Northwest **Power** and **Conservation** Council

Council Meeting
Portland, OR

October 15, 2014

Minutes

Tom Eckman, Director of the Power Division gave an overview of the process of developing the regional power plan. He described the major components of the power plan and described how each component is developed. He also identified the major analytical models used in the development and explained how the models are related and their role in the development of the plan.

Council members Jennifer Anders, Bill Bradbury, Tom Karier, Phil Rockefeller, Pat Smith and Jim Yost participated via phone/web.

Tom Eckman presented a power point "Overview of the Northwest Power and Conservation Council's Power Plan Development Process" and talked through the slides. Council members asked questions during the presentation. Other participants were requested to hold their questions until the presentation concluded so the phone lines could be muted so as to eliminate audible background noise during the presentation.

During the discussion of the Council's authority to recommend Bonneville impose a surcharge if the model conservation standards are not achieved. Member Anders asked whether a surcharge is imposed on a state or some other entity. Eckman responded that if a surcharge were to be recommended to Bonneville, it would more likely be on a service territory where the standards have been imposed as opposed to state-wide. The surcharge is intended to be a cost recovery mechanism to recover costs imposed on Bonneville's other customers for not achieving savings. Member Karier asked whether the surcharge methodology could be applied to residential exchange customers. Eckman was not certain but because the surcharge applies when customers are actually buying power and residential exchange settlements have been put in place, it is unlikely that the surcharge mechanism could be applied to exchange customers.

During the discussion of a methodology for determining quantifiable environmental costs and benefits, Chair Bradbury asked for clarification as to whether the Council is required to quantify the cost of proposed regulation such as proposed Clean Air Act rule 111(d)? Eckman responded in the affirmative but clarified that the proposed rule would have to be finalized. Eckman noted the proposed rule 111(d) is supposed to be final in June 2015 in which case it would become final during the development of the 7th Power Plan.

Member Smith asked whether the Council had attempted in past plans to quantify environmental costs in situations where a rule had been proposed but not finalized. Eckman responded that the Council did not estimate what the potential regulation (such as a carbon tax or carbon trading scheme) would cost in terms of a single point estimate to add to the cost of potential resources. Rather, the Council considered the risk as speculative and included it as a consideration in the risk analysis or as part of a sensitivity study.

Member Rockefeller inquired about the component of the Council's current environmental methodology that recognizes there may be environmental effects that remain unaccounted for even after compliance with existing regulations. Would that include situations where there are no existing environmental regulations but there may be certain environmental impacts? Yes. One example of this is the Council's protected areas decision restricting hydro development in certain areas. In establishing protected areas, the Council made a policy call that existing regulations were inadequate to protect those fisheries in certain areas from development and that the cost of allowing resource development in those areas was essentially infinity in the sense that the environmental cost of resource development in those areas was too large in terms of fisheries resources to allow development.

Chair Bradbury asked for an example of what it means for the Council to "Establish values for Key Input Assumptions" mentioned on the Plan Development Process slide. Eckman said examples include forecasts of employment and population growth in the region.

Member Smith asked what the history of the Council is with putting a preferred alternative in the draft power plan. Eckman answered that typically there is a preferred alternative the Council comes to agreement on for the draft plan, but there also have been ranges of alternatives in the draft plan that the Council then solicits public comment on.

Member Karier asked about the use of FuelMod and whether the output of the model is vetted by an advisory committee and the Council before using it in any of the power plan analysis. Both the fuel price forecast and the natural gas price forecast are vetted first by the advisory committees and the Council decides on the appropriate range to use. So, the output of the model could change based on the expert opinion of the advisory committee and/or the Council.

With respect to the Genesys model, Member Smith commented that as a member of the Sovereign Review Team, he was briefed by folks who said to take the 80-year historical

water year data with a grain of salt as to relevancy going forward. Does the Council adjust the historical record of water years for climate impacts at all? John Fazio said no, the Council does take into account things like irrigation withdrawals and evaporation but the Council does not make any adjustments to the historical record for change in climate. The Council has done climate change studies with the University of Washington climate impacts group that involves taking the 80-year historical water year record and modifying it for potential climate change scenarios in the future and will continue to ask during the plan whether the current historical record should be adjusted in any way but we have not done so yet. Member Karier inquired whether the Council will have options along the way to run some of those data sets with University of Washington to see if it changes the results or explore climate impacts in more detail. Fazio responded that we are planning to run those types of scenarios and as in the last plan, the results will appear in an appendix.

