Northwest Power and Conservation Council

April 25, 2012

MEMORANDUM

TO: Power Committee

FROM: Charlie Grist

SUBJECT: Review of Sixth Plan Action Plan Implementation Status

One part of the mid-term assessment of the Sixth Power Plan will include an update on implementation of the action items in the Sixth Power Plan. The action plan describes what needs to happen to implement the plan. It focuses on the 2010 - 2014 timeframe and the plan's priorities. There are nearly 100 actions listed by resource and topic area. In many cases, the action plan suggests the entities that have primary responsibility for implementation activities.

Staff prepared a table that addresses the current implementation status of each action (attached). The table will be completed and refined as part of the mid-term assessment scheduled for October. At the May power committee meeting we will briefly summarize implementation status to date and be available to discuss elements of interest to the Council.

Overall, excellent progress on the actions items has been made in the region so far.

851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348
www.nwcouncil.org

Steve Crow
Executive Director

503-222-5161
800-452-5161
Fax: 503-820-2370

Sixth Plan Action Plan Status Update
Detail by Individual Action Item

Version of April 26, 2012

ACTION	STATUS
CONS-1: Achieve the level of conservation resource acquisition identified in the Sixth Power Plan's conservation target and accomplish the other actions necessary to accelerate conservation deployment.	Regional savings for 2010 exceeded Sixth Plan target by 27%. Significant increases in commercial and industrial sector savings and less reliance on residential lighting are consistent with Sixth Plan's assessment of conservation potential. It also appears that the region will exceed the Sixth Plan's conservation targets for 2011 based on very preliminary estimates from the region's largest utilities and Energy Trust of Oregon.
CONS-2: Develop and implement an action plan for measures that are commercially viable but relatively new to programs or markets.	NEEA and region's utilities have successfully deployed ductless HP, TVs, industrial energy management, and outdoor lighting. NEEA is now preparing to launch major initiative on heat pump water heaters. After successfully completing the program development, BPA budget issues may limit near-term expansion of distribution system efficiency improvements.
CONS-3: Provide continued funding, in adequate amounts, for the Northwest Energy Efficiency Alliance (NEEA) to support its market transformation efforts.	NEEA's sponsors have committed to a five-year, $40 million business plan. This is double NEEA's prior funding level.

ACTION	STATUS
CONS-4: Develop long-term partnerships with energy efficiency businesses, trade allies and other parties in product and service supply chains.	There has been some progress building long-term relationships with energy-efficiency businesses. NEEA is supporting training of commercial lighting and industrial energy management personnel and is facilitating a regional lighting trade ally network. Energy Trust and other utilities are developing effective trade ally networks for measure and program delivery for some measures, technologies and applications. But there are few program approaches that enhance long-term relationships between efficiency service providers and the facility owners, decision-makers, and managers needed to capture all cost-effective savings. Plans to reduce EE acquisitions at some utilities aggravate business relationships with non-utility partners and allies.
CONS-5: Support the adoption of cost-effective codes and standards and work to help ensure compliance.	Council staff allocating significant time to federal standards administrative processes. DOE has issued final standards for 17 products since 2009 with 23 more rulemakings under way. All PNW states have upgraded energy codes since the Sixth Plan. OR and WA have state requirements continuously improve efficiency requirements. WA builders have appealed to 9th Circuit over legality of requirements in 2011 WA Residential code.
CONS-6: Implement the Sixth Plan's Model Conservation Standards (MCS).	States continue to improve codes, and NEEA and its utility/ETO partners continuing to offer Energy Star new homes program and integrated building design services for commercial buildings.
CONS-7: Adopt policies that encourage utilities to actively participate in the processes to establish and improve the implementation of state efficiency codes and federal efficiency standards in a manner that is consistent with their responsibility to acquire cost-effective efficiency resources.	**No action to date.** WA commission "conservation work group" dealt with issue of how utilities can claim credit for codes and standards that were adopted after they filed conservation targets.

