Rates and Regulatory Affairs
Facsimile: 503.721.2516

June 9, 2009

VIA ELECTRONIC FILING

Dave Danner, Executive Director & Secretary
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Drive S.W.
P.O. Box 47250
Olympia, Washington 98504-7250

Re: UG-080912 – NW Natural's Comments in the proceeding on its 2009 Integrated Resource Plan (IRP)

Dear Mr. Danner:

Northwest Natural Gas Company, dba NW Natural ("NW Natural" or the "Company"), hereby files the enclosed comments in Docket No. UG-080912.

Please contact me if you have any questions.

Sincerely,

/s/ Jennifer Gross

Jennifer Gross
Tariff and Regulatory Compliance Consultant
NW Natural
(503) 226-4211, extension 3590

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Northwest Natural Gas Company 2009 Natural Gas Integrated Resource Plan	DOCKET NO. UG-080912

I. Introduction

On May 29, 2009, Public Council filed with the Washington Utilities and Transportation Commission ("Commission") Initial Comments ("Comments") regarding NW Natural's 2009 Integrated Resource Plan ("Plan" or "2009 IRP"). While recommending that the Commission not acknowledge NW Natural's Plan, the Comments do not raise any substantive concerns with the Plan, the Company's Preferred Portfolio, or the resources presented with that portfolio. Public Council has not questioned the Company's actual assessment of achievable demand side management ("DSM") potential in its Washington service territory. Although Public Council states that NW Natural has not sufficiently analyzed its delivery options for energy efficiency services, it simultaneously acknowledges that the Commission has already approved the Energy Trust as the Company's provider of energy efficiency services.[1]

In response to Public Council's Comments, the Company supplements the record with additional materials that detail its developing DSM offerings. These materials are a work in progress by the Company, under consultation with the Energy Efficiency Advisory

[1] NW Natural Gas Co. 2009 Natural Gas Integrated Resource Plan, Docket No. UG-080912, Initial Comments of Public Counsel ¶ 9 (May 29, 2009) [hereinafter "Comments"].

Group ("EEAG") and were not available at the time the Plan was filed in March 2009. However, because Public Council does not propose any substantive critique of the Plan itself, including the DSM levels included in the Company's Preferred Portfolio, NW Natural respectfully requests that the Commission acknowledge the Company's 2009 Integrated Resource Plan.

II. Background

Public Council's criticism of NW Natural's 2009 IRP focuses on the Company's assessment of regulatory policies needed to keep the Company financially whole as it pursues the achievable potential DSM savings identified in the Plan. Public Council's Comments do not suggest that the Company's *assessment* of the technical and achievable potential for gas conservation is flawed. The Company received no written or oral feedback from parties to the Technical Working Group that questioned the Company's DSM analyses. Rather, it is the "description and discussion surrounding the results" that Public Council questions.[2]

In particular, Public Council notes that the Company received feedback from the WUTC, at the September 11, 2008, Public Meeting and in a letter from Dave Danner, dated October 9, 2008, expressing concern that the Company's 2007 IRP and 2008 Update thereto ("2007 IRP") did not examine alternatives to the Energy Trust of Oregon for conservation

[2] Comments ¶ 8.

program delivery.[3] Public Council's Comments question whether the Company's 2009 IRP addresses these same concerns and meets the standard required by WAC 480-90-238(3)(b).[4]

When considering Public Council's and the Commission's comments about the Company's 2007 IRP, it is helpful to review the development of NW Natural's DSM program, particularly in the context of the Company's last general rate case and most recent IRPs.

When the Company filed the 2007 IRP, it had a very limited energy efficiency program in Washington. At the time of the September 11, 2008, Public Meeting, NW Natural's only active conservation program was a furnace rebate program. However, the 2007 IRP and 2008 Update identified significant conservation potential. The Company determined early on that it would have to redesign its conservation program to achieve that potential.

In March 2008, the Company filed a General Rate Case ("2008 Rate Case") with the Commission.[5] In testimony submitted with the 2008 Rate Case, the Company proposed using the Energy Trust to deliver its conservation program and requested that the Commission approve a decoupling mechanism to make the Company whole for lost margin associated with conservation. The 2007 IRP referenced the 2008 Rate Case, and specifically supported the adoption of decoupling and use of the Energy Trust to achieve the identified conservation.

[3] The Company did not then have any full- or part-time employees engaged in the delivery of conservation programs in Washington or Oregon. In the 2008 Rate Case, the Company proposed to add 1.5 full-time employees to administer its Washington energy efficiency program.
[4] In the IRP, the Company must include: "An assessment of commercially available conservation, including load management, as well as an assessment of currently employed and new policies and programs needed to obtain the conservation improvements." WAC 480-90-238(3)(b).
[5] *See* Docket No. UG-080546.

When the Company presented the 2007 IRP at the September 11, 2008, Public Meeting, and again in the letter from Dave Danner dated October 8, 2008, the Commission expressed significant concern about the 2007 IRP's failure to include a more rigorous analysis of other options for achieving the identified conservation beyond what was included in the Company's 2008 Rate Case; *i.e.*, beyond the Energy Trust as program administrator and decoupling as a lost margin recovery mechanism.

Much has changed since that meeting. In October 2008, the parties to the 2008 Rate Case filed a global settlement. That agreement allows the Energy Trust to deliver NW Natural's energy efficiency programs for a one-year period.[6] The agreement also required the creation of the EEAG comprised of parties to the 2008 rate case.[7] The EEAG is tasked with participating in the development of the Company's energy efficiency program and evaluating the cost-effectiveness of the program after the first program year.[8] Finally, the settlement provided that the Company would withdraw its request for decoupling, but would be allowed to re-file a request after certain conditions were met.[9] The Commission approved the Settlement, including the provision regarding the Energy Trust, on December 26, 2008. In the order approving the Stipulation, the Commission noted, "The Settlement's provisions to … create a new energy efficiency program for its customers in Washington [is a] positive development[] that promote[s] important public policies in our state and clearly [is] in the public interest."[10]

---

[6] Wash. Util. & Transp. Comm'n v. NW Natural Gas Co., Docket No. UG-080546, Full Settlement Stipulation ¶ 18 (Oct. 21, 2008) [hereinafter "Stipulation"]. Public Council took no position on this provision. *Id.*
[7] Stipulation ¶ 18.
[8] *Id.*
[9] The Company can file for decoupling or an alternative lost margin recovery mechanism after the Commission reviews Avista's decoupling mechanism, and six months after filing tariffs to implement its conservation programs. *Id.*
[10] Wash. Util. & Transp. Comm'n v. NW Natural Gas Co., Docket No. UG-080546, Order No. 4 ¶ 43 (Dec. 26, 2008).

Since the Commission approved the Stipulation, the Company has been actively working with the EEAG to develop its energy efficiency programs. The EEAG has discussed the development of its Washington-specific conservation plan during meetings on February 5, 2009, and April 17, 2009, and a teleconference held on May 7, 2009. The Company has presented the EEAG with documents detailing the planning process. The Phase I report, which was a high-level survey of Clark County demographics and potential therm savings, was distributed on January 27, 2009. This study was further refined in The Phase II document that was shared with EEAG on April 24, 2009. On May 29, 2009, the Company sent EEAG participants the attached Conservation Plan and draft Energy Efficiency Tariff. The Conservation Plan combines the concepts developed in the Phase I and Phase II documents, attempts to answer questions raised in EEAG meetings and defines first-year program metrics. The Energy Efficiency Tariff (Draft Schedule G) establishes the cost-effective test that will be used for evaluating the program. The EEAG will convene by telephone on June 15, 2009 for another opportunity to voice comments on the Conservation Plan and the draft tariff. The Company anticipates addressing any unresolved issues and filing a well-reviewed advice filing on June 30, 2009. The filing will propose launching the energy efficiency program on October 1, 2009. The Energy Trust will provide the EEAG with quarterly reports as well as an annual report detailing its program costs and therms savings achieved. After the end of the first program year, the EEAG will have sufficient data for evaluating the cost-effectiveness of the Energy Trust delivered program.

III. Response

Public Council's Comments provide three areas of criticism. First, Public Council states that the Company provides *too much information* about ratemaking policies. Second,

Public Council states that the Company's discussion of its technical potential study is *too short*, and that Company does not provide an equivalent amount of discussion in the body of the Plan to match the specific details of residential program offerings described in an Appendix to Chapter 4. Finally, Public Council suggests that the Plan provides too little discussion about the Company's *delivery mechanism* for the provision of conservation programs, notwithstanding the Commission's approval of that delivery mechanism in the 2008 Rate Case.

