



October 31, 2016

CNG/O16-10-02

Oregon Public Utility Commission
Attn: Filing Center
P.O. Box 1088
Salem, OR 97308-1088

Re: Schedule 33, Conservation Achievement Tariff (CAT)

Cascade Natural Gas Corporation (Cascade or the Company) files the following revisions to its Tariff P.U.C. Or. No. 9, stated to become effective with service on and after December 1, 2016:

Second Revision Sheet No. 33-A
Third Revision Sheet No. 33-B;
Second Revision of Sheet 33-C;
Second Revision Sheet No. 33-D; and
Original Sheet No. 33-E

The purpose of this filing is to revise Rule 33, "Conservation Achievement Tariff," which details the parameters of the Company's Oregon Low Income Energy Conservation Program (OLIEC) and its Conservation Achievement Tariff (CAT) pilot program, to reflect changes the Company has agreed to make a result of conversations with Public Utility Commission of Oregon (Commission) Staff.

OLIEC is the Company's weatherization program which offers rebates for cost effective energy efficiency measures installed by community action agencies (Agencies) that leverage multiple funding sources to provide whole home weatherization services to qualifying low income customers. CAT was initiated in 2014 as a complementary program to pay the remaining measure costs that exceed the amount rebated under OLIEC. CAT removed the barriers Agencies experience when using public funding and it provided the Company with a means to provide energy saving services to customers who qualified for the OLIEC program.

CAT was initially a two-year pilot, initiated on January 1, 2014, with a December 31, 2015, termination date, but, in the Company's filing, Advice No. O15-11-02, submitted on November 30, 2015, the Company requested that the pilot period be extended through December 31, 2107, and the Commission approved the Company's request.

The Company made two subsequent filings related to CAT: The first, Advice No. O15-12-01, submitted on December 11, 2015, sought to increase CAT program funding. As a result of this submission, the Commission approved an additional \$200,000 for CAT in 2016. In recognition that CAT funding was proving to be insufficient, the Company submitted a second filing on March 15, 2016, requesting authorization to defer an additional \$800,000 to cover program costs. No Staff recommendation or Commission decision has been issued on this application, docketed as UM 1765. As a result of the conversations Staff and Cascade have had as part of UM 1765, the Company submits this filing which addresses Staff's questions about CAT and revises the program to include a per project cost cap and other clearly stated parameters. The Company is also confident at this time that with the parameters developed at the request of Staff, and organic funding limitations set by the revised public purpose charge for this program, that the CAT has reached a more structured and permanent phase and that it should no longer be considered a pilot. Information regarding pilot findings will be provided in the Company's OLIEC/CAT focused annual report.

Commission Staff asked a number of questions specific to the program's efficacy, accountability and sustainability. The Company's responses are included in the work paper included as Attachment A. As a result of this conversation, the Company herein proposes to adopt the following all of which are addressed in more detail in Attachment A:

I. EFFICACY

- The Company tracks the number of measures installed per home. This metric is not adequate for indicating the performance of the program since it's not the volume of measures, but the specific upgrades chosen that result in energy savings value to our customers. Cascade is adding a line to the OLIEC and CAT rebate applications forms requiring the Agency to confirm whether or not they installed all rebate eligible measures identified under the REM/Rate audit. Schedule 33 is revised to include this as information the Agencies must provide the Company for each OLIEC home treated.
- The Company proposes a \$10,000 cap per project on work performed. This cap on CAT spending excludes all costs such as the measure specific rebates offered under OLIEC, the \$225 administrative reimbursement, the \$550 audit fee, and the \$300 inspection cost. Schedule 33 is revised to add the \$10,000 CAT spending cap and to state the CAT audit and inspection fees, which were discussed with the advisory committee and in the Company's annual report (RG-7), but were inadvertently not explicitly itemized in the description of CAT in Schedule 33.
- Schedule 33 is also revised to clarify that the Company's annual report will include the following:
 - General
 - a. Program successes and barriers (if any) to implementation;
 - b. Associated Program outreach activities.
 - Economic
 - c. Revenue balance from previous year;
 - d. Program revenue;
 - e. Accrued interest;
 - f. Total available funds;
 - g. Total expenditure of CAT and OLIEC funds;
 - h. Total CAT and OLIEC costs allocated by measure;

- i. Associated CNGC admin costs;
- j. Funding allocations or changes within the program year
- k. Payments to Agencies for weatherization measures, admin, and program delivery;
- l. Average rebate allocated per home served;
- o. Agency Performance
 - m. % of homes served by Agency for the program year;
 - n. Total number of homes served;
- o. Program Results
 - o. Total deemed therm savings attributable to the OLIEC program by year;
 - p. Total number of measures installed in all homes served during the program year;
 - q. Average number of measures installed per home;
 - r. Number of measures installed by type;
 - s. Number of each allowable measure installed in total during the program year;
 - t. Total therm savings by measure;
 - u. Number of multifamily dwellings treated and observations made about multifamily projects; and
 - v. The Company will expand its annual report to include a breakdown of the number of homes served by town and agency. We will identify factors that account for the volume of homes served by region.

II. ACCOUNTABILITY

- Cascade will internally monitor rebate turn-around time with the goal of ensuring low income customers received program services as expediently as possible. Schedule 33 is revised to include this as a Company responsibility.
- The Company and Community Action Partnership of Oregon (CAPO) will work with the Agencies to codify all OLIEC and Weatherization-related protocols in the form of a written program agreement between the Company and those delivering the OLIEC on our behalf. A courtesy copy of this agreement will be provided to Staff along when it is available.

