Avista Utilities

Low Income Energy Efficiency Report

In response to the Washington Utilities and Transportation Commission's Order from Docket Nos. UE-090134 / UG-090135 and UG-060518, Consolidated

September 1st, 2010

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I. Executive Summary

This Report is responsive to the requirements of the Washington Utilities and Transportation Commission's (UTC) Order No. 10, paragraph 306, in Docket Nos. UE-090134, UG-090135 and UG-060518 (Consolidated) and reflects the work of Avista's Low-Income Collaborative Team to address the issues raised. Within the Order arising from that proceeding, the Commission directed Avista to convene a Collaborative to (1) identify the barriers to success within this customer segment, (2) to explore new approaches and (3) to address the concerns that The Energy Project raised as part of the natural gas decoupling proceedings. Unless otherwise noted, the information and data provided in this report pertains only to Avista's Washington service territories.

Pursuant to that Order, Avista convened a Collaborative in March, 2010 with the intent to establish a dialogue with key parties to address the issues raised by the Commission. This process was planned for completion with sufficient time to complete the required report to the Commission by September 1, 2010.

The active Collaborative membership consisted of representatives of regulatory staff, governmental and non-governmental stakeholder groups and customer representatives. Over an approximately six-month period, the Collaborative was able to reach consensus on several matters of importance to the improvement of the low-income portfolio in the future. This consensus included the following resolutions:

Definition of the low-income customer class:

- The definition of the low-income customer segment will be consistent with the Department of Commerce's definition for low-income energy efficiency programs, which is currently defined as those at or below 200% of the federal poverty level with a commitment to providing a greater level of assistance to those in the lower income strata (i.e., 125% or below).

- Between 17% and 32% of Avista's residential customers fit within these various definitions of low-income depending upon the guideline applied.[1]

Defining success and identifying the barriers to success of low-income energy efficiency programs:

- The primary barriers to acquiring system energy efficiency resources and providing meaningful benefit through reduced energy consumption to this customer segment are the lack of disposable income on the part of the customer, the disparate interests of landlords and tenant, home repair issues that must be addressed prior to efficiency measure installation and the difficulty in installing efficiency measures within certain dwelling types disproportionately used by low-income customers.
- There is a need to increase the number of low-income households served through the programs in meaningful ways, particularly those in customer niches that have been difficult to reach in the past, e.g., those living in multifamily housing and manufactured homes.
- Comprehensive treatment of the home is an important objective as a means of avoiding the stranding of otherwise cost-effective measures. At the same time it is also recognized that this must be weighed against the preference for providing some benefits rather than no benefits at all to individual customers, especially those in niches where comprehensive treatment is unlikely to occur.

Metrics for success:

- It is important for the low-income portfolio to remain cost-effective under the total resource cost test. The methodology for the determination of cost-effectiveness should include all quantifiable non-energy benefits within the calculation and an identification of non-quantifiable benefits for review by the Commission in reaching decisions regarding portfolio cost-effectiveness.

[1] 17% estimate is based upon the Titus Report, Table K-1, based upon 2007 data. Additional data is contained in Table 9 of Exhibits K1 Methodology of Avista Poverty Statistics, p. 10.

Low-income energy efficiency delivery mechanisms and funding:

- Maximizing the benefits to the low-income households and meeting cost-effectiveness objectives are best served by the selection of effective and efficient delivery mechanisms employing trained and experienced staff. Obtaining the greatest amount of cost-effective energy savings through the safe and high-quality installation of appropriately selected measures are the criteria that should be used for the selection of the delivery mechanism.
- The Community Action Agencies are a critical part of the infrastructure upon which Avista has and will rely upon for a substantial portion of their program implementation. It is important to provide stable funding to ensure the continuation of infrastructure needed for the prudent and cost-effective delivery of low-income programs and in recognition of the long-term investments that the Community Action Agencies make to establish and maintain this capacity.
- The establishment of annual funding levels will be based upon Avista's prudent commitment to work in partnership with other entities and funding sources to increase and improve the delivery of cost-effective energy efficiency services to low-income customers, subject to and in recognition of the following: proportionality of these programs to the overall efficiency portfolio and the customer population, cost-effectiveness, funding stability, recognition of other utility low-income rates, the effect upon the retail rates of other customer classes, the cost of achieving utility resource acquisition requirements, retail rate revisions and the resulting energy burdens and need for assistance, and the comparability of the low income energy efficiency programs of other utilities.

Management and external consultation of Avista's low-income portfolio:

- The evaluation and continuous improvement of the low-income portfolio will be aided by the results of Avista's commitment to improved Evaluation, Measurement and Verification processes.
- The Triple E Board is the entity best positioned to provide meaningful ongoing review and input into the management of Avista's low-income efficiency portfolio.

Based upon the consensus that was established on these topics the Collaborative has established a common foundation to improve the ability of Avista and the Community Action Agencies to manage and deliver low-income energy efficiency programs that will reach more low-income households with broader and more cost-effective programs.

II. Collaborative Background

During the course of an intensively analyzed three-year natural gas decoupling pilot program and the consideration of the impact of the decoupling surcharge upon low-income customers, the benefits received under various programs, (including Avista's low-income energy-efficiency portfolio) and the size and nature of the low-income market segment came under close scrutiny by many parties, notably The Energy Project. This scrutiny resulted in observations regarding funding, funding proportionality relative to other Avista efficiency programs and customer segment need, and the success that these programs have had in reaching low-income customers.

The Commission issued the following order in Dockets UE-090134, UG-090135 and UG-060518:

> The Company's low-income conservation achievement during the decoupling pilot is particularly disappointing. As the program's impact on low-income customers remains a key issue, we direct the Company, working in collaboration with the parties, to explore new approaches to promote low-income conservation, to identify the barriers to its development, and to address the issues raised by The Energy Project. The Company shall report its conclusions to the Commission at the same time it submits the EM&V report.[2]

[2] UTC v. Avista Corp., Docket UE-090134, UG-090135 and UG-060518 (consolidated), Order 10, December 22, 2009, paragraph 306. The date of the EM&V report referenced in this section is September 1, 2010.

This Report represents the collective work of all involved within Avista's Low-Income Collaborative.

