

Bonneville Power Administration
Conservation and Renewables Discount
Quarterly Program Update
February 18, 2004

I. Fiscal Year 2003 Annual Reports

This Conservation and Renewables Discount (C&RD) Program reporting process was a smashing success this year compared to last year's experience. The vast majority of customers filed their electronic report by the October 31 deadline, with a few stragglers that came in shortly after. This allowed BPA to prepare progress reports gauging the program's performance. However, submission of the hardcopy reports and supporting documents has not been as timely. The three things that need to be submitted annually in addition to the electronic report are: (1) a signed hardcopy of the electronic report; (2) a statement certifying that the utility's spending was incremental; and (3) an auditor/CPA report for BPA's fiscal year 2002. Utilities that submitted all of the required documents will receive summary documents soon that show what the C&RD Program Reporting Software has on file as their official record. Utilities that still need to submit additional material will be notified by their BPA Energy Efficiency Representative.

BPA will be post a region wide progress report on the C&RD Program's achievements and activities by March 1, 2004. It will be available on the BPA Energy Efficiency Web Site at http://www.bpa.gov/Energy/N/projects/cr_discount/index.shtml.

II. Regional Technical Forum

The Regional Technical Forum (RTF) meets every one to two months to discuss technical issues related to the C&RD. The RTF makes recommendations to BPA. BPA then must decide whether to approve, modify, or reject the RTF's recommendations. BPA's process for approving such recommendations includes a short public review process. This C&RD update is a part of that public review process and provides utilities and interested parties the opportunity to comment on BPA's proposed actions. If you have comments, suggestions or questions regarding any of the proposed actions listed below, please send them to Mark Johnson at mejohanson@bpa.gov by COB on February 25, 2004.

During the first quarter of FY 2004, the RTF recommended that BPA approve deemed C&RD credits for three new measures. The measures are ENERGY STAR[®] compact fluorescent light (CFL) table and floor lamps, freeze proof stock watering tanks and fountains, and a deemed calculator for retiring and replacing existing manufactured homes with a new Super Good Cents (SGC) manufactured home. Summary discussions of those recommendations follow below.

The RTF also recommended new criteria for the purchase of qualifying Green Tags in the C&RD Program.

Once the comment period has closed (February 25, 2004), BPA will review any comments received. If a comment highlights a major issue that needs additional consideration, BPA will notify customers of the change. Otherwise the RTF recommendations and proposed BPA actions will go into effect on March 1, 2004, unless otherwise noted.

A. ENERGY STAR® CFL Table and Floor Lamps

The RTF received a request to deem a C&RD credit for dedicated CFL table and floor lamps. Lamps that qualify will only accept pin mount CFL replacement bulbs. The table below is the result of analysis by Tom Eckman on the potential energy savings and the resulting C&RD credit for ENERGY STAR® CFL table and floor lamps. The first three rows represent the estimated energy savings and C&RD credit for weight average applications (i.e., table lamp, floor lamp, and table and floor lamps). The last six rows represent the table and floor lamp values specifically, by room type.