III. SUSTAINABILITY

- The OLIEC and CAT budget will be 0.625% of annual gross revenues. The Company also simultaneously filed Advice No. O16-10-01, which revises the Public Purpose Funding charge to collect 0.0625% of annual gross revenues for the OLIEC and CAT programs. Staff recommended this level of funding for both OLIEC and CAT as it is comparable to the amount electric utilities in Oregon spend on low income weatherization, plus a 0.025% premium for the additional costs incurred in serving rural areas. Since discussion on program funding have resulted in CAT being unfunded for a number of months during the pilot period, and the proposed funding level will not allow the Company to study the potential of low income homes that might be served, the Company removes the CAT program's pilot status in this filing.

Besides the language added to the tariff as discussed above, and the removal of the "pilot" condition of the Conservation Achievement Tariff, the tariff revisions include some minor housekeeping changes for the purpose of added clarification.

If you have any questions regarding this filing, please contact Allison Spector at 206-310-1120.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Parvinen", with a long horizontal flourish extending to the right.

Michael Parvinen
Director, Regulatory Affairs

Attachment

CASCADE NATURAL GAS CORPORATION

**OREGON LOW-INCOME ENERGY CONSERVATION (OLIEC) PROGRAM
SCHEDULE NO. 33**

(continued from previous page)

PROGRAM YEAR:

The OLIEC Program year will extend from October 1 through September 30. The Company, by December 1, will provide an annual summary report on the progress of the weatherization program for review by the Commission following the end of each program year.

CUSTOMER QUALIFICATIONS:

All funds collected under this program will be distributed only to qualifying income-eligible residential customers of Cascade. In the event the Company receives a rebate request for a single customer from two or more Agencies, the Company will process only one rebate request.

FUNDS COLLECTED UNDER THIS PROGRAM ARE AVAILABLE AS FOLLOWS:

1. Beginning with the 2009-2010 program year and for each year thereafter, the Company will designate \$25,000 of the program funds for use by Community Action Agencies (Agencies) and 501c3 non-profit agencies for custom low income energy efficiency (CEE) projects. This amount shall be also the designated fund to eligible 501c3 agencies not identified as Agencies for all energy conservation and retrofit measures. The Company will determine the allocation of remaining funds to participating Agencies at the beginning of each program year based on the same allocation used by Oregon Housing and Community Services (OHCS) to allocate funds under the Federal Low Income Home Energy Assistance Program (LIHEAP) during the previous program year. The Company will advise each Agency at the beginning of each program year of the amount the Company estimates will be available to each Agency in that year.
2. In the Company's sole discretion, funds may be re-allocated among the Agencies at any time during the program year whenever the Company determines that such a re-allocation is the most effective and efficient use of the available funds. The Company will not make any such re-allocation without first providing advance notice to the affected Agencies.
3. Any amounts not disbursed in the program year will carry over to the next program year.

AGENCY QUALIFICATIONS AND RESPONSIBILITIES:

1. In order to participate in the program, an Agency must be a legal entity, contracting or subcontracting with the State of Oregon, Department of Housing and Community Services (OHCS), which is eligible to administer funding under the Federal Low Income Home Energy Assistance Program (LIHEAP). An agency shall also qualify to participate in the program if it is a state-recognized Low Income Agency or 501c3 nonprofit engaged in the construction or retrofit of affordable housing designated primarily for the habitation of low income individuals. Each participating Agency must also have an up-to-date, signed Memorandum of Understanding with Cascade Natural Gas.
2. Each participating Agency will have sole responsibility to screen and approve applicants for eligibility. Each Agency shall follow the established protocols for the qualification of and disbursement to eligible participants in accordance with the guidelines promulgated by OHCS. Agencies operating the Weatherization Assistance Program shall complete their work in accordance with the Low-Income Energy Assistance Act of 1981 and subsequent amendments, as outlined in the OHCS Omnibus Contract. The Company reserves the right to verify installation and compliance with all state codes and standards prior to payment of any rebates.

(continued on next page)

CNG/O16-10-02

Issued: October 31, 2016

Effective with Service on and after December 1, 2016

Issued by CASCADE NATURAL GAS CORPORATION

By: Mark Chiles

Title: Vice President
Regulatory Affairs and Customer Service

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OREGON LOW-INCOME ENERGY CONSERVATION (OLIEC) PROGRAM
SCHEDULE NO. 33

(continued from previous page)

3. Each participating Agency shall be responsible to complete and return to the Company, all required paperwork and other documentation as may be necessary for the Company to process the rebate request. The Company will provide the documentation forms to each participating Agency in electronic or hard copy form, whichever is requested. At a minimum, the documentation must include the Agency name, customer name, the landlord name and address, if applicable, the address of the qualifying households, the square footage of the home, a list of the measures installed, the rebate amount per measure, total rebate per household, and a statement on whether or not all eligible measures were installed at the dwelling.

REBATE PAYMENTS:

1. The Company will reimburse participating Agencies for the installation of qualifying measures installed in each eligible household based on the table shown below.
2. In no event will any rebate amount be greater than the actual installed cost of the measure.
3. Qualified measures are eligible for rebate in the amount of 100% of avoided therm cost or 100% of the installed cost of the measure, whichever is less. Custom projects for new low income construction shall be eligible for a rebate of 80% of avoided therm cost. Avoided therm cost shall reflect the Company's most recently acknowledged IRP document.
4. Copy of REM-Rate auditing report demonstrating savings-to-investment ratio of 1.0 or higher for each individual measure must be submitted in order to qualify for rebate.

