90	\$267.64	(\$7.90)
90th Percentile	\$102.45	\$105.95	\$129.07	\$134.82	\$117.35	\$123.68	\$339.85	\$355.48	(\$14.36)
Control Group Sample n=420 Customers and Test Group n=90 Customers									
	June		July		August		June Through August		
Statistic	Test TOD Rate	Control Std Rate	Test TOD Rate	Control Std Rate	Test TOD Rate	Control Std Rate	Test TOD Rate	Control Std Rate	Difference TOD-Std
Mean	\$59.74	\$62.66	\$81.27	\$84.98	\$73.15	\$76.43	\$213.50	\$224.07	(\$10.57)

Table 6 – Time-of-Day Bill Comparisons

Examining the test group sample of customers, the average time-of-day bill was \$214.80. If these customers would have been billed under the standard rate then the average summer seasonal bill would have been \$219.67 or \$4.87 more than the time-of-day bill. The last portion of the table contrasts the control group customer’s average bill under the standard rate versus the test group customer’s average bill under the time-of-day rate. Under this scenario, the time-of-day customer saves approximately \$10.60 (or 4.7%) for the entire summer season.

4 ENERGY WATCH PILOT (EW) EVALUATION

In this section we examine the impact evaluation of the Energy Watch Pilot program. Energy Watch is a critical peak pricing pilot program where the participants receive notification the day before a critical peak event is called. A total of ten Energy Watch days, or critical peak events, per year can be called between the dates of June 15th and August 15th. The critical peak events have the following characteristics:

- Critical peak price (CPP) hours are from 5pm to 9pm
- All customers subject to CPP hours are provided day ahead notification
- CPP energy price is \$0.20 per kWh
- Non-CPP energy price is \$0.054280 per kWh

The Energy Watch impact evaluation uses hourly interval load data in a test-control experimental design. The test group is comprised of 74 of the 76 Emmett area customers in the Energy Watch

pilot program as of August 2005. The control group was developed by statistically selecting customers that were similar to the pilot participants based on their summer 2004 hourly load.

4.1 Critical Peak Pricing Events

During 2005, a total of nine events were called. Table 7 presents the dates, the beginning and ending of the CPP period and selected temperature statistics for the day.

Event Day	CPP Period		Temperatures °F			
	Begin	End	Minimum	Maximum	Average	Time of Max
Thursday, July 07, 2005	5pm	9pm	63	94	78	6pm
Wednesday, July 13, 2005	5pm	9pm	66	93	80	4pm
Friday, July 15, 2005	5pm	9pm	66	104	86	7pm
Thursday, July 21, 2005	5pm	9pm	68	106	89	4pm
Wednesday, July 27, 2005	5pm	9pm	61	96	78	6pm
Friday, July 29, 2005	5pm	9pm	70	99	88	4pm
Thursday, August 04, 2005	5pm	9pm	63	101	80	6pm
Tuesday, August 09, 2005	5pm	9pm	72	97	85	4pm
Thursday, August 11, 2005	5pm	9pm	61	90	76	6pm

Table 7 – Critical Peak Pricing Event Days

4.2 Energy Watch Pilot Program Participants

A total of 74 pilot program participants were available for use in the Energy Watch Pilot Evaluation. A simple average was constructed for the pilot program participants and is displayed in Figure 14. The light blue areas in the EnergyPrints are indicative of data unavailable due to problems with the AMR data collection network. The majority of the data challenges occurred in 2004 with complete data available for the June 1, 2005 through August 31, 2005 summer period. The average demand ranged from a low of 0.35 kW to a high of 3.73 kW. The residential TOD peak demand occurred on Saturday, January 15, 2005 at hour ending 9am.

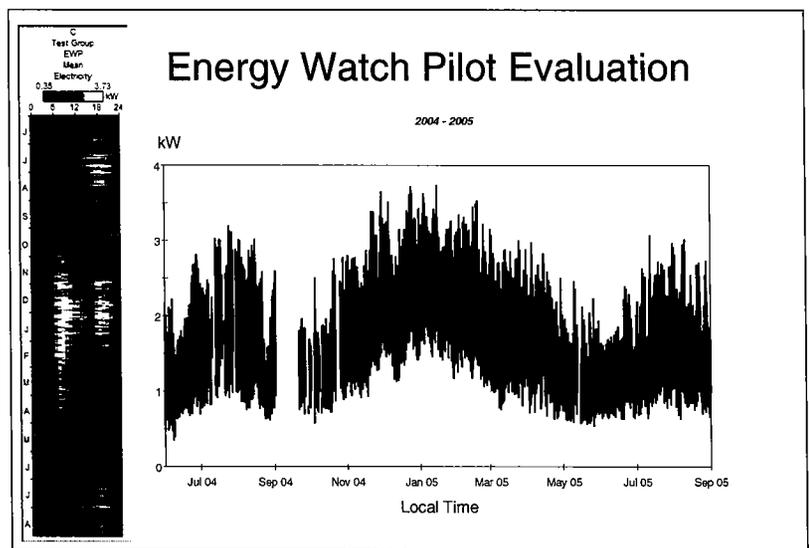


Figure 14 – Energy Watch Pilot Participants

Table 8 presents a listing of the Energy Watch days. Included in the table are the beginning and ending times and selected temperature characteristics associated with the event day. Six events

were called in July and three events were called in August. It is important to note that the summer system peak day, Friday, July 22, 2005 was not included in the events.

Event Day	CPP Period		Temperatures °F			
	Begin	End	Minimum	Maximum	Average	Time of Max
Thursday, July 07, 2005	5pm	9pm	63	94	78	6pm
Wednesday, July 13, 2005	5pm	9pm	66	93	80	4pm
Friday, July 15, 2005	5pm	9pm	66	104	86	7pm
Thursday, July 21, 2005	5pm	9pm	68	106	89	4pm
Wednesday, July 27, 2005	5pm	9pm	61	96	78	6pm
Friday, July 29, 2005	5pm	9pm	70	99	88	4pm
Thursday, August 04, 2005	5pm	9pm	63	101	80	6pm
Tuesday, August 09, 2005	5pm	9pm	72	97	85	4pm
Thursday, August 11, 2005	5pm	9pm	61	90	76	6pm

Table 8 – Energy Watch Days

Figure 15 presents a composite graph of each event day along with the maximum temperature for the day. The figure shows a substantial reduction in load during the critical peak pricing period on each event day. The challenge is selecting an appropriate customer baseline for use in the comparison. For the Energy Watch Pilot evaluation, a control group was developed similar to the one created for the Time-of-Day Pilot evaluation. Here again, the interval load data available for the 6,000 Emmett area residences were used to match approximately five customers to each individual Energy Watch Pilot participant based on the correlation of summer 2004 load.

