

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UM 1415**

In the Matter of )  
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In the Matter of PUBLIC UTILITY ) OPENING COMMENTS OF  
COMMISSION OF OREGON Staff ) THE CITIZENS' UTILITY BOARD  
Investigation into Cost Methods for Use in ) OF OREGON  
Developing Electric Rate Spreads )  
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**OPENING COMMENTS  
OF BOB JENKS  
ON BEHALF OF THE  
CITIZENS' UTILITY BOARD OF OREGON**

September 8, 201



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1    **I. Introduction**

2           My name is Bob Jenks. I am Executive Director of the Citizens' Utility Board of  
3 Oregon (CUB). CUB is sponsoring two sets of comments in this docket.

4           The first set of comments is from Barbara Alexander, a national expert on consumer  
5 issues related to utility service. Ms. Alexander will address the issue of mandatory time-  
6 varying rates from a national perspective. She will discuss what has been learned from  
7 other states' considerations of time-varying rates and why consumer advocates, and  
8 advocates for elderly and low-income communities, have deep concerns about the effects  
9 of time-varying rates.

10          The second set of comments is my comments. My comments address how  
11 mandatory time-varying rates fit with utility policy in Oregon. Based on the national  
12 experience of Ms. Alexander, and the concerns for Oregon consumers, CUB recommends  
13 that the Commission decline to adopt guidelines requiring utilities to constantly analyze  
14 this rate structure in their IRP process. Such a policy makes no sense in the Pacific

1 Northwest. Instead, CUB recommends the Oregon Commission (OPUC) direct utilities  
2 and OOPUC staff to more broadly consider demand response programs, including  
3 demand response programs that do not rely on customers responding to price signals.

## 4 **II. Mandatory Time-Varying Rates are a Significant Policy Shift**

5 Mandatory time-varying rates for residential customers would represent a  
6 significant shift in public policy in Oregon. Mandatory time-varying rates have a simple  
7 goal: to increase the cost of home heating and cooling in order to encourage customers to  
8 reduce their peak energy use associated with heating and cooling.

9 The order establishing this UM 1415 docket, Order 11-255, refers to recent PGE  
10 and Idaho Power rate cases in which the OPUC Staff advocated for mandatory time-  
11 varying rates. That order states in part:

12 Over the past several years, the parties and Commission have wrestled  
13 with useful ways to evaluate proposals for time-varying rates. Time-  
14 varying rates were a contentious issue in docket UE 197, the docket that  
15 originally led to this investigation, and in docket UE 213, Idaho Power  
16 Company's 2010 general rate case, among others.

17 In such dockets, the parties have disagreed about the appropriateness of  
18 time-varying rates, as well as the factors the Commission should consider  
19 relevant to evaluating them. Because this question has not been answered  
20 clearly by precedent, the information the parties have chosen to include in  
21 the record when time-varying rates are proposed, and the arguments made  
22 supporting or opposing them, have been inconsistent and difficult to  
23 evaluate.<sup>1</sup>

24 While the proposal for mandatory time-varying rates was contentious there was,  
25 however, little disagreement on the purpose of the proposed mandatory time-varying  
26 rates - OPUC staff had made their position very clear:

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<sup>1</sup> UM 1415, Order No. 11-255, page 2.

1           The tightening of budgets due to elevated utility prices motivates, not  
2           enables, the making of capital investments that will serve as substitutes for  
3           electricity consumption. Basic economic theory holds that when the price  
4           of a particular good is elevated, the demand for substitutes for that good is  
5           also elevated. From my own experience, monthly mid-winter electricity  
6           bills around \$180 in earlier years motivated this Staff person to invest in a  
7           heat pump system this year in hopes of achieving a substantial electric bill  
8           reduction. The heat pump is viewed as a substitute for excessive electricity  
9           consumption.<sup>2</sup>

10           The proposal in that case was for seasonal rates, which typically focus on raising  
11           the cost of heating and cooling during the winter and summer months. But there are also  
12           other forms of mandatory time-varying rates which are also aimed at heating and cooling  
13           costs. Examples of these other mandatory time-varying rates are: Time-of-Use rates  
14           which change rates several times during the day to increase costs during the periods of  
15           time when homes and businesses are most likely to be using heating and air conditioning;  
16           and Critical Peak Pricing rates which are set to rise substantially on the hottest and  
17           coldest days of the year when a great deal of electric demand is going to cooling or  
18           heating. Each of these rate structures is designed to use price signals to push up costs so  
19           as to “motivate” customers to use less energy.

20           The raising of heating and cooling costs, as a goal of rate-making design, would  
21           be a big change to the historic policy previously adopted by this Commission, the Oregon  
22           Legislature, and Oregon voters. For more than 30 years, Oregon public policy has been  
23           concerned with helping customers manage their highest bills and avoid shutoffs caused  
24           by those high bills. Adopting the proposed time-varying rates would eviscerate that  
25           policy.

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<sup>2</sup> UE 213/CUB/Exhibit 102.

1 **A. Oregon's Policy Has, Since The Late 1970s, Been to Help Customers Manage**  
2 **Their Highest Bills**

3 During the late 1970s, much of the hydroelectric base of the Northwest was  
4 exhausted and utilities were heavily investing in new coal and nuclear plants. These  
5 investments caused utility bills to climb while the economy was in a difficult period that  
6 coined the phrases "economic malaise" and "misery index." This combination of rising  
7 rates and economic difficulties led to a period of time when the state was deeply  
8 concerned about the affordability of utility rates.

9 *i. Ballot Measure 9 in 1978*

10 In 1978, voters passed Ballot Measure 9, which limits utility rate base to  
11 investments that are "presently used to serve customers," with 69% voting in favor. One  
12 argument for Ballot Measure 9 was the effect of rising bills on Oregon seniors' abilities  
13 to heat their homes:

14 The Current practice of charging now for services provided in the future  
15 hold particular significance for Oregon's senior citizens ... because seniors  
16 are the hardest hit by the constant rise in the cost of heating, lighting and  
17 maintaining their homes.<sup>3</sup>

18 *ii. HB 2661 in 1979*

19 Rising electric bills and concerns over the affordability of winter heating were an  
20 issue in the 1979 Oregon legislature, which passed HB 2661:

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<sup>3</sup> 1978 Voters' Pamphlet, page 54.

1 The legislative assembly finds that the termination of residential electric  
2 and natural gas utility service in the winter can lead to the serious  
3 impairment of human health and possibly to loss of life; therefore, the  
4 Legislative Assembly has enacted this 1979 Act.<sup>4</sup>

5 This new law imposed several consumer protections, including: prohibiting utility  
6 shutoffs when the shutoff endangered the physical health of a member of the household;  
7 requiring the utility to provide written notice before shutting off a customer; and  
8 requiring the utility to accept partial payment and to inform customers of agencies that  
9 could help them pay their bills.<sup>5</sup> John Lobdell, the State's lone Public Utility  
10 Commissioner at that time, changed his position from neutral to supporting the bill after  
11 conducting a survey across the state and encountering customers who were having  
12 trouble communicating and negotiating with utilities.<sup>6</sup> Commissioner Lobdell also noted  
13 that he was unable to assure those customers that the OPUC could take action if the  
14 private utilities did not resolve the problem.<sup>7</sup>

15 ***iii. House Bill 2527 in 1983***

16 Even after the passage of HB 2661, concerns over the affordability of winter  
17 heating bills continued as utility rates increased and economic conditions grew worse.  
18 By the time the Legislature met in January of 1983, the national unemployment rate had  
19 climbed to 10.4%.<sup>8</sup>

20 In 1983, Representative Wally Priestly introduced HB 2527 to tighten the rules  
21 concerning shutoff notices and requirements and to protect customers from having to pay  
22 excessive deposits to open or restore utility accounts. In his speech recommending the

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<sup>4</sup> Oregon Laws 1979, ch. 868 § 2, 1205 (1979).

<sup>5</sup> Oregon Laws 1979, ch. 868 §§ 1-5, 1205-06 (1979).

<sup>6</sup> *Hearing on H.B. 2661 Before the Senate Committee on Environment and Energy*, 1979 Leg., 60th Sess. 1-6 (Or. 1979)(statement of John Lobdell, Public Utility Commissioner representing Oregon Public Utility Commission).

<sup>7</sup> *Id.*

<sup>8</sup> Bureau of Labor Statistics, US Department of Labor.

1 bill, he summarized the issues and reasons that the amendments were necessary.  
2 Representative Priestly noted that unemployment had increased over the past few years,  
3 pushing more and more families into a financial squeeze and requiring more people to  
4 choose between buying food and necessities and heating their homes.<sup>9</sup> He conceded that  
5 utilities were experiencing an increase in past due and/or unpaid bills, but sought to put  
6 that in perspective by noting that in a time when most people were suffering financially,  
7 PGE, for example, saw its revenues increase 70%, and its net income increase by over  
8 143%, all between 1979 and 1981, due to a “favorable regulatory climate.”<sup>10</sup>  
9 Representative Priestly stated that “[r]atepayers translate this to a public utility  
10 commissioner more interested in stockholder profits than the interests of ratepayers.”<sup>11</sup>  
11 He noted that it made little sense to require excessive deposits during a time when federal  
12 and state government assistance is reduced.<sup>12</sup> He argued that it makes more sense to  
13 reduce bills from the outset rather than to punish people for not being able to pay.<sup>13</sup>

14 ***iv. Ballot Measure 3 in 1984***

15 And now we move to 1984. Concern, in 1984, over the high cost of heating was  
16 one of the arguments made in favor of the creation of the Citizens' Utility Board. The  
17 1984 Voters' Pamphlet included this argument from the Gray Panthers and United  
18 Seniors:

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<sup>9</sup> *Hearing on H.B. 2527 Before the House Committee on Human Resources*, 1983 Leg., 62nd Sess., Ex. B at 1 (Or. 1983).

<sup>10</sup> *Id.* at 2.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> *Id.* at 3.

1 High utility bills are a serious concern for Oregon's senior citizens. Each  
2 winter thousands of us face the impossible task of choosing between  
3 heating our home and buying food to eat.

4 In the last few years, during a major recession, Oregon's electric utilities  
5 have shutoff the service to a record number of their customers. Yet, while  
6 many Oregonians are having trouble paying their electric bills, the profits  
7 of Pacific Power & Light and Portland General Electric are at an all-time  
8 high.

9 A large percentage of utility shutoffs involve homes where older persons  
10 live. Doing without electricity is a serious threat to the health and safety  
11 of our senior citizens.<sup>14</sup>

12 *v. Ballot Measures 4 and 8 in 1986*

13 In 1986, there were two measures on the ballot that dealt with utility service. The  
14 first was a measure that would create a 3-person Commission rather than continue to have  
15 rates set by a single Commissioner. The arguments there were similar to the arguments  
16 for the creation of CUB. Bills were rising too fast, customers were having trouble heating  
17 their homes, and the Commissioner was protecting utility profits at the expense of  
18 consumer interests. There was one additional argument, related to the other 1986 Ballot  
19 Measure, which prohibited mandatory measured service for telephone customers,  
20 discussed below.

21 In order to reduce peak usage during daytime hours, Commissioner Gene Maudlin  
22 had decided to move Oregon to mandatory time-varying rates for telephone customers.  
23 Rather than a flat monthly bill, all customers would have been required to pay on a  
24 measured basis for local phone service, with higher rates for daytime (peak usage) and  
25 lower rates for off-peak usage. Commissioner Maudlin and Pacific Northwest Bell  
26 claimed that this change was about making people pay for the "costs" they put on the

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<sup>14</sup> 1984 Oregon Voters Pamphlet, page 14.



1 system.<sup>15</sup> Oregon voters did not agree, when given a chance to vote on mandatory  
2 measured service, 79.9% of Oregonians voted against it.<sup>16</sup>

3 ***vi. AR 193 Introduced in 1990***

4 In October 1989, the Commission took up a review of the Division 21 rules,  
5 which govern shutoffs and other consumer protections. The main focus of this review  
6 was to help customers avoid shutoffs and manage their highest bills. The Commission  
7 took several actions consistent with that policy:

8 *1. Eliminated barriers to service for low-income customers by offering alternatives*  
9 *to deposits.*

10 *2. Required that shutoff notices be delivered in 5 additional languages (Spanish,*  
11 *Vietnamese, Laotian, Cambodian, and Russian) in order to protect vulnerable*  
12 *populations.*

13 *3. Established the first rules requiring that Equal Payment Plans be offered to all*  
14 *residential customers and eased the requirements for customers to participate in*  
15 *those plans.*

16 While Equal Pay Plans were not new, utilities limited customer participation in  
17 them by prohibiting customers from entering into them in the winter heating months.  
18 These 1990 rules required utilities to offer Equal Pay Plans and allowed customers to  
19 enter into them at any time during the year.

20 In addition, the rules changed the way utilities were allowed to collect arrearages.  
21 Prior to 1990, the rules allowed customers who were behind in their payments to agree to  
22 a payment plan through which they would pay back 1/10<sup>th</sup> of their arrearage along with

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<sup>15</sup> The Bear Facts, October 1996, page 2.

<sup>16</sup> Oregon Blue Book, 1989-1990, page 407.

1 their current bill. In AR 193, the Commission recognized that adding 1/10<sup>th</sup> of the  
2 arrearage to a high winter heating bill could create additional burdens, and instead  
3 required utilities to offer arrearage payment plans alongside equal payment plans:

4 This rule provides time-payment agreement for delinquent gas and electric  
5 customers who are not on medical certificates. The current rule allows  
6 customers to pay the arrearage in 10 equal installments. The proposed rule  
7 puts customers on a "levelized" payment plan where each month's utility  
8 payment is one-twelfth the annual estimated usage plus one-twelfth the  
9 arrearage.

10 The proposal recognizes that most payment problems begin in the fall as energy  
11 usage increases. Under the current rules customers pay one-tenth the arrearage  
12 and their current (high) balance. In most cases, customers' financial  
13 circumstances have not changed and they remain unable to pay for current usage.  
14 These customers then default on their time-payment agreements. Under the  
15 proposed rule, customers pay one-twelfth the balances plus their average monthly  
16 use. Because this average monthly use charge combines low-energy consumption  
17 months with high-consumption winter months, customers pay less in cold months  
18 than under the current system. This reduces defaults and disconnections.<sup>17</sup>

19  
20 ***vii. Governor's Blue Ribbon Panel in 1997***

21 In 1997, at the request of Oregon Heat, Governor John Kitzhaber appointed a  
22 Blue Ribbon Panel to examine the low-income affordability gap for utility customers. I  
23 served on that panel, along with the Chair of the OPUC at that time, Ron Eachus. The  
24 panel looked at the gap between federal LIHEAP funding and low-income needs in  
25 Oregon. It also looked at the rate at which low-income homes were being weatherized to  
26 determine the number of years it would take to improve the low-income housing stock to  
27 a reasonable and modern level of efficiency. The panel concluded that current federal  
28 funding was inadequate and that Oregon should establish a low-income heating  
29 assistance program and a low-income weatherization program.

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<sup>17</sup> AR 193, OPUC Order No. 90-1105 page 57.

1 ***viii. SB 1149 Choice with the Right to Cost-Based Rates in 1999***

2 Recognition of the plight of low income customers continued in 1999 and in that  
3 year SB 1149 was developed as Oregon's response to Enron's deregulation proposal. SB  
4 1149 restructured the electricity system by: (1) allowing large customers to move to  
5 direct access, (2) establishing an Oregon program of low-income weatherization and  
6 heating assistance, and (3) establishing a portfolio of rate options for small customers,  
7 including one that is required to have cost-based rates.<sup>18</sup>

8 SB 1149 established a portfolio of rate options for residential customers,  
9 including a market-based rate (time-of-use), but required that all customer classes be  
10 offered cost-based rates. CUB was the primary advocate of this section of SB 1149. One  
11 of CUB's concerns during this time was the claim that deregulation would provide  
12 customers with better price signals - Enron believed that the real value of energy was  
13 represented by market prices rather than embedded costs. Because customers had spent  
14 decades funding investment in hydroelectric dams and other generating assets dedicated  
15 to serving customers, CUB believed that it was necessary to ensure that small customers  
16 who neither had nor wanted access to the competitive market would have the ability to  
17 retain the protection of the cost-based rates as opposed to market-based rates.

18 ***ix. Increased Bill Payment Assistance in 2007***

19 As we head towards the present, we find there is still concern about Oregon's low  
20 income customers. In 2007, the Oregon Legislature passed SB 461. That bill increased

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<sup>18</sup> ORS 757.600 to 757.691.

1 Oregon's bill payment assistance program from \$10 million per year to \$15 million per  
2 year and indexed the amount for load and customer growth.<sup>19</sup>

3 *x. Legislature Increased Bill Payment Assistance Again in 2011*

4 And again in 2011, concern was expressed for the plight of Oregon's low income  
5 customers when, with Oregon facing its worst recession in 30 years, the Legislature  
6 passed SB 863 which allows for a temporary increase to the funds collected for bill  
7 payment assistance.<sup>20</sup>

8 **B. Oregon's History Reflects a Policy of Protecting Customers From the Impacts**  
9 **of High Heating and Cooling Bills**

10 The above-discussed history demonstrates Oregon's clear record of deliberate  
11 policy decisions, over the course of more than 30 years, that the OPUC must aid  
12 residential customers in managing the higher bills that result from essential heating and  
13 cooling activities. Though OPUC is an economic regulator that establishes rates for  
14 investor owned utilities, the Commission's mission recognizes that electricity is a vital  
15 service as opposed to just a commodity, and that the OPUC has an important role to  
16 ensure that Oregonians have access to electricity (by allowing alternatives to deposits)  
17 and are able to manage their bills and avoid shutoffs. Where the Commission has failed  
18 to implement policies protecting Oregon residential customers, the Legislature, and even  
19 the voters, have stepped in and required the Commission to make a greater effort to  
20 protect customers from the impact of unaffordable, high bills.

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<sup>19</sup> SB 461 passed in 2007.

<sup>20</sup> SB 863 passed in 2011.

### 1 **III. Raising Heating and Cooling Costs Will Harm Residential**

#### 2 **Customers**

3 This docket is considering a fundamental change in Oregon’s historic policy.  
4 Instead of helping customers manage bills through mechanisms like equal pay, the  
5 Commission is considering making heating and cooling bills more difficult to manage by  
6 implementing mandatory time-varying rates.

7 The effect of this proposed change would be to take Oregon from a policy of  
8 helping customers manage their high heating and cooling costs, which is essential to the  
9 health and safety of households, to a policy that attempts to increase those costs in order  
10 to (theoretically) incent residential customers to shift usage or invest in efficiency  
11 programs to reduce usage. Such an approach is nothing more than a gamble that has the  
12 *theoretical* potential to reduce usage and the real potential to cause significant harm to  
13 many lower-income, elderly, non-home-owning, and medically frail utility customers.

14 The reason for the diversion between theory and reality here is that not all  
15 customers have the ability to respond to price signals with new investments even if they  
16 understand the theory, the need and the benefits to themselves and society. Low-income  
17 families simply do not have access to the kind of capital needed to invest in new home  
18 heating and cooling equipment. Renters, who may pay the utility bills, have no control  
19 over the appliances and other household equipment installed in their rental units. Non-  
20 English speaking citizens may not be provided with materials in their mother tongue that  
21 explain the proposed billing changes in a way they can understand. People dealing with  
22 mental illness may have difficulty understanding the change in policy. In addition, many  
23 households are busy with the real issues that families face (illness, unemployment, family

1 dysfunction, etc.) and may not have time to read and understand that historic policies are  
2 changing.

3 All of this is compounded by the fact that in the current economy, government  
4 budgets are being slashed, including the social safety net which protects vulnerable  
5 populations with varying types of assistance. It is not safe to simply assume that  
6 governmental resources will be available to help the mentally ill, the poor, or the elderly  
7 to understand and adapt to this policy change.

### 8 **A. Characteristics of Residential Customers**

9 To understand the impact of time-varying rates on residential customers, it is  
10 helpful to understand some characteristics of residential customers. It is important to  
11 note, however, that few customers actually fit the profile of an “average customer” and  
12 the circumstances of individual customers vary widely. The impacts of this policy  
13 change will also vary widely.

#### 14 *i. Many Are Renters*

15 The Brattle Group study for PGE shows that 31% of residential customers live in  
16 multi-family homes, which are typically apartments.<sup>21</sup> These customers are unable to  
17 make capital improvements to their homes in an effort to reduce their utility bills; their  
18 only option to avoid the effects of time-of-use rates would be to change their usage and  
19 reduce heating and cooling during peak hours.

