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February 18, 2010 NWN Advice No. WUTC 10-2

VIA ELECTRONIC FILING

Dave Danner, Executive Director & Secretary
Washington Utilities and Transportation Commission
1300 S Evergreen Park Drive SW
Post Office Box 47250
Olympia, Washington 98504-7250

Re: Revisions to Schedule G, "Energy Efficiency Services and Programs – Residential and Commercial"

Dear Mr. Danner:

Northwest Natural Gas Company, dba NW Natural ("NW Natural" or the "Company"), files herewith the following revisions to its Tariff WN U-6, stated to become effective on and after March 26, 2010:

Tenth Revision of Sheet viii,
Tariff Index,

Third Revision of Sheet G.1,
Schedule G,
"Efficiency Services and Programs – Residential and Commercial,"

Second Revision of Sheet G.3,
Schedule G,
"Efficiency Services and Programs – Residential and Commercial,"

Original of Sheet G.4,
Schedule G,
"Efficiency Services and Programs – Residential and Commercial,"

and

Original Sheet G.5,
Schedule G,
"Efficiency Services and Programs – Residential and Commercial."

The purpose of this filing is to revise Schedule G to include specific program offerings and to revise the Company's Energy Efficiency Plan (Plan), which is attached and is by reference in Schedule G part of the tariff.

The Company's Energy Efficiency Plan details the role of the Energy Efficiency Advisory Group (EEAG) as well as the program's first year goals, budget, and offerings. The Plan is hereby revised to delineate more clearly the process for determining who will provide program administration after the end of the first program year. The Full Settlement Stipulation, filed under Docket No. 080546 and adopted by Commission Order No. 04, establishes that the EEAG and the Company will recommend whether the Energy Trust of Oregon (ETO) may continue to administer the Company's Washington energy efficiency programs after the end of the first program year. This decision will be based on the cost-effectiveness of the therms acquired through the ETO-delivered program as well as a benchmarking study that will compare the cost and value of all natural gas utility, energy efficiency programs in Washington.

While the Full Settlement Stipulation only requires that the year-end decision be based on cost-effectiveness, the Company concurred with an EEAG recommendation to also base the decision on the finding of a benchmarking study. When this requirement was added to the Company's Energy Efficiency Plan, the Company planned to draft this study in-house. After further consideration and consultation with the EEAG, NW Natural determined that it would contract a third party to prepare the study. At its December 14, 2009 meeting, the EEAG generally agreed that this was appropriate.[1]

At this same meeting, the Company explained to the EEAG that the benchmarking study could not be completed on January 25, 2010, as initially assumed and as stated in the Company's Energy Efficiency Plan. Rather, the benchmarking study will be completed by March 25, 2011. This delayed timeline allows the results of the ETO-prepared, comprehensive annual report to inform the benchmarking study.

To clarify the reason for this change, it is important to understand all the dates for the pilot year: The pilot program year began on October 1, 2009 and will conclude on September 30, 2010. Quarterly reports are due to the EEAG and the WUTC on September 30, May 25 and August 25. A comprehensive annual report will be filed on January 25, 2011. The delay between the end-of-the-pilot year and the delivery of the comprehensive annual report is necessary because program offerings are honored for a 120 days —meaning customers may commit to participating in the program during the first twelve months, but their measure may not be installed until three months after the program year has ended. This lag between applying as a program participant and finishing a qualifying project must be accounted for to understand first-year results. After the 120-day period, ETO contractors will report their annual results which will then be compiled in the comprehensive annual report. As stated, the results of the comprehensive annual report will inform the benchmarking study that will be delivered to the EEAG by March 25, 2011. The EEAG will meet by April 25, 2011, to determine its recommendation, which will be filed with the Commission no later than May 25, 2011. This schedule allows a reasonable amount of time for EEAG members to meet and

[1] The Northwest Energy Coalition said that having a third-party prepared benchmarking report was not necessary.

consider the comprehensive annual report as well as the findings in the benchmarking study. The Energy Efficiency Plan is revised to reflect this process.