On January 14th, 2010 Avista communicated to the Commission Staff, The Energy Project and the other interested stakeholders a plan for meeting the letter and spirit of the Order calling for a Low-Income Collaborative. This communication offered the background for the Order, supporting reference materials and a draft Charter for the Collaborative effort.[3]

The Collaborative Charter outlined the issues to be incorporated within the process, Collaborative membership and the operating principles and guidelines. Those guidelines emphasized active participation, the representation of minority viewpoints and the agreement that no entity's position would be bound by a majority decision. Though the objective was to reach consensus on as many of these issues as possible, it is well recognized that the parties may have strongly held conflicting positions that would make consensus impossible. It is further recognized that a diversity of opinion is a characteristic of a healthy and constructive discussion of the issues and is not an indication of a failure by any one party or the Collaborative as a whole.

It is agreed by the full membership of the Collaborative that the objective of this process is to work towards and accurately report consensus where it is achievable and to represent all alternative viewpoints factually where consensus could not be reached. The ultimate objective was to provide the Commission with a full understanding of the issues and sufficient information upon which to base future policy decisions.

Those organizations actively participating within the Low-Income Collaborative team included:

Avista Utilities
Idaho Public Utilities Commission Staff

[3] The Charter document adopted by the Collaborative is included as Attachment A.

Industrial Customers of Northwest Utilities

Northwest Energy Coalition

Northwest Energy Efficiency Alliance

Northwest Industrial Gas Users

Northwest Power and Conservation Council

Spokane Neighborhood Action Partners

The Energy Project

Washington Public Counsel

Washington Utilities and Transportation Commission Staff

It was originally expected that monthly meetings would be required roughly up to the time of the final deadline of the Report, augmented by conference calls as necessary. All in-person meetings were scheduled in western Washington for the convenience of the majority of the stakeholders. The date and locations of the Collaborative meetings were as follows:

March 10th	2010 in the Seattle office of the Public Counsel
April 21st	2010 meeting at SeaTac
May 20th	2010 meeting at SeaTac
June 23rd	2010 meeting at SeaTac
July 12th	2010 in the Seattle office of the Public Counsel
July 21st	2010 in the Seattle office of the Public Counsel
July 27th	2010 conference call on the "barriers" issue
August 2nd	2010 conference call on the "proportionality" issue
August 9th	2010 conference call on the "delivery mechanism" issue
August 12th	2010 meeting at SeaTac

Additionally, Avista met with The Energy Project at their Bellingham offices on June 7th, 2010 in a working session to increase the quality of the dialogue in working towards the first full draft of this Report.

Avista served in the role of facilitator for the first three of the meetings listed above. During the initial months of the Low-Income Collaborative and the Evaluation, Measurement and Verification (EM&V) Collaborative, some members recommended that an independent facilitator be retained. Starting with the June 23rd meeting an independent facilitator, Dr. Dune Ives, was retained by Avista to serve in that role for both of these Collaborative efforts. This approach increased the degree of clarity and constructiveness of the discussion within the Collaborative and substantially improved the ability of the Collaborative to reach their stated objectives.

A series of conference calls were convened towards the end of the Collaborative effort to further outline specific topics for purposes of collecting the thoughts of members of the Collaborative for the final report.

All of those that participated within this Collaborative have agreed that this Report accurately represents the proceedings of the Collaborative and the viewpoints of all parties involved, whether they be as part of a consensus finding of the Collaborative or as part of an explanation of non-consensus opinions.

III. Avista's Current Low-Income Energy-Efficiency Portfolio

Avista has continuously offered energy efficiency programs since 1978. Over that 32 year period it has been well recognized that there are unique barriers to the acquisition of cost-effective energy efficiency measures within the low-income residential market segment. Left unaddressed, these barriers (which will be addressed in more detail in section VI) would lead to the failure to adequately acquire cost-effective efficiency resources[4] as well as a disproportionately low incidence of participant benefits within this segment.

[4] Avista's Integrated Resource Plan process identifies resource acquisition options and the cost-effectiveness of those options without regard to the income status of the occupant. A significant purpose of the low-income portfolio is to modify the approach to the acquisition of those cost-effective resources in such a manner so as to minimize the adverse impact of the funding availability and similar measures within the low-income customer segment.

Avista's historical approach to addressing these barriers has been to establish cooperative funding agreements with Community Action Agencies (CAAs) for the completion of energy efficiency and related health and human safety investments. This approach leverages the income-qualification infrastructure of the CAA and the availability of other state and federal funding sources for both energy efficiency and needed repairs. The establishment of a stable funding source also adds to the financial stability of the CAA, which in turn leads to an increased ability to provide both energy and non-energy benefits to the low-income community and contributes to the maintenance of an infrastructure capable of quality program delivery.

The calendar year 2010 low-income portfolio consists of funding agreements with six CAAs providing low-income conservation services to Avista's Washington service territory under annual funding contracts.

Agency	Jurisdiction served	Annual funding
Spokane Neighborhood Action Partners (SNAP)	Washington	$950,000
Community Action Partnership (Lewiston)	Washington	$170,000
Rural Resources Community Action	Washington	$165,000
OIC of Washington	Washington	$65,000
Washington Gorge Action Programs	Washington	$7,000
Community Action Center of Whitman County	Washington	$125,000
Total Washington low-income qualified funding		$1,482,000

The Community Action Partnership, based in Lewiston, Idaho, receives additional funding for Avista's Idaho service territory as indicated below.

Community Action Partnership	Idaho	$465,000
Community Action Partnership, Energy Conservation Education	Idaho	$25,000
Total Idaho low-income qualified funding		$490,000

The funding agreements between Avista and the CAAs extend to both electric and natural gas energy efficiency and include the flexibility for the use of the funds for either fuel. Avista's low-income program allows up to 15% of its funding to be used for health and human safety improvements or energy-related repairs. The latter are considered to be necessary to preserve the integrity of the installed efficiency measure and/or to maintain the habitability of the home and therefore the persistence of the efficiency measure. CAAs receive compensation for administrative costs equal to an additional 15% of the cost of all installed energy efficiency measures and health and human safety improvements combined.

Homes treated through this program receive 100% funding of the full cost of the installed measure through utility direct financial grants.[5] A comparison of how low-income and generally-available residential programs are treated is illustrated within the table below.

Type of cost	Low-income	Generally-available residential
Grant or incentive	Full installed measure cost*	Incremental efficiency cost only*
Energy-related repairs, health and human safety	Allowed up to 15% of total cost	Not applicable
Program administration	15% of cost of above Improvements to CAA (plus utility administrative cost)	Utility administrative cost only

* For measures where the entire investment is an efficiency improvement above the designated baseline, such as ceiling insulation, the full installed cost and the incremental efficiency cost is the same value. In other circumstances, such as furnaces or refrigerators, the incremental efficiency cost is only the amount above

[5] The term 'grant' has been applied to customer incentives provided through the low-income efficiency program.

the designated baseline efficiency value rather than the full installed cost of the measure.

