

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-100176

EXHIBIT NO. ____ (LBH-4)

LORI B. HERMANSON

REPRESENTING AVISTA CORPORATION



Memorandum

March 30, 2012

TO: Jon Powell, Avista Corporation

CC: Jeff Harris, director, Emerging Technology; Susan Hermenet, NEEA Senior Manager of Market Operations Planning

FROM: Christina Steinhoff, Planning Analyst III

SUBJECT: Draft 2010 & 2011 Final 6th Power Plan Savings Report

This memo summarizes the *Draft 2010 & 2011 6th Power Plan Savings Report*. The Excel-based report provides 2010 and 2011 savings estimates for Avista Corporation, Wash., using the Northwest Power and Conservation Council's (NWPCC) 6th Power Plan baseline. Avista's share of the regional savings is based on the best available service territory data. The report also contains Avista's total (Idaho and Washington) service territory savings. This memo summarizes the Washington results, the allocation methodology, and the variance from prior reports of 2010 savings. NEEA will provide a final version of this report in June after an annual review process.

Summary of Washington Results

Avista's savings in Washington is 2.5 aMW for 2010 and 3.2 aMW for 2011. Approximately, 0.8 aMW in 2010 and 0.6 aMW in 2011 were part of Avista's utility programs in Washington.¹ The difference between the *Total Regional Savings* and *Avista's Local Program Savings* is 1.7 for 2010 and 2.5 aMW for 2011. Avista can count these savings toward the 6th Power Plan savings targets.²

¹Avista reported in March 2012 its local program savings for 2010 and 2011. Avista split the incentives by Washington and Idaho. NEEA normalized the units for initiatives where Avista reported incentives in kWh-yr. saved. Specifically, NEEA made this adjustment for Drive Power. The reported local program units are available in the Excel spreadsheet that goes with this memo.

² Eckman, Tom. 2011. Communications with Tom Eckman, conservation manager, Northwest Power and Conservation Council. The baseline adjustment counts toward the 6th Power Plan targets.

In addition, Avista can count its Washington funder share of a “one-time baseline adjustment”.³ NEEA adjusts the 6th Power Plan baseline for its Residential Lighting, Televisions, and Ductless Heat Pump initiatives because it has more sufficient 2009 data than the NWPCC. The difference between the NEEA “adjusted” baseline and the original council baseline counts toward the 6th Power Plan targets. Table 1 shows Avista’s share⁴ of the “one-time” adjustment as well as its service territory savings from activities in 2010 and 2011.

Table 1: 2010 & 2011 6th Power Plan Savings Report for Avista Washington’s Service Territory

Avista Corporation, Inc.'s 6th Power Plan Savings Report for 2011 (WA)				
<i>Avista Corporation, Inc.'s 6th Power Plan Savings Report (WA)</i>	2010	2011	One-Time Adjustment	2010/2011 Total
Total	2.53	3.18	1.13	6.83
Local Incentives	0.81	0.64	NA	1.45
Net	1.71	2.54	1.13	5.38

Savings Allocation Methodology

NEEA uses one of four methods to allocate the savings to Avista.⁵ Table 2 describes the methodologies, which range from service territory savings reports to funder share allocation.⁶ NEEA allocates approximately 90% of the 2011 savings to Avista using zip-code or service-territory data.

³ The difference between NEEA’s Total Regional Savings calculation (using the Fifth Power Plan baseline) and the Local Program savings (using the Fifth Power Plan baseline) count toward the Fifth Power Plan targets (Eckman, Tom. March 20, 2012. Communications with Tom Eckman, conservation manager, Northwest Power and Conservation Council).

⁴ Avista Washington receives 70% of its current funder share (5.62%) for savings from Televisions and Ductless Heat Pumps. Avista Washington receives 70% of its previous funder share (3.95%) for savings from Lighting.

⁵ NEEA can also use a “funder specified” method if Avista has better data to support an alternative allocation.

⁶ NEEA uses state or regional savings rates.