Also added to the Plan is language stating that the Energy Trust will continue to deliver the Company's programs throughout the period that the cost-effectiveness decision is being made, and in the event the decision is made to not retain the Energy Trust as program administrator, throughout the period during which a new program administrator is established. The Company is simultaneously filing a Petition for Reconsideration of Order No. 04 in Docket No. UG-080546, which states the ETO may deliver the pilot program for one year, but is silent on program administration while a formal decision is being made and, potentially, while a new program is being planned. At its December 14, 2009 meeting, the EEAG stated that it was not their intent when drafting the Full Settlement Stipulation to have the Company's program stop and start while the ETO's first year performance is evaluated and a decision is made.

In the event the Company needs to change program administrators, allowing the ETO to continue delivering programs to the Company's customers while a new program administrator is established will prevent customers from being without options during the interim. NW Natural presumes changing administrators will require issuing a Request for Proposal (RFP) for third party administrators and drafting a contract prior to program planning and actual implementation. If the EEAG determines NW Natural should deliver the programs in-house, the Company will need to hire energy efficient experts before it can develop a new program. Changing program administrator will take time, and, if it is required, it will be because the EEAG wants a different, better, or more cost effective program. Improvements cannot be made with hasty program design and implementation. It took nine months to launch the ETO-delivered program, which was leveraged off of the offering delivered in NW Natural's Oregon service territory. The Company cannot predict how long it may take to establish the program the EEAG may recommend at the end of this pilot year. Therefore, NW Natural believes it is reasonable and in customers' best interest to have the Energy Trust deliver its program beyond the first twelve months and until a new program is launched. During this interim period, the Company will provide the EEAG with quarterly reviews that will detail the ETO's performance and the Company's progress in establishing a new program.

Finally, language is added explaining that program offerings will be prescriptively detailed in Schedule G. Any changes or additions to program offerings will require a tariff filing. The Plan further explains that new measures will be recommended only after the Energy Trust has thoroughly studied the viability and cost-effectiveness of the measure. Their process for doing so is referenced in the Plan.

The changes made herein should help the EEAG function more effectively by better defining processes.

The Company respectfully requests that the tariff sheets filed herewith be approved to become effective with service on and after March 26, 2010.

As required by WAC 480-80-103(4)(a), I certify that I have authority to issue tariff revisions on behalf of NW Natural.

Copies of this letter and the attached filing are available in the Company's main office in Portland, Oregon, and on its website at www.nwnatural.com.

Please address correspondence on this matter to me at jennifer.gross@nwnatural.com, with copies to the following:

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Sincerely,

NW NATURAL

/s/ Jennifer Gross

Jennifer Gross
Rates & Regulatory Affairs

enclosures

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 NW Energy Coalition. The EEAG discussed this plan during meetings on February 5, 2009 and April 17, 2009, and teleconferences held on May 7, 2009 and June 15, 2009.

Energy Trust of Oregon
The Energy Trust will deliver the Company's Washington programs for at least 12 months, beginning October 1, 2009 Programs will be provided to all residential and commercial customers within the Company's Washington service territory.

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
- Average levelized cost for measures not to exceed $0.65 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 with Quarterly and Annual Reports. These reports will include
(a) the Total Portfolio Cost (TRC),
(b) a Total Portfolio percentage of Incentive Dollars versus total program costs,
(c) total program costs,
(d) therms saved, and
(e) a total levelized cost for all program activities.
Quarterly reports will be provided no later than 55 days after the end of each calendar quarter (February 25, May 25, and August 25).

The first Annual Report will be provided on or before January 25, 2011. The report will provide the information for the October 1, 2009, through September 30, 2010 program year.

[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.

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 the Energy Trust trains and certifies
- Number of residential customers receiving Home Energy Reviews (HERs) in the first program year.
- 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.

If Energy Trust continues to administer NW Natural's programs beyond the first program year, reports will be based on a calendar year. Three quarterly reports will continue to be provided no later than 55 days after the end of each calendar quarter and Annual Reports will be provided on April 25th.

Process after First Program Year

The Energy Trust began administering NW Natural's DSM programs on October 1, 2009. After one program year, the EEAG will begin the process of evaluating the cost-effectiveness of the programs and will eventually recommend whether the Company should continue using the Energy Trust as its program delivery arm.[2] This decision will be based on the Energy Trust's achievement of its first year metrics and the cost-effectiveness of the program using the benefit cost ratio tests, as defined in Schedule G.