In 2009, as part of an effort to maximize the overall utility and participant benefits of these investments, Avista defined a set of pre-approved energy efficiency measures which the CAAs could install without requesting prior authorization from the Company. Measures which were cost-effective in the vast majority of circumstances were selected for this category of pre-approved measures. Measures not on the Avista pre-approved list required authorization from Avista prior to installation. The primary criterion for authorization was whether the measure would pass the participant cost-effectiveness test and what impact the project would have on the overall portfolio total resource cost (TRC) cost-effectiveness. The list of these Avista pre-approved measures are subject to revision based upon updates of the expected incremental cost and energy savings. Additional measures can be evaluated for the Avista pre-approved measure list at the next annual contracting period or during the contract year as necessary. The Avista pre-approved measure list for the 2010 CAA funding contracts includes the following measures:

Avista Pre-Approved Low-Income Energy Efficiency Measure List

Natural Gas Measures	Electric Measures	Conversion Measures
1. Attic Insulation	1. Attic Insulation	1. Electric to natural gas furnaces
2. Wall Insulation	2. Wall insulation	2. Electric to natural gas water heaters
3. Floor Insulation	3. Floor Insulation	
4. Duct Sealing	4. Duct Sealing	
5. Air Infiltration	5. Air Infiltration	
6. ENERGY STAR® Doors	6. ENERGY STAR® Doors	
7. ENERGY STAR® Windows	7. ENERGY STAR® Windows	
	8. Water Heaters	

A summary of measures installed that required Avista approval between January 2009 and May 2010 is represented below:

Measure	2009	2010
Natural Gas Furnace	3	2
Insulation	1	0
Windows	4	0
Energy Star Refrigerator	62	30

Participant eligibility is based upon screening performed by each CAA. The CAAs determine eligibility based upon income level, family size and other factors relating to the degree of vulnerability of the customer (e.g. age, physical challenges, etc.). Avista does not currently have an independent ability to income qualify individual customers, thus all income qualification is deferred to the CAAs.

The most common service provided by the CAAs through this program is the installation of weatherization measure(s) within a single-family residence owned by an income-qualified customer. A breakout of the percentage of homes receiving the following measures is as follows:

76%	Shell measures (weatherization or windows)
3%	Space heat appliances
6%	Water heat appliances
3%	Other appliances
12%	Health and human safety

The majority of homes also received low cost measures such as compact fluorescent lamps and infiltration measures not listed above.

During 2009, 513 homes were treated through the CAA funding contracts at an average cost of $3,491 of Avista funding, including compensation for CAA administrative costs and health and human safety investments.

It is generally the aim of the CAA to holistically treat these selected homes to create a sustainable impact upon the household as well as to avoid the increased cost of returning to the home to acquire 'stranded' measures that could have been more cost-effectively acquired during the first visit.

Though the direct installation of efficiency measures in treated homes is the majority (88% in 2009) of the expenditures under the funding contracts, the CAAs may also expend their funds on health and human safety improvements or conservation education. A summary of the income-qualified and overall energy efficiency portfolio cost-effectiveness and acquisition for Avista's Washington and Idaho system, 2007 through 2009, is summarized below by fuel.[6]

Electric Portfolio Summary

Year	Inc. Qualified portfolio TRC	Total portfolio TRC	Inc. Qualified portfolio kWh acq.	Total portfolio kWh acq.
2007	2.26	1.66	1,530,198	53,695,391
2008	3.01	2.10	1,851,245	74,861,160
2009	4.98	2.30	3,136,077	80,830,008

Natural Gas Portfolio Summary

Year	Inc. Qualified portfolio TRC[7]	Total portfolio TRC	Inc. Qualified portfolio Therm acq.	Total portfolio Therm acq.
2007	1.26	1.06	81,342	1,502,194
2008	1.67	0.86	102,438	1,888,061
2009	2.32	1.27	95,251	2,017,812

[6] Derived from the 2007 and 2008 Triple-E Reports and the 2009 Annual Energy Efficiency Report.

[7] Health and human safety improvements or repairs are included as a non-energy benefit and as a non-incentive utility cost. See Section VIII for further explanation.

Note that health and human safety improvements are incorporated into the total resource cost in all years and that the cost of these improvements was incorporated as a non-energy benefit beginning in 2009.

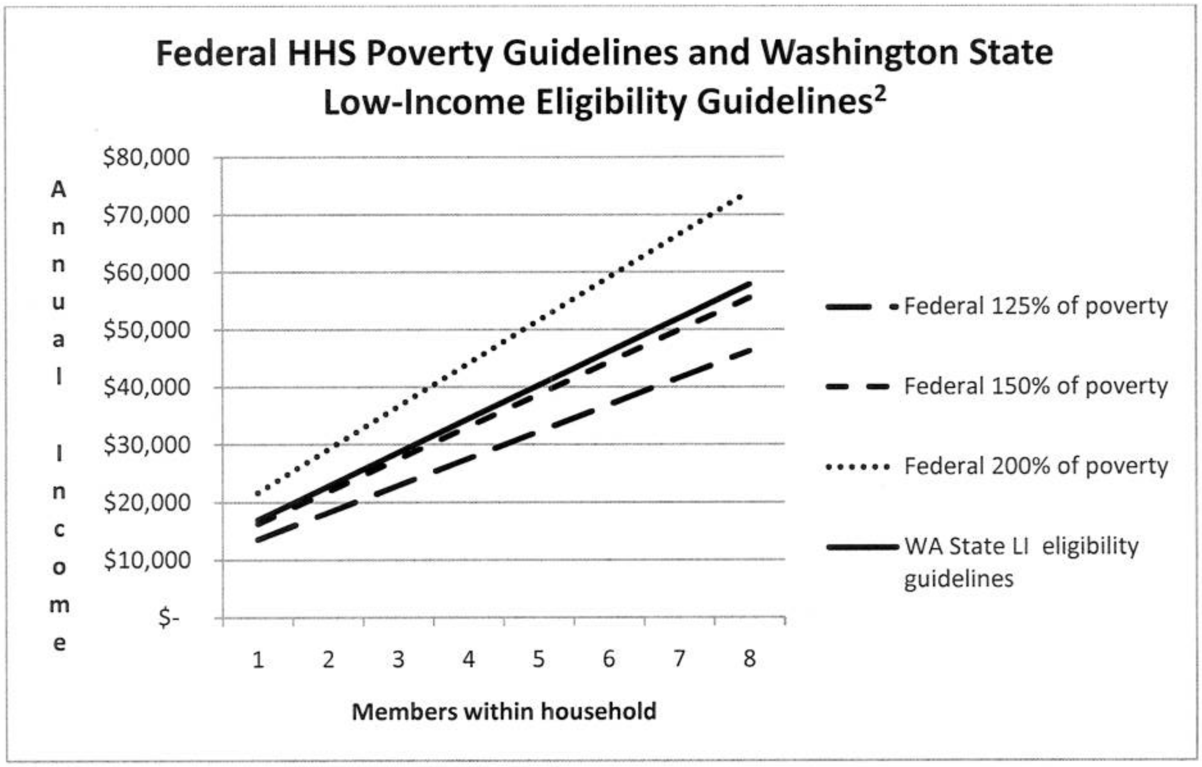
IV. Defining the Low-Income Residential Customer Segment