A. Discussion of Ratemaking Policies

Public Council states that the Company has provided too much information about ratemaking policies, and that the IRP is "not the appropriate venue" for the discussion of rate recovery mechanism, particularly given the Company's agreement to withhold filing for a lost margin recovery mechanism until after it has filed tariffs to implement its conservation programs. The Company respectfully disagrees with this assertion.

At the September 11, 2008, Public Meeting, then Chairman Sidran specifically noted that the Company had not provided a discussion of alternative rate mechanisms along with the discussion about decoupling and encouraged the Company to provide more, not less, information about lost margin recovery mechanisms. As former Chairman Sidran stated,

> It's fine to propose decoupling and to suggest that that's, in the Company's view, the preferred, apparently since it's the only one mentioned, the preferred way of achieving what the Company believes to be its revenue shortfall that would allow through conservation. I don't understand why the Company did not do any modeling of any of the other alternatives that one could conceive of, from more frequent rate cases to various attrition trackers to increased fixed customer charges.[11]

[11] NW Natural Gas Co. 2008 Natural Gas Integrated Resource Plan, Docket No. UG-070619, Transcript of Public Meeting Presentation (Sept. 11, 2008). NW Natural transcribed former Chairman Sidran's comments at the public meeting from the digital recording of the meeting located at the following website: http://www.wutc.wa.gov/rms2.nsf/vw2005OpenDocket/A75C30972D60B060882574C2005349CD.

Based on this statement, NW Natural believes that the Commission has concluded that a discussion of ratemaking policies may be appropriate for inclusion in an IRP. The Company also believes that it was specifically tasked by then Chairman Sidran to provide information about other rate mechanisms beyond the discussion of decoupling provided in its last rate case. The Company explained its position on this issue to the parties at a Technical Working Group ("TWG") meeting in response to questions from Public Council. While Public Council objected to the provision of this information, other members of the TWG did not object to its inclusion, particularly given then Chairman Sidran's encouragement to the Company to provide a robust discussion of ratemaking mechanisms. In fact, Commission Staff pointed out that they provided the Company with an article[12] on using fixed rate variable pricing and "feebates" to encourage energy efficiency with the intent that this information be included in the Plan.[13]

But the Company is most confused that Public Counsel is adamantly opposing the Company's discussion of ratemaking policies in its current IRP, when in their September 2, 2008, comments on the Company's 2007 IRP, Public Counsel said,

> NW Natural does not discuss or examine rate design in the energy efficiency section of the 2008 IRP. Instead, the section is wholly dedicated to decoupling. Important areas not discussed include: the relationship between fixed and variable charges, inclining/declining block rates, and seasonal rate differentials. Future IRPs should include such discussion and examination.[14]

Public Counsel's most recent Comments do not explain why their position on this has changed so significantly.

---

[12] Boonin, David Magnus, "A Rate Design to Encourage Energy Efficiency and Reduce Revenue Requirement" (July 2008).
[13] NW Natural Gas Co. 2009 Natural Gas Integrated Resource Plan, Docket No. UG-080912, 2009 Integrated Resource Plan at Sheet 4-25 (Mar. 2009).
[14] NW Natural Gas Co. 2008 Natural Gas Integrated Resource Plan, Docket No. UG-070619, Initial Comments of Public Counsel at 6 (Sept. 2, 2008) (citations omitted).

The Company believes the information it provided about alternative ratemaking policies is in compliance with WAC 480-90-238(3)(b), which requires a discussion of policies necessary to support the conservation identified by the Company. The Company continues to believe that the lost margin associated with conservation is a potential detriment to a successful energy efficiency program. In recognition of the Stipulation and Order No. 4 in Docket No. UG-080546, NW Natural did not advocate for a particular rate mechanism and kept this section to a brief description of lost margin recovery mechanisms, noting some of the benefits and downfalls of each. NW Natural fails to see how the Commission or the parties to this IRP are in any way disadvantaged by the presentation of this information.

B. Discussion of the Technical Potential Study

Public Council's primary complaint with the Technical Potential Study is that the Company failed to provide a thorough "description and discussion" with regard to the study.[15] Specifically, Public Council says the Company did not provide the same level of detail for the Residential class as it did for Commercial and Industrial classes. Admittedly, the information Public Council is referring to was inadvertently omitted from the Draft 2009 IRP filed on January 23, 2009. However, after Public Council pointed out this error at the February 11, 2009 TWG meeting, the Company corrected this, adding the tables found on Sheet 4-17 of the Plan.

The Company is sympathetic to Public Council's concern that the Plan did not present details of actual conservation programs and plans for their implementation and is aware that other utilities provide copies of conservation tariffs along with their IRPs. Unfortunately, as Public Council is aware, NW Natural does not currently have such tariffs.

[15] Comments ¶ 8.

Public Council is in receipt of draft tariffs that the Company recently submitted to the EEAG for consultation and comment. The Company thought it would be premature, at best, and counter-productive, at worst, to provide information in a public forum with regard to yet-to-be developed conservation programs. The Company did not want to short-circuit the EEAG process, which was occurring in parallel to the IRP process, nor did it want to prejudice the outcome of the EEAG process by creating an alternative process within the IRP docket.

In addition, the Company did not have the time to create such programs within the context of this shortened IRP docket. It may be helpful to review the timeline of the 2009 IRP process: The 2009 IRP was filed on March 31, 2009, and the Company was required to provide a draft of the IRP to the Commission on January 23, 2009. As a point of reference, the Company presented its 2007 IRP to the Commission on September 11, 2008, and received a letter acknowledging that the IRP met Commission guidelines on October 9, 2008. The Company prepared this IRP, including the conservation chapter, during a shortened timeline.

Meanwhile, the 2008 Rate Case was settled in October 2008 and approved in December 2008. The first EEAG meeting was held on February 5, 2009. Realizing that it would be unable to provide descriptions of specific conservation programs in the IRP, the Company instead provided a detailed appendix of potential conservation programs in the Appendix to Chapter 4. Clearly, the Company has been working diligently with its Washington stakeholders, including Public Council and Commission Staff, to analyze and develop energy efficiency programs, and the Company has provided as much information as it can, notwithstanding the challenges of working through evolving, parallel processes in the EEAG and IRP settings.

NW Natural strongly rejects Public Council's assertion that the IRP is deficient because it did not provide more discussion of programs that are currently being developed. However, in the interest of providing the Commission with more information and further developing the record in this docket, we are providing the Commission with the Company's draft Schedule G, Energy Efficiency Program and its corresponding draft Conservation Plan (attached).

C. Analysis of Conservation Program Delivery Options

Public Council's final complaint is that the IRP does not provide sufficient analysis of alternative program delivery options other than the Energy Trust. We are puzzled by this complaint. As described above, in Order 4 in UG-080546, the Commission approved the Company's choice of the Energy Trust as the Company's provider of conservation programs for a one-year pilot. After that one-year pilot, the EEAG will evaluate the cost-effectiveness of the Energy Trust's work. The EEAG will then determine if the Energy Trust should continue being the delivery arm for the Company's program or not. As Public Council notes, that review will provide a more "rigorous and thorough analysis" of various program delivery options and the cost-effectiveness of those options.[16]

The Company struggles to understand the value of a detailed hypothetical analysis of delivery options when a delivery option has already been selected and approved by the Commission. In the 2007 IRP, the Company's failure to provide a more thorough analysis of delivery options was of concern to the Commission and was discussed at the September 11, 2008, public meeting. However, the Commission's intervening adoption of the stipulation providing for the use of the Energy Trust settled how the Company would provide

[16] Comments ¶ 11.

conservation services for the one-year pilot period. After that time, the Company, in conjunction with the EEAG, will review actual information related to the pilot and assess the appropriate delivery mechanism going forward. But it would be impossible to make this analysis prior to having the actual data and unnecessary to do this analysis on a detailed basis with hypothetical information.[17]

IV. Conclusion

NW Natural is committed to providing its customers with a robust conservation program and has made great strides toward that goal over the past five months. The rapidly evolving nature of the Company's conservation program and ongoing process with the EEAG has shaped the information that the Company was able to present in the 2009 IRP. However, the Company believes it has satisfied WAC 480-90-238(3)(b) by presenting an analysis and overview of the conservation potential in its service territory, a description of the conservation programs it is currently reviewing with the EEAG to be offered, and a description of the rate mechanisms and policies it may consider requesting in the future to address the problem of lost margin due to conservation. The Company looks forward to presenting the Commission with additional information as the process continues and would expect Chapter 4 of its IRP to continue to evolve in subsequent years.