This decision of whether NW Natural should continue using the Energy Trust as its DSM program delivery arm will be based, in part, on the comparison of estimated costs for other DSM program delivery options such as delivering DSM programs in-house or using a third-party administrator located in Washington. To this end, NW Natural will provide the EEAG with a paper benchmarking its Energy Trust delivered program against other Washington utility-delivered DSM programs. The Company will use benchmarking efforts to extrapolate what it might cost the Company to deliver its own DSM program, as well as potential costs to use a Washington-based DSM program administrator. This benchmarking study will be prepared by a third-party and will be distributed to the EEAG no later than March 25, 2011.

A third party will be solicited to prepare the benchmarking report to provide parties with the assurance that the information contained the report will be objective. To choose the party who will prepare the benchmarking report, the Company will issue a request for proposal (RFP) to multiple third parties and then bid the contract to the party who presents itself as having the ability to deliver the most value for a reasonable cost.

By April 25, 2011, NW Natural will convene with the EEAG to review the Energy Trust's Annual Report and a third-party's benchmarking study, and to determine whether or not the

[2] *See* Page 5 of the Full Settlement Stipulation, filed on October 21, 2008, in UG-080546, which states, "Following this pilot period, the Company will, in consultation with EEAG, evaluate the cost-effectiveness of the continued use of ETO for delivering the Company's energy efficiency programs in Washington."

Energy Trust should continue delivering the Company's Washington EE programs. By May 25, 2011, the Company will file with the WUTC under Docket No. UG-080546, the third party benchmarking study along with the EEAG's recommendation regarding ongoing program administration. The recommendation filed will represent the majority opinion among EEAG members (where each organization, including the Company, has one vote).[3]

A timeline detailing the key dates in this process is included as Attachment A.

Subject to Commission approval of NW Natural's Petition for Reconsideration of Order No. 04 in UG-080546, the Energy Trust will continue administering the Company's energy efficiency programs throughout the period that the cost-effectiveness decision is being made[4], and in the event the decision is made not to retain the Energy Trust as program administrator, throughout the period during which a new program administrator is selected and established.

Programs

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

Clark PUD will be working with the Energy Trust to provide combined gas and electric services. This effort 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 will be installed and the PMC would be compensated accordingly.

Energy Trust contractors will be available to provide HERs to NW Natural customers in Skamania and Klickitat counties, areas outside of the Clark PUD service territory.

Beyond HERs, residential rebates will be offered for retrofit and replacement high efficiency gas furnaces and domestic hot water heaters. Rebates will also be offered for energy efficient retrofits and replacements in the commercial sector/existing building sector. . Incentives will be offered for weatherization and other shell measures for both residential and commercial customers.

The energy efficiency measures offered in the first year will focus on residential and commercial retrofit opportunities and will mirror what is currently available to NW Natural's Oregon customers. For a listing of Washington program offerings, see Attachment B. The offerings in Washington may differ in that 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

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[3] The public process allows parties to separately or collectively advocate for a different recommendation than that which is filed. Also, this year-end process is independent from the prudency review of costs deferred which occurs when the Company files to amortize the amounts deferred for recovery in rates.

[4] The program year ends September 30,2010, and the deadline for filing the EEAG recommendation with the Commission is May 25, 2011.

minimize costs required for making Washington specific forms and program marketing materials.

The Company will offer the following programs during the first program year:

Residential Retrofit:

- Home Energy Reviews (HERs)
- Furnaces[5]
- Weatherization
- Duct Sealing
- Water Heaters (tank type)
- Water Heaters (tankless)

Commercial Retrofit:

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

Program Modifications

All program offerings are listed in the Schedule G. If the Company chooses to make any additions, changes or revisions to the program offerings, it will file tariff advice filing with the Commission requesting to modify Schedule G. The Company will inform the EEAG when it makes such a filing.