Member Anders asked about how other dynamics that might be in play--such as the drop in natural gas prices that occurred as a result of fracking technology--are considered during the power plan development. Eckman replied that the RPM puts in a range of fuel prices. We don't pretend to know what the price will be; rather, we stress test a range of prices.

Chair Bradbury inquired during the discussion of the RPM model whether the term "risk" as related to the Council deciding what level of risk it is comfortable with -- whether that is just another way of saying loss of load probability or is LOLP just *one* of the risks. Eckman indicated that we maintain in the portfolios we run a certain level of reliability so that a resource portfolio will have to meet a certain minimum standard of reliability before it will even be considered by the RPM as an acceptable outcome.

Member Rockefeller commented that the concept of a "future" is an amorphous subject and whether there is a way to systematically grapple with different circumstances when power planning. The intent of running many different futures is to make sure we have robust inputs that would produce a range of stress tests against which to test the various resource portfolios. For example, if we limit the natural gas price forecast to only a certain small range of futures and get an issue with fracking or LNG exports or national security unexpectedly comes up that result in driving up natural gas prices such that the price falls outside what we expected, we've missed the opportunity to stress test that future. So the goal is to develop enough inputs to ensure a wide enough range of excursions that we can determine if prices don't meet expected value. The futures concept encompasses both manmade and natural events.

Questions from other meeting participants included the following:
1. What is levelized cost? Levelized cost includes all costs over the lifetime of that resource. Think of it as a mortgage payment per kwH.

2. Why didn't the Council use the U.S. Department of Energy's July 2013 forecast data related to climate change effects on various generating resources? Fazio indicated that data issues prevented us from using that particular study but we did review other global climate change models. We intend to also do sensitivity studies for different climate

scenarios to see how resources and action items might change when developing the 7th plan.

3. As you go from plan to plan and create the supply curves, is there a part of the plan development process that reconciles what actually happened versus the previous plan so that if there were assumptions built into supply curves that turned out to be less accurate the supply curves can be adjusted? We capture what has happened since the last plan in the energy efficiency resource potential assessment and electricity demand forecast. In that assessment/forecast, we incorporate, for example, Federal standards that weren't there in the previous plan, performance of programs where we've done weatherization or wastewater efficiency improvements, etc. We recalibrate our analyses in all areas where we have new data. Advisory committees such as the Conservation Resources Advisory Committee also assist in that effort in taking up discussions on adjusting ramp rates or achievable potential levels of development over the next 10 years.

4. Does the Council do performance testing of forecasting models to decide how accurate they are? No, because we don't have insights about the future; we only know what has happened. Work has been done on the Aurora model in terms of trying to see how well forecasts turned out after-the-fact (backcasting). But, in terms of the accuracy in going forward it's impossible to performance test that proposition.

5. What is the link between the Fish and Wildlife Program and the Power Plan?
The program largely determines what hydro operations can do in terms of running the Genesys model. Per John Fazio, the program impacts the cost and physical operations of the hydrosystem as well as the corresponding hydrosystem generation. For example, the BiOp hydro regulations become the basis for AURORA and RPM runs.

6. Where can we advocate for a zero net energy building code model conservation standard? The principal place to advocate for a zero net energy building code would be through the Conservation Resources Advisory Committee which assists the Council in analyzing whether measures and model conservation standards are cost-effective. Another option is at a Council meeting and asking the Council to reconsider any analysis that may or may not comport with where you want to go. A measure has to be cost-effective as compared to other resources and economically feasible for consumers. So if zero energy buildings are cost-effective then, whatever level that is reasonably cost-effective is where the Council can go.

