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IDAHO PUBLIC
UTILITIES COMMISSION



April 30, 2010

Jean Jewell, Commission Secretary
State of Idaho
Idaho Public Utilities Commission
Statehouse
Boise, ID 83720

Re: AVU-E-07-09

Dear Ms. Jewell:

Attached for filing is an electronic copy of the "Summary Study on Avista Utilities Remote Reconnect/Disconnect Pilot." An original and 7 copies is being provided via overnight mail.

On April 25, 2008, Avista requested that the Commission approve a pilot program for "Remote Disconnect/Reconnect" and requested that the Commission issue in its order providing the Company with a limited waiver of IDAPA 31.21.01 (311.03) and (311.04) [Utility Customer Relation Rules] for the term of the pilot. The pilot was intended to implement a system for remote disconnection and reconnections, without the need for an employee visit to the affected premises.

On July 30, 2008, the Commission, in Order No. 30603 stated that "Upon the expiration of the 18-month approved term for the pilot program, Avista shall prepare and file a detailed report with the Commission documenting its findings and utilizing the data identified in its Revised Application, as well as any other useful and relevant data which could be used to assess the effectiveness of the remote disconnect and reconnect program in reducing the Company's overall operating costs, enhancing employee safety or improving the quality of service to its customers."

The 18-month pilot program expired on January 29, 2010. Per the reporting requirements of the pilot program as detailed in the Company's filing and the Commission Order No. 30603, Avista requested 90 days to complete and report on the results of the pilot program.

The Company requests that we continue the terms of the pilot to include the limited waiver of the above mentioned rule for the customers that are currently participating and currently have a remote switch installed until such time that the Commission has had the opportunity to assess the effectiveness of the remote disconnect and reconnect program.

If you have any questions regarding this letter, please let me know or you can contact Greg Paulsen at 509-495-4976.

Sincerely,

/s/Linda Gervais

Linda Gervais
Manager, Regulatory Policy
State and Federal Regulation
Avista Utilities
509-495-4975
linda.gervais@avistacorp.com



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IDAHO POWER
UTILITIES COMPANY

Summary Study on Avista Utilities Remote Reconnect/Disconnect Pilot Case No. AVU-E-07-09



Introduction

In compliance with Idaho Public Utilities Commission (hereinafter the Commission or Staff) Order No. 30603, Avista Utilities provides its summary study on its Remote Reconnect/Disconnect (hereinafter referred to as remote switch or service switch) Pilot Program. The 18 month pilot began July 30, 2008 and completed January 29, 2010.

The need to disconnect non-paying electrical customers or to avoid a potential safety risk is nothing new for utilities, but the tools of today allow for more efficient handling of these arrears or unique situations. Due to large service areas and long feeders in the Company's Idaho service territory, significant windshield time is required to manually disconnect these customers. Today's technology allows real-time remote disconnection and reconnection of meters, providing significant cost savings and reducing the utility's exposure to potentially dangerous situations.

According to research conducted by Chartwell in 2005, over 50% of electric utilities are either presently using or are considering deploying remote reconnect/disconnect solutions to help lower costs and improve customer service, particularly for seasonally occupied and hard to access customers. In their October 2008 study "Making a Case for Remote Connect/Disconnect, Chartwell stated "...demand for smart meters with internal service switches that can be activated by commands sent along the AMI network is on the rise. Most meter manufactures now make meters with an internal, remotely activated connect/disconnect service switch. Plus, as part of the RFP process, many utilities planning for AMI are including criteria for remote disconnect meters. ...many within the industry note that regulators are more supportive of remote connect/disconnect than in past years; in some cases they are requiring it as part of the AMI/demand response strategy criteria."

Sensus Metering Systems of Raleigh, N.C., reports that 71% of its 2008 electric utility RFPs required remote connect/disconnect. In comparison, in 2007, only 35% of electric utilities required remote connect/disconnect.

Background

Avista originally filed its application seeking approval to implement a one-year pilot program for remote reconnects and disconnects with the Commission on August 30, 2007. The Company also requested a limited waiver of IDAPA 31.21.01 (311.03) and (311.04) [Utility Customer Relation Rules] for the term of the pilot. The Commission approved the 18 month-pilot on July 30, 2008 in Order No. 30603.

Customers selected for the pilot included customers with 200 amp services that met at least one of the following criteria:

- Premises where employee safety is a concern, i.e., customers who have threatened to harm Avista employees or property, premises where there is a danger from animals, or premises that have an obstructed access to the meter;
- Customers who have previously had two field collection visits or disconnection in the preceding 12 months; and
- Excluded were Avista CARES customers, customers subject to the moratorium, who are on a winter payment plan; who have provided medical certificates, or who have made satisfactory payment arrangements.