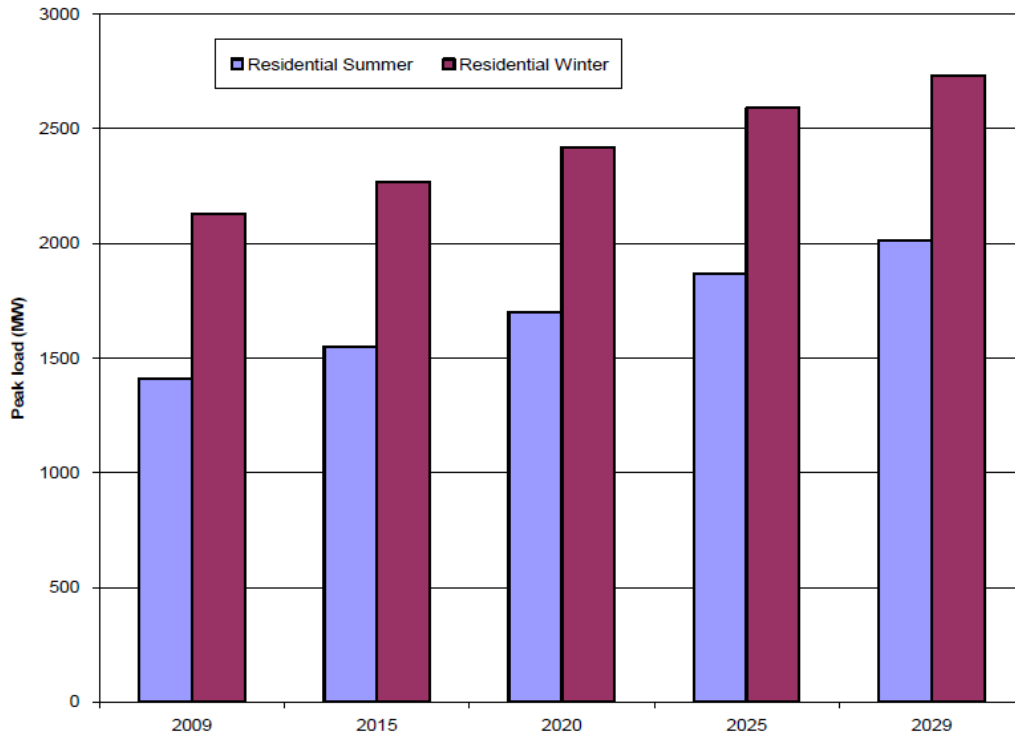
#### 20 *ii. Residential Customers are Winter-Peaking*

21 While the OPUC Staff has focused on reducing air conditioning load in its quest  
22 for time-varying rates, Oregon residential loads for PGE, PacifiCorp, and Idaho Power

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<sup>21</sup> Assessment Of Demand Response Potential For PGE, The Brattle Group, February 9, 2009, page 7.

1 are all winter-peaking. The Brattle Group study shows that PGE's customers are winter-  
2 peaking and will continue to be through 2028. In fact, the gap between the winter peak  
3 and summer peak stays relatively constant in the future:<sup>22</sup>



4 **Figure 3.4 Summer and Winter Peak Projection for the Residential Sector**

5 ***iii. Median Income Is Not Keeping Up with Utility Bills***

6 Even before the current recession, median household income in Oregon was not  
7 keeping up with utility rate increases. The average residential rate, for electricity from  
8 providers regulated by the OPUC, increased by 55% from 1999 to 2009.<sup>23</sup> During this  
9 same time period, median household income in Oregon increased just 18%.<sup>24</sup> Today,

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<sup>22</sup> *Id.* at page 10.

<sup>23</sup> Oregon Utility Statistics, Oregon OPUC.

<sup>24</sup> US Census Bureau, Profile of Selected Economic Characteristics, [http://factfinder.census.gov/servlet/QTTTable?\\_bm=n&\\_lang=en&qv\\_name=DEC\\_2000\\_SF3\\_U\\_DP3&ds\\_name=DEC\\_2000\\_SF3\\_U&geo\\_id=04000US41](http://factfinder.census.gov/servlet/QTTTable?_bm=n&_lang=en&qv_name=DEC_2000_SF3_U_DP3&ds_name=DEC_2000_SF3_U&geo_id=04000US41)

1 after two more years of recession and some double-digit rate hikes, customers are likely  
2 falling further and further behind.

3 ***iv. Heating Costs Are the Drivers of Bill Payment Problems***

4 CUB asked the utilities to report arrearages by month, and these numbers clearly  
5 show that winter heating bills drive a great deal of residential arrearages. Arrearages of  
6 PGE customers begin to grow each year during December as families turn up their heat.  
7 In 2010, the total amount of arrearages for PGE's residential customers grew 32% from  
8 November to December. In 2009 it grew 41%, and in 2008, it grew 31%. Each year,  
9 arrearages grow as customers find it more and more difficult to pay for home heating.<sup>25</sup>

10 While PGE included all arrearages and categorized them by 1-30 days, 31-60  
11 days, and 61 days and greater, Idaho Power included only arrearages that in excess of 61  
12 days. Comparing November to January bills shows an increase in total arrearages of 43%  
13 in 2010-11, 39% in 2009-10, and 25% in 2008-09.<sup>26</sup> PacifiCorp did not specify how it  
14 classified arrearages, but a comparison of November total arrearages to February is still  
15 meaningful and shows that arrearages increased by 27%, 41%, and 38% in each of the  
16 last three winters.<sup>27</sup>

17 ***v. Shutoffs Are Increasing***

18 Electric rates are increasing faster than the median income. Customers are falling  
19 further behind and arrearages are growing. The outcome of this situation is that the  
20 number of shutoffs is increasing:

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<sup>25</sup> CUB Attachment BJ 1.

<sup>26</sup> CUB Attachment BJ 2.

<sup>27</sup> CUB Attachment BJ 3.



- 1 • Idaho Power shutoffs are 32% higher this year than 2010 and 176% higher  
2 than 2009.<sup>28</sup>
- 3 • PacifiCorp, shutoffs have increased by 39% this year compared to 2010.<sup>29</sup>
- 4 • PGE shutoffs are up 34% this year.<sup>30</sup>

5 *vi. There Is No Average Customer, Average Oregon climate, or Average Weather*

6 As Oregon considers mandatory time-varying rates, it is important that we  
7 recognize that no customers are completely average. It is easy to look at average impacts  
8 and make judgments based on those average impacts, but that will indicate little about  
9 how actual customers are impacted. Several key factors vary from household to  
10 household, including the number of residents in a household, the type of equipment in the  
11 household, the income levels of persons in the household, and the education levels of  
12 persons in the household. A rate option that may work for one family may put a huge  
13 burden on another family.

14 The same is true of Oregon's climate. The Oregon coast is very different than  
15 most of the rest of the state, as it is cooler in the summer and warmer in the winter. The  
16 Willamette Valley also has relatively mild weather, but is hotter in the summer and  
17 cooler in the winter than the coast. Eastern and Central Oregon, on the other hand, tend  
18 to be less mild, with colder winters and hotter summers. And last but not least, Southern  
19 Oregon tends to have both warmer summers and winters than the Willamette Valley.  
20 Therefore, for example, a rate plan that may seem reasonable in the Willamette Valley  
21 may place a burden on customers in Eastern Oregon and may have little effect on  
22 customers on the Coast.

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<sup>28</sup> CUB Attachment BJ2

<sup>29</sup> CUB Attachment BJ3

<sup>30</sup> CUB Attachment BJ1

1           Finally, the same is true of weather, including its effect on hydro conditions.  
2   Take this summer as an example. Substantial snowpack from winter storms, combined  
3   with a mild summer, has resulted in peak power prices remaining low all summer.  
4   Sending cooling customers price signals based on average conditions of previous years  
5   would have overstated prices significantly in 2011.

6   vii. *Customers Pay Bills, Not Rates*

7           “Customers pay bills, not rates”—this saying used to be the mantra of decoupling  
8   advocates, and is important to this discussion as well. My PGE bill lists a basic charge,  
9   an energy use charge, a transmission charge, a distribution charge, a green source charge,  
10   and 8 adjusting credits and surcharges to cover things like the Residential Exchange,  
11   decoupling, energy efficiency, and Boardman’s amortization. Additionally, my bill  
12   includes state and local taxes, Public Purpose charges, and low-income funding. In total,  
13   there are 17 line items included in my bill. To determine my price signal for incremental  
14   usage (by kilowatt-hour rate) would require me to add and subtract 12 separate line items  
15   (not including taxes and fees, which are assigned as a percentage of the total bill) that are  
16   listed on the back of the bill. However, my price signal does not come from calculating  
17   margin rates, and few customers have the time or desire to make such calculations.  
18   Instead, my price signal comes from the total bill—when the bill goes up, I get a signal  
19   that energy costs are increasing.

20           As a result, changing rates to impose a time-varying rate structure is unlikely to  
21   change customers’ behavior unless such rates increase bills. It is only after the pricing  
22   change is reflected on bills and causes a noticeable increase that a price signal is being  
23   sent.

1 **B. The Effect of Price Signals on Residential Customers Today Pushes Them**  
2 **Further Behind on Their Bills**

3 Utilities do not need to conduct experiments to find out how residential customers  
4 react to price signals. This phenomenon has already been observed this year. Oregon has  
5 three electric utilities regulated by the OPUC. Two of the utilities raised prices  
6 significantly in the last year and the third did not. Comparing these utilities shows that  
7 more customers respond to the price signals of higher rates and larger bills by falling  
8 further and further behind on their bills rather than adjusting usage or investing in energy  
9 efficiency measures.

10 Idaho Power had the largest rate increase of the three utilities. Residential rates  
11 increased by 26% in March of 2010.<sup>31</sup> PacifiCorp residential rates increased by 11.5% in  
12 January 2011.<sup>32</sup> PGE's rates merely increased by 3.3%.<sup>33</sup>

13 CUB asked each utility to provide total arrearage information for residential  
14 customers—the total amount that residential customer were behind on their bills. These  
15 arrearage amounts tend to grow over the winter each year and peak in spring, following  
16 the residential load for all three utilities. The data demonstrably shows that double-digit  
17 rate increases have a significant effect on arrearages.

- 18 • From 2008 until 2011, Idaho Power's total arrearages were generally  
19 between about \$105,000 and \$165,000 each month. Only twice before  
20 this year did the total arrearage grow to above \$200,000. In 2011,  
21 however, the total arrearage has averaged \$232,497. The average 2011  
22 arrearage is greater than any single month before 2011. For the first 6

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<sup>31</sup> <http://www.puc.state.or.us/PUC/news/2010/2010004.shtml>

<sup>32</sup> <http://www.puc.state.or.us/PUC/news/2010/2010029.shtml>

<sup>33</sup> <http://www.puc.state.or.us/PUC/news/2010/2010030.shtml>

1 months of 2011, the average total arrearage is 47% greater than 2010, 31%  
2 greater than 2009, and 70% greater than 2008.<sup>34</sup>

- 3 • PacifiCorp’s data shows the same trend as Idaho Power’s data. Until 2011,  
4 PacifiCorp arrearages in Oregon were consistently between \$11 million  
5 and \$17 million. In 2011, total arrearage is averaging \$19.7 million.  
6 Once again, the average arrearage is greater than any single previous  
7 month since 2008. In addition, the last three months represent the highest  
8 three months: \$21.8 million, \$22.8 million and \$21.8 million. The total  
9 arrearage today is 34% higher than it was a year ago.<sup>35</sup>
- 10 • PGE shows a significant contrast. Without a significant rate hike this  
11 year, PGE saws its total arrearage fall by 6% from 2010 and 9% from  
12 2009.<sup>36</sup>

### 13 **C. Raising Heating and Cooling Costs Will Make Matters Worse**

14 When arrearages and shutoffs are a growing problem, it is clear that Oregon has  
15 an affordability problem with its electric rates. It seems ill-conceived to attempt to raise  
16 heating and cooling costs on a mandatory basis without making sure that our state has  
17 embarked on the most efficient and lowest-cost approach to obtain demand response and  
18 overall usage reduction. The notion that relying on mandatory time-varying rates will  
19 achieve this objective has simply not been proven. Ms. Alexander’s comments clearly  
20 document that overall usage reduction can be achieved without such a dramatic step. In  
21 fact, rather than asking utilities to spend millions on advertising campaigns to educate  
22 consumers about time-varying rates, it makes more sense to direct the utilities to more  
23 heavily promote equal pay programs, which would directly address the problem of high  
24 heating and cooling bills.

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<sup>34</sup> Attachment BJ 2.

<sup>35</sup> Attachment BJ 3.

<sup>36</sup> Attachment BJ 1.

1 **IV. The Straw Proposal Elevates Time-Varying Rates Above Other**  
2 **Demand Response Programs**

3 As Ms. Alexander's testimony demonstrates, there are alternatives to mandatory  
4 time-varying rates that can have a significant impact, from peak time rebates to direct  
5 load control programs to programs that combine the two. The Straw Proposal under  
6 consideration in this docket will, however, elevate mandatory time-varying rates ahead of  
7 all other demand response options by requiring utilities to constantly analyze this rate  
8 structure in their IRP process. Such a policy makes no sense in the Pacific Northwest.

9 **A. Utilities Can Only Do So Much Analysis Well**

10 Like all organizations, utilities have limited resources and can only do so many  
11 things well. Directing resources to be allocated to evaluating mandatory time-varying  
12 rates means those resources are not available to evaluate peak time rebates or a direct  
13 load control program of appliances like water heaters. If mandatory time-varying rates  
14 are the only demand response programs that utilities are specifically required to study in  
15 an IRP, then these programs will be the first priority for a utility in evaluating demand  
16 response. A utility will do its required work first before getting into extra credit.

17 **B. Staff's Straw Proposal Assumes That Price-Related Demand Response Is**  
18 **Superior to Non-Price Demand Response and That Mandatory Programs Are**  
19 **Superior to Voluntary Programs**

20 The Straw Proposal prejudices two of the most important issues for consideration:  
21 price versus non-price related programs and voluntary versus mandatory.

1 i. *Price Versus Non-Price Programs*

2 Not all utilities are building demand response programs around price signals.  
3 Emerald PUD began a program called EPUD PowerSync where the utility is installing  
4 communicating thermostats and water heater controls in customers' homes and then  
5 using those controls to make small adjustments to reduce demand during periods of high  
6 demand (about 20 times per year).<sup>37</sup> These programs are more likely to be successful  
7 because they rely on "carrots" rather than the "stick" of unaffordable prices. The  
8 programs also work because they do not require customers to take affirmative action, but  
9 rather allow the utility to do so. These "set it and forgot it" programs are gathering more  
10 adherents and should be explored first. Relying on a regulatory mandate to identify only  
11 one of the many important potential methods of reducing peak load may cause Oregon  
12 not to adopt alternative methods for reducing peak load. The Brattle Group study  
13 examined pricing and non-pricing demand response options for PGE. It found that Direct  
14 Load Control (a non-pricing option) was cost effective and had the largest impact on  
15 reducing peak load. In the mass market (residential and small commercial) Direct Load  
16 Control has the economic potential of reducing demand by 89 MW by 2029. Critical  
17 Peak Pricing, which had only an economic potential of 27 MW when done without  
18 automatic controls, improved when automatic controls were added to an economic  
19 potential of 44.7 MW of demand reduction by 2029. But the Direct Load Control was  
20 still Superior.<sup>38</sup>

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<sup>37</sup> [www.epud.org/conservation/powersync.aspx](http://www.epud.org/conservation/powersync.aspx)

<sup>38</sup> Assessment Of Demand Response Potential for PGE, The Brattle Group, February 9, 2009, pages 46-51.

1           It should not be surprising that results can improve with controlling technology  
2 that removes human response from the equation. I, for example, do a much better job  
3 keeping my anti-virus software updated on my computer once the computer stopped  
4 expecting me to do it and took over that function on its own. A person may be distracted  
5 from acting on a price signal, but technology that responds automatically can avoid  
6 missing the opportunity. With the great potential of non-price, direct control applications  
7 that do not rely on human decision-making, it makes no sense to adopt a straw proposal  
8 designed around the alleged superiority of price signals when there is substantial  
9 evidence that other approaches can in fact achieve far superior results than price signals.

10 *ii. Voluntary Versus Mandatory*

11           Secondly, the Straw Proposal prejudices the issue of voluntary versus mandatory  
12 rates. Since SB 1149, Oregon has offered residential customers a variety of rate options,  
13 in addition to standard rates and equal pay. However, the Straw Proposal contains the  
14 assumption that customers cannot be trusted to choose among different rate plans, and  
15 instead the one-size fits all mandatory structure is imposed on customers.

16           This raises a set of questions which are not answered by the Straw Proposal. How  
17 are mandatory time-of-use rates compatible with SB 1149 and the rules requiring the  
18 availability of Equal Payment Plans? Would the Commission still require Equal Pay be  
19 offered, even though Equal Pay is designed to obscure the price signals of high bills?  
20 Would time-varying rates being billed on an Equal Pay basis cause customers to incur  
21 higher costs and fall further behind? Will the move from rate options to mandatory rate  
22 obligations cause a consumer backlash? Will customers who are paying a premium for

1 green energy, which in theory has a fixed price unrelated to fuel costs, object and stop  
2 paying extra for green resources?

3           According to the July Status Report, PGE currently has more than 80,000  
4 customers taking a rate option other than standard rates. PacifiCorp has nearly 40,000  
5 customers on optional rates.<sup>39</sup> And these figures do not include customers who are on  
6 Equal Pay Plans. This shows that after more than a decade of offering customers rate  
7 options, a significant percentage of customers are taking advantage of those options. Yet  
8 the Straw Proposal in this docket assumes that Oregon has to move to a mandatory rate  
9 and away from providing customers a portfolio of rate options.

10           Mandatory time-varying pricing creates winners and losers. Some customers are  
11 able to respond to the price signals, can shift their demand, and are subsequently  
12 rewarded. Others cannot adapt and are penalized. If a program could be designed that  
13 could achieve the demand response without penalizing some families, why would it not  
14 be considered? In other words, why not design a program for the winners and pass along  
15 the system wide benefits to all customers?

16 ***iii. Peak Time Rebates Reward Customers for Reductions in Demand.***

17           Peak Time Rebates reward customers for reductions in demand. They reward  
18 winners. CUB considers these to be voluntary because a customer has the option of not  
19 reducing demand and therefore not receiving the financial incentive. The Brattle Group  
20 Study found that Peak Time Rebates with controlling technology have the economic

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<sup>39</sup> [http://www.puc.state.or.us/PUC/electric\\_restruc/statrpt/2011/072011\\_status\\_report.pdf](http://www.puc.state.or.us/PUC/electric_restruc/statrpt/2011/072011_status_report.pdf)



1 potential of 54 MW of demand reduction by 2029, which is greater than the economic  
2 potential of CPP.<sup>40</sup>

3 The Straw Proposal assumes that mandatory programs are the goal, but this issue  
4 should not be prejudged in this manner. The Commission should strive to balance the  
5 benefits of demand response with protecting customers' ability to manage their bills.  
6 Voluntary programs provide a better balance of these two objectives.

## 7 **V. The IRP Is Not the Proper Forum for Examining Time-Varying** 8 **Rates**

9 One troubling aspect of the Straw Proposal is its reliance on the IRP process to  
10 evaluate pricing policies. Because IRPs do not set rates, they are strange places to be  
11 evaluating rates impacts. Does the current IRP process fit with this evaluation, or is there  
12 a need to significantly change the IRP to support this analysis?

### 13 **A. Overview of IRP Planning**

14 Typically IRPs are based on long-term comparisons of different resource choices  
15 or portfolios. A utility will look at its short-term (5 year) resource options and analyze  
16 those options over a 20-year planning horizon. Ultimately, the various portfolios of  
17 options are combined with projections of fuel prices and the costs are compared based on  
18 the net present value of 20-year streams of costs. The analysis does not attempt to  
19 calculate rate impacts of the portfolios. Economic risks are analyzed, but non-economic  
20 risks are not. How an IRP would consider impacts on low-income customers, increases

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<sup>40</sup> Assessment Of Demand Response Potential For PGE, The Brattle Group, February 9, 2009, pages 46-51. The study did find that full-on real time pricing could achieve results that are comparable to Peak Time Rebates, but those are still below the potential of Direct Load Control.

1 in arrearages and shut-offs, or any issues related to affordability have not been addressed  
2 by the Straw Proposal.

