AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	WASHINGTON	DATE PREPARED:	07/21/2009
CASE NO:	UE-090134 & UG-090135	WITNESS:	Jon Powell
REQUESTER:	Public Counsel	RESPONDER:	Jon Powell
TYPE:	Data Request	DEPT:	Energy Solutions
REQUEST NO.:	PC –388	TELEPHONE:	(509) 495-4047
		EMAIL:	jon.powell@avistacorp.com

REQUEST:

Please provide copies of any and all evaluations or reviews of Avista's gas DSM programs, conducted by or on behalf of Avista, from January 1, 2004 to the present. For each such evaluation, please provide the following information:

a. A copy of the final evaluation report.
b. A description as to how Avista used the evaluation results to modify its gas DSM program(s), and when any such modifications were implemented.
c. A description and quantification of the claimed therm savings per customer or per measure for the program, and an explanation as to whether the claimed therm savings for the program was adjusted following the evaluation. If there were any changes in the claimed therm savings per customer (or per measure), please describe the basis for those changes, the date they were implemented, and documentation of calculations supporting the adjustment to claimed therm savings.
d. The total cost of the evaluation.
e. The total amount of any electric or gas DSM tariff rider funds used to pay for the evaluation.
f. Please indicate if there are any evaluations of gas DSM programs that are planned but not yet completed. If this is the case, please identify the program and the status of the evaluation.
g. Please consider this an ongoing request and update the response as necessary if additional evaluations are completed during this rate case.

RESPONSE:

a. Please refer to Exhibit BJH-2 for a copy of the Evaluation of Avista Natural Gas Decoupling Pilot. Copies of the three annual independent verifications of natural gas DSM savings are contained in the Report's Exhibits H1, H2 and H3 (contained in Mr. Hirschkorn's workpapers). Additionally, Avista has attached the working documents related to the evaluation of pre-rinse sprayers to the Company's response PC-388C. Please note that Avista's response to PC-388C is **CONFIDENTIAL** per Protective Order in WUTC Dockets UE-090134 and UG-090135 and by WAC 480-07-160. Also attached is a copy of an evaluation of natural gas DSM savings within multifamily residential homes (PC_DR_388-Attachment B.pdf).

b. Results of the three annual independent third party verifications were incorporated into Avista's cumulative claim of natural gas savings through adjustments to individual projects or programs as appropriate. The findings of the verification results for the calendar year 2006 and 2007 adjustments were recognized in 2008. The adjustment for the 2008 verification was recognized in 2009. The reduction in the savings claims for the pre-rinse sprayers resulting from Avista's internal measurement and evaluation

findings were recognized through an adjustment to that program in 2007 for sprayers installed in 2006 and 2007.

c. The results of all evaluations, verifications and internal Avista measurement and evaluation studies that result in a change in the estimate of therm savings are ultimately incorporated into Avista's cumulative claimed savings. Since Avista applies a "de-rated" methodology that recognizes the impact of the project as it moves along from contracting towards completion, there are frequent changes in claimed savings due to changes in the nature of the project. Rather than restating past reports, Avista incorporates the revisions into the cumulative claims of the DSM portfolio at the time the revisions are made. The project database can provide all of the changes in estimated therm savings through each projects life cycle, but the database cannot be queried for reasons that led to each change.

Electronic files containing the calculations necessary to determine the adjustments to Avista's database necessary to incorporate the results of the three independent verifications are attached (and being provided in electronic format only):

- 2006 Verification Spreadsheet - PC_DR_388-Attachment C.xls
- 2007 Verification Spreadsheet - PC_DR_388-Attachment D.xls
- 2008 Verification Spreadsheet - PC_DR_388-Attachment E.xls

The Avista internal measurement and evaluation pre-rinse sprayer study resulted in a reduction in the therm savings claim per unit from 176 therms to 44 therms. This revision was incorporated into Avista's cumulative results in 2007.

d. The independent verification costs for 2006, 2007 and 2008 were $54,291, $66,107 and $43,213 respectively. The cost of the Evaluation Report was $95,000. The cost for individual internal measurement and evaluation studies is not tracked within Avista's reporting system.

e. The 2006, 2007 and 2008 independent evaluations resulted in a $35,000 natural gas DSM tariff rider expense per year. The remaining cost of the independent verifications were borne by shareholders. Schedule 191 funds were not applied towards the cost of the Evaluation Report.

f. The Company continues to review the protocols applied for the measurement and evaluation of DSM programs. Please see the Company's response PC-393.

g. Avista will provide updates in the event that any natural gas measurement and evaluation studies are completed prior to the closure of these proceedings.

