

Action Plan Ideas

CRAC Meeting
June 24, 2015



What is the Action Plan?

- **Purpose of the Action Plan**
 - Identify key steps and actions needed to carry out the Seventh Power Plan
 - Identifies the Conservation Targets
 - Includes both new and continuing actions
- **How is it used?**
 - Place to focus on near-term deliverables to ensure continual achievement of conservation
 - Inform periodic assessment of progress
- **Relationship to the Model Conservation Standard**
 - Action Plan is more comprehensive than MCS
 - MCS is a requirement of Act, with potential surcharge
 - Action Plan may include actions to help carry out the MCS

Current List of Ideas

Regional

- Regional coordination on research
- Emerging tech
- Emerging industries best-practice
- Stock assessments
- End-use load shapes
- Access to whole building data
- Water-saving measures
- Explicit baseline reporting
- Recognizing health and other non-energy benefits
- Code compliance
- Tracking savings from codes & standards

Council-Focused

- End-use based conservation model
- Industrial sales data

BPA-Focused

- Quantify value of conservation in budget-setting
- Tracking and reporting savings
- Review EEI program effectiveness

MCS-Related

- Hard-to-reach customer engagement
- Synergy between codes & standards and programs
- Distribution efficiency

Caveat

- There will also be action items around:
 - Conservation target and
 - Specific implementation findings from RPM analysis
- These will come later (~August)

REGIONAL ITEMS

Regional Coordination on Research

Item	Provide forum to share research activities and identify gaps
Implementer(s)	<u>Council</u> , RTF, NEEA, Utilities, Energy Trust, BPA
Specific	Many different research areas around conservation are ongoing in the region, but there is a lack of coordination to improve usefulness. Region needs to define research areas, identify key players and a coordinating body, and identify gaps and how to fill.
Measureable	Develop roadmap to accomplish above.
Actionable	Roadmap similar to BPA's Northwest Energy Efficiency Technology Roadmap Portfolio (Terry Oliver's group)
Realistic	Follows process already used by BPA and other groups
Time-bound	Roadmap by mid-action plan

Emerging Tech

Item	Provide adequate focus on emerging technologies to help ensure commercialization
Implementer(s)	BPA, NEEA, Utilities, National Labs, Energy Trust, Council
Specific	Move technologies across market adoption curve from R&D into commercialized. This includes tracking adoption of new measures in 7P supply curves, identifying actions to advance promising technologies, increase adoption of existing technologies with low market shares, continue to scan for new technologies & practices.
Measureable	Track adoption of four categories of ETs over action plan period (similar to 6 going on 7 work + research on # vendors, etc).
Actionable	Use Regional Emerging Technology Advisory Committee (RETAC) to provide forum to develop work plan to explore solutions to move technologies.
Realistic	Region has proven success of moving emerging technologies into marketplace.
Time-bound	Track progress over action plan period.

Emerging Industries

Item	Develop guidelines for best-practice operations in emerging industries
Implementer(s)	NEEA, BPA, Utilities, Trade Allies, States
Specific	Emerging industries such as indoor agriculture and large data centers are rapidly increasing throughout the region. Many of these facilities have significant load that could be reduced with guidance on best-practice approaches.
Measureable	Best-practice guides to running these facilities.
Actionable	Coordination between industry leaders and efficiency experts to understand how and where process improvements can be made to decrease load requirements.
Realistic	Best practice guides exist at national level for many industrial processes.
Time-bound	Guides available by mid-plan.

Update Stock Assessments

Item	Conduct regional sector-specific stock assessments
Implementer(s)	NEEA
Specific	The stock assessments are a valuable resource for individual utilities and the region and should be updated regularly. Adding an agricultural stock assessment would improve understanding of opportunities in that sector.
Measureable	Sector-specific reports.
Actionable	Stock assessments for each sector should be completed each action plan period.
Realistic	NEEA has in its budget to complete commercial and residential assessments by 2019. Industrial is planned for 2020-2024 period. Would need funding for agriculture.
Time-bound	Data available before development of 8 th Plan supply curves.

End-Use Load Shapes

Item	Develop robust set of end-use load shapes and plan to update over time
Implementers	<u>Council</u> , BPA, NEEA, Utilities, Energy Trust
Specific	Capacity value of energy-efficiency measures is significant. The current set of end-use load shapes are largely out-of-date (i.e. ELCAP is 30 years old). Need to update these load shapes using metered data. Leverage AMI and/or integrated controls as available.
Measureable	A data set of 8760 load shapes for a wide variety of end-uses and building segments, similar to RBSA-metering data and ELCAP.
Actionable	A business case for this study was completed for the RTF in 2012. Reviewing and updating this study to consider technological improvements, focus actions, and develop work plan.
Realistic	The region has performed this in the past. Improvements in technology and opportunities for out-of-region coordination should reduce costs compared to 2012 business case.
Time-bound	Update of business case and specific actions identified by mid-term. Significant progress in commercial building load shape development prior to 8 th Plan.