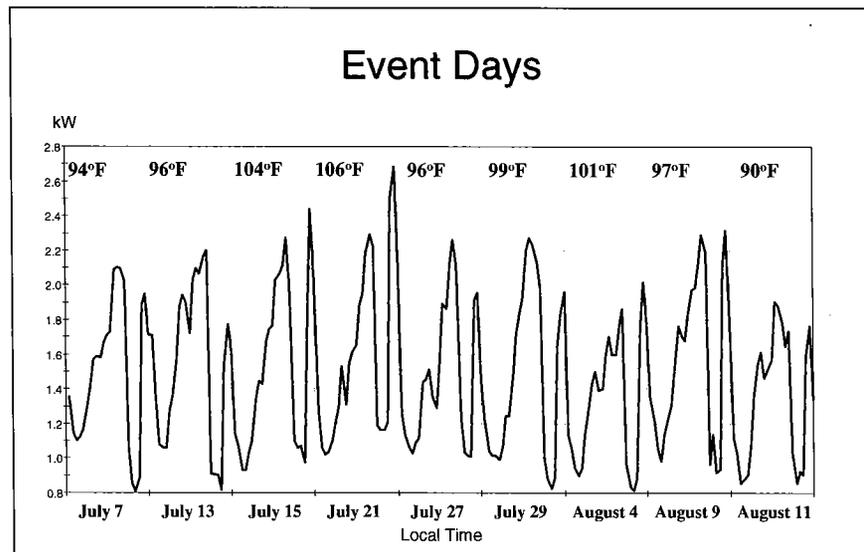


Figure 15 – CPP Event Days

4.3 EW Control Group Participants

To analyze the impacts of the Energy Watch pilot, a control group was selected from the general population pool of Emmett customers. The control group was determined by examining the correlation between the pilot program participants and customers in the control group pool during the summer of 2004. A control group of approximately five “similar” customers was selected for each pilot program participant. Figure 16 presents the average load developed for the EW control

group. Consistent with the EW test group, the control group shows some data challenges associated with the summer and early Fall 2004 periods. The maximum diversified demand for the control group, 3.23 kW, also occurred in the winter on Monday, November 29, 2005 at hour ending 8am.

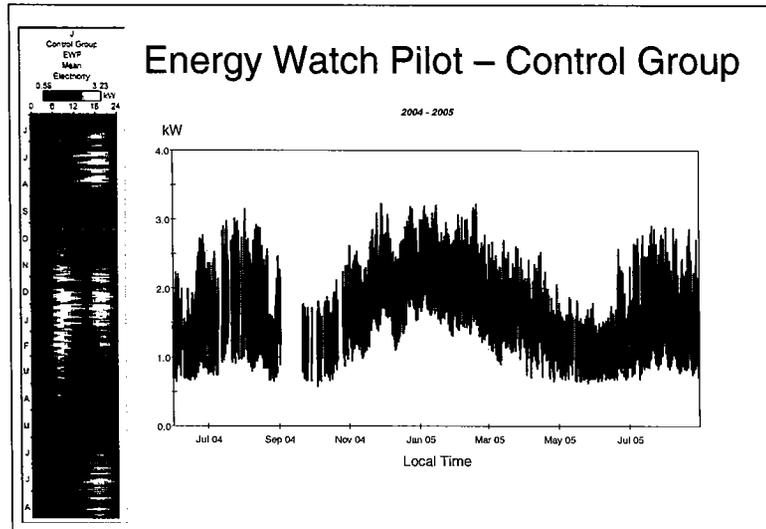


Figure 16 – EW Control Group

Figure 17 and Figure 18 present selected comparisons for the EW test group with the EW control group. As evidenced by the figures, the control group does a good job of tracking the load of the EW test group particularly during the 2004 summer class peak period.

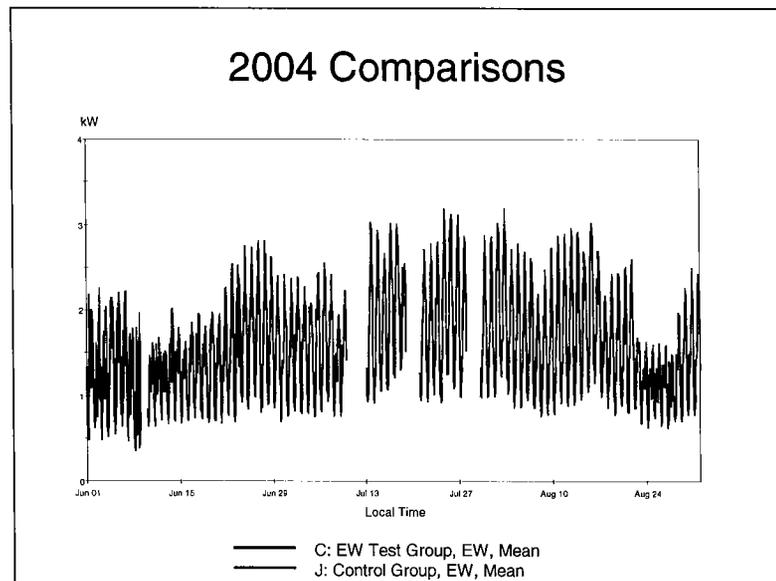


Figure 17 – Pre Period Comparison

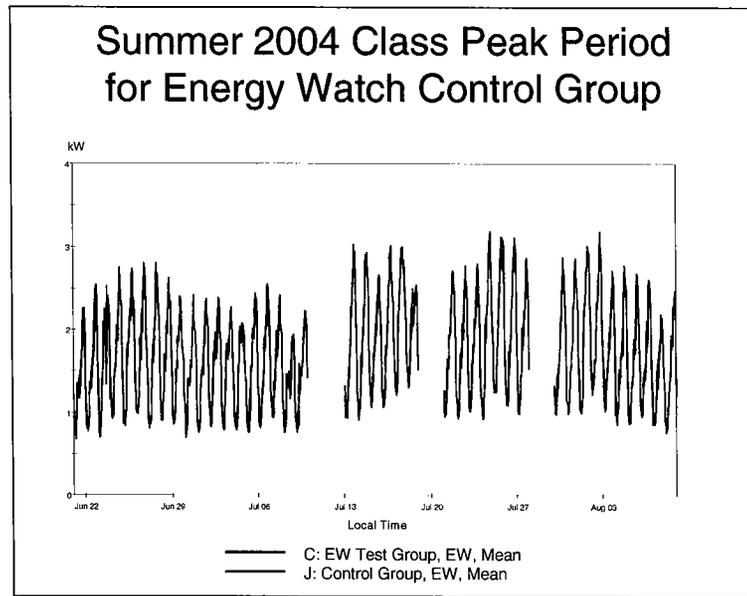


Figure 18 – 2004 Summer Class Peak Comparison

Figure 19 and Figure 20 highlight how well the control group matches the test group by presenting average weekdays and weekend days for June, July and August. The control group and test group lines mirror one another.