3 **B. Rates Are Not Considered in IRPs**

4 The IRP analysis is based on costs, not rates. Renewable resources with high  
5 capital investment costs and no fuel costs have a much different rate impact than gas-  
6 fired generation, which has relatively lower capital investment costs but significant fuel  
7 costs over time. The renewable resource will cause higher rates in the short-term but  
8 lower rates in the long-term, on a relative basis.

9 This is why portfolios are evaluated on a net present value basis rather than  
10 examining short-term rate impacts. But it also means that an IRP can tell you little about  
11 the rate impact of critical decisions and it cannot tell you if rate hikes to customers will  
12 achieve unacceptable levels. When the OPUC rejected Staff's proposed seasonal rate  
13 structure for Idaho Power, it was because of the potential for rate shock. Summer rates  
14 would have been 35% greater than before the rate hike. Because an IRP does not  
15 typically evaluate the underlying rate impact of various decisions, it would be difficult to  
16 consider the IRP to be sufficient analysis of potential rate impacts because the impact of  
17 rate increases are based on criteria that are typically not developed for the IRP purpose.

18 An IRP is typically looking at costs and risks, but the analysis of mandatory time-  
19 varying rates is looking at winners and losers. Is the benefit worth the harm that will be  
20 created? The harm is not a cost or a traditional IRP risk, but instead imposes a social  
21 cost: customers falling further behind; an increase in shutoffs; bills going up for low-  
22 income households with electric heat. The mechanism for evaluating these harms in an  
23 IRP is not clear. Should the IRP start forecasting rates, arrearages, and shutoffs to

1 determine the cost of time-varying rates? An IRP cannot do that without knowing the  
2 underlying hydro conditions and other variables that impact rates. In the Idaho Power  
3 case, CUB argued that the Staff Proposal would cause rate shock. The evidence in that  
4 case supported CUB's conclusion. Clearly, the shift of the consideration of rates from  
5 rate cases to IRPs will not be helpful in evaluating the impact on customers, but will, in  
6 fact, make such an analysis more difficult.

7 **C. Advocates for Vulnerable Populations Have Not Historically Participated in**  
8 **IRPs**

9 Mandatory time-varying rates are part of a policy change that would have a  
10 significant impact on low-income Oregonians, renters, seniors, non-English speakers, and  
11 the mentally ill. Nevertheless, representatives of these communities are not typically  
12 involved in the IRP process.

13 The Straw Proposal not only requires that these folks participate in the IRP  
14 process, as that is where policies that could create significant harm are being considered,  
15 but because this is a forward-looking straw proposal that applies to three electric utilities,  
16 it also requires advocates for vulnerable communities to have a permanent presence at the  
17 table during IRP processes. From workshops before an IRP is filed to updates to an IRP  
18 that has already been acknowledged by the Commission, Oregon's IRP process is  
19 essentially continuous in nature. This workload creates a huge burden on advocates, who  
20 are already overburdened due to economic conditions and reductions in government  
21 programs.

1 **VI. Changing Rate Design to Time-Varying Rates Is a Significant**  
2 **Policy Decision That Should Be Rejected by the Commission**

3 CUB believes that the changes contained in the Straw Proposal are a policy  
4 decision, not an IRP analytical exercise. State regulators around the country have looked  
5 at mandatory time-of-use and critical peak pricing and concluded that they are not  
6 consistent with the historic policy of trying to help customers manage their bills and  
7 avoid shutoffs. Oregon should do the same.

8 Rather than resolving the underlying fundamental policy disputes, the Straw  
9 Proposal, presented by Staff, threatens to make this policy dispute into a constant battle  
10 tied to the IRP process cycle. Advocates who disagree with this policy are being asked to  
11 participate in an endless regulatory review of this policy during IRPs. However, as the  
12 history of the development of Oregon’s current policy based on protecting customers  
13 shows, much of the basis for the policy came either from the Legislature or voters  
14 themselves.

15 Time-of-use rates are as an unpopular option by customers today. Few customers  
16 voluntarily choose them. This has led some observers to believe, that smart people, who  
17 understand these theoretical ideas, need to impose time-varying rates on consumers.  
18 They believe that if the utilities can just get the analysis right, then the Commission will  
19 have the justification to imposing the needed time-of-use rates on everyone. With this  
20 line of thinking, they are thus committed to requiring all utilities to spend the next few  
21 IRP processes developing the “correct” analysis necessary to justify mandatory time-  
22 varying rate theory. But this ignores the basic fact that any utility policy that is  
23 disconnected from customers is unlikely to survive because advocates for seniors, low-

1 income and other vulnerable populations have options other than becoming permanently  
2 involved in an IRP; they can ask legislators or voters to decide the policy. And, as is  
3 obvious from the historical chronology set forth earlier in these comments by CUB, the  
4 legislature and voters of Oregon have themselves have regularly gotten involved in utility  
5 policy when necessary to protect customers.

6 There is another choice which would avoid this potential problem and that choice  
7 lies with the Oregon Commission which can decide in this docket that it is not going to  
8 adopt the Straw Proposal. The Commission can, in this docket, recognize that mandatory  
9 time-varying rates (particularly time-of-use and critical peak pricing) conflict with  
10 Oregon's historical policy of helping customers manage their bills.

11 Instead, the Commission should recognize that Oregon utilities are falling behind  
12 other utilities in offering Demand Response Programs such as the programs being offered  
13 by Emerald PUD. The Commission should direct utilities and the OPUC Staff to make a  
14 much better effort Demand Response programs, particularly Direct Load Control and  
15 Peak Time Rebates.

16 Respectfully submitted,



17  
18 Bob Jenks  
19 September 8, 2011

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UM 1415**

In the Matter of )  
)  
)  
In the Matter of PUBLIC UTILITY ) OPENING COMMENTS OF  
COMMISSION OF OREGON Staff ) THE CITIZENS' UTILITY BOARD  
Investigation into Cost Methods for Use in ) OF OREGON  
Developing Electric Rate Spreads )  
)  

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**OPENING COMMENTS  
OF BARBARA R. ALEXANDER  
ON BEHALF OF THE  
CITIZENS' UTILITY BOARD OF OREGON**

September 8, 2011



**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UM 1415**

In the Matter of	)	
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COMMISSION OF OREGON Staff	)	THE CITIZENS' UTILITY BOARD
Investigation into Cost Methods for Use in	)	OF OREGON
Developing Electric Rate Spreads	)	
_____	)	

1    **I. Introduction**

2        My name is Barbara R. Alexander. I use the title of Consumer Affairs Consultant. I  
3    have an office at 83 Wedgewood Dr., Winthrop, ME 04364.

4        My comments are on behalf of the Citizens' Utility Board of Oregon (CUB) and  
5    should be viewed as complementing the comments submitted by Robert Jenks, Executive  
6    Director of CUB. As with Mr. Jenks' comments, my recommendations are directed to the  
7    implications for mandatory time-varying rates for residential customers. My comments  
8    do not make recommendations or provide information concerning the implementation of  
9    time-varying rates for commercial and industrial customers.

10       I opened my consulting practice in March 1996, after nearly ten years as the Director  
11    of the Consumer Assistance Division of the Maine Public Utilities Commission. While  
12    there, I managed the resolution of informal customer complaints for electric, gas,  
13    telephone, and water utility services. I also testified as an expert witness on consumer

1 protection, customer service and low-income issues in rate cases and other investigations  
2 before the Maine Commission. My current consulting practice focuses on regulatory and  
3 statutory policies concerning consumer protection, service quality and reliability of  
4 service, customer service and rate design issues, as well as the design and implementation  
5 of low-income issues associated with both regulated utilities and retail competition  
6 markets. I have had more than 20 years of experience in representing residential  
7 customers in utility regulation proceedings in over 15 states.

8 Most relevant to this proceeding is my work to evaluate proposals, including dynamic  
9 or time-based pricing programs associated with the proposed implementation of  
10 Advanced Metering Infrastructure (AMI) and dynamic pricing proposals in Maine  
11 (Central Maine Power Co.), the District of Columbia (Potomac Electric Power Co.),  
12 California (Southern California Gas), Michigan (Detroit Edison), Idaho (Idaho Power  
13 Co.), Illinois (Commonwealth Edison), and Massachusetts (various AMI-enabled  
14 dynamic pricing pilot programs: Fitchburg Gas & Electric (D.P.U. 09-31), National Grid  
15 (D.P.U. 09-32), and NSTAR Electric Co. (D.P.U. 09-33)). I have published a paper that  
16 identifies issues and concerns about the move to dynamic pricing for low-income  
17 customers and made presentations on AMI and dynamic pricing policies at many national  
18 conferences.

19 In addition, I have also testified and published widely on policies that should govern  
20 the provision of default service (referred to as Standard Offer Service in several states)  
21 for residential customers in those states that have adopted retail competition for  
22 electricity and natural gas supply service.



1 My recent clients include the consumer representatives and state public advocate  
2 offices in Arkansas, Pennsylvania, Washington, Maryland, Ohio, Maine, Illinois,  
3 California, and Massachusetts, as well as AARP state offices (Montana, New Jersey,  
4 Maine, Ohio, Virginia, Idaho, Maryland, Mississippi, and the District of Columbia).

5 I attach my resume with a list of my publications and testimony as Attachment BA-1.

6 **II. DESCRIPTION OF PROCEEDING AND ISSUES FOR WHICH**  
7 **COMMENTS ARE SOLICITED**

8 According to the Order initiating this proceeding,

9 ...[W]e will use this docket to develop a list of factors that the Commission  
10 will consider in deciding whether to approve a time-varying rate. At this  
11 phase of the docket, we will focus on considerations relevant to mandatory  
12 time-varying rates. We will also develop a list of directives to electric  
13 utilities to ensure that such rate structures are systematically considered.  
14 We clarify that the issues under consideration in this docket apply only to  
15 electric utilities. [Order at 2]

16 A footnote to this excerpt states that guidelines for voluntary time-varying rates may be  
17 considered at a future time.

18 While the Order does not specifically define “time-varying rates,” I interpret this  
19 phrase as including seasonal rates (fixed rates that change for at least two seasons); Time-  
20 of-Use (TOU) rates (rates that may change seasonally, but which alter the price of  
21 electricity based on the time of the day); Critical Peak Pricing (CPP), in which the price  
22 of electricity is significantly higher during the utility’s critical peak hours (and which  
23 could be combined with either an underlying fixed rate or added to a TOU rate structure);  
24 Hourly Pricing (HP), in which the price of electricity changes hourly based on day-ahead  
25 wholesale market conditions; and Peak Time Rebate (PTR), a rate structure in which the

1 customer is paid a credit for reducing usage during critical peak periods (the obverse of  
2 the CPP rate structure).

3 TOU rates have been implemented in many States as an optional rate for residential  
4 customers and gained initial popularity with regulators in the late 1970s with the  
5 implementation of the Public Utilities Regulatory Policies Act (PURPA). However, most  
6 recently the TOU, CPP, HP, and PTR rate structures are referred to as “dynamic pricing”  
7 and linked to the implementation of Advanced Metering Infrastructure (AMI), so-called  
8 “smart” meters. Seasonal rate structures, on the other hand, are relatively common and  
9 implemented without any particular connection to AMI deployment. I note that this Order  
10 does not appear to consider the use of Inclining Block Rates (IBR), in which rates vary  
11 according to various usage blocks so that higher usage customers pay higher prices for  
12 kWhs used during the higher rate usage blocks, since IBR rate options do not change  
13 prices based on time, but only based on usage.<sup>1</sup>

14 The Order contains a Straw Proposal by the Commission Staff for (1) factors that  
15 should be considered in determining whether a proposed mandatory time-varying rate  
16 should be approved; and (2) the “directives” to electric utilities that will require the  
17 provision of certain cost data and how mandatory time-varying rates will be considered in  
18 Integrated Resource Plans (IRPs).

19 My comments will provide background information on time-varying rates in general  
20 as applicable to residential customers and experiences with mandatory time-varying rates

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<sup>1</sup> I note that Portland General Electric’s residential tariff reflects a two-block rate structure (up to 1,000 kWh and over 1,000 kWh) for the energy portion of the bill. Typically, IBR structures are more complicated. For example, the California electric utilities use an IBR that has up to five usage levels and that vary according to the various climate zones within the utility’s service territory.

1 applicable to residential customers in other States. I will make recommendations on the  
2 “factors” to be considered and the “directives” to the utilities as proposed in this Order by  
3 the Staff.

### 4 **III. SUMMARY OF RECOMMENDATIONS**

5 The following is a high level summary of my conclusions and recommendations  
6 which are explained in further detail in my Comments:

- 7 • When a rate design for a customer class is changed, there are inevitably “winners”  
8 (those with bills that are lower than under the prior rate design) and “losers”  
9 (those with bills that are higher than under the prior rate design). The Commission  
10 has an obligation to consider the impacts of any rate design on all customers prior  
11 to mandating such a change. It is insufficient, for example, to view the impacts of  
12 a change in rate design only on the “average” customer. Rather, a change in rate  
13 design should be investigated for residential customers with lower than average  
14 usage, as well as those with higher than average usage. The same is true for the  
15 implications of rate design on lower income customers, particularly if the impact  
16 of the proposed rate design is likely to result in higher bills compared to the  
17 current rate design.
  
- 18 • Electricity is a necessity and any change in rate design that contributes to  
19 unaffordable electricity by shifting costs to, for example, lower usage customers,  
20 or that penalizes customers who made changes and investments based on the prior  
21 rate design (e.g., installed electric heat at a time when such investments were  
22 encouraged), or that impacts customers without any realistic means to avoid the  
23 potential for higher bills (e.g., renters in apartments with electric heat, older

1 appliances, poor insulation, etc.), or that adversely impacts lower income  
2 customers raises important health and safety concerns that need to be evaluated  
3 carefully.

4 • Rate design should take into account policies and programs that may be adversely  
5 impacted by a change in rate design, such as financial assistance program design,  
6 existing policies to encourage levelized or budget billing, deferred payment plan  
7 terms, the potential for increased disconnection of service, or the imposition of  
8 late fees. Rate design is not a matter that can be viewed in isolation from all the  
9 factors that contribute to or are designed to respond to the widely held view that  
10 electricity should be available at a reasonable price to all customers.

11 • There is no U.S. jurisdiction that has implemented a mandatory dynamic pricing  
12 program for residential customers as a result of the installation of AMI. Rather,  
13 every state jurisdiction of which I am aware has evaluated AMI proposals based  
14 on voluntary customer participation in dynamic or time-based pricing options.

15 • TOU rate options have been available to residential customers in many  
16 jurisdictions for many years. This rate option is routinely selected by only a small  
17 number of residential customers, usually fewer than 10% of residential customers.

18 • A number of utilities have tested TOU rate options as part of dynamic pricing  
19 pilots. In most of these pilots, TOU rate designs had the least impact on overall  
20 usage and peak load demand and were the least popular of the rate options  
21 studied.

1 • None of the recent AMI dynamic pricing pilots documented an overall reduction  
2 of usage. Rather, these pilots documented that customers would shift usage from  
3 critical peak hours to other hours under both a CPP or a Peak Time Rebate (PTR)  
4 rate option. PTR programs have achieved a significant level of peak load  
5 reduction without changing the underlying rate structure. The PTR programs offer  
6 a credit or rebate to customers who reduce usage during critical peak hours and  
7 the value of that peak reduction is not only passed through to participating  
8 customers in the form of a credit on the bill, but to all other customers when the  
9 value of this peak time reduction is monetized in the wholesale market and  
10 returned to retail customers by the entity that is aggregating this demand response  
11 (which is likely to be the utility in most cases). These pilot programs have  
12 demonstrated that residential customers can deliver the same or similar level of  
13 peak load reduction if promised a rebate or credit compared to the customers who  
14 were on critical peak prices.

15 • With regard to low-income customers, the California pilot program evaluation  
16 determined that the elasticity of demand for the identified low-income customers  
17 was essentially zero. That is, low-income customers in this study exhibited very  
18 little response to higher electricity prices. The published evaluations of recent  
19 pilot programs, such as those in California, Maryland, Connecticut, and the  
20 District of Columbia, have documented that, in general, low-income demand  
21 response results were significantly less than other residential customers.

22 • While simpler to implement, the actual analysis of what impact a seasonal rate  
23 structure will have on various usage and demographic profiles of residential

1 customers must be done to determine the probable impact of such a change in rate  
2 structure. Customers who are unable to readily shift their load to off-peak seasons  
3 or reduce their overall consumption are likely to face higher overall electricity  
4 bills, which will threaten the affordability of essential electricity service.

- 5 • The Staff’s “factors” appear to assume that a mandatory time-varying rate has  
6 intrinsic value, which is not always the case. There is no factual evidence that  
7 documents that a mandatory TOU or other time-varying rate will have the result  
8 of lowering overall consumption or result in cost effective peak load reduction.  
9 Indeed, other programs and rate options may have more effective results.
- 10 • In addition, the “factors” should specifically include the impact of the time-  
11 varying rate on residential customers with low, average, and high usage, as well  
12 as key demographic factors, such as age, income, and type of dwelling. Oregon  
13 electric utilities do not have current information to predict the impact of rate  
14 design changes on low use, high use, and low-income customers. The need for a  
15 careful evaluation of a mandatory time-varying rate for residential customers is  
16 heightened by the potential costs associated with the implementation of a  
17 mandatory time-varying rate that would be incurred by Oregon utilities.
- 18 • If overall efficiency and usage reduction is important, there is no evidence that  
19 time-varying prices will assist in achieving that goal. If peak load reduction is  
20 important, there are a variety of programs, such as direct load control and  
21 voluntary participation in time-varying prices, as well as Peak Time Rebate  
22 programs, that are likely to have valuable and less costly and controversial results.

1           Rather than focusing on time-varying pricing as an end in itself, the Commission  
2           should require utilities to evaluate a wide range of programs to achieve stated  
3           efficiency and peak load reduction objectives and identify the most cost-effective  
4           means to achieve the intended objectives. Utilities should be allowed to consider  
5           optional dynamic pricing programs, direct load control programs, and other  
6           programs that have a track record of success. A focus solely on time-varying rate  
7           design changes, particularly when accompanied by the intent to explore a  
8           mandatory change in rate design for residential customers, is not appropriate and  
9           will divert planning resources from options that are likely to be more cost-  
10          effective.

11   **IV. BASIC PRINCIPLES OF RATE DESIGN**

12          It is useful and important to consider the role of rate design in electric utility  
13          regulation and the implications of a change in rate design for residential customers. Rate  
14          design is a means of collecting an approved revenue requirement once the costs to serve  
15          the class in question are determined. As a result, rate design is typically designed to be  
16          revenue neutral for the customer class in question. If the result of the rate design is to  
17          lower overall usage or shift usage from more expensive times of the day or year to less  
18          expensive hours, the price of electricity for all customers may be lower than would  
19          otherwise occur, but that result is then considered during the next rate case or net power  
20          cost update.

21          Rate design is a tool and one of several options to achieve a variety of important  
22          ratemaking policies. Therefore, the specific objective in considering rate design changes  
23          should be explicitly identified and considered, not only as a means to the desired end, but

1 as one of several potential tools that should be carefully examined for intended as well as  
2 unintended consequences.

3 When a rate design for a customer class is changed, there are inevitably “winners”  
4 (those with bills that are lower than under the prior rate design) and “losers” (those with  
5 bills that are higher than under the prior rate design). The Commission has an obligation  
6 to consider the impacts of any rate design on all customers prior to mandating such a  
7 change. It is insufficient, for example, to view the impacts of a change in rate design only  
8 on the “average” customer. Rather, a change in rate design should be investigated for  
9 residential customers with lower than average usage, as well as those with higher than  
10 average usage. The same is true for the implications of rate design on lower income  
11 customers, particularly if the impact of the proposed rate design is likely to result in  
12 higher bills compared to the current rate design. On average, low-income residential  
13 customers use less electricity than higher income customers, but spend a higher  
14 percentage of their income on electricity.<sup>2</sup> Furthermore, the penetration of older and less

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<sup>2</sup> The U.S. Energy Information Administration (U.S. Department of Energy) has released summary tables of information derived from the 2005 Residential Energy Consumption Survey (RECS). Table US8, Average Consumption by Fuels Used, 2005 presents average usage by fuel type and household income status. Families with income below 100% of federal poverty use an average of 9,038 kwh/year, those with income between 100% and 150% of poverty use 10,342 kwh/year, but households with income above 150% of poverty use 12,158 kwh/year. The same pattern exists for natural gas usage.