Table 2: Savings Allocation Methodologies

Methodology		Description	Percent of Avista's 2011 Total Regional Savings
Service Territory		NEEA is able to track energy savings by utility for some initiatives.	24%
Zip Code	Residential (Point of Sale)	NEEA uses a Residential Mapping System to allocate the point-of-sale, zip-code data. The mapping system aggregates the zip-code data into market regions, which are an aggregation of counties, and apportions the savings to service territories based on the share of residential customer accounts in the market region. The number of residential customer accounts is based on the EIA Form-861 Final Data File for 2010. The individual utilities distribute the total customers to the market regions.	66%
	Commercial (Point of Sale)	NEEA uses a Non-Residential Mapping System to allocate the point-of-sale, zip-code data. The mapping system aggregates the zip-code data into market regions and apportions the savings to service territories based on non-residential load. The non-residential load is <i>Total Sales - Residential Sales - Transportation Sales</i> based on the EIA Form-861 Final Data File for 2010. The utilities distribute the total customers to the market regions.	
	Place of Use	NEEA uses a Direct Place of Use Mapping System to allocate the savings when NEEA has a zip-code place of use. The system looks up the utilities within a zip code and allocates the savings to a service territory. NEEA will contact the utilities if a zip code has more than one service provider. The zip code list with the potential utility providers comes from the BPA.	
State		The “state” option is applicable when NEEA only has state-level data. NEEA allocates the savings based on Avista’s share of Washington residential accounts (8.2%) or share of nonresidential load (6.4%).	7%
Funder Share		In few cases, NEEA only has regional data. The best method to allocate the savings is by funder share. For Avista, NEEA apportions 70% of its funder share to Washington and 30% to Idaho. ⁷	3%

⁷ Powell, Jon. March 2012. Communications with Jon Powell, DSM Analyst, for Avista.

NEEA uses a variety of the methodologies in Table 2 to allocate the savings to Avista. In a few cases, NEEA applies more than one methodology. Table 3 shows the methodologies by initiative.

Table 3: Methodology for the Service Territory Savings Allocation

Initiative	Methodology	Year of Data Source	Methodology
Efficient Homes	Service Territory	2010, 2011	NEEA has service territory data.
Televisions	Zip Code	2010, 2011	NEEA has zip-code sales for a significant share of qualifying televisions (> 460,000 in 2011). NEEA uses this data and its Residential Mapping System to allocate the savings.
Ductless Heat Pumps	Service Territory and State	2010, 2011	NEEA has service-territory data for a majority of the installations and state data for the remaining units (the non-incented installations). NEEA uses the state share of the residential customer accounts to allocate the savings for the non-incented units.
Other Residential Codes	State	2011	NEEA allocates the savings using the share of state residential customer accounts.
Lighting	Zip Code	2010, 2011	NEEA has zip-code data for a majority of sales. NEEA uses its Residential Mapping System to allocate the savings from these sales. NEEA apportions the remaining sales using the same distribution as the non-incented, zip-code sales data.
Appliances	State/County	2010 (State), 2011 (County)	NEEA has total appliance sales data by county for 2011 and by state for 2010. NEEA allocates the 2011 savings using its Residential Mapping System and the 2010 savings using the share of state residential customer accounts.
Commercial Lighting Solutions	Service Territory	2010, 2011	NEEA has service territory data.
Commercial Real Estate	Service Territory	2010, 2011	NEEA has service territory data.
Healthcare	Service Territory	2010, 2011	NEEA has service territory data.
Business IT	Zip Code	2010, 2011	NEEA has zip-code sales for approximately 15% of the desktop shipments. NEEA uses this data and its Non-Residential Mapping System to allocate the savings.
Commercial Codes	State	2011	NEEA allocates the savings based on the share of non-residential load within the states.
Building Operator Certification	State	2010, 2011	NEEA allocates the savings based on the share of non-residential load within the states.
Drive Power	State	2009	NEEA has state data for 2009 and a regional estimate of 2010-2011 savings. NEEA allocates the savings based on the 2009 share of non-residential load within the states.
Drive Power Rewinds	State	2010, 2011	NEEA allocates the savings based on the share of non-residential load within the states.
AM400 Data Logger	Zip Code	2010, 2011	NEEA has zip code place of use data. NEEA allocates the savings based on the utility provider within the zip code.
Magna Drive	State	2010	NEEA allocates the savings based on the share of non-residential load within the states.
Commissioning	Funder Share	2010,2010	NEEA only has regional data. As a result, NEEA uses a funder share allocation.