Measure	<i>Therm Savings Factor Per Square Foot</i>	<i>Avoided Cost Per Therm</i>	<i>Rebate per Home</i>
Install ceiling insulation where no ceiling insulation exists	0.088	\$11.66	<i>Therm savings factor x square footage x avoided cost per therm</i>
Install ceiling insulation where ceiling insulation <R-12 exists	0.034	\$11.66	<i>Therm savings factor x square footage x avoided cost per therm</i>
Install floor insulation	0.052	\$11.66	<i>Therm savings factor x square footage x avoided cost per therm</i>
Install wall insulation	0.074	\$11.66	<i>Therm savings factor x square footage x avoided cost per therm</i>
	<i>Therm savings factor per linear foot</i>		<i>(Therm savings factor x square footage)/(square footage x average linear ft of ductwork per sq ft) x avoided cost per therm</i>
Install duct insulation	0.136	\$9.21	
Install duct sealing	--	--	\$810
Install infiltration measures	--	--	\$120
Install high-efficiency (90%+) furnace	--	--	\$690
Install direct vent spaceheater	--	--	\$396
Perform furnace tune-up	--	--	\$65
High efficiency water heater (.62)*	--	--	\$85
Energy Star qualified homes	--	--	\$1,107

* Hot water measures shall only be installed in homes where the primary heating source for water is natural gas.

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**OREGON LOW-INCOME ENERGY CONSERVATION (OLIEC) PROGRAM
SCHEDULE NO. 33**

(continued from previous page)

PROGRAM ADMINISTRATION AND DELIVERY COSTS:

1. Each Agency will be reimbursed from the Low-Income Weatherization account for administrative costs and direct program costs incurred by them in their administration and delivery of the OLIEC Program in the amount of \$225 per household. The Agency fee will be paid to each Agency along with each rebate payment. The Company will process rebates and Agency payments within thirty days from the date the Company receives all completed documentation in support of such rebate requests.
2. The Company will be reimbursed for actual first year program set up costs from the OLIEC account in an amount not to exceed \$5,000.
3. The Company will be reimbursed from the OLIEC account each month for actual program administration costs incurred, except that such reimbursement will not exceed 5% of the total available funds collected during each program year.

ADVISORY GROUP

An Advisory Group will assist the Company in low-income weatherization and bill assistance program development, implementation, and evaluation. The Advisory Group will consist of at least one member each from the Company, the Commission staff, The Community Action Partnership of Oregon (CAPO) and from two or more participating Agencies.

ANNUAL REPORT

By December 1 of each year, the Company will submit an annual report containing the following information

- General: 1) Program successes and barriers (if any) to implementation; 2) Associated Program outreach activities.
- Economic: 1) Revenue balance from previous year; 2) Program revenue; 3) Accrued interest; 4) Total available funds; 5) Total expenditure of OLIEC funds; 6) Total OLIEC costs allocated by measure; 7) the Company's administrative costs; 8) Funding allocations or changes within the program year; 9) Payments to Agencies for weatherization measures, admin, and program delivery; 10) Average rebate allocated per home served;
- Agency Performance: 1) percentage of homes served per Agency for the program year; 2) Total number of homes served;
- Program Results: 1) Total deemed therm savings attributable to the OLIEC program by year; 2) Total number of measures installed in all homes served during the program year; 3) Average number of measures installed per home; 4) Number of measures installed by type; 5) Number of each allowable measure installed in total during the program year; 6) Total therm savings by measure; 7) Number of multifamily dwellings treated and observations made about multifamily projects.
- General: 1) A breakdown of the number of homes served by town and agency. The Company will identify factors that account for the volume of homes served by region; 2) The Company will monitor rebate turn-around time

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CASCADE NATURAL GAS CORPORATION

CONSERVATION ACHIEVEMENT TARIFF (CAT)
SCHEDULE NO. 33-D

(continued from previous page)

PROGRAM DESCRIPTION:

The Conservation Achievement Tariff (CAT) operates alongside of, and in conjunction, with the OLIEC Program. This provision defines the terms and conditions under which funds designated for low-income energy conservation programs under Schedule No. 33 are administered and delivered to eligible residential customers within Cascade Natural Gas' service territory in Oregon.

CAT funding may be accessed by any of the qualifying Low-Income, 501c3 or Community Action Agencies (Agencies) that administer the OLIEC program for the purpose of providing programmatic funding for the completion and performance of qualified weatherization work authorized through the OLIEC tariff. The intent CAT is to provide essential monies to bridge the gap between the Company's payments associated with customer energy savings via the traditional OLIEC program and the funds necessary for full delivery of this essential program to qualified customers. The funds are available to Agencies on a first come, first serve basis for the purpose of providing Total Installed Costs for weatherization measures approved under Schedule No. 33, Oregon Low Income Energy Conservation (OLIEC) program, but the Total Installed Costs reimbursed under CAT for a single dwelling may not exceed \$10,000. This \$10,000 cap on CAT reimbursements does not include OLIEC rebates, the OLIEC administrative fee, or CAT reimbursements for the audit and inspection.

"Total Installed Costs" are defined as all costs incurred for materials and contractor labor necessary to fully perform tariff-eligible natural gas weatherization work at a qualified customer premise. In order to qualify for CAT funding, the participating Agency shall provide all associated invoices and receipts as evidence of expenditures for authorized weatherization work provided to the Company for validation.

All measures currently defined as eligible under OLIEC shall be eligible for funds to cover Total Installed Costs under CAT. In the event that additional measures become eligible for funding under the OLIEC, the CAT shall also apply.

Agencies that complete projects under OLIEC, and install one or more of the eligible energy efficiency measures, are eligible to receive their normal reimbursement under that program. Agencies are also eligible to receive an additional CAT allocation that equates to the difference between the OLIEC rebate for each eligible measure installed and the invoiced amount for the Total Installed Cost of each measure. These monies shall be available upon receipt of documentation verifying the final incremental costs between those covered under the traditional OLIEC program and the remaining Total Installed Costs.

PROGRAM FUNDING

At its sole discretion, the Company may allocate funds collected under Schedule 31, Public Purposes Funding for low income energy conservation programs to a separate pool (CAT pool) if funding for OLIEC is sufficient to meet the needs of agencies qualified to provide weatherization services to Cascade customers under the OLIEC Schedule 33.