AVISTA'S RESPONSE TO PUBLIC COUNSEL DATA REQUEST NO. 388

ATTACHMENT B

AVISTA Multifamily Program

Installation Specifications

Direct Installed Measures
General:

- Direct installed measures will include screw in compact fluorescence lights (CFLs), faucet aerators, shower heads and water pipe insulation directly above the hot water tank for 6 feet (were feasible).
- Direct installed measures equipment will be provided by UCONS.

CFLs & Common Area Fixture Retrofit
General:

- All CFLs shall be Energy Star labeled.
- CFLs shall not be installed in circuits controlled by dimmer switches.
- CFLs shall not be installed in fixtures specifically excluded by CFL manufacturer.
- If existing bulb is not easily removed from fixture, contactor shall not replace existing bulb.

Fixture Selection:
Lighting measures shall be installed in fixtures in one of the two following categories and to meet the corresponding criteria:

1. Fixture is in a common use area
   - CFLs - Must be on for a minimum 2 hours per day
   - CFLs - Fixture must be permanently installed
   - T12 to T8 retrofits will only be done on fixtures that are on 24 hours per day.

2. Fixture is a high-use fixture in a tenant unit.
   - Fixture must be permanently installed or non tenant-owned
   - Fixture must be on for a minimum of 2 hours per day based on customer testimony
     Or
   - Fixture is main kitchen fixture, main dining room fixture, or main hallway fixture.

Wattage Selection:
CFLs will be installed based on the following chart); provided, however that flexibility shall be allowed if different CFL bulb wattages can be installed such that greater savings can be realized without loosing light output.

Current Bulb Wattage	New CFL Wattage
65 Watts or less	14 Watts
Greater than 65 Watts but less than 90 Watts	20 Watts
90 Watts or greater	23 Watts

Exception: In common areas or hallways where new CFL Wattage does not provide sufficient illumination for safe passage, use higher wattage CFL.

When retrofitting T12 fixtures to T8's in common areas, new ballast must have a minimum power factor of 95%, and 4' lamps must have a minimum mean lumen output of 3100.

Replacement Showerheads and Faucet Aerators
General:

- Two pliers or wrenches shall be used when removing and installing showerheads. One will be placed on the gooseneck to prevent twisting or breaking pipes.
- A minimum of two wraps of teflon tape shall be applied to gooseneck threads before installing new showerhead.
- Showerheads and faucet aerators shall not be turned more than ¼ turn beyond hand tight using tools.
- If new showerhead or aerator drips after hand tightening, additional teflon tape shall be used, rather than tightening with tools.
- Care shall be taken not to scratch, bend, or otherwise damage existing plumping pipes or fixtures.

Showerhead Criteria:

- Technician shall measure showerhead and faucet flows using approved measurement device.
- Showerheads will be replaced when existing flow rate is 2.5 gpm or greater and replacement is 1.5 gpm or less (as determined by a micro weir measurement for each separate building to be treated); provided, however that Avista and UCONS may agree to further ways to secure additional savings, including the collection of data on pre and post flow rates.
- When shower gooseneck moves easily, contractor shall not remove existing showerhead.
- If existing showerhead cannot be removed easily with 3" crescent or pliers, contractor shall not remove existing showerhead.

Low flow faucet aerators criteria:

- Kitchen aerators will be replaced when existing flow rate is 2.5 gpm or greater and replacement is 2.0 gpm or less (as determined by a micro weir measurement for each separate building to be treated); provided, however that Avista and UCONS may agree on further ways to secure additional savings as described above under "Showerhead Criteria".
- Kitchen aerator shall be swivel type.
- Bath and laundry: if faucet flow exceeds 2 gpm, replace with an approved aerator with a tested flow of no greater than 1.5 gpm.
- If existing faucet aerator cannot be removed easily with 3" crescent or pliers, contractor shall not remove existing aerator.

Water Pipe Wrap

- When accessible, both cold water intake and hot water supply pipes shall be insulated for the first 6 feet or total accessible length from the connections to the water heater.
- Insulation shall be minimum R-3 closed cell pre-formed (might be same as closed cell but that was RTF require of installations) foam insulation provided by UCONS.
- Insulation shall be attached and closed using zip locks or other fasteners provided by UCONS every 1 foot and at each end of the foam.

