



4/20 Meeting Materials

The following provides information on the status of a number of key issues related to a BPA Post-2011 Energy Efficiency program, as identified through the collaborative work process to-date, that will be addressed at the 4/20 collaborative meeting. Information on these key issues is provided in the form of updates, examples, reference information, and follow-up questions.

Conceptual Rate Design Idea

BPA rates staff have developed a draft post-2011 conservation rate design concept. See attached materials.

Conservation Potential Assessment Requirements

Details are starting to be outlined. The Council's Methodology for Determining Achievable Conservation Potential will be the guide for development of this piece. See Attachment A for an example.

Implementation Plan Requirements

Details will be discussed in Phase II of the public process. However, part of the implementation plan should include ramp rates for how programs will be implemented over time and provide a self-evaluation component to ensure that specific sub-targets are being met by specific timelines. In addition, implementation plans should include specific corrective actions if expected sub-targets are not being met. Examples may include requiring increased incentive levels, new programs or other proactive steps.

Setting an Energy Efficiency acquisition Target

Sample concepts related to utility target setting are as follows:

After the conservation potential is analyzed and an implementation plan has been put together an individual utility target of how many cost-effective aMW will be achieved in a two-year period by the utility must be set (accounting for ramp rates, etc.). This target will be set by taking the result of the CPA or the utility's share of the regional target from the Council's most current calculator (<http://www.nwcouncil.org/energy/UtilityTarget.htm>)¹. If the CPA shows potential less than the utility share from the Council's target calculator, then the utility must provide an assessment of the difference.

¹ Note: This requirement varies from the requirement in I-937 which allows for the use of the 5th Power Plan for the first two years of the contract period.

BPA will work with the utility to finalize the individual target, but BPA will have the final determination to set the final number. This will be set as one of the contract terms that the utility commits to in order to ensure enforceability. The target will be set every two years and will be for biennial accomplishments. However, the target can reflect ramp rates to account for increasing program capacity overtime and increasing program penetration.

To reiterate, only measure savings that are cost-effective from a Total Resource Cost (TRC) test on a regional or utility specific analysis will be counted toward the target. The cost-effectiveness would be evaluated, using the Council's methodology.

Utilities that are achieving savings outside of BPA programs would have the ability to pool targets, subject to limitations in the Power Sales Contract, but would still be required to report saving to BPA on an individual basis. The requirements for setting and achieving targets would be set to coordinate as closely as possible with state planning and reporting requirements to minimize duplication of effort by utilities.

Availability of Funding

The final requirement for a utility to self fund is to demonstrate an availability of funding for program implementation and incentives. The funding levels for implementation and incentives must correlate with the CPA, Implementation Plan and target for the utility. The availability of funding must be approved by the Board of Directors of the utility and submitted to BPA for review and approval.

Funding Mechanism Discussion

Further discussion is needed on the funding mechanism(s) that would accompany Post-2011 BPA Program choices. The key question that needs to be addressed is: Should there be a Conservation Rate Credit under the proposed Full BPA Program pool or should there be some other funding mechanism such as bi-lateral contracts to fund incentives?

Notification & Comment periods

The table below contains proposed notice dates by which a utility would need to provide notice to BPA of whether it elects to be a self-funded utility for energy efficiency program or be part of the BPA program pool. Proposed commitment periods are also shown.

Notice Year	Commitment Period
June 1, 2010	FY2012 – FY 2015
June 1, 2014	FY2016 – FY2021
June 1, 2020	FY2022 – FY2028

The length of the commitment periods increase over the term of the contract to allow for adjustment to the new paradigm of utilities having a choice to run their own programs with limited assistance from BPA as well as to help mitigate the risk of not meeting the regional target over time. If the choice is not working effectively for a utility, the shorter commitment period at the beginning will allow for a quicker transition back to BPA's program offerings and the advantages of being part of a pool of utilities.

Conservation Potential Assessment

Attachment A - The Northwest Power and Conservation Council's Methodology for Determining Achievable Conservation Potential - Outline of Major Elements^{2,3}

Below is an outline of the methodology for development of the Council's 6th Power Plan. If the methodology is updated or modified those changes will be integrated into the BPA planning process and will be required of all subsequent utility Potential Assessments.

1) Resource Definitions. Estimates of potential must be based on the following definitions and reported in the following categories, by market sector and end-use.

