

CFL Contingency Program

Residential Sector

Key Individuals and Responsibilities:

Sandra Hoyer is the designated program coordinator. Additional key support is provided by Kelly Conley (marketing), Debbie Simock (public information), Jon Powell (analysis and EM&V preparation) and Chris Drake (implementation and supervisory support).

Target Market(s):

The CFL contingency program is targeted for the residential and small commercial (Schedule 11) customer base of both Washington and Idaho jurisdictions.

Program Overview:

This program has been designed as a scalable means of delivering highly cost-effective energy-efficiency resources to Avista's customer base while simultaneously offering the flexibility to meet anticipated energy acquisition targets established under Washington I-937 at a low ratepayer cost and minimum uncertainty.

Since Avista utilized the Northwest Power Conservation Council's (NPCC's) 6th Power Plan as the basis for the establishment of the I-937 target, the level of savings assumed within the Plan will be appropriately applied to program throughput. For residential customers receiving CFLs of mixed wattage via any delivery mechanism, the Plan assumes 32 first-year kWhs per CFL. This includes assumptions for removal, breakage or failure, space-conditioning interaction and similar factors that would prevent a percentage of the CFLs from delivering energy savings.

There is no standard assumption within the 6th Plan for CFLs delivered to small commercial customers. The savings from this component of the program would be based upon post-project impact evaluations, and is therefore subject to a certain amount of uncertainty.

Customers are pre-notified and given an opportunity to "opt-out" should they not wish to receive the shipment of CFLs. In spite of this "opt-out" option, should customers receive unwanted CFLs, arrangement have been made for return shipment and have been incorporated into the program plan based upon arrangements with the US Postal Service and by including instructions for return of opened boxes to Avista. In addition, the boxes of bulbs include educational information and tips, along with information regarding CFL recycling. Mailing addresses have been scrutinized to ensure that all boxes will be shipped to addresses within the Company's services and not to a temporary forwarding address in another service territory.

This program has been under active development during the April to June 2011 time period. The program characteristics represented within this report are the best information available as of the beginning of June 2011.

Prior Year Program Results:

Avista has no precedent with a CFL distribution of this type. However, the 2011 DSM Business Plan contained three other CFL delivery mechanisms for the Washington/Idaho service territory; “Dollars for Change” (physical distribution of an estimated 3,500 CFLs in grade schools), “Geographic Saturation” (physical distribution of an estimated 10,000 CFLs through in energy events attended by Avista) and “Simple Steps, Smart Savings” (a regional buy-down program with an estimated distribution of 90,000 CFLs). In total the 2011 DSM Business Plan anticipated the distribution of 103,500 CFLs, or approximately 0.3 CFLs per residential customer during the year. The Simple Steps, Smart Savings program has significantly exceeded expected throughput and is now expected to deliver 425,000 CFLs (approximately 1.2 per residential customer) during 2011.

During 2010 the physical CFL distribution through all programs amounted to approximately 376,000 units to system residential customers (approximately 1.1 CFLs per customer). This falls well short of the number of technically applicable and cost-effective sockets within the typical residential home. It is noted that the NPCC has persistently reduced the annual savings from a CFL over the years in recognition of the increasing saturation and, consequently, the lower runtime per CFL. The estimates within the 6th Plan incorporate those considerations and are being applied both in the development of the I-937 target as well as the measurement of acquisition towards that target.

Budget and Savings:

A preliminary analysis of the program budget was based upon Washington residential distributions only, as represented in the table below. The addition of Idaho residential customers will add approximately 40% to 45% to this cost. Since the time that these estimates have been made, the Company has elected to pursue an eight CFL box scenario. These estimates are based upon the number of boxes shipped (there are no anticipated economies of scale to increasing the number of boxes shipped beyond the 225,000 boxes estimated for the Washington jurisdiction alone).

<u>CFL/box</u>	<u># boxes</u>	<u>Total CFLs</u>	<u>Total cost</u>	<u>\$/CFL</u>
6	225,000	1,350,000	\$ 3,979,052	\$ 2.95
8	225,000	1,800,000	\$ 4,710,302	\$ 2.62
10	225,000	2,250,000	\$ 5,689,052	\$ 2.53

Based upon this budget, the expected incremental cost of increasing the number of CFLs per box from six to eight was \$1.63 per CFL. Assuming annual savings of 32 kWhs per CFL, a measure life of 5 years and a discount rate of 6.80% (the Company’s current average weighted cost of capital), the levelized cost of the additional two CFLs is \$12 per MWh.

Market Segment Overview:

Residential lighting remains one of the most cost-effective and available electric-efficiency resources available through utility intervention. Many of the early regional market transformation efforts that have created this efficiency opportunity at a much lower consumer price point have been progressively shifting to supporting technologies that are experiencing greater barriers to adoption. Regional efforts

beyond NEEA, as well as local efforts to drive increased saturation of CFLs during the final phases of this market transformation, have proven to be successful at increasing consumer acceptance of CFLs.