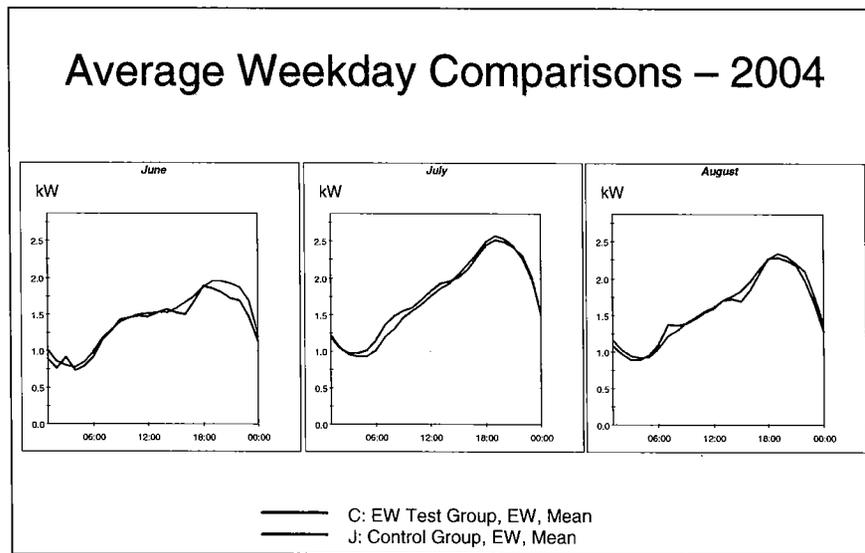


Figure 19 – Pre-Period Average Weekday Comparisons

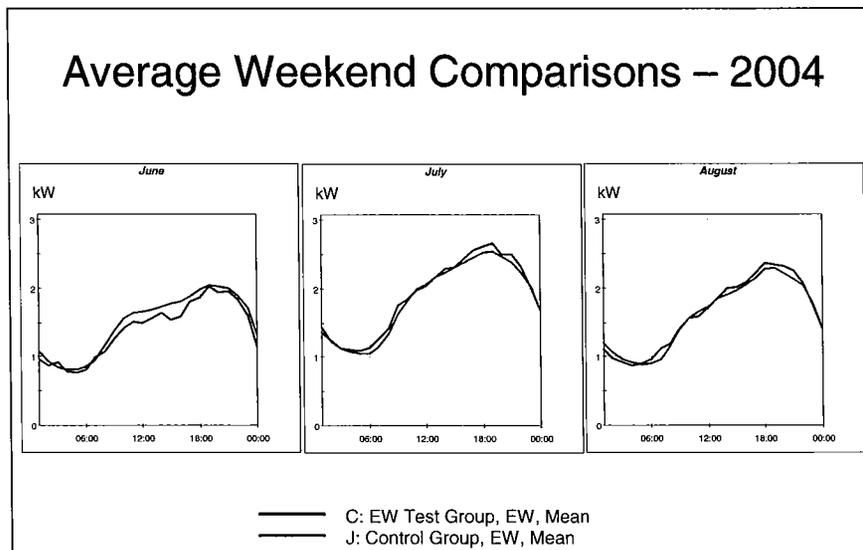


Figure 20 – Pre-Period Average Weekend Day Comparisons

Given these results, we were confident that the control group provided a reasonable basis for analyzing the test group under the test-control experimental design.

4.4 2005 Energy Watch Pilot Results

The following sections examine the impacts associated with the Energy Watch Pilot program. We begin by presenting summary information for all events followed by an examination of each individual event day.

4.4.1 2005 Energy Watch Pilot Summary

Table 9 presents a summary of the nine Energy Watch days. Substantial load is reduced by the Energy Watch participants during the critical peak pricing events. The maximum hourly load reduction per participant was 1.58 kW which occurred on August 09, 2005 at hour ending 8pm. The average hourly demand reduction was fairly consistent ranging from a low of 1.14 kW on August 11, 2005 to a high of 1.49 kW on August 9, 2005. The average load reduction for the nine events was 1.33 kW. The average savings in the four hour event was approximately 5.31 kWh.

Hour Beginning	Hour Ending	Event Day Reductions (kW)									Average
		07-Jul	13-Jul	15-Jul	21-Jul	27-Jul	29-Jul	04-Aug	09-Aug	11-Aug	
5pm	6pm	1.17	1.38	1.23	1.38	1.03	1.26	1.39	1.50	1.07	1.27
6pm	7pm	1.46	1.52	1.30	1.47	1.35	1.36	1.53	1.44	1.32	1.42
7pm	8pm	1.46	1.42	1.28	1.33	1.34	1.29	1.47	1.58	1.17	1.37
8pm	9pm	1.33	1.33	1.31	1.17	1.27	1.10	1.37	1.43	1.01	1.26
Four-Hour Total		5.42	5.65	5.12	5.35	4.99	5.01	5.76	5.95	4.57	5.31
Average Hourly		1.36	1.41	1.28	1.34	1.25	1.25	1.44	1.49	1.14	1.33
Minimum Temp		63	66	66	68	61	70	63	72	61	66
Maximum Temp		94	93	104	106	96	99	101	97	90	98
Average Temp		78	80	86	89	78	88	80	85	76	82

Table 9 – Energy Watch Pilot Summary

4.4.2 Event Day: Thursday, July 7, 2005

The first event was called on Thursday, July 7, 2005. The maximum outdoor temperature during that day was 94°F. Figure 21 presents the average hourly load for the test and control groups for the week of the event. The control group maps very well with the test group.

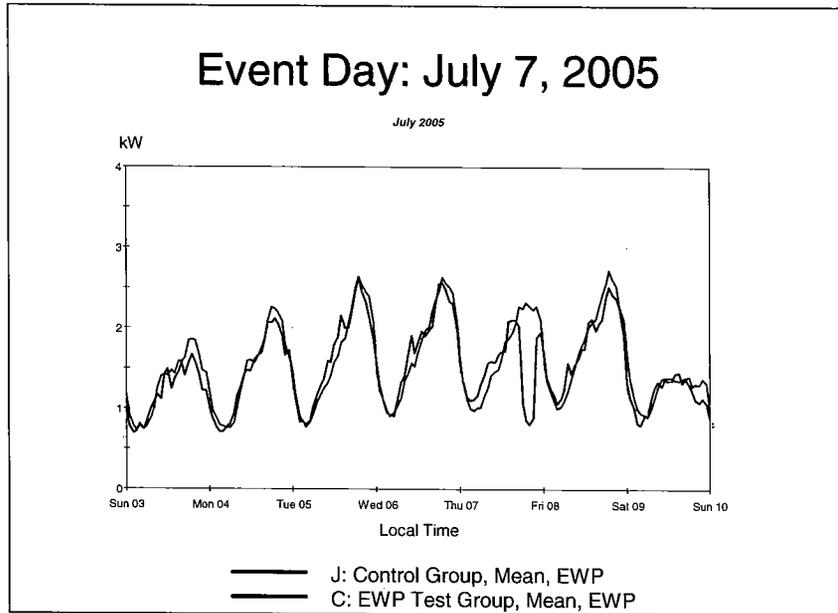


Figure 21 – Energy Watch Pilot: Week of July 7, 2005

Figure 22 presents the event day analysis. During the event a substantial amount of load is reduced from the critical peak pricing period. There is some indication that the test group shifted load to the period prior to the critical peak pricing event. The average hourly load reduction ranged from a low of 1.17 kW to a high of 1.46 kW. The average reduction across the four hour period was 1.36 kW.