- Foam insulation shall be trimmed at pipe bends and corners to prevent bucking and ensure tight closure around pipe.
- Interior diameter of pipe insulation shall match dimension of exterior diameter of water pipe.

Shell measures
General:

- Shell measures will include attic insulation, under floor insulation, and replacement windows.
- Shell measures shall only be installed on any building **after** eligibility has been approved by UCONS.
- Shell measures shall be installed in accordance with these specifications and all applicable State and local codes Where State or local code and these specifications are in conflict, the most stringent of the requirements shall apply.
- Shell measures shall be completed in a manner that will provide a safe, permanent, effective, and workmanlike installation.
- The materials installed shall meet current Federal Trade Commission (FTC) certification and testing rules and have independent laboratory testing. NFRC labels will fulfill this requirement for windows and doors.
- All materials used for thermal insulation shall meet state and local fire protection code requirements.
- Insulation materials including facings shall be installed in accordance with State and local codes and in accordance with manufacturers' instructions.

Attic/Ceiling Insulation
General:

- Ceilings shall be insulated to a minimum of R-38 or the highest R-value approaching R-38 which is practical.
- Un-insulated sloped ceilings between ventilated attics shall be insulated where practical. Airflow may be maintained over the sloped-ceiling insulation by tubes, baffles, or by using rigid insulation; or the sloped-ceiling area may be insulated to the full cavity depth where local codes allow, provided containment materials used at the lower and upper cavity openings allow for rapid vapor diffusion.
- Un-insulated knee walls adjoining attic spaces shall be insulated to a minimum of R-11.
- Attic access doors which are adjacent to Conditioned Spaces shall be insulated to at least R-30 for horizontal openings and to at least R-11 for vertical openings and weather-stripped.
- If water pipes are located in the attic space, water pipe insulation shall be included with ceiling insulation for freeze protection with material having a minimum R-value of 3.0 tested in accordance with ASTM C-1775 at a mean temperature of 75 degrees Fahrenheit. Insulation for freeze protection shall be continuous, with no bare water pipe visible.
- If vapor barriers are installed with ceiling insulation, the barrier shall be placed between the insulation material and the Conditioned Space adjacent to the ceiling.
- Enclosed attics and enclosed rafter spaces shall have cross ventilation for each separate space. Ventilating openings shall be protected against the entrance of rain and snow.
  a. The net free-ventilating area shall be not less than 1/150 of the area of the space ventilated, except that the area may be 1/300, provided 50 to 60 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least three feet above eave or cornice vents with the balance of the

ventilation provided by eave or cornice vents or provided a vapor barrier is present between the insulation and the ceiling.

b. Other configurations of vent placement that provide equivalent performance may also be accepted with written Utility approval or as approved by local code.

c. Vent openings shall be covered with corrosion-resistant metal mesh with mesh openings of maximum 1/4 inch in dimension.

- Baffles at soffit or eave vents shall be installed so that the greatest practical R-value of insulation can be installed at the edges of the attic, and so that insulation shall not block these vents.
- Thermal insulation shall not be installed within 3 inches of non-IC rated heat producing fixtures, such as recessed lights and fan/light combinations. Solid, flame resistant baffles attached to the ceiling structure shall be used to maintain required clearances.
- All combustible insulation materials, including existing insulation, shall be kept a minimum of 2 inches from metal flues and masonry chimneys. Noncombustible insulation may be installed with no clearance around flues and chimneys if permitted by local or State fire code. However, if the flue is a single wall type (i.e., made from a single thickness of rolled sheet metal) then, a 2-inch air clearance to all insulating materials shall be maintained. Noncombustible insulation is insulation material which conforms to the standard test method ASTM E-136.
- Kitchen range exhaust fans vented through the ceiling shall be connected to a duct made of galvanized steel, stainless steel, aluminum, or copper (IMC 505.1) which is substantially airtight throughout and which terminates directly to the outside in a vent cap. Back draft dampers are required for any newly installed vent ducts. Existing installations that substantially meet these requirements are acceptable.
- Bath fans shall be continuously ducted to the exterior of the building and ducts shall be sealed so that vented air does not enter the attic space.

