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IDAHO PUBLIC UTILITIES COMMISSION

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January 19, 2012

Jean D. Jewell, Secretary  
Idaho Public Utilities Commission  
472 West Washington Street  
P.O. Box 83720  
Boise, Idaho 83720-0074

Re: Compliance filing of Time Variant Pricing Implementation Plan  
Case No. IPC-E-08-16

Dear Ms. Jewell:

As of December 31, 2011, Idaho Power Company ("Idaho Power" or "Company") has completed deployment of its Advanced Metering Infrastructure ("AMI") system. Attached is a Time Variant Pricing Implementation Plan ("Plan") filed to comply with the following directive from Order No. 30726:

*The Commission directs Idaho Power to submit a report detailing the Company's plan to introduce its Time of Day, Energy Watch and/or other pilot programs throughout its service territory once the requisite AMI technology is fully deployed.*

The overall goal of the 2012 Time Variant Pricing Implementation Plan is to utilize the new AMI system and offer customers additional choices that will help them better manage their energy usage. The Company will use this opportunity to further study the effects of a time variant rate offering on customers' usage, to refine the Company's communication efforts and to examine impacts on Company revenues.

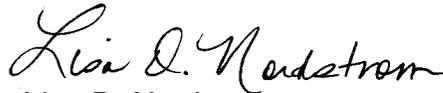
Idaho Power plans to begin the implementation of the Plan by introducing Idaho customers to the Time-of-Day pricing option in 2012. This offering will be limited to those customers served by AMI equipment and will be capped at 1,200 participants. Potential participants will be randomly selected and solicited via a direct mail letter. Invitees will be directed to access the Idaho Power web site and Energy Use Advising Tool to explore rate options. The first geographic area to be targeted for solicitations is the greater Boise area. This area was the first to have AMI meters installed and customers in this area have at least 12 months of historic usage for pricing option comparison purposes. Then, in 2013, Idaho Power plans to further expand customer options by offering the Energy Watch pricing option to Idaho customers.

Jean D. Jewell, Secretary  
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Simultaneous to this compliance filing, Idaho Power is filing Tariff Advice No. 12-02. This tariff advice requests modifications to Schedules 1, 4, and 5, that are necessary to implement the Time Variant Pricing Implementation Plan.

If you have any questions regarding this 2012 Time Variant Pricing Implementation Plan, please contact Darlene Nemnich at 388-2505.