The Collaborative had several substantive conversations regarding the definition of the low-income residential population, targeting of programs within that population and compliance with state and federal program guidelines. Avista's low-income programs comply with the income qualification requirements established by the Washington State Department of Commerce for weatherization programs.[8] Additional discussion regarding the targeting and prioritization of households are contained within this section of the Report. These issues will subsequently be of consequence to later discussions regarding proportionality of funding and program delivery mechanisms.

The low-income customer segment is very generally defined based upon household income relative to the federal poverty level or, less frequently, to median income within a specified geographic area. Prior to the advent of the American Recovery and Reinvestment Act (ARRA) program guidelines specified 125% of the federal poverty level as the maximum income allowed. With ARRA came an increase for maximum allowable income to 200% of the federal poverty level, with a priority for households at or below 125%. The Collaborative reached consensus that this was an appropriate definition as defined by the Department of Commerce. There is significant value to applying these standards in order to maximize the degree of leveraging of other funding that can be achieved with the programs as well as to streamline the income qualification process. There is also a recognized value to applying the

[8] The Washington State Department of Commerce has established guidelines for compliance with state and federal weatherization programs. This current Department of Commerce direction (the full version is available at http://www.commerce.wa.gov/DesktopModules/CTEDPublications/CTEDPublicationsView.aspx?tabID=0&ItemID=8780&MId=870&wversion=Staging) indicates that "The Federal guidance has increased the Washington State Low-Income Weatherization Program Eligibility Guidelines to 200% of federally established poverty guidelines. It is acceptable to consider total household income at or below 200% Federal poverty or 60% State median income, whichever is greater. However our priority is still 125% of federal poverty guidelines."

highest commonly employed income qualification standards to Avista's programs in order to maximize the degree of flexibility that the CAAs have in deploying both Avista funding as well as other funding sources.



Source: Washington State Department of Commerce

The Collaborative recognized that regardless of the level of income established for program participation there will be customers who are marginally above that level of income. It is the consensus of the Collaborative that the resources of the low-income portfolio should be targeted for the customers in the greatest need. The implementation of this income targeting would be left to the discretion of Avista and the CAAs in the development of individual programs as well as the overall portfolio. Given the aforementioned Collaborative consensus, it was further agreed that it would be appropriate to incorporate a legal definition of the low-income customer segment that would be consistent with the Department of Commerce's definition.[9]

[9] The Washington State Department of Commerce, referencing both State income eligibility guidelines effective January 22nd, 2010 and comparable federal Health and Human Security guidelines relative to the federal poverty level (FPL).

Other characteristics relating to the economic vulnerability of customers to energy cost burdens include their employment status, elderly status and physical or mental challenges. It was agreed that the entities responsible for implementing programs may use Department of Commerce guidelines for non-income characteristics, such as elderly status, physical or mental challenges or similar characteristics, as additional factors in prioritizing the use of funds among income-qualified customers, but they should not constitute an expansion of eligibility beyond previously defined income eligibility criteria.

V. Proportionality of Low-Income Program Funding

Considerable discussion occurred surrounding the topic of determining the proportionality of the low-income residential population[10] (under various definitions, as discussed in section IV) in comparison to the non-low-income residential population, the overall residential population or to Avista's overall residential and non-residential customer base. Comparisons were made based upon populations, households, customers and utility revenue and usage. Additional calculations of contributions to Avista's energy efficiency tariff rider vs. benefits derived from those funding sources were incorporated into the proportionality discussion.

It is important to understand that Avista does not now nor has it ever collected income information on the residential customer base. Thus the fundamental issue of categorizing Avista's residential customer population by income is of necessity derived from interpretations of census data, survey data and participation in income-qualified programs related to their utility bill. Avista is unable to provide any more direct information regarding the income distribution of its customers based upon utility data sources.

A key observation within the proportionality discussion was the relative growth of energy efficiency investments made within the differing customer classes. The Energy Project

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http://www.commerce.wa.gov/DesktopModules/CTEDPublications/CTEDPublicationsView.aspx?tabID=0&ItemID=8780&MId=870&wversion=Staging

[10] This currently extends up to 200% of the federal poverty level, or 60% of the median household income, whichever is higher. This will include a prioritization of customers at or below 125% or less of the federal poverty level.

specifically noted the recent substantial growth in non-low-income residential energy efficiency that was not matched by a commensurate increase in funding for low-income residential programs. Avista noted that these increases were largely driven by the Company's leveraging of federal tax rebates available to residential customers during that period. After the tax rebates end, it is likely that residential incentives will fall back to their previous levels. Additionally Avista noted that the Company has long supported low-income programs but only relatively recently launched a significant residential portfolio.

The basic metrics agreed to by the Collaborative in gauging the low-income population relative to Avista's customer base is as follows:

Residential customers in relation to the system based upon 2009 results:

- 77% of Avista's overall customer count are residential customers
- Residential customers represent 41% of electric energy sales and 37% of natural gas energy sales
- Residential customers represent 43% of electric revenue, 50% of natural gas revenue and 46% of combined fuel revenues.

Low-Income customers in relation to the residential population:

- The Titus Report (delivered to the Commission for purposes of evaluating the impact of Avista's three-year natural gas decoupling pilot) concluded that
    - 15.9% of Avista's natural gas customer base was at or below 125% of the federal poverty level.
    - 19.7% of Avista's electric customer base was at or below 125% of the federal poverty level.
    - On a combined fuel basis, 17.3% of Avista's customers were at or below 125% of the federal poverty level.
    - ➢ It has been duly noted that the Titus Study was based upon 2007 data and economic conditions have presumably worsened since that time.
- A recent Eastern Washington University study on Spokane County concluded that 24% of the population within that county was at or below 125% of the federal poverty level, which is higher than the statewide level of 18%. Spokane County represents 74% of

Avista's Washington service territory based on 2009 combined electric and natural gas usage.