Attic/Ceiling Criteria:

- Ceilings with a pre-existing R-value greater than R-19 shall not have more insulation added.
- Ceilings with pre-existing R-value greater than R-11 shall require pre-approval of UCONS before insulating.
- Effective pre-existing ceiling R-value shall be determined by UCONS auditor before insulation shall be added. Effective pre-existing R-value will be determined using standard ASHRAE values, taking into account areas of deteriorated or missing insulation, and determining whether there are areas with lower than average insulation thickness.

Under-floor Insulation:

General:

- Floors with pre-existing insulation R-11 or greater shall not have additional insulation added.
- Under floors shall be insulated to a minimum of either R-30 or to the level needed to fill the joist cavities, whichever is less.
- Any crawlspace access door adjacent to a Conditioned Space shall be insulated to at least R-19 for horizontal openings and to at least R-11 for vertical openings and shall be weather-stripped with appropriate materials.
- Un-insulated walls separating the crawlspace from Conditioned Space shall be insulated to a minimum of R-11.

- If water pipes are located in the crawlspace, water pipe insulation shall be included with under floor insulation, for freeze protection with material having a minimum R-value of 3.0 tested in accordance with ASTM C-1775 at a mean temperature of 75 degrees Fahrenheit. Insulation for freeze protection shall be continuous, with no bare water pipe visible.
- If ductwork is located in the crawlspace, R-11 (effective R-8) will be added to un-insulated supply ducts. Sealing all accessible joints with mastic.
- Under floor insulation support systems shall be installed so that the insulation remains in contact with the sub-floor, flat and in place for the life of the Residence.

  Acceptable floor insulation support materials include:
  - Wood lath – Wood lath shall be a minimum of 1/4 x 1 inch.
  - Twine - Twine shall be non-stretching polypropylene or polyester.
  - Wire - Wire shall be stainless steel, copper, or an equivalent material of similar corrosion resistance, with a minimum diameter of 0.040 inch (Size 18 AWG).

  Self-supporting wire hangers are not allowed.
  - Fasteners for insulation supports may be either hot-dipped galvanized nails or corrosion-resistant staples that are at least 18 gauge and long enough to penetrate wood at least 5/8 inch. Staples shall be driven with a power-actuated stapler to achieve at least 5/8 inch penetration. Hand staple guns and batt hammers are not allowed.
- Maximum spacing for floor insulation support systems is as follows:

Floor Framing Spacing (inches)	Maximum Floor Insulation Spacing (inches)
24	18
48	12
60	8
72	6

- Wood lath shall not be used for spans greater than 48 inches. Splicing is not allowed to meet this requirement. Wood of thicker dimensions may be used for wider spans.
- Joists may be skipped, however the maximum spacing shall not exceed 12 inches. The maximum span of skipped joists shall not exceed 48 inches.
- Any vapor barriers installed as a part of floor insulation shall be located between the insulation material and the conditioned space.
- An acceptable ground-cover moisture barrier shall be present. Pre-existing ground covers of 4 mil polyethylene are acceptable if they are in good condition and cover the entire ground surface continuously. When a new ground moisture barrier is required, it shall be 6 mil black polyethylene. All joints shall be overlapped with sufficient material so that all ground surface area is covered.
- Under floor insulation in areas which are exposed to wind shall be protected after installation with a breathable cover or some type of perimeter system (e.g., skirting).
- Ground covers are not required for Residences which are built on stilts and have no perimeter system which creates a crawl space.
- Under floor crawlspace areas shall be ventilated by openings in exterior foundation walls. Such openings shall have a net area of not less than 1 square foot for each 150 square feet of under floor area. Openings shall be located as close to corners as practical and shall provide cross ventilation. The required area of such openings shall be approximately equally distributed along the length of at least two opposite sides. They shall be covered with corrosion-resistant wire mesh with mesh openings of 1/4-inch in dimension. Existing vent openings which are covered with wire mesh need not be modified.

Exception: Where moisture due to climate and ground water conditions is not considered excessive and where the building code official approves, operable louvers may be allowed and the required net area of vent opening may be reduced to 1/1500.

- Insulation shall be supported so that it does not block or restrict crawl space ventilation, insulation may be compressed, if necessary, to meet this requirement.