C&RD Credit for ENERGY STAR® CFL Table and Floor Lamps							
Technology, Measure or Practice	Delivery Mechanism or Program	Incremental Capital Cost (\$/unit)	Measure Life (years)	Basis of Savings	Annual Savings @ Busbar (kwh/yr)	Levelized Cost (Mills/kWh)	C&RD Credit
ENERGY STAR Average - CFL Table Lamp	Manufacturer, Dealer or Consumer Rebate	\$ 27	15	Deemed	40	50.90	\$ 10.67
ENERGY STAR Average - CFL Floor Lamp	Manufacturer, Dealer or Consumer Rebate	\$ 33	15	Deemed	68	38.63	\$ 18.15
ENERGY STAR Average - CFL Table & Floor Lamps	Manufacturer, Dealer or Consumer Rebate	\$ 30	15	Deemed	54	43.17	\$ 14.41
ENERGY STAR CFL Table Lamp - Living Room	Manufacturer, Dealer or Consumer Rebate	\$ 26	15	Deemed	50	36.05	\$ 13.31
ENERGY STAR CFL Table Lamp - Family Room	Manufacturer, Dealer or Consumer Rebate	\$ 27	15	Deemed	46	45.74	\$ 12.36
ENERGY STAR CFL Table Lamp - Bedroom Room	Manufacturer, Dealer or Consumer Rebate	\$ 28	15	Deemed	22	103.11	\$ 5.86
ENERGY STAR CFL Floor Lamp - Living Room	Manufacturer, Dealer or Consumer Rebate	\$ 33	15	Deemed	87	28.22	\$ 23.30
ENERGY STAR CFL Floor Lamp - Family Room	Manufacturer, Dealer or Consumer Rebate	\$ 33	15	Deemed	63	42.79	\$ 16.78
ENERGY STAR CFL Floor Lamp - Bedroom Room	Manufacturer, Dealer or Consumer Rebate	\$ 33	15	Deemed	38	71.28	\$ 10.25

BPA's proposed decision is to approve a single C&RD credit for all applications of this measure (CFL Table and Floor Lamps) regardless of location or type. The bulbar energy savings for this measure is 54 kWh/year and the C&RD credit is \$14.41. This measure will be available effective March 1, 2004.

B. Freeze Resistant Stock Water Tanks and Fountains

Cattle and other farm animals need access to water year around. This can be a problem in colder climates, especially in winter. Farmers and ranchers, as a result, have devised ways to keep stock watering tanks free of ice in sub-freezing weather by using heat tape or other types of heating devices that use electricity. “Freeze Resistant Stock Water Tanks and Fountains” allows stock access to water without the use of electric resistance heaters of one type or another.

The RTF responded to this request by developing deemed credits by heating zone, provided that specific installation specifications are meet. Deemed credits are listed below. **It is BPA’s intent to approve this measure as recommended by the RTF.** Installation specifications are attached at the end of this document. **This measure will be available retroactively to the start of the fiscal year (October 1, 2003).**

C&RD Credit for Freeze Resistant Stock Water Tanks and Fountains								
Technology, Measure or Practice	Delivery Mechanism or Program	Location	Incremental Capital Cost (\$/unit)	Measure Life (years)	Basis of Savings	Annual Savings @ Busbar (kwh/yr)	Levelized Cost	C&RD Credit
Freeze Resistant Stock Water Tanks/Fountains - Heating Zone 1	Direct install, rebate or other measure cost buy down. Electric resistance stock tank heater must be removed or permanently disabled. Tank and installation must meet RTF specifications for Freeze Resistant Stock Fountains	Heating Climate Zone 1	\$ 370	10	Deemed	969	49	\$186.42
Freeze Resistant Stock Water Tanks/Fountains - Heating Zone 2		Heating Climate Zone 2	\$ 370	10	Deemed	1,184	40	\$227.84
Freeze Resistant Stock Water Tanks/Fountains - Heating Zone 3		Heating Climate Zone 3	\$ 370	10	Deemed	1,614	29	\$310.70

C. Retirement of Existing Manufactured Homes and Replacement with New Super Good Cent Manufactured Homes

The RTF received a request to develop a measure that targets the replacement older manufactured homes with new Super Good Cents Manufacture Homes. The intent was to provide landlords with older units, in mobile home parks, an incentive to replace these older units with new SGC manufactured homes. To facilitate such an activity, the RTF has recommended a deemed calculator, created by Tom Eckman, be provided so that utilities can easily determine what the C&RD credit would be. This will help utilities promote the replacement of older units with new energy efficient units.