Overview of the Northwest Power and Conservation Council's Power Plan Development Process

Webinar

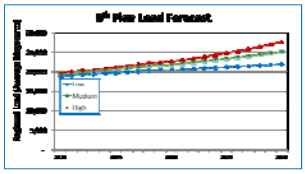
October 15, 2014

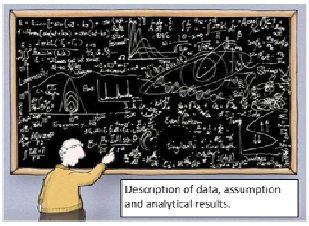
Agenda

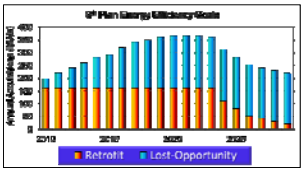
- What's in a Power Plan?
  - Major Elements

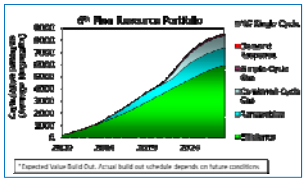
  (Briefing on the Act's complete legal requirements is scheduled for full Council in November)
- What are the major analytical steps in the Plan development process?
  - What models are used?
  - What role does each model play in plan development?
- How do we engage the public/stakeholders in Plan development?

What's In A Plan?

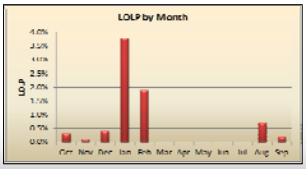








Columbia River Basin Fish and Wildlife Program 2014



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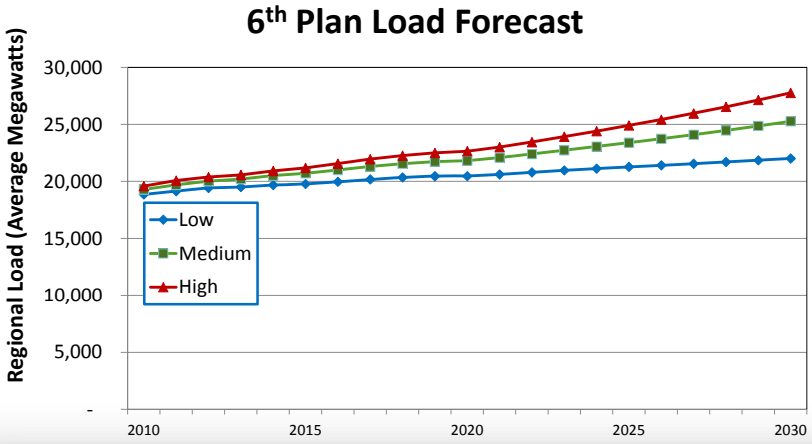
A *demand forecast* of at least twenty years



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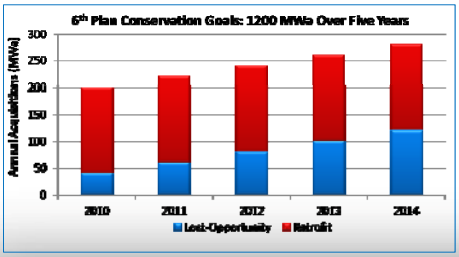
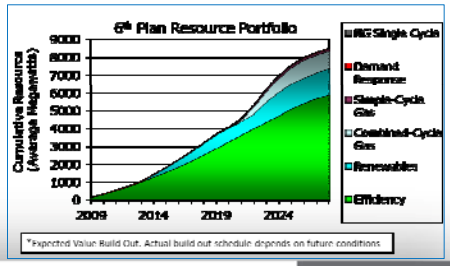
A *forecast of resources required to meet forecast demand* by resource priority type

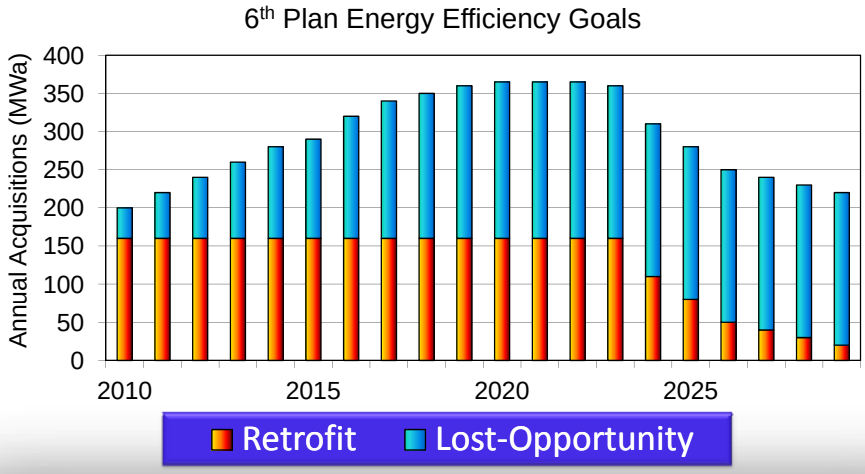
The 6th Plan's resource strategy can be summarized in five specific recommendations:

- *Cost-effective energy efficiency should be developed aggressively and on a consistent basis for the foreseeable future.*
- *Expand the supply of cost-effective renewable resources options*
- *Meet remaining needs for energy and capacity with natural gas-fired generation.*
- *Address the challenges of wind integration through improvements in system operating procedures and business practices.*
- *Expand long-term resource alternatives.*





An *energy conservation program*



Including *model conservation standards* (MCS)

Goal - MCS designed to produce all power savings that are *cost-effective for the region* and *economically feasible for consumers*

. . . shall include (but not limited to) standards applicable to

(A) New and Existing Structures

(B) Utility, customer and governmental conservation programs

(C) Other consumer actions for achieving conservation

and, *surcharge methodology* if recommended

The Council may recommend that the BPA Administrator impose surcharges of not less than 10% nor more than 50% of BPA's applicable rates to recover costs incurred because savings from the model conservations standards have not been achieved

The Code of Hammurabi contained the "Original" MCS Surcharge Policy -

"If a builder has built a house for a man, and has not made his work sound, and the house he built has fallen, and caused the death of its owner, that builder shall be put to death."

Regional *reliability and reserve requirements*

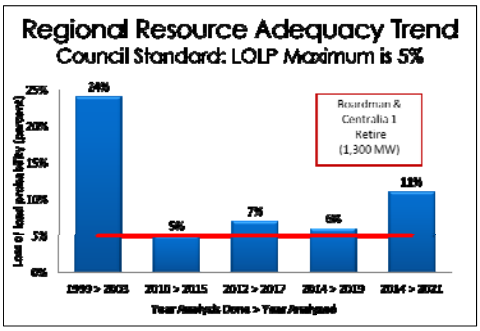
Northwest Power and Conservation Council

Pacific Northwest Power Supply Adequacy Assessment for 2019

Final Report

May 7, 2014

Council Document Number 2014-04



Research and development recommendations

Sixth Power Plan Action Plan Examples

- 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.
- GEN-7. Commercialize and confirm low-carbon resources with special Northwest promise.

A *methodology* for determining quantifiable environmental costs and benefits

6th Plan Methodology

- The four components of Council's methodology are:

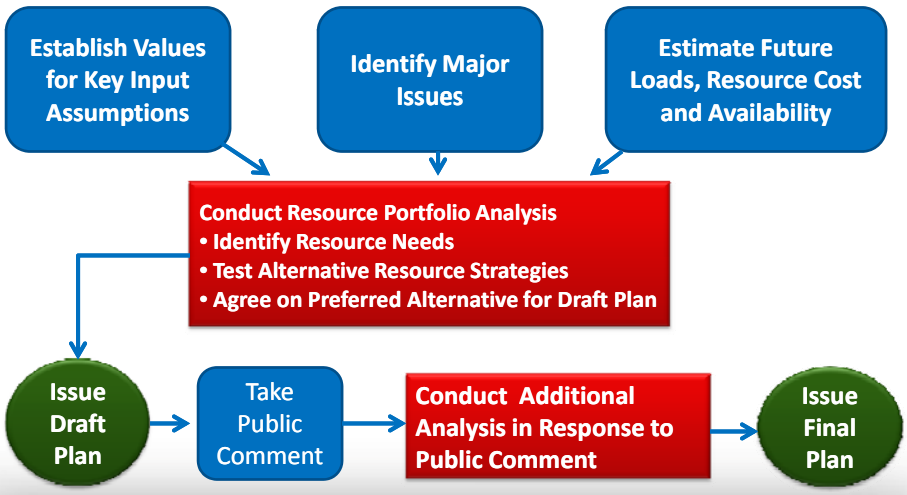
1. Include the cost of meeting existing environmental regulations
2. Where possible, quantifying the potential costs of new regulations
3. Account for the environmental benefits that may be associated with specific resources; and,
4. Recognize additional environmental effects that may remain after compliance with existing regulations