The Collaborative agreed that the best general guidance on the proportion of low-income customers within the residential population should be stated as a range reflecting the various definitions of the low-income customer class. Additionally this range of low-income customers within the residential population should be interpreted as a general guide with the recognition of a significant degree of uncertainty. This range is one of many important components and should not be considered in isolation. The general ranges, based upon a 125% of federal poverty level within the low range and a 200% of federal poverty level at the high range, are as follows:

- 15% to 27% of Avista's natural gas customers fit within various reasonable definitions of low-income status.
- 20% to 36% of Avista's electric customers fit within various reasonable definitions of low-income status.
- 17% to 32% of Avista's overall residential customer base fit within various reasonable definitions of low-income status.

The Collaborative review of the distribution of energy efficiency expenditures was prefaced with the note by Avista that CAAs are contracted for a single dollar amount on an annual basis with the flexibility to expend that budget on electric or natural gas measures based upon the best use of those funds. Thus the expected split of these budgets into electric and natural gas categories is based upon the expectations of Avista and the CAAs and is not within Avista's sole control.

Avista's 2010 budgeted investment in Washington energy efficiency programs applicable to the various customer segments was summarized as follows for the Collaborative:

	WA electric	WA natural gas	WA total	% of total
Non-residential	$5,588,112	$1,731,964	$7,320,076	41.5%
Residential	$3,021,201	$2,179,375	$5,200,576	29.5%
Low-income	$728,824	$587,701	$1,316,526	7.5%
Regional (NEEA)	$1,459,651	$0	$1,459,651	8.3%
Common costs	$1,587,561	$737,162	$2,324,723	13.2%
TOTAL	**$12,385,350**	**$5,236,202**	**$17,621,552**	**100.0%**

The 'common costs' component contained within the above summary of Avista energy efficiency expenses is composed of non-incentive costs (primarily labor) not immediately assignable to any particular portfolio (e.g. a conference call or staff meeting applicable to multiple portfolios that is not reasonably allocable to a particular program).

The presence of regional programs (the Northwest Energy Efficiency Alliance, or NEEA) also complicated the interpretation of the analysis to a significant degree. NEEA funding for ventures is generally, over the long term, distributed proportionally to regional retail revenue by customer class. However, the programs that have been the most successful have been residential in nature. Avista's most recent (2009) report on estimated acquisition within the overall Washington and Idaho service territory indicates that 81% of the acquisition came from the residential segment. The proportion of those benefits going to low-income customers within the region or within Avista's service territory is unknown. This data was presented for the lowest income levels. The rates would be different for alternative definitions of the low-income class.

An alternative calculation provided by Avista to the Collaborative reflecting only those costs which are directly allocated to the three core local energy efficiency portfolios is as follows:

	WA electric	WA natural gas	WA total	% of total
Non-residential	$5,588,112	$1,731,964	$7,320,076	52.9%
Residential	$3,021,201	$2,179,375	$5,200,576	37.6%
Low-income	$728,824	$587,701	$1,316,526	9.5%
Costs specific to local portfolios	**$9,338,138**	**$4,499,040**	**$13,837,178**	**100.0%**

An additional analysis of the relationship of the low-income portfolio in comparison to the residential portfolio was a comparison of the low-income portfolio budget to the combined budget for low-income and residential (or "total residential") portfolio budgets. These two comparisons indicated that, excluding regional (NEEA) funding, Avista's 2010 low-income portfolio budget is 20% of the combined "total residential" budget.

Another metric provided to the Collaborative related to the level of funding provided by low-income households in relation to the benefits that they derive from such expenditures. Estimates of energy efficiency tariff rider contribution (under Avista's Schedule 91 and 191) were made based upon the Titus Report calculation of the customers at or below 125% of the federal poverty level and the energy usage of those customers (which is lower than that of the residential population in general). This amount was compared to the low-income portfolio expenditures for efficiency measures installed, health and human safety expenditures and CAA administrative cost reimbursements.

The proportion of low-income electric customer funds paid into the tariff rider vs. that calculation of benefits derived through direct grants (excluding the cost of CAA and Avista program administration) was 64% (comparable to 70% for the 2009 actual overall electric portfolio).[11] For natural gas customers this amount was 96% (comparable to 82% for the 2009 actual overall natural gas portfolio).[12] On a combined fuel basis, the proportion of low income (at or below 125% of the federal poverty level) customer funds paid into the tariff rider versus the proportion of benefits derived through direct grants was 78%. On the same combined fuel basis, 74% of funds were returned to customers in the form of direct incentives for the overall DSM portfolio (non-residential, residential and low-income).

The aforementioned Collaborative discussion of proportionality was premised upon the assumption that low-income customer benefits are derived exclusively from the low-income

[11] This is based on Titus' estimate of 15.9% of residential Schedule 101 natural gas customers being at or below 125% of the federal poverty level in comparison to the direct customer grants (excluding CAA and Avista administrative costs) to individually documented income-qualified customers. For purposes of this calculation it is assumed that low-income households have the same consumption level as the overall residential class and that incentive or grant funding is limited to their participation in the low-income portfolio.

[12] This is based on Titus' estimate of 19.7% of Schedule 1 electric customers being at or below 125% of the federal poverty level (table K-1 of the Titus Report) in comparison to the direct customer grants (excluding CAA and Avista administrative costs) to individually documented income-qualified customers. For purposes of this calculation it is assumed that low-income households have the same consumption level as the overall residential class and that incentive or grant funding is limited to their participation in the low-income portfolio.

portfolio, i.e. that low-income customers do not participate in non-income-qualified residential programs. Avista notes that there is known to be some level of participation by low-income customers in the generally-available residential portfolio as evidenced by residential rebates submitted by participants in the Low-Income Rate Assistance Program (LIRAP) or the Low-Income Heating Assistance Program (LIHEAP). Additionally Avista has comprehensively treated 11,000 multifamily dwellings, including those operating under federal Housing and Urban Development programs for low-income housing, through their recently completed UCONS[13] Direct-Install program.

The Energy Project asserts that disposable income constraints upon low-income customers severely restrict their ability to participate in residential programs, and that Avista's evidence for low-income participation in generally-available residential programs falls far short of the individually documented participation by income-qualified customers. Avista clarifies that there is anecdotal evidence for some degree of participation in residential programs, but that there is little firm documentation of such. The issue of documenting low-income participation, separately estimating low-income cost-effective potential and reviewing generally-available residential programs to improve access by low-income customers warrant additional follow-up as part of Avista's annual business planning effort.

