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IDAHO PUBLIC
UTILITIES COMMISSION

BARTON L. KLINE
Lead Counsel

March 2, 2009

VIA HAND DELIVERY

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

Re: Case No. IPC-E-09-02
*IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION FOR
APPROVAL OF AN AGREEMENT TO IMPLEMENT A COMMERCIAL
DEMAND RESPONSE PROGRAM.*

Dear Ms. Jewell:

Enclosed please find for filing an original and seven (7) copies of Idaho Power's Application in the above matter.

I would appreciate it if you would return a stamped copy of this letter for my file in the enclosed stamped, self-addressed envelope.

Very truly yours,

Barton L. Kline

BLK:csb
Enclosures

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IDAHO PUBLIC
UTILITIES COMMISSION

Attorneys for Idaho Power Company

Street Address for Express Mail:
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Boise, Idaho 83702

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER)
COMPANY'S APPLICATION FOR) CASE NO. IPC-E-09-02
APPROVAL OF AN AGREEMENT TO)
IMPLEMENT A COMMERCIAL DEMAND) APPLICATION
RESPONSE PROGRAM.)
_____)

COMES NOW, Idaho Power Company ("Idaho Power" or "Company") and, in accordance with RP 052, hereby requests that the Idaho Public Utilities Commission ("Commission") issue its Order approving an agreement between Idaho Power and EnerNOC ("EnerNOC") to implement a commercial demand response program ("Program").

This Application is based on the following:

1. Description of Commercial Demand Response Program. The Program is a voluntary demand response program targeting Idaho Power's commercial and industrial customers that are willing and able to reduce their electrical energy loads for

short periods (two to four hours) during summer peak days. Participating customers will receive compensation for reducing their loads. Any customer with at least 200 kW of average summer billing demand taking service on Schedules 9 or 19 or under a Special Contract is eligible to participate.

EnerNOC has been selected by Idaho Power through a competitive RFP process to implement the Program on a turn-key basis. EnerNOC has successfully implemented similar programs for other utilities throughout the country. EnerNOC will enter into contracts with Idaho Power's customers, in which the customers will agree to reduce their respective electrical energy loads when called upon by EnerNOC to do so. Idaho Power will pay EnerNOC capacity payments to make load reductions available on a firm basis during summer peak months, and will pay energy payments for delivery of those load reductions when Idaho Power calls for them. EnerNOC is responsible for developing and implementing all marketing plans, securing all participants, installing and maintaining all equipment downstream of the meter used to reduce demand, tracking participation, and reporting results to Idaho Power. Idaho Power will initiate demand response "events" by notifying EnerNOC, who will, in turn, supply the requested load reduction to the Idaho Power system.

Participating customers will sign a contract with EnerNOC. This contract specifies the incentives EnerNOC will pay to the customers, based on the amount of load reduction they commit to provide. Reductions will be achieved, either automatically or manually, through control of energy management systems, raising cooling set-points, and turning off or dimming lights, signage, and other controllable energy loads. EnerNOC will conduct demand response audits with customers to identify areas where

reduction can be achieved. A load reduction plan will be created for each participant with the goal of achieving the desired load reduction without negatively impacting business operations. Participants will receive monthly capacity payments for having predetermined kW of load available for reduction and will receive event-based payments based on actual kWh energy reductions. There is no charge to the customer to participate in the Program. Depending on existing customer metering, pulse initiated metering may need to be installed by Idaho Power at the customer facility. EnerNOC will reimburse Idaho Power for all costs associated with installing the pulse initiated metering devices, including the cost of the metering devices themselves. Participants will have access to a web portal displaying real-time and historical information on their energy use and demand reductions.

2. EnerNOC – Idaho Power Agreement. Idaho Power has contracted with EnerNOC to provide specific load reductions during specified times of the year. The term of the EnerNOC agreement (the “Agreement”) is five years. The amounts to be paid to EnerNOC under the Agreement are based on the value to Idaho Power of delivered capacity and energy reductions. EnerNOC guarantees performance to Idaho Power, and will pay liquidated damages under the terms of the Agreement if committed levels of performance are not achieved. A copy of the Agreement is enclosed herewith as Attachment No. 1.