[17] The Company did provide a general comparison of delivery mechanisms at Sheets 4-19–4-22, after acknowledging that the Energy Trust had been selected in the 2008 Rate Case as the conservation program delivery mechanism. The preface to that analysis states: "Th[e] stipulated agreement [in UG-080546] determines the program delivery channel that will be used in the short term. In support of this choice and to acknowledge that the company will need to continue considering the best and most cost-effective delivery channels, the following analysis compares using the Energy Trust with the Company delivering its own programs…" *See* NW Natural Gas Co. 2009 Natural Gas Integrated Resource Plan, Docket No. UG-080912, 2009 Integrated Resource Plan at Sheet 4-19 (Mar. 2009).

Attachments

SCHEDULE G
ENERGY EFFICIENCY SERVICES AND PROGRAMS – RESIDENTIAL AND COMMERCIAL

APPLICABLE:
This program is intended to provide an economical and effective means of conserving Natural Gas through reduced heat loss and improved efficiencies in Residential dwellings and Commercial buildings.

AVAILABLE:
In all territory served by the Company under the Tariff of which this program is a part.

DESCRIPTION:
The Energy Trust of Oregon (Energy Trust) will deliver and administer a cost-effective energy efficiency program to NW Natural's Residential and Commercial Customers. Energy Trust administered programs will offer applicable customers incentive dollars for installing specific, cost-effective energy efficient measures. Program offerings may vary from time-to-time.

OVERSIGHT
Oversight of these programs will be provided by the Energy Efficiency Advisory Group (EEAG), which is a group comprised of interested parties to the Company's 2008 rate case. EEAG oversight is required per the stipulated agreement attached to Commission Order No. 04 to the Company's rate case, docketed as UG-080546,

REPORTING
Energy Trust will provide the EEAG and WUTC with Quarterly and an Annual Reports demonstrating total program costs, therms saved and levelized costs of measures offered.

COST-EFFECTIVE STANDARD
The portfolio of programs offered through the Energy Trust is cost-effective if it passes the following Benefit Cost Ratio (BCR) tests: 1) Total Resource Cost (TRC) test; and 2) the Utility Cost (UC) test. The program is cost-effective when the end value for each of the following test is greater than one (1):

1) Total Resource Cost (TRC) looks at the total benefits attributable to the program divided by the total program costs. A TRC value equal to or greater than one means the benefits are equal to or exceed the costs, and the program is cost-effective.

   TRC is expressed formulaically as follows:

   TRC = Present Value of Benefits / Present Value of Costs

(continue to Sheet G-2)

SCHEDULE G
ENERGY EFFICIENCY SERVICES AND PROGRAMS – RESIDENTIAL AND COMMERCIAL

The Present Value of Benefits includes
1. The value of gas energy saved based on a negotiated blend of utility and Northwest Power and Conservation Council (NPCC) avoided costs.
2. Non-energy benefits as quantified by a reasonable and practical method and described in situations where they cannot practically be quantified.
3. The Energy Trust will apply the 10% credit for energy efficiency as required under the Northwest Power Act. This credit recognizes the benefits of conservation in addressing risk and uncertainty.
4. The Energy Trust will apply a credit for carbon as defined in the most current version of the Northwest Power Planning Council's (NWPPC) Conservation Plan.

The Present Value of Costs includes:
1. Trust incentives paid to the participant
2. Trust administrative costs
3. Monitoring, evaluation and non-incentive costs of PMCs and Energy Trust staff
4. The participants remaining out-of-pocket costs for the installed cost of the measures after incentives and Federal tax credits.

2. Utility Cost (UC) measures the present value of the energy savings divided by the net costs incurred by the program, including incentive costs and excluding any net costs incurred by the participant. The UC is expressed with the same formula as the TRC but Present Value of Benefits and Present Value of Costs are defined as follows:

   The Present Value of Benefits includes
   1. The value of gas energy saved based on a negotiated blend of utility and Northwest Power and Conservation Council (NPCC) avoided costs.
   2. The Energy Trust will apply the 10% credit for energy efficiency as required under the Northwest Power Act. This credit recognizes the benefits of conservation in addressing risk and uncertainty.
   3. The Energy Trust will apply a credit for carbon as defined in the most current version of the Northwest Power Planning Council's (NWPPC) Conservation Plan.

   The Present Value of Costs includes:
   1. Trust incentives paid to the participant
   2. Trust administrative costs
   3. Monitoring, evaluation and non-incentive costs of PMCs and Energy Trust staff

Natural gas capacity benefits are of a lesser magnitude and difficult to quantify, so the Energy Trust will not quantify them. Natural gas delivery loss benefits are also modest in magnitude. Local delivery losses will be considered to the extent that they are included in NW Natural price forecasts. Gas transmission losses are difficult to quantify and will be described.

(continue to Sheet G-3)

SCHEDULE G
ENERGY EFFICIENCY SERVICES AND PROGRAMS – RESIDENTIAL AND COMMERCIAL

LEVELIZED COST METRIC

The portfolio of measures promoted through the program will also meet the following Levelized Cost metric, which is determined as follows:

The levelized cost is the present value of the total cost of a measure over its economic life, converted to equal annual payments. The levelized cost calculation starts with the incremental capital cost of a given measure or package of measures. The total cost is amortized over an estimated measure lifetime using a discount rate. (Energy Trust uses a discount rate agreed upon by the energy utilities for whom Energy Trust provides EE services.) The annual net measure cost is then divided by the annual net energy savings (therms) from the measure application (again relative to a standard technology) to produce the levelized cost estimate in dollars per therm saved, as illustrated in the following formula.

$$Levelized\ Cost = \frac{Net\ Annual\ Cost\ (\$)}{Net\ Annual\ Savings}$$

The levelized cost of an energy efficiency measure is cost-effective if it is less than the average levelized costs of other supply-side options. A cost-effective threshold is established in the Company's most current Integrated Resource Plan (IRP). The EEAG may request that the Company's annual metric for levelized cost be more aggressive than the standard identified in the IRP.

CUSTOMER NOTIFICATION

This information may be provided through the use of bill inserts, displays, booklets, handouts, advertisements, and industry and public agency literature.

FUNDING

The costs incurred for the administration and delivery of the services and programs offered under this Schedule will be deferred as allowed by Washington Utility and Transportation Commission (WUTC) Orders to UG-011230 and UG-01131. Each year, the Company will seek recovery of these costs from Residential and Commercial customers through Schedule 203, Purchased Gas Adjustment to Rates.

GENERAL TERMS:

This Schedule is governed by the terms of this Schedule, the General Rules and Regulations contained in this Tariff and by all rules and regulations prescribed by regulatory authorities, as amended from time to time.

NW Natural's
Energy Efficiency Plan
For Washington

Background
This Energy Efficiency Plan was developed in consultation with the Energy Efficiency Advisory Group (EEAG), which is a group consisting of interested parties to the Company's 2008 rate case, formed in accordance with the stipulated agreement attached to Commission Order No. 04, in Docket UG-080546. The EEAG is comprised of representatives from NW Natural, Energy Trust of Oregon (Energy Trust), Washington Utility and Transportation Commission (WUTC) Staff, Washington Public Counsel, Northwest Industrial Gas Users (NWIGU), The Energy Project, and Northwest Power and Conservation Council. The EEAG discussed this plan during meetings on February 5, 2009 and April 17, 2009, and teleconferences held on May 7, 2009 and XXXX.

Energy Trust of Oregon
The Energy Trust presented the EEAG with documentation stating it is legally able to operate in Washington. The Energy Trust will deliver the Company's Washington programs for at least one year. After one year, the EEAG will evaluate the cost-effectiveness of the programs and decide whether or not the Company should continue using the Energy Trust as its program delivery arm.

First Year Metrics
In the first program year, the Energy Trust will strive to meet the following metrics

- 97,500 to 130,000 total therms saved
- $780,000 to $1,040,000 total program costs
- $0.65 levelized cost per therm
- First year therms cost less than $8 per therm
- At least 60% of total dollars spent are paid out in incentives[1]
- Total Resource Cost (TRC) and Utility Cost (UC) at the portfolio level are greater than 1.0

Reporting
The EEAG will serve as on-going advisors to the Company's Washington Energy Efficiency (EE) program. To that end, the Energy Trust will provide the EEAG and WUTC with Quarterly and Annual Reports. These reports will include a Total Portfolio Cost (TRC), a Total Portfolio percentage of Incentive Dollars versus "all in" program costs, total costs, therms saved and levelized costs. Quarterly reports will be provided no later than 45 days after the end of each calendar quarter.