Replacement Windows
General:

- Replacement windows shall be defined as windows, and doors with more than 60% of the door area in glazing where the new window or door replaces an existing window or door of the same area or fitting in the same rough opening.
- U factors for all replacement windows and doors shall be certified and labeled by the National Fenestration Ratings Council (NFRC).
- U factor for replacement windows and patio doors shall not exceed U-0.35 and shall meet Energy Star requirements.
- NFRC labels shall remain affixed to all replacement windows until they have been verified by UCONS to meet program standards.
- Any installation that results in increased window area, including garden windows, shall not be allowed under this program unless required to meet minimum code egress requirements.
- Window and door frames shall be permanently affixed to the Residence. After installation, access to latches shall not be impaired. Upon installation completion, units shall operate smoothly and properly. Hardware shall be durable, function properly, and not create interference. When closed, the entire assembly shall provide a complete weather-barrier to the entire opening. All materials shall have sufficient strength and durability to resist damage or distortion from wind loads, thermal stress (including that due to solar gain), or induced installation stresses. All operable windows shall be of sufficient combinations of glass/slider- frame rigidity to prevent bowing after installation.
- Sources of evident water penetration through prime openings shall be located and corrected. Necessary repairs shall be accomplished by the Homeowner or Homeowner Designee prior to installation of replacement windows.
- Safety glass shall be used under the following conditions:
  a. Glazing in entrance doors;
  b. glazing in fixed and sliding panels of sliding doors and panels in swinging doors other than wardrobe doors;
  c. glazing in fixed or operable panels adjacent to a door where the nearest exposed edge of the glazing is within a 24-inch arc of the vertical edge of the door in a closed position and where the bottom edge of the glazing is less than 60-inches above the floor or walking surface unless there is an intervening wall or permanent barrier between the door and the glazing;
  d. glazing in an individual fixed or operable panel other than those covered by L.8.c. above that meet ALL of the following conditions:
     1. Have an exposed area of an individual pane greater than 9 square feet;
     2. Has an exposed bottom edge less than 18 inches above the floor;
     3. Has an exposed top edge greater than 36 inches above the floor; and,
     4. Has one or more walking surfaces within 36 inches horizontally of the plane of the glazing.

In lieu of safety glazing, such glazed panels may have a protective bar installed on the accessible sides of the glazing 34 to 38 inches above the floor. The bar shall be capable of withstanding a horizontal load of 50 pounds per linear foot without contacting the glass and be a minimum of 1 1/2 inches in height.

e. Glazing in any portion of a building wall enclosing showers, hot tubs, whirlpools, saunas, steam rooms and bathtubs where the bottom exposed edge is less than 5 feet above a standing surface or drain inlet.

f. When required by local or State building jurisdiction.

- Each pane of safety glass light shall be marked with the name of the manufacturer and place of manufacture, and shall certify compliance with all applicable standards for the manufacture and testing of safety glass (e.g., CPSC Class 2).
- Retrofitted vertically-opening prime windows shall not free fall. They shall be designed to hold the sash secure and level in ventilating positions
- Security latches are required on all operable prime window replacements.
- Sealed insulating glass panels within prime windows and doors shall incorporate sealed, insulating glass, certified as "Class A" under a SIGMA-approved Program, which requires compliance with ASTM E 774. Manufacturer identification of certified panels shall be stamped, engraved, or inked on the spacer which separates the panes of glass, etched on the glass itself, or printed on a label located between the panes of glass and affixed to the glass. Such identification indicates the certifying agency (e.g., ALI or IGCC) and the performance class or classes of the unit.

Replacement Window Eligibility Criteria:

- To be eligible for replacement, pre-existing windows must be one of the following:
  - Single glazed window or glass door
  - Single glazed window with storm window
  - Double glazed window with metal frame with no thermal break.
- Replacement windows shall only be installed on any building after eligibility has been approved by UCONS.

Window Installation:

- All windows shall be installed to manufacturers' written specifications and instructions.
- Before installing replacement windows, contractor shall provide UCONS with manufacturers' specifications and instructions and shall identify specific details to be used.
- Contractor shall not begin window replacement until UCONS has approved specific installation details.
- No window replacement job will be certified as complete under this program unless the specific details UCONS has agreed to have been completed and verified by field inspection.
- This may include in-progress inspections.

Insulation Specifications for Exterior Wall Cavities

General:

- Walls shall be insulated to minimum R-11 or the highest R-value that is practical.
- Loose-fill insulation (fiberglass, rockwool, and cellulose) is acceptable for use in walls.
- Insulation may be installed in wall cavities that are:

- 3 ½ inch deep or greater with no insulation or 1 inch or less of existing insulation; or
- Less than 3 ½ inch deep wit no existing insulation.