Whole-Building Data

Item	Use whole-building consumption data to improve energy and demand savings acquisitions and estimates
Implementer(s)	BPA, Utilities, Energy Trust, Trade Allies, Evaluators, <u>Regulators</u>
Specific	Utilities should exploit the greater availability of interval data and analytic tools to improve estimates of both energy and demand savings and encourage facilities to undertake holistic improvements. Utilities & regulators should facilitate the sharing of whole building data (including billing data), recognizing security concerns.
Measureable	Availability of data and evaluation of program savings.
Actionable	Utility program portfolios incorporate programs that rely on holistic approach to savings.
Realistic	More and more implementation firms (e.g. Retroficiency, FirstFuel, EnerNOC) approach acquiring savings at the whole building level, using sophisticated data analytics.
Time-bound	Results of different approaches and report on data availability barriers by mid-term assessment.

Water-Saving Measures

Item	Prioritize adoption of energy-efficiency measures that also save water
Implementer(s)	<u>Council/RTE</u> , BPA, Utilities, Energy Trust, NEEA
Specific	Several measures identified in the Seventh Plan (showerheads, water supply facilities improvements, irrigation improvements) save water in addition to energy.
Measureable	Track and report water savings in addition to energy savings.
Actionable	Research to better understand savings opportunities for water-processing industries (water supply and wastewater) and evaluation of these measures. Raise awareness of other water-saving measures.
Realistic	Last comprehensive study of water/wastewater completed >10 years ago should be updated.
Time-bound	Update analysis of water/wastewater baseline by mid-term.

Explicit Baseline Reporting

Item	Reporting should include explicit information on what baseline is assumed
Implementer(s)	BPA, Utilities, Energy Trust, NEEA, <u>RTF</u>
Specific	To accurately determine whether savings are being captured against the 7P target, the Council needs to understand what baseline was used, and BPA/Utilities/NEEA needs to make adjustments to align with the 7P baseline.
Measureable	Provide accounting of baseline adjustments.
Actionable	Include baseline information in tracking system.
Realistic	BPA currently endeavors to make these adjustments through its momentum savings analysis.
Time-bound	Provide progress report by mid-term assessment with the goal of it working by end of action plan period.

Health & Other Non-Energy Benefits

Item	Recognize that secondary health and other non-energy benefits could improve benefit-to-cost ratios of energy-efficiency measures
Implementer(s)	<u>RTF</u> , States
Specific	Although difficult to quantify, secondary health benefits due to efficiency improvements (such as reduction in wood smoke emissions) may be significant and thus justify investment, regardless of whether the measures are cost-effective on energy benefits and costs alone. There may be other such non-energy benefits.
Measureable	Recognize secondary health benefits from reduction of wood smoke and other non-energy benefits with energy-efficiency improvements.
Actionable	RTF should include model language on residential space heating measures that significant secondary benefits exist. States should consider such benefits when setting cost-effectiveness limits.
Realistic	RTF has done preliminary analysis of magnitude of secondary health benefit.
Time-bound	As new space-heating measures are approved by RTF, incorporate language.

Code Compliance

Item	Monitor and track to ensure code compliance in new buildings
Implementer(s)	NEEA
Specific	Ensure new buildings are built at or above code-required levels across four states and two sectors.
Measureable	Conduct surveys and/or site visits of builders/buildings.
Actionable	Report by state/sector over action plan period.
Realistic	NEEA has completed code compliance studies in past. NEEA's workplan and budget ought to include sufficient resources for continuing studies.
Time-bound	Review all states/sectors by 2020; coordinate timing to inform future code updates.

Tracking Codes & Standards

Item	Need to understand impact of codes and standards on the load forecast and conservation targets
Implementer(s)	<u>NEEA</u> , Utilities, Energy Trust, BPA
Specific	NEEA should track the savings impact of enacted codes and standards, collecting the necessary data. These impacts are then included in load forecasts and may be claimed against savings targets.
Measureable	Impact of standards are dependent on saturation of appliances, number of units installed, and unit savings.
Actionable	Annual report on the savings impact of standards and updated models to link savings and load forecast estimates.
Realistic	Under its Momentum savings activities, Bonneville has been able to quantify the impacts of federal standards adopted since the development of the Sixth Power Plan.
Time-bound	Annually.

COUNCIL ITEMS

End-Use Conservation Model

Item	Explore development of an end-use based model for conservation resources
Implementers	Council
Specific	Best practice for conservation potential assessments is to use an end-use based model to closely tie savings to load forecasts.
Measureable	Scope out development of a working model.
Actionable	Council will initially submit RFP to understand scope of developing such a model. Depending on findings/budget, may contract out model development.
Realistic	Council has undertaken other modeling updates in the past (e.g. RPM update for 7P).
Time-bound	Report on scope by 2017.