1 efficient appliances is much higher for low-income households,<sup>3</sup> who cannot afford to  
2 upgrade and purchase newer appliances even with utility rebates.<sup>4</sup>

3 Rate design for residential customers in particular is fraught with policy and equity  
4 concerns for several reasons:

5 ○ Electricity is a necessity and any change in rate design that contributes to  
6 unaffordable electricity by shifting costs to, for example, lower usage customers,  
7 or that penalizes customers who made changes and investments based on the prior  
8 rate design (e.g., installed electric heat at a time when such investments were  
9 encouraged), or that impacts customers without any realistic means to avoid the  
10 potential for higher bills (e.g., renters in apartments with electric heat, older  
11 appliances, poor insulation, etc.), or that adversely impacts lower income  
12 customers raises important health and safety concerns that need to be evaluated  
13 carefully. A recent paper issued by AARP documents the close connection  
14 between affordable home energy and potential adverse health impacts when  
15 energy is not affordable:

16 ○ Unaffordable home energy bills pose a serious and increasing threat to the health  
17 and well-being of a growing number of older people in low and moderate-income  
18 households. For many of these households, high and volatile home energy prices  
19 jeopardize the use of home heating and cooling and increase the prospect of

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<sup>3</sup> Using data from the most (RECS), households living at or below 150% of the federal poverty level are 45% more likely than households living above 150% of the poverty level to use heating equipment that is greater than 20 years old. Similarly, these low-income households are 19% more likely to use a refrigerator that is 20 years old or more, 73% more likely to use a central air-conditioning system more than 20 years old, and 142% more likely to use a water heater more than 20 years old.

<sup>4</sup> The federally funded Home Weatherization Assistance Program for low-income customers provides funding to weatherize homes and is often supplemented by utility funding. However, only a small percentage of eligible low-income customers are served each year.

1 exposure to temperatures that are too hot in summer and too cold in winter. The  
2 potential consequences of exposure to such temperatures and related financial  
3 pressures include a host of adverse health outcomes, such as chronic health  
4 conditions made worse, food insecurity, and even the premature death of  
5 thousands of people in the United States each year.<sup>5</sup>

6 ○ Rate design should take into account policies and programs that may be adversely  
7 impacted by a change in rate design, such as financial assistance program design,  
8 existing policies to encourage levelized or budget billing, deferred payment plan  
9 terms, the potential for increased disconnection of service or imposition of late  
10 fees. Rate design is not a matter that can be viewed in isolation from all the  
11 factors that contribute to or are designed to respond to the widely held view that  
12 electricity should be available at a reasonable price to all customers.

13 **V. There Is Little Support for the Notion that Mandatory Time-**  
14 **Varying Rates Should Be Imposed on Residential Customers**

15 This Order solicits criteria to govern the implementation of a mandatory time-varying  
16 rate structure. From the perspective of residential customers, such an approach (other  
17 than the adoption of a seasonal rate structure, which I discuss further below) would be  
18 very unusual and very controversial. There is no U.S. jurisdiction that has implemented a  
19 mandatory dynamic pricing program for residential customers as a result of the  
20 installation of AMI. Rather, every state jurisdiction of which I am aware has evaluated

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<sup>5</sup> Snyder, Lynne and Baker, Christopher, [Affordable Home Energy and Health: Making the Connections](#), AARP Public Policy Institute, #2010-05 (June 2010), Executive Summary at 1; available at [www.aarp.org/ppi](http://www.aarp.org/ppi)

1 AMI proposals based on voluntary customer participation in dynamic or time-based  
2 pricing options.

3 There is no evidence that residential customers would support the adoption of any of  
4 the mandatory dynamic pricing options I identified above. It is vital to any rate design  
5 that there is a general acceptance of the overall approach and that it would not be viewed  
6 as punitive or discriminatory to customers. Of particular concern would be a move to  
7 mandatory TOU rates for residential customers, with or without an overlay of CPP. In  
8 general, residential customers prefer a more stable and fixed price for electricity. This is  
9 particularly true for seniors and others on fixed incomes and who need to carefully  
10 budget their use of electricity in order to pay the monthly bill on time and in full. This is  
11 why national consumer organizations, such as AARP, the National Association of State  
12 Utility Consumer Advocates (NASUCA), and the National Consumer Law Center  
13 (NCLC) have adopted policies that oppose mandatory dynamic pricing.<sup>6</sup> Finally, some  
14 consumers prefer programs that rely on carrots in the form of rebates or credits for  
15 allowing the utility to control key heating and cooling systems during critical peak  
16 periods and not sticks in the form of very high prices for electricity service during hot  
17 summer afternoons. Those most able to shift usage will sign up for an attractive,  
18 voluntary incentive program.

19 TOU rate options have been available to residential customers in many jurisdictions  
20 for many years. This rate option is routinely selected affirmatively by only a small

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<sup>6</sup> These organizations have sponsored a publication that sets forth recommendations for consumer protection policies that should accompany the implementation of AMI and dynamic pricing. NASUCA, AARP, et al., *The Need for Essential Consumer Protections: Smart Metering Proposals and the Move to Time-Based Pricing*, August 2010, available at [www.nasuca.org](http://www.nasuca.org)

1 number of residential customers, usually fewer than 10% of residential customers.<sup>7</sup> Those  
2 that do select TOU typically have higher than normal usage (central air conditioning,  
3 pool pumps, etc.) and have options to shift usage from higher price hours to lower price  
4 hours during the day.<sup>8</sup> The same is true in Oregon. Portland General Electric has a TOU  
5 rate option available to residential customers and very few customers have selected that  
6 rate option.<sup>9</sup>

7 The Maine Public Utilities Commission actually implemented a mandatory TOU rate  
8 structure for high use electric customers in the early 1980s, aiming to send “proper price  
9 signals” to residential customers with electric heat (Central Maine Power Company was a  
10 winter-peaking utility at that time). Customers who used over 2,000 kWh in any winter

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<sup>7</sup> Baltimore Gas & Electric in Maryland has offered a TOU rate option for many years, but only 6% of the residential class has elected to remain on this rate option. The same is true in most other states.

<sup>8</sup> In fact, typically utilities advertise or promote the TOU rate option to customers with higher than average usage. See, e.g., Detroit Edison advises customers that TOU rate option is most advisable for customers who spend more than \$172 per month for electricity, and their bill analyzer shows that if you don't select electric heat, central air, heat pump, etc. you are targeted to the basic flat rate: <http://www.dteenergy.com/residentialCustomers/billingPayment/electricRate/calculator.html> Another example is reflected by Tuscon Electric Power Co. Tuscon Electric has three TOU rate options plus the default inclining block rate. Their website emphasizes the large appliances that could be shifted or set on a timer, such a pool pumps, central air, dishwashing, etc. Then, “An average residential customer, shifting two-thirds of peak and shoulder usage to off-peak can save around 6 percent on his or her annual electric bill. Savings will vary based on individual usage patterns.” Furthermore, their website points out that TOU customers may see higher bills in the summer but they need to stay on the rate all year to offset those higher bills with lower winter bills, a real burden for low-income customers who may rely on seasonal or fixed monthly income. See, <http://www.tucsonelectric.com/Green/Home/PowerShift/tou.asp>

<sup>9</sup> There are monthly status reports for Oregon utilities available at: [http://www.puc.state.or.us/PUC/electric\\_restruc/indices/statrpt.shtml](http://www.puc.state.or.us/PUC/electric_restruc/indices/statrpt.shtml). Currently 2,365 PGE residential customers out of 720,000 and 1,610 PacifiCorp residential customers of 470,000 customers have selected the TOU rate option. Furthermore, the notion that survey data that attempts to document that a majority of residential customers would select a TOU option should be relied upon is questionable. First, what residential customers actually do when presented with a TOU rate option is far more valuable than results from surveys in which questions can be “loaded” in favor of the potential savings associated with a time-varying rate. Second, when TOU or time-varying rate options are presented in surveys or focus groups as a means of reducing the monthly electricity bill, the reaction is a relatively high level of interest, but that is not a guaranteed result from a time-varying rate option. For example, PGE's survey results provided in response to CUB-2, Attachment 002-E (Confidential) links customer interest in a TOU rate option with the level of monthly bill savings and, without surprise, the higher the savings, the higher the level of interest.

1 month were transferred to TOU rates. This mandatory TOU rate structure worked in an  
2 acceptable fashion, albeit with controversy from some customers, for several years when  
3 electricity prices were relatively low and there was not a significant difference between  
4 the peak and shoulder/off-peak prices. But electricity prices began to significantly  
5 increase in the early 1990s and the TOU rate structure was changed to reflect the growing  
6 cost of electricity during peak hours and the expensive new generation contracts that  
7 were flowing through the rate structure. Customer reaction was swift and vociferous,  
8 particularly from elderly customers who were living in apartments and homes in which  
9 electric baseboard heat had been installed under the previous regime of lower-priced  
10 electricity.<sup>10</sup> The previously promised potential to lower electricity bills by relying on  
11 TOU rates had vanished and such customers were faced with significantly higher bills in  
12 order to heat their homes during peak usage hours when they were home during the day.  
13 Within several years the TOU rate structure was changed to a voluntary option only.

14 Another experiment with mandatory TOU rates for residential customers occurred in  
15 Washington, where Puget Sound Energy proposed and the Commission approved such a  
16 change in rates. Puget Sound Energy in Washington implemented a mandatory time-of-  
17 use program for residential customers in 2001 that was originally intended to allow  
18 customers to reduce electric bills by shifting usage to off-peak periods when prices were  
19 less expensive. However, the program did not result in customer savings and, in many

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<sup>10</sup> I was the Director of the Consumer Assistance Division at the Maine PUC during this period and witnessed firsthand the adverse publicity and outrage expressed by many elderly customers who triggered Legislative hearings, adverse publicity for the Commission, and resulted in a change in direction by the Commission with respect to this rate design. Many of these homes and apartments/condominiums had been certified as energy efficient under CMP's "good sense" homes program.

1 cases, resulted in higher monthly bills under the TOU rate structure. By late 2002 the  
2 program was halted by the utility and with the approval of the Washington regulators.<sup>11</sup>

3 In 2009 Baltimore Gas & Electric (BGE), Maryland’s largest electric utility, sought  
4 approval for AMI deployment and coupled its application with a proposal to move to  
5 mandatory TOU rates for residential customers. While BGE calculated “average” bill  
6 impacts in its application, the Company had a pool of data that is not typically available  
7 for most electric utilities, obtained from the demographic information on a 2008 dynamic  
8 pricing pilot program. When asked to calculate the bill impact of the year-round time-  
9 based rate proposed in its AMI application for various customer groupings from the pilot  
10 program, the following results demonstrate that a significant, group of residential  
11 customers were likely to see bill increases under the proposed TOU rate structure:<sup>12</sup>

<b>BGE 2008 Pilot</b>	<b>Percentage with higher summer bills under TOU</b>	<b>Percentage with higher annual bills under TOU</b>
Control Group	36%	37%

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<sup>11</sup> As stated in the Washington Utilities and Transportation Commission Order ending the mandatory TOU program,

Because nearly all of its current TOU customers are paying more under the program than they would if they were not on the program, PSE seeks through its Application and the proposed revised tariff sheets to end the TOU pilot program early, and to move remaining TOU customers to the equivalent non-TOU tariff schedule applicable to them.

Docket No. UE-011570 And UG-011571 (Consolidated), Fourteenth Supplemental Order: Granting Application To Amend Twelfth Supplemental Order (November 13, 2002), Para. 13.

<sup>12</sup> Direct Testimony of Barbara R. Alexander on behalf of AARP, before the Maryland Public Service Commission, Case No. 9208.

Peak Time Rebate Customers	25%	24%
Low-income Customers	40%	15%
Seniors in Household	33%	19%
Household with Only Seniors	30%	15%
Low-income with Seniors in Household	31%	12.5%

1

2 As a result of this type of analysis and other testimony, the Maryland Commission  
3 rejected the proposal for mandatory TOU rates for residential customers and ordered that  
4 the AMI deployment should be accompanied by a Peak Time Rebate program in which  
5 all customers would receive the existing flat rate service and have the ability to earn a  
6 credit for reducing using during certain critical peak events during the summer.<sup>13</sup>

7 **VI. TOU Rates Tested in Recent Dynamic Pricing Pilots Have Not**  
8 **Documented Significant Reductions in Overall Usage or Peak Load**  
9 **Compared to Other Programs**

10 A number of utilities have tested TOU rate options as part of dynamic pricing pilots.  
11 In most of these pilots, TOU rate designs had the least impact on overall usage and peak

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<sup>13</sup> Maryland Public Service Commission, Order No. 83531 issued in Case No. 9208, available on the Maryland PSC website under the case number: <http://webapp.psc.state.md.us/Intranet/home.cfm>

1 load demand and were the least popular of the rate options studied. The California  
2 statewide pilot program was conducted in 2003-2004 and gathered data for customer  
3 participation in a variety of dynamic rate options over a 15-month period. The pilot tested  
4 a TOU rate with a very high peak period price, a fixed price Critical Peak Price (CPP)  
5 component grafted onto the existing inverted block rate structure (the default rate  
6 structure for all residential customers in California), and a variable price CPP. While this  
7 pilot documented a significant reduction in peak load usage with the CPP options, the  
8 evaluation found that the modest overall usage reduction that was recorded for TOU-only  
9 customers during the first year almost completely disappeared by the second year.

10 The recently concluded BGE dynamic pricing pilot conducted in 2008 documented  
11 that customers exposed to both critical peak pricing, peak time rebates, and an in-home  
12 display to alert the customer to the onset of more expensive power hours did reduce  
13 *critical peak usage* on average in response to these educational programs and price  
14 signals. However, the *average usage* for the customers participating in the dynamic  
15 pricing programs did not decrease.<sup>14</sup> Rather, customers typically shifted, rather than  
16 reduced, their overall usage. California's statewide pricing pilot documented the same  
17 result.<sup>15</sup> The recently completed Connecticut Light and Power (CL&P) pilot in also

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<sup>14</sup> BG&E's Smart Energy Pricing Pilot Summer 2008 Impact Evaluation (April 28, 2009). This Evaluation Report is available at the Maryland PSC website:  
[http://webapp.psc.state.md.us/Intranet/CaseNum/NewIndex3\\_VOpenFile.cfm?filepath=\\Coldfusion\EWorkingGroups\DRDG\AMI%20Pre-Smart%20Grid%20Cases\BGE%20AMI%20Pre-Smart%20Grid\2\\_FINAL%20BGE%20SEP%20Summer%202008%20Report%20\(05\\_05\\_09\).pdf](http://webapp.psc.state.md.us/Intranet/CaseNum/NewIndex3_VOpenFile.cfm?filepath=\\Coldfusion\EWorkingGroups\DRDG\AMI%20Pre-Smart%20Grid%20Cases\BGE%20AMI%20Pre-Smart%20Grid\2_FINAL%20BGE%20SEP%20Summer%202008%20Report%20(05_05_09).pdf) .

<sup>15</sup> Customers enrolled in the Critical Peak Pricing program in this California pilot program did reduce peak usage during critical peak events, but no change in overall annual usage occurred. Charles River Associates, *Impact Evaluation of the California Statewide Pricing Pilot: Final Report* (March 16, 2005).



1 documented that overall usage reductions are either minimal or not evident at all, even  
2 though the pilot subsidized in-home displays.<sup>16</sup>

3 While the initial pilots (such as the California Statewide Pilot Program) focused on  
4 changing the customer's underlying price structure for basic electricity service, most  
5 recent pilots have tested the option of a Peak Time Rebate (PTR). Peak Time Rebate  
6 (PTR) programs have achieved a significant level of peak load reduction without  
7 changing the underlying rate structure. The PTR programs offer a credit or rebate to  
8 customers who reduce usage during critical peak hours, and the value of that peak  
9 reduction is not only passed through to participating customers in the form of a credit on  
10 the bill, but to all other customers when the value of this peak time reduction is  
11 monetized in the wholesale market and returned to retail customers by the entity that is  
12 aggregating this demand response (which is likely to be the utility in most cases). These  
13 pilot programs have demonstrated that residential customers can deliver the same or  
14 similar levels of peak load reduction if promised a rebate or credit when compared to the  
15 customers who were on critical peak prices. BGE's 2008 pilot documented that customer  
16 satisfaction was higher for PTRs than CPP, despite similar reductions in peak demand.  
17 Customers found peak time rebates easier to understand and most supported PTR as the  
18 default rates and not CPP rates.<sup>17</sup>

19 A PTR can be offered with an AMI system, but the objective of obtaining a  
20 significant level of peak load demand reduction can also be met without an expensive

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<sup>16</sup> "Results of the CL&P Plan-It Wise Energy Pilot" as provided to the Connecticut Department of Public Utility Control for an overview of the results of the CL&P pilot. This document and accompanying appendices are available at: <http://www.cl-p.com/Home/SaveEnergy/GoingGreen/PlanitWise.aspx>

<sup>17</sup> BG&E's Smart Energy Pricing Pilot Summer 2008 Impact Evaluation (April 28, 2009).

1 new metering system.<sup>18</sup> For example, BGE’s Peak Rewards Program<sup>19</sup> in Maryland  
2 initiated a successful demand response program that relied on the use of “smart  
3 thermostats” installed in customers’ homes with central air conditioning or a heat pump  
4 system. The Peak Rewards Program utilized a communication system between the utility  
5 and the thermostats, *but did not require new metering infrastructure or time-of-use*  
6 *pricing models*. The Maryland Public Service Commission (“PSC”) discussed the Peak  
7 Rewards Program in its report to the Maryland Legislature.<sup>20</sup>

8       The greatest success from the pre-EmPower Act period came from a BGE  
9 program, now called Peak Rewards. Peak Rewards is a voluntary program  
10 in which customers can agree, in exchange for bill credits, to allow BGE  
11 to install a device through which BGE can turn down the customer’s air  
12 conditioning on peak demand days. As approved, Peak Rewards is  
13 surcharge-neutral, even to non-participants, because BGE can fund it with  
14 the proceeds from bidding the resulting demand response into the RPM  
15 capacity auctions. As a result of Peak Rewards, BGE bid 495 MW of  
16 demand response into the May 2008 auction – effectively a power plant’s  
17 worth of demand response that substitutes for an equivalent amount of  
18 new generation. Having approved Peak Rewards, the Commission directed  
19 Pepco, Delmarva, Allegheny and SMECO on January 3, 2008 to file  
20 similar demand response programs and, with the exception of Allegheny,  
21 all of them now have programs of their own.

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<sup>18</sup> While PGE is installing AMI and Idaho Power has an AMI system for 93% of its Oregon customers [Idaho Power Response to CUB-5], PacifiCorp relies on its existing manual read metering system [PacifiCorp Response to CUB-5]. As a result, it will be very costly for PacifiCorp to implement time-varying rates, either optional or mandatory, on a large scale.

<sup>19</sup> BG&E’s Peak Rewards program provides participating residential customers with a bill credit up to \$100 each summer, depending on the level of participation selected by the customer, *i.e.*, the level of control allowed on the customer’s thermostat. For further details on this program, see:  
<http://peakrewards.bgesmartenergy.com/what-is-peakrewards>

<sup>20</sup> See *Final Report of the Maryland PSC to the Maryland Legislature, Options for Re-Regulation and New Generation* at 6, 23 (December 10, 2008), available at  
[http://webapp.psc.state.md.us/Intranet/psc/Reports\\_new.cfm](http://webapp.psc.state.md.us/Intranet/psc/Reports_new.cfm) .

1 **VII. Most Dynamic Pricing Pilots Have Confirmed That Low-Income**  
2 **Customers Exhibit the Least Amount of Response to Time-Varying**  
3 **Prices**

4 With regard to low-income customers, the California pilot program evaluation  
5 determined that the elasticity of demand for the identified low-income customers was  
6 essentially zero.<sup>21</sup> That is, low-income customers in this study exhibited very little  
7 response to higher electricity prices. The published evaluations of recent pilot programs,  
8 such as those in California, Maryland, Connecticut, and the District of Columbia, have  
9 documented that, in general, low-income demand response results were significantly  
10 lower than other residential customers. Several of these pilots did not explicitly enroll a  
11 statistically valid sample of known low-income customers and relied on voluntary survey  
12 information obtained after the pilot was conducted to determine “low-income” status  
13 based on declared household income. As a result, there is a significant lack of  
14 information concerning the implications of various time-varying price programs on lower  
15 income customers or elderly customers whose electricity usage pattern may differ  
16 significantly from households with parents who work outside the home.

