

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1565

In the Matter of)
)
)
PUBLIC UTILITY COMMISSION OF)
OREGON Investigation of Fuel Switching)
and Cross Fuel Energy Efficiency Issues)

REPLY TESTIMONY

OF THE

CITIZENS' UTILITY BOARD OF OREGON

January 17, 2013



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OREGON Investigation of Fuel Switching)	THE CITIZENS' UTILITY BOARD
<u>and Cross Fuel Energy Efficiency Issues</u>)	OF OREGON

1 Our names are Bob Jenks and Gordon Feighner. Our qualifications are provided
2 in CUB Exhibit 101.

3 **I. Introduction**

4 This docket grows out of NW Natural's frustration with the incentives provided
5 by the Energy Trust of Oregon (ETO) for residential customers to invest in heat pumps
6 for space conditioning. NW Natural (hereafter, "NWN" or "the Company") feels that the
7 incentives encourage customers to shift from gas furnaces to electric heat pumps and
8 cause consumers to take "actions that are economically harmful, both to the customer and
9 to the region's energy system as a whole."¹ This is of particular concern to the Company
10 since the ETO no longer offers incentives for high-efficiency gas furnaces. The ETO does
11 offer homeowners incentives of \$250-\$450 for installing high-efficiency electric heat
12 pumps.

¹ UM 1565/NWN/100/Edmonds/2, lines 12-13.

1 **II. Issues**

2 **A. What are the Energy Trust's policies and practices regarding residential fuel**
3 **switching related to space conditioning? What outreach and messaging does the**
4 **Energy Trust engage in related to this type of fuel-switching?**

5 The Energy Trust has an express written policy that it will not advocate that its
6 customers or clients engage in fuel switching; this policy is quoted in full by NW Natural
7 in its Opening Testimony.² In response to the Company's argument that the ETO
8 nevertheless provides incentives for customers to switch from gas furnaces to heat
9 pumps, the ETO states that it "may not and does not provide financial incentives to
10 induce customers to convert to another fuel or to replace electric or gas equipment with
11 equipment that uses a different fuel source."³ CUB does not believe that the ETO targets
12 gas heating customers with incentives to engage in fuel switching by converting to
13 electric heat pumps. CUB does, however, recognize that vendors of heat pumps are not
14 controlled by ETO and may, without ETO's assistance or blessing, attempt to market heat
15 pumps to gas heating customers.

16 This does not mean that the ETO should not examine its messaging around heat
17 pumps. The ETO is not just a provider of incentives; it is an important source of
18 information about energy efficiency. If the ETO's analysis agrees with NW Natural that a
19 high-efficiency gas furnace provides the best economic value for a gas heating customer,
20 it would be helpful for this information to be provided to customers. If the ETO believes
21 that heat pumps are not the best way to cool a home, it should also provide that

² UM 1565/NWN/100/Edmonds/5, lines 1-18.

³ UM 1565/Staff-ETO/100/Johnson-Lacey/2, lines 9-11.

1 information to customers. Because the ETO is not a product vendor, it is in a strong
2 position to provide customers with accurate, unbiased information about energy choices.

3 **B. Is fuel switching actually occurring?**

4 NW Natural provides evidence that a large number of customers have converted
5 from gas furnaces to heat pumps with financial assistance from the ETO—over 1,400 as
6 of March 2012.⁴ The Company posits that a considerably larger number of homes may
7 have switched from gas furnaces to electric heat pumps during the 2006-2011 timeframe,
8 based on installation permit data from municipalities located in its service territory.⁵

9 CUB does not dispute that a significant number of homes may be switching from
10 gas to electric space conditioning. CUB does, however, dispute that this fuel switching
11 should always be considered to be inappropriate. If the fuel switching results in an energy
12 efficiency upgrade for the customer, CUB does not believe that it should be considered to
13 be inappropriate.

14 The question that needs to be addressed is whether the fuel switching that is
15 happening is part of an energy efficiency upgrade. If a household upgrades from an old
16 gas furnace to a new high-efficiency heat pump, that customer has significantly upgraded
17 their efficiency. While NW Natural argues that customers would be even better off if they
18 upgraded to high-efficiency gas furnaces,⁶ the Company does not demonstrate that an
19 upgrade to a high-efficiency heat pump is not cost-effective for the customers who are
20 upgrading their heating systems. CUB has not seen any evidence to suggest that

⁴ UM 1565/NWN/100/Edmonds/7, line 11.

⁵ UM 1565/NWN/100/Edmonds/8.

⁶ UM 1565/NWN/100/Edmonds/10-11.

1 customers are converting from high-efficiency gas furnaces to high-efficiency heat
2 pumps.

3 **C. Do the answers to Issues 1 and 2 indicate a need to modify Energy Trust policies**
4 **or practices or ratepayer-funded messaging?**

5 CUB does not feel that the level of incentives provided by the ETO encourages
6 fuel switching from one high-efficiency heat source to another on a level that is
7 particularly detrimental to any utility or to Oregon's energy system as a whole. In
8 addition, CUB believes that customer choice should be respected. Incentives should not
9 be limited to the optimal outcome, but allow customers to get the equipment they want,
10 as long as it is a cost-effective choice, *i.e.*, an efficiency upgrade from a low-efficiency
11 heat source to a high-efficiency one.