The Annual Report will be provided on or before April 15 of each year. The report will provide the information for the prior calendar year. It will give a total portfolio report of cost benefit ratios and measure lives. In the first program year, the Energy Trust will report on the following performance indicators:

- Number of new trade allies in the Clark County area that are trained and certified

[1] Total program costs must be adjusted down by 15% to account for costs that a utility delivered program would be recovering through base rates.

- Number of residential customers receiving Home Energy Reviews (HERs) in the first 12 months
- Percentage of customers implementing an incentivized measure resulting from a HER
- A discussion of customer communications used to roll out programs.

These indicators are valuable in that they demonstrate market penetration and an earnest effort to connect with Washington customers.

Programs

In the first year, Energy Trust will offer Home Energy Reviews (HERs) in cooperation with Clark Public Utility District (Clark PUD).

Clark PUD is very receptive to working with the Energy Trust to provide combined gas and electric services. Coordination will require that the Energy Trust program management contractors (PMC) install compact fluorescent lamps during HERs. Clark PUD will then reimburse the PMCs for labor and material cost under a separate contract. Similarly, if domestic hot water is heated electrically, flow restricting shower heads and faucet aerators would be installed and the PMC would be compensated accordingly.

Beyond HERs, Energy Trust will offer residential rebates for high efficiency gas furnaces, domestic hot water heaters and clothes washers. Energy Trust also will offer some commercial sector/existing buildings programs in the first year. Weatherization and other shell measures will also be available for both residential and commercial customers.

The following energy efficiency programs or measures will be offered in the first year. The measure descriptions and incentives offered in Washington will be as described in the Oregon programs in Attachment A. One-time bonuses or coupon offers may be offered to Washington customers to supplement standard incentives. This will enable the Energy Trust to more rapidly adapt to the Washington market during the first year. It will also minimize costs required for making Washington specific forms and program marketing materials.

The Energy Trust will offer the following programs during the first 12 months:

Residential (existing homes):

- Home Energy Reviews (HERs)
- Furnaces[2]
- Weatherization
- Duct Sealing
- Water Heaters (tank type)
- Water Heaters (tankless)

Commercial (Existing Buildings)

- Boilers for small commercial
- Spray rinse valves for commercial kitchens
- Weatherization
- Commercial cooking measures

[2] *See* Attachment B for study results on the savings potential for the furnace measure.

How First Year Programs were Determined
The Energy Trust currently offers programs in Oregon that can be leveraged and offered in Washington. Energy Trust began assessing which of their offerings in Oregon would be transferable to Washington.

Energy Trust considered Clark County demographics. NW Natural has approximately 60,500 customers in Washington: 56,000 are residential, 4500 are commercial and 10 are industrial[3].

With so few industrial customers in Clark County, Energy Trust decided that it would be wise to forestall offering Industrial programs and, rather, to focus dollars and efforts on penetrating the residential and commercial markets. After the residential and commercial markets are well established, NW Natural and Energy Trust will discuss with the EEAG the possibility of adding an Industrial EE program. However, this is not planned in the first year.

The residential and commercial programs will mirror what the Energy Trust currently offers in Oregon. The ability to leverage programs should reduce costs and enable a smoother start-up process.

Since new construction starts have diminished significantly in 2008 as evidenced by census data for Clark County single family building permits, the Energy Trust does not plan to deliver new construction programs in Washington in the first program year. Cost would be incurred to launch this program; additional contractors would be needed and marketing materials would have to be revised for Washington building codes. Spending money when there is no clear return on the investment was viewed as unwise. However, Clark County has historically had above average housing starts per year and we want to enter the market as it recovers so as to avoid any lost opportunities associated with new construction. A balanced approach is to enter the market when the activity justifies the costs. Energy Trust can closely monitor new housing starts through contractor networks active in Energy Trust's Oregon programs and by tracking Washington housing starts statistics. If Clark County building permits exceed 400 per quarter for two consecutive quarters, Energy Trust will begin offering programs. This trigger was determined by looking at historical building permits in Clark County as reported by the census bureau.

Clark PUD staff would like to coordinate efforts in the commercial and residential new construction markets once the market shows indications of gaining momentum likely to occur in mid 2010. Clark PUD currently offer services through Northwest Star New Homes program as does the Energy Trust, so coordination opportunities exist. Clark PUD does not currently have a robust commercial new construction service offering and would like to benefit from coordinating service offerings when NW Natural commences services when market indications warrant service offerings.

Therms Saved
The savings goals are initially derived from the resource evaluation that was done in preparation for the Company's 2009 Integrated Resource Plan (IRP). Table 1 below, taken from the 2009 IRP, forecasts the achievable potential savings in Washington County. The

[3] Numbers are rounded.

Energy Trust generally forecasts two scenarios: a stretch case and a conservative case. The stretch case in Table 1 was reported in the Company's 2009 IRP.

Table 1 – IRP Stretch Case Deployment Plan, March 2009
Achievable DSM Screened at Base Case

DSM Program	2009	2010	2011	2012	2013	2014
Res - New	14,088	14,088	28,176	42,264	42,264	42,264
Res - Retrofit	15,233	121,863	137,096	152,328	167,561	182,794
Res - Replacement	412	412	824	1,235	1,235	1,235
Res - Appliance Replacement	248	248	372	372	372	372
Res - Solar dhw	284	284	378	568	568	568
Comm - New	-	17,398	18,980	20,561	22,143	22,143
Comm - Retrofit	2,434	38,938	43,805	48,673	53,540	58,407
Comm - Replacement	2,151	38,725	43,028	47,331	51,634	55,936
Ind - Retrofit	590	9,444	10,624	11,805	12,985	14,166
Ind - Replacement	76	1,361	1,512	1,663	1,814	1,965
Residential Total	30,265	136,895	166,846	196,767	212,000	227,233
Commercial Total	4,585	95,061	105,813	116,565	127,317	136,486
Industrial Total	666	10,805	12,136	13,468	14,799	16,131
All DSM	35,516	242,761	284,795	326,800	354,116	379,850

Table 2 – IRP Conservative Case Deployment Plan, March 2009
Achievable DSM Screened at Base Case

DSM Program	2009	2010	2011	2012	2013	2014
Res - New	10,566	10,566	21,132	31,698	31,698	31,698
Res - Retrofit	11,425	91,397	102,822	114,246	125,671	137,096
Res - Replacement	309	309	618	926	926	926
Res - Appliance Replacement	186	186	279	279	279	279
Res - Solar dhw	213	213	284	426	426	426
Comm - New	1,825	29,204	32,854	36,504	40,155	43,805
Comm - Retrofit	-	13,048	14,235	15,421	16,607	16,607
Comm - Replacement	1,614	29,044	32,271	35,498	38,725	41,952
Ind - Retrofit	443	7,083	7,968	8,854	9,739	10,624
Ind - Replacement	57	1,020	1,134	1,247	1,361	1,474
Residential Total	22,698	102,670	125,134	147,575	159,000	170,424
Commercial Total	3,439	71,296	79,360	87,424	95,487	102,365
Industrial Total	499	8,103	9,102	10,101	11,100	12,098
All DSM	26,636	182,070	213,596	245,100	265,587	284,888

Savings goals for the Energy Trust's first program year are based on the conservative case deployment scenario presented above in Table 2. The first year metric is comprised of one quarter of the 2009 potential, plus 3 quarters of 2010 potential for applicable residential and commercial retrofit and replacement programs. No adjustments are made for economic conditions or for ramp up. The conservative case is used as the benchmark since the programs will be new and the Energy Trust has no empirical knowledge of the Washington market.

Conversations ensued with the EEAG over adjusting savings targets for our current economic recession. The Energy Trust has determined based on its current experience in Oregon that other than forestalling new construction programs, no other adjustments are necessary.

Attachment C demonstrates different ways of assessing the achievable potential in Clark County. Sheet C-1 shows the therm savings received in Cascade Natural Gas's Washington service territory, proportioned down to reflect the size of NW Natural's service territory. Sheet C-2 takes the savings experienced in NW Natural's Oregon service territory, multiples that by 11% to determine like results in Clark County. Neither worksheet is to be used as a measure-by-measure guide for savings targets, but when used together, these different perspectives verify that current market results are relatively consistent with the IRP's achievable potential for NW Naturals Washington customers.

Evaluation and Verification of Therms Saved

Deemed savings will be used to determine total therms saved per program year. As the program matures and sufficient historical billing data becomes available, Energy Trust will periodically perform a pre- and post-billing analysis to verify savings for specific program measures. The deemed savings used in program analysis will reflect the findings in the most current verification study. Program impact and process evaluations will be completed on an ongoing basis.

Incentive Dollars

The Company's energy efficiency tariff is intentionally silent on incentive dollars. The Energy Trust would like the flexibility to change incentives offers as necessary to move the market.