ACTION	STATUS
CONS-8: Support the ongoing operation of the Regional Technical Forum (RTF) and assure that the RTF has sufficient resources to review the new efficiency measures identified in the power plan.	RTF Policy Advisory Committee established. Committee recommended that RTF sponsors commit to a $1.5 million/year budget and agree to follow NEEA's sponsor allocation scheme. This action will reduce Council staff time now committed to securing RTF funding and providing technical and administrative support to the RTF.
CONS-9: Develop energy savings verification protocols for conservation measures, practices, and programs when current verification methods appear problematic or expensive or verification methods do not exist.	RTF has adopted guidelines for evaluation of unit energy savings (formerly known as "deemed") and standardized protocols for site specific savings determination and established guidelines for estimating measure cost and non-energy benefits. RTF is developing guidelines for measure lifetime and for custom and program impact evaluation protocols before the end of the second quarter of 2012.
CONS-10: Develop a comprehensive library of estimates of savings from conservation measures and savings evaluation and measurement protocols.	RTF has expanded its web page to include a complete listing of all measures it has considered and their current status. Workbooks supporting these measure savings are being updated and modified to reflect a consistent format and compliance with the newly developed guidelines.
CONS-11: In recognition of the higher goal for industry-sector conservation, develop and implement a comprehensive strategy to improve the energy efficiency and economic competitiveness of industries in the region.	Industrial savings increased significantly in 2010 and 2011. Bonneville launched an industrial program that quadrupled savings. BPA, NEEA and ETO have launched major initiatives to improve industrial energy management practices and uptake has been above expected levels. While regional savings have increased dramatically, there has not been an organized effort to develop a comprehensive strategy for this sector.

ACTION	STATUS
CONS-12: Consistent with standard practices for integrated resource plans, establish polices for incorporating a risk-mitigation premium for conservation in the determination of the avoided cost used to establish the cost-effectiveness of conservation measures.	Washington investor-owned utilities covered by I-937 (Puget, Avista, & PacifiCorp) participated in a WUTC-sponsored working group that attempted to align their cost-effectiveness methodologies with the Council's. ETO incorporates a risk premium in its cost-effectiveness evaluations for Portland General Electric and Pacific Power in OR. It is unclear whether other IOUs and large public utilities have incorporated the risk-mitigation benefits of efficiency.
CONS-13: Identify regulatory barriers and disincentives to the deployment of conservation, and consider policies to address these barriers.	The NEET process identified some of the regulatory barriers and disincentives to efficiency but did not propose a strategy for addressing these issues. De-coupling discussions are now underway in WA & MT. No real progress on what changes are needed in business model for IOUs if majority of load growth is met with efficiency.
CONS-14: Prepare a strategic and tactical plan to achieve the Sixth Power Plan's regional conservation target and accomplish the other actions that are necessary to build the capability to accelerate conservation deployment for the remainder of the planning period in a cost-efficient manner.	The NEET process did not address this, hence no "Regional" strategy has evolved. Some cooperative work, facilitated by NEEA, has been undertaken to better coordinate local and NEEA initiatives. BPA has a detailed BPA-specific strategy. Some utilities are doing individual strategies, e.g., WA utilities subject to HB 1010 must carry out IRPs and those subject to I-937 utilities are required to file biennial conservation plans.
CONS-15: Develop an ongoing mechanism to identify high-priority actions that will enhance the deployment of cost-effective energy efficiency across the region.	Sixth Plan called for a high-level forum for ongoing policy-level guidance on issues or resource allocation between local, regional programs and market transformation initiatives. The Northwest Energy Efficiency Task Force (NEET) under took some issues. But the future of the NEET forum is unclear.
CONS-16: Report on progress toward meeting plan objectives.	Monitoring progress. Report on status will be part of mid-term review.

ACTION	STATUS
CONS-17: Take into account the unique circumstances and special barriers faced by small and/or rural utilities in achieving conservation and the development and implementation of conservation programs.	RTF conducted a research project to identify measures that were uniquely applicable to small and/or rural utilities. This research was co-sponsored by NEEA and BPA. Major finding was that the primary limitation for implementation of conservation measures by small and/or rural utilities is the lack of local infrastructure to support measure demands. Sub-committee work on small and/or rural utilities is ongoing to develop a suite of measures to address these circumstances and facilitate implementation issues.
CONS-18: In consultation with Bonneville, utilities, Energy Trust of Oregon, and NEEA develop recommendations on measure bundling, the use of cost-effectiveness tests, research and development investments, and other issues.	Not started, awaiting determination of specific need from NEET process.
CONS-19: Develop and implement improvements to the regional conservation planning, tracking and reporting (PTR) systems so that energy efficiency savings and expenditures are more consistently and comprehensively reported.	BPA is funding a complete re-building of its utility reporting system. Included in the scope of work are functions intended to permit the RTF to more easily submit and update data that BPA reviews and adopts for use in its programs. The transition from the RTF's online Planning, Tracking and Reporting (PTR) system that operated from 2000 through 2011 to the BPA's new EE Central tracking system has not gone smoothly. The BPA temporarily closed the EE Central site in December 2011 after one month of operation and, as of April 2012, has not yet announced when the site will be up and functioning.
CONS-20: In order to ensure the long-term supply of conservation resources, develop and fund a regional research plan that directs development, demonstration, and pilot program activity.	Bonneville published a Northwest Energy Efficiency Technology Roadmap in March 2011 with input from regional stakeholders. The roadmap identified the top 15 research and development (R&D) gaps to address from among 40 R&D areas investigated. BPA uses the roadmap to guide its annual solicitation of for EE R&D proposals. NEEA and BPA have both developed coordinated