This deemed calculator allows the user to calculate the annual energy savings and associated C&RD credit for decommissioning an existing manufactured/mobile home and replacing it with

a new SGC manufactured home. In addition to the credit for space heating savings, this calculator also permits the user to estimate the savings from other energy efficiency measures that may be installed in the new SGC home, such as air-source heat pump upgrades, high efficiency water heaters and ENERGY STAR[®] lighting and appliances. However, it may also be used to determine the "deemed calculated" savings and C&RD Program credit for any individual measure covered by the workbook. Since this is an interactive spreadsheet it will need to be viewed in Excel. An electronic version of the deemed calculator is available for viewing at http://www.bpa.gov/Energy/N/projects/cr_discount/index.shtml.

It is BPA's intent to approve this measure and deemed calculator as recommended by the RTF. **This measure and deemed calculator will be available effective March 1, 2004.**

D. Green Tag Criteria

The RTF recommended the following criteria. **BPA intends to implement this criteria, effective March 1, 2004**, and will incorporate it into the C&RD Implementation Manual during the next revision.

1. Purpose:

To allow renewable tags/certificates/credits/attributes purchased from parties other than BPA or the Bonneville Environmental Foundation (BEF) to be eligible for C&RD. Currently, only attributes purchased from BEF or BPA are eligible for C&RD. The attached proposed rules provide conditions under which other's attributes can be eligible for C&RD. It is expected that these conditions will also apply to BPA and BEF attributes.

2. Conditions for attributes generated by on-grid projects:

- a.** The same megawatt-hours cannot be claimed twice under C&RD. Therefore, generation claimed under C&RD and resold as tags [attributes] or green energy are not eligible for additional C&RD benefits.
- b.** Only attributes, which are retired within the purchasing utilities service area and are not resold in a premium green pricing program should be eligible for C&RD credit. If a utility claims attributes under C&RD and re-sells them in a green choice program within their service territory they would be collecting twice for the same attribute. Therefore, only attributes which are recovered through rates should be eligible.
- c.** The generating resource is interconnected to a utility distribution system or directly to the transmission grid within the Pacific Northwest as defined by the PNW Electric Power Planning and Conservation Act (i.e., connected to a 60 hertz signal).
- d.** The output of the generating resource is metered by a utility-grade meter at the point of interconnection.

- e. The C&RD claim is accompanied by a generator attestation(s) and, if applicable, wholesaler attestation(s) and an independent audit.
- f. The generating resource output is used to reduce BPA load and is part of the customer's 5b/9c resources exhibit. This is consistent with the C&RD Manual, but goes a step further to anticipate future developments not called out in the manual [Manual excerpt: "Generating source of tags must be within PNW as defined by the PNW Power Act or part of the Wyoming wind project, or part of the Glass Mt. Resource Area or shown to have displaced operation of a regional non-renewable resource."].
- g. On-line date is Consistent with the C&RD Manual; (5/1/99).
- h. Green tags or attributes can only be claimed in the year which they were generated.
- i. C&RD credit amount: Payment scale is the lesser of the amount listed in Table 1 (Section 5, Table 1) or the cost of the attributes. Utilities cannot make a profit off of C&RD credits.

3. **Reinvestment Requirement:**

The reinvestment requirement for third party green tags purchase will be dropped. The RTF recommended dropping the reinvestment criteria due to the difficulty in defining and enforcing "reinvestment" and/or "profit" criteria. Retaining the current policy would require verification of "profit", setting reinvestment percentages and verifying reinvestment, which is difficult to do.

4. **Green Tags or Attributes from off-grid generation:**

Green Tags or attributes resulting from off-grid generation projects are not eligible for a C&RD Credit.

E. **Other RTF Recommendations**

1. The RTF recommended and **BPA approved** a request from PNGC Power and Umatilla Electric Cooperative on the use of C&RD credits to fund a research project to purchase and deploy ultrasonic flow metering devices to meter the water use on large irrigation projects.
2. The RTF recommended and **BPA concurred not to approve** a request to allow **re-circulating domestic hot water systems** in single family homes as eligible measure for C&R credits.
3. The RTF reviewed a request from Idaho Power Company to determine whether Ecos Consulting, Inc. could be considered equivalent to Climate Crafters for purposes of providing PTCS independent third party training, certification and quality assurance. The RTF recommended and **BPA concurs** that Ecos Consulting Inc. be accepted as providing

equivalent services for the limited purpose of potentially providing Idaho Power Company with such services, should it be the successful bidder.