Sincerely,

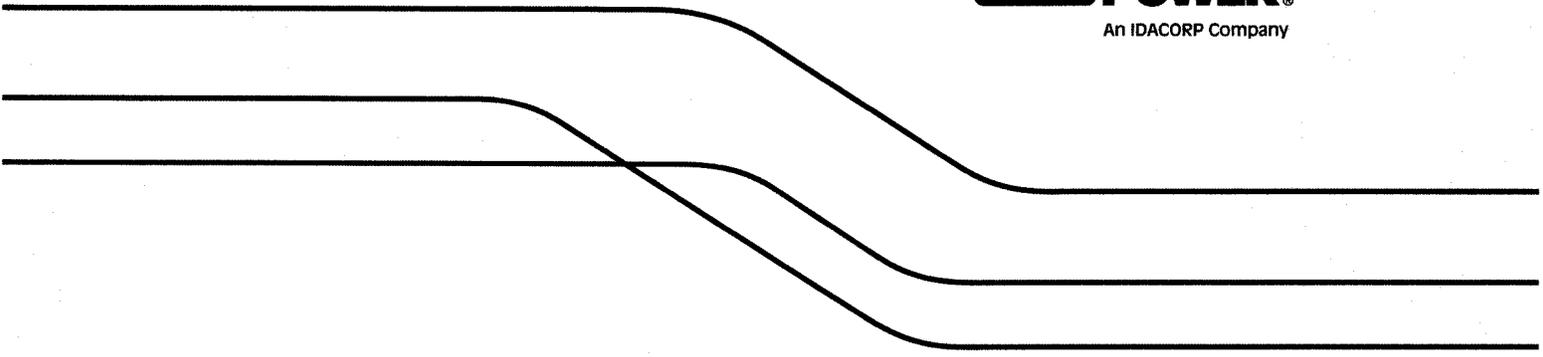


Lisa D. Nordstrom  
Lead Counsel

LDN:kkt

Enclosures

cc w/ encls: Greg Said  
RA File  
Legal File



# **2012 Time Variant Pricing**

## **Implementation Plan**

## 1. Executive Summary

In 2012, Idaho Power Company (“Idaho Power” or “Company”) will begin offering an expanded Time Variant Pricing (“TVP”) plan to residential customers in the Idaho service territory. This offering will be limited to those customers having Advanced Metering Infrastructure (“AMI”) equipment installed and will be capped initially at 1,200 participants. Customers will be invited to participate in this pricing plan via a randomly selected list and a direct mail letter. Invitees will be encouraged to access the Idaho Power web site and the Energy Use Advising Tool (“EUAT”) to assist them in determining if the pricing option would be advantageous for them. The first geographic area to be targeted is the greater Boise metropolitan area because customers in this area were the first to have AMI meters installed and have at least 12 months of historic usage for plan comparison purposes.

The overall goal of the 2012 TVP Implementation Plan is to utilize the new AMI system to offer customers a choice of pricing plans while providing them with better tools to manage their energy usage, to provide the Company with the opportunity to further study the effects of a time variant rate on customers’ usage, and to help shape the Company’s future communication efforts. This implementation project will also provide an opportunity to evaluate the impact of this new rate offering on Company revenues and costs.

## 2. TVP Plan Offering

Idaho Power currently has two residential time variant pricing tariffs: Schedule 5, Time-of-Day Pilot and Schedule 4, Energy Watch Pilot. Both pricing tariffs have seasonal Peak and Off-Peak rates and the Energy Watch Pilot includes a critical peak price during the summer season. Both of these tariffs will be modified for use in this implementation plan.

### **Time-of-Day Plan**

In March 2012, Idaho Power plans to remove the geographical limits currently imposed by Schedule 5 and begin a limited offering of the Time-of-Day pricing plan to Idaho residential customers. This plan will be offered on an optional, voluntary basis with no minimum usage requirement. The only requirement is that an AMI meter exists at the customer’s residence. Idaho Power proposes this pricing option be offered as a pilot in order to be able to limit the

number of participants until Idaho Power's new customer billing and information system is in place and in order to study TVP impacts on customer usage as well as Company costs and revenues.

The Time-of-Day plan uses currently approved hourly pricing in the summer and non-summer months. The current rates in this tariff approved January 1, 2012, are:

Service Charge, per month	\$5.00	
Energy Charge, per kWh	<u>Summer</u>	<u>Non-Summer</u>
Peak	11.3500¢	8.2261¢
Off-Peak	6.2582¢	6.2582¢

During the summer season, June 1 through August 31<sup>st</sup>, Peak hours are 1:00 p.m. to 9:00 p.m. on weekdays and all other hours are Off-Peak. During the non-summer season, September 1 through May 31, Peak hours are 7:00 a.m. to 9:00 p.m. on weekdays, with all other hours being Off-Peak. Holidays, as defined in the tariff, are Off-Peak.

The Time-of-Day pricing plan is designed to send price signals to customers that more closely reflect the costs of serving those customers. The Time-of-Day plan also provides customers the opportunity to take control of when they use energy and possibly lower their bill by shifting usage to lower cost time periods.

#### **Suspension of Energy Watch Plan**

Idaho Power is proposing to suspend the current Energy Watch Pilot tariff, Schedule 4, for approximately one year. The Company plans to file in early 2013 to withdraw the temporary tariff suspension.

The reason Idaho Power is offering only the Time-of-Day plan in the first year is to simplify the offering and make it easier for customers to understand. This phased-in approach provides residential customers time to evaluate and value the benefits of a time variant rate compared to their current tiered rate design. Other utilities implementing TVP offerings have reported that when a new pricing structure is introduced to customers, rollout is more successful when new concepts are gradually introduced to customers. When only one option is provided, information is easier for customers to understand and evaluate.