ACTION	STATUS
	emerging technology initiatives aimed at identifying, testing, and piloting promising new measures deployable in the near term.
CONS-21: Develop a regional approach to support data needs for energy efficiency.	NEEA, in collaboration with its funding partners has a Residential Building Stock Assessment (RBSA) underway and a Commercial Building Stock Assessment scheduled to commence in 2012. The RTF is in the process of selecting a contractor to develop the business case for updating end-use load research data.
CONS-22: Establish guidelines to consider balancing utility and consumer interests, cost recovery for conservation research, demonstration, confirmation, and coordination activities.	Work on this item not yet scheduled.
GEN-1: Acquisitions to meet energy, capacity, and ancillary service needs.	BPA and the region's utilities continue to work toward a fuller understanding of the array of generation services, and both the need and value of those services. Some of the needed valuation work is occurring through variable generation integration analyses around the region such as that being done in the BPA rate case. Resource acquisition decisions are increasingly taking into account the need for flexibility to accommodate variable generation and more dynamic market price swings. Much work remains in this area, but progress is being made. Over the next few years, BPA expects to acquire any needed services through market purchases given today's relatively low market prices. A longer term analysis and perspective will be undertaken in BPA's Resource Program

ACTION	STATUS
GEN-2: Facilitate development of smaller-scale, cost-effective, low-carbon resources	Progress in this area mainly relates to expansion of small-scale solar photovoltaic (PV) applications in response to state and federal tax incentives and continually falling PV costs. Some work has been undertaken to standardize and simplify interconnection agreements for smaller projects by a few utilities in the Northwest, but much progress can yet be made. Smaller-scale projects face considerable administrative and engineering cost hurdles that remain today.
GEN-3: Reduce demand for system flexibility.	The region has taken important strides in this area that include a number of efforts to improve the liquidity of intra-hour trading such as the Dynamic System Scheduling (DSS) and Intra-hour Transmission Accelerator Program (ITAP). A watershed improvement has been the introduction of half hour scheduling which continues to gain market share among Northwest balancing area authorities. BPA acknowledges a 34% reduction in reserve requirements for wind generators in their BA choosing to schedule in half-hour blocks.
GEN-4: Expand access to existing system flexibility.	The efforts cited above relating to DSS and ITAP help expand access to system flexibility. All the efforts to expand access to existing system flexibility, including consideration of an Energy Imbalance Market (EIM) are now being taken up more holistically by the newly created Market Assessment and Coordination Committee made up of many Northwest Power Pool members and co-chaired by BPA and Pacific Power.

ACTION	STATUS
GEN-5: Assess adequacy of system flexibility.	The region continues at an early stage in assessing system flexibility adequacy. Early efforts include a paper on the topic prepared by the Pacific Northwest Utilities Conference Committee (PNUCC). A key objective of this effort that has not yet been met is a standardized definition or definitions of what we mean by system flexibility. Interest continues, but has perhaps been slowed somewhat by success in GEN-3 and GEN-4 setting a lower priority for GEN-5 among regional partners. No flexibility metrics or methodologies have yet been developed or tested.
GEN-6: Evaluate flexibility augmentation options.	The Council and BPA have been involved in demand side flexibility augmentation options with the highest promise for success. The Council has contributed time and dollars to the BPA demonstration project with water and space heaters, as well as HVAC and cold storage warehouses. BPA has undertaken analyses of other demand-side options such as accessing the flexibility inherent in pulp mill operations and an aquifer recharge pilot that may contribute needed flexibility during spring oversupply events.
GEN-7: Commercialize and confirm low-carbon resources with special Northwest promise.	Activities continue around the region with respect to commercialization of hydro-kinetic, wave, and tidal energy as well as advanced geothermal technologies. The process of commercialization remains at an early stage with economics still uncertain. Much remains to be done with respect to assessing the economics, status of technological developments, environmental conflicts, and system integration needs. Some progress is being made with respect to pilot projects that may help lay a foundation for progress in other areas.
GEN-8: Carbon separation and sequestration technologies.	The Council received a presentation on the Pacific Northwest National Laboratory's carbon sequestration pilot in August 2011.