The Company proposed in its original application to keep the current authorized reconnection fee at \$24 during regular business hours and \$48 after hours. Certain Parties, however, believed that Avista would see a savings in cost by not having a field representative on site and asked that these costs be passed to the customer. Even though Avista continued to believe that the customers who cause the Company to incur additional expense should bear those costs, for purposes of the pilot, the Company agreed to reduce the charge to 50% of the normal

reconnect fees. This resulted in fees for participating customers of \$12 during normal business hours and \$24 if reconnection was performed after hours.

Scope of the Pilot

The pilot program included the installation of approximately 600 remote disconnect collars using a combination of Two-Way Automatic Communication System (TWACS®) and Paging technologies. TWACS® is a technology that allows communications across power lines to a reconnect/disconnect collar at the electric meter. A map of the service points is provided in the Appendices to this study. This capability allowed remote disabling/enabling of the electric service from Avista's office. TWACS® switches provide notification back to the Company dispatch office as to whether or not the signal to reconnect/ disconnect was successful. The wireless Paging switches were used in areas that were not covered by the TWACS® network and allowed communication to a collar at the electric meter which allowed remote disabling/enabling of the electric service. Paging switches do not provide a notification of switch status back to the Company's dispatch office. The proposed pilot intended to implement a system for remote disconnection and reconnections, without the need for an employee visit to the affected premises.

Anticipated benefits included:

- reducing operating and maintenance expenses related to multiple disconnections and reconnections for urban and rural accounts;
- productivity gains of employees by eliminating multiple trips to customer homes for collections;
- enhanced employee safety;
- quicker response time to reconnect service leading to increased customer satisfaction;
- and

- recognizing a reduction in bill defaults and write-offs by encouraging prompt consumer payment over time.

Customer Notification

In order for the pilot to be effective and achieve the desired results, Avista requested a waiver of rule IDAPA 31.21.01 (311.03) and (311.04) for those accounts included in the pilot program. Specifically, at the time the disconnect device was installed, an Avista employee would make an attempt to personally contact the customer and a special notice was left with the customer (if personal contact was made) or on the premises (if customer was not home). The Company worked with Staff to develop the special notice, this notice is included in the Appendices to this report.

The next time the customer was eligible for disconnection, the Company would not be required to physically visit the premises to disconnect or reconnect the meter. However, the Company let the customer know of the disconnection or reconnection by following its current notification process¹, but without otherwise sending an employee to the premises.

All meters with the device attached were flagged as part of a pilot program and entered into the Company's customer service system. The Company continued to be otherwise compliant with rule IDAPA 31.21.01 (311.03) and (311.04) with all customers not included in the pilot who had been disconnected or reconnected.

¹ The bill is mailed and due within 15 calendar days, after which the Company allows a 3-day grace period for payments to post. A Past Due Notice is mailed after the grace period ends, dated 7 calendar days later. The Final Notice is mailed 3 business days before the past due notice expires. The Interactive Voice Response System (IVR) then calls the customer on the day the notice expires.

Reporting Requirement & Summary of Results

Measurement & evaluation is integral to defining benefits of a pilot program and identifying areas for improvement or modification. The data collection process for the pilot was a manual effort due to the process changes associated with working with new technology and the relative size of the pilot level programming. The results provided are shown as participant or non-participant. For purposes of the study, Avista has included Residential Rate Schedule 001 information only. The reason the other rate schedules are not captured in this study is because of a very small participation, their complexity, and the minimal amount of relevant data. An account can have multiple meters and rate schedules associated to that account; 98% of the pilot participants are on residential rate schedule 001. Avista believes this study captures all relevant data from its participants. The following is the data that Avista and the interested parties defined to be collected throughout the pilot. This data has been collected as effectively as possible:

- The total number of customers selected for the pilot, the reason for selection, and the month of installation of disconnection device.

Participants															
	2008				2009									Total	
	9	10	11	12	1	2	3	6	7	8	9	10	11	12	
BAD DOG				1	1	3	2								7
SAFETY			2				3				3				8
METER ACCESS			3	5		2									10
QUALIFYING EVENT	17	150	145	66	67	119	4	1	2	1	3	1	1	1	578

The average number of Idaho residential electric customers during the pilot period was 104,500. The system automatically assigns, in order, the value of a qualifying event² if a service switch should be installed in that specific service territory. Due to the programming logic, the majority of the participants landed in the qualifying event category. However, many of the service visits

² A qualifying event is a customer who had previously had two field collection visits or disconnection in the preceding 12 months.

that resulted in the install of a remote collar would have qualified the accounts for a remote switch based on a safety or meter access through field observation.