The Company believes that customers will be more accepting of the transition to time variant pricing if customers can become more comfortable with how they use energy under this approach followed by the implementation of additional pricing options. It is expected that the rollout will be more successful if time-of-use rates are introduced first so customers can become more comfortable with how they use energy on an hourly basis. This approach makes sense because the Energy Watch plan is a more complicated rate design with critical peak pricing layered on top of a time-of-use rate. Because the Energy Watch plan has time varying rates all year similar in structure to the Time-of-Day plan, its introduction a year later should be easier for customers to understand and adopt.

By delaying the implementation of the Energy Watch plan, Idaho Power will be able to evaluate proper integration of a critical peak pricing program with other options provided for the Company's residential customers (i.e., how Energy Watch, and the Company's residential demand response program (A/C Cool Credit), can best work together). The delayed start of the Energy Watch plan will also provide the Company time to evaluate the value of the Energy Watch plan in comparison to other demand response resources.

### **Limited Enrollment**

Idaho Power is planning a "soft" rollout of the Time-of-Day rate plan by limiting the number of enrollments to 1,200 for the 2012 calendar year. With the current Idaho Power Customer Information System (CIS) in place, the processes necessary to enroll a new customer onto a TVP pricing plan are manual and time consuming. An enrollment cap is needed because of employee resource and system limitations caused by the current customer information system. The 1,200 participation cap eliminates the possibility of having to add personnel only for this task. Idaho Power is in the process of implementing a new customer billing system which will be more flexible in its ability to handle the new rate designs. The Company is planning to transition into the new billing system at the end of 2012. The new customer billing system will have the functionality to process new customers to time variant rates more easily and rapidly, enabling the Company to expand its TVP offering in 2013.

### **3. Customer Enrollment**

Idaho Power will initiate its TVP expansion by providing a sample of customers a direct mail letter that will include educational material describing the rate plan and what customers should consider when evaluating whether to sign up for the Time-of-Day plan or whether to stay on the Standard plan, Schedule 1.

Customers will be invited to go to a link on the Idaho Power web site where they will be encouraged to sign into Account Manager and then into the new Energy Use Advising Tool. The EUAT will calculate monthly and annual bills for each customer under the current Standard plan and the Time-of-Day plan using their actual 12-month historical energy usage. A simple calculator provided on the web site will help customers determine the impact on their bill if they use energy the same as the previous year or if they can shift a percentage of their usage to the Off-Peak hours. Suggestions of actions necessary to make these changes will also be provided in the EUAT.

If customers decide they want to go on the new rate, they will be encouraged to sign up on the Company's web site. There will also be a dedicated phone number for customers to call to sign up over the phone or to ask for further information.

Informational materials and messaging will be tested and refined during this initial rollout year.

### **4. Participant Selection**

For customers to properly evaluate whether or not to elect to go on the new pricing plan, it is preferable for them to have at least 12 months of hourly usage available on the web in the EUAT. Because the AMI meters were installed in specific areas across Idaho Power's service territory over the three-year AMI implementation timeline, Idaho Power's direct mail invitation process will be first offered in those areas that have at least 12 months of historic hourly usage information. The first waves of direct mail invitations will target the first geographic area which received AMI meters which are the Boise, Garden City, Eagle, Star, Meridian, Nampa, and Middleton areas.

Based on the experience of other utilities when soliciting participation for pricing options, Idaho Power expects around a 2-3 percent sign-up rate in response to the direct mail letters. With a 2-3 percent sign-up response, approximately 40,000 to 60,000 invitation letters will need to be sent out in order to achieve 1,200 participants. In order to manage the workload on the Customer Service Center, Idaho Power will modulate the size and frequency of the direct mail “waves” sent to residential customers.

The customers invited to participate will be randomly selected from a sample population which will be stratified for the offering and for the subsequent analysis according to usage characteristics of the entire Idaho Power residential customer population. In this way, Idaho Power can use the resulting data from participants to help predict the overall acceptance of this rate introduction as it is subsequently rolled out to the Company’s entire residential class.