ACTION	STATUS
GEN-9: Monitoring development of other promising resources and technologies.	Council staff monitors developments on an ongoing basis. Received an update from the NuScale small modular nuclear reactor program in April 2012. Portland General Electric is investigating biomass as a fuel feedstock for its Boardman coal plant post the 2020 shutdown date. PGE plans a test burn of biomass in 2014. See Gen-8 regarding sequestration monitoring.
GEN-10: Resource development mandates and incentives.	Provided review of the effect of renewable portfolio standards on renewable resource development to the Wind Integration Forum Steering Committee.
GEN-10a: Impact on optimal resource dispatch.	Oversupply paper considered the likely increase in negative market price events into the future. Paper found modest decreases in overall market prices on average, but lower springtime prices will disproportionately affect hydro utilities as much of their generation occurs during the spring. Have not yet assessed environmental impact of PTC and REC effects on dispatch efficiency.
GEN-10b: Effects of an unbundled REC market.	Initial assessment of the effects of bundling and unbundling RECs in the Oversupply paper. Effects largely thought to be mitigated at this point (per the paper) by the CA 33% RPS.
GEN-10c: Geothermal development risk reduction.	No action to date.
GEN-10d: Promote CO_2 reduction parity of resource mandates and incentives.	Council staff participated in discussion about WA I-937 revisions to get efficiency more credit for RPS compliance. Although some alterations in the law were enacted, CO_2 parity was not among them.
GEN-11: Resource Assessment.	**Ongoing**. Expect to have timely updates for the mid-term assessment on gas, solar, and wind resource costs.

ACTION	STATUS
GEN-12: Planning for optimal development of the power system.	**Ongoing.** One emerging challenge is the mandate to regional transmission planning entities to develop regionally optimized transmission development plans. The Council and regional planning entities have entered into initial discussions on how to coordinate regionally optimized generation and transmission plans. Another emerging issue for the Seventh Power Plan may be power system efficiency. This is being driven by significant progress with respect to intra-hour market liquidity (increasing access to existing flexibility) and progress on accessing demand-side optionality.
GEN-13: Long-term synthetic, hourly wind data series.	**Done.** BPA has provided Council staff (and the Adequacy Forum) a 70-year (1929-98) set of temperature-correlated wind data for the BPA wind fleet area. This data is currently being vetted. Work needs to continue to develop similar wind data sets for other wind regions.
BPA-1: Implement the Council's Plan.	Ongoing. So far so good.
BPA-2: Conservation goals.	BPA's Administrator has committed to the Council that the region's publicly-owned system will meet its share of the Council's regional conservation goals while ensuring BPA meets its resource load as efficiently and cost-effectively as possible.
BPA-2a: Conservation targets.	BPA and the region's public utilities exceeded their pro-rata share of the Sixth Plan's conservation target for 2010, and early estimates indicate they exceeded the Sixth Plan's conservation target for 2011 as well. Cost of conservation achieved has been $1.7 million per first-year average megawatt saved, about 15% below BPA's initial estimates. Because of the amount of EE acquisition at a comparatively low cost, BPA expects to be able to achieve more savings than originally anticipated within BPA's five-year budget. In 2011, BPA's customers

ACTION	STATUS
	achieved more conservation than planned, and the agency spent more in efficiency that it had included in its 2011 budget. As a result, BPA worked with its customers and other regional stakeholders in a public process to address the overrun in its capital funding budgeted for energy efficiency incentives. In January 2012, BPA issued a final decision that calls for melding the impact of the FY 2011 capital overspend by reducing FY 2013 and FY 2014 EE budgets but staying within the overall five-year EE budget BPA set in 2009 that covered FY 2010-2014 ($459 M total). BPA did agree to provide utilities with funding for EE in FY 2013 at a 35-percent level (NTE $100,000) in order to ensure their customers don't have to eliminate their local utility conservation programs as a result of BPA's reducing its capital budget for FY 2013 and 2014. As a consequence of the reduced 2013-2014 EE budget, utilities may need to increase their local share of conservation acquisition such that BPA and its customers can continue on their path to achieving the Sixth Plan's goals for 2013 and beyond without increasing the amount of conservation cost BPA needs to recover in its rates.
BPA-2b: Utility reporting.	BPA requires its customers document and report on the energy efficiency measures they have implemented. The transition from the RTF's online Planning, Tracking and Reporting (PTR) system that operated from 2000 through 2011 to the BPA's new EE Central tracking system has not gone smoothly. The BPA temporarily closed the EE Central site in December 2011 after one month of operation and, as of April 2012, has not yet announced when the site will be up and functioning. BPA has implemented an interim reporting process for EE acquisition, but until the EE Central website is functioning, detailed EE reporting has been put on hold and access to public utility conservation progress reports is problematic.