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<sup>21</sup> Charles River Associates, *Impact Evaluation of the California Statewide Pricing Pilot: Final Report* at 75(March 16, 2005). The results of the California Statewide Pilot Program were summarized in Ahmad Faruqui & Sanem Sergici, *Household Response to Dynamic Pricing of Electricity –A Survey of the Experimental Evidence* (January 10, 2009), available at <http://www.hks.harvard.edu/hepg/> California utilities implement a low-income discount program and the pilot programs enrolled a valid sample of those customers in the various pricing options tested in the pilot.

1 CL&P conducted a smart meter and pricing pilot in the summer of 2009.<sup>22</sup> CL&P tested  
2 three basic dynamic rate options: (1) CPP with a high and low peak price (consisting of  
3 adding on the CPP component to existing flat or seasonal rates); (2) PTR with a high and  
4 low peak price (consisting of grafting the PTR onto the existing rates); and (3) TOU rates  
5 with a high and low on-peak price. These rate options were accompanied by a variety of  
6 in-home display and smart thermostat technologies. In its Report to the Connecticut  
7 Department of Public Utility Control, CL&P documented that participating residential  
8 customers responded well to CPP, with average reductions in the mid-teens percent  
9 range, and average reductions in the 20+ percent range if coupled with “enabling”  
10 technology (either a smart thermostat or a smart switch, which allows direct load control  
11 of the central air unit).<sup>23</sup> Residential customers also responded well to the PTR, but with a  
12 somewhat lesser result—a peak reduction of 17.8 percent when coupled with controlling  
13 technologies and 10.9 percent for those without such technologies. Nonetheless, the  
14 response to the PTR was significant. Notably, residential customers showed the least  
15 response to and support for TOU pricing alone, which is also a reflection of the long-  
16 standing trend in most states in which the vast majority of residential customers do not  
17 voluntarily choose TOU options when available.<sup>24</sup> There was no statistically valid  
18 response to the in-home displays (either an Energy Orb or an in-home display of usage).<sup>25</sup>

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<sup>22</sup> “Results of the CL&P Plan-It Wise Energy Pilot” (CL&P Results) as provided to the Connecticut Department of Public Utility Control for an overview of the results of the CL&P pilot. This document and accompanying appendices are available at:

<http://www.cl-p.com/Home/SaveEnergy/GoingGreen/PlanitWise.aspx>

<sup>23</sup> CL&P Results at 9.

<sup>24</sup> CL&P Results at 9.

<sup>25</sup> CL&P Results at 10.

1 Rather, the CPP customer groups demonstrated a small increase in overall usage.<sup>26</sup>  
2 Another key finding is that limited income customers (including low-income customers)  
3 on average showed about half the peak load response of residential customers generally,  
4 thus documenting a trend evident in many pilots that lower income customers may  
5 respond to these dynamic prices, but at a much lower level than upper income  
6 customers.<sup>27</sup>

### 7 **VIII. A Note About Seasonal Rates**

8 Seasonal rates might be appropriate to consider if there is a significant differential  
9 between winter and summer electricity generation costs. However, while commercial  
10 customers might be able to shift load between seasons, most residential customers cannot  
11 shift load between summer and winter seasons. Instead, seasonal rates charge higher  
12 prices during the most expensive season and it is left to customers to either pay the higher  
13 bill or invest in efficiency measures. Of course, lower income customers are typically  
14 unable to support such investments. Although more complicated than flat rates, seasonal  
15 rates are predictable, unlike critical peak pricing or TOU rates, such that unsophisticated  
16 (e.g., residential) customers do not need to follow prices for different times of day or  
17 understand the wholesale market. Finally, seasonal rates do not necessitate infrastructure  
18 expenditures such as advanced meters.

19 While simpler to implement, the actual analysis of what impact such a rate structure  
20 will have on various usage and demographic profiles of residential customers must be

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<sup>26</sup> CL&P Results at 5.

<sup>27</sup> CL&P Results at 5.

1 done to determine the probable impact of such a change in rate structure. Customers who  
2 are unable to readily shift their load to off-peak seasons or reduce their overall  
3 consumption are likely to face higher overall electricity bills, which will threaten the  
4 affordability of essential electricity service.

5  
6 **IX. Mandatory Time-Varying Rate May Not Be Appropriate or**  
7 **Necessary to Achieve the Desired Objectives**

8 The Staff’s proposed “factors” to consider whether to implement a proposed  
9 mandatory time-based rate should be amended to include a consideration of whether a  
10 mandatory time-varying rate option is the least cost means to achieve the objectives for  
11 consumption reduction and/or peak load reduction as identified in the utility’s IRP.  
12 Staff’s “factors” appear to assume that a mandatory time-varying rate has intrinsic value,  
13 and this is not the case. There is no factual evidence that documents that a mandatory  
14 TOU or other time-varying rate will have the result of lowering overall consumption or  
15 resulting in cost effective peak load reduction. Indeed, other programs and rate options  
16 may have more effective results.

17 In addition, the “factors” should specifically include the impact of the time-varying  
18 rate on residential customers with low, average, and high usage, as well as key  
19 demographic factors, such as age, income, and type of dwelling. Oregon electric utilities  
20 do not have current information to predict the impact of rate design changes on low use,  
21 high use, and low-income customers. For example, neither Idaho Power nor PacifiCorp  
22 could provide usage patterns for low use and high use customers, relying solely on

1 “average” usage customers to predict bill impacts.<sup>28</sup> None of the utilities can predict bill  
2 impacts on low-income customers, even though the utilities can provide some  
3 information for such customers based on the receipt of public assistance payments.<sup>29</sup>

4 The need for a careful evaluation of a mandatory time-varying rate for residential  
5 customers is heightened by the potential costs associated with the implementation of a  
6 mandatory time-varying rate that would be incurred by PGE,<sup>30</sup> Idaho Power,<sup>31</sup> and  
7 PacifiCorp.<sup>32</sup>

## 8 **X. The Commission Should Require Utilities to Explore the Least Cost** 9 **Means to Lower Peak Usage or Reduce Overall Consumption**

10 The Order instituting this proceeding does not explain why utilities should explore  
11 mandatory time-varying rates. However, the proposed “factors” that should be evaluated  
12 when considering a proposed mandatory time-varying rate include a consideration of the  
13 rate’s impact on “demand side resources.” I interpret this reference to include an  
14 evaluation of overall usage reduction and peak load usage reduction. However,  
15 mandatory time-varying prices for residential customers may not be the most cost-  
16 effective means to achieve a particular utility’s objectives for long-term electricity

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<sup>28</sup> Idaho Power Response to CUB-8. PacifiCorp Response to CUB-8.

<sup>29</sup> Idaho Power, PacifiCorp, and PGE respective Responses to CUB-9.

<sup>30</sup> While PGE has installed AMI and could program those meters for various time-varying rate options, a mandatory time-varying rate for residential customers would require a “more robust meter data management system” at an estimated cost of \$4 million. Response to CUB-5.

<sup>31</sup> While Idaho Power has installed AMI for 93% of its Oregon customers, the existing Customer Information System is apparently not able to support time-varying rate structures for most customers until a major upgrade occurs in 2013. Response to CUB-3 and 5.

<sup>32</sup> PacifiCorp relies on a manual read metering system and would have to install different meters to support TOU or other time-varying rate options. Response to CUB-3.

1 planning. If overall efficiency and usage reduction are important, there is no evidence  
2 that time-varying prices will assist in achieving those goals. If peak load reduction is  
3 important, there are a variety of direct load control programs and voluntary participation  
4 in time-varying prices, as well as Peak Time Rebate programs, that are likely to have  
5 valuable and less costly and controversial results. Both the Maryland PSC<sup>33</sup> and the  
6 California PUC have approved more recent AMI deployments based on an analysis of the  
7 value of peak load reduction obtained through a PTR program.<sup>34</sup>

8 Rather focusing on time-varying pricing as an end in itself, the Commission should  
9 require utilities to evaluate a wide range of programs to achieve stated efficiency and  
10 peak load reduction objectives and identify the most cost effective means to achieve the  
11 intended objectives. Utilities should be allowed to consider optional dynamic pricing  
12 programs, direct load control programs, and other programs that have a track record of  
13 success. A focus solely on time-varying rate design changes, particularly when  
14 accompanied by the intent to explore a mandatory change in rate design for residential  
15 customers, is not appropriate and will divert planning resources from options that are  
16 likely to be more cost-effective.

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<sup>33</sup> The Maryland Commission approved the AMI deployment proposals of BGE and Pepco, relying on the implementation of Peak Time Rebate programs. See, .e.g., Order No. 83532 in Case No. 9207 and Order No. 83531 issued in Case No. 9208, both available on the Maryland PSC website under their respective case numbers: <http://webapp.psc.state.md.us/Intranet/home.cfm>

<sup>34</sup> Relying on more updated research with respect to customer reaction to peak time rebates as opposed to critical peak pricing, the California Commission has approved a reliance on peak time rebates or credits as the basis for calculating the potential for demand response savings in the AMI applications of Southern California Edison and San Diego Electric & Gas. *See Application of San Diego Gas & Electric Co. (U-902-E) for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design*, California Public Utilities Commission, Decision 07-04-043, p. 54 (Apr. 12, 2007).



1 A recent report by the American Council for an Energy Efficient Economy  
2 (ACEEE)<sup>35</sup> documented numerous and less costly means of achieving energy usage  
3 reduction that do not require AMI or dynamic pricing and which should be investigated  
4 as options in any IRP analysis to achieve overall usage reduction and/or peak load  
5 reduction. The Report concluded that:

6 The effectiveness of feedback initiatives in generating household energy  
7 savings is dramatically influenced by the focus of the program. While  
8 programs that are focused on peak load savings are generally successful in  
9 shifting energy use from peak periods to off-peak periods, they are much  
10 less successful in generating energy savings throughout the billing cycle.  
11 Results from this meta-review suggest that programs focused on reducing  
12 energy consumption during specific time periods save considerably less  
13 energy than programs focus on promoting energy conservation and  
14 efficiency at all times. More specifically, data from existing studies  
15 indicate that the overall energy savings from programs focused on peak  
16 load shifting have averaged around 3%, while programs focused on  
17 promoting conservation and efficiency have averaged around 10%. These  
18 studies generally include some combination of feedback, time of use rates  
19 and/or incentives and thus do not represent savings from a single type of  
20 intervention. While these results provide some preliminary insights, more  
21 research is needed to document the overall energy savings from programs  
22 focused on reducing peak demand and energy use during specific time  
23 periods, and on savings from different combinations of interventions.  
24 [Emphasis added]

25  
26 Finally, I am concerned that Oregon utilities have not implemented or considered the  
27 design of a demand response program for residential customers that focuses on direct  
28 load control (similar to the Peak Rewards program I described earlier in my comments)  
29 or a PTR program for those customers with a smart meter installed. A direct load control  
30 program could provide a substantial reduction in peak usage during critical peak periods

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<sup>35</sup> Martinez, Donnelly, and Laitner, *Advanced Metering Initiatives and Residential Feedback Programs: A Meta-Review for Household Electricity-Saving Opportunities* (June 2010), ACEEE Report Number E105. This report is available at: [www.aceee.org](http://www.aceee.org)

1 without changing the underlying price for essential electricity service. For example, PGE  
2 appears focused solely on a Critical Peak Pricing program and has already had a pilot  
3 program tariff for this type of pricing program approved for implementation later in  
4 2011-2012.<sup>36</sup> There is no evidence that PGE or the other utilities are exploring or have  
5 seriously explored a direct load program or PTR program for residential customers.

6 Respectfully submitted,

7 /s/ Barbara Alexander

8 September 8, 2011

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<sup>36</sup> See PGE Response to CUB-2, Attachments 002-A through E. The only pilot program that appears to be seriously considered or proposed in these materials focuses on a CPP rate. See PGE Schedule 12, Residential Critical Peak Pricing Pilot.

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New Jersey Division of Ratepayer Advocate  
Maine Office of Public Advocate  
Ohio Consumers' Counsel  
Colorado Office of Consumer Counsel  
Vermont Department of Public Service  
Delaware Division of the Public Advocate  
The Utility Reform Network (TURN) (California)  
Oak Ridge National Laboratory, DOE  
Regulatory Assistance Project  
Citizens' Utility Board (Wisconsin)

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- Default Service, Consumer Protection, Service Quality, and Universal Service policies and programs associated with the move to competition in the electric, natural gas, and telecommunications industries;
- Consumer Protection and Service Quality policies and programs associated with the regulation of competitive energy and telecommunications providers;
- The regulatory policies associated with the regulation of Credit, Collection, Consumer Protection, Low Income, and Service Quality programs and policies for public utilities;

- Rate design and pricing policies applicable to residential customers; and
- Advanced Metering Infrastructure costs and benefits and associated time-based pricing proposals.

## Prior Employment

DIRECTOR	1986-96
<i>Consumer Assistance Division</i>	
<i>Maine Public Utilities Commission</i>	<i>Augusta, Maine</i>

One of five division directors appointed by a three-member regulatory commission and part of commission management team. Direct supervision of 10 employees, oversight of public utility consumer complaint function, appearance as an expert witness on customer services, consumer protection, service quality and low income policy issues before the PUC. Chair, NARUC Staff Subcommittee on Consumer Affairs.

SUPERINTENDENT	1979-83
<i>Bureau of Consumer Credit Protection</i>	
<i>Department of Professional and Financial Regulation</i>	<i>Augusta, Maine</i>

Director of an independent regulatory agency charged with the implementation of Maine Consumer Credit Code and Truth in Lending Act. Investigations and audits of financial institutions and retail creditors, enforcement activities, testimony before Maine Legislature and U.S. Congress.

## Education

JURIS DOCTOR	1973-76
<i>University of Maine School of Law</i>	<i>Portland, Maine</i>

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B.A. (WITH DISTINCTION) IN POLITICAL SCIENCE	1964-68
<i>University of Michigan</i>	<i>Ann Arbor, Michigan</i>

## Publications and Testimony

“How to Construct a Service Quality Index in Performance-Based Ratemaking”, The Electricity Journal, April, 1996

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Direct and Reply Testimony on behalf of AARP Maryland before the Maryland Public Service Commission, In the Matter of the Commission's Investigation of Investor-Owned Electric Companies' Standard Offer Service for Residential and Small Commercial Customers in Maryland, Case No. 9117, Phase I and II (September 2007) [Default Service policies]

Testimony on behalf of AARP Maryland before the Maryland Public Service Commission, In the Matter of the Commission's Investigation of Advanced Metering Technical Standards, Demand Side Management Competitive Neutrality, and Recovery of Costs of Advanced Meters and Demand Side Management Programs, Case 9111 (November 2, 2007) [Default Service policies; AMI deployment]

Comments on behalf of AARP District of Columbia before the D.C. Public Service Commission, In the Matter of The Application Of Potomac Electric Power Co. For Authorization to Establish A Demand Side Management Surcharge and an Advanced Metering Infrastructure Surcharge And to Establish a DSM Collaborative and an AMI Advisory Group, Formal Case No. 1056 (August 10, September 10, November 13, 2007, April 2008) [Default Service policies; AMI deployment]

Comments on behalf of AARP District of Columbia before the D. C. Public Service Commission, Re: The Petition of the Office of the People's Counsel for the District of Columbia for an Investigation into the Structure of the Procurement Process for Standard Offer Service, Formal Case No. 1047 (November 2007) [Default Service policies]

Direct, Rebuttal and Surrebuttal testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of the West Penn Power Co. d/b/a Allegheny Power for Approval of its Retail Electric Default Service Program and Competitive Procurement Plan for Service at the Conclusion of the Restructuring Transition Period, Docket No. P-00072342 (February-March 2008) {Default service procurement policies}

Testimony on behalf of AARP before the Virginia Commission on Electric Utility Restructuring in the General Assembly on HB 1523 and SB 311 (January 2007) [Electric Utility Integrated Resource Planning]

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Direct Testimony on behalf of Public Counsel and the Energy Project before the Washington Utilities and Transportation Commission, WUTC v. Puget Sound Energy, Inc., Docket Nos. UE-072300 and UG-072301 (May 2008) [revisions to Service Quality Index; storm cost recovery; fixed customer charge; low income program funding]

Direct Testimony on behalf of Public Counsel and the Energy Project before the Washington Utilities and Transportation Commission, In the matter of the Application of Puget Holdings LLC and Puget Sound Energy for an Order Authorizing Transaction, Docket No. U-072375 (June 2008) [Conditions for Sale: customer service; low income programs]

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Reply Testimony on behalf of AARP before the Mississippi Public Service Commission, Proceeding to Review Statewide Energy Generation Needs, Docket No. 2008-AD-158 (August 2008) [Integrated Resource Planning]

Comments on behalf of Local 223, UWUA before the Michigan Public Service Commission, In the matter, on the Commission's own Motion, to investigate the development of minimum functionality standards and criteria for advanced metering infrastructure (AMI), Case No. U-15620 {August 2008} [Advanced Metering policies and standards]

Direct and Rebuttal Testimony on behalf of Illinois Citizens Utility Board and AARP before the Illinois Commerce Commission, Citizens Utility Board, Citizens Action/Illinois and AARP vs. Illinois Energy Savings Corp. d/b/a U.S. Energy Savings Corp., Complaint pursuant to 220 ILCS 5/19-110 or 19-115, Docket 08-0175. (August and November 2008) [Investigation of marketing activities and licensing conditions of an alternative gas supplier]

Direct Testimony on behalf of Ohio Partners for Affordable Energy before the Public Utilities Commission of Ohio on filings by electric utilities pursuant to SB 221: Market Rate Option plan filed by FirstEnergy (Case No. 08-936-EL-SSO), Electric Security Plan filed by FirstEnergy (Case No. 08-935-EL-SSO), and Electric Security Plan filed by AEP Ohio (Case No.08-917-EL-SSO & Case No. 08-918-EL-SSO) (September-November 2008) [Default Service procurement policies; energy efficiency and smart meter proposals]

Reply, Surrebuttal, and Supplemental Testimony on behalf of Maryland Office of People's Counsel before the Maryland

Public Service Commission, In the Matter of Appropriate Forms of Regulating Telephone Companies, Case No. 9133 (August and October 2008; July 2009) [service quality performance conditions for alternative rate regulation of Verizon-MD]

Comments on behalf of AARP before the Idaho Public Utilities Commission, In the Matter of the Application Of Idaho Power Co. for a Certificate of Public Convenience and Necessity to Install Advanced Metering Infrastructure (“AMI”) Technology Throughout its Service Territory, Case No. IPC-E-08-16 (December 2008) [Smart Meter costs and benefits]

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Application for the Authority and Necessary Certificates of Public Convenience to Transfer all of the Issued and Outstanding Shares of Capital Stock of the Peoples Natural Gas Co. d/b/a Dominion Peoples, Currently owned by Dominion Resources, Inc. to Peoples Hope Gas Companies LLC, an Indirect Subsidiary of Babcock & Brown Infrastructure Fund North America LP, and to Approve the Resulting Change in Control of the Peoples Natural Gas Co. d/b/a Dominion Peoples, Docket No. A-2008-2063737 (December 2008 and July 2009) [Proposed conditions relating to Service Quality and Universal Service programs]

Rebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PPL Electric Utilities Corp. for Approval of a Default Service Program and Procurement Plan, Docket No. P-2008-2060309 (January 2009) [Retail Market Programs]

Rebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PECO Energy Co. for Approval of its Default Service Program and Rate Mitigation Plan, Docket No. P-2008-2062739 (January 2009) [Retail Market Programs]

Comments on behalf of AARP before the Mississippi Public Service Commission, In Re: Order Establishing Docket to Consider standards established by the Energy Independence and Security Act of 2007, Docket No. 2008-ad-477 (February 2009) [PURPA Policies; Integrated Resource Planning; Time-Based Pricing]

Co-Author of Comments on behalf of The Utility Reform Network (TURN) before the California Public Utilities Commission, Order Instituting Rulemaking to consider Smart Grid Technologies Pursuant to Federal Legislation and on the Commission’s own Motion to Actively Guide Policy in California’s Development of a Smart Grid System, Docket R. 08-12-009 (2009 and 2010) [Smart Grid policies]

Direct and Rebuttal Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Department of Public Utilities, Investigation by the Department of Public Utilities on its Own Motion into the Preparation and Response on Fitchburg Gas & Electric Co. d/b/a Unitil to the December 12, 2008 Winter Storm, D.P.U. 09-01-A (March and April 2009) [Investigation of storm restoration practices]

Testimony on behalf of UWUA Local 132 before the California Public Utilities Commission, Southern California Gas Co. Advanced Metering Infrastructure, Docket No. A.08-09-023 (April 2009) [Advanced metering deployment]

Direct and Rebuttal Testimony on behalf of the Delaware Public Service Commission Staff before the Delaware Public Service Commission, In the Matter of the Investigation into the Business and Marketing Practices of Horizon Power and Light, LLC, Docket No. 355-08 (April and June 2009) [Investigation into marketing and contract practices of licensed electricity supplier]

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Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility

Commission, Petition of Metropolitan Edison Co. and Pennsylvania Electric Co. for Approval of its Default Service Program, Docket Nos. P-2009-2093053 and P-2009-2093054 (June 2009) [Default Service policies]

Alexander, Barbara, with the Assistance of Mitchell, Cynthia and Court, Gill, Renewable Energy Mandates: An Analysis Of Promises Made And Implications For Low Income Customers, Prepared under contract with Oak Ridge National Laboratory UT-Battelle, LLC, Purchase Order No. 4000091296 (June 2009).