Once the entire 1,200 pilot participants are signed up for the rate, a closely matched control group will be selected to aid in evaluating effects of the pilot versus the overall residential population.

The only general exclusion from this initial process is to customers who are identified as renters. Rental customers generally move from one place to another at a high frequency. As mentioned, the processes necessary to sign up a new customer onto a TVP pricing plan is very manual and time consuming. Rental customers will remain eligible under the tariff; however, they will not be a part of the selected sample determination because of this constraint. It is anticipated that after the new billing system is installed, this constraint will not exist.

Idaho Power also plans to make this tariff available to owners of electric vehicles (“EV”) throughout its Idaho service territory. Although Idaho Power has no direct way to determine who owns an electric vehicle at this time, educational information about the Time-of-Day pricing plan will be provided to car dealerships to pass on to new EV owners. Idaho Power plans to encourage residential customers who purchase an electric vehicle to consider a time variant pricing option. On the Time-of-Day plan, customers can charge their cars during Off-Peak hours, pay a lower rate, and receive a lower bill than if they charged their car during Peak hours and paid Peak hour rates. If customers charge their cars during Off-Peak hours instead of Peak

hours, it will reduce the potential negative impact of this new end-use load on the Idaho Power system.

Even though the focus of the 2012 rollout will primarily be on customers invited from the selected geographic area and, secondarily, on customers with electric vehicles, other participants will not be excluded and can be analyzed separately from the customers in the targeted rollout.

At this time, customers electing to go on the Time-of-Day plan cannot be a net metering customer. This is due to the limitations of the current billing system which cannot bill the negative meter readings that could potentially occur if a customer's generation was greater than his or her consumption.

Customers on the Time-of-Day plan are eligible to participate in the Company's residential demand response plan, the A/C Cool Credit program.

The Emmett Valley customers who were previously on the Time-of-Day and Energy Watch pricing plans have been transitioned to the Standard plan, Schedule 1. Because they had meters that were incompatible with the time variant measuring component configuration of the proposed new rate design, Idaho Power changed their meters to the new AMI meters and they now have the correct component configuration. Idaho Power personnel will work with each customer previously on a time variant schedule in Emmett to explain the new TVP plan and determine if they want to enroll under the revised Schedule 5.

## **5. Financial and Usage Impact**

As part of this implementation plan, Idaho Power will set up a study for the purpose of analyzing the impacts of time variant pricing on participant usage patterns, identifying customer response to different communication messages, and evaluating revenue impacts.

The expanded offering of TVP plans to residential customers may have a financial impact on Idaho Power resulting from changes to costs and revenues. Idaho Power first raised this issue in Case No. IPC-E-05-02, the request for the TVP pilot program in Emmett. The Commission, in Order No. 29737, approving the pilot program stated: "However, the Company stated that the issue of lost revenues, and any mechanism that may be adopted to address lost revenues, should

be fully investigated if either pilot program becomes permanent or is expanded beyond its current scope.” Idaho Power’s TVP implementation team will develop an analysis of the potential financial impacts resulting in an expansion of TVP rate options to residential customers and propose ways to address revenue requirement deficits after completion of the analysis. The following section explores these issues.

### **Short-Term Adjustment Due to Customer Transitions**

Customers selecting to participate in the TVP offerings may be “structural winners” or “losers” in that they will experience bill reductions or increases, respectively, with no change in usage patterns. In this case, for each customer whose bill changes by simply changing rate options without changing usage patterns there is an equal revenue impact to the Company.

Given that time-of-use rates are intended to reflect costs to serve, it can suggest that a customer who is a structural winner by moving to a time-of-use rate and does not change their consumption patterns, then they were paying more than their true cost-of-service, and in essence, subsidizing other customers within the class. Alternately, if a customer would be a structural loser by moving to a time-of-use rate, that would suggest they were paying below their true cost-of-service and may not choose to participate. These customers may prefer to remain on the standard plan and continue to receive the intra-class subsidy.