Before the Company files to requesting to add revise or change a measure, that proposal will be scrutinized by the Energy Trust. The Energy Trust identifies measures for potential implementation, tracks them, then prioritizes them based on a number of factors including energy savings potential compared to costs, ability to deploy, and market demand. Measures may originate from industry trade shows when new high-efficiency products are introduced, Energy Trust's resource assessments, and the Regional Technical Forum (a group of industry experts, professional engineers and economists) led by the Northwest Power Planning Council. Detailed measure information used to screen a measure for cost-effectiveness is largely dependent on the following criteria: estimated savings, estimated cost and benefits, avoided costs, benefits to society, measure life, and longevity of savings. After measures are initially screened for cost-effectiveness, a number of other contributing factors are identified and documented, including the quality of the measure, product specifications for qualification, assumptions, market application, ways to qualify potential applications, and results of monitoring and verification of savings. Measures that emerge from this initial screening process go through additional research and testing to determine applicability to the market to determine appropriate incentive levels and deployment scenarios, based on program design and targeted markets. When research and screening is complete, measures are presented to the Energy Trust Conservation Advisory Council (CAC) and a measure acceptance memo is circulated documenting the CACs formal approval to adopt the measure.

[5] *See* Attachment C for study results on the savings potential for the furnace measure.

Existing measures may be modified due to incoming changes to the following; building code, cost to society, measure life, available technology, quality control, appliance and equipment standards, and market demand. These types of modifications are made at the program level and may be based on market adoption rates, available budget, and other factors that may emerge.

Significant measure changes traditionally occur at the beginning of the calendar year, although measure additions and changes to existing measures may be necessary due to changes in the information available at the time or management of program budgets.

A NW Natural tariff filing to add or modify a measure will include support information generated during the Energy Trust's processes described above.

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 35 are industrial[6].

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.

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. Costs would be incurred to launch this program-- additional contractors would be needed and marketing materials would have to be revised for Washington building codes. Making an investment with no clear return would be 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. To balance these objectives, the Energy Trust will enter the market when the activity justifies the costs. They will 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 200 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. Should the threshold be met, we will expect that total program costs will increase due to costs associated with program launch, enlisting additional contractors and developing new marketing materials.

[6] Numbers are rounded.

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 Energy Star New Homes program as does the Energy Trust. Clark PUD does not currently have a robust commercial new construction service offering and would like to benefit from coordinating with NW Natural when market indications warrant service offerings. The Company is hopeful that these opportunities to coordinate with Clark PUD will enhance its future cost effective DSM 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). The Energy Trust generally forecasts two scenarios: a stretch case and a conservative case. The stretch case in Table 1 below, which is taken from the Company's 2009 IRP, is an aggressive goal. Table 2 is the conservative case, which is 75% of the stretch case. While the stretch case in the IRP is useful in preparing a long-term, 20 year forecast, the conservative case is valuable for short term planning.

Table 1 – IRP Stretch Case Forecast, March 2009
Achievable DSM Therm Savings in NW Natural's Washington Service Territory

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 Forecast, March 2009
Achievable DSM Therm Savings in NW Natural's Washington Service Territory

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 achievable potential for applicable residential and commercial retrofit and replacement programs for the fourth quarter of the 2009 potential, plus the first three quarters of 2010. No adjustments are made for economic conditions or for ramp up beyond those assumptions used when determining the achievable potential for the 2009 IRP.

Attachment D demonstrates different ways of assessing the achievable potential in the Company's Washington service territory. Sheet C-1 takes the savings experienced in NW Natural's Oregon service territory, multiples that by 11% to determine likely results in Clark County. Sheet C-2 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. 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 Natural's Washington customers.

Evaluation and Verification of Therms Saved

Deemed savings by measure will be used to determine total therms saved per program year. 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. The EEAG will be notified if deemed savings by measure are modified.

As the program matures, when sufficient historical billing data becomes available, Energy Trust will periodically perform a pre- and post-billing analysis to verify savings for specific program measures. Pre- and post-billing analysis will not be done during the first program year because measures must be installed at least 12 months so that a meaningful pre- and post-billing analysis can be performed. These studies compare data for like seasons (i.e. – a January 2009 bill before a measure is installed is compared to a January 2010 bill after a measure is installed.) A study will not be performed until a significant number of measures have been installed for at a minimum of 12-months.