- When blowing loose fill insulation, the insert tube method shall be used.
- Access to the wall cavities may be accomplished by either removing pieces of the siding prior to drilling through the sheathing, or by drilling directly through the siding and the sheathing. For example if existing siding is T-1-11(plywood siding) then it may be drilled and then plugged using wood plugs that would provide a weather proof seal.
- The installer shall verify the installation of insulation by:
  - Bag count of insulation for the sq ft. of insulation blown in cavities.
  - Infrared cameras are an accepted method of verifying insulation in closed cavities. It is strongly recommended that contractors use infrared cameras for their own quality control.
- All cavities shall be filled, unless the cavity is 2" or less.
- The installer shall check a minimum of three electrical wall outlet or switch boxes to ensure that any insulation material which may have entered the boxes during blow-in wall insulation application was removed by the installer.
- When access holes for installing the insulation are drilled through the finish siding and sheathing, the installer shall verify that all holes were adequately plugged and provide a tight weatherproof seal.
  - Wooden plugs shall be used on wood and plywood siding.
  - Interior drilling is permitted if holes are patched with tape and sheetrock mud and textured to match existing walls.
  - Exterior approved spackle, plastic filler (bondo) or other exterior products are acceptable. Applying a thick layer of filler, 3/8" or greater is not an accepted method of sealing plugs. Thick layers will crack and shrink causing water damage.
  - Stucco walls shall be plugged using wire mesh as reinforcement and stucco finish matching existing texture.
- If cavities have fire blocking or other obstructions, then another hole shall be drilled to try to fill all voids.
- If exterior siding has masonry veneer such as brick then drilling from the interior is acceptable.

Wall Insulation Inspections:

- UCONS inspectors may use infrared cameras to inspect the installation of closed wall Insulation. These cameras will be used to find voids and missed cavities.
- Unfilled voids due to insulation settling or missing cavities shall be considered a correction and contractor shall return to job and fill all voids.
- Small cavities 2" or less where it is not possible to fit hose will be acceptable to leave void of insulation.
- Pass and fail jobs will be determined by UCONS inspector on how many voids were left un-insulated that were readily accessible. If there were several voids in a wall that could have been easily insulated then the contractor shall be required to make corrections.

AVISTA'S RESPONSE TO PUBLIC COUNSEL DATA REQUEST NO. 388

ATTACHMENT C

Summary of the Independent Verification of Avista's 2006 Completed Natural Gas-Efficiency Claims (Idaho only)

Project	Therms contained within verification sample	Therms in related ID population	Therms independently verified	% of claimed therms verified	Adjusted therm claim
Residential projects					
High Efficiency Furnaces	1,728	144,642	1,728	100.0%	144,642
Windows	1,080	21,387	884	81.9%	17,506
Other Res Sampled	2,463	48,621	3,684	149.6%	72,724
Limited Income					
Air Infiltration	2,052	1,195	1,709	83.3%	995
Insulation	4,485	3,489	3,815	85.1%	2,968
Other LI Sampled	1,022	4,612	591	57.8%	2,667
Large Non-Res site-specific					
Triple Play	27,193	27,193	21,754	80.0%	21,754
Kootenai Medical Center	19,095	19,096	-	0.0%	-
Other non-res site-specific	30,238	40,167	30,149	99.7%	40,049
Pre-rinse sprayers	7,920	2,751	7,920	100.0%	2,751
Rooftop Program	4,215	665	-	0.0%	-
	-	313,818	-		**306,055**
Original Avista estimate of savings		313,818			

(7,763)	Adjustment in claimed therm savings
306,055	Revised claim per independent verification and Avista's modification of claim
96.1%	Revised claim as a percentage of Avista's 2006 IRP goal

Summary of the Independent Verification of Avista's 2006 Completed Natural Gas-Efficiency Claims (Washington only)