Updated on the Variance from the July 2011 Sixth Power Plan Savings Report for 2010 Savings

NEEA reported 2010 energy savings to Avista in July 2011. The savings was approximately 2.9 aMW for both Idaho and Washington. NEEA is revising the estimate to approximately 3.51 aMW. The variance is largely from applying a service territory methodology as opposed a funder share allocation. For example, instead of getting 3.95% (funder share for previously funded initiatives) of the regional general purpose lighting savings, Avista received 5.51% using the service territory allocation. NEEA also made some retroactive changes to the 2010 savings.

On the positive side, the savings increased because NEEA was able to verify more savings from some initiatives.

- Ductless Heat Pumps: NEEA was able to track ductless heat pump installations that did not receive an incentive.
- 80 Plus: NEEA receive more comprehensive data to estimate the market size and market penetration.
- Drive Power: NEEA was able to verify a methodology to track savings from motor rewinds—a measure a part of the Drive Power Initiative.

On the negative side, NEEA had to revise some savings estimates down.

- Commercial Buildings: NEEA revised its estimate of validated savings from Building Operations and Commercial Real Estate based on recommendations from third party evaluators.^{8,9}
- Lighting: For 2011, some new data sources and methodologies were applied to estimate total market sales of CFLs. Together, the new data and analysis has resulted in a fairly significant downward adjustment in CFL total market sales for both 2011 and 2010. NEEA is currently conducting a more detailed assessment of the new data sources and analysis methods and will have final results in June 2012. In the mean-time, this report is based on our best estimate of CFL sales for 2010 and 2011.

⁸ Kilowatt Crackdown Billing Analysis Results. Memo from Research Into Action. November 18, 2011.

⁹ The savings NEEA reported in July 2011 for 2010 Commercial Real Estate and Building Operations were estimated based on reports directly from the Initiatives. Due to timing constraints, the savings had not yet been reviewed by third party evaluation contractor. In this report, third party review of the 2010 savings resulted in a downward adjustment from the estimate published in July of 2011. It is NEEA's general policy to only report savings validated by third-party review.

2011 Initiatives-At-A-Glance

Commercial

NEEA accelerates the adoption of energy-efficient products, practices and services within the commercial sector through the following initiatives, helping Northwest businesses reap the bottom line financial benefits from energy management.

Existing Building Renewal: Creating a market-attractive pathway to large scale energy-efficient retrofits of existing buildings.

Commercial Real Estate: Embedding energy-efficient building management practices among property owners.

Commercial Lighting Solutions: Creating tools and market capabilities to support continued advances in efficiency under new lighting standards.

Healthcare: Embedding energy-efficient practices throughout the healthcare industry.

Business Information Technologies: Embedding energy-efficient practices for business IT technologies and management.

Residential

NEEA accelerates the delivery and adoption of energy-efficient products and services through the following residential initiatives.

Efficient Homes: Building market availability and consumer interest in more energy-efficient homes.

Televisions: Increasing the presence and sale of the most energy-efficient televisions in retail channels.

Desktop PCs: Increasing the energy efficiency of PCs by engaging manufacturers and part suppliers.

Heat Pump Water Heaters: Engaging manufacturers to produce HPWHs that meet the Northern Tier Specification with the long-term goal of impacting a federal standard.

Ductless Heat Pumps: Building market capability and consumer awareness of efficient new residential HVAC technology.

Industrial

NEEA is increasing demand for strategic energy management solutions by targeting industry cluster groups to set industry-wide energy intensity reduction goals and increasing the market's capability to meet this increased demand by working with its regional utility partners to provide tools and training.

Small/Medium Industrial: Embedding Strategic Energy Management into small- to medium-sized industrial businesses.

Food Processors: Embedding strategic energy management within the Northwest food processing industry.

Agriculture: Characterizing the market to identify barriers and opportunities for energy-efficient practices.

Codes & Standards

More stringent codes and standards play an important role in helping the Northwest “lock-in” long-term energy savings. Through the following codes and standards initiatives, NEEA helps the region “lock in” these energy savings, which help the Northwest meet its growing energy needs.

Codes: Helping to create new and more stringent building codes and providing technical support and training after adoption.

Standards: Serving as a technical expert during U.S. Department of Energy rulemaking process to encourage the adoption of optimal efficiency federal appliance and equipment standards.