3. Terms and Conditions of the Agreement.

(a) Term. The term of the Agreement commences on February 23, 2009, and will conclude five years from the commencement date. The Agreement provides Idaho Power the right to extend the term of the Agreement.

(b) Demand Reduction Commitment. The Agreement specifies a demand reduction lower bound and a demand reduction upper bound that EnerNOC must meet for each year of the Agreement. This ranges from a lower bound of 2 MW and upper bound of 35 MW in 2009, to a lower bound of 35 MW and upper bound of 65 MW in 2013. In addition, Idaho Power and EnerNOC have agreed upon targets for each year; 2009 through 2013. The targets for demand reduction for these years are 2 MW, 30 MW, 40 MW, 50 MW, and 50 MW, respectively. The 2 MW lower bound and the 2 MW target of demand reduction for 2009 assumes a Program implementation by April 2009.

(c) Mandatory Program Availability Hours. Under the Agreement, Idaho Power will have the ability, between the hours of 2:00 p.m. and 8:00 p.m. Mountain Prevailing Time of any non-holiday weekday day between June 1 and August 31 of each program year, to initiate a "program event," for which EnerNOC will reduce customer energy use by the agreed upon amount. The Agreement allows Idaho Power to require demand reduction up to sixty hours per season with up to twenty events per season. Events can be called once per day with a duration between two and four hours. Idaho Power will provide notification of an event to EnerNOC at least two hours prior to the event. Events are initiated by Idaho Power sending an electronic dispatch signal to EnerNOC. EnerNOC then notifies customers of the upcoming event by e-mail or phone. At the customer site, load will be reduced either automatically or manually. For some sites, EnerNOC equipment may be activated remotely to initiate and end the load curtailment. During an event, EnerNOC will use meter data to monitor and confirm

that customers achieve the required reduction. When an event ends, EnerNOC will send a restoration notification to customers.

4. Cost of the Program. The total cost of the program over five years will be approximately \$12.2 million, based on the number and duration of Program events expected to occur over the course of the Agreement. The estimated yearly cost of the Program ranges from just under \$315,000 in the first year to nearly \$3.5 million in the fifth year. Over the course of the term of the Agreement, the parties expect that total Program costs will be allocated as follows:

- (a) Capacity Payments to EnerNOC 85 percent
- (b) Energy Payments to EnerNOC 6 percent
- (c) Idaho Power Administration 9 percent

The Program was reviewed with Idaho Power's Energy Efficiency Advisory Group ("EEAG") at its October 2008 meeting. In addition, on February 25, 2008, Idaho Power presented an overview of the Program to a meeting of the Industrial Customers of Idaho Power.

5. Cost-Effectiveness Analysis. The Company has evaluated the cost-effectiveness of the Program and concluded that it is cost-effective based on the criteria previously established by the Commission. A copy of the cost-effectiveness analysis is enclosed as Attachment No. 2.

6. Regulatory Approval. The Agreement will only become effective when the Commission issues its Order approving the Agreement without material change or condition.

7. Rate Recovery. Idaho Power proposes that the costs of the Program be recovered from Energy Efficiency Rider funds. If the Commission decides in the remaining portion of the Irrigation Peak Rewards proceeding (Case No. IPC-E-08-23) that the costs of the Irrigation Peak Rewards Program should be recovered through the Power Cost Adjustment, the same Power Cost Adjustment cost-recovery mechanism should be used for Program cost recovery.

8. Modified Procedure. Idaho Power believes a hearing is not necessary to consider the issues presented herein and therefore respectfully requests that this Petition be processed under modified procedure; i.e., by written submissions rather than by hearing. RP 201, *et seq.* If, however, the Commission determines that a technical hearing is required, the Company stands ready to present its testimony and support this Application at hearing. To increase the likelihood that the Company could use the Program to manage demand during the upcoming summer period, the Company respectfully requests that the Commission process this Application as expeditiously as is reasonably possible.