Direct Testimony on behalf of the People of the State of Illinois and AARP before the Illinois Commerce Commission, Petition of Commonwealth Edison Co. to Approve and Advanced Metering Infrastructure Pilot, Docket No. 09-0263 (July 2009). [Advanced Metering pilot design and scope]

Direct Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Massachusetts Department of Public Utilities, Massachusetts Electric Company & Nantucket Electric Company d/b/a National Grid, Smart Grid Pilot Proposal, Docket No. 09-32 (August 2009) [Advanced Metering pilot design]

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Direct Testimony on behalf of AARP before the Maryland Public Service Commission, In the Matter of Potomac Electric Power Company and Delmarva Power and Light Company Request for the Deployment of Advanced Meter Infrastructure, Case No. 9207 (October 2009) [Advanced Metering deployment costs and benefits; dynamic pricing proposals]

Direct Testimony on behalf of AARP before the Maryland Public Service Commission, Application of Baltimore Gas and Electric Company for Authorization to Deploy A Smart Grid Initiative and to Establish a Tracker Mechanism For the Recovery of Costs, Case No. 9208 (October 2009) [Advanced Metering deployment costs and benefits; dynamic pricing proposals]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PPL Electric Utilities Corporation Requesting Approval of a Voluntary Purchase of Accounts Receivables Program and Merchant Function Charge, Docket No. P-2009-2129502 (October 2009) [Retail competition policies: purchase of receivables programs]

Direct and Cross Reply Testimony on behalf of The Energy Project (Washington) before the Washington Utilities and Transportation Commission, In the Matter of the Petition of Avista Corporation, D/B/A Avista Utilities, For an Order Authorizing Implementation of a Natural Gas Decoupling Mechanism and to Record Accounting Entries Associated With the Mechanism. Docket No. UG-060518 (*consolidated*) (August and September 2009) [Natural gas decoupling proposal; impact on low income customers]

Direct Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Massachusetts Department of Public Utilities, NSTAR Electric Co. Smart Grid Pilot Proposal, Docket No. 09-33 (November 2009) [Advanced Metering pilot design]

Direct Testimony on behalf of Public Counsel Section, Attorney General of Washington, before the Washington Utilities and Transportation Commission, In the Matter of the Joint Application of Verizon Communications Inc. and Frontier Communications Corporation For an Order Declining to Assert Jurisdiction Over, or, in the Alternative, Approving the Indirect Transfer of Control of Verizon Northwest Inc., Docket No. UT-090842 (November 2009) [Service Quality Conditions]

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Direct and Surrebuttal Testimony on behalf of Maine Office of Consumer Advocate, before the Maine PUC, Central Maine Power Co., Petition Requesting That the Commission Issue an Order to Modify CMP's Service Quality Indicators by Eliminating Or Changing the Current MPUC Complaint Ratio and to Waive Penalties, Docket No. 2009-217 (February and July 2010) [Evaluation of Request for Waiver of Penalty]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of UGI Utilities, Inc.—Gas Division for Approval to Voluntarily Implement a Purchase of Receivables Program and Merchant Function Charge And Of a Potential Affiliated Interest Agreement Between UGI Utilities, Inc.—Gas Division And Affiliated Entities, Docket No. P-2009-2145498 (April and May 2010) [Purchase of Receivables Program Conditions]

Direct Testimony on behalf of the Massachusetts Attorney General, before the Massachusetts Department of Public Utilities, Western Massachusetts Electric Co. Smart Grid Pilot Proposal, Docket D.P.U. 09-34 (May 2010) [Smart Meter and Pricing Pilot evaluation and conditions]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of PECO Energy Company for Approval of its Natural Gas Supplier Purchase of Receivables Program, Docket No. P-2009-2143588 (March, April, and May 2010) [Purchase of Receivables Program Conditions]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of Columbia Gas of Pennsylvania, Inc. for Approval to Voluntarily Implement a Modified Purchase of Receivables Program Pursuant to SEARCH Filing Requirement and Interim Purchase of Receivables Guidelines, Docket No. P-2009-2099333 (February and March 2010) [Purchase of Receivables Program Conditions]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of PECO Energy Company for Approval of its Revised Electric Purchase of Receivables Program, Docket No. P-2009-2143607 (February and March 2010) [Purchase of Receivables Program Conditions]

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Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of T.W. Phillips Gas and Oil Co. for Approval of Purchase of Receivables Program, Docket No. P-2009-2099192 (August 2010) [Purchase of Receivables Program Conditions]

Direct Testimony on behalf of AARP, before the Maryland PSC, Application of Baltimore Gas and Electric Company for Authorization to Deploy a Smart Grid Initiative and to Establish a Tracker Mechanism and For the Recovery of Costs, [Petition for Rehearing] Case No. 9208 (August 2010) [Smart Meter Costs and Benefits; Consumer Protections]

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Direct Testimony on behalf of Consumer Advocate Division before the Public Service Commission of West Virginia, Monongahela Power Co. and the Potomac Edison Co., both doing business as Allegheny Power Co., and FirstEnergy Corp. and Trans-Allegheny Interstate Line, Case No. 10-0713-E-PC (October 14, 2010) [Merger: Service Quality, Customer Service, and Universal Service Program Conditions]

Rebuttal Testimony on behalf of the Office of People's Counsel, before the Maryland Public Service Commission, In the Matter of the Merger of FirstEnergy Corp. and Allegheny Energy, Case No. 9233 (October 22, 2010) [Default Service Policies]

Direct Testimony on behalf of Consumer Advocate Division before the Public Service Commission of West Virginia, Appalachian Power Co. and Wheeling Power Co., Case No. 10-0699-E-42T (November 10, 2010) [Base Rate Case: reforms to ameliorate rate impacts on low income customers; remote disconnection tariff proposal]

Direct and Rebuttal Testimony on behalf of AARP, before the Illinois Commerce Commission, Commonwealth Edison Co. Petition for Approval of an Alternative Rate Regulation Plan, Docket No. 10-0257 (November and December 2010) [Analysis of consumer protections and risks in alternative rate plan]

Rebuttal Testimony on behalf of the Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Pennsylvania PUC v. Peoples Natural Gas Co., LLC 2010 Base Rate Proceeding, Docket No. R-20102201702 (February 23, 2011) [Purchase of Receivables program]

Expert Report of Barbara Alexander on Behalf of Plaintiffs, Benjamin Berger, individually and on behalf of all other similarly situated and the general public, vs. The Home Depot USA, Inc, U.S. District Court, Central District of California, Western Division, Case SACV 10-678 SJO (PLAX), March 1, 2011 (Negative Option Sales Method for "tool rental protection")

Direct Testimony on behalf of the Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Application for all the Authority and the Necessary Certificates of Public Convenience to Transfer All of the Issued and Outstanding Shares of Capital Stock of T.W. Phillips Gas and Oil Co., currently owned by TWP, Inc., to LDC Holdings II LLC, an indirect Subsidiary of SteelRiver Infrastructure Fund North America LP, and to Approve the Resulting Change in Control of T.W. Phillips Gas and Oil Co., Docket No. A-2010-2210326 (March 31, 2011) [Service Quality, Customer Service, and Universal Service Program Conditions]

Comments on behalf of AARP before the Public Service Commission of the District of Columbia, Pepco's Proposed AMI Consumer Education Plan, Formal Case No. 1056 (March 30, 2011)

Comments on behalf of AARP before the Public Service Commission of the District of Columbia, Notice of Proposed Rulemaking, Reliability of Service, Formal Case No. 766, 982, 991, and 1002 (April 11, 2011) [Restoration of Service for Major Outage Events]



## Presentations and Training Programs:

- Presentation, Smart Grid Future, Brookings Institute, Washington, DC [July 2010]
- Participant, Fair Pricing Conference, Rutgers Business School, New Jersey [April 2010]
- Presentation on Smart Metering, National Regulatory Conference, Williamsburg, VA [May 2010]
- Presentation on Smart Metering, Energy Bar Association Annual Meeting, Washington, DC [November 2009]
- Presentation at Workshop on Smart Grid policies, California PUC [July 2009]
- National Energy Affordability and Energy Conference (NEAUC) Annual Conference
- NARUC
- NASUCA
- Testimony and Presentations to State Legislatures: Virginia, New Jersey, Texas, Kentucky, Illinois, and Maine
- Training Programs for State Regulatory Commissions: Pennsylvania, Georgia, Kentucky, Illinois, New Jersey
- DOE-NARUC National Electricity Forum
- AIC Conference on Reliability of Electric Service
- Institute of Public Utilities, MSU (Camp NARUC) [Instructor 1996-2006]
- Training Programs on customer service and service quality regulation for international regulators (India and Brazil) on behalf of Regulatory Assistance Project
- Georgia Natural Gas Deregulation Task Force [December 2001]
- Mid Atlantic Assoc. of Regulatory Utility Commissioners [July 2003]
- Illinois Commerce Commission's Post 2006 Initiative [April 2004]
- Delaware Public Service Commission's Workshop on Standard Offer Service [August 2004]



## 7a - Number of Disconnection Notices Issued (Residential Accounts)

Year	Month	Past Due Notice Type		
		5 Day Shut Off	15 Day	Total
2011	JAN	63943	92651	156,594
	FEB	64364	100541	164,905
	MAR	64997	100552	165,549
	APR	68,626	101222	169,848
	MAY	57060	86035	143,095
	JUN	62860	90886	153,746
	JUL			
	AUG			
	SEP			
	OCT			
	NOV			
	DEC			
	<b>Total</b>		<b>381,850</b>	<b>571,887</b>
<b>Annual Average</b>		<b>63,642</b>	<b>95,315</b>	<b>158,956</b>
<b>Avg JAN-JUN</b>		<b>63,642</b>	<b>95,315</b>	<b>158,956</b>

Year	Month	Past Due Notice Type		
		5 Day Shut Off	15 Day	Total
2010	JAN	68081	97942	166,023
	FEB	66764	97353	164,117
	MAR	61252	90865	152,117
	APR	63,848	90039	153,887
	MAY	58954	84983	143,937
	JUN	56575	79442	136,017
	JUL	59133	83281	142,414
	AUG	54,261	79479	133,740
	SEP	52437	75371	127,808
	OCT	55752	80250	136,002
	NOV	40117	60741	100,858
	DEC	56825	85757	142,582
	<b>Total</b>		<b>693,999</b>	<b>1,005,503</b>
<b>Annual Average</b>		<b>57,833</b>	<b>83,792</b>	<b>141,625</b>
<b>Avg JAN-JUN</b>		<b>62,579</b>	<b>90,104</b>	<b>152,683</b>

Year	Month	Past Due Notice Type		
		5 Day Shut Off	15 Day	Total
2009	JAN	62593	89217	151,810
	FEB	61919	100560	162,479
	MAR	63225	90194	153,419
	APR	64,481	92355	156,836
	MAY	62462	86196	148,658
	JUN	53393	75348	128,741
	JUL	53896	77155	131,051
	AUG	50,009	76130	126,139
	SEP	52151	77419	129,570
	OCT	57466	82987	140,453
	NOV	38439	58797	97,236
	DEC	57666	85473	143,139
	<b>Total</b>		<b>677,700</b>	<b>991,831</b>
<b>Annual Average</b>		<b>56,475</b>	<b>82,653</b>	<b>139,128</b>
<b>Avg JAN-JUN</b>		<b>61,346</b>	<b>88,978</b>	<b>150,324</b>

Year	Month	Past Due Notice Type		
		5 Day Shut Off	15 Day	Total
2008	JAN	62023	89960	151,983
	FEB	62819	99537	162,356
	MAR	62672	92006	154,678
	APR	59,286	85736	145,022
	MAY	61638	89221	150,859
	JUN	48167	67604	115,771
	JUL	49305	71376	120,681
	AUG	48,871	73387	122,258
	SEP	41171	61099	102,270
	OCT	50011	73630	123,641
	NOV	35556	54206	89,762
	DEC	47,938	71929	119,867
	<b>Total</b>		<b>629,457</b>	<b>929,691</b>
<b>Annual Average</b>		<b>52,455</b>	<b>77,474</b>	<b>129,929</b>
<b>Avg JAN-JUN</b>		<b>59,434</b>	<b>87,344</b>	<b>146,778</b>

7b - Number of actual disconnections for non-payment (residential accounts)

Month	2008	2009	2010	2011
JAN	2,096	2,272	2,526	2,498
FEB	2,828	2,855	2,846	3,008
MAR	3,312	2,985	2,532	3,615
APR	3,678	3,092	2,436	3,973
MAY	2,859	1,611	2,135	3,818
JUN	2,600	2,860	2,473	3,059
JUL	2,396	1,743	1,933	
AUG	1,839	2,493	1,736	
SEP	2,877	2,347	2,805	
OCT	3,176	2,246	2,914	
NOV	1,772	1,383	1,885	
DEC	1,168	702	1,569	
<b>Total</b>	<b>30,601</b>	<b>26,589</b>	<b>27,790</b>	<b>19,971</b>
<b>Annual Average</b>	<b>2,550</b>	<b>2,216</b>	<b>2,316</b>	<b>3,329</b>
<b>Avg JAN-JUN</b>	<b>2,896</b>	<b>2,613</b>	<b>2,491</b>	<b>3,329</b>

**7c - Number of payment plans entered into w/ installment payment  
of arrears balance + current bill (residential accounts)**

<b>Month</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
JAN	6,824	7,741	7,843	8,127
FEB	6,972	8,661	8,163	7,849
MAR	7,357	8,965	7,591	8,398
APR	6,728	7,455	6,678	7,556
MAY	5,201	5,807	5,508	6,761
JUN	4,866	5,532	5,788	6,814
JUL	4,133	4,556	4,745	
AUG	3,817	4,209	4,733	
SEP	4,426	4,750	4,902	
OCT	4,644	4,629	4,895	
NOV	3,287	3,742	4,272	
DEC	4,101	4,558	5,438	
<b>Total</b>	<b>62,356</b>	<b>70,605</b>	<b>70,556</b>	<b>45,505</b>
<b>Annual Average</b>	<b>5,196</b>	<b>5,884</b>	<b>5,880</b>	<b>7,584</b>
<b>Avg JAN-JUN</b>	<b>6,325</b>	<b>7,360</b>	<b>6,929</b>	<b>7,584</b>

7d - Number of payment plans entered into with equal monthly payments including budget payment plans (AVGPAY do not have equal monthly bills but are considered a budget plan)

\*Numbers reflect new Budget plans entered into and existing Budget plans when they renew/true-up

Year	Month	Type			
		BPAY	AVGPAY	Total	
2011	JAN	10,822	151	10,973	
	FEB	6,421	101	6,522	
	MAR	10,149	93	10,242	
	APR	4,934	42	4,976	
	MAY	3,430	51	3,481	
	JUN	4,185	65	4,250	
	JUL				
	AUG				
	SEP				
	OCT				
	NOV				
	DEC				
	<b>Total</b>		<b>39,941</b>	<b>503</b>	<b>40,444</b>
	<b>l Average</b>		<b>6,657</b>	<b>84</b>	<b>6,741</b>
<b>g JAN-JUN</b>		<b>6,657</b>	<b>84</b>	<b>6,741</b>	

Year	Month	Type			
		BPAY	AVGPAY	Total	
2010	JAN	9,727	236	9,963	
	FEB	9,679	138	9,817	
	MAR	5,113	86	5,199	
	APR	3,260	52	3,312	
	MAY	4,055	45	4,100	
	JUN	3,157	52	3,209	
	JUL	3,116	45	3,161	
	AUG	3,321	71	3,392	
	SEP	3,057	57	3,114	
	OCT	3,711	89	3,800	
	NOV	4,100	94	4,194	
	DEC	6,544	129	6,673	
	<b>Total</b>		<b>58,840</b>	<b>1,094</b>	<b>59,934</b>
	<b>l Average</b>		<b>4,903</b>	<b>91</b>	<b>4,995</b>
<b>g JAN-JUN</b>		<b>5,832</b>	<b>102</b>	<b>5,933</b>	

Year	Month	Type			
		BPAY	AVGPAY	Total	
2009	JAN	7,940	264	8,204	
	FEB	5,338	228	5,566	
	MAR	4,730	198	4,928	
	APR	4,318	111	4,429	
	MAY	3,710	86	3,796	
	JUN	2,945	93	3,038	
	JUL	2,799	78	2,877	
	AUG	2,397	114	2,511	
	SEP	2,944	132	3,076	
	OCT	3,723	159	3,882	
	NOV	4,928	138	5,066	
	DEC	6,845	262	7,107	
	<b>Total</b>		<b>52,617</b>	<b>1,863</b>	<b>54,480</b>
	<b>l Average</b>		<b>4,385</b>	<b>155</b>	<b>4,540</b>
<b>g JAN-JUN</b>		<b>4,830</b>	<b>163</b>	<b>4,994</b>	

Year	Month	Type			
		BPAY	AVGPAY	Total	
2008	JAN	4,835	184	5,019	
	FEB	3,794	140	3,934	
	MAR	3,513	95	3,608	
	APR	3,320	65	3,385	
	MAY	2,719	56	2,775	
	JUN	2,137	43	2,180	
	JUL	1,981	56	2,037	
	AUG	1,885	71	1,956	
	SEP	2,377	74	2,451	
	OCT	3,401	126	3,527	
	NOV	5,378	124	5,502	
	DEC	8,980	180	9,160	
	<b>Total</b>		<b>44,320</b>	<b>1,214</b>	<b>45,534</b>
	<b>l Average</b>		<b>3,693</b>	<b>101</b>	<b>3,795</b>
<b>g JAN-JUN</b>		<b>3,386</b>	<b>97</b>	<b>3,484</b>	

7e - Number of residential customers receiving Federal or State bill paying assistance  
 (LIEAP = Federal Assistance OEAP = State Assistance)

Year	Month	Type		
		LIEAP	OEAP	Total
2011	JAN	4,601	1,035	5,636
	FEB	2,829	1,535	4,364
	MAR	3,955	1,829	5,784
	APR	3,417	1,138	4,555
	MAY	3,704	1,802	5,506
	JUN	1,017	1,332	2,349
	JUL			
	AUG			
	SEP			
	OCT			
	NOV			
	DEC			
	<b>Total</b>	<b>19,523</b>	<b>8,671</b>	<b>28,194</b>
	<b>Annual Average</b>	<b>3,254</b>	<b>1,445</b>	<b>4,699</b>
	<b>Avg JAN-JUN</b>	<b>3,254</b>	<b>1,445</b>	<b>4,699</b>

Year	Month	Type		
		LIEAP	OEAP	Total
2010	JAN	2,321	1,088	3,409
	FEB	4,752	3,151	7,903
	MAR	6,362	1,090	7,452
	APR	2,818	2,116	4,934
	MAY	2,360	644	3,004
	JUN	1,138	1,072	2,210
	JUL	131	738	869
	AUG	137	3,361	3,498
	SEP	212	342	554
	OCT	254	1,052	1,306
	NOV	185	859	1,044
	DEC	2,696	2,328	5,024
	<b>Total</b>	<b>23,366</b>	<b>17,841</b>	<b>41,207</b>
	<b>Annual Average</b>	<b>1,947</b>	<b>1,487</b>	<b>3,434</b>
	<b>Avg JAN-JUN</b>	<b>3,292</b>	<b>1,527</b>	<b>4,819</b>