ACTION	STATUS
BPA-2c: Implementation mechanism.	BPA engaged in an intensive public process to come up with a new framework and set of policies to govern the acquisition of energy efficiency post-2011. Some outcomes of that public process are: (1) BPA's decision to capitalize energy efficiency as opposed to expensing it; (2) Development of an energy efficiency funding mechanism to incentivize individual utility funding with each utility having an energy efficiency budget; and (3) Development of guidelines for verifying and crediting efficiency savings for customers' large projects and custom projects as well as a funding mechanism known as the Unassigned Account (UA) meant to provide utilities with some funding flexibility when working within their EE budgets. While BPA has offered its customers incentives and the support to pursue sustained conservation development, BPA has not announced a backstop plan to assist utilities in meeting conservation goals if BPA and utility programs are found insufficient to achieve the Council's targets.
BPA-2d: Regional conservation support.	Bonneville has continued to be active in funding and implementing conservation programs and activities that are inherently regional in scope, such as the Northwest Energy Efficiency Alliance, the Regional Technical Forum, the RTF Policy Advisory Committee, emerging technology collaborative and other regional efforts proposed as a result of the Northwest Energy Efficiency Task Force. Regional support for conservation has resulted in increased interest and scrutiny of the Council's Regional Technical Forum (RTF) advisory committee by BPA and the region's utilities and has resulted in a scaled-up annual RTF work plan as well as multi-year RTF funding commitments from BPA and other regional stakeholders. Bonneville has developed regional programs aimed at target markets such as groceries and industrial facilities that many of its customer utilities have taken advantage of.

ACTION	STATUS
BPA-3: Additional resources, including capacity and flexibility priorities.	BPA is reviewing its customer needs in light of current market prices as well as the growing flexibility requirements from wind development, and increasing summer peak demand. Currently low market prices suggest that additional needs for peaking capability or energy can best be met with multi-year contract purchases most cost-effectively. BPA continues to review its needs for flexibility and is looking carefully at demand-side demonstration projects to help provide that flexibility. BPA released its "2010 Resource Program" to dovetail with the Council's Sixth Power Plan and expects the next in depth resource review to be coordinated with the Council's Seventh Power Plan.
BPA-3a: Institutional changes to meet flexibility needs.	BPA has adopted several important institutional changes to address the growing need for flexibility and ability to meet peak demand. Among these are changes to its tariff structure, 30-minute scheduling practices, participation in DSS and I-TAP efforts at improving intra-hour trading in the region, and most recently the formation of an overarching "Market Assessment and Coordination Committee" to more fully integrate the incremental changes into business practices of utilities across the Northwest Power Pool footprint. BPA has also asked the Council to take a lead role in recommending changes to the physical system to address the spring oversupply issue. The Council coordinated a set of recommendations with representatives of the Wind Integration Forum Steering Committee members.
BPA-3b: Generation for capacity and flexibility.	Institutional changes and market purchases appear to be sufficient in the near term to provide BPA's flexibility and peak generation requirements. BPA's expectation is to purchase any needed generation through market-based contracts-- potentially firm contracts with terms of a few years. The need for any additional resources will be addressed in the next BPA Resource Program (see BPA-3 above).

ACTION	STATUS
BPA-3c: Possible additional resources to meet other needs.	Intended to be addressed in BPA's Resource Program-- see BPA-3 above.
BPA-4: Proper financial incentives for customers.	Tiered Rates Methodology (TRM) adopted by Administrator as part of the BP-12 rate case. See BPA-7 for more detail on the TRM.
BPA-5: Focus on preserving the FBS.	**Good**.
BPA-6: Meet Fish and wildlife obligations.	**Good**. Ongoing participation, support, and funding by BPA for the Council's FWP as well as BiOp and other fish and wildlife legal responsibilities.
BPA-7: Implement the regional dialogue policy.	**Good**. BPA has implemented 20-year power sales contracts and tiered rates. BPA has worked with its customers to implement all the various aspects of its regional dialogue policy including achieving public power's share of regionally cost-effective conservation.
BPA-8: Solve legal challenges to regional dialogue implementation.	TRM legal challenges still ongoing. In July 2010, a 9th Circuit Court of Appeals panel dismissed petitions challenging the TRM as premature (because BPA had not actually set rates based on the TRM yet) and denied a request for rehearing. Since then, BPA Administrator's Final ROD approving BP-12 rates issued in July 2011. Petitions challenging the ROD by Clatskanie PUD, Alcoa, and APAC have been filed in the 9th Circuit alleging, among other things, that BPA's implementation of the TRM is unlawful. The 9th Circuit has stayed the case until May 9, 2012, or pending FERC's disposition of the related rate case pending there, whichever occurs first. Intervenors in the case include Idaho Power, Cowlitz, Avista, City of Seattle, Snohomish, PNGC, NRU, PPC, PSE, EWEB, Pacificorp, ICNU, Georgia Pacific, Powerex, Washington UTC, Oregon PUC, and the City of Tacoma.