Idaho Power conducted a preliminary study to estimate the potential revenue impact on the Company due to the movement of customers from Schedule 1 to Schedule 5. The 2011 hourly kWh data from the 250 customers in the Company’s existing residential load research sample was used as representative data of the total Idaho Power residential customer population. For each of the customers in the load research sample, both Schedule 1 base rates and Schedule 5 base rates were applied to the hourly usage. A monthly and annual bill was calculated for each customer for both rate plans. From this data, a delta was calculated showing how much the annual bill for each customer would decrease or increase on an annual basis, both in total dollar amount and in percent, by moving from Schedule 1 to Schedule 5. No change in energy usage was assumed. Calculating these bill impacts as a percent of the Standard Schedule 1 bill produces the following spread:

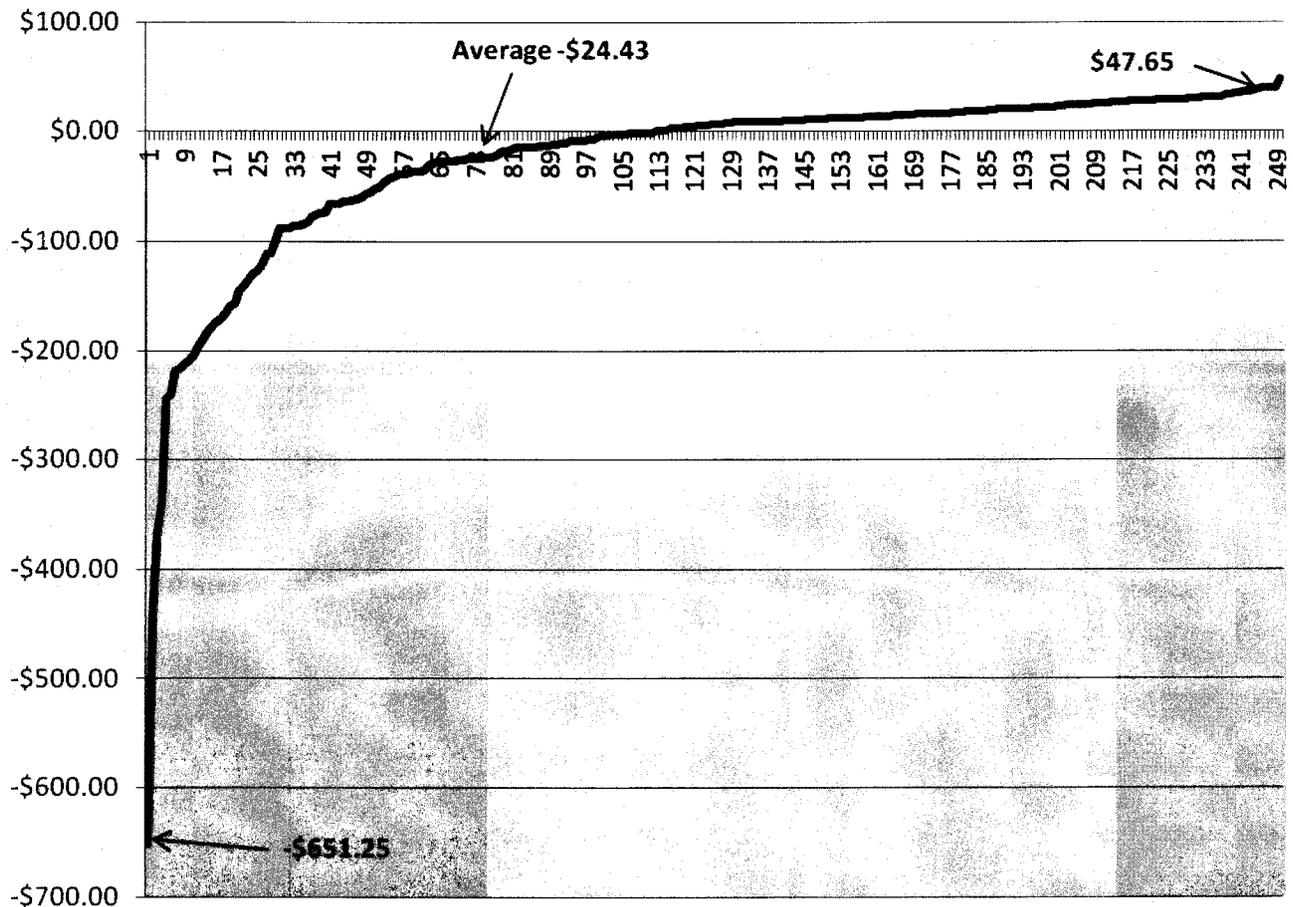
**Billing Impact of Moving From Schedule 1 to 5  
Number of Customers**