Incentive Dollars
The Company's energy efficiency tariff (Schedule G) is intentionally silent on incentive dollars. The Company would like the Energy Trust to change incentives offers as necessary to move the market. Before any changes are made to incentive amounts, the Company will seek EEAG for approval.

The following four tables give an overview of the costs and incentives paid for Energy Trust's Oregon gas programs as well as estimates for the Company's Washington program.

Table 3 shows the Energy Trust incentives for its 2008 Oregon programs as a percent of fully loaded cost by sector.

Table 3 - 2008 Gas incentives in Oregon as Percentage of Total Program Cost

Programs	Incentives	Total Program Costs	% 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%

In Oregon, the Energy Trust's percent of incentives to total program costs is below the 70% to 80% that other Washington utility programs report spending on incentives[7]. Possibly, this incongruity with Washington's programs may be because utility-delivered program do not account for costs that are otherwise rate-based, whereas all Energy Trust costs are considered incremental program costs. The Energy Trust will account for this by adjusting its total costs down by 15%, the amount that would be rate based if programs were delivered by the utility.

Table 4 – Estimate of Washington Incentives as Percentage of Fully Loaded Costs

Program	Incentives	Program Costs	% Incentives
Existing Homes (Residential)	$268,950	$415,650	65%
Existing Buildings (Commercial)	$211,900	$277,100	76%
Total	$480,850	$692,750	69%

* Program costs do not include NW Natural's costs or start-up costs. Program costs are further reduced by 15% which represents Energy Trust's administrative costs that would be rate based were this an utility delivered program.

After the Energy Trust adjusts its total costs down by 15%, it expects incentives paid in the first year of its Washington programs will account for 69% of total costs which is inline with other Washington energy efficiency programs. Energy Trust believes the percentage of

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

incentives paid verses total costs will still be on the low end of the spectrum compared to the 70-90 percent experienced by other Washington DSM programs because NW Natural's program is not mature and does not currently include industrial customers, a customer class that is generally less costly to serve but has larger incentive pay outs.

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 5 shows the type and activity level achieved by various gas EE programs in Oregon in 2008 for NWN. Table 6 shows the estimated activity for Company's first program year in Washington.

Table 5 - 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 35 customers) which the Company does not intend to serve in the first program year and a large residential retrofit sector which is the most costly to serve.

Table 6 – Estimate of Washington Efficiency Savings and Levelized Costs

Sector	Savings (therms)	Fully Loaded Costs	$/Therm	Levelized Cost
Residential	58,500	$ 505,450	$ 8.6	$ 0.58
Commercial	71,500	$ 342,450	$ 4.8	$ 0.43
Total	**130,000**	**$ 847,900**	**$ 6.5**	**$ 0.50**

*** Expenses include Energy Trust administrative costs (15%) and NW Natural Administration.**
**** $/Therm and levelized cost calculations are based on achieving the stretch case scenario**

Start Up Costs

One-time start-up costs of $150,000 are estimated below in Table 7. Costs include the incremental labor costs for certain Energy Trust Employees who are temporarily working on the start up of NW Natural's Washington program.

Table 7 – 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 and Communications	$	30,000
Existing Buildings Start Up Activities	$	15,000
TOTAL	**$**	**150,000**

Table 7 represents costs incurred by the Energy Trust. Start-up cost include setting up of new accounting and technical processes that will allow Energy Trust to separately track the Washington program; extending marketing efforts into Washington; making any forms or ads specific to Washington as building codes and available tax incentives differ; evaluating the DSM potential in more detail to set appropriate program metrics; amending existing contracts; developing trade ally agreements; and making the appropriate applications so that the Energy Trust can do business in Washington.

Start-up and ongoing costs will be captured and analyzed separately. Start-up costs will not be included in the annual cost effectiveness analysis.

Ongoing Costs

The ongoing program delivery phase will require approximately 1.75 full time Energy Trust employees (FTE) which will be included in the total cost per therm.