PROGRAM ADMINISTRATION AND DELIVERY COSTS:

The OLIEC program will remain a separate low-income energy conservation program that operates in conjunction with OLIEC. The OLIEC program contains a listing of program administration and delivery costs. There are no additional program administration and delivery costs associated with the Conservation Achievement Tariff.

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Title: Vice President
Regulatory Affairs and Customer Service

CASCADE NATURAL GAS CORPORATION

**OREGON LOW-INCOME ENERGY CONSERVATION (OLIEC) PROGRAM
SCHEDULE NO. 33**

(continued from previous page)

(N)

AUDITS AND INSPECTIONS

The Company will reimburse an Agency a flat fee of \$550 for an audit and \$300 for an inspection of a dwelling treated under the CAT program.

(N)

(N)

PROGRAM EVALUATION:

The annual OLIEC report will contain information on CAT including but not be limited to, number of participants, total cost of CAT, and total costs allocated by measure.

(M)

(M)(N)

CNG/O16-10-02

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By: Mark Chiles

Issued by **CASCADE NATURAL GAS CORPORATION**

Title: Vice President
Regulatory Affairs and Customer Service

Company Response to OPUC Staff's Request for Program Efficacy Metrics for Cascade Natural Gas Corporation's Conservation Achievement Tariff (CAT)

In support of continued funding of the Cascade Natural Gas Corporation (CNGC) Conservation Achievement Tariff (CAT), the Company is submitting the following information in response to Staff's request for information regarding the Efficacy, Accountability and Sustainability standards for the CAT Program. It is the Company's intent that the program changes associated with this filing, and associated adjustments to PPC funding collection levels for OLIEC/CAT signal the end of the pilot period and reflect the final, permanent iteration of this program.

Program Background

The Company launched the CAT pilot tariff on January 1, 2014, following the completion of an independent evaluation of the Oregon Low Income Energy Conservation (OLIEC) program. The OLIEC is operated by CNGC in partnership with the Agencies delivering the Low Income Weatherization Assistance Program (WAP) in our Oregon service area. The CAT was developed in direct response to low OLIEC participation rates.

The Company and its stakeholders, including CAPO, CUB, OPUC Staff, H. Gil Peach and Associates, and the Low Income Agencies met several times in 2013 to discuss barriers to success and potential solutions. During these discussions, it was determined that OLIEC funding levels were insufficient to address the costs associated with whole home natural gas weatherization. This was further compounded by the programmatic limitations inherent to the US Department of Energy (DOE) run WAP which imposes strict mandates on the prioritization of households. These mandates, in many cases, have the unintended consequence of precluding the weatherization of natural gas homes. Program success is therefore dependent upon ensuring independent funding of the OLIEC program separate from traditional DOE monies.

It is important to clarify that CAT was designed to address the *quantity* of homes being served, not the *quality* of the work performed by the Agencies. Cascade is satisfied with the whole-home services the Agencies provide to Cascade's low income customers. We believe that the Low Income Agencies that deliver the WAP are the best qualified entities to deliver weatherization services to our customers. These Agencies have deep roots within the communities we serve and are able to leverage holistic services for customers in need. They are also monitored by state and local entities for quality assurance.

Agencies' work is overseen by Oregon Housing and Community Services (OHCS) and is completed following a REM/Rate audit which ensures each house served by the program is treated holistically with the most suitable, cost-effective measures selected to improve the efficiency of the home.

Cascade recognizes the value the Agencies provide to our customers, but had been previously unable to fund the total project cost of the work performed. This is because the OLIEC program was designed to

ATTACHMENT A

Advice No. O16-10-02

offer an incentive for the avoided cost associated with the energy savings component of the program at a cost/benefit ratio of 1.0. Even with our \$225 administrative payment, this reflected only a small portion of total cost borne by the Agencies for the weatherization of the home. The Agencies, therefore, remained dependent upon federal funding from the US DOE and the associated provisions that inhibited program success.

The structure of the pilot was designed following the Company's meeting with industry stakeholders regarding barriers to program implementation. The purpose of the CAT is to allow the Company to cover the difference between the Company's payment based from avoided costs allowable under OLIEC, and the total installed cost of tariff-approved measures. The pilot was approved by the OPUC on January 1, 2014, and renewed on January 1, 2016 in order to determine if sustained success of this effort could be achieved.

Since the implementation of CAT, the number of homes served is at the highest levels since the height of ARRA funding in 2011. The purpose of the renewed pilot was to gauge whether this upward momentum is sustainable under the current program design. We believe it is, and that by enabling OLIEC to operate independently of DOE funds, the remaining barrier to serving low income households across CNGC's service area has been removed, as demonstrated by the preceding two-year pilot spanning from 2014-2016. With the changes proposed below, we are proceeding with the permeant iteration of the CAT program, and will report pilot findings as part of the OLIEC/CAT annual report provided to the OPUC.

Regulatory Concerns

Cascade's CAT tariff has successfully removed the barriers which had prevented the agencies from delivering weatherization services to Cascade's low income natural gas customers. With these obstacles resolved, the Agencies quickly began to identify and serve homes in need of whole home weatherization.

Since the launch of the pilot extension in January 1, 2016, 46 homes have already received weatherization services through the OLIEC program, with multiple projects on hold pending continued funding of the CAT tariff. The upward momentum resulting from the CAT led to a rapid spend-down of available programmatic monies. As a result of this rapid depletion of funds, Cascade Natural Gas filed an application on March 15, 2016 seeking authorization to defer a program expenditure of no more than \$800,000 on based on the Agencies' demonstrated capacity to serve more low income households following the removal of final barriers to program implementation.

While OPUC Staff acknowledged that, "the current system used by Community Action Agencies (Agencies) of identifying and then paying for the installation of appropriate measures under CAT appears to be working,"¹ they did express a desire to see updates made to the tariff to establish more fully articulated parameters in regards to "efficacy, accountability, and sustainability for the CAT Program."