ACTION	STATUS
	The Residential Exchange Program (REP) settlement and ongoing litigation is not technically part of BPA's regional dialogue but brief mention is warranted. By Jan. 31, 2012, most of the region's utilities representing 93% of power consumed in the Northwest approved the 2012 REP Settlement Agreement. Legal challenges to the settlement agreement, however, have not been resolved. Additionally, challenges to BPA's Environmental Redispatch and Negative Pricing Policy ROD have been filed in the 9th Circuit Court of Appeals and BPA's provision of transmission services including services related to implementation of its Environmental Redispatch and Negative Pricing Policy is being challenged before the Federal Energy Regulatory Commission.
BPA-9: Conditions if considering service to the DSIs.	BPA did sign up service to Columbia Falls Aluminum and Port Townsend Paper in 2011. BPA is considering continuing service to Alcoa's Intalco Aluminum smelter in Washington when the current contract ends at the end of May 2012. BPA had been utilizing an "Equivalent Benefits Test" when considering service to DSIs, although BPA's use of an economic benefits test was challenged by Alcoa and parties are still awaiting a ruling from the 9th Circuit Court of Appeals. Meanwhile, challenges to BPA's 2/18/11 ROD re BPA's service to DSIs have been filed in the 9th Circuit by ICNU, PPC, PNGC, and Canby Utility Board and a briefing schedule has been set by the court. Respondent-Intervenors include Port Townsend Paper, Avista, Alcoa, Idaho Power, Puget Sound Energy, Pacificorp and PGE. Issues include BPA's decision not to seek refunds from DSIs.
ADQ-1: Adequacy Assessment.	**Ongoing**. The assessment of the adequacy of the NW's power supply is an annual process. The last publicly released assessment was made a part of the Council's Sixth Power Plan (Chapter 14) and concluded that the power supply was adequate through 2013. Assessments in subsequent years were not

ACTION	STATUS
	formally released because the Adequacy Forum was in the process of reviewing its methodology. The Forum's latest assessment (not released) indicates the power supply to be adequate through 2015. However, anticipated decreases in the amount of Southwest market supply due to new regulations for thermal plants using once-through cooling in California may push the system closer to its adequacy threshold. The next formal assessment (for the power supply in 2017) is scheduled to be presented to the Council in September of 2012.
ADQ-2: Data Review.	**Ongoing.** This is an ongoing process depending on when new information is available. Data for the next scheduled adequacy assessment (September 2012) will be reviewed in early 2012.
ADQ-3: Methodology Review.	**Done.** The methodology used to assess the adequacy of the NW's power supply has been reviewed by an independent group of analysts (PSRI, in Brazil). The report offered many valuable suggestions that were incorporated in the development of a revised standard. In December of 2011, the Council formally adopted the recommended revisions by the Adequacy Forum.
ADQ-4: Working with other regions.	**Ongoing.** John Fazio is a member of IEEE Risk, Reliability and Probability Applications subcommittee, which meets once a year to review methodologies for assessing adequacy and the status of U.S.-wide regions. Staff also works closely with the WECC on adequacy and related issues.
DR-1: Inventory demand response programs.	**Underway**, not released.
DR-2: Evaluate and demonstrate demand response programs.	BPA conducting Smart Grid/DR demonstration and separate pilots for DR. Council actively involved in BPA/Ecofys pilot testing load as a source of load following/wind integration services.

ACTION	STATUS
DR-3: Evaluate potential for providing ancillary services.	**Underway** in BPA/Ecofys pilot program.
DR-4: Monitor new programs.	**Ongoing** -- PGE, PSE put out requests for proposals for peaking capacity. Based on their RFP PGE has a program to apply Auto DR control to commercial buildings. The program is a pilot with an option to expand into a "production" program. PSE's RFP received offers of supply side peaking capacity at very low cost, likely due to the current recession. PSE chose contracts for peaking generation for the time being, but is looking at DR as an alternative as the costs of such supply-side contracts rise in the future.
DR-5: Monitor experience in other regions.	**Ongoing** -- New interest developing outside PNW in DR as a source of ancillary services. For example, PJM is accepting regulation service from loads, and the Midwest Independent System Operator (MISO) is using 70 MW of regulation reserve from an AlCOA aluminum smelter.
DR-6: Evaluate direct service industry as a source of demand response.	ALCOA has an aluminum smelter in Indiana that is controlling about 30 percent of its load for the Midwest Independent System Operator (MISO), to provide regulation reserve (70MW) and contingency reserve (75 MW). An ALCOA rep said this control could be applied to all their smelters, which includes Intalco and Wenatchee. Intalco currently provides 35-70 MW (10-20% of load) of contingency reserve to BPA, but is not currently providing regulation reserve.
DR-7: Complete the work of the PNDRP.	After discussion with regional regulators, the role of PNDRP in monitoring, information exchange and discussion of developing issues for DR will continue. Future topics were proposed at the February 23, 2012 PNDRP meeting.
DR-8: Include appliance response controls in standards.	Energy Star ratings will be allowed to include demand response capability as part of the evaluation process.