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 8 below shows the break out of the first year budget. The first year budget includes start-up costs which will be allocated over the first five years. NW Natural's costs are based on 10% of fully loaded costs for both a Grade 19 Consultant and a Grade 23 Manager. NW Natural's costs are allocated equally to both customer classes.

Table 8 – First Year Budget Summary

Budget	Residential	Commercial	Total
Incentives	$268,950	$211,900	$480,850
Delivery	$146,700	$65,200	$211,900
Energy Trust	$73,350	$48,900	$122,250
NW Natural	$16,450	$16,450	$32,900
Start Up Budget	$90,000	$60,000	$150,000
Total	**$595,450**	**$402,450**	**$997,900**

Washington Low Income Energy Efficiency Program

The Company's has modified its Washington Low Income Energy Efficiency program (WA-LIEE) in an effort to stimulate greater program participation. The program will be administered by Clark County Community Services and the Washington Gorge Action Program (agencies). WA-LIEE will mirror the low income program that the Company currently offers in Oregon. The current Oregon program was developed in April 2006 in a similar effort to serve more customers and to better use program funding. The changes adopted in Oregon have proved to be successful. Homes weatherized have increased from 253 in 2006 to 460 in 2008, and therm savings per home is up by 21% over the same time period. The Company is hopeful it will see similar success with its Washington Program.

The program will encourage the leveraging of other funding sources with WA-LIEE funds to increase the overall energy efficiency of low-income homes within the Company's Washington service territory.

Rebates paid under the WA-LIEE program will be based on the cost of the total group of measures recommended by energy analysis software that complies with the Department of Energy's standard for cost-effective energy efficiency. To qualify for a rebate, the total of all measures selected for each individual home must meet or exceed a Savings to Investment Ratio (SIR) of 1.0 or better. The rebate amount per home will be ninety percent (90%) of the documented installed cost of all measures, up to a maximum of $3,500 per home.

In addition to the qualifying rebate, the administrating agencies will be reimbursed for Health, Safety and Repair (HSR) costs, defined as home repairs that if not completed would adversely impact the safety and effectiveness of the energy efficiency measures or the health of the occupants. Standard efficiency furnace replacements may qualify for HSR funds if the existing furnace is broken, is found to produce an unsafe level of CO emissions, is back-drafting, or has a cracked heat exchanger and a high-efficiency furnace is not cost-effective or if it is physically impossible to install a high-efficiency furnace. HSR funds will be disbursed upon receipt of a completed reimbursement request. The maximum annual HSR disbursement available will be $440 times the actual number of homes treated by the agency in the Program Year.

The agencies will have discretion in the use of their HSR Allowance such that they may use more or less than the $440 on any one home. However, they must manage their HSR funds to ensure that the average HSR amount per home is not more than $440.

The program targets and achievements will be reviewed, and modified as necessary.

WA-LIEE Costs and Savings Projections

Table 9 below estimates WA-LIEE program costs and therm savings for the first program year.

Table 9

Estimated total qualifying homes:	6,960
Estimated homes served per year:	20
Estimated average cost per home:	$3,431
Estimated total utility cost/year*:	**$68,620**
Estimated therms saved/year**	4,380

*The total annual cost is based on the number of homes we estimate we will serve times the cost per home. In accordance with WUTC Staff's recommendation, NW Natural's administration costs are not included.

**219 therms per home is based on a 77% realization rate of RemRate's average of 285 therms saved per home. The Company's most recent impact evaluation performed on The Company's Oregon Low Income Energy Efficiency (OLIEE) Program in 2006 found RemRate results have a program realization rate of 77 percent.

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Total Cost Recovery for Both EE Programs

The Company will use deferral accounts established in Docket Nos. UG-011230, UG-011231 and UG-080546 to track costs associated with these programs. 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. For the EE program, costs will be recovered from customers who can participate, which in the first year will be residential and commercial customers. WA-LIEE costs will be recovered from all firm sales customers. For both programs, costs will be collected on an equal percentage of margin basis.

In the first year, we expect the costs for the energy efficiency program to result in average monthly impact of $1.00 for residential customers and $3.97 for commercial customers.

The WA-LIEE program will result in average monthly impact of $0.07 for residential customers and $0.27 for commercial customers.

