

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 a minimum of uncertainty.

Since Avista utilized the 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 an unsolicited box of mixed wattage CFL's the Plan assumes 21 first-year kWh's per CFL shipped. This includes assumptions for reasonable breakage, non-installation and similar factors that would prevent a percentage of the CFL's from delivering energy savings. Solicited residential CFL's delivered through the same means are credited with 24 first-year kWh's per CFL.

There is no standard assumption within the 6th Plan for CFL's 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.

The foundation of the program is the shipment of CFL's to customers who have not indicated that they wish to "opt-out" of the distribution. Arrangements for customers receiving unwanted CFL's to return them have been incorporated into the program plan based upon arrangements with the US Postal Service as well as by including instructions for return of opened boxes to Avista.

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 CFL's in grade schools), "Geographic Saturation" (physical distribution of an estimated 10,000 CFL's through in energy events attended by Avista) and

“Simple Steps, Smart Savings” (a regional buy-down program with an estimated distribution of 90,000 CFL’s). In total the 2011 DSM Business Plan anticipated the distribution of 103,500 CFL’s, or approximately 0.3 CFL’s 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 CFL’s (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 CFL’s 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. The additional of Schedule 11 customer, in both the Washington and Idaho jurisdiction, would add approximately 10% to 12% to the cost within the table below. Since the time that these estimates have been made, the Company has elected to pursue the 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 CFL’s per box from six to eight was \$1.63 per CFL. Assuming annual savings of 21 kWh’s per CFL, a measure life of seven years and a discount rate of 6.80% (the Company’s current average weighted cost of capital) the levelized cost of the additional CFL’s is \$14 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 CFL’s during the final phases of this market transformation have proven to be successful at increasing consumer acceptance of CFL’s.

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 CFL's 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 CFL's 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>Increm. Costs</u> | |
|----|------------------|------------------|----------------------|-------------------------------|
| | 21.00 | 21.00 | 21.00 | Annual kWh savings per CFL |
| | 7 | 7 | 7 | 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 | CFL's distributed |
| | \$733,186 | \$867,927 | \$134,741 | Annual levelized program cost |
| | 28,350 | 37,800 | 9,450 | 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 distributions within the region. Other utilities with prior experience in this program have freely shared their experiences with the effort.

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

Returned CFL's will be provide a ready source for solicited distributions to customers desiring more CFL's than they received in their 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 regions) 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 CFL's 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?
 - Where were these lamps installed? Hours of use in those areas?
 - What was your impression of the program?
 - What was your satisfaction of the quality of the lamps?
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Overall cost for M&V effort assuming the more robust survey option, including benchmarking, survey drafting, analysis, and reporting comes to \$45-55k. More robust survey option would include segmenting participants in DSM program vs 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 CFL's are currently filled by CFL's. 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.