Year	Month	Type		
		LIEAP	OEAP	Total
2009	JAN	2,566	1,055	3,621
	FEB	3,934	955	4,889
	MAR	3,282	2,608	5,890
	APR	4,071	3,214	7,285
	MAY	3,789	2,797	6,586
	JUN	3,417	1,978	5,395
	JUL	1,206	1,034	2,240
	AUG	283	2,742	3,025
	SEP	657	2,289	2,946
	OCT	421	812	1,233
	NOV	1,298	1,114	2,412
	DEC	3,268	2,549	5,817
	<b>Total</b>	<b>28,192</b>	<b>23,147</b>	<b>51,339</b>
	<b>Annual Average</b>	<b>2,349</b>	<b>1,929</b>	<b>4,278</b>
	<b>Avg JAN-JUN</b>	<b>3,510</b>	<b>2,101</b>	<b>5,611</b>

Year	Month	Type		
		LIEAP	OEAP	Total
2008	JAN	3,067	991	4,058
	FEB	2,549	1,466	4,015
	MAR	1,688	1,522	3,210
	APR	2,824	2,533	5,357
	MAY	1,332	2,724	4,056
	JUN	418	1,803	2,221
	JUL	366	1,043	1,409
	AUG	264	1,753	2,017
	SEP	38	1,715	1,753
	OCT	75	1,067	1,142
	NOV	560	634	1,194
	DEC	3,640	3,013	6,653
	<b>Total</b>	<b>16,821</b>	<b>20,264</b>	<b>37,085</b>
	<b>Annual Average</b>	<b>1,402</b>	<b>1,689</b>	<b>3,090</b>
	<b>Avg JAN-JUN</b>	<b>1,980</b>	<b>1,840</b>	<b>3,820</b>

7f: Average dollar amount of overdue balance for customers who received a disconnection notice

Year	Month	Past Due Notice Type	
		15 Day	5 Day Shut Off
2011	JAN	\$ 241.02	\$ 251.96
	FEB	\$ 252.42	\$ 266.13
	MAR	\$ 262.56	\$ 276.02
	APR	\$ 265.37	\$ 286.44
	MAY	\$ 263.60	\$ 286.71
	JUN	\$ 260.85	\$ 285.65
	JUL		
	AUG		
	SEP		
	OCT		
	NOV		
	DEC		
	l Average	\$ 257.64	\$ 275.49
	g JAN-JUN	\$ 257.64	\$ 275.49

Year	Month	Past Due Notice Type	
		15 Day	5 Day Shut Off
2010	JAN	\$ 243.86	\$ 252.05
	FEB	\$ 250.39	\$ 262.37
	MAR	\$ 252.96	\$ 264.64
	APR	\$ 251.67	\$ 267.77
	MAY	\$ 251.03	\$ 268.02
	JUN	\$ 250.45	\$ 267.96
	JUL	\$ 248.54	\$ 266.47
	AUG	\$ 242.11	\$ 259.72
	SEP	\$ 239.14	\$ 255.28
	OCT	\$ 232.18	\$ 250.12
	NOV	\$ 229.62	\$ 244.46
	DEC	\$ 230.25	\$ 242.88
	l Average	\$ 243.52	\$ 258.48
	g JAN-JUN	\$ 250.06	\$ 263.80

Year	Month	Past Due Notice Type	
		15 Day	5 Day Shut Off
2009	JAN	\$ 232.15	\$ 245.87
	FEB	\$ 249.85	\$ 256.51
	MAR	\$ 255.97	\$ 268.65
	APR	\$ 259.94	\$ 274.29
	MAY	\$ 261.25	\$ 279.20
	JUN	\$ 260.51	\$ 283.02
	JUL	\$ 254.93	\$ 279.55
	AUG	\$ 246.12	\$ 269.53
	SEP	\$ 240.59	\$ 259.23
	OCT	\$ 234.51	\$ 252.68
	NOV	\$ 230.36	\$ 247.37
	DEC	\$ 230.57	\$ 243.25
	l Average	\$ 246.40	\$ 263.26
	g JAN-JUN	\$ 253.28	\$ 267.92

Year	Month	Past Due Notice Type	
		15 Day	5 Day Shut Off
2008	JAN	\$ 225.13	\$ 231.97
	FEB	\$ 239.82	\$ 247.62
	MAR	\$ 249.89	\$ 259.60
	APR	\$ 251.31	\$ 267.42
	MAY	\$ 256.05	\$ 274.90
	JUN	\$ 256.02	\$ 276.32
	JUL	\$ 250.93	\$ 275.06
	AUG	\$ 242.34	\$ 264.26
	SEP	\$ 237.39	\$ 258.86
	OCT	\$ 229.21	\$ 250.14
	NOV	\$ 225.90	\$ 244.52
	DEC	\$ 224.44	\$ 237.92
	l Average	\$ 240.70	\$ 257.38
	g JAN-JUN	\$ 246.37	\$ 259.64



**7g: Average dollar amount owed at time of disconnection for nonpayment**

**\*Reflects amount owed on disconnect service order needed to avoid disconnection of service**

<b>Month</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
JAN	\$ 220.43	\$ 221.18	\$ 256.38	\$ 252.93
FEB	\$ 248.56	\$ 237.14	\$ 275.22	\$ 270.11
MAR	\$ 254.63	\$ 259.98	\$ 282.71	\$ 287.14
APR	\$ 255.98	\$ 285.83	\$ 283.21	\$ 279.23
MAY	\$ 251.31	\$ 273.29	\$ 270.95	\$ 276.06
JUN	\$ 247.86	\$ 265.02	\$ 259.78	\$ 258.46
JUL	\$ 228.33	\$ 251.46	\$ 250.09	
AUG	\$ 218.75	\$ 249.12	\$ 249.98	
SEP	\$ 209.64	\$ 235.48	\$ 259.24	
OCT	\$ 199.55	\$ 235.69	\$ 252.08	
NOV	\$ 191.00	\$ 231.73	\$ 242.72	
DEC	\$ 191.90	\$ 232.89	\$ 239.65	
<b>Annual Average</b>	<b>\$ 226.49</b>	<b>\$ 248.23</b>	<b>\$ 260.17</b>	<b>\$ 270.66</b>
<b>Avg JAN-JUN</b>	<b>\$ 246.46</b>	<b>\$ 257.07</b>	<b>\$ 271.37</b>	<b>\$ 270.66</b>

7h: Average amount owed at time of reconnection of service following disconnection for nonpayment

Month	2008	2009	2010	2011
JAN	\$ 347.88	\$ 401.67	\$ 445.28	\$ 228.69
FEB	\$ 401.21	\$ 386.57	\$ 405.09	\$ 237.31
MAR	\$ 367.68	\$ 402.39	\$ 420.90	\$ 247.51
APR	\$ 366.15	\$ 418.89	\$ 419.23	\$ 228.90
MAY	\$ 336.43	\$ 361.48	\$ 369.33	\$ 181.22
JUN	\$ 321.61	\$ 329.72	\$ 360.57	\$ 167.72
JUL	\$ 323.91	\$ 316.55	\$ 347.09	
AUG	\$ 292.42	\$ 330.39	\$ 340.80	
SEP	\$ 275.20	\$ 305.34	\$ 336.57	
OCT	\$ 273.78	\$ 331.98	\$ 341.45	
NOV	\$ 264.74	\$ 337.02	\$ 282.44	
DEC	\$ 275.98	\$ 353.71	\$ 158.46	
<b>Annual Average</b>	<b>\$ 320.58</b>	<b>\$ 356.31</b>	<b>\$ 352.27</b>	<b>\$ 215.22</b>
<b>Avg JAN-JUN</b>	<b>\$ 356.83</b>	<b>\$ 383.45</b>	<b>\$ 403.40</b>	<b>\$ 215.22</b>

## 7j - Total Cumulative arrearage for Residential Customers for active accounts

Year	Month	Days in Arrears				Total
		1-30	31-60	61-90	91+	
2011	JAN	\$ 16,162,953	\$ 2,960,047	\$ 686,219	\$ 386,112	\$ 20,195,331
	FEB	\$ 15,744,311	\$ 2,718,683	\$ 535,650	\$ 322,089	\$ 19,320,732
	MAR	\$ 17,964,680	\$ 2,814,900	\$ 431,976	\$ 252,644	\$ 21,464,201
	APR	\$ 15,324,285	\$ 3,148,551	\$ 566,353	\$ 254,858	\$ 19,294,047
	MAY	\$ 13,826,792	\$ 2,904,473	\$ 540,961	\$ 257,144	\$ 17,529,371
	JUN	\$ 13,251,459	\$ 2,574,944	\$ 465,469	\$ 270,267	\$ 16,562,140
	JUL					
	AUG					
	SEP					
	OCT					
	NOV					
	DEC					
	Total	\$ 92,274,481	\$ 17,121,598	\$ 3,226,628	\$ 1,743,115	\$ 114,365,822
Annual Average	\$ 15,379,080	\$ 2,853,600	\$ 537,771	\$ 290,519	\$ 19,060,970	
Avg JAN-JUN	\$ 15,379,080	\$ 2,853,600	\$ 537,771	\$ 290,519	\$ 19,060,970	

Year	Month	Days in Arrears				Total
		1-30	31-60	61-90	91+	
2010	JAN	\$ 19,475,678	\$ 3,873,550	\$ 964,577	\$ 540,511	\$ 24,854,316
	FEB	\$ 15,534,295	\$ 3,288,689	\$ 692,320	\$ 345,099	\$ 19,860,403
	MAR	\$ 16,815,054	\$ 2,968,580	\$ 557,638	\$ 272,663	\$ 20,613,934
	APR	\$ 15,733,443	\$ 3,011,694	\$ 469,067	\$ 224,185	\$ 19,438,391
	MAY	\$ 14,124,003	\$ 3,048,258	\$ 685,369	\$ 242,323	\$ 18,099,952
	JUN	\$ 14,149,042	\$ 2,897,574	\$ 647,211	\$ 274,935	\$ 17,968,760
	JUL	\$ 13,525,793	\$ 3,289,729	\$ 620,736	\$ 318,926	\$ 17,755,184
	AUG	\$ 13,029,865	\$ 2,765,277	\$ 766,110	\$ 325,587	\$ 16,886,840
	SEP	\$ 13,555,886	\$ 2,994,986	\$ 587,341	\$ 356,709	\$ 17,494,922
	OCT	\$ 13,048,433	\$ 2,701,515	\$ 539,557	\$ 328,190	\$ 16,617,694
	NOV	\$ 12,552,987	\$ 3,207,662	\$ 766,399	\$ 429,233	\$ 16,956,281
	DEC	\$ 17,473,117	\$ 3,455,392	\$ 994,224	\$ 461,554	\$ 22,384,286
	Total	\$ 179,017,596	\$ 37,502,905	\$ 8,290,548	\$ 4,119,915	\$ 228,930,964
Annual Average	\$ 14,918,133	\$ 3,125,242	\$ 690,879	\$ 343,326	\$ 19,077,580	
Avg JAN-JUN	\$ 15,971,919	\$ 3,181,391	\$ 669,364	\$ 316,619	\$ 20,139,293	

Year	Month	Days in Arrears				
		1-30	31-60	61-90	91+	Total
2009	JAN	\$ 17,777,296	\$ 3,355,739	\$ 607,356	\$ 569,104	\$ 22,309,496
	FEB	\$ 17,844,516	\$ 3,412,957	\$ 873,709	\$ 516,108	\$ 22,647,289
	MAR	\$ 18,443,011	\$ 3,454,016	\$ 778,642	\$ 458,933	\$ 23,134,602
	APR	\$ 16,471,183	\$ 3,724,775	\$ 778,288	\$ 452,757	\$ 21,427,003
	MAY	\$ 13,331,965	\$ 3,658,293	\$ 1,052,745	\$ 466,174	\$ 18,509,177
	JUN	\$ 13,327,673	\$ 2,724,642	\$ 800,651	\$ 405,616	\$ 17,258,582
	JUL	\$ 12,692,414	\$ 3,233,723	\$ 629,099	\$ 391,192	\$ 16,946,429
	AUG	\$ 12,819,522	\$ 2,863,434	\$ 758,874	\$ 350,560	\$ 16,792,391
	SEP	\$ 13,087,377	\$ 2,664,742	\$ 581,496	\$ 339,993	\$ 16,673,608
	OCT	\$ 13,158,366	\$ 2,745,470	\$ 537,566	\$ 340,477	\$ 16,781,880
	NOV	\$ 12,567,294	\$ 3,083,182	\$ 864,751	\$ 404,960	\$ 16,920,187
	DEC	\$ 19,189,927	\$ 3,352,030	\$ 878,231	\$ 448,493	\$ 23,868,681
	Total	\$ 180,710,544	\$ 38,273,004	\$ 9,141,409	\$ 5,144,368	\$ 233,269,325
	Annual Average	\$ 15,059,212	\$ 3,189,417	\$ 761,784	\$ 428,697	\$ 19,439,110
Avg JAN-JUN	\$ 16,199,274	\$ 3,388,404	\$ 815,232	\$ 478,115	\$ 20,881,025	

Year	Month	Days in Arrears				
		1-30	31-60	61-90	91+	Total
2008	JAN	\$ 17,251,320	\$ 3,061,105	\$ 531,866	\$ 238,310	\$ 21,082,600
	FEB	\$ 18,053,887	\$ 2,868,381	\$ 615,571	\$ 233,284	\$ 21,771,124
	MAR	\$ 16,863,740	\$ 2,782,352	\$ 661,830	\$ 252,805	\$ 20,560,726
	APR	\$ 15,128,383	\$ 2,823,503	\$ 579,433	\$ 243,646	\$ 18,774,965
	MAY	\$ 13,739,149	\$ 2,791,921	\$ 529,084	\$ 240,199	\$ 17,300,352
	JUN	\$ 12,269,877	\$ 2,643,592	\$ 583,126	\$ 232,469	\$ 15,729,063
	JUL	\$ 11,707,688	\$ 2,727,400	\$ 559,048	\$ 284,410	\$ 15,278,546
	AUG	\$ 11,662,075	\$ 2,483,848	\$ 560,179	\$ 305,497	\$ 15,011,599
	SEP	\$ 11,762,307	\$ 2,245,439	\$ 590,808	\$ 333,176	\$ 14,931,731
	OCT	\$ 11,650,125	\$ 2,268,364	\$ 494,709	\$ 333,759	\$ 14,746,957
	NOV	\$ 11,655,853	\$ 3,260,908	\$ 822,071	\$ 411,978	\$ 16,150,810
	DEC	\$ 16,637,593	\$ 3,078,149	\$ 916,987	\$ 467,818	\$ 21,100,547
	Total	\$ 168,381,996	\$ 33,034,961	\$ 7,444,713	\$ 3,577,351	\$ 212,439,021
	Annual Average	\$ 14,031,833	\$ 2,752,913	\$ 620,393	\$ 298,113	\$ 17,703,252
Avg JAN-JUN	\$ 15,551,059	\$ 2,828,475	\$ 583,485	\$ 240,119	\$ 19,203,139	

**CUB'S DATA REQUEST NO. 7:**

Please provide the following information by month and annual average for residential customers for the calendar years 2008, 2009, 2010, and 2011 to date:

- a. Number of disconnection notices issued;
- b. Number of actual disconnections for nonpayment;
- c. Number of payment plans entered into with installment payments of the arrears balance plus the current bill;
- d. Number of payment plans entered into with equal monthly payments, including budget payment plans;
- e. Number of residential customers receiving federal or state bill paying assistance;
- f. Average dollar amount of overdue balance for customers who receive a disconnection notice;
- g. Average dollar amount owed at time of disconnection for nonpayment;
- h. Average amount owed at time of reconnection of service following disconnection for nonpayment;
- i. Information on f, g, and h for identified low-income customers;
- j. Total cumulative arrearage for residential customers.

**IDAHO POWER COMPANY'S RESPONSE TO CUB'S DATA REQUEST NO. 7:**

- a. Number of disconnection notices issued.

The below data is based on 5-day disconnection notices mailed as required by OAR 860-21-0405(6).

2008	Count	2009	Count	2010	Count	2011	Count
Jan	596	Jan	754	Jan	679	Jan	682
Feb	540	Feb	645	Feb	669	Feb	570
Mar	757	Mar	809	Mar	773	Mar	719
Apr	788	Apr	884	Apr	767	Apr	776
May	757	May	853	May	780	May	705
Jun	789	Jun	926	Jun	833	Jun	748
Jul	674	Jul	852	Jul	841	Jul	426
Aug	643	Aug	748	Aug	776		
Sep	731	Sep	724	Sep	861		
Oct	826	Oct	776	Oct	900		
Nov	642	Nov	710	Nov	740		
Dec	682	Dec	649	Dec	776		
Total	8,425	Total	9,330	Total	9,395	Total	4,626

**b. Number of actual disconnections for nonpayment.**

<b>2008</b>	<b>Count</b>	<b>2009</b>	<b>Count</b>	<b>2010</b>	<b>Count</b>	<b>2011</b>	<b>Count</b>
Jan	25	Jan	1	Jan	27	Jan	54
Feb	53	Feb	18	Feb	47	Feb	58
Mar	69	Mar	43	Mar	72	Mar	84
Apr	113	Apr	36	Apr	104	Apr	100
May	96	May	40	May	69	May	90
Jun	76	Jun	47	Jun	68	Jun	124
Jul	58	Jul	158	Jul	100	Jul	14
Aug	45	Aug	118	Aug	63		
Sep	51	Sep	78	Sep	63		
Oct	27	Oct	97	Oct	104		
Nov	61	Nov	61	Nov	54		
Dec	22	Dec	32	Dec	24		
<b>Total</b>	<b>696</b>	<b>Total</b>	<b>729</b>	<b>Total</b>	<b>795</b>	<b>Total</b>	<b>524</b>

**c. Number of payment plans entered into with installment payments of the arrears balance plus the current bill.**

<b>2008</b>	<b>Count</b>	<b>2009</b>	<b>Count</b>	<b>2010</b>	<b>Count</b>	<b>2011</b>	<b>Count</b>
Jan	785	Jan	786	Jan	1,062	Jan	1,630
Feb	1,133	Feb	1,306	Feb	1,463	Feb	2,339
Mar	1,852	Mar	2,193	Mar	1,823	Mar	2,585
Apr	1,351	Apr	1,476	Apr	1,427	Apr	1,526
May	946	May	1,217	May	1,082	May	1,116
Jun	797	Jun	859	Jun	1,003	Jun	1,049
Jul	517	Jul	996	Jul	958	Jul	363
Aug	676	Aug	747	Aug	793		
Sep	595	Sep	796	Sep	1,048		
Oct	861	Oct	719	Oct	1,026		
Nov	548	Nov	777	Nov	903		
Dec	466	Dec	798	Dec	1,272		
<b>Total</b>	<b>10,527</b>	<b>Total</b>	<b>12,670</b>	<b>Total</b>	<b>13,860</b>	<b>Total</b>	<b>10,608</b>

**d. Number of payment plans entered into with equal monthly payments, including budget payment plans.**

The number of payment arrangements with 12 equal monthly payments is detailed below.

2008	Count	2009	Count	2010	Count	2011	Count
Jan	785	Jan	786	Jan	1,062	Jan	1,630
Feb	1,133	Feb	1,306	Feb	1,463	Feb	2,339
Mar	1,852	Mar	2,193	Mar	1,823	Mar	2,585
Apr	1,351	Apr	1,476	Apr	1,427	Apr	1,526
May	946	May	1,217	May	1,082	May	1,116
Jun	797	Jun	859	Jun	1,003	Jun	1,049
Jul	517	Jul	996	Jul	958	Jul	363
Aug	676	Aug	747	Aug	793		
Sep	595	Sep	796	Sep	1,048		
Oct	861	Oct	719	Oct	1,026		
Nov	548	Nov	777	Nov	903		
Dec	466	Dec	798	Dec	1,272		
Total	10,527	Total	12,670	Total	13,860	Total	10,608

The number of accounts enrolled in Budget Pay by month is shown below.

2008	Count	2009	Count	2010	Count	2011	Count
Jan	1,074	Jan	1,127	Jan	1,149	Jan	1,215
Feb	1,088	Feb	1,150	Feb	1,175	Feb	1,255
Mar	1,113	Mar	1,151	Mar	1,168	Mar	1,254
Apr	1,131	Apr	1,155	Apr	1,176	Apr	1,244
May	1,124	May	1,148	May	1,180	May	1,232
Jun	1,120	Jun	1,141	Jun	1,167	Jun	1,222
Jul	1,113	Jul	1,134	Jul	1,161	Jul	1,098
Aug	1,106	Aug	1,142	Aug	1,155		
Sep	1,103	Sep	1,126	Sep	1,155		
Oct	1,105	Oct	1,129	Oct	1,157		
Nov	1,114	Nov	1,136	Nov	1,171		
Dec	1,116	Dec	1,136	Dec	1,172		
Total	13,307	Total	13,675	Total	13,986	Total	8,520

**e. Number of residential customers receiving federal or state bill paying assistance.**

The Company does not accurately track individual payments by assistance agency. By procedure, if a customer mails a payment to the Company's Payment Center in Seattle and it is an assistance payment, the Payment Center returns that payment to Cash Remittance to hand

enter. However, this does not always happen. Many of the assistance payments go through as regular payments and the Company has no way of identifying them.