The following three tables give an overview of the costs and incentives paid for Energy Trust's Oregon gas programs.

Table 3 shows the Energy Trust gas program incentives for 2008 as a percent of fully loaded cost by sector.

Table 3 - 2008 Gas incentives as % of fully loaded costs

Program	incentives	fully loaded cost	% incentives
New homes and products	1,038,491	2,478,934	42%
Existing homes	4,576,953	8,202,591	56%
Existing buildings	1,883,897	3,312,031	57%
new buildings	603,331	1,087,379	55%
Production Efficiency	27,922	86,010	32%
Total	$8,130,594	$15,166,945	54%

The percent of total costs going towards incentives is below the 70% to 80% that other Washington utility programs report spending on incentives[4]. A number of reasons may

[4] *See* Avista's "Triple E Report: January 1, 2008 through December 31, 2008."

account for why Energy Trust's overall percentage of incentive dollars to total costs is less: 1) A utility-delivered program may not account for costs that are otherwise rate-based, whereas all Energy Trust costs are considered incremental program costs; 2) Energy Trust believes that rebate incentives should be set at a level that is just high enough to motivate the buyer. If the market does not require a higher incentive for transformation, then programs will be more cost-effective using the lower incentive level; and 3) Energy Trust has found that higher incentives sometimes result in contractors raising their costs – so the job price remains about the same and customers do not benefit from these higher incentive levels.

Energy Trust expects incentives paid in the first year of its Washington programs will account for 60% of total costs. 60% is derived by adjusting the total costs down by 15% for Energy Trust costs that would otherwise be rate based if delivered by the utility. The Energy Trust will track and report on the level of incentives paid. It is willing to respond to the market if program results suggest that incentive amounts are not appropriately set. Energy Trust is planning to use additional coupons for Washington customers which would offer more incentive dollars for specific measures for limited periods of time. Responsiveness to such campaigns will be tracked and Energy Trust will report if the campaigns prove to move the market more quickly.

Levelized Cost

Table 4 shows the type and activity level achieved by various gas EE programs in Oregon in 2008 for NWN.

Table 4 - Gas efficiency savings in Oregon 2008 and OPUC Performance Metrics

Gas Efficiency Savings	NWN Therms	Cascade Natural Gas	Avista	Total Savings Therms	Expenses	$ / Therm	Levelized Cost/
Commercial	1,156,018	51,298	0	1,207,316	$4,399,409	$3.6	33 ¢
Industrial	12,600	0	0	12,600	$86,009	$6.8	53 ¢
Residential	1,260,916	82,505	9,793	1,353,214	$10,681,527	$7.9	54 ¢
Total Energy Efficiency Programs	2,429,534	133,803	9,793	2,573,130	$15,166,945	$5.9	45 ¢

Energy Trust predicts the per-therm cost and average levelized cost in Washington to be somewhat higher than the Oregon average. This deviation is due to a small industrial sector (approximately 11 customers which the Company does not intend to serve with DSM in the first program year) and a large residential retrofit sector which is the most costly to serve.

Start Up Costs

One-time start-up costs of $150,000 are estimated below in Table 5. Costs include the temporary need for additional staffing.

Table 5 – Start Up Budget Summary

Legal	$	20,000
Information Technology	$	30,000
Planning & Evaluation	$	15,000
Finance & Accounting	$	10,000
HERs and ETO Home energy Services	$	30,000
MARKETING & COMMUNICATIONS	$	30,000
Existing Buildings Start Up Activities	$	15,000
TOTAL	**$**	**150,000**

Start-up and ongoing costs will be captured and analyzed separately. For cost-effectiveness tests, the start up costs will be amortized over the first five years of the program. 60% will be attributed to residential customers and 40% to commercial customers.

Ongoing Costs

The ongoing program delivery phase will require approximately 1.75 full time employees (FTE) which will be included in the total cost per therm. Energy Trust anticipates that first year budget will be $815,000 with over 60% being spent on incentives.

Energy Trust will carefully segregate costs associated with the delivery of programs in Washington and Oregon, ensuring that customers pay for delivery of their own programs.

Table 6 below shows the break out of the first year budget as well as the associated 1/5 of start up costs allocated across the residential and commercial sectors.

Table 6 – First Year Budget Summary

Budget	Residential	Commercial	Total
incentives	$ 268,950	$ 211,900	$ 480,850
delivery	$ 146,700	$ 65,200	$ 211,900
eto	$ 73,350	$ 48,900	$ 122,250
1/5 of start up budget	$ 18,000	$ 12,000	$ 30,000
Total	**$ 507,000**	**$ 338,000**	**$ 845,000**

Cost Recovery

The Company will use deferral accounts established in Docket No. UG-011230 and UG-011231 to track costs associated with these programs. The Energy Trust will track costs and bill the Company accordingly. The WUTC will perform an annual review before allowing the Company to amortize prudently incurred costs for recovery from Washington customers who may participate in the program. Costs will be recovered only from customers who can participate in the programs (Residential and Commercial Customers in Washington) and will be collected on an equal percent on margin basis.

In the first year, we expect the cost recovery rate adjustment to result in average monthly impact of $XX for Residential customers and $XX for Commercial customers.

Attachment D demonstrates the amortization of assumed costs presented in Table 6 above using forecasted volumes. (NW Natural will provide this later)

ATTACHMENT A

Attachment A. Energy Trust's Oregon Gas Energy Efficiency Programs

PROGRAM A

1. Existing Buildings Lodging and Foodservice Equipment Incentives

Equipment	Efficiency Rating	Unit Incentive
Dishwasher, High Temp under-counter	ENERGY STAR®	$200 each
Dishwasher, High Temp single tank door/upright	ENERGY STAR	$400 each
Dishwasher, Conveyor, High/Low Temp	ENERGY STAR	$500 each
Gas Fryer	ENERGY STAR	$1000 each
Gas Convection Oven	Full-sized oven 6 ft^3 or > interior	$1000 each
Vent Hood	Variable Speed Drive	$300 per horsepower
Energy Management System	Approved by ENERGY TRUST	$2,750 each
Commercial Laundry Washers, Gas	ENERGY STAR	$100 each
Showerhead	2.0 GPM	$6 each (20 unit minimum)

NOTE: Energy efficiency measures not listed may still be eligible for custom incentives of up to 50% of the incremental cost between standard and high-efficiency equipment not to exceed $1.00/therm saved.

2. Existing Buildings Premium Natural Gas Equipment Incentives

Gas Equipment	Measure Description	Efficiency Type for Qualification	Unit Incentive
HVAC Unit Heater	High-Efficiency-Non-Condensing with Electronic Ignition	Minimum 86% AFUE	$1.50/kBtu/hr in
Warm-Air Furnace < 225,000 kBtuh	High-Efficiency Condensing Furnace	Minimum AFUE 91%	$3.00/kBtu/hr in
Radiant Heating	Direct-fired Radiant Heating	None	$6.50/kBtu/hr in
Insulation	Attic Insulation	Minimum R-19	$0.20/sq. ft.
Insulation	Roof Insulation	Minimum R-11	$0.20/sq. ft.
Insulation	Wall Insulation	Minimum R-11	$0.20/sq. ft.

Domestic Hot Water Tanks	Condensing Tank	Minimum 91% AFUE or 91% Thermal Efficiency	$2.50/kBtu/hr in
Domestic Tankless/Instantaneous Water Heaters	With Standing Pilot	Minimum 70.8% Energy Factor	$1.50/kBtu/hr in
Domestic Tankless/Instantaneous Water Heaters	With Electronic Ignition	Minimum 73.8% Energy Factor	$2.00/kBtu/hr in
Boiler	High-Efficiency-Condensing Boiler with Electric Ignition	Minimum 90% AFUE and 500 kBtuh input	$4.00/kBtu/hr in
Boiler Vent Damper	Boiler Vent Damper	Minimum 1,000 kBtuh input	$1,000/vent damper
Steam Traps	Steam System Traps	Operate less than 12 hrs/day with 15-200 psig	$100/trap

3. Existing Buildings Insulation Incentives – Gas Heat

Measure	Description	Efficiency Rating	Unit Incentive
Attic Insulation	No existing insulation	Minimum R-19	$.20 per square foot
Roof Insulation	No existing insulation	Minimum R-11	$.20 per square foot
Wall Insulation	No existing insulation	Minimum R-11	$.20 per square foot

Note: Incentives exceeding $5,000 require pre and post install inspections.

Business Energy Solutions—Production Efficiency (Industrial)

Natural Gas Equipment Incentives

Customers on a limited set of NW Natural Gas rate schedules are eligible for incentives on natural gas equipment. Incentive amounts are $1.00/annual therm saved or 50% of project costs, whichever is less. The maximum incentive is $500,000. For more information, visit www.energytrust.org/pe.