4. In addition to the above actions, the RTF also developed additional deemed savings estimates for new commercial lighting measures. **These measures have been approved by BPA** and have been incorporated into the commercial lighting deemed calculators.

III. Refrigerators and Domestic Hot Water Heaters

A. Refrigerators

On January 1, 2004, the ENERGY STAR criteria for refrigerators changed. In order to qualify for ENERGY STAR, refrigerator requirements changed from at least 10% above the minimum federal standard to at least 15% above the minimum federal standard.

These changes cause an increase in the deemed savings values and, therefore, an increase in the credit values in the C&RD. Understandably, utilities receive requests for qualifying models of refrigerators so they can place orders for stock that qualifies for the C&RD. The C&RD will not require strict adherence to the newest ENERGY STAR criteria for refrigerator measures until October 1, 2004.

If the refrigerator currently qualifies for the ENERGY STAR[®] label, or qualified per the pre-January 1, 2004 ENERGY STAR requirements, it qualifies for the C&RD. This will allow existing units to clear out of the distribution network. Starting October 1, 2004, BPA has decided that only the products qualifying for ENERGY STAR under the new ENERGY STAR (2004) requirement will qualify for the C&RD credit.

For more information on ENERGY STAR requirements, or for a new list of ENERGY STAR qualified refrigerators, please see www.energystar.gov.

B. Water Heaters

On January 20, 2004, the Federal Government changed its minimum energy efficiency standards for **electric water heaters**. The required minimum energy factor (EF) changed from

$$EF = 0.93 - (0.00132 \times \text{rated storage volume in gallons})$$

to

$$EF = 0.97 - (0.00132 \times \text{rated storage volume in gallons}).$$

These changes cause a reduction in the deemed savings values used to determine credit values in the C&RD. **BPA has decided** that the C&RD will not adopt the subsequently lower C&RD credit for water heater measures until fiscal year 2005, October 1, 2004. This will allow existing units to clear out of the distribution network and allow utilities time to lower the incentives that they offer to customers. Table 1, attached at the end of this document shows current and future savings values and credits for water heaters

Understandably, utilities receive requests for qualifying models of electric water heaters so they can place orders for stock that qualifies for the C&RD. The Gas Appliance Manufacturers Association (GAMA) lists energy efficiency ratings for electric water heaters; however, the current publication (December) does not list the new model numbers and the corresponding energy efficiency rating. Until the new GAMA is published, utilities and dealers should rely on the manufacturer's promotional material that lists the energy efficiency rating.

IV. New BPA Renewables Product

BPA is offering an alternative to our existing Environmentally Preferred Product (EPP). EPP is power from wind and endorsed hydropower resources. EPP typically includes an endorsement fee payable to the Bonneville Environmental Foundation (BEF). The new product, known as "Alternative Renewable Energy" (ARE) is also power from wind and hydropower facilities. However, no endorsement or endorsement fee is included. The full incremental cost of ARE's environmental benefits qualifies for C&RD credit and does not require a payment to BEF.



Specifications for Freeze Resistant Stock Tanks and Fountains¹ **October 1, 2003**

Scope: These specifications set forth the minimum technical requirements for selection and installation of freeze resistant stock tanks and fountains.