12 New federal regulations have all but eliminated lower-efficiency gas furnaces
13 from the marketplace. This means that high-efficiency gas furnaces are essentially
14 standard products that customers will choose without additional financial incentives. This
15 is why there is not a need for gas furnace incentives today. On the other hand, high-
16 efficiency heat pumps currently tend to be more costly than high-efficiency gas furnaces
17 or lower-efficiency heat pumps. ETO incentives are designed to help insure that
18 homeowners who make the decision to purchase a heat pump are able to purchase high-
19 efficiency heat pumps.

20 NW Natural argues that installers and contractors have an incentive to sell heat
21 pumps rather than gas furnaces because there is a higher profit margin for installing heat

1 pumps.⁷ While this may be true, in some cases, it is not a reason for ETO to stop
2 providing incentives to encourage homeowners who are installing heat pumps to
3 purchase the most efficient heat pumps available.

4 While NW Natural argues that heat pumps are not the most cost-effective way for
5 a gas customer to get efficient heat and air conditioning, that alone is not a reason to
6 prohibit incentives for heat pumps. Customers who are served by a gas utility have
7 choices when it comes to which fuel to use for heating, hot water, and cooking. When
8 customers make significant investments to improve the energy efficiency of their homes,
9 they may make choices that are not based purely on economics and affordability. These
10 are personal decisions that are important to people. While the availability of air
11 conditioning might be one reason for customers to choose heat pumps over gas furnaces,
12 it certainly isn't the only reason. A homeowner with poorly-designed duct work that does
13 not heat a home evenly might find that a heat pump provides better comfort levels.
14 Likewise, a customer may choose to stick with a natural gas furnace due to limited
15 exterior space or a dislike for the aesthetics of the outdoor components of a heat pump.

16 If the homeowner is converting from an old, inefficient heating system to a
17 modern, high-efficiency heating system, there is an efficiency benefit and the customer
18 should be applauded, not criticized simply because there was a different, "more optimal"
19 choice available. The fact is the customer made an upgrade in energy efficiency,
20 something they did not have to do.

21 Additionally, while this docket only deals with fuel switching for space
22 conditioning, fuel switching is also an issue for water heating. A few years ago NW

⁷ UM 1565/NWN/100/Edmonds/12, lines 10-11.

1 Natural was considering a program with solar thermal/gas hybrid water heaters that was
2 not designed to prevent electric customers from participating. In fact, much of NW
3 Natural's business model is built around getting customers to switch fuels, from electric
4 and oil heat to natural gas.⁸ Over the last decade (2002-2011), electric utilities have seen
5 their number of residential customers grow by 10.8%, while NW Natural has seen a
6 growth rate in residential customers of 22.1%.⁹ Over 20 years (1992-2011), the number
7 of residential electric customers grew by 32.0%, while the number of residential gas
8 customers grew by 89.3%.¹⁰

9 NW Natural ultimately benefits from the water heater programs at the expense of
10 the electric utilities. This is because customers with electric water heaters can receive
11 ETO rebates for converting to high-efficiency gas water heaters.¹¹ NW Natural ardently
12 promotes this incentive structure. The Company is therefore encouraging fuel switching
13 when customers switch to gas, but opposing it when customers switch to electricity for
14 space conditioning.

15 NW Natural dismisses CUB's concern about water heater incentives, stating that
16 "when there are comparable ETO incentives offered for both gas and electric equipment
17 it is appropriate for investor-owned utilities to use their shareholder funds to
18 communicate the availability of those incentives."¹² CUB believes that NW Natural's
19 position in regard to water heater incentives is inconsistent with its position regarding the

⁸ NW Natural's trucks are affixed with a sticker that reads "Switch to Natural Gas" and provides a company phone number.

⁹ 2011 Oregon Utility Statistics, OPUC, <http://www.oregon.gov/puc/docs/statbook2011.pdf>.

¹⁰ 2001 Oregon Utility Statistics, OPUC, and 2011 Oregon Utility Statistics, OPUC.

¹¹ See http://energytrust.org/library/forms/HES_DOC_Incentive_Grid.pdf.

¹² CUB Exhibit 102, page 2.

1 ETO's incentives for space conditioning and the Company's overall view on fuel
2 switching.

3 **III. Conclusion**

4 CUB has historically supported, and continues to support, the Energy Trust's
5 mission to assist utility customers in increasing the energy efficiency of their homes and
6 buildings. To this end, CUB does not view the provision of financial incentives for
7 electric heat pumps as an invitation or encouragement to switch heating fuels. Myriad
8 factors go in to customers' selection of heating options for their homes, price being only
9 one. While there is room for improvement in the Energy Trust's messaging, CUB does
10 not see the issue presented in this docket as a whole as a significant problem that requires
11 new rules or regulations governing the ETO's incentive structure.