ACTION	STATUS
DR-9: Implement demand response recommendations of NEET.	NEET recommended that regional collaboration be increased on smart grid and load management programs. The regional smart grid demonstration project includes 11 utilities, both IOU and public utilities, and demonstrates both smart grid and load management elements.
DR-10: Improve Council modeling of demand response.	Little accomplished as yet.
SG-1: Monitoring smart grid technology.	**Ongoing**
SG-2: Smart grid demonstration.	Regional Smart Grid Demonstration underway – to be completed in 2014.
SG-3: Develop evaluation methods.	Evaluation methods will need to take into account complementary "non-smart-grid" components. Specific data from Regional Smart Grid Demonstration Project may help.
TX-1: Participate in and track WECC activities.	**Ongoing**
TX-1a: Wind: Variable Generation Subcommittee (VGS).	**Ongoing**, participation at a low level, committee is not being very productive currently.
TX-1b: Resource Adequacy: Loads and Resources Subcommittee (LRS).	**Ongoing**, participation level reduced.
TX-1c: Transmission: Transmission Expansion Planning Policy Committee (TEPPC).	**Ongoing**, participation in development of first WECC 10-Year Transmission Plan.

ACTION	STATUS
TX-2: Track transmission expansion proposals and evaluate impact on the region.	**Ongoing**, primarily through following/participating in activities of TEPPC, NTTG, Columbia Grid and BPA.
TX-3: Continue to assess needs and costs of transmission for wind development.	Needs assessment information largely available through activities TX-1c and TX-2. Some transmission cost information available through activity TX-1c.
F&W-1: Long-term planning coordination.	**Ongoing**. Not much has happened since the adoption of the Sixth Plan but expect more work in this area as development of the next plan and fish and wildlife program draws nearer.
F&W-2: Contingency plans.	**No Action to Date.** The idea was to prioritize 1) a set of contingency actions that would cut back certain fish and wildlife operations during a power emergency and 2) a set of power contingency actions that would change power operations during a fish emergency. The work for the first phase of this action item is to be done by the Fish and Wildlife Division in conjunction with federal and state agencies and tribes. The second phase of this work is to be done by BPA in conjunction with Council staff, other federal agencies, state agencies and tribes.
F&W-3: Analytical capability.	No Action to Date.
F&W-4: Columbia River Treaty.	**Ongoing**. The U.S. Entity and federal staff have been developing a framework for analysis of the Columbia River Treaty. Council staff have participated in these discussions but have been asked to not perform independent analysis at this time. However, independent analysis of potential changes in river operations and power generation due to changes in the Treaty will have to be done to properly prepare the seventh power plan. A recommendation to the State Department is expected to be made by September of 2013.

ACTION	STATUS
F&W-5: Climate change.	**Ongoing.** New climate change data has been processed and is available for analysis through the River Management Joint Operating Committee (federal agencies). More recent information from the Climate Impacts Group will soon be available for processing but it is unclear if the new data will be available during the development of the 7th power plan. Staff is planning to update the analysis done in Appendix L of the Sixth Power Plan by fall of 2012 (basically a scenario analysis of climate change impacts to river flows, reservoir elevations and power generation). For the 7th power plan, staff hopes to better incorporate climate change analysis into its resource strategy methodology.
MON-1: Biennial monitoring report.	Ongoing
MON-2: Assess changing conditions affecting the plan.	Ongoing
MON-3: Analyze changes for significance.	Ongoing
MON-4: Monitor climate change policies and analysis.	Ongoing. California just adopted a cap-and-trade policy - not clear exactly how that will work. Keeping tabs on state and federal actions.
ANLYS-1: Review analytical methods.	Ongoing. For the GENESYS model: major enhancements to its hourly dispatch logic is nearly complete, now examining if current method used for hydro dispatch is precise enough to answer questions regarding system flexibility, wind integration and other hourly issues. We expect a new production version of GENESYS to be available by fall of 2012. Upgrades to ProCost for marginal line losses and 8760 hour per year analysis are scheduled for 2012. Substantial review and development work has been completed on the Regional Portfolio Model (RPM). The System Analysis Advisory Committee has met four times to review the methods and results of the model. A summary of accomplishments