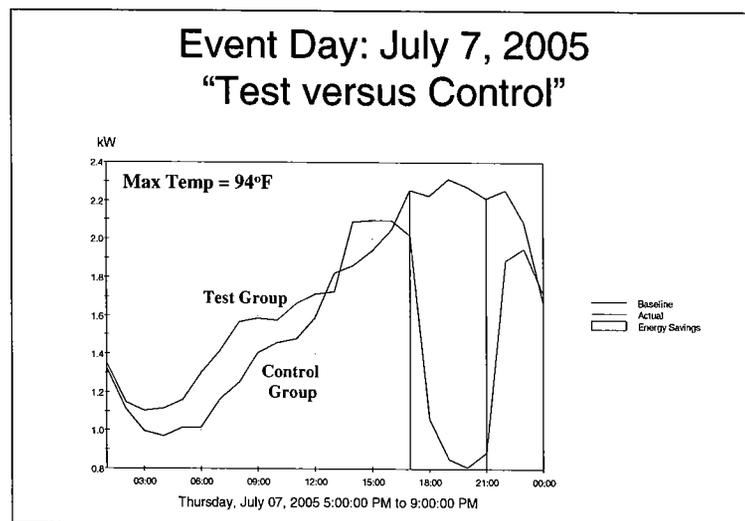


Figure 22 – Event Day Impacts: Thursday, July 7, 2005

4.4.3 Event Days: Wednesday, July 13, 2005 and Friday, July 15, 2005

The second and third events were called the week of July 10, 2005. The maximum outdoor temperature on two event days called that week was 93°F on Wednesday, July 13, 2005 and 104°F on Friday, July 15, 2005. Figure 23 presents the average hourly load for the test and control groups for the week of July 10, 2005. The control group maps very well with the test group with the exception of the day prior to the first event in that week where the test group is somewhat higher in the early afternoon period.

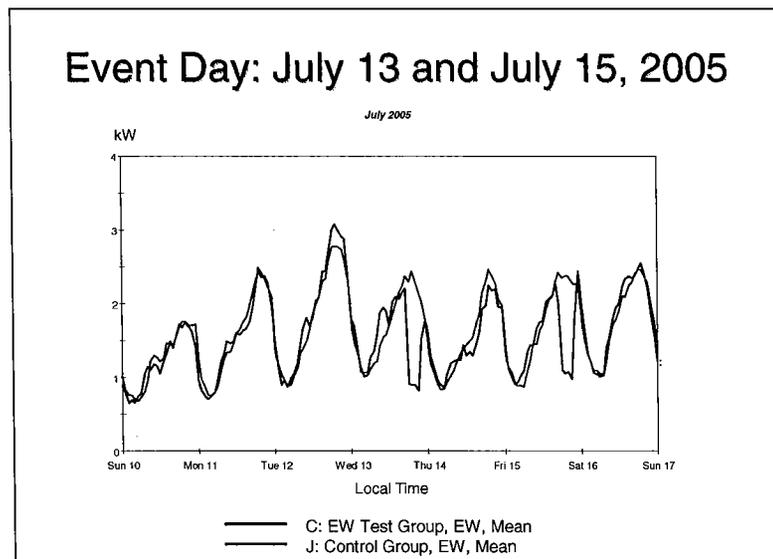


Figure 23 – Energy Watch Pilot: Week of July 10, 2005

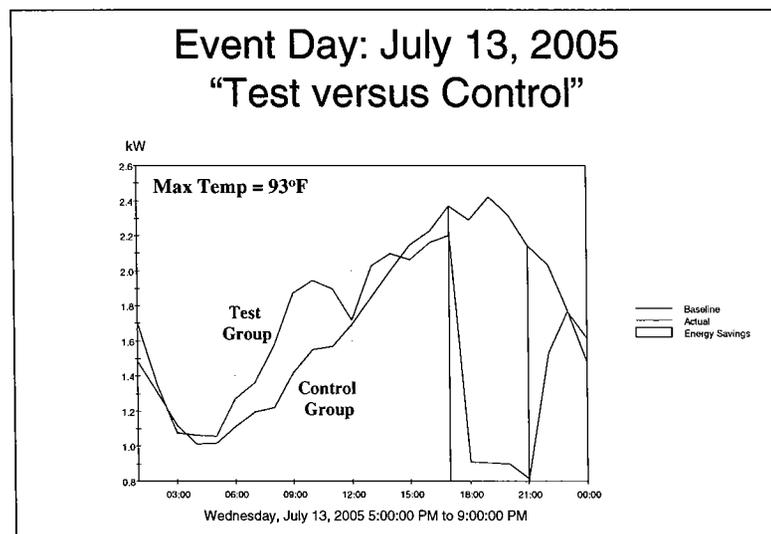


Figure 24 – Event Day Impacts: Wednesday, July 13, 2005

Figure 24 and Figure 25 present the event day analyses for July 13, 2005 and July 15, 2005. During both events a substantial amount of load is reduced from the critical peak pricing period.

Here again, there is some indication that the test group shifted load to the period prior to the critical peak pricing event. For Wednesday, July 13, 2005 the load reduction ranged from a low of 1.33 kW to a high of 1.52 kW. The average reduction across the four hour period was 1.41 kW. For Friday, July 15, 2005 the average hourly load reduction ranged from a low of 1.23 kW to a high of 1.31 kW. The average load reduction for the four hour period was 1.28 kW.

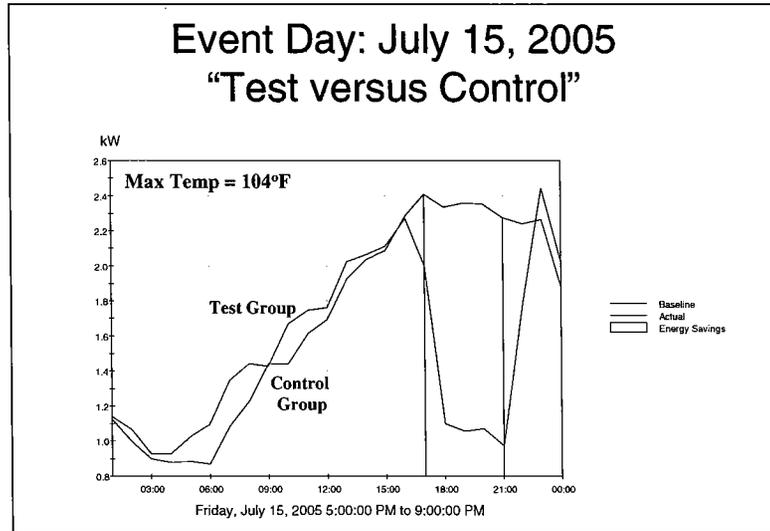


Figure 25 – Event Day Impacts: Friday, July 15, 2005

4.4.4 Event Day: Thursday, July 21, 2005

The fourth event of the season was called the week of July 17, 2005. The maximum outdoor temperature on the Thursday, July 21, 2005 event day was 106°F. Figure 26 presents the average hourly load for the test and control groups for the week of July 17, 2005. The control group maps very well with the test group with the exception of the day prior to the event where the test group load is somewhat lower in the early afternoon period.