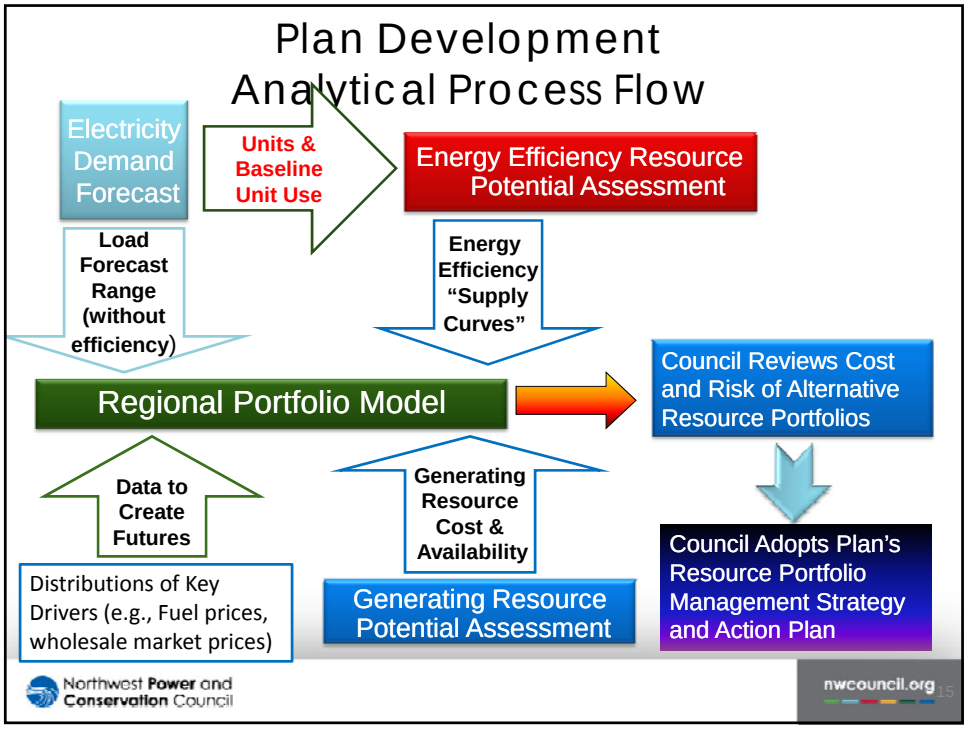
A *fish and wildlife* program

An *Action Plan*

Sixth Power Plan Action Plan

Plan Development Process





Models Used in Council Plan Development

- Energy 2020
- Fuel Price Forecasting Model
- AURORA$^{xmp®}$ Electricity Market Model
- GENESYS
- Regional Portfolio Model (RPM)