9. Communications. Communication and service of pleadings with reference to this Application should be sent to the following:

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Vice President, Regulatory Affairs
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NOW, THEREFORE, Idaho Power respectfully requests that the Commission issue a final Order:

- (a) Approving Attachment No.1, the Agreement, in its entirety, without material change or condition;
- (b) Authorizing the Company to implement the Program consistent with the terms of the Agreement; and
- (c) Authorizing the Company to recover Program expenses from either Energy Efficiency Rider funds or through the Company's Power Cost Adjustment mechanism.

Respectfully submitted this 2nd day of March 2009.



BARTON L. KLINE
Attorney for Idaho Power Company

**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION**

CASE NO. IPC-E-09-02

IDAHO POWER COMPANY

ATTACHMENT NO. 1

ATTACHMENT NO. 1
IS A
CONFIDENTIAL
DOCUMENT
AND
SUBJECT TO THE PROTECTIVE
AGREEMENT

**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION**

CASE NO. IPC-E-09-02

IDAHO POWER COMPANY

ATTACHMENT NO. 2



An IDACORP Company

February 26, 2009

Commercial Demand Response Program Cost-Effectiveness

Cost-Effectiveness Summary

Idaho Power plans to begin a five-year contract with EnerNOC to deliver a specified amount of annual megawatt (MW) demand reduction during the summer. The program summer season will run from June 1st through August 31st. EnerNOC's targeted amount of demand reduction will increase each season, reaching fifty MW in 2012 as shown in chart below. Idaho Power has determined that this commercial demand response program is cost effective, both from the Utility Cost (UC) and Total Resource Cost (TRC) perspective, beginning in year two (2010). Due to the extremely short time constraint from contract signing to the beginning of the 2009 summer event season, Idaho Power believes that year one of the program should be viewed as a ramp up year. Analysis shows that the program must reach 15 MW for the value in demand savings to be greater than program costs and be cost effective. Although the TRC in year one is projected to fall below 1.0, the critical pieces of program infrastructure will be established in the summer of 2009, allowing for a cost effective program in ensuing years. In the remaining years of the contract, the program will continue to be cost effective. The program is expected to reach full participation in 2012, with a TRC ratio of 1.12 annually thereafter. Below is a table of annual megawatt goal reduction along with the corresponding TRC Ratio for the expected case scenario which is explained below. Also included is the total program present value 5 year TRC ratio.

Year	MW Goal	TRC Ratio
2009	2	.51
2010	30	1.10
2011	40	1.12
2012	50	1.13
2013	50	1.12
2009 PV 5 Year		1.10

Program Assumptions

A number of assumptions have been made in determining the cost-effectiveness of this program. These assumptions are based on Idaho Power's research and EnerNOC's experience with other commercial demand response programs around the region. Brief descriptions of these assumptions are below. These assumptions will be modified as actual data is gathered throughout the term of this program.

- **Number of Participants**

To achieve the full program megawatt reduction of fifty MW, EnerNOC believes that approximately 250 participants will be included in the program. This could vary depending on the average load of customers that participate in the program.

- **Total Megawatt Potential**

Based on the mix of Idaho Power's commercial and industrial customer mix and their corresponding summer demand, EnerNOC believes that at least fifty MWs are available for demand reduction for any event called during the summer at full program participation. This is expected to be achieved in the summer of 2011. For the summer of 2009, the MW goal will be dependent on the date of Commission approval and the time available for program marketing and participant recruitment.

- **Number of monthly events**

Idaho Power's proposed contract with EnerNOC states that up to twenty events may be called from June 1st to August 31st of each year. Based on historical summer peak days for Idaho Power, it is expected that Idaho Power will call a total of 15 events during these summer months. With a maximum of 60 hours per event season that is available to Idaho Power, this would result in event durations of 4 hours for each event called.

- **Expected Case Scenario**

The majority of the value of this program is derived from the avoided capacity benefits to Idaho Power's system, while the majority of the cost to Idaho Power results from the contracted capacity costs paid EnerNOC. The total capacity payment to EnerNOC for the annual number of specified megawatts is a predetermined cost that is not dependent on the number of events or the number of total event hours called. The program's cost-effectiveness is impacted by the

variable energy payments made to EnerNOC, which vary based on the number of events called throughout the summer and the length of the event periods.