¹ Email, Mitch Moore, Subject: UM 1765 CASCADE- DEFERRAL OF COSTS RELATED TO CONSERVATION ACHIEVEMENT TARIFF PROGRAM, Friday, June 3, 2016.

ATTACHMENT A

Advice No. O16-10-02

The Company has carefully reviewed Staff's requested parameters, and has worked with CAPO and the Agencies to fully address the questions and concerns within Staff's comments provided to Cascade and other parties by email on June 3, 2016.

Each item has been explored in detail below and includes (1) thoughts on the viability of including, tracking, or quantifying these elements; and (2) how the Company intends to include Staff's requested metrics into future program monitoring and implementation as part of a permeant CAT effort.

We have indicated that Company's proposed pathway forward for each data point in **red**.

The Company looks forward to continuing the momentum of our OLIEC program so that we may continue to fully serve eligible households in Cascade's service area.

Efficacy

1) Estimated Savings

For the purposes of Cascade's OLIEC program, the Company uses hard-coded "deemed" therm savings for each measure allowable under the program with the exception of ceiling, floor, wall & duct insulation which are determined through REM/Rate. Deemed savings are based upon Energy Trust of Oregon's impact studies, as well as the numbers developed by the Company via our residential energy conservation program operated in the State of Washington. The use of deemed therm savings for equipment measures offered by a utility run rebate program is appropriate, and commensurate with the operation of similar efforts by other utilities. The weatherization measures are best calculated on a home-by-home basis as is done in our program. Based from the savings of the measures pre-approved for rebate in the Company's OLIEC tariff, and recorded in Cascade's annual report, the average natural gas savings per home under the 2015 OLIEC program was approximately **160** therms.

The total projected savings achieved through OLIEC is identified by the Company as the sum of the therm savings resulting from each rebate-qualified measure installed in a home. The selected measures are additionally screened for cost-effectiveness by the Agencies through the use of REM/Rate. While the Company does not track non-OLIEC measures installed in a customer's home, additional savings may be achieved through additional work performed outside of OLIEC.

The Company will track the average savings per home associated with the CAT program on an ongoing basis. Moving forward, the Company can use this metric in conjunction with other metrics to identify trends and potential anomalies and include these filings in our annual report. However, we do not recommend enforcing an "average savings per household" threshold at this time.

2) Measures Per Home

The number of energy conservation measures installed per home is not an indicator of the success or failure of a whole-home low income weatherization program. This is because the purpose of whole-home weatherization is to address the energy needs of dwellings on an individualized basis as identified through a comprehensive REM/Rate audit.

ATTACHMENT A

Advice No. O16-10-02

By using REM/Rate, the Agencies are able to pinpoint which OLIEC qualified measures will provide the greatest possible energy savings potential for that home. Depending on the house, this could mean one measure might result in the same energy savings benefits that three or four measures might achieve in a different home.

The Company will track the number of measures installed per home. This metric is not adequate for indicating the performance of the program since it's not the volume of measures, but the specific upgrades chosen that result in energy savings value to our customers. Cascade recommends adding a line to the OLIEC and CAT rebate applications forms where the Agency must confirm whether or not they installed all rebate eligible measures identified under the REM/Rate audit.

3) Costs Per Home

Cascade has been monitoring costs incurred per home for weatherization work completed as part of the OLIEC and CAT programs. Since the implementation of CAT, the amount Cascade has paid per home has increased commensurate with the total installed costs of tariff qualified measures.

The actual installed cost of each measure has generally remained stable, with some upward trending on select measures commensurate with the market. As part of OHCS protocols, Agencies must obtain three bids for all work performed in order to help manage costs. The Agencies are adhering to this protocol for OLIEC work as well. However, the Company agrees that it is appropriate to set a cap to cost-per-home to ensure that the costs remain reasonable and reflective of the current known market price of the work performed.

*The Company shall impose a **\$10,000** cap per dwelling on weatherization costs for work performed. This amount does not include the OLIEC **\$225** administrative reimbursement, the **\$550** CAT audit fee, and **\$300** CAT inspection cost.*

ATTACHMENT A

Advice No. O16-10-02

4) Performance Metrics, Goals and Budget for Multi-Family Housing

Under the OLIEC tariff, Cascade is already empowered to serve new low income residential construction as well as other income-qualified residential dwellings. Under the OLIEC program several duo, tri, and four-plexes (24 units in total) have been served and we have eight additional multi-family projects on hold pending continuation of CAT funding. OHCS has a set-aside for multi-family energy work. The Company will partner with the Agencies on how this can be more fully leveraged.

Moving forward, the Company will clearly delineate which projects are multifamily and will track these metrics in their own separate category in our annual report, along with an analysis of our successes and lessons learned that can be applied on an ongoing basis.

5) Tracking Metrics

As part of its annual OLIEC report, Cascade already tracks and provides information on the following program elements and outcomes:

- *General*
 - o Program successes and barriers (if any) to implementation;
 - o Associated Program outreach activities.

- *Economic*
 - o Revenue balance from previous year;
 - o Program revenue;
 - o Accrued interest;
 - o Total available funds;
 - o Total expenditure of CAT and OLIEC funds;
 - o Total CAT and OLIEC costs allocated by measure;
 - o Associated CNGC admin costs;
 - o Funding allocations or changes within the PY;
 - o Payments to Agencies for weatherization measures, admin, and program delivery;
 - o Average rebate allocated per home served.

- *Agency Performance*
 - o % of homes served by Agency for the Program Year;
 - o Total number of homes served.

- *Program Results*
 - o Total Company-identified therm savings attributable to the OLIEC program by year;
 - o Total number of measures installed in all homes served during the PY;
 - o Average number of measures installed per home;
 - o Number of measures installed by type;
 - o # of each allowable measure installed in total during the PY;

ATTACHMENT A

Advice No. O16-10-02

- Total therm savings by measure.