Range: 9.3 percent increase to -14.2 percent decrease

Percent Bill Impact	Customers
Greater than 9% Increase	1
Between 5% and 9% Increase	21
Between 0% and 5% Increase	116
Between 0% and 5% Decrease	79
Between 5% and 9% Decrease	26
Greater than 9% Decrease	7

Total dollar impact of each customer in the data set is plotted below.

**Load Research Sample Annual Bill Impact moving  
from Schedule 01 to 05, sorted by \$ impact**



As this graph shows, the largest annual bill reduction was \$651.25 and the largest annual bill increase was \$47.65, while the average impact for the 250 customers in this sample was a bill reduction of \$24.43.

Expanding this “average” impact to 1,000 plan participants (for ease of using this analysis, 1,000 participants is used instead of 1,200 participants), the aggregate bill reduction for these 1,000 customers would correspond to a revenue reduction for the Company of \$24,430.

However, it is counterintuitive to assume that customers will elect to move to a new rate structure if they know they will increase their bill. If all customers who are “structural losers,” are excluded, the range of annual bill impacts for the “structural winners” is from an annual bill reduction of \$1.03 to an annual bill reduction of \$651.25. The potential range of revenue reduction in this case for 1,000 new TVP customers is from approximately \$1,000 to as high as \$650,000. The average annual impact of structural winners is about \$78.00 or a \$78,000 revenue reduction for 1,000 participants.

### **Price Elasticity Impact**

Some customers may shift or shave usage in response to hourly price signals in order to lower their bill. When this happens, there is reduction in revenue for the Company; however, there is also reduction in expenses for the Company (because energy is not being provided during the higher cost Peak hours). There is also the possibility that customers may increase Off-Peak energy usage in response to lower prices, for example, by adding electric vehicle charging. Understanding and quantifying these changes is critical as more customers adopt TVP pricing options. Over time, usage change in response to prices that are set closer to the cost-of-service should increase system efficiency.

The short term adjustment and price electricity impacts briefly discussed above may also have an impact on Idaho Power’s existing mechanisms such as the Power Cost Adjustment, Fixed Cost Adjustment, and Load Change Adjustment Rate. Therefore, the Company plans to conduct a comprehensive financial and usage impact analysis in order to propose a future true-up mechanism.

## 6. Projected 2012 Timeline

### January/February

- File tariff and request approval
- Prepare web site for presentation
- Develop communication material
- Prepare sample for customer invitation

### March/April

- Begin sending first invitation letters
- Prepare database for analyses

### May/June/July/August/September

- Expand rate plan to continue customer enrollment

### October/November/December

- Evaluate customer adoption patterns
- Begin selecting customers for control group
- Evaluate any customer kWh usage impacts
- Study revenue impacts
- Prepare for 2013 implementation plan

## 7. Future Plans

After the 2012 rollout activities, Idaho Power expects to expand the time variant pricing offering to more customers. In early spring 2013, Idaho Power will file to add Schedule 4, Energy Watch plan, as an optional rate available to residential customers. With the implementation of the new billing system, the Company plans to be able to offer the TVP plans to more residential customers in the Idaho service territory. Research conducted in 2012 will assist in refining customer messaging and in ensuring effective evaluation tools are provided to customers. With the data gathered in 2012, Idaho Power will be able to more clearly indicate the impacts on revenue and costs due to the implementation of the optional TVP rate plans.

## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 19<sup>th</sup> day of January, 2012, I served a true and correct copy of the within and foregoing 2012 TIME VARIANT PRICING IMPLEMENTATION PLAN upon the following named parties by the method indicated below, and addressed to the following:

### Commission Staff

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