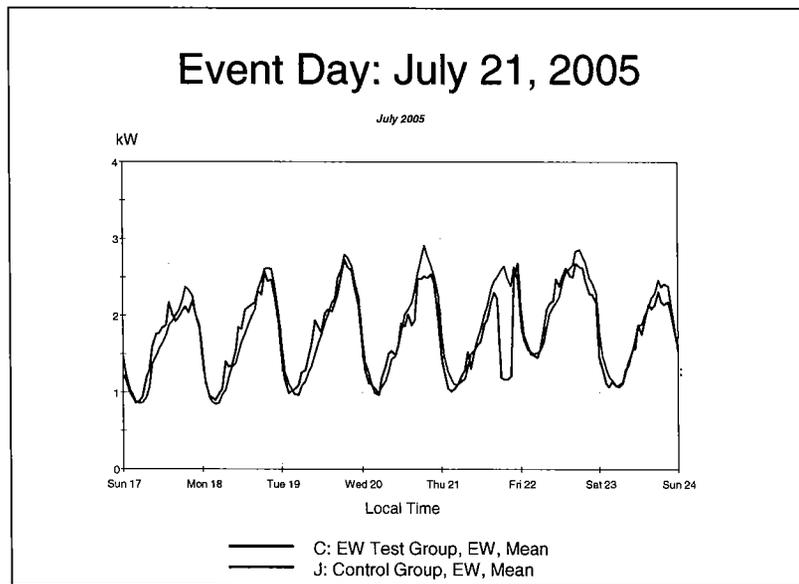


Figure 26 – Energy Watch Pilot: Week of July 17, 2005

Figure 27 presents the event day analysis for Thursday, July 21, 2005. Once again, a substantial amount of load is reduced during the critical peak pricing period. This is the first instance where there is no evidence that the test group shifted load to the period prior to the critical peak pricing event. The average hourly load reduction ranged from a low of 1.17 kW to a high of 1.47 kW. The average reduction across the four hour period was 1.34 kW.

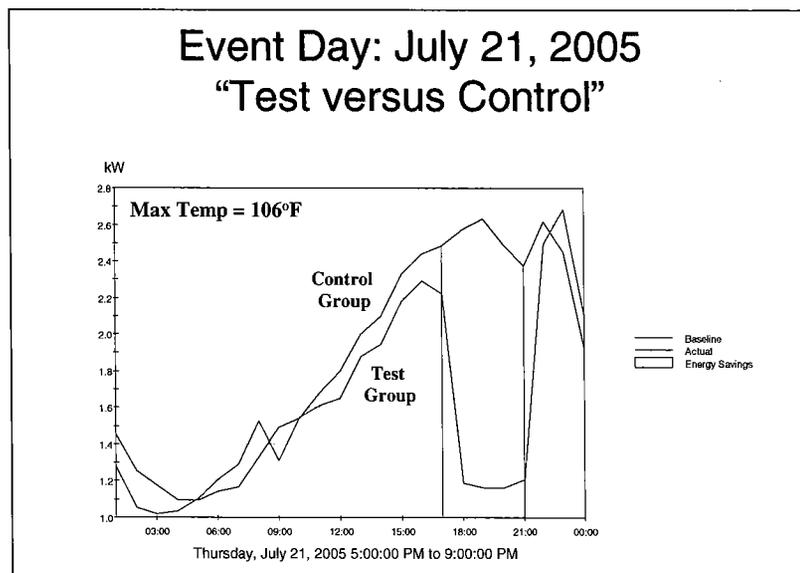


Figure 27 – Event Day: Thursday, July 21, 2005

4.4.5 Event Day: Wednesday, July 27, 2005 and Friday, July 29, 2005

The fifth and sixth events of the season were called the week of July 24, 2005. The maximum outdoor temperature on the first event day of that week, Wednesday, July 27, 2005 was 96°F and 99°F on the second event day of the week, Friday, July 29, 2005. Figure 28 presents the average

hourly load for the test and control groups for the week of July 24, 2005. The control group maps very well with the test group.

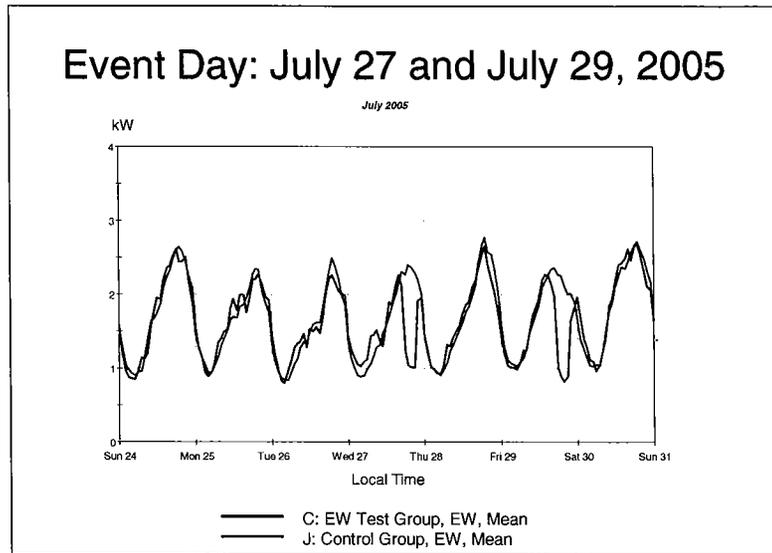


Figure 28 – Energy Watch Pilot: Week of July 24, 2005

Figure 29 presents the event day analysis for Wednesday, July 24, 2005. Once again, a substantial amount of load is reduced during the critical peak pricing period. The evidence of load shifting to the early morning period is once again evident. The load reduction during the critical peak period ranged from a low of 1.03 kW to a high of 1.35 kW. The average reduction across the four hour period was 1.25 kW.

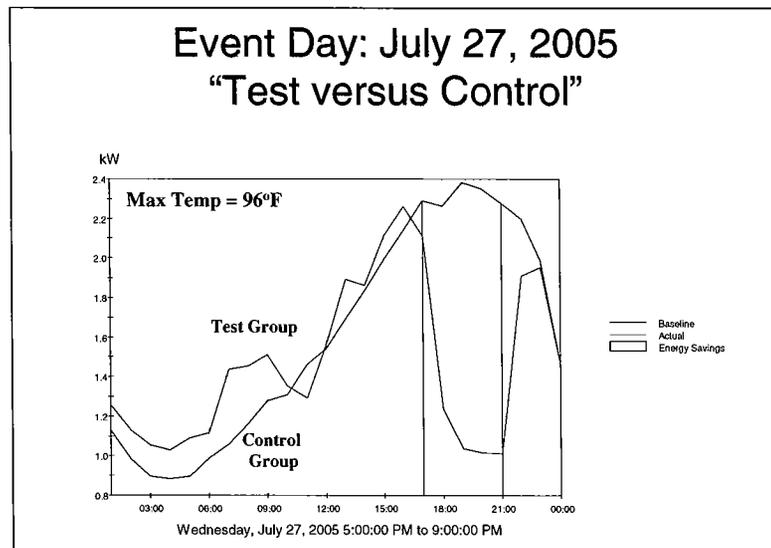


Figure 29 – Event Day: Wednesday, July 27, 2005

Figure 30 presents the event day analysis for Friday, July 29, 2005. Consistent with all previous CPP events, a substantial amount of load is reduced during the critical peak pricing period. The evidence of load shifting to the late morning period is evident. The load reduction during the

critical peak period ranged from a low of 1.10 kW to a high of 1.36 kW. The average reduction across the four hour period was 1.25 kW.