PROGRAM B

1. New Buildings Natural Gas Equipment Incentives

Measure	Min. Eff. Criteria	Eff. Type for Qualification	Basis of Incentive	$/Units
Domestic Hot Water				
Condensing Tank	91%	Thermal Eff or AFUE	kBtuh Input	$2.50
Tankless/Instantaneous w/Standing Pilot	70.8%	Energy Factor	kBtuh Input	$1.50
Tankless/Instantaneous w/Electronic Ignition	73.8%	Energy Factor	kBtuh Input	$2.00
Heating Equipment				
High-Efficiency Unit Heater - Non-Condensing with Electronic Ignition	86%	AFUE	kBtuh Input	$1.50
High-Efficiency Condensing Furnace	91%	AFUE	kBtuh Input	$3.00
Direct-Fired Radiant Heating	N/A	None	kBtuh Input	$6.50
Boiler Vent Damper	1,000	kBtuh Input	No. Dampers	$1,000
High-Efficiency Condensing Boiler with Electronic Ignition	90%/500 min	AFUE/kBtuh Input	kBtuh Input	$4.00
Cooking				
Gas Fryer	50%	ENERGY STAR	each	$1,000
Infrared Gas Griddle	3 min/20 max	Ft Long / kBtuh/ft	each	$500
Gas Convection Oven	Preheat 11 kBtu, Idle 12 kBtu, Eff 40%	Full-sized oven (cooking capacity 6 cubic feet or more)	each	$1,000

2. New Buildings Solar Energy Incentives

Measure	Incentive by Utility	Max
Solar Water Heating	**NWN**	
Combined with Standard, Custom or ENERGY STAR	$6.00 per Therm	35% cost

Track		
Combined with USGBC LEED® NC Track	$5.20 per Therm	35% cost
Solar Pool Heating	**NWN**	
Combined with Standard, Custom or ENERGY STAR Track	$1.50 per Therm	35% cost
Combined with LEED NC Track	$0.70 per Therm	35% cost

3. New Buildings Foodservice Incentives

Measure	**Min. Efficiency**	**Efficiency Type**	**Basis of Incentive**	**$ Per Unit**
Gas Fryer (same as equipment in "Gas Equip." worksheet)	50%	ENERGY STAR®	each	$1,000
Gas Convection Oven (same as equipment in "Gas Equip." worksheet)	Preheat 11 kBtu Ideal 12 kBtu Effy 40%	Full-Sized Oven (cooking capacity 6 cubic feet or more)	each	$1,000
Restaurant Energy Management System	N/A	Approved by Energy Trust	each	$2,750
Commercial Dishwasher, High Temp under counter, Gas	See list of qualifying products on ENERGY STAR Web site	ENERGY STAR	each	$200
Commercial Dishwasher, High or low temp single tank door/upright, Gas	See list of qualifying products on ENERGY STAR Web site	ENERGY STAR	each	$400
Commercial Dishwasher, Single Tank Conveyor, High or Low Temp, Gas	See list of qualifying products on ENERGY STAR Web site	ENERGY STAR	Each	$500

4. New Buildings Multifamily and Lodging Incentives

Measure	Min. Efficiency	Efficiency Type	Basis of Incentive	$ Per Unit
Commercial Clothes Washer	MEF 2.0/ WF 6.5 Gas DHW/Dryer	Installed in either commercial laundry or a multi-family building	each	$100
Showerheads – gas DHW	Rated at 2 GPM	Installed in either a residential multifamily or public assembly setting	Each	$12
Aerators – gas DHW	Bath aerators rated at 1.5 GPM and Kitchen Aerators rated at 2.0 GPM	Installed in either a residential or public assembly setting	Each	$5
Clothes washers 2.0-2.19 gas or electric with gas or electric dryer	See list of qualifying products on website	Installed in a residential multifamily setting	Each	$75
Clothes washers 2.2+, gas or electric DHW with gas or electric dryer	See list of qualifying products on website	Installed in a residential multifamily setting	Each	$100

PROGRAM C

Home Energy Solutions—Existing Homes Incentives

Existing Site-Built and Manufactured Homes (gas and electric heat)		
Maximum Incentive	**Potential Tax Credits Available?**	**Energy Saving Measure**
$.25/sq. ft.		Ceiling/Attic insulation (insulate to R-38; incentive shall not exceed cost)
$.45/sq. ft.		Floor insulation (Insulate to R-30 or fill cavity; incentive shall not exceed cost)
$.30/sq. ft.		Wall insulation (insulate to R-11 or fill cavity; incentive shall not exceed cost)
$.30/ sq. ft.		Knee Wall insulation (insulate 2x4 cavities to R-15; insulate 2x6 cavities to R-21; cover attic side of wall with vapor permeable air barrier)
50% of cost up to $100		Duct insulation (insulate to R-11; incentive shall not exceed cost; ducts must be sealed before insulating)
$0.50/linear ft.		Boiler Pipe Insulation (insulated to R-8; incentive shall not exceed cost)
$50		Duct Leakage Test (must be performed by an Energy Trust certified contractor)
$400	Yes (50% leakage reduction req.)	Duct sealing - $1 per CFM reduction; min. 100 CFM reduction; not to exceed $400
$50		Air Leakage Test (blower door test required)
$400		Air sealing ($1.00 per CFM reduction, up to $400 minimum; 200 CFM reduction; minimum ventilation level: 8 ACH @ 50Pa; blower door test required)
$2.25/sq. ft.		Windows (Must be installed with another complete* measure. Duct/Air Leakage Test, Duct Insulation, Boiler Pipe Insulation and Tanked Water Heater excluded.) • *U-value = 0.30 or less*
$150 (plus $50 bonus through 4/30/09)	Yes	New high efficiency gas furnace (back-up excluded) • *Minimum efficiency 90% AFUE* • *90% AFUE + ECM Motor*
$100		Direct Vent Gas Unit Heater • Minimum efficiency 80% AFUE or greater
$70		High efficiency gas fireplace (80% AFUE or greater with direct vent and sealed combustion on new units or fireplace inserts)

$200		Gas Boiler (88% or greater AFUE)
$35	Yes	Gas water heater (0.62 EF or greater)
Up to $1,500		Gas solar water heater (average incentive is $500); must be OG 300 certified

* Insulation measures (attic/ceiling, floor and/or wall) must be upgraded to program specifications and requirements to qualify as a complete measure with windows. Duct/Air Sealing must meet maximum incentive amount to qualify as second measure.

Existing Mobile Homes (for gas heated homes)		
Maximum Incentive	**Potential Tax Credits Available?**	**Energy Saving Measure**
$150 (plus $50 bonus through 4/30/09)	Yes	New high efficiency Gas Furnace • Minimum efficiency 90% AFUE • 90% AFUE + ECM Motor
$.45 per sq. ft.		Floor insulation (Insulate to R-30 or fill cavity; incentive shall not exceed cost)
Free		Duct Leakage Test[1] (minimum 50 CFM reduction for payment)
Free		Duct sealing[1] (on a park-by-park basis; minimum 50 CFM reduction for payment)
Free		Complex duct repair[2]
Free		Air sealing[1] (on a park-by-park basis; minimum 50 CFM reduction for payment)
$35		Gas Water Heater (0.62 EF or greater)
$200	Yes	Tankless Water Heater (0.80 EF or greater)
Free		Low flow water aerators & showerheads

[1]Must be performed by a Energy Trust certified contractor. Available to qualified participants.
[2]For duct sealing, complex is defined as extra work due to exterior furnace closets, ceiling and floor return systems, and/or cross-over ducts.