Project	Therms contained within verification sample	Therms in related WA population	Therms independently verified	% of claimed therms verified	Adjusted therm claim
Residential projects					
High Efficiency Furnaces	1,728	61,920	1,728	100.0%	61,920
Windows	1,080	66,135	884	81.9%	54,133
Other Res Sampled	2,463	39,650	3,684	149.6%	59,306
Limited Income					
Air Infiltration	2,052	14,270	1,709	83.3%	11,885
Insulation	4,485	52,723	3,815	85.1%	44,847
Other LI Sampled	1,022	3,968	591	57.8%	2,295
Large Non-Res site-specific					
Spokane Athletic Club	110,558	110,558	37,608	34.0%	37,608
Spokane Public School-Dist 81	71,731	71,731	71,731	100.0%	71,731
Spokane Public Facilities District	54,332	54,332	15,477	28.5%	15,477
East Valley School District 361	29,651	29,651	21,134	71.3%	21,134
Huntwood Industries	20,228	20,228	21,056	104.1%	21,056
Other non-res site-specific	30,238	210,878	30,149	99.7%	210,256
Pre-rinse sprayers	7,920	88,941	7,920	100.0%	88,941
Rooftop Program	4,215	65,850	-	0.0%	-
	-	890,835	-		**700,588**
Original Avista estimate of savings		890,835			

(190,247)	Adjustment in claimed therm savings
700,588	Revised claim per independent verification and Avista's modification of claim
94.2%	Revised claim as a percentage of Avista's 2006 IRP goal

Summary of the Independent Verification of Avista's 2006 Completed Natural Gas-Efficiency Claims

Project	Therms contained within verification sample	Therms in related overall population	Therms independently verified	% of claimed therms verified	Adjusted therm claim	
Residential projects	5,271	382,355	6,296	119.4%	456,708	
High Efficiency Furnaces	1,728		1,728			-
Windows	1,080		884			(196)
Other Res Sampled	2,463		3,684			1,221
Limited Income	7,559	80,257	6,115	80.9%	64,925	
Air Infiltration	2,052		1,709			(343)
Insulation	4,485		3,815			(670)
Other LI Sampled	1,022		591			(431)
Large Non-Res site-specific	332,788	332,789	188,760	56.7%	188,761	
Spokane Athletic Club	110,558	110,558	37,608	34.0%		(72,950)
Spokane Public School-Dist 81	71,731	71,731	71,731	100.0%		-
Spokane Public Facilities District	54,332	54,332	15,477	28.5%		(38,855)
East Valley School District 361	29,651	29,651	21,134	71.3%		(8,517)
Triple Play	27,193	27,193	21,754	80.0%		(5,439)
Huntwood Industries	20,228	20,228	21,056	104.1%		828
Kootenai Medical Center	19,095	19,096	-	0.0%		
Other non-res site-specific	30,238	251,045	30,149	99.7%	250,304	(89)
Pre-rinse sprayers	7,920	91,692	7,920	100.0%	91,692	-
Rooftop Program	4,215	66,515	-	0.0%	-	(4,215)
	345,618	1,204,653	201,171		**1,052,390**	
Original Avista estimate of savings		1,204,653				

(152,263)	Adjustment in claimed therm savings
1,052,390	Revised claim per independent verification and Avista's modification of claim
99.1%	Revised claim as a percentage of Avista's 2006 IRP goal

Summary of the Independent Verification of Avista's 2006 Completed Natural Gas-Efficiency Claims

Project	Therms contained within verification sample	Therms in related overall population	Therms independently verified	% of claimed therms verified	Adjusted therm claim
Residential projects	5,271	382,355	6,296	119.4%	456,708
High Efficiency Furnaces	1,728		1,728		
Windows	1,080		884		
Other Res Sampled	2,463		3,684		
Limited Income	7,559	78,729	6,115	80.9%	63,689
Air Infiltration	2,052		1,709		
Insulation	4,485		3,815		
Other LI Sampled	1,022		591		
Large Non-Res site-specific	313,693	313,693	188,760	60.2%	188,760
Project #1	110,558	110,558	37,608	34.0%	
Project #2	71,731	71,731	71,731	100.0%	
Project #3	54,332	54,332	15,477	28.5%	
Project #4	29,651	29,651	21,134	71.3%	
Project #5	27,193	27,193	21,754	80.0%	
Project #6	20,228	20,228	21,056	104.1%	
Other non-res site-specific	30,238	204,039	30,149	99.7%	203,437
Pre-rinse sprayers	7,920	91,692	7,920	100.0%	91,692
Rooftop Program	4,215	66,515	-	0.0%	-
	326,523	1,137,023	201,171		**1,004,286**
Project #7		19,096	Removal of a transport customer included in Avista's original claim		
Project #8		500	Removal of a transport customer included in Avista's original claim		
Original Avista estimate of savings		1,156,619			

(152,333)	Adjustment in claimed therm savings
1,004,286	Revised claim per independent verification and Avista's modification of claim
94.6%	Revised claim as a percentage of Avista's 2006 IRP goal