Once Cash Remittance receives an assisted payment, they code Project Share payments as a payment type of 1 - Share Voucher and payments from assistance agencies with a Payer ID for the agency. The following table provides the customer counts for payments received with either a payment type of 1 (Project Share) or a Payer ID (assistance agency).

2008	Count	2009	Count	2010	Count	2011	Count
Jan	99	Jan	223	Jan	209	Jan	224
Feb	195	Feb	153	Feb	211	Feb	338
Mar	64	Mar	268	Mar	401	Mar	336
Apr	168	Apr	178	Apr	169	Apr	132
May	67	May	45	May	93	May	106
Jun	4	Jun	101	Jun	41	Jun	27
Jul	1	Jul	47	Jul	39	Jul	
Aug		Aug	7	Aug	77		
Sep		Sep	70	Sep	47		
Oct	7	Oct	42	Oct	15		
Nov	8	Nov	95	Nov	15		
Dec	58	Dec	177	Dec	154		
Total	671	Total	1,406	Total	1,471	Total	1,163

**f. Average dollar amount of overdue balance for customers who receive a disconnection notice.**

2008	Average Amount	2009	Average Amount	2010	Average Amount	2011	Average Amount
Jan	\$188.54	Jan	\$194.12	Jan	\$227.18	Jan	\$262.63
Feb	\$203.64	Feb	\$237.28	Feb	\$247.92	Feb	\$285.73
Mar	\$229.02	Mar	\$260.01	Mar	\$264.79	Mar	\$275.53
Apr	\$210.49	Apr	\$228.74	Apr	\$221.69	Apr	\$270.90
May	\$182.78	May	\$212.67	May	\$212.91	May	\$257.08
Jun	\$151.41	Jun	\$180.35	Jun	\$190.22	Jun	\$236.62
Jul	\$145.11	Jul	\$176.24	Jul	\$180.09	Jul	\$227.62
Aug	\$156.67	Aug	\$162.66	Aug	\$169.07		
Sep	\$164.69	Sep	\$165.92	Sep	\$214.31		
Oct	\$160.76	Oct	\$175.07	Oct	\$191.19		
Nov	\$149.68	Nov	\$162.37	Nov	\$165.36		
Dec	\$162.81	Dec	\$172.13	Dec	\$191.71		
Total	\$175.46	Total	\$194.55	Total	\$205.40	Total	\$260.59



**g. Average dollar amount owed at time of disconnection for nonpayment;**

<b>2008</b>	<b>Average Amount</b>	<b>2009</b>	<b>Average Amount</b>	<b>2010</b>	<b>Average Amount</b>	<b>2011</b>	<b>Average Amount</b>
Jan	\$310.22	Jan	\$1,089.72	Jan	\$282.58	Jan	\$286.72
Feb	\$259.12	Feb	\$442.22	Feb	\$296.87	Feb	\$344.54
Mar	\$330.29	Mar	\$398.02	Mar	\$407.68	Mar	\$327.24
Apr	\$301.51	Apr	\$498.02	Apr	\$324.79	Apr	\$362.49
May	\$297.71	May	\$461.89	May	\$335.49	May	\$604.86
Jun	\$292.83	Jun	\$447.36	Jun	\$335.02	Jun	\$460.20
Jul	\$355.88	Jul	\$288.60	Jul	\$265.91	Jul	\$381.19
Aug	\$206.34	Aug	\$263.12	Aug	\$282.19		
Sep	\$315.55	Sep	\$268.92	Sep	\$326.44		
Oct	\$360.88	Oct	\$249.10	Oct	\$277.06		
Nov	\$204.72	Nov	\$221.61	Nov	\$292.75		
Dec	\$400.01	Dec	\$235.06	Dec	\$287.11		
<b>Total</b>	<b>\$296.32</b>	<b>Total</b>	<b>\$310.59</b>	<b>Total</b>	<b>\$310.81</b>	<b>Total</b>	<b>\$412.29</b>

**h. Average amount owed at time of reconnection of service following disconnection for nonpayment.**

The average amount owed at the time of service reconnection following a disconnection for nonpayment can reasonably be expected to be the same as that provide in response g.

**i. Information on f, g, and h for identified low-income customers.**

Idaho Power does not identify customers as being low-income, or not, within its CIS.

**j. Total cumulative arrearage for residential customers.**

<b>MONTHLY ARREARAGES</b>							
<b>2008</b>	<b>61+ Days</b>	<b>2009</b>	<b>61+ Days</b>	<b>2010</b>	<b>61+ Days</b>	<b>2011</b>	<b>61+ Days</b>
Jan	\$110,317	Jan	\$131,535	Jan	\$125,446	Jan	\$155,985
Feb	\$123,904	Feb	\$160,224	Feb	\$166,663	Feb	\$200,188
Mar	\$136,794	Mar	\$165,504	Mar	\$175,816	Mar	\$237,181
Apr	\$160,422	Apr	\$185,433	Apr	\$161,015	Apr	\$258,206
May	\$158,435	May	\$218,739	May	\$156,480	May	\$273,826
Jun	\$156,991	Jun	\$203,137	Jun	\$164,152	Jun	\$269,597
Jul	\$135,815	Jul	\$170,085	Jul	\$148,168	Jul	
Aug	\$120,371	Aug	\$135,879	Aug	\$128,514		
Sep	\$107,037	Sep	\$108,207	Sep	\$117,500		
Oct	\$101,993	Oct	\$94,141	Oct	\$110,981		
Nov	\$104,858	Nov	\$90,040	Nov	\$108,761		
Dec	\$111,326	Dec	\$100,524	Dec	\$130,098		



July 2011 data is through July 13.

**Number of disconnection notices issued**

		Year			
7(a) State	Month	2008	2009	2010	2011
OR	1	46,146	44,581	42,380	48,182
OR	2	45,147	43,390	43,390	44,421
OR	3	45,095	44,449	46,964	49,343
OR	4	45,573	45,403	44,850	47,351
OR	5	43,225	41,677	41,955	46,390
OR	6	42,742	45,018	45,648	49,004
OR	7	40,358	41,053	39,987	21,808
OR	8	40,088	40,526	42,276	
OR	9	41,867	41,695	41,653	
OR	10	44,664	42,039	42,455	
OR	11	33,884	34,216	36,177	
OR	12	42,007	42,194	41,933	
Monthly Average		42,566	42,187	42,472	

Note: Disconnect notices above are limited to final notice letters. Past due notices are not included.

**Number of actual disconnections for nonpayment**

		Year			
7(b) State	Month	2008	2009	2010	2011
OR	1	1,877	1,912	646	863
OR	2	2,017	1,965	584	851
OR	3	2,360	2,466	844	1,030
OR	4	2,720	2,047	676	973
OR	5	2,490	578	715	1,022
OR	6	2,573	784	845	1,056
OR	7	2,216	529	624	369
OR	8	1,884	566	771	
OR	9	2,162	598	608	
OR	10	2,378	540	642	
OR	11	1,019	364	475	
OR	12	812	213	254	
Monthly Average		2,042	1,047	640	

July 2011 data is through July 13.

**Number of payment plans entered into with installment payments  
of the arrears balance plus the current bill**

7(c)

State	Month	Year			
		2008	2009	2010	2011
OR	1	7,099	6,950	6,417	7,234
OR	2	6,428	6,783	5,865	6,740
OR	3	6,944	7,015	5,719	7,235
OR	4	6,171	6,949	4,995	6,532
OR	5	5,094	5,181	4,743	6,078
OR	6	4,778	4,844	5,270	5,789
OR	7	4,170	3,872	4,483	2,249
OR	8	4,098	3,938	4,650	
OR	9	4,643	4,455	4,775	
OR	10	4,837	4,147	4,233	
OR	11	3,398	3,302	3,628	
OR	12	4,128	4,361	4,683	
Monthly Average		5,149	5,150	4,955	

Note: Includes time payment plans and equal time payment plans.

**Number of payment plans entered into with equal monthly payments,  
including budget payment plans**

7(d)

State	Month	Year			
		2008	2009	2010	2011
OR	1	4,723	4,923	5,105	5,736
OR	2	5,296	4,682	4,531	5,724
OR	3	5,115	5,313	4,988	7,619
OR	4	5,724	5,735	5,340	6,979
OR	5	3,696	3,368	3,284	4,779
OR	6	2,656	2,726	2,854	4,236
OR	7	2,480	2,658	2,707	2,058
OR	8	2,827	3,103	3,016	
OR	9	3,201	3,353	3,525	
OR	10	4,407	4,602	4,222	
OR	11	3,302	3,465	3,789	
OR	12	3,807	4,365	4,545	
Monthly Average		3,936	4,024	3,992	

Note: Includes equal payment plans established when existing plan is terminated at review and plan with new monthly amount is established.

July 2011 data is through July 13.

**Number of residential customers receiving federal or state bill paying assistance**

7(e)

		Year			
State	Month	2008	2009	2010	2011
OR	1	4,763	5,975	7,344	5,940
OR	2	4,923	6,864	8,430	6,323
OR	3	5,165	7,137	6,213	6,302
OR	4	4,221	5,530	5,987	6,508
OR	5	3,690	4,344	3,951	5,953
OR	6	2,382	5,125	4,051	3,723
OR	7	1,655	2,569	2,356	751
OR	8	1,825	1,954	3,178	
OR	9	1,410	2,829	1,469	
OR	10	1,502	2,142	2,060	
OR	11	3,896	3,604	3,291	
OR	12	5,961	5,262	6,635	
Monthly Average		3,449	4,445	4,580	

Note: The Company is unable to provide this data on federal and state assistance payments only. Data includes energy assistance from all sources.

**Average dollar amount of overdue balance for customers who receive a disconnection notice**

7(f)

		Year			
State	Month	2008	2009	2010	2011
OR	1	\$ 175.46	\$ 167.38	\$ 180.17	\$ 201.11
OR	2	\$ 216.46	\$ 200.47	\$ 202.72	\$ 209.94
OR	3	\$ 202.82	\$ 191.57	\$ 192.65	\$ 208.05
OR	4	\$ 186.02	\$ 183.56	\$ 194.31	\$ 207.65
OR	5	\$ 178.81	\$ 172.09	\$ 171.53	\$ 189.25
OR	6	\$ 173.37	\$ 156.12	\$ 165.74	\$ 180.03
OR	7	\$ 158.43	\$ 135.07	\$ 152.56	\$ 173.36
OR	8	\$ 144.55	\$ 239.94	\$ 147.87	
OR	9	\$ 141.46	\$ 155.73	\$ 153.78	
OR	10	\$ 139.97	\$ 138.89	\$ 155.29	
OR	11	\$ 136.99	\$ 141.54	\$ 141.25	
OR	12	\$ 145.62	\$ 142.64	\$ 147.20	
Monthly Average		\$ 166.66	\$ 168.75	\$ 167.09	

Note: Disconnect notices are limited to final notice letters. Past due notices are not included.

July 2011 data is through July 13.

**Average dollar amount owed at time of disconnection for nonpayment**

7(g)

State	Month	Year			
		2008	2009	2010	2011
OR	1	\$ 155.59	\$ 195.59	\$ 213.31	\$ 232.47
OR	2	\$ 191.67	\$ 196.93	\$ 209.06	\$ 242.65
OR	3	\$ 233.54	\$ 204.16	\$ 225.14	\$ 277.67
OR	4	\$ 214.06	\$ 265.24	\$ 209.93	\$ 283.28
OR	5	\$ 199.39	\$ 235.27	\$ 259.43	\$ 253.96
OR	6	\$ 179.08	\$ 193.82	\$ 218.11	\$ 262.69
OR	7	\$ 167.59	\$ 191.33	\$ 216.95	\$ 304.50
OR	8	\$ 161.55	\$ 156.73	\$ 202.25	
OR	9	\$ 163.77	\$ 162.06	\$ 214.57	
OR	10	\$ 161.72	\$ 155.96	\$ 214.74	
OR	11	\$ 165.10	\$ 160.09	\$ 193.49	
OR	12	\$ 143.80	\$ 149.57	\$ 210.74	
Monthly Average		\$ 178.07	\$ 188.90	\$ 215.64	

Note: The collect amount of the disconnect order worked was used for the amount owed at the time of disconnect.

**Average amount owed at time of reconnection of service following disconnection for nonpayment**

7(h)

State	Month	Year			
		2008	2009	2010	2011
OR	1	\$ 171.24	\$ 208.07	\$ 297.62	\$ 334.89
OR	2	\$ 181.55	\$ 223.17	\$ 286.52	\$ 342.45
OR	3	\$ 206.38	\$ 203.19	\$ 305.26	\$ 395.44
OR	4	\$ 177.01	\$ 226.43	\$ 298.22	\$ 357.13
OR	5	\$ 180.41	\$ 229.71	\$ 254.07	\$ 323.75
OR	6	\$ 150.38	\$ 222.23	\$ 259.01	\$ 315.30
OR	7	\$ 140.30	\$ 241.89	\$ 264.06	\$ 322.37
OR	8	\$ 144.45	\$ 199.12	\$ 240.66	
OR	9	\$ 135.66	\$ 177.58	\$ 213.03	
OR	10	\$ 145.53	\$ 195.43	\$ 235.07	
OR	11	\$ 152.30	\$ 195.55	\$ 235.92	
OR	12	\$ 155.46	\$ 241.02	\$ 277.33	
Monthly Average		\$ 161.72	\$ 213.62	\$ 263.90	

Note: The amount owed at time of reconnect has been calculated by taking the account ending balance from the first bill following the reconnect and subtracting the current charges. July 2011 is therefore not complete for all reconnects through July 13.

July 2011 data is through July 13.

**Information on f for identified low-income customers**

7(i) - f

State	Month	Year			
		2008	2009	2010	2011
OR	1	\$ 162.56	\$ 169.25	\$ 171.94	\$ 185.50
OR	2	\$ 180.51	\$ 193.27	\$ 190.65	\$ 219.37
OR	3	\$ 185.47	\$ 185.84	\$ 189.64	\$ 219.25
OR	4	\$ 170.33	\$ 178.82	\$ 170.03	\$ 213.14
OR	5	\$ 168.01	\$ 171.62	\$ 175.68	\$ 204.23
OR	6	\$ 156.85	\$ 139.45	\$ 166.44	\$ 182.96
OR	7	\$ 145.91	\$ 134.64	\$ 153.19	\$ 175.93
OR	8	\$ 135.02	\$ 128.09	\$ 145.30	
OR	9	\$ 129.91	\$ 136.85	\$ 146.61	
OR	10	\$ 132.58	\$ 130.89	\$ 146.10	
OR	11	\$ 131.75	\$ 124.47	\$ 134.01	
OR	12	\$ 140.48	\$ 137.32	\$ 147.19	
Monthly Average		\$ 153.28	\$ 152.54	\$ 161.40	

Note: Disconnect notices are limited to final notice letters. Past due notices are not included. For this report, a low-income customer is any customer receiving agency assistance payments after December 2007.

**Information on g for identified low-income customers**

7(i) - g

State	Month	Year			
		2008	2009	2010	2011
OR	\$ 1.00	\$ 195.85	\$ 217.67	\$ 208.24	\$ 306.09
OR	\$ 2.00	\$ 159.11	\$ 214.50	\$ 282.12	\$ 286.56
OR	\$ 3.00	\$ 209.25	\$ 204.65	\$ 252.32	\$ 346.44
OR	\$ 4.00	\$ 262.60	\$ 220.79	\$ 298.40	\$ 239.62
OR	\$ 5.00	\$ 182.83	\$ 175.41	\$ 288.23	\$ 317.68
OR	\$ 6.00	\$ 162.77	\$ 249.40	\$ 186.58	\$ 353.41
OR	\$ 7.00	\$ 193.01	\$ 239.85	\$ 222.71	\$ 261.79
OR	\$ 8.00	\$ 171.45	\$ 218.26	\$ 211.26	
OR	\$ 9.00	\$ 175.58	\$ 197.36	\$ 217.35	
OR	\$ 10.00	\$ 161.59	\$ 166.10	\$ 240.11	
OR	\$ 11.00	\$ 119.75	\$ 119.44	\$ 225.63	
OR	\$ 12.00	\$ 210.53	\$ 175.23	\$ 265.65	
Monthly Average		\$ 183.69	\$ 199.89	\$ 241.55	

Note: For this report, a low-income customer is any customer receiving agency assistance payments after December 2007. The collect amount of the disconnect order worked was used for the amount owed at the time of disconnect.

July 2011 data is through July 13.

**Information on h for identified low-income customers**

7(i) - h

State	Month	Year			
		2008	2009	2010	2011
OR	1	\$ 204.32	\$ 365.76	\$ 482.80	\$ 399.43
OR	2	\$ 320.97	\$ 380.07	\$ 580.15	\$ 384.19
OR	3	\$ 303.93	\$ 316.13	\$ 563.61	\$ 641.68
OR	4	\$ 328.14	\$ 329.71	\$ 372.19	\$ 548.18
OR	5	\$ 353.56	\$ 407.57	\$ 339.49	\$ 400.63
OR	6	\$ 165.97	\$ 496.03	\$ 141.35	\$ 338.07
OR	7	\$ 157.87	\$ 424.67	\$ 352.26	\$ 252.27
OR	8	\$ 225.24	\$ 297.90	\$ 302.81	
OR	9	\$ 205.77	\$ 167.02	\$ 189.66	
OR	10	\$ 254.13	\$ 94.83	\$ 398.88	
OR	11	\$ 244.76	\$ 379.32	\$ 233.90	
OR	12	\$ 306.14	\$ 300.74	\$ 492.03	
Monthly Average		\$ 255.90	\$ 329.98	\$ 370.76	

Note: The amount owed at time of reconnect has been calculated by taking the account ending balance from the first bill following the reconnect and subtracting the current charges. July 2011 is therefore not complete for all reconnects through July 13. For this report, a low-income customer is any customer receiving agency assistance payments after December 2007.

**Total cumulative arrearage for residential customers**

7(j)

State	Month	Year			
		2008	2009	2010	2011
OR	1	\$ 12,197,763	\$ 13,415,287	\$ 15,031,336	\$ 15,141,607
OR	2	\$ 14,401,621	\$ 15,939,584	\$ 15,823,297	\$ 17,353,681
OR	3	\$ 17,351,588	\$ 16,639,749	\$ 15,485,878	\$ 19,303,208
OR	4	\$ 16,850,575	\$ 16,892,202	\$ 15,772,064	\$ 21,792,262
OR	5	\$ 17,218,428	\$ 17,048,440	\$ 16,290,793	\$ 22,839,202
OR	6	\$ 15,975,992	\$ 15,909,662	\$ 16,266,022	\$ 21,787,745
OR	7	\$ 15,108,594	\$ 14,331,336	\$ 15,296,121	
OR	8	\$ 13,802,502	\$ 12,777,072	\$ 14,385,008	
OR	9	\$ 13,924,051	\$ 13,029,292	\$ 13,517,352	
OR	10	\$ 12,111,837	\$ 11,224,635	\$ 12,510,093	
OR	11	\$ 12,574,813	\$ 11,861,196	\$ 11,019,612	
OR	12	\$ 14,684,777	\$ 11,804,368	\$ 14,353,086	
Monthly Average		\$ 14,683,545	\$ 14,239,402	\$ 14,645,889	

Note: Includes arrearage from both active and inactive residential agreements.



## UM 1415 – CERTIFICATE OF SERVICE

I hereby certify that, on this 8<sup>th</sup> day of September, 2011, I served the foregoing **OPENING COMMENTS OF THE CITIZENS' UTILITY BOARD OF OREGON** in docket UM 1415 upon each party listed in the UM 1415 PUC Service List by email and, where paper service is not waived, by U.S. mail, postage prepaid, and upon the Commission by email and by sending one original and five copies by U.S. mail, postage prepaid, to the Commission's Salem offices.

(W denotes waiver of paper service)

(C denotes service of Confidential material authorized)

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Respectfully submitted,



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