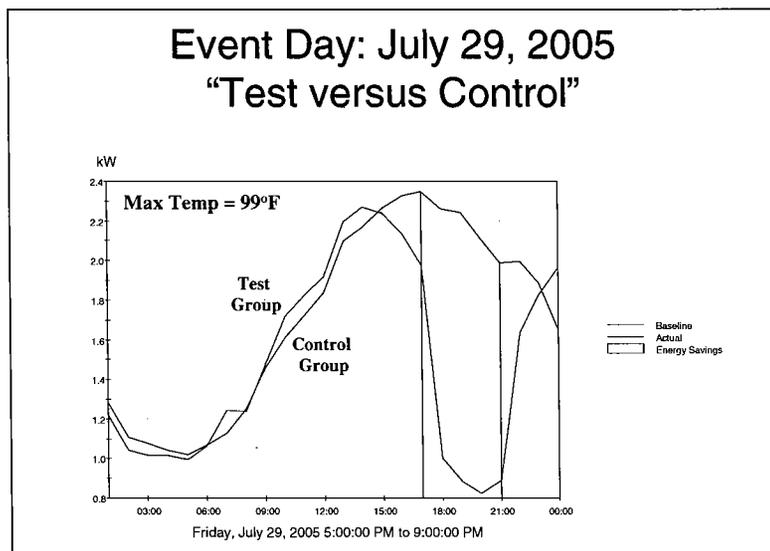


Figure 30 – Event Day: Friday, July 29, 2005

4.4.6 Event Day: Thursday, August 4, 2005

The seventh event of the season was called the week of July 31, 2005. The maximum outdoor temperature on the event day, Thursday, August 4, 2005 was 101°F. Figure 31 presents the average hourly load for the test and control groups for the week of July 31, 2005. The control group maps very well with the test group with the exception of the day after the event where the test group load is somewhat lower in the early morning period.

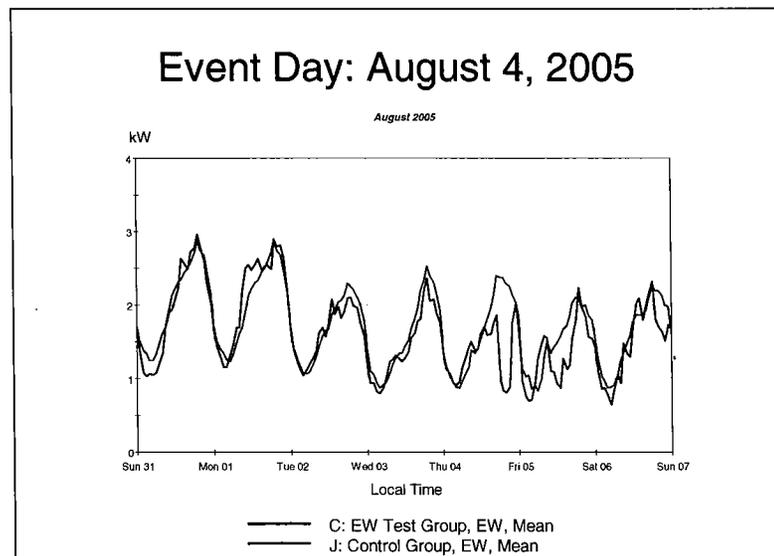


Figure 31 – Energy Watch Pilot: Week of July 31, 2005

Figure 32 presents the event day analysis for Thursday, August 4, 2005. Once again, a substantial amount of load is reduced during the critical peak pricing period. The average hourly load reduction ranged from a low of 1.37 kW to a high of 1.53 kW. The average reduction across the four hour period was 1.44 kW.

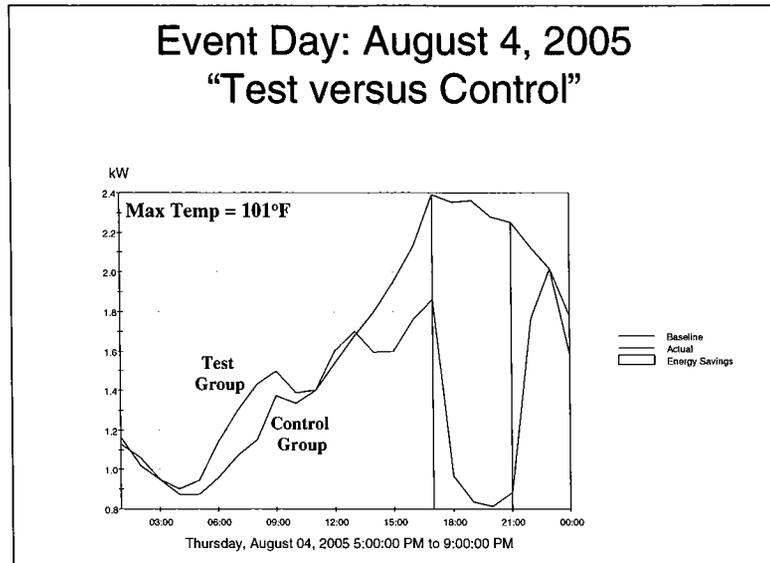


Figure 32 – Event Day: Thursday, August 4, 2005

4.4.7 Event Day: Tuesday, August 9, 2005 and Thursday, August 11, 2005

The eighth and ninth events of the season were called the week of August 7, 2005. The maximum outdoor temperature on the first event day of that week, Tuesday, August 9, 2005 was 97°F and 90°F on the second event day of the week, Thursday, August 11, 2005. Figure 33 presents the average hourly load for the test and control groups for the week of August 7, 2005. The control group maps very well with the test group.

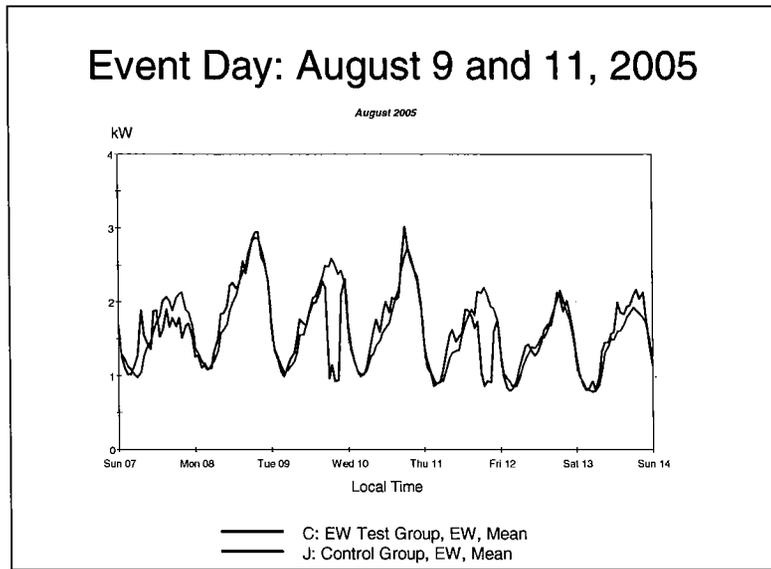


Figure 33 – Energy Watch Pilot: Week of August 7, 2005

Figure 34 and Figure 35 present the event day analyses for Tuesday, August 9, 2005 and Thursday, August 11, 2005. During both events a substantial amount of load is reduced from the critical peak pricing period. Here again, there is some indication that the test group shifted load to the period prior to the critical peak pricing event. For Tuesday, August 9, 2005 the average hourly load reduction ranged from a low of 1.43 kW to a high of 1.58 kW. The average reduction across the four hour period was 1.49 kW. For Thursday, August 11, 2005 the average hourly load reduction ranged from a low of 1.01 kW to a high of 1.32 kW. The average load reduction for the four hour period was 1.14 kW.