The Company will continue to track and report the above listed metrics and additional metrics as outlined in this document.

6) Geographic Performance Tracking

The Company currently tracks the percentage of homes served in total by each participating Agency. In addition, the Company has the capacity to track the number of homes served by town, county, and Agency's service area.

It is important to caution that the number of homes served may vary across different parts of Cascade's service area based on the qualified pool of customers to be served, housing conditions, weather conditions, building age, associated waiting lists, and other related factors.

The Company will expand its annual report to include a breakdown of the number of homes served by town and agency. We will work with the Agencies to assess needs and identify factors that account for the volume of homes served by region.

Accountability

1) Turnaround Time

Neither Cascade Natural Gas Corporation, nor the Agencies providing weatherization services to our customers have expressed concerns about each other's turn-around time between project identification, completion, and receipt of the of OLIEC/CAT reimbursement under the Company's OLIEC program.

Cascade has further been able to expedite rebate payments associated with work performed as part of OLIEC. This includes rush payment within the Company's accounting department and wireless electric transfer of rebate monies. The average turn-around is approximately three weeks from the time the rebate application is submitted by the Agency for payment, which allows the Agencies to swiftly cover expenses and for the program to run smoothly.

A case study documenting the turnaround time on the Agency's side of the process can be found below:

- CNG CAT Example

CinA's eligibility pool for the CAT program comes from the energy assistance intake application process. This particular client applied for energy assistance on January 6, 2016. She was approved for energy assistance and referred to CNGC's OLIEC program on January 13, 2016.

The weatherization audit was completed on January 15, 2016. The work order was given to the contractor on February 23, 2016. The job was completed on April 11, 2016. Total time from application to completion was 89 days.

ATTACHMENT A

Advice No. O16-10-02

Cascade will internally monitor rebate turn-around time.

2) Agency Performance Standards

Cascade agrees with Staff that it is essential for any program, and in particular a ratepayer funded program, to operate with the utmost accountability in order to mitigate potential underperformance. We take this responsibility very seriously, as do the Agencies providing weatherization services to our customers.

The Low Income Agencies eligible to deliver the WAP undergo rigorous screening and monitoring by state and federal agencies to ensure that they are operating in accordance with established protocols.

The State of Oregon and United States DOE offer very clear standards of accountability to which the Agencies delivering the Weatherization Assistance Program must adhere. This includes the WAP Performance Evaluation Tool. The Purpose Statement of this tool and Performance Evaluation Process Outline has been provided below for convenience:

Purpose Statement

The purpose of the Training and Technical Assistance (T & TA) agency performance evaluation (PE) tool is to provide compliance review, technical assistance, and information sharing to weatherization agencies to ensure that each home receives the most cost effective and comprehensive weatherization service while maximizing total agency resources available. It will be accomplished by:

- Oregon Housing and Community Services (OHCS) and subgrantees acting as partners and as a team.
- Quality, comprehensive weatherization and repair services are provided at a consistently high level of effectiveness throughout the state.
- Healthy, safe, and energy efficient housing improvements are provided to low-income households.
- Program accountability and efficiencies are in effect and verifiable.
- Innovative technological advances are promoted.²

The Agencies likewise hold themselves to the same standards when performing work on behalf of the OLIEC program. Below is an example of the process utilized by NeighborImpact for every weatherization job performed for our low income natural gas customers. The process is similar for the other agencies delivering our program in other parts of our service area.

The NeighborImpact Weatherization Program follows the same process for CNGC jobs that they use for all other funding sources. Contractors are held to the same standard of work as the DOE requires for other funding sources. Steps are:

² See <https://www.oregon.gov/ohcs/CRD/SOS/docs/oregon%20state%20performance%20evaluation%20tool%20document.pdf>

ATTACHMENT A

Advice No. O16-10-02

- Client application information is gathered and checked for eligibility
- Once application is complete, trained staff schedule and complete a comprehensive home energy audit
- Field audit information is input to REM Design software to determine what measures can be done and the relative cost effectiveness of each measure
- Work order is prepared as a result of REM Design and then issued to contractor
- Staff monitor the job while it is in process and communicate with contractor if issues need to be resolved
- Specialty contractors (heating, electrical, plumbing) are scheduled either as part of initial job scope or if an issue is discovered during the work
- Trained and certified inspector performs a final inspection once contractor submits an invoice stating job is complete
- Once final inspection is complete a final REM Design run is done to verify what actual savings were achieved by the work done
- Job is funded, invoices are paid and final information is input and closed in OPUS system

In addition to the process described above and ongoing accountability the Agencies are held to by Oregon Housing and Community Services, Cascade carefully reviews each individual rebate application to ensure that the measures are eligible for reimbursement prior to payment, that all necessary documentation has been provided to substantiate program costs, and that any questions about work performed and costs incurred are thoroughly addressed prior to payment.

In light of Staff's request for additional documentation of our existing accountability measures, the Company and OECA are working with the Agencies to codify all OLIEC and Weatherization-related practices in the form of a written program agreement between the Company and those delivering the OLIEC on our behalf. A copy of this agreement will be provided to Staff following our revised tariff filing.

3) 3rd Party Evaluation, Monitoring and Verification (EM&V)

Staff has requested that the Company consider obtaining an independent EM&V study to determine savings persistence and provide additional constructive feedback.

However, the Company is unclear as to what would be assessed in relation to the CAT pilot, whose success is measured by its ability to enable more homes to be served through OLIEC.

Furthermore, it is important to note that the design of the CAT tariff itself was formulated, in part, with the feedback of the independent OLIEC evaluation performed by H. Gil Peach and Associates.