The combined monthly rate impact for both energy efficiency programs in the first year is forecast as being $1.07 for a typical residential customer and $4.24 for a typical commercial customer.

Attachment E demonstrates the amortization of assumed program costs presented in Tables 6 and 7.

ATTACHMENT A

FIRST-YEAR PROGRAM TIMELINE

Washington Program Timeline

- October 1, 2009
  - Program begins
- September 30, 2010
  - End of first program year

Standard Reporting Schedule

- February 25, 2010
  - 1st quarterly report due
- May 25, 2010
  - 2nd quarterly report due
- August 25, 2010
  - 3rd quarterly report due
- January 25, 2011
  - Comprehensive annual report due

First-Year Benchmarking Study

- By March 25, 2011
  - Email third-party report with company's draft recommendations to EEAG
- By April 25, 2011
  - Consult with EEAG on final recommendation
- By May 25, 2011
  - File report/recommendation with WUTC

ATTACHMENT B

Below are program offerings for Residential customers:

DESCRIPTION	INCENTIVE
Weatherization	
Air Sealing	50% of cost, up to $275
Air Leakage Test	$35.00 per site tested
Attic/Celing Insulation	$0.25 per square foot
Duct Insulation	50% of cost, up to $100
Floor Insulation	$0.30per square foot
Knee-Wall Insulation	$0.30 per square foot
Boiler Pipe Insulation	$0.50 per linear foot
Wall Insulation	$0.30 per square foot
Duct Sealing	50% of cost up to $325
Duct Leakage Test	$35.00 per duct system tested
Windows	$2.25 per square foot
Heating	
Gas Furnace	$100.00
Direct Vent Gas Unit Heater	$100.00
Direct Vent Gas Fireplace	$100.00 to $150.00
Gas Boiler	$200.00
Water Heating	
Gas Tankless Water Heater	$200.00
Gas Water Heater	$35.00
Home Energy Review Measures	
Faucet Aerator	Free to customer
Home Energy Review	Free to customer
Showerhead	Free to customer
Shower wand	Free to customer
Water Heater Set Back	Free to customer

DESCRIPTION INCENTIVE - The following are offerings for Commercial Customers.

Attic Insulation	$ 0.20 per square foot
Wall Insulation	$ 0.20 per square foot
Roof Insulation	$ 0.20 per square foot

Heating

Steam Traps, Small Commercial, <12 hrs/day, small-med pressure	$ 100.00 per trap
Gas-fired Condensing Boiler > 2500 kbtuh 0.9 EC	$ 4.00 per kBtu hr in
Gas-fired Condensing Boiler < 300 kbtuh 0.9 AFUE	$ 4.00 per kBtu hr in
Gas-fired Condensing Boiler >= 300 kbtuh, <= 2500 kbtuh 0.9 ET	$ 4.00 per kBtu hr in
Boiler Vent Damper	$ 1,000.00 per unit
High Efficiency Unit Heater - Non-Condensing with Electronic Ign	$ 1.50 per kBtu hr in
High Efficiency Condensing Furnace <225,000 kBtuh	$ 3.00 per kBtu hr in
Direct-fired Radiant Heating	$ 6.50 per kBtu hr in

Water Heating

Domestic Tankless/Instanaeous Water Heater with Electronic Ignit	$ 2.00 per kBtu hr in
Domestic Tankless/Instanaeous Water Heater with Standing Pilot	$ 1.50 per kBtu hr in
Condensing Tank	$ 2.50 per kBtu hr in
Commercial Clothes Washer, Gas Water Heat, Partial Gas	$ 200.00 per unit
Showerhead Gas	$ 6.00 per unit

Food Service

Gas Full-Size Convection Oven	$ 300.00 per unit
Gas Fryer	$ 1,000.00 per unit
Gas Griddle	$ 150.00 per unit
Gas Steam Cooker	$ 1,300.00 per unit
Dishwasher - Single Tank Conveyor - Low temp - Gas hot water	$ 500.00 per unit
Dishwasher - Single Tank Door/Upright - Low Temp - Gas water heat	$ 400.00 per unit
Dishwasher - Single Tank Conveyor - High temp - Gas hot water	$ 500.00 per unit
Dishwasher - Single Tank Door/Upright - High Temp - Gas water heat	$ 400.00 per unit
Dishwasher - Undercounter - high temp - Gas water heat	$ 200.00 per unit
Turbo Pot – limit one per applicant	$40 per pot*

* Customers installing one other food service measure may receive one free turbo pot while promotional quantities last.