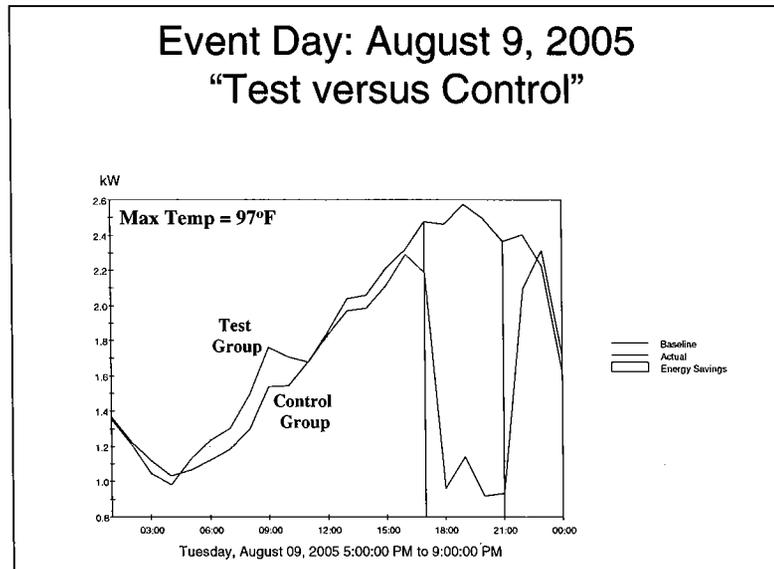


Figure 34 – Event Day: Tuesday, August 9, 2005

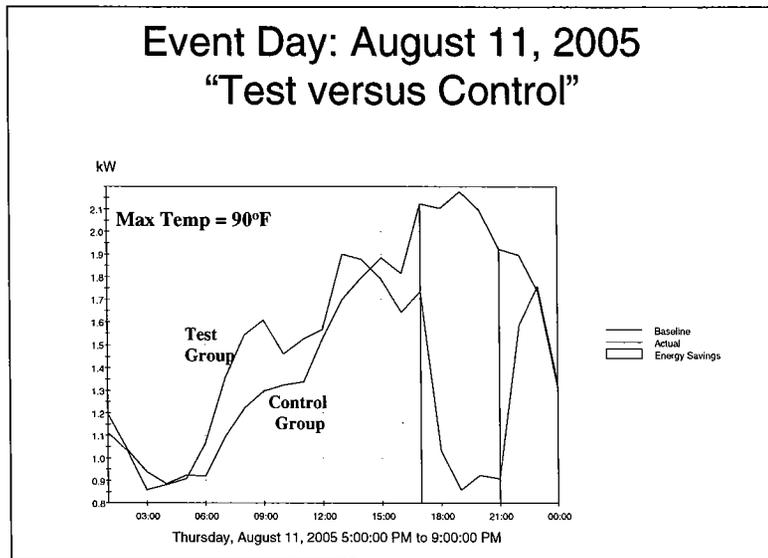


Figure 35 – Event Day: Thursday, August 11, 2005

4.4.8 Event Day Summary

Figure 36 summarizes the event days by presenting the test group and control group loads for each day on a continuum. In addition to the hourly loads the maximum daily temperatures are displayed. The peak load for the test group occurred during the day of highest temperature.

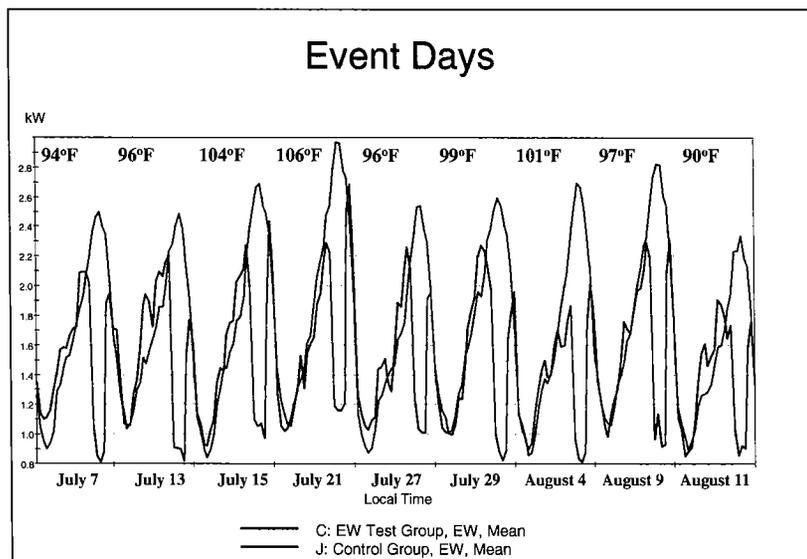


Figure 36 – Event Day Summary

Figure 37 presents the average EW reduction per participant plotted against temperature. The plot suggests that the demand reduction does increase with temperature. A simple regression equation was constructed using temperature as follows. The temperature variable was significant with a T-value of 1.82 and a p-value of 0.078.