Partner Services

More than ever, the region is looking to increase its information sharing, coordination and collaboration efforts to meet aggressive energy saving goals. NEEA is committed to delivering a variety of services through the following initiatives that support its funders and regional stakeholders' energy efficiency efforts.

ConduitNW.org: Facilitating online information-sharing, coordination and collaboration among energy efficiency professionals in the Northwest.

EFFICIENCY CONNECTIONS NORTHWEST: Providing a forum for Northwest utilities to tap into the collective knowledge and innovation of the energy efficiency community through knowledge-sharing, networking and break-out sessions.

Emerging Technology

NEEA's work in accelerating the innovation and market adoption of energy-efficient products, services and practices requires a continuous supply of new commercially available energy efficiency technologies and practices. NEEA is filling this emerging technology pipeline through the following initiatives.

Heat Pump Water Heaters: Engaging manufacturers to produce HPWHs that meet the Northern Tier Specification with the long-term goal of impacting a federal standard.

High Performance Windows: Developing a new strategic market intervention strategy for the next generation of high performance windows.

Green Pumps: Standardizing emerging techniques for refurbishing large industrial pumps back to their original state and integrating this as a standard business practice in the market.

Solid State Lighting: Testing visual acuity, energy savings and cost-effectiveness of combining LED lighting with network control systems in pilot locations across the Northwest.

Former Initiatives-At-A-Glance

NEEA accelerates the delivery and adoption of energy-efficient products, practices and services. NEEA accomplished this between 1997 and 2009 through the following former NEEA initiatives.

Residential

Refrigerator (current ENERGY STAR over federal standard baseline): NEEA leveraged its relationships with retailers to accelerate the market adoption of ENERGY STAR refrigerators as part of a “white goods” strategy to increase market awareness of ENERGY STAR “white goods” appliances such as refrigerators and dishwashers.

Clothes Washers (above Modified Energy Factor 1.43): NEEA influenced more stringent efficiency standards for clothes washers and accelerated market adoption by partnering with manufacturers, utilities and retailers to increase availability and increase consumer demand through targeted public outreach and marketing campaigns.

Super Good Cents Manufactured Homes: NEEA partnered to create a self-sustaining, market supported Super Good Cents (SGC) Manufactured Homes certification and quality assurance program throughout the region to provide a quality assurance structure within the market and accelerate the market adoption of SGC homes throughout the Northwest.

Windows: NEEA accelerated the market adoption of high-efficiency ENERGY STAR residential windows by working with manufacturers and retailers to increase availability and increase consumer demand through strategic marketing campaigns with manufacturers.

Other Residential Codes (Multi-family) (1997–2009): NEEA influenced the adoption of more stringent codes in multi-family homes by participating in and providing technical data throughout state and federal code adoption processes and providing education and training to the market.

Other Residential Standards (1997–2009): NEEA collaborated to leverage the market power of the Northwest’s 12 million energy consumers to accelerate the market adoption of more stringent residential appliance and equipment standards at the regional and national level.

ENERGY STAR Homes Tier 1 (2005–2009): NEEA helped adapt and advance the Federal ENERGY STAR Homes’ specifications to align the federal specification with the market progression in the Northwest.

Energy Codes Single Family (1997–2009): NEEA influenced the adoption of more stringent codes in single family homes by participating in the state and federal code adoption processes and providing education and training to the market.

Lighting General: NEEA’s ENERGY STAR residential lighting initiative accelerated the market adoption of residential ENERGY STAR lighting products, specifically targeting technologies such as the screw-based

compact fluorescent lamps (CFLs), indoor and outdoor fixtures and portable lamps. NEEA accelerated the adopted of CFLs by working with the region to increase product performance, availability, affordability and increasing consumer awareness.

Lighting Fixtures: NEEA accelerated product availability and market adoption of ENERGY STAR fluorescent residential light fixtures by partnering with its utility partners to facilitate product rebates to lower product cost, increasing retailer education and stocking practices, and increasing consumer demand through regional education and marketing.

Lighting Specialty: NEEA collaborated with the region to develop and implement strategic market interventions that accelerated the market adoption of specialty (non-twister) ENERGY STAR compact fluorescent lamps.