WITNESS QUALIFICATION STATEMENT

NAME: Bob Jenks

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EDUCATION: Bachelor of Science, Economics
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EXPERIENCE: Provided testimony or comments in a variety of OPUC dockets, including UE 88, UE 92, UM 903, UM 918, UE 102, UP 168, UT 125, UT 141, UE 115, UE 116, UE 137, UE 139, UE 161, UE 165, UE 167, UE 170, UE 172, UE 173, UE 207, UE 208, UE 210, UG 152, UM 995, UM 1050, UM 1071, UM 1147, UM 1121, UM 1206, UM 1209, and UM 1355. Participated in the development of a variety of Least Cost Plans and PUC Settlement Conferences. Provided testimony to Oregon Legislative Committees on consumer issues relating to energy and telecommunications. Lobbied the Oregon Congressional delegation on behalf of CUB and the National Association of State Utility Consumer Advocates.

Between 1982 and 1991, worked for the Oregon State Public Interest Research Group, the Massachusetts Public Interest Research Group, and the Fund for Public Interest Research on a variety of public policy issues.

MEMBERSHIP: National Association of State Utility Consumer Advocates
Board of Directors, OSPIRG Citizen Lobby
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NAME: Gordon Feighner

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EDUCATION: Master of Environmental Management, 2005
Duke University, Durham, NC

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WORK EXPERIENCE: I have previously provided testimony in dockets including UE 196, UE 204, UE 207, UE 208, UE 210, UE 213, UE 214, UE 216, UE 217, UE 219, UE 227, UE 228, UE 245, UE 246, UM 1182, UM 1355, UM 1431, UM 1481, and UM 1484. I have also completed the Annual Regulatory Studies Program at the Institute of Public Utilities at Michigan State University in 2010.

Between 2004 and 2008, I worked for the US Environmental Protection Agency and the City of Portland Bureau of Environmental Services, conducting economic and environmental analyses on a number of projects. In November 2008 I joined the Citizens' Utility Board of Oregon as a Utility Analyst and began conducting research and analysis on behalf of CUB.



Rates & Regulatory Affairs

UM 1565
Investigation of Fuel Switching and
Cross Fuel Energy Efficiency Issues

Data Request Response

Request No. UM 1565-CUB-DR 8:

The incentives that ETO offers for high efficiency water heaters is greater for gas water heaters than for electric water heaters (see

http://energytrust.org/library/forms/HES_DOC_Incentive_Grid.pdf).

- a. The larger gas incentives are offered to electric water heating customers who convert to gas water heating. Does this violate the ETO's fuel switching policy?
- b. Should the ETO be prohibited from offering incentives to electric water heating customers if they switch to gas water heating?
- c. Has NW Natural cited the ETO incentives when encouraging customers to purchase high efficiency gas water heaters? If yes, does it limit its promotion to gas water heating customers?

Response:

- A. When balanced incentives are offered for equipment fueled by both gas and electricity, NW Natural is placated by ETO's policy interpretation that incentives do not induce fuel-switching.

In the case of water heating equipment, ETO offers incentives for both electric and natural gas equipment – so unlike with space heating, customers are less likely to believe that the Trust favors one type of equipment over another.

The incentive sheet referenced did not include a \$500 heat pump water heater incentive that was piloted in 2012 and will be a standing incentive beginning January 2013. So in actuality the highest level incentive for water heating equipment is for electric equipment. It should also be noted that ETO only allows this incentive for electric water heat customers apparently in recognition that it makes sense to focus this incentive on inefficient electric resistant heat. NWN has not taken issue with the large heat pump water heater incentive because it is not made available to gas water heating customers.

- B. It is NW Natural's view that this question is outside of the scope of this docket as defined by the ALJ, and that to appropriately respond would require a consideration of many factors, including but not limited to, the comparative value of available ETO water heating incentives by fuel type and an economic analysis evaluating what is in the best interest of the consumer and the energy system.

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- C. Yes, NW Natural includes the availability of the ETO gas water heating incentive in our customer communications. NW Natural has also promoted the availability of the ETO gas water heating incentive in direct mailings to non-customers. It is our position that when there are comparable ETO incentives offered for both gas and electric equipment it is appropriate for investor-owned utilities to use their shareholder funds to communicate the availability of those incentives. However, for heating no such parallel offering exists, creating an unbalanced opportunity for electric shareholder funds to leverage ETO endorsed *and* rate-payer funded incentives to increase electric loads – incremental load increases that are, in NW Natural's view, costly to the energy system and to customers.

UM 1565 – CERTIFICATE OF SERVICE

I hereby certify that, on this 17th day of January, 2013, I served the foregoing **REPLY TESTIMONY OF THE CITIZENS' UTILITY BOARD OF OREGON** in docket UM 1565 upon each party listed in the UM 1565 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)
(HC denotes high confidential)

(C denotes service of Confidential material authorized)

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Respectfully submitted,

A handwritten signature in black ink, appearing to read 'G. C. M.', with a long horizontal flourish extending to the right.

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