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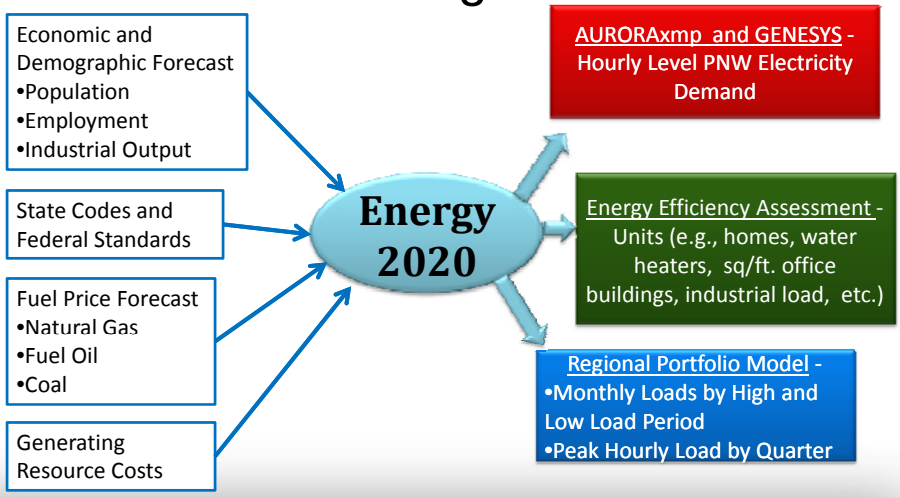
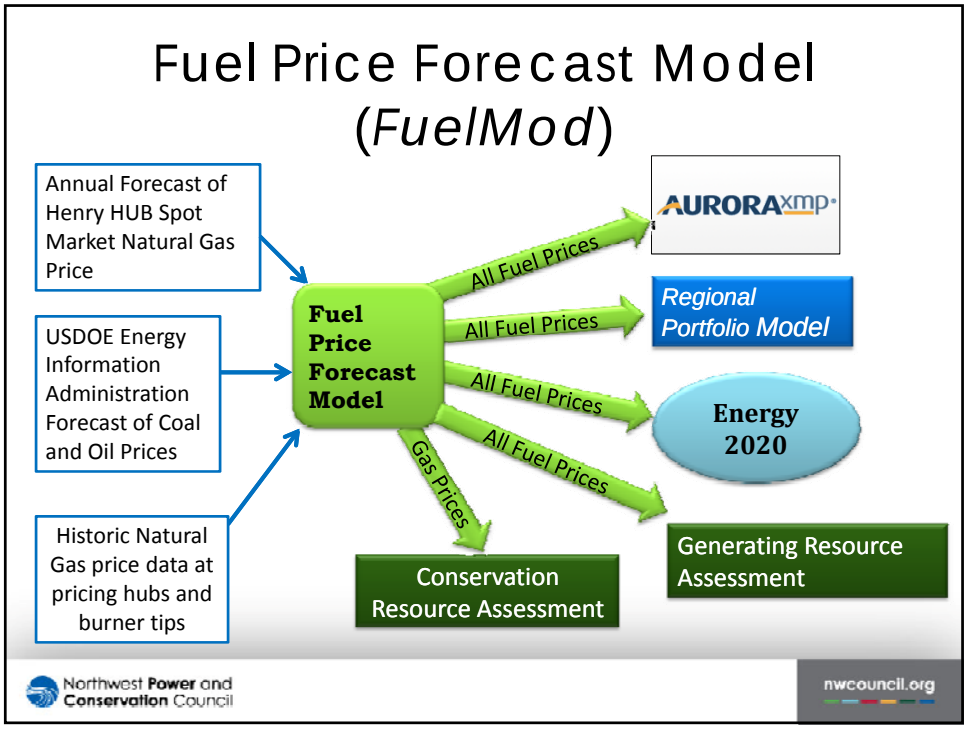
Council Planning Models

Energy 2020	Energy 2020 is an open source model developed by Systematic Solutions, Inc. This model has been customized for and by the Council. Used to forecast the hourly demand for electricity, potential applications for efficiency resources, ensure consistency between the demand forecasts and efficiency assessment.
Fuel Price Forecasting Model	Council developed model. Used to convert assumptions about fuel commodity prices to regional wholesale prices at various locations, and to convert to estimate retail fuel prices for input to demand forecasts and resource costs estimates
AURORA$^{xmp®}$ Electricity Market Model	Proprietary model from EPIS, Inc. Production cost model used to forecast hourly wholesale electricity market prices at various pricing points in the western U.S. (WECC area). Can also be used to forecast hourly and total system NOx, SOx, and CO_2 emissions.
GENESYS (GENeration Evaluation SYStem)	Council developed model that performs hourly chronological simulation of the Northwest's resources using many different assumptions for uncertain variables, including 1) river flows (which affect the amount of water for hydroelectric generation), 2) temperature (which affects demand for electricity), 3) forced outage conditions for generating resources and 4) wind generation.
Regional Portfolio Model (RPM)	Council developed model used to identify low-cost and low-risk resource strategies given uncertain future conditions and policies. It determines cost-effectiveness of alternative generating and efficiency resources. Time resolution is quarterly, with capacity assessments done for peak hour within period.

Energy 2020 Demand Forecasting Model




Fuel Price Forecast Model
(FuelMod)
Annual Forecast of Henry HUB Spot Market Natural Gas Price
USDOE Energy Information Administration Forecast of Coal and Oil Prices
Historic Natural Gas price data at pricing hubs and burner tips
Fuel Price Forecast Model
All Fuel Prices
All Fuel Prices
All Fuel Prices
All Fuel Prices
Gas Prices
AURORAxmp
Regional Portfolio Model
Energy 2020
Generating Resource Assessment
Conservation Resource