Dishwashers: NEEA accelerated the market adoption of ENERGY STAR dishwashers by partnering with manufacturers, retailers and regional utilities to increase the availability and consumer awareness of these products.

Commercial

Commercial New Construction: NEEA accelerated the market adoption of energy-efficient commercial buildings by increasing the demand within the hospital/healthcare, office real estate and grocery sectors for highly energy-efficient commercial building design and expanding the capability of the market to meet this demand.

Building Operations (Non-target Markets): NEEA accelerated the market adoption of energy-efficient commercial buildings by increasing the supply of service providers with business models, product offerings and skills in high performance building operations maintenance.

Building Operator Certification: NEEA developed this regional certification program to educate building operator professionals on how to manage commercial building controls to reduce energy and operating costs.

80 PLUS (2005–2009): NEEA partnered with the 80 PLUS program to increase the availability of 80 PLUS power supplies by working with both manufacturers—such as Dell and Hewlett-Packard—to incorporate these power supplies into their products and the Environmental Protection Agency to include 80 PLUS power supplies into their specifications for desktop PCs.

Verdiem Network Energy Management: NEEA partnered with Verdiem, Inc. to commercialize this software that enables IT administrators to effectively control power management settings of desktop computers through network controls.

Grocery: NEEA accelerated the adoption of energy-efficient building design and operations within the grocery market by working with regional grocery wholesalers and larger chain operators to increase the

demand for these products and services while building the capacity of the market through education and training to meet this demand.

Energy Management Degree Program: NEEA developed this multifaceted program that offered a certification program for the professional energy management community, provide customized courses, support the training requirement of NEEA's initiatives and stimulate development of a network of training centers around the region.

Commissioning Public Buildings: NEEA helped make commissioning standard practice in public buildings in the Northwest by educating and building awareness of the value of commissioning, supporting the Building Commissioning Association and supporting projects like the commissioning certification.

Other Commercial Standards (1997-2009): NEEA collaborated with its utility partners to leverage the market power of the Northwest's 12 million energy consumers to accelerate the market adoption of more stringent commercial equipment standards at the regional and national level.

Other Commercial Codes (1997-2009): NEEA influenced the adoption of more stringent codes in commercial buildings by participating in and providing technical data throughout state and federal code adoption processes and providing education and training to the market.

Industrial

Pulp and Paper: NEEA sought to engage 10 pulp and paper mills in Continuous Energy Improvement, a framework developed that embeds strategic energy management into business and manufacturing operations.

Drive Power: NEEA partnered with the League of the Pacific Northwest to increase the region's motor fleet efficiency by influencing end-users to incorporate life-cycle analysis in investment decisions and helping motor service centers improve repair and motor management services.

MagnaDrive Innovative Industrial Speed Control: NEEA supported development and commercialization of technology that allows older motors to operate more efficiently through a magnetic industrial adjustable speed drive.

Variable Frequency Drives: NEEA accelerated market adoption of variable frequency drives, which allow evaporator fan motors to run at slower speeds, by funding pilot research and strategic market intervention strategies.

BacGen Waste Water Optimization Service: NEEA and BacGen Technologies, Inc. developed a method for reducing the energy consumption of small- to medium-sized wastewater treatment facilities with a proprietary mix of micronutrients and process control technologies.

Pneu-Logic (SAV-AIR): NEEA partnered with SAV-AIR, LLC on the Pneu-Logic SAV-AIR initiative, which delivered comprehensive compressed air management systems and engineering services to help customers control compressed air systems using sensors, computers and software.

Microelectronics (Asimi, Silicon Crystal Growing Facilities): NEEA targeted the microelectronics industry to accelerate the market adoption of more energy-efficient production furnaces used for manufacturing crystalline silicon for photovoltaic applications.

Compressed Air Challenge Training: NEEA developed and facilitated regional trainings which provided resources to educate industry on the opportunities to increase net profits and energy efficiency through compressed air system optimization.

Distribution Efficiency Initiative (DEI): Building on a BPA study, the region asked NEEA to coordinate a multi-state research effort to look at the savings potential of optimizing substation operations and introduce voltage regulation devices to residential customers.

Agriculture

AM400 Data Logger: NEEA helped accelerate the adoption of AM400, a soil moisture data logger that helps reduce the amount of electricity consumed for pumping water into fields, by conducting training and outreach.