VI. Barriers to Delivering Energy-Efficiency Services to Low-Income Customers

A review of the barriers to effectively delivering energy efficiency services to low-income customers was one of the core issues within the Order establishing this Collaborative and is clearly a critical component to program design and the selection of the infrastructure to be employed in delivering efficiency programs to low-income customers.

The Collaborative engaged in a series of efforts aimed at creating an inventory of barriers and discussions regarding their nature and definition as applied specifically to low-income efficiency programs. The discussion concluded with the following inventory and summary of

[13] UCONS is a consulting firm providing a variety of energy-efficiency services including direct-install programs.

barriers. Methods to address these barriers will be further covered as part of the summary of the Collaborative viewpoints on program delivery mechanisms.

The following outlines of barriers are generally not unique to the low-income segment but do pose a special burden in reaching these customers. Factors addressed elsewhere within this document, such as funding, comprehensiveness of treatment and so on were excluded from this list. This list is in general order of declining importance (the most critical barriers appear first), but there is a significant degree of subjectivity to the ranking.

Disposable Income – This is a clear and obvious consequence integral to the very definition of the low-income customer segment. Though not unique to the low-income customer, as all recognize that funding availability is an issue with all customer segments, the lack of liquid funds for investment in cost-effective energy efficiency is most severe among low-income customers.

Disparate Interests of Tenants and Landlords – The vast majority of low-income customers (77% of households with incomes at or below 125% of the federal poverty level within Spokane County) do not live in owner-occupied homes. There are a number of well-known disconnects that occur in any form of rental space, particularly the typical tendency for the cost of the improvement to be borne by the landlord and the benefits accruing to the tenant. Absent an ability to increase rent or an increase in property value there are few financial incentives for the landlord to invest in the improvement. Similarly the tenant is unlikely to make such an investment given the short time that they will have in the rental space to recoup the investment through reduced energy costs.

Home Repair Issues – Many of the homes occupied by low-income households, whether owner-occupied or rental property, require repairs or measures to protect the health and safety of the occupants or to insure the integrity of the installed measures and the savings they are to achieve. The cost can range from relatively low-cost measures, such as carbon monoxide detectors or a small roof patch, to higher cost treatment affecting the structural integrity of the dwelling. Avista permits a portion of their efficiency funds to cover such measures, and the agencies that have historically provided low-income energy efficiency have access to some additional repair funds.

Homes or measures requiring high repair costs that can't be covered by the allowable budget or alternative funds are typically passed over, despite the greater level of energy savings that may be available, in order to avoid endangering the occupants or expending funds on measures that will not last long enough to achieve the intended savings.

Dwelling Types May Not Be Amenable to Effective Improvement – Some dwelling types, most notably manufactured homes, in disproportionate use by the low-income customer segment can be difficult to cost-effectively improve as a result of roof type, wall thicknesses and other issues that can be difficult and costly to overcome. This barrier does not extend to all measures but is a frequent issue with many of the core shell measures applied to low-income housing.

Full Understanding of the Customer Segment – Much of the Collaborative discussion of low-income issues has been based upon information regarding income distributions, housing types, end-use inventories and similar data that is not always available in consistent and comparable formats. Though improved information is unlikely to have resulted in changes in the major conclusions of the Collaborative, additional information would improve the ability to determine the size and cost of the energy efficiency resources in question. Avista's conservation potential assessment, which is currently underway as a consequence of previously identified action items contained within the Company's electric and natural gas Integrated Resource Plan, has the intention of defining the resources available in low-income households to the extent possible.

Differences in Regulatory Treatment among Publicly-Owned Utilities and IOU's – Lacking consistent statewide approaches to the utility funding and cost-recovery issues the utility with higher funding for low-income energy efficiency will nearly always place themselves in a less competitive retail rate position relative to competitive utilities. Given the degree to which the Avista service territory is intertwined with competing publicly-owned utilities this is of some importance.

To a significant degree the ability of alternative delivery mechanisms to address these issues will be a measure of their value to the low-income portfolio. However the preceding list is by no means the exclusive indication of how delivery mechanisms should be evaluated. (A summary of that topic will appear in the following chapter).

VII. Concepts for Low-Income Energy-Efficiency Delivery Mechanisms

There was a broad consensus within the Collaborative on the desirability to expand the number of low-income customers served in some meaningful way with particular attention to those customers living in rental housing, multifamily housing or manufactured homes. It was recognized that this may require additional thought and program planning on the part of Avista and the CAAs at a minimum and may also require some significant changes in past practices and program delivery mechanisms.

Constraints of funding adequacy and the need to deliver on cost-effectiveness commitments were also universally recognized as issues that need to be considered as part of any effort to improve the low-income portfolio. It is within this context the discussion of what measures to deliver, how to deliver them and the funding requirements and sources transpired.

Program Development and Measure Installation

The Collaborative generally avoided a detailed discussion of specific measure characteristics and potentials, a topic that is better left to ongoing discussion between Avista and the CAAs, the Triple E Board and the electric and natural gas Integrated Resource Planning Technical Advisory Committees. The Collaborative did reach high-level consensus on several issues that are intended to guide that future discussion:

- Under the current statutory environment, it is recognized that unmet need cannot be fully addressed solely through utility funding.
- Comprehensive treatment is a desirable program attribute as part of a larger long-term strategy to avoid 'stranding' cost-effective measures through the partial treatment of

homes. Preference for comprehensive treatment must be weighed against the desire to provide some benefits rather than no benefits at all to individual customers or customer niches that are generally beyond the reach of existing programs. A substantial element of the discussion was the concern of stranding viable measures versus reaching more homes.

- The cost-effectiveness of individual measures is an important part of developing a cost-effective portfolio and delivering the highest possible value to the low-income customer. Avista has committed to manage the Washington low-income portfolio towards being TRC cost-effective on a combined electric and natural gas basis at a minimum.[14]

- Avista's approach to managing the contractual relations with the CAAs delivering low-income efficiency services has generally been to offer the greatest amount of flexibility possible to allow for those agencies to dedicate the funding towards those measure applications with the greatest participant value as well as ease of application of these efforts. Towards that end Avista does not allocate funds by fuel type (electric or natural gas), nor is there any budget guidance or constraints calling for funding to go towards particular measures or market sectors other than the aforementioned allowable allocation for health and safety expenditures. However, to manage the portfolio cost-effectiveness Avista has identified measures which are cost-effective in a very large proportion of their applications and permit these measures (which are termed Avista pre-approved measures) to be installed without having to request Avista approval. Measures whose cost-effectiveness is more marginal may be installed only upon prior Avista approval. The list of Avista pre-approved measures can be changed at any time, and it is expected that Avista, the CAAs and the Triple E Board will review and discuss the Avista pre-approved measure list as part of the ongoing management and oversight of the low-income portfolio.