Distributions by other electric utilities, including those contiguous with Avista’s service territory, have been fairly common. Avista’s current participation in the effort to physically distribute CFLs to our customer base will benefit from the market awareness created by these prior regional distributions.

Cost-Effectiveness:

The cost of both the six and eight CFL kits are represented in the table below, as well as the calculations of the incremental cost of adding the two additional CFLs per box. All costs indicate that this measure is a highly attractive efficiency investment from a total resource cost perspective.

<u>6 CFL kit</u>	<u>8 CFL kit</u>	<u>Incremental Costs</u>	
32	32	32	Annual kWh savings per CFL
5	5	5	Measure life
6.80%	6.80%	6.80%	Discount rate (Avista's WACC)
\$3,979,052	\$4,710,302	\$731,250	Total program budget
225,000	225,000	-	CFL kits distributed
1,350,000	1,800,000	450,000	CFLs distributed
\$965,263	\$1,142,654	\$177,391	Annual levelized program cost
43,200	57,600	14,400	Annual MWh savings
\$25.86	\$22.96	\$14.26	Levelized cost per MWh

Implementation Plan:

The program design has progressed to the selection of a local fulfillment house and distribution through the US Postal Service. Avista’s implementation shares much in common with previous utility-sponsored distributions within the region. Other utilities with prior experience in this program have freely shared their experiences pertaining to this effort.

The Company has developed a letter for inclusion within the CFL kit indicating the energy-efficiency value of the CFLs and advice for proper disposal at the end of the device life. The Company also offers the customer the opportunity to return the CFLs to Avista at no customer cost. Instructions on how to deal with any broken product are also included.

Returned CFLs will be provide a ready source for solicited distributions to customers desiring more CFLs than they received in the initial allotment or for physical distributions through other Avista programs. Since those solicited and physical distributions will be at a higher annual energy savings than have been assumed for the basic program, the energy savings should be enhanced and not diminished by these returns (at an additional cost) if they can be completed prior to the end of the calendar year.

Evaluation, Measurement and Verification:

This measure was incorporated into the NPCC's 6th Power Plan at a defined unit energy savings. It is Avista's intent to apply the same unit energy savings used in the development of the target for incorporation into the 2010-2011 I-937 acquisition claim.

This program will also be part of the portfolio of programs presented to external independent third-party consultants for review. The results of that review will add to the Company's (and the region's) understanding of the resource characteristics of CFL distributions of this type. Although they will not displace the unit energy savings for purposes of Avista's Washington I-937 claim, they will be used in program cost-effectiveness analysis, ongoing management of the portfolio and they will inform future revisions in the Company's Technical Resource Manual.

Distributions of CFLs to non-residential customers where the 6th Plan does not provide defined unit energy savings will be subject to external independent third-party EM&V efforts.

It is anticipated that the Company may pursue surveys of recipients of these CFL kits. This may be part of external third-party impact or process EM&V efforts, or it may be achieved through internal independent EM&V. Early internal questions that may be posed as part of that survey effort include:

- How quickly did you install the lamps you received in the mail?
- Would you be likely to install the rest of the lamps as other lamps within your home burn out?
- Where were these lamps installed? Hours of use in those areas?
- What was your impression of the program?
- What was your satisfaction with the quality of the lamps?
- Were any of the lamps broken when you received your package?
- What was your overall impression of the program?
- Were the conservation and CFL recycling tips helpful? Did you use any of these tips?

Overall cost for M&V effort assuming the more robust survey option, including benchmarking, survey drafting, analysis, and reporting would be approximately \$80,000. More robust survey option would include segmenting participants in DSM program versus non-participants to see how results of installation of lamps differ. Additional segmentation by rural, suburban and urban applications or by jurisdiction may also be incorporated into the evaluation. Avista's latest Conservation Potential Assessment (performed by Global Consulting) indicates that only 25% of sockets suitable for CFLs are currently filled by CFLs. The Residential Building Stock Assessment will update and enhance the regions knowledge of the level of saturation, but that information will not be fully available for some years to come.

Data Collected to Support Future EM&V:

Data collection requirements to support the general EM&V efforts contemplated above are fairly basic. The Company will track the addresses of customers who have opted-out of the distribution, those who were sent kits, those who returned kits and the reasons for return of the kit. This will extend to both residential and non-residential applications.

Based upon this information it should be possible to obtain key information regarding installation rate, location of installation, estimates or measurements of runtime, customer satisfaction, longevity (or, in the near term at least, rates of early failure) and similar factors. Ultimately the EM&V may not incorporate all of these measurements, but the program will establish the basis for the option to perform these evaluations.