In order to evaluate the cost-effectiveness of the program in a range of operating assumptions, Idaho Power completed three cost-effectiveness scenarios for this program varying the number of event days, the event days called per month, and the total number of event hours per month. Based on historical summer demand data, Idaho Power developed an expected case scenario which represents the likely number of event days called per month and its corresponding energy cost paid to EnerNOC. For the expected case scenario, Idaho Power calculated the cost-effectiveness based on fifteen total summer events, with each event lasting four hours. The total resource cost ratio results of this analysis is shown in the table above. The monthly breakdown of events is as follows:

June: 1 event
July: 13 events
August: 1 event

Idaho Power also created a cost-effectiveness scenario where all twenty events would be called in July, resulting in the highest possible energy payment to EnerNOC. In this scenario, the program is still cost-effective from a UC and TRC perspective.

Finally, Idaho Power developed a third scenario where the program was called fewer than eight events per month. In this case, Idaho Power would not pay any energy payment to EnerNOC, resulting in the highest UC and TRC ratios for the program.

- **Baseline Energy Usage**

Baseline energy usage is defined as the energy usage that would have occurred for a customer if an event would *not* have been called. Upon review of different methods and with the recommendation of EnerNOC, Idaho Power has decided to follow the '3 in 10' model for determining baseline energy usage. This means the baseline energy usage is calculated using the average of the 3 highest measured demand readings in the last 10 days. This method is described in further detail in the contract. Idaho Power believes that this method of calculating energy usage will result in the best representation of what would have occurred if no event had been called and will provide the Company with the baseline needed for reporting and paying demand reduction due directly to the called event.

- **Shifted Energy**

Demand response events can lead to shifted energy usage after an event is called, due to the catch up effect of cooling loads or industrial processes. This is also known as the 'snapback' effect. While Idaho Power does not know the exact amount of shifted energy that will occur, these cost-effectiveness analyses include a shifted energy load of 5% of reduced event energy. This percentage is low because a significant portion of the load reduction is expected to come from lighting, as well as the assumption that many commercial buildings will not be occupied after event hours. Based on reports from actual events from EnerNOC with other utilities, it is believed that this percentage is an accurate approximation of actual shifted energy that may occur. The value of this shifted energy is based on the difference between the costs of on-peak energy and mid-peak energy.

Cost-Effectiveness Calculation Inputs

In addition to the assumptions made in the analysis, there are also standard inputs that have been included in the cost-effectiveness analyses.

- **On-Peak Demand and Annual Energy Coefficients**

This is the percentage adjustment for avoided transmission and distribution losses during summer peak hours and is added to the kW and kWh total savings. From the latest Idaho Power system loss-coefficients study, the loss coefficients are 10.9% for kWh and 13% for peak kW.

- **Discount Rate**

This is the standard discount rate used for Idaho Power's energy efficiency and demand response analysis, which represents the Company's after tax weighted average cost of capital. As stated in the 2006 Integrated Resource Plan (IRP), Idaho Power discount rate is 6.93%.

- **DSM Alternative Costs**

These are the avoided capacity and energy costs used in by Idaho Power for cost-effectiveness analysis of energy efficiency and demand response programs. These time and seasonally

variant alternative costs can be found in the technical appendix of the 2006 Idaho Power Integrated Resource Plan on page 68.

Total Resource Cost and Utility Cost Ratios

Unlike many other energy efficiency programs where the customer must incur an incremental cost to receive an incentive, for this commercial demand response program, the customer will not incur any direct incremental cost. The customer is able to receive an incentive from EnerNOC for participating in a demand reduction event without purchasing any equipment or paying any direct cost to participate. The participant test is not applicable for this program since there is no participant cost and the utility and contractor absorbs all of the costs to run the program. For the same reasons, the utility cost and total resource cost for this program are equal. In EnerNOC's experience with other utilities, the same standards for the utility cost, total resource cost, and participant test apply.

**SPREADSHEET TO
ATTACHMENT NO. 2**

IS A

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DOCUMENT

AND

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AGREEMENT**