ATTACHMENT C

Energy Trust commissioned a survey of gas furnace installers and distributors in Clark, Co., Washington[8]. 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.

AFUE is the Annual Fuel Utilization Efficiency (AFUE) rating

[8] 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 D

ATTACHMENT D-1 – NW Natural's Oregon DSM Savings Proportioned to Demonstrate the DSM Potential in NW Natural's Washington Service Territory.

attachment c-1

		11%		immature program factor ===>		0.75	
ratio OR/WA	**2008 NWN OR Actuals**	**WA/OR Ratio**	**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, <12 hrs/d	2156	9%	194	Steam Traps, Small Commercial, <12 hrs/day,	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 - Non-Conden	9	9%	1	High Efficiency Unit Heater - Non-Condensing	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 Boiler with El	229	9%	21	High Efficiency Condensing Boiler with Electr	15	171	2,640
High Efficiency Condensing Furnace <225,	27	9%	2	High Efficiency Condensing Furnace <225,000	2	96	176
Domestic Tankless/Instanaeous Water Heat	16	9%	1	Domestic Tankless/Instanaeous Water Heater v	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.
WA/OR Ratio - residential (11%) ratio is reflective of the proportion of residential households between NWN service territory in the 2 states
WA/OR Ratio - commercial (9%) ratio is reflective of the proportion of commercial loads in the two states

Attachment D-2 –Cascade Natural Gas's DSM Savings Proportioned to Demonstrate Potential Therm Savings in NW Natural's Washington Service Territory

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 E

Energy Trust of Oregon, Inc. Cost-Effectiveness Calculator Tool			
Version: 02/14/08	**Starting Year: 2008**	**Today's Date**	2/18/2010
Project Description	NWN WA Commercial, Residenital, and Low income Programs		
Energy Conservation Measures: Input White Cells			

Measure #	Energy Efficiency Measure Name	Select Business Type	Select Electric Measure Description:	Select Natural Gas Load Profile	Measure Lifetime (Maximum 70 yrs)	Annual Electricity Savings (kWh)	Best Case Savings (therms)	Total Incremental Cost of Measure	Annual Non-Energy Benefits $ (if any)	Total Potential Incentive If Measure is Cost-effective	NPV of Non Energy Benefits	Utility System PV of Benefits	Societal PV of Benefits	Combined Utility System BCR	Combined Societal BCR
1	Comm Savings/Incentives	Small Office	None	Space Heat	17	0	71,500	$548,625		$211,900		$730,801	$730,801	3.4	1.332
2	Comm Program Delivery	Small Office	None	None	0	0		$65,200		$65,200		$0	$0	0.0	0.000
3	Comm ETO Admin	Small Office	None	None	0	0		$48,900		$48,900		$0	$0	0.0	0.0
4	Res Savings/Incentives	Residential	None	Space Heat	30	0	58,500	$807,250		$268,950	$182,000	$843,583	$1,025,583	3.1	1.3
5	Res Program Delivery	Residential	None	None		0		$146,700		$146,700		$0	$0	0.0	0.0
6	Res ETO Admin	Residential	None	None		0		$73,350		$73,350		$0	$0	0.0	0.0
7	Res Low income	Residential	None	Space Heat	30	0	4,380	$72,054		$72,054		$63,161	$63,161	0.9	0.9
8	NWN Admin Cost	Residential	None	None		0		$32,900		$32,900		$0	$0	0.0	0.0
9		Residential	None	FLAT		0						na	na	na	na
10		Residential	None	None		0						na	na	na	na
Total					**23**	**0**	**134,380**	**$1,794,979**	**$0**	**$919,954**	**$182,000**	**$1,637,545**	**$1,819,545**	**1.8**	**1.01**

Utility Levelized Cost per therm	$ 0.52
$/therm	$ 6.85