The Company is unclear on what would be assessed as part of an independent analysis of the CAT mechanism. We therefore cannot support convening a study at this time.

Sustainability

1) Housing Stock and Demographic Data by Region

ATTACHMENT A

Advice No. O16-10-02

Cascade does not track the income levels or demographic information of its customers. However, according to OHCS's report entitled, "Moving from Poverty to Prosperity in Oregon, the 2015 Report on Poverty,"³ many of the areas we serve face severe economic hardship, with poverty rates above the national average throughout our communities. In fact, as of 2013:

- **27%** of residents in Malheur County were at or below poverty, with **1,406** households receiving some form of energy assistance.
 - o This region is served by Community In Action (CINA) that weatherized **67.5%** of the total homes served under OLIEC in PY14/15.
 - o With the highest poverty levels in Cascade's service area, it is logical that the most opportunities to serve low income CNGC households are being identified in this area.
 - o We will continue to work with CINA to ensure as many low income households as possible are being served under OLIEC with total measure costs covered under CAT.

- **18.9%** of residents in Klamath County were at or below poverty with **2,666** households receiving some form of energy assistance.
 - o This region is served by Klamath Lake Community Action Services (KLCAS) that served **0%** of the total homes served under OLIEC in PY14/15; however, Cascade and KLCAS are working proactively to alleviate remaining barriers to implementation.
 - o While only a small amount of customers (approximately **400**) are served by Cascade in this region, Cascade and the Agency have identified **22** homes that are immediately eligible for weatherization services that they intend to serve as soon as CAT funding is available.
 - o Cascade and KLCAS are in the process of moving forward with projects and will do so pending approval of additional CAT funds by the OPUC. Once this has been resolved, we are confident that KLCAS will become an active participant in our OLIEC program and will deliver essential weatherization services to our customers.

- **18%** of residents in Baker County were at or below poverty with **656** households receiving some form of energy assistance.
 - o This region is served by Community Connection of NE Oregon (CCNO) that served **10%** of the total homes served under OLIEC in PY14/15.
 - o Cascade continues to work with CCNO to identify additional weatherization opportunities and encourage additional ramp-up of services are appropriate.

- **16.5%** of residents in Umatilla County were at or below poverty with **2,566** households receiving some form of energy assistance.
 - o This region is served by Community Action Program of East Central Oregon (CAPECO) that served **11.25%** of the total homes served under OLIEC in PY14/15.

³ See <http://www.oregon.gov/ohcs/pdfs/2015-Report-on-Poverty.pdf>

ATTACHMENT A

Advice No. O16-10-02

- Cascade continues to work with CAPECO to identify additional homes eligible for weatherization under the OLIEC program.

- **14.5%** of residents in Deschutes County were at or below poverty with **2,081** households receiving some form of energy assistance.
 - This region is served by NeighborImpact that served **11.25%** of the total homes served under OLIEC in PY 14/15.
 - Cascade continues to work with NeighborImpact to identify additional homes eligible for weatherization under the OLIEC program.

Cascade will continue to work with our Agencies to identify the volume of eligible customers in each region of its service area. Cascade will continue to look at the number of low income households each Agency serves, taking into account both the population of Cascade customers within a given service area, viable housing stock, and the poverty levels of said community, to gauge overall need vs. amount of homes in receipt of services under the OLIEC program, and the volume of funds enabled through the CAT tariff. The Company does not intend to set Agency by Agency targets.

Other Questions From Staff

- 1) It would appear that costs are in fact rising for 5 of the 8 measures listed in the 10/21/2015 RG 7 filing. What controls would Cascade propose to put in place?

Below is a summary of approximate average installed costs since the advent of the OLIEC program in 2007.

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ceiling Insulation	\$2191	\$1253	\$1603	\$1477	\$1094	\$1269	\$1682	\$1626	\$1809
Floor Insulation	\$1910	\$2284	\$1612	\$2115	\$1845	\$1876	\$1949	\$1920	\$2822
Wall Insulation	\$751	\$1622	\$1129	\$1575	\$1421	\$1415	\$2174	\$1659	\$2126
Duct Insulation	\$97	\$303	\$308	\$395	\$490	\$809	\$492	\$311	\$493
Duct Sealing	\$326	\$412	\$428	\$489	\$789	\$613	\$344	\$410	\$244
Air Sealing	\$166	\$179	\$225	\$276	\$182	\$310	\$336	\$455	\$440
Furnace Replacement	\$3167	\$1360	\$2463	\$4309	\$4373	\$4016	\$3905	\$3153	\$3568
Furnace Tune-Up	\$135	\$138	\$141	\$723	\$109	\$302	\$625	\$166	\$205
D-V Space Heat	\$1534	\$2025	\$2230	\$1822	\$2579	\$2630	NA	NA	\$3185

ATTACHMENT A

Advice No. O16-10-02

Hot Water Heater	NA	NA	NA	\$746	\$984	\$3688	NA	NA	\$1381
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As observed by Staff, costs have trended upward for several measures. However, as the chart above demonstrates, individual measure costs have experienced both upwards and downward fluctuations over time. Furthermore, the Agencies are audited by the OHCS and must obtain three bids per job, ensuring measures are being provided as affordably as possible. Neither the Company, nor the Agencies can control the market. We can only monitor costs to ensure that we get best-cost measures installed based on the bids available.

Cascade is setting a cap on total rebates paid per project as described under Efficacy-Item 3. The Agencies will continue to monitor measure costs and will continue to bid for the most affordable, qualified contractor to perform the work on behalf of our customers.

2) Why should the SIR be lowered from 1 to 0.67?

It shouldn't.

The OLIEC program was designed to provide incentives for a range of cost-effective energy conservation measures paid under the current avoided cost identified in the Company's most recent Integrated Resource Plan (IRP). It is designed to be cost-effective, and to remain cost effective, with adjustments made as appropriate to ensure this is the case.