Existing Small Multifamily Homes (2-4 units) – Gas		
Maximum Incentive	**Potential Tax Credits Available?**	**Energy Saving Measure**
$.45 per sq.	Yes	Floor insulation (insulate to R-30 or fill cavity)

ft.		
$.30 per sq. ft.	Yes	Wall insulation (insulate to R-11 or fill cavity[1])
$.25 per sq. ft.	Yes	Ceiling/Attic insulation (insulate to R-38)
$.30 per sq. ft.		Knee Wall insulation (Insulate 2x4 cavities to R-15; insulate 2x6 cavities to R-21; cover attic side of wall with vapor permeable air barrier)
$100	Yes	Duct insulation (insulate to R-11; 50% of cost up to $100; incentive shall not exceed cost; ducts must be sealed before insulating)
$.50 linear ft.	Yes	Boiler pipe insulation (insulate to R-8; incentive shall not exceed cost)
$50		Duct Leakage Test (must be performed by an Energy Trust certified contractor)
$400	Yes (50% leakage reduction req.)	Duct sealing - $1 per CFM reduction; min. 100 CFM; incentive shall not exceed cost
$50		Air Leakage Test (blower door test required)
$400		Air sealing ($1.00 per CFM reduction; minimum reduction 200 CFM; minimum ventilation level: 8 ACH @50Pa; incentive shall not exceed cost)
$2.25 per sq. ft.		Windows (U-Value = 0.30 or less; up to $7,500; must be installed with another complete[2] measure. Duct/Air Leakage Test, Duct Insulation, Boiler Pipe Insulation and Gas Water Heater excluded.)
$150 (plus $50 bonus through 4/30/09)	Yes	New high efficiency gas furnace (backup excluded) • *Minimum efficiency 90% AFUE* • *90% AFUE + ECM Motor*
$100		Direct Vent Gas Unit Heater • Minimum efficiency 80% AFUE
$70		High efficiency gas fireplace (80% AFUE or better with direct vent & sealed combustion on new units or fireplace inserts)
$200		Gas Boiler (88% or greater AFUE)
$35		Gas water heater (0.62 EF or greater)
$200	Yes	Tankless water heater (0.80 EF or greater)

[1]Insulating around windows alone does not qualify as wall insulation.
[2]Insulation measures (attic/ceiling, floor and/or wall) must be upgraded to program specifications and requirements to qualify as a complete measure with windows.

Duct/Air Sealing must meet maximum incentive amount to qualify as second measure.

PROGRAM D
Multifamily Home Energy Solutions Incentives

Measure	Existing	To	Incentive (amounts may vary)
For Gas Heated Buildings (NW Natural)			
Windows[1]	Single or Double Glazing	U-.32 or lower U-.30 or lower	$1.75/sq. ft. (10-15% of project cost) $2.25/sq. ft.
Commercial Grade Boiler Pipe Insulation	R-2 or less	R-8	$.50 linear foot
Boiler Vent Damper & Tune-up	No Vent Damper	Automatic vent damper	$150/boiler
Duct Insulation	R-2 or less	R-11	50% of cost up to $100
Gas Furnace		90% or greater AFUE	$150 (plus $50 bonus through 4/30/09)
High-Efficiency Condensing Boiler with Electronic Ignition		Minimum 90% thermal efficiency and 500 kBTUh input	$4.00 per kBTUh
For Electric and Gas Heated Buildings			
Insulation – Attic	R-0 to R-18	R-38	$0.25/sq. ft.
Insulation – Wall	R-0 to R-4	R-21 or fill cavity	$0.30/sq. ft.
Insulation – Floor	R-0 to R-11	R-25 or fill cavity	$0.45/sq. ft.
Duct Leakage Test	Must be performed by an Energy Trust certified contractor.		$50
Duct Sealing	PTCS certified contractor and ODOE Duct Sealing/Duct Repair Worksheet Required. Min. 50 CFM reduction for payment.		$1 per CFM reduction, up to $400
Exterior Doors	R-2	R-5	$25 per door
Other Heating Systems			Custom
Gas Water Heater		EF .62 or greater	$35
Tankless Gas	Standard hot	Minimum EF .80	$200

Water Heater	water heater		
Commercial Gas Water Heater		Min 91% AFUE or thermal efficiency	$2.50 per kBTUh
Commercial Tankless Gas Water Heater		Min EF .738 and electronic ignition only	$2.00 per kBTUh
Commercial Clothes Washer – Gas DHW	Standard top or front loading	Top or front loading – MEF 2.0, WF 6.0 or better	$200 per washer
In-unit Clothes Washer – Electric & Gas DHW	Standard top or front loading	Top or front loading – MEF 2.0, WF 6.5 or better	$100 per washer

[1]Window-only installations are permitted only when existing floor insulation is equal to or greater than R-11 and attic insulation is equal to or greater than R-19. If either of these conditions is not met, then floor insulation or attic insulation must be installed to recommended levels.

PROGRAM E

New Homes Incentives

Base Case Incentives (choose one)	Gas Only	Full Territory
ENERGY STAR Qualified Home – Gas with A/C	$350	$550
ENERGY STAR Qualified Home – Gas without A/C	$350	$450
NW ENERGY STAR *Plus* Federal Tax Credit - Gas	$700	$1,000

Upgrade Measures (optional)	Gas Only	Full Territory
2.0 MEF ENERGY STAR Qualified Clothes Washer	$75	$75
Lighting (15 additional CFL bulbs or 100% of all bulbs, whichever is less) Could do this with Clark PUD	n/a	$75
.81 EF Tankless Water Heater (gas model only)	$100	$100
80% AFUE High Efficiency Gas Fireplace	$70	$70
95% AFUE Gas Furnace	$150	$150
Solar Water Heating System	$1,000	$1,000
Solar Electric System (incentive varies with size)	n/a	Up to $10,000

Verification Incentive	Gas Only	Full Territory
Builder Incentive for Homes (If you use the sampling protocol, your incentive will vary. Ask your BOS for details.)	$100	$150

Solar Incentives	Incentive Amount
Solar Water Heating	$1,000
Solar Electric	Up to $10,000

Offered through Energy Trust's Solar Program. Ask your Builder Outreach Specialist for details.

Qualifications:

- The primary heating system is the only equipment eligible for incentives. Secondary or back-up heat sources do not qualify as part of the New Homes program.
- The qualifying ***gas*** provider is NW Natural. Incentive amounts vary depending on the type of territory:
    - **Gas only:** Homes with a qualifying gas provider and non-qualifying electric provider

.

PROGRAM F

New Homes – Multifamily Incentives

ENERGY STAR Base Case Multifamily Incentives (choose one)	Gas Only	Full Territory
ENERGY STAR Multifamily – Ducted Gas (with or without A/C) – Path 1	$300	$300
ENERGY STAR Multifamily – Ductless Gas Heat with Zonal Electric	$300	$300
ENERGY STAR Multifamily – Hydronic Gas System – Path 4	$300	$300
Multifamily NW ENERGY STAR *Plus* Federal Tax Credit – Gas	$550	$700

Upgrade Measure Incentives (optional)	Gas Only	Full Territory
2.0 MEF ENERGY STAR Qualified Clothes Washer	$75	$75
1.8 MEF ENERGY STAR Qualified Clothes Washer – Gas	$180	$180
.81 EF Tankless Water Heater (gas model only)	$100	$100
80% AFUE High Efficiency Gas Fireplace	$70	$70
95% AFUE Gas Furnace	$150	$150

Verification Incentive	Gas Only	Full Territory
Builder Incentive for Homes (If you use the sampling protocol, your incentive will vary. Ask your BOS for details.)	$75	$100

Solar Incentives (optional)	Incentive Amount
Solar Water Heating	$1,000
Solar Electric	Up to $10,000

Qualifications:

- Homes must be built to New Homes Multifamily requirements and verified by an Energy Trust-approved verifier.
- The primary heating system is the only equipment eligible for incentives. Secondary or back-up heat sources do not qualify as part of the New Homes program.
- The qualifying ***gas*** provider is NW Natural. Incentive amounts vary depending on the type of territory. Incentive amounts vary depending on the type of territory:
    - **Gas only:** Homes with a qualifying gas provider and non-qualifying electric provider.

PROGRAM G

New Manufactured Homes Incentives

Base Incentive	Required Utility	Incentive amount
ENERGY STAR Gas Home (gas and electric territory)	NW Natural	$500

ATTACHMENT B

Survey of Gas Furnace Installers and Distributors in Clark, Co. WA

Energy Trust commissioned a survey of gas furnace installers and distributors in Clark, Co., Washington[5]. The survey team interviewed three installers and three distributors.

The results show that in 2008, 1,000 out of 1,700 total furnaces sold in NW Natural's Clark County gas service territory were high efficiency furnaces (less than 60%). By contrast, these same interviewees sold high efficiency furnaces in Oregon more than 67% of the time. (More than 2,000 of their 3,000 sales of furnaces in Oregon were high-efficiency.)

The percentage of high-efficiency units sold has increased significantly over the past five years. The percentage of units sold in each efficiency category is fairly similar to the percentages in NW Natural's Oregon service territory but in the 90-94% efficiency category, a higher percentage of units are sold in NW Natural's Washington service territory than its Oregon service area.