ACTION	STATUS
	is available. Contract work is underway to validate the model's internal forecasts of commodity prices and resource adequacy.
ANLYS-2: Improve hourly load data.	**Completed**. Working with WECC and California Energy Commission staff we are now able to obtain hourly loads at balancing-area level within six months of the end of the year. As soon as FERC releases the information.
ANLYS-3: Improve irrigation sales reporting.	**Completed**. Working with BPA staff and utilizing FERC Form 1 data and direct contact with medium-size public utilities we have been able to obtain irrigation class sales information, within 6-9 month of the end of the year. This is an improvement in sales reporting.
ANLYS-4: Improve industrial sales data.	**Ongoing**. We had hoped that through conservation reporting activities we could obtain this information. But this did not occur. We are exploring alternative avenues. We have started work with PNUCC to see if it can be a focal point for collecting industrial sales data at the industry level. This effort has just begun, and we will update the Council in the future.
ANLYS-5: Follow up on NEET data recommendations.	Three regional data gaps were identified by NEET Workgroup #1 (Measuring What Matters). These were: Absence of end-use load shapes, Lack of sales data for white goods and consumer electronics, and Deficit of Market Characteristics of the industrial and agricultural sectors. The RTF is developing a business case end use for load data which is scheduled for completion in 2012. Non-intrusive metering is being tested as part of the Residential Building Stock Assessment project underway at NEEA. Regarding lack of sales data, some private sector providers have begun to offer their services to procure relevant sales data. NEEA has developed regional market characteristics for agriculture in 2011 and will develop the industrial market characteristics in

ACTION	STATUS
	2012. Some local utilities are also planning to develop utility-specific data needs.
ANLYS-6: Improve electricity end-use data.	**Ongoing**. See ANLYS-5 above. RTF end use business case is underway. NEEA's RBSA and testing of non-intrusive end-use load measurement for residential sector are steps taken toward improving electricity end-use data. But no major efforts are underway to collect new end-use load data.
ANLYS-7: Improve peak-load forecasting.	**No activity in this area has occurred.** Depending on time availability, we hope to work on this action item in 2012 or 2013.
ANLYS-8: Improve natural gas demand forecasting.	**This is a planned activity in 2012.** The goal is to update natural gas demand forecasts with the data from the recently completed Direct Use of Natural Gas study. We hope once our natural gas modeling work is vetted with the utilities we can provide a forecast of natural gas demand consistent with the electricity demand forecast. In this manner, we can see the impact of the electricity forecast on natural gas demand.
ANLYS-9: Develop the supply side of the demand forecasting system.	This project was started a few months ago. As a first step staff compared the market clearing prices forecast from the Aurora model with the supply side of the demand forecasting model. Market clearing prices from two forecasting models were compared. Both models were found to produce comparable

ACTION	STATUS
	results at monthly and annual level, however at hourly level the two models were not comparable. Given the need for hourly forecast of electricity market clearing prices, we stopped further work in developing the supply and demand module of the demand forecasting system and will continue to use AURORA.
ANLYS-10: Improve transportation electricity use forecasting.	**Completed**. The transportation section of the long-term demand forecasting model was enhanced. In 2012, updated our analysis and reported to the Council regarding Plug-in hybrid vehicles. We continue to track development of electric vehicles nationally and regionally.
ANLYS-11: Demand response modeling methods.	**On Hold.** No activity in this area. It is very likely that this action item will be dropped due to other load forecasting activities. DR will be modeled in aggregate and incorporated into the demand-forecasting model, if DR is selected as a resource in the Plan.
ANLYS-12: Evaluating sustained-peaking capability of the hydroelectric system.	**Ongoing.** The methods used to assess the sustained peaking capability of the hydroelectric system are being reviewed to determine if they are precise enough to adequately address hourly issues, such as wind integration, system flexibility, peak curtailment events and oversupply conditions. Staff is testing a project-level hourly simulation model to replace its current hourly model. More contracting money may be required to finish this task, which could be completed by 2013.
ANLYS-13: Improved demand response modeling.	**On Hold.**
ANLYS-14: Planning coordination and information outreach.	**Ongoing.** "An Overview of the Council's Power Planning Methods", Council Document 2011-02, was posted to the Council's website in March 2011.

ACTION	STATUS
ANLYS-15: Improve Regional Conservation Resource Potential Assessment Input Assumptions and Methodology.	**Ongoing**. Residential Building Stock Assessment is underway. PNW Commercial building inventory completed Q1 2012. Field work scheduled for launch in 2012 on the Commercial Building Stock Assessment.
ANLYS-16: Review of Council Policy on Direct Use of Natural Gas.	**Completed**. The Direct Use of Natural Gas study was completed in the first quarter of 2012 and the policy updated.
ANLYS-17: Incorporate conservation acquisition risk.	**Completed**. Results of the analysis were discussed at the May 2010 Power Committee meeting.