Product and installation specifications:

- 1.0 Tanks/Fountains shall be enclosed, fully foam-insulated and completely sealed in impact-resistance polyurethane
- 2.0 Tanks/Fountains shall have elliptical or flap closures that tip easily so animals can drink without resistance
- 3.0 Tanks/Fountains shall be sized in accordance with manufacturers' specifications for the type and number of animals for which they will be used
- 4.0 Tanks/Fountains closures shall be insulated by foam insulation or dead air space that seal the opening completely
- 5.0 Tanks/Fountains water supply shall be hard-piped underground and stubbed up into the insulated portion of the fountain
- 6.0 Tanks/Fountains shall not contain any type of electric heat
- 7.0 Minimum five-year manufacturer defect warranty required

¹ These specifications were adapted from Oregon Trail Electric Consumers Cooperative, Inc.

Table 1
Domestic Water Heaters
Comparison of Fiscal Year 2003 vs. Proposed 2006 C&RD Credits

Measure Description	Ref No	2003 Savings	2004 2005 2006 Savings	2003 2004 Credit	2005 2006 Credit
EF- 0.91 Domestic Water Heater w/105 gallon rated capacity and minimum 20 year warranty	RWH00031	431	288	\$ 180.26	\$ 120.17
EF- 0.92 Domestic Water Heater w/85 gallon rated capacity and minimum 20 year warranty	RWH00080	347	208	\$ 144.88	\$ 86.93
EF- 0.92 Domestic Water Heater w/80 gallon rated capacity and minimum 20 year warranty	RWH00022	342	205	\$ 143.10	\$ 85.86
EF- 0.94 Domestic Water Heater w/65 gallon rated capacity and minimum 20 year warranty	RWH00026	327	196	\$ 136.68	\$ 82.01
EF- 0.92 Domestic Water Heater w/75 gallon rated capacity and minimum 20 year warranty	RWH00084	304	169	\$ 127.22	\$ 70.68
EF- 0.94 Domestic Water Heater w/50 gallon rated capacity and minimum 20 year warranty	RWH00032	256	128	\$ 106.78	\$ 53.39
EF- 0.85 Domestic Water Heater w/119 gallon rated capacity and minimum 10 year warranty	RWH00020	316	158	\$ 91.58	\$ 45.79
EF- 0.91 Domestic Water Heater w/80 gallon rated capacity and minimum 10 year warranty	RWH00021	312	173	\$ 90.31	\$ 50.17
EF- 0.94 Domestic Water Heater w/40 gallon rated capacity and minimum 20 year warranty	RWH00033	187	62	\$ 78.24	\$ 26.08
EF- 0.85 Domestic Water Heater w/119 gallon rated capacity	RWH00189	316	158	\$ 70.47	\$ 35.23
EF- 0.91 Domestic Water Heater w/80 gallon rated capacity	RWH00188	312	173	\$ 69.49	\$ 38.61
EF- 0.91 Domestic Water Heater w/65 gallon rated capacity and minimum 10 year warranty	RWH00027	237	101	\$ 68.55	\$ 29.38
EF- 0.93 Domestic Water Heater w/50 gallon rated capacity and minimum 10 year warranty	RWH00019	226	97	\$ 65.50	\$ 28.07
EF- 0.94 Domestic Water Heater w/30 gallon rated capacity and minimum 20 year warranty	RWH00025	154	31	\$ 64.46	\$ 12.89
EF- 0.91 Domestic Water Heater w/65 gallon rated capacity	RWH00003	237	101	\$ 52.75	\$ 22.61
EF- 0.93 Domestic Water Heater w/50 gallon rated capacity	RWH00004	226	97	\$ 50.40	\$ 21.60
EF- 0.93 Domestic Water Heater w/40 gallon rated capacity and minimum 10 year warranty	RWH00024	158	32	\$ 45.71	\$ 9.14
EF- 0.94 Domestic Water Heater w/30 gallon rated capacity and minimum 10 year warranty	RWH00268	N/A	31	\$ 44.71	\$ 8.94
EF- 0.93 Domestic Water Heater w/40 gallon rated capacity	RWH00190	158	32	\$ 35.17	\$ 7.03
EF- 0.94 Domestic Water Heater w/30 gallon rated capacity	RWH00187	125	31	\$ 34.40	\$ 6.88