Industrial Sales

Item	Improve disaggregation of regional industrial sector sales data
Implementer(s)	Council, Utilities
Specific	Work with BPA/NEEA/utilities to improve industrial sector sales data by disaggregating those data by NAICS codes to improve forecasting and estimating potential.
Measureable	Develop a system to collect and categorize data accounting for at least 80% of industrial loads.
Actionable	Council will reach out to utilities to gather information on utility loads in the industrial sector. Confidentiality concerns will be addressed and solved.
Realistic	Utilities often have good data on industrial customers.
Time-bound	Before development of load forecast for 8 th Plan.

BPA ITEMS

Quantify Value of Conservation

Item	Quantify value of conservation in financial analysis and rate case forums
Implementer(s)	BPA
Specific	The value of conservation is often missing from discussions setting budgets for conservation. By quantifying this value, there would likely be greater buy-in for the expenditures.
Measureable	Calculation to estimate value of conservation, based on historical accomplishments and provide estimate as part of rate analysis.
Actionable	BPA will need to review budgets in context with historical achievements to estimate amount saved from conservation programs.
Realistic	From tracking systems, BPA should have robust data to make this estimate.
Time-bound	Before BPA's next IPR.

Track & Report Savings

Item	Robust tracking and reporting system
Implementer(s)	BPA
Specific	Since the PTR system was shut-down, BPA has been without a robust tracking and reporting system. In addition to programmatic savings, this system should also include tracked momentum savings and allow for external review.
Measureable	An operable system permitting user interface for utilities.
Actionable	Development of a work plan with clearly delineated system requirements.
Realistic	BPA has been in-process to implement a system for several years.
Time-bound	An operable system by FY2018.

EEl Program Effectiveness

Item	BPA should annually evaluate overall effectiveness of its EEl program and report to Council.
Implementer(s)	BPA
Specific	The EEl program includes cost share, dependency on programmatic and momentum savings. Understanding how effective this program is could improve savings acquisition, reduce costs, and improve adaptive management of programs in achieving targets.
Measureable	Annual presentation to Council on effectiveness of program design based on progress toward targets.
Actionable	Periodic independent review of overall efficiency program process and effectiveness. Initial review should explore option of making EE more fungible or tradable between customer utilities.
Realistic	Independent process evaluations are best practice to improve program design.
Time-bound	Within 12-months of annual RCP.

MCS RELATED

Hard-to-Reach

Item	Ensure hard-to-reach customers achieve savings
Implementer(s)	BPA, utilities, Energy Trust, States
Specific	Hard-to-reach customers that traditionally have low program participation can include low/mid-income customers, small businesses, commercial tenants, multifamily, manufactured homes, large industrial customers, rural regions. Need to target these customers to achieve savings targets.
Measureable	Portion of savings from HTR categories should be proportional to portion of HTR in population.
Actionable	Estimate portion of customers that would be classified as HTR across sector, ensure data collection from programs includes demographic /firmographic data to classify.
Realistic	Other jurisdictions and Energy Trust have successfully targeted HTR customers.
Time-bound	First report on proportion of participation in 2018, and then annually.

Codes/Standards + Programs

Item	Optimize the synergy between codes/standards and programs
Implementer(s)	State Regulators
Specific	Without robust efficiency programs, many efficiency codes/standards could not achieve current high levels. However, to continue to improve, programs need flexibility in pursuing measures that may not currently be cost-effective, but demonstrate likely cost reductions.
Measureable	Regulators provide allowance for programs to offer measures and practices that may eventually be adopted in codes & standards.
Actionable	Maintain regulatory flexibility on measure cost-effectiveness.
Realistic	Current regulations allow for this.
Time-bound	Throughout action plan period.

Distribution Efficiency

Item	Develop program to capture distribution efficiency savings.
Implementer(s)	RTF, BPA, Utilities, Energy Trust
Specific	Significant savings can be garnered through conservation voltage regulation (CVR) or Volt/VAR optimization (VVO). BPA should develop program to assist the public utilities in determining the potential for cost-effective savings. IOUs/Energy Trust should do similar analysis.
Measureable	Program will quantify savings that can be tracked.
Actionable	CVR/VVO was found to have significant cost-effective potential in draft 7P, though there are roadblocks for utilities to achieve.
Realistic	BPA considered and nearly implemented a similar program early in Sixth Plan Action Plan period.
Time-bound	Report on progress by mid-term assessment.

Other Ideas

- Rejuvenate upper management dialogue forum
- Continue to support region-wide programs and infrastructure
- Continue research and identification of market trends
- Convene demand response implementation forum
- Tracking AMI & optimizing deployment
- BPA should budget for high-level target, plan for mid-level
- Investigate methods for improved emerging technology forecasting
- Strategize a path to Zero-Energy Buildings

Next Steps

- Staff will format these into items for Action Plan chapter.
- Need comments by July 8 to incorporate into Draft Plan.