Weighted and Un-weighted Average Percentage of Units Sold in 2004 and in 2008 in Each Efficiency Category in NWN Clark County

Efficiency Category	2004 Percentage of Total Units		2008 *Percentage of Total Units*	
Weighted/ Un-weighted Averages	*Un-weighted*	*Weighted*	*Un-weighted*	*Weighted*
80-89% AFUE:	62%	77%	36%	36%
90-94% AFUE:	30%	22%	52%	59%
95% AFUE or higher:	8%	1%	12%	5%

**The percentages of units sold with an ECM motor are shown in Table 4 and 5 of the Appendix.*
Source: Summit Blue interviews of furnace vendors in NWN Clark County service territory

Note: The unweighted percentages reflect the sample taken. The weighted values are estimates of the population percentages calculated by using the relative fractions of the sample found in the population to adjust the sample to the population.

[5] Survey is available upon request.

Table 5. Percentage of units in the AFUE category in 2008.

2008									
Respondent	Total # of units sold in 2008	Percentage of units in each category				Percentage of units in each category with an ECM motor			
		Less than 80%	*80-89% AFUE*	*90-94% AFUE*	*95% AFUE or higher*	*Less than 80%*	*80-89% AFUE*	*90-94% AFUE*	*95% AFUE or higher*
1	0	?	?	?	?	?	?	?	?
2	25	0%	30%	55%	15%	0%	0%	30%	30%
3	100	0%	20%	70%	10%	0%	10%	60%	100%
4	500	0%	50%	40%	10%	0%	20%	20%	20%
5	1001	0%	30%	70%	0%	0%	15%	15%	0%
6	55	0%	50%	25%	25%	0%	0%	100%	100%
Average	**1,681**	**0%**	**36%**	**52%**	**12%**	**0%**	**9%**	**45%**	**50%**
Weighted Average		**0%**	**36%**	**59%**	**5%**	**0%**	**15%**	**22%**	**16%**

Note: numbers for ECM motors are percentages of the percentage of units in that AFUE category.

Although the survey respondents represent a small sample of installers and distributors, they account for a high percentage of the furnaces installed. It appears that the gas furnace market is in the process of being transformed in Clark County, as it is in Oregon. Therefore, niche markets need to be studied further to determine where additional opportunities for market transformation exist.

In Washington, the housing stock is quite new: nearly 80% of homes were built after 1990. Of these, 47% (over 17,000 units) were built from 1990-94 and these furnaces will reach the end of their life in the next 10 years. In contrast, the Oregon housing stock (see Table III.2) shows approximately 50% of single family homes were built in the 1980's.

ATTACHMENT C

ATTACHMENT C-1

attachment c-1		11%		immature program factor ===>		0.75	
ratio OR/WA	**2008 NWN OR Actuals**	**NWNOR/ NWNWA**	**NWN WA Mature Program Estimate**	**NWN WA**	**Immature Program Estimate # of Units**	**Working Therms per Unit**	**Total Annual Therms**
RESIDENTIAL MEASURES							
furnace	5,781	11%	614	furnace	461	70	32,240
tankless	860	11%	91	tankless	69	65	4,454
tank type	72	11%	8	tank type	6	16	93
Wall Insul	633	11%	67	Wall Insul	50	52	2,644
Ceiling Insul	1,911	11%	203	Ceiling Insul	152	64	9,811
Floor Insul	1,077	11%	114	Floor Insul	86	61	5,272
Air sealing	1,172	11%	124	Air sealing	93	26	2,384
Duct sealing	1,173	11%	125	Duct sealing	93	21	1,999
HER showerhead	2,537	11%	270	HER showerhead	202	22	4,348
HER Aerator	4,894	11%	520	HER Aerator	390	6.1	2,378
SUB TOTAL RESIDENTIAL						**Therms**	**65,622**
COMMERCIAL MEASURES		**9%**					
Custom Chillers	5	9%	0	Custom Chillers	0.3	5,872	1,984
Custom Building Controls	23	9%	2	Custom Building Controls	1.6	5,998	9,321
Custom Ducting/Filters	5	9%	0	Custom Ducting/Filters	0.3	749	253
Custom Economizers	10	9%	1	Custom Economizers	0.7	608	411
Custom Gas Boiler	4	9%	0	Custom Gas Boiler	0.3	15,745	4,255
Custom Heat Recovery	4	9%	0	Custom Heat Recovery	0.3	6,463	1,747
Custom HVAC	8	9%	1	Custom HVAC	0.5	416	225
Custom Other	120	9%	11	Custom Other	8.1	293	2,380
Custom VAV System	9	9%	1	Custom VAV System	0.6	1,188	722
Custom VFDs	19	9%	2	Custom VFDs	1	2,882	3,700
Attic Insulation (per SQFT)	205724	9%	18534	Attic Insulation (per SQFT)	13900	0.18	2,433
Roof Insulation (per SQFT)	470901	9%	42424	Roof Insulation (per SQFT)	31818	0.19	5,954
Wall Insulation (per SQFT)	73787	9%	6648	Wall Insulation (per SQFT)	4986	0.20	997
PT Heat Pump	418	9%	38	PT Heat Pump	28	7	203
Showerhead Gas	300	9%	27	Showerhead Gas	20	7	142
Steam Traps, Small Commercial,	2156	9%	194	Steam Traps, Small Commercia	146	139	20,249
Direct-Fired Convection Oven	164	9%	15	Direct-Fired Convection Oven	11	543	6,021
Condensing Tank	25	9%	2	Condensing Tank	2	678	1,145
High Efficiency Unit Heater - No	9	9%	1	High Efficiency Unit Heater - N	1	170	103
Infrared Gas Fryer	31	9%	3	Infrared Gas Fryer	2	548	1,148
Direct-fired Radiant Heating	160	9%	14	Direct-fired Radiant Heating	11	367	3,971
High Efficiency Condensing Boil	229	9%	21	High Efficiency Condensing Bc	15	171	2,640
High Efficiency Condensing Furr	27	9%	2	High Efficiency Condensing Fu	2	96	176
Domestic Tankless/Instanaeous V	16	9%	1	Domestic Tankless/Instanaeous	1	620	671
Commercial dishwashers	15	9%	1	Commercial dishwashers	1	334	338
SUB TOTAL COMMERCIAL						**Therms**	**71,189**
TOTAL RESIDENTIAL and COMMERCIAL						**Therms**	**136,811**

Notes:
Unless otherwise noted, all estimates for NWN WA are ratioed down fro NWN OR actuals in 2008; res uses ratio of households, commercial uses ratios of loads.

Attachment C-2

Attachment C-2				immature program factor ===>	0.75		
ratio CNG/NWN WA	**2008 CNG WA Actuals**	**NWNWA/ CNGWA**	**NWN WA Mature Program Estimate**	**Measures**	**NWN WA Immature Program Estimate # of Units**	**Working Therms per Unit**	**Total Annual Therms**
RESIDENTIAL MEASURES							
furnace	652	0.375	245	furnace	425	70	29,750
tankless	250	0.375	94	tankless	70	43	3,023
tank type	87	0.375	33	tank type	24	13	318
E* clothes washer	507	0.375	190	E* clothes washer	143	6	856
Wall Insul	126	0.375	47	Wall Insul	35	52	1,858
Ceiling Insul	284	0.375	107	Ceiling Insul	80	64	5,148
Floor Insul	328	0.375	123	Floor Insul	92	61	5,668
Aerator	656	0.375	246	Aerator*	185	17	3,137
Showerhead	2960	0.375	1110	Showerhead*	833	31	25,808
				SUB TOTAL RESIDENTIAL		**Therms**	**75,565**
COMMERCIAL MEASURES							
Warm-air Furnace < 225 kBtu/hr	31	0.375	12	Warm-air Furnace < 225 kBtu/hr	9	111	966
Radiant heating	7	0.375	3	Radiant heating	2	526	1,035
Attic Insulation	3	0.375	1	Attic Insulation	1	329	278
Roof Insulation	6	0.375	2	Roof Insulation	2	2745	4,632
Wall Insul	5	0.375	2	Wall Insul	1	566	795
Domestic Hot Water	3	0.375	1	Domestic Hot Water	1	158	133
Domestic Tankless	15	0.375	6	Domestic Tankless	4	184	777
Boiler	6	0.375	2	Boiler	2	1093	1,844
Gas Convection Oven	10	0.375	4	Gas Convection Oven	3	564	1,586
Clothes Washer	3	0.375	1	Clothes Washer	1	90	76
custom measures	28	0.375	11	custom measures	8	5312	41,833
				SUB TOTAL COMMERCIAL		**Therms**	**53,954**
				TOTAL		**Therms**	**129,519**

Note: *Showerheads and Aerators make up over 1/3 of CNG's residential savings and were achieved through a mail out kit. ETO will acquire these measures through HERs, in collaboratio with Clark PUD and expects a much lower volume compared to a mass mailing of kits.

ATTACHMENT D