[14] Avista's 2008 Washington commitment to deliver a cost-effective low-income portfolio on a combined fuel basis (electric and natural gas aggregated), for application in 2009, varies from the Idaho commitment to evaluate measures on as granular a level as is reasonable.

Delivery Mechanisms

A general consensus was reached within the Collaborative that it is important to select delivery mechanisms which are the most effective in the long-term for a particular measure. Achieving the best value and quality for the lowest possible cost is an inherent part of maximizing the customer value and cost-effectiveness of the low-income efficiency portfolio. The expectations for any delivery mechanism (in terms of quality control, reporting, etc.) should be the same.

It is generally recognized by the Collaborative that the low-income programs of the past have not reached all segments of this population to the same degree. This has generally been the consequence of the barriers outlined in the previous section as well as the focus, strategies, co-funding and infrastructure available to reach these customers. All parties to the Collaborative support a renewed commitment to reaching more customers with cost-effective programs with particular attention to those customers in rental dwellings (particularly multifamily) and manufactured homes.

It is well-recognized that quality control in the installation of measures is important to occupant safety and durability of the structure as well as to the cost-effective acquisition of the intended energy savings. Avista and the CAAs commit to achieving the quality standards appropriate to the installation regardless of the delivery mechanism. It is anticipated that this would include inspection by a Building Performance Institute Certified Inspector, or the equivalent, for any job involving air leakage control or shell insulation measures.

Funding

The question of how the Collaborative should address the issue of funding for the low-income energy efficiency portfolio in 2011 and beyond led to considerable debate. The two competing visions of the role that the Collaborative would play in addressing this issue were characterized most clearly by The Energy Project and Avista. In the final days of the period of time that the Collaborative was preparing this Report a stipulation regarding the funding for low-income energy efficiency was proposed.

While both Avista and The Energy Project recognized the direction from the Commission's order "... to explore new approaches to promote low-income conservation ..." and "... to identify the barriers to its development ...", the two parties diverged significantly when it came to discussing whether the Collaborative could recommend a funding level for the low-income portfolio.

The Energy Project interprets the inclusion within the Commission Order[15] of language calling for the Collaborative "... to address the issues raised by The Energy Project ..." as an indication that the Collaborative could address the future funding of low-income efficiency programs by recommending funding levels since funding level was one of the concerns they expressed in Docket No. UG-060518. Avista's perspective was that it is preferable to perform the work necessary to optimize the portfolio prior to addressing the funding issue, but that Avista can commit to an unspecified increase in low-income energy efficiency funding.

Avista's viewpoint was that the Collaborative mandate was much broader than the issue of 2011 budgets to include "...to explore new approaches to promote low-income conservation ..." and "...to identify the barriers to its development ...".[16] Avista's contention was that it would be inadvisable for the Collaborative to develop recommendations for funding levels before a full discussion of these issues and the portfolio of the future could be optimized. Avista's commitment of an unspecified increase in future funding levels incorporated a further commitment that this would include an increase in funding for the portion of the low-income portfolio that was to be delivered through annual funding contracts with the existing Washington CAAs.

Avista was, at the time of this Collaborative, involved in general rate case proceedings for Washington electric and natural gas before the UTC. Avista anticipated that the issue of funding for low-income programs would arise during the course of that rate case and testimony regarding future funding for low-income programs was incorporated within Avista's initial testimony.

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[15] Docket No. UG-060518, Order 10, paragraph 306.

[16] Passages derived from Docket No. UG-060518, Order 10, paragraph 306.

As the Collaborative proceedings progressed members were able to come to consensus over the following guiding principles for determining the future funding levels of low-income efficiency programs:

A prudent commitment to work in partnership with other entities and funding sources to increase and improve delivery of cost effective energy efficiency services to low income customers, subject to and in recognition of the following:

- Proportionality
- Cost Effectiveness
- Funding stability for CAAs to assure that existing capabilities for low-income program delivery are maintained
- Impact of program costs on retail rates of all customers as well as the resulting energy burden of low-income customers
- Cost of achieving utility resource acquisition requirements
- Recognition of the level of funding for low-income programs provided by other jurisdictional utilities

It is recognized that these are not necessarily the only factors that could or should be incorporated into future funding decisions, but there is consensus that these are all core issues that should be taken into consideration in the future.

Discussion surrounding the issue of funding determinants included a discussion of what has become termed the "unmet need" within the low-income customer segment for efficiency measures.

VIII. Evaluation the Low-Income Energy-Efficiency Portfolio

The Collaborative recognized the following as critical to the ongoing management of the low-income portfolio:

1. Establishing an understanding of the need for and approaches to evaluating the effectiveness of the low-income portfolio;

2. Understanding how the evaluations are to be performed; and

3. Identifying who will be responsible for performing and reviewing evaluations.

The discussion within the Collaborative included a review of existing evaluation approaches being employed and extended into discussions of alternative methodologies. The proceedings of the Avista EM&V Collaborative were occurring at the same time as the Low-Income Collaborative effort, and there was a degree of interaction between the issues addressed within the two separate Collaborative processes.

For purposes of this report, the discussions of the evaluation role have been categorized into three topical areas; (1) Avista's evaluation of cost-effectiveness, (2) the role of EM&V and (3) the ongoing role of the Triple E Board in reviewing and providing input on these evaluations.

Application and Interpretation of Cost-Effectiveness Tests

Avista has traditionally performed the four basic industry-standard cost-effectiveness tests upon the entire energy efficiency portfolio;

- the total resource cost (TRC) test,
- the program administrator (or utility) cost test (PACT or UCT),
- the participant test, and
- the rate impact measure (RIM), also known as the non-participant test.

The standardization of these tests has been documented within several publications. The methodology and definitions of the tests across the various publications is, fortunately, generally consistent. Avista most frequently refers to the California Standard Practice Manual for reporting purposes.[17]

Though a full explanation of the methodology and applications of all these tests is beyond the scope of this Report it is necessary to provide a high-level overview of the discussion of the perspectives of the Collaborative in how these tests should be applied. The following table illustrates, in a very general manner, the calculations of the four standard practice tests and was used as part of the Collaborative discussion.