- The total number of disconnect devices installed by type (TWACS® or Paging) and by month.

	2008				2009								Total		
	9	10	11	12	1	2	3	6	7	8	9	10		11	12
PAGING	2	91	120	55	42	102	7		1		4	1	1		426
TWACS®	15	62	35	17	26	24	2	1	1	1	2			1	187
															613

This number of disconnect devices is higher than the number of participants because Avista may have installed multiple collars at the same premise at different times for a number of reasons including: process, technology, and device failure.

- The total number of remote disconnections by month, and reason for disconnection (e.g., non-payment of bill or failure to pay deposit).

Participants																	
	2008			2009												2010	Total
	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	
BROKEN ARRANGEMENT								1	1					1		3	
NON PAYMENT BALANCE	1	14	18	87	69	78	83	64	63	56	51	33	46	47	34	42	786
RETURNED PAYMENT	2	3	3	1	1	6	9	1	4	2	1	2	3	2		1	41
BALANCE&DEPOSIT		10	10	24	17	31	29	29	27	19	10	17	9	13	7	8	260
																1,090	

Non-Participants																			
	2008					2009												2010	
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	Total
BROKEN ARRANGEMENT	1	3	1	2				1	4	4	6	5	3	3	4	3			40
NON PAYMENT BALANCE	333	430	312	247	149	244	362	632	722	564	630	488	407	317	352	436	229	398	7,252
RETURNED PAYMENT	17	20	16	14	4	4	8	20	31	7	25	18	16	13	13	18	7	7	258
BALANCE & DEPOSIT	72	110	85	64	26	52	48	116	155	139	158	136	132	118	108	137	52	79	1,787
DEPOSIT	1			1	1								1			1	1	1	7
																			9,344

- The total number of customers who were disconnected during the pilot period:
Once
Twice
Three or more times

Participants				Non-Participants			
Residential Accounts Disconnected during Pilot by Number of Disconnections				Residential Accounts Disconnected during Pilot by Number of Disconnections			
	1	2	3+		1	2	3+
001	168	104	178	# Accts	6,486	1,012	258

The high number of participants where the remote switch was used for disconnect three or more times is a result of the qualifying event criteria. Customers who had two field collections visits or disconnection in the proceeding 12 months is an indicator that the customer has consistently not make satisfactory payment prior to collections rather than an occasionally slow paying customer and therefore, are less likely to change their behavior following the installation of the service switch.

- The total numbers of customers who were disconnected and received a LIHEAP benefit one or more times during the pilot period.

Participants		Non-Participants	
Accounts disconnected during the Pilot & Received LIHEAP	107	Accounts disconnected during the Pilot & Received LIHEAP	1,236
% of Pilot Participants Disconnected during the Pilot	16%	% of Pilot Participants Disconnected during the Pilot	19%

The percentage of LIHEAP recipients disconnected during the pilot for both participants and non-participants, demonstrates that the use of remote technology was not used to target any customer group including customers receiving Energy Assistance.

- The total number of instances where a customer was not reconnected within 24 hours following a disconnection. *Accounts that closed at time of disconnect have been removed from the following counts.

Participants		Non-Participants	
# instances		# instances	
Residential	103	Residential	1,819

The number above represents approximately the same percent; this is a difficult number to compare since it is outside the Company's control as it relates to whether the customer paid or made satisfactory arrangements in order to restore their service, each customer has their own unique situation.

- By device type, the total number of instances where the disconnection device failed to:
 - Disconnect a customer following remote activation; and
 - Reconnect a customer following remote activation.

	Disconnect	Reconnect
Paging	41	9
TWACS®	7	5

Different failure modes were encountered during the pilot program. For the TWACS® service switches, the primary failure mode was a hardware failure in the service switch. For the Paging service switches there were two primary failure modes, the first mode was a hardware failure of the service switch, and the second was related to the paging service that was either intermittent or inconsistent.

- The minimum, maximum and average length of time from remote disconnection to remote reconnection.

Participants			Non-Participants		
Min	Max	Avg	Min	Max	Avg
8 min	293 hrs	9.5 hrs	12 min	725 hrs	22 hrs

The average time from remote disconnection to remote reconnection is again a difficult number to compare since it is outside the Company's control when it relates to when the customer paid or made satisfactory arrangements in order to restore their service.

- Instances where the customer was disconnected for non-payment, the minimum, maximum and average length of time from when the customer paid or made satisfactory arrangements and reconnection.

Participants			Non-Participants		
Min	Max	Avg	Min	Max	Avg
1 min	15 hrs	24 min	2 min	74 hrs	2.6 hrs

This data demonstrates the improved customer service provided to participating customers. Once the customer paid or made satisfactory arrangements, the service was reconnected in an average of 24 minutes as compared to 2.6 hours for non-participating customers.