- i) Technical Potential
- ii) Economic Potential
- iii) Achievable Potential
 - (1) Non-lost opportunity resources ("schedulable")
 - (2) Lost opportunity resources

2) Technical Resource Potential Assessment

a) Review wide array of energy efficiency technologies and practices across all sectors and major end uses. Any deviances (inclusion or exclusion) in measures from the Council's most-recent Power Plan must be documented.

b) Methodology

- i) Technically feasibility savings = Number of applicable units * incremental savings/applicable unit
- ii) "Applicable" units accounts for (general assumptions for utility must be documented):
 - (a) Fuel saturations (e.g. electric vs. gas DHW)
 - (b) Building characteristics (single family vs. mobile homes, basement/non-basement, etc.)
 - (c) System saturations, (e.g., heat pump vs. zonal, central AC vs. window AC)
 - (d) Current measure saturations
 - (e) New and existing units
 - (f) Measure life (stock turnover cycle)
 - (g) Measure substitutions (e.g., duct sealing of homes with forced-air resistance furnaces vs. conversion of homes to heat pumps with sealed ducts)
 - (h) Load forecasts by sector, segment (e.g., single-family, office, retail, NAICS code)
 - (i) Growth rates and demolition rates by sector, segment
- iii) "Incremental" savings/applicable unit accounts for any deviances by measure from Council must be documented.
 - (a) Expected kW and kWh savings shaped by time-of-day, day of week and month of year
 - (b) Savings over baseline efficiency.
 - (i) Baseline set by codes/standards or current practices
 - (ii) Not always equivalent to savings over "current use" (e.g., new refrigerator savings are measured as "increment above current federal standards, not the refrigerator being replaced)

² This outline for the Council's methodology can be found at http://www.bpa.gov/energy/N/pdf/CouncilMethodology_outline.pdf

³ Differences from the Council's methodology are noted in underlines (additional clarification) or strikethrough (not required).

(iii) Previous program activities

- (c) Climate - heating, cooling degree days and solar availability
- (d) Measure interactions (e.g. lighting and HVAC, duct sealing and heat pump performance, heat pump conversion and weatherization savings)

3) Economic Potential - Ranking Based on Resource Valuation

a) Total Resource Cost (TRC) is the criterion for economic screening - TRC includes all cost and benefits of measure, regardless of who pays for or receives them.

i) TRC B/C Ratio ≥ 1.0

ii) Levelized cost of conserved energy (CCE) $<$ levelized avoided cost for the load shape of the savings may substitute for TRC if "CCE" is adjusted to account for "non-kWh" benefits, including deferred T&D, non-energy benefits, environmental benefits and Act's 10% conservation credit

b) Methodology

i) Energy and capacity value (i.e., benefit) of savings based on avoided cost of future wholesale market purchases (forward price curves) General assumptions for utility must be documented

ii) Energy and capacity value accounts for shape of savings (i.e., uses time and seasonally differentiated avoided costs and measure savings) General assumptions for utility must be documented

~~iii) Uncertainties in future market prices are accounted for by performing valuation under wide range of future market price scenario during Integrated Resource Planning process (See 4.1)~~

c) Costs Inputs (Resource Cost Elements) Any deviances by measure from Council must be documented.

i) Full incremental measure costs (material and labor)

ii) Applicable on-going O&M expenses (plus or minus)

iii) Applicable periodic O&M expenses (plus or minus)

iv) Utility administrative costs (program planning, marketing, delivery, on-going administration, evaluation)

d) Benefit Inputs (Resource Value Elements) Any deviances by measure from Council must be documented.

i) Direct energy savings.

ii) Direct capacity savings.

iii) Avoided T&D losses. General assumption for utility must be documented.

iv) Deferral value of transmission and distribution system expansion (if applicable)

v) Non-energy benefits (e.g. water savings)

vi) Environmental externalities

e) Discounted Present Value Inputs.

i) Rate = After-tax average cost of capital weighted for project participants (real or nominal) General assumptions for utility must be documented.

ii) Term = Project life, generally equivalent to life of resources added during planning period. Any deviances by measure from Council must be documented.

iii) Money is discounted, not energy savings

4) Achievable Potential

a) Annual acquisition targets established through Integrated Resource Acquisition Planning (IRP) process (i.e., portfolio modeling)

b) Conservation competes against all other resource options in portfolio analysis

i) Conservation resource supply curves separated into

(1) Discretionary (non-lost opportunity)

(2) Lost-opportunity

(3) Annual achievable potential constrained by historic “ramp rates” for discretionary and lost-opportunity resources. Ramp rates should be consistent with the Council. Any deviances by measure from Council must be documented.

~~(a) Maximum ramp up/ramp down rate for discretionary is 3x prior year for discretionary, with upper limit of 85% over 20 year planning period~~

~~(b) Ramp rate for lost opportunity is 15% in first year, growing to 85% in twelfth year~~

~~(c) Achievable potentials may vary by type of measure, customer sector, and program design (e.g., measures subject to federal standards can have 100% “achievable” potential)~~

c) Revise Technical, Economic and Achievable Potential based on changes in market conditions (e.g., revised codes or standards), program accomplishments, evaluations and experience

i) All programs should incorporate Measurement and Verification (M&V) plans and utilize the M&V protocols identified through the BPA/RTF process that at a minimum track administrative and measure costs and savings.

ii) Use International Performance Measurement and Verification Protocols (IPMVP) as a guide