	TRC	PACT (UCT)	Participant	RIM
Benefits				
Electric avoided cost	X	X		X
Natural gas avoided cost	X	X		X
Electric retail rate			X	
Natural gas retail rate			X	
Non-energy benefits	X		X	
Costs				
Non-incentive utility cost	X	X		X
Incentive utility cost		X		X
Customer incremental cost	X		X	
Tax credits	X*		X	
Electric revenue loss				X
Natural gas revenue loss				X

* Avista performs a variant of the TRC test for Idaho jurisdictional programs that does not include tax credits as an offset to customer incremental cost.

** Health and human safety improvements are included as a non-incentive utility cost within both TRC and PACT cost and as a TRC non-energy benefit.

[17] Avista does modify the methodology specified within the California Standard Practice Manual as necessary to meet jurisdictional and other issues. These modifications may include the inclusion of avoided cost adders for consistency with the Northwest Power and Conservation Council methodology, alternative scenarios for the treatment of federal tax credits or net-to-gross factors to the extent requested by various stakeholders.

Avista employs all four of these tests as part of the management of their energy efficiency portfolio, with each test adding valuable insight and interpretation. Within the context of low-income efficiency programs the TRC test provides important guidance regarding measure selection and overall portfolio success.

An important area of discussion within the cost-effectiveness topic was the inclusion and quantification of non-energy benefits attributable to the low-income portfolio. It has been Avista's approach to include all non-energy benefits that could be quantified with reasonable analytic rigor and documentation into the cost-effectiveness analyses. Beginning with the reporting of 2009 results, Avista has included the value of health and human safety investments (which are considered to deliver a non-energy benefit value equal to their cost), water and detergent savings and similar quantifiable non-energy impacts. Health and human safety improvements are still included as utility non-incentive costs.

Non-quantifiable non-energy benefits have been incorporated within the cost-effectiveness discussion though not included within the calculation itself. Avista has committed to investigating, with input from the Triple E Board, improved metrics for the tracking these non-quantifiable non-energy benefits as a means to facilitate their inclusion in the discussion of cost-effectiveness. These non-energy benefits include values such as comfort, occupant health, changes in insurance cost, aesthetics and similar factors.

It is notable that many non-energy benefits mentioned within the discussion were societal values inapplicable to the total resource test (such as national security, income redistributive effects, and retention of low-income housing stocks). Additionally there were several values that have been incorporated within Avista's measurement of avoided cost, and it would thus be duplicative to also incorporate them as non-energy benefits (carbon dioxide emissions, transmission and distribution losses, etc).

As part of the discussion of non-energy benefits Avista also committed to investigating the feasibility of quantifying impacts of low-income efficiency programs upon utility costs which are not consistently and fully reimbursed (shut-off and restoration of services, customer payment arrangements etc). Additionally Avista will consider the feasibility of examining the impact of programs upon arrearages and uncollectible revenue.

The Company cannot provide any assurance that the investigation of these non-energy benefits will yield results that are sufficiently quantifiable to be attributed to the cost-effectiveness evaluation of the low-income portfolio. The results of this review will be reported to the Triple E Board upon completion.

EM&V's Role Applied to the Low-Income Energy Efficiency Portfolio

A full discussion of the Company's future plans for EM&V was underway concurrent with the low-income energy efficiency Collaborative discussions. That process is being driven by the need to provide transparent and meaningful information for the management and regulatory oversight of Avista's programs in addition to specific regulatory needs for verified electric and natural gas efficiency resource acquisition to meet Washington Initiative 937 and natural gas decoupling mechanism requirements.

Though the final conclusions of the EM&V Collaborative discussion are unavailable as of the date that this Report is being written, the Company has committed to using an independent external party to verify the therm and kWh acquisition from the electric and natural gas energy efficiency portfolios. It is anticipated that the methodology, disaggregation and means of statistically extrapolating the results of the verified sample to the entire population will be at the discretion of the independent verifier. The Company will work with the Triple E Board to develop the Request for Proposal for the independent verifier and does plan on requesting a sufficient degree of disaggregation of the overall energy efficiency portfolio to deliver results that are usable for ongoing management as well as serving the immediate decoupling and independent verification needs. Presumably this will include a disaggregation of the low-income portfolio as well as major measures within that portfolio.

Based upon preliminary discussions that have occurred within the EM&V Collaborative it appears that there is an interest in future discussions regarding the timing of the electric and natural gas independent verifications and the Company's Annual Report on Energy Efficiency Programs, and a possible request to the UTC to modify reporting requirements in order to permit the use of verified data within the cost-effectiveness (and other metrics) contained within the Annual Report.[18]

The Collaborative is in agreement that the expected outcome of Avista's EM&V Collaborative will adequately serve the needs of the future evaluation of the low-income portfolio in that it meets or exceeds the degree of information necessary for the Company to manage the portfolio and sufficiently informs the Triple E Board to fulfill their role for non-binding oversight.

The Role of the Triple-E Board

The External Energy Efficiency (also known as the "Triple E") Board has served as the non-binding oversight entity for Avista's energy efficiency programs since 1999[19]. Membership within the Triple E Board is drawn from a wide array of stakeholders to include regulatory staff, governmental and industry stakeholders and customer representatives. Avista has convened the board twice per year in the past and has agreed to increase the frequency of these consultations to at least quarterly in the future utilizing conference calls and face-to-face meetings. The Board itself may call meetings independent of Avista as necessary. The Board may also independently communicate with the Commission.

By virtue of the degree of concentration that the Triple E Board can devote to Avista's energy efficiency programs and the range of perspectives that they bring to the table, the Board may have meaningful input on the operations of Avista's energy efficiency programs. In the context of the low-income portfolio the Collaborative has agreed that the Triple E Board is the entity best situated to discuss topics such as:

- Measure cost-effectiveness and inclusion on the Avista pre-approved list of measures for CAAs.
- Criteria surrounding the approval of 'pre-approval required' measures.

[18] The completion dates of the independent verification processes incorporated within Avista's recent EM&V commitments have been established after the date of the Annual Report required under the Company's I-937 conditions, thus making it impossible to incorporate the findings of those independent evaluations into the Annual Report.

[19] Avista's stakeholder involvement has existed, uninterrupted, since 1992 under different names.

- Cost-effectiveness methodology issues.
- Application of EM&V processes to the low-income portfolio.

It is Avista's intent to intensify the use of the Triple E Board for the review of a wide array of energy efficiency program issues in the future, including review of the low-income portfolio. Avista will continue to reach out to other groups who may have insights into this area.