- The total number and nature of inquiries, complaints, or comments (negative or positive) received from customers who had a disconnection device installed.

Two complaints have been filed with the Commission for accounts with a remote switch installed. Neither of the complaints was regarding the remote switch technology.

- Any evidence that installation of the disconnection device influenced customer behavior (positive or negative).

Yes, customers that had the service switch installed were more likely to have a field request for disconnect during the year prior to the installation of the remote switch than in the year following installation.

Increase in the number of arrangements kept in the year prior to install of remote switch as compared to the following year.														
# Times	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	Total
# Accts	0	2	2	8	19	51	99	75	28	7	3	1		330
	Prior to Install						82	After Install						149

For example, the chart above illustrates: 35 accounts kept 2 more arrangements during the year following installations when compared to the prior year.

The number of payments made by all participant accounts increased after installation.

1 year prior to install	3,887 payments
1 year after install	4,235 payments

The criteria used for purposes of the pilot limited utilization of the service switch. Out of the 558 accounts participating, 202 customers closed their accounts. Often those customers opened new accounts and then the Company was unable to continue using the remote technology on the existing premises and therefore, lost the benefit and understanding of the impact the service switch may have had on their behavior.

Detailed analysis of costs, cost savings, and non-monetary benefits of pilot program.

Costs

The material costs for the pilot were \$130,406³ and the projected labor savings was \$99,059⁴.

The projected labor savings were calculated with the following assumptions:

Labor

Various craft categories perform normal collections activities depending upon the location. In the rural areas, collections are typically performed by lineman, as opposed to more urban areas where an outside serviceman (only performs collections work) performs this work. A blended rate for the categories was assumed at \$32.50/hour.

Normal versus After Hours

³ Includes all capital and materials loadings.

⁴ Projected labor savings were calculated through the end of the pilot phase of the project (January 31, 2010). Labor savings continue to accrue each month as the devices are still installed in the field and utilized as collection events occur.

The various locations in Idaho have slightly varying normal work hours which determine whether the collections activity would be assumed to be “normal versus after hours.” After hours work requires a 2 hour minimum at 2 times the normal wage scale. For the purposes of calculations, normal hours were assumed to be any order completed between the hours of 8 a.m. and 4 p.m. Based on the diversity of deployment across urban and rural areas, and estimated labor savings of ½ hour/order was used during normal hours. A vehicle cost adder of \$10/order was added to the total cost also based on diversity of the areas served.

			Orders	Total
Reconnects	Normal	\$26.25	996	\$26,145
	After	\$140.00	310	\$43,400
Disconnects	Normal	\$26.25	1119	\$29,374
	After	\$140.00	1	\$140
			Total	\$99,059

Non-Monetary Benefits

Overall, Avista’s position is the Remote Reconnect/Disconnect Pilot has been an outstanding success. The monetary benefits captured above are reflective of anticipated results from a savings perspective. However, many of the benefits are not able to be captured by a single cost measurement. This section is meant to provide a description of some of the other benefits captured during the pilot. Challenges encountered during the pilot will also be discussed.

Safety

The single largest benefit for Avista employees that perform this work has been the ability to install these devices once and then not have to visit the home again. While a majority of our customers are understanding of the process, and hold no ill will toward our employees, there is a small segment that pose a real threat to our employees. Performing this work remotely

allows employees to avoid these potentially volatile situations. Over the past year, Avista has experienced a significant increase of confrontational customers across our service territory and is taking precautions to protect all of our employees. Multiple employees have commented regarding what a great tool the remote switch technology is for the safety of our field personnel.

Customer

The majority of responses from customers that were contacted as a result of back office processes that were implemented (see *Process* below) had positive comments and were grateful that their power could be restored so quickly. Several mentioned that they didn't even see a company representative on their property to restore the power, at which point we would remind them they were equipped with the device that has allowed us to restore their power remotely.

Employees

Often times, one of the best indicators of the success of a new program is acceptance by employees. This program has been an overwhelming success from that standpoint. As the pilot progressed and the target deployment of approximately 600 collars was reached, there was a flood of requests from employees and their managers to continue the program, especially from rural areas where collections work is typically performed by linemen as only a portion of their duties.

Productivity/Efficiency

Avista's managers have been seeking creative ways to install these devices and yet stay within the guidelines of the defined pilot program and the IPUC rules (using only for restoring service) which is indicative of how much potential this program has to drive productivity/efficiency. This is especially true in rural areas where linemen are performing this work. By reducing the collections workload, these employees are better able to serve our customers by performing their primary function of line work.