The CAT is separate from the OLIEC tariff. It is designed to bridge the gap between the cost-effective payments made by the OLIEC program, and the total cost necessary to installing a OLIEC-qualified measure in a customer's home.

It is the intent of the Company that the design of the OLIEC program remains as it is, and that no changes to cost effectiveness criterion are made. The Company does not believe it would be appropriate to lower the SIR from 1 to 0.67 at this time. The CAT program operates separately from OLIEC and separate of any associated cost/benefit calculation.

3) The eight measures listed in the 10/21/2015 filing do not include basic prescriptive measures offered by Energy Trust/BPA (e.g., shower heads for more gas savings, LED lighting for electric savings). If the goal is to provide a comprehensive solution to improve the economic, health, and safety of the participants why aren't these measures offered by either the Agencies or through a partnership with Energy Trust/BPA?

As an essential point of clarification, the OLIEC Program was designed exclusively as a rebate program addressing a series of prescribed natural gas weatherization measures. CAT bridges the costs between the energy savings payment and total installed cost of these rebate eligible measures. It empowers the agencies to complete the essential space heat and weatherization measures needed in the home.

With these core measures fully funded, the Agencies then *leverage* additional monies from LIHEAP and other sources to provide additional services to the customer. These include providing LED lighting,

ATTACHMENT A

Advice No. O16-10-02

refrigerator replacements, showerheads, windows and other energy savings measures in order to ensure all necessary energy upgrades and improvements are made to the customer's home.

A typical Cascade job includes items that the Company's program does not fund. In such cases, other public funding sources are leveraged to provide a full home weatherization completion.

An example of the measures paid by OLIEC/CAT versus those additionally funded through LIHEAP can be found in the second part of CinA's case study below:

CAT funding paid for the following:

- Insulation of the ceiling, floor and ducts
- Penetrations were sealed
- Two door weatherization kits installed
- Smoke detector
- CO alarm
- Crawl space hatch insulated
- Insulated water piping
- Laid vapor barrier
- Furnish and installed dryer vent
- High efficiency water heater installed
- High efficiency furnace installed

LIHEAP funding paid for the following:

- Windows
- LED light bulbs

In addition to the OLIEC reimbursement, the Agencies are actively leveraging LIHEAP monies to provide LED lighting, showerheads, windows, and other essential energy upgrades to homes that have work completed through our program. Cascade does not monitor or report on the additional upgrades made to the home outside of the OLIEC/CAT program as no ratepayer monies are being invested in these efforts. However, the Agencies are performing this work, so it is a mischaracterization to say that these measures are not being offered.

- 4) What evaluation and consideration of tradeoffs was conducted between installing conservation in more homes with perhaps some of the least cost effective measures removed, versus doing fewer homes with more measures being included?

DOE and EPA have encouraged the adoption of whole home weatherization to improve the energy performance of homes. Whole home REM/Rate audits and associated retrofits recognize that a house is a system composed of interdependent subsystems (i.e., thermal enclosure, HVAC system, appliances, lighting, etc.). Each subsystem affects the performance of other subsystems and which in turn are affected by the number of occupants, energy usage behavior, and where the home is located.

ATTACHMENT A

Advice No. O16-10-02

The whole home assessment view of a home is thus distinct from traditional remodeling and renovation in which home improvements are separately considered by domestic function (kitchen, bathroom, bedroom, etc.), or by component (electrical, plumbing, roof, basement, siding, windows, heating and air conditioning). For example, changing the air-tightness of the envelope changes house pressure dynamics, which can lead to furnace or water heater back-drafting in some cases. In this case, the subsystem interaction affects non-energy performance of the home.

Further, it is not uncommon for low income housing to be in disrepair or in suboptimal condition for energy savings. The single prescriptive measures approach may not generate estimated savings because of window failures or other structural failures that would greatly impact efficient prescriptive measures. The whole-home approach ensures that the measures being completed are generating the estimated savings, and that those savings aren't lost to housing conditions. This in turn ensures that energy savings predicted for prescriptive measures allowed by OLIEC are realized.

Cascade is confident in the whole-home weatherization approach utilized by the Low Income Agencies delivering the OLIEC program on our behalf. We further believe the REM/Rate auditing process is valuable tool for identifying ways to holistically improve the energy efficiency of a customer's home to alleviate their energy burden. If an alternative delivery provider provided weatherization services, the Company would lose the Agencies' powerful leveraging capacity to offer customers services beyond the list of prescriptive measures allowable under CAT. It is not in the interest of the Company or our customers to lose these essential investments in weatherization.

- 5) How will any proposed metrics or activities address remaining obstacles to CAT Program success? What are those obstacles? And do the proposed metrics or activity appropriately capture or paint a picture of what success looks like?

There are few, if any, remaining barriers to program success. The Agencies are highly motivated and capable of delivering weatherization services to low-income natural gas customers in our service territory. The proposed metrics described above will be beneficial in that they will provide greater documentation of the success of our efforts, and codification of standards. They will also allow us to set reasonable cost parameters to reinforce what works and to develop cost-management strategies as necessary.

However, lack of CAT funding is an ongoing concern. Without the ability to provide essential monies to bridge the gap between the rebate paid for energy savings, and the total installed cost of a qualified conservation measure, the program will not continue its success.

It is our hope that with the additional clarification and program parameters we have provided to Staff, what we will be able to move forward with the continuation of our CAT program and not stall the precious momentum we have built as a result of this effort to date.

The Company appreciates the opportunity to respond to Staff's questions and concerns regarding CAT funding and associated program parameters. We hope these newly codified specifications will help assuage any remaining concerns and we will be able to move forward with the continuation of a

ATTACHMENT A

Advice No. O16-10-02

program that is proactively overcoming barriers to program implementation in order to serve our most vulnerable customers.