$$\text{Reduction} = 0.62738 + 0.000762 * \text{Temperature}$$

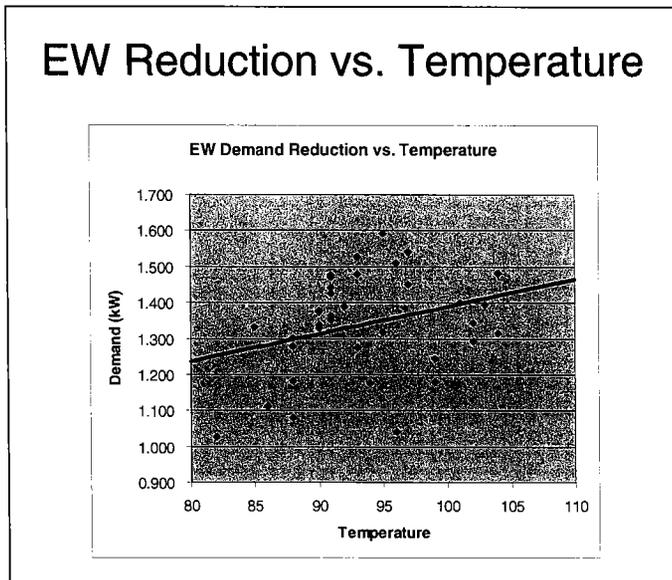


Figure 37 – EW Reduction versus Temperature

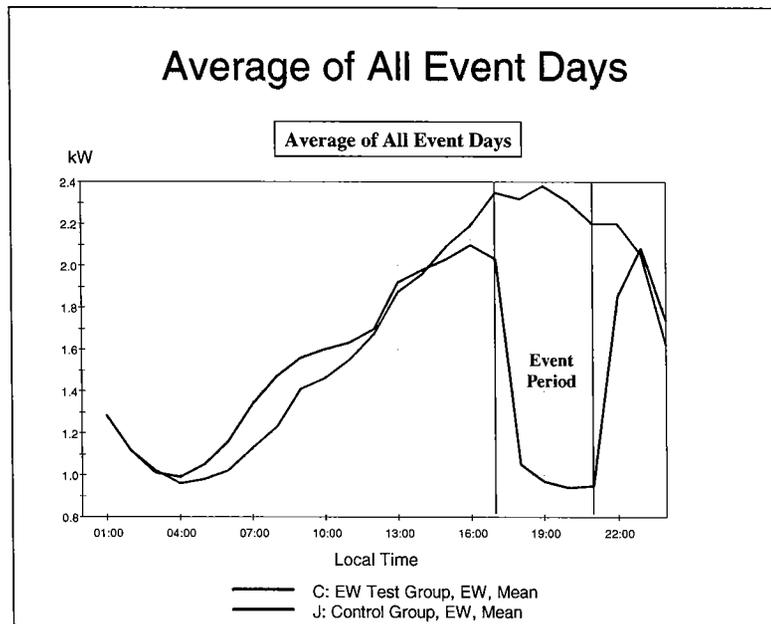


Figure 38 – Average of All Event Days

Figure 38 presents the average of all event days into a single graph. The maximum average load reduction of 1.42 kW occurred at hour ending 7pm with the average load reduction across all hours was calculated as 1.33 kW. The total average savings during the Energy Watch period is estimated to be 5.31 kWh. The Energy Watch participants display a slightly higher early morning load. However, the morning increase during the Energy Watch event days averages less than 1 kWh which is just slightly higher than the 0.7 kWh increase associated with non event day hours.

4.4.9 Energy Watch Bill Comparisons

Table 10 presents a summary of the bill⁴ analysis conducted for the evaluation. The table presents the standard residential bill versus the Energy Watch bill for the Energy Watch control group and the test group. The table presents the analysis results monthly and in aggregate for the summer 2005 period June through August. The table presents the mean bill along with select statistics associated with the distribution of bills, e.g., the 10th percentile, the 1st quartile, the median, the 3rd quartile, and the 90th percentile. In addition, the average difference and the distribution statistics of the difference are presented. For the Energy Watch control group customers the mean summer season bill was \$234.02 under the standard rate. If these customers would have been billed under the Energy Watch rate, their bill would have decreased an average of \$4.04 (or 1.7%) to \$229.02.

EWP Control Group Sample n=357 Customers									
Statistic	June		July		August		June Through August		
	EW Rates	Standard Rates	EW Rates	Standard Rates	EW Rates	Standard Rates	EW Rates	Standard Rates	Difference EWP-Std
Mean	\$60.65	\$65.01	\$90.97	\$89.10	\$78.36	\$79.91	\$229.98	\$234.02	(\$4.04)
10th Percentile	\$26.87	\$27.47	\$35.79	\$34.44	\$32.55	\$32.29	\$95.65	\$93.89	\$2.98
1st Quartile	\$37.07	\$38.80	\$53.66	\$52.00	\$45.10	\$44.97	\$137.20	\$135.54	\$0.72
Median	\$53.73	\$57.30	\$82.97	\$80.14	\$72.38	\$74.90	\$211.02	\$214.35	(\$2.23)
3rd Quartile	\$79.26	\$85.64	\$119.06	\$116.61	\$100.81	\$102.57	\$300.56	\$307.14	(\$7.60)
90th Percentile	\$102.42	\$111.37	\$162.93	\$160.32	\$133.71	\$136.12	\$393.28	\$400.63	(\$13.24)
Test Group Sample n=74 Customers									
Statistic	June		July		August		June Through August		
	EW Rates	Standard Rates	EW Rates	Standard Rates	EW Rates	Standard Rates	EW Rates	Standard Rates	Difference EWP-Std
Mean	\$59.52	\$64.17	\$80.59	\$83.15	\$71.25	\$74.90	\$211.76	\$222.22	(\$10.46)
10th Percentile	\$26.73	\$27.32	\$34.81	\$34.44	\$32.59	\$33.24	\$99.55	\$100.81	(\$0.80)
1st Quartile	\$38.44	\$40.32	\$52.99	\$52.03	\$46.07	\$47.43	\$132.69	\$138.63	(\$4.16)
Median	\$52.19	\$55.59	\$75.32	\$78.35	\$69.82	\$73.22	\$208.83	\$219.64	(\$9.00)
3rd Quartile	\$77.13	\$83.28	\$99.74	\$102.21	\$91.64	\$96.61	\$261.64	\$269.46	(\$14.41)
90th Percentile	\$101.25	\$110.06	\$125.67	\$133.10	\$114.29	\$121.92	\$334.50	\$357.84	(\$23.23)
Control Group Sample n=357 and Test Group Sample n=74 Customers									
Statistic	June		July		August		June Through August		
	Test EW Rate	Control Std Rate	Test EW Rate	Control Std Rate	Test EW Rate	Control Std Rate	Test EW Rate	Control Std Rate	Difference EW-Std
Mean	\$59.52	\$65.01	\$80.59	\$89.10	\$71.25	\$79.91	\$211.76	\$234.02	(\$22.26)

Table 10 – Energy Watch Bill Comparisons

Examining the test group sample of customers, the average Energy Watch bill was \$211.76. If these customers would have been billed under the standard rate, then the average summer seasonal bill would have been \$222.22 or \$10.47 more than the Energy Watch bill. This is a 4.7% decrease for the Energy Watch participants. The last portion of the table contrasts the control group customer’s average bill under the standard rate versus the test group customer’s

⁴ The customer bills were calculated based on the service charge, the energy charge and the power cost adjustment.

Residential Time-of-Day
Energy Watch Evaluations

average bill under the Energy Watch rate. Under this scenario, the Energy Watch customer saves approximately \$22.26 (or 9.5%) for the entire summer season.

**5 APPENDIX A – RESIDENTIAL RATE SCHEDULES EFFECTIVE
JUNE 1, 2005**

Residential Rates Effective June 1, 2005	
Schedule 1, Residential Service	
Service Charge, per month	\$ 3.30
Power Cost Adjustment (PCA), per kWh	\$ 0.006045
Energy Charge, per kWh (Sept. 1 - May 31)	\$ 0.054280
Energy Charge, per kWh (June 1 - Aug. 31)	
0-300 kWh	\$ 0.054280
Over 300 kWh	\$ 0.060936
Schedule 4, Energy Watch Pilot Program	
Service Charge, per month	\$ 3.30
Power Cost Adjustment (PCA), per kWh	\$ 0.006045
Energy Charge, per kWh (Sept. 1 - May 31)	\$ 0.054280
Energy Charge, per kWh (June 1 - Aug. 31)	
Energy Watch Event	\$ 0.200000
All Other Hours	\$ 0.054280
Schedule 5, Time-Of-Day Pilot Program	
Service Charge, per month	\$ 3.30
Power Cost Adjustment (PCA), per kWh	\$ 0.006045
Energy Charge, per kWh (Sept. 1 - May 31)	\$ 0.054280
Energy Charge, per kWh (June 1 - Aug. 31)	
On-Peak (weekday 1pm-9pm)	\$ 0.068686
Mid-Peak (weekday 7am-1pm)	\$ 0.061717
Off-Peak (weekday 9pm-7am plus weekends and July 4)	\$ 0.053004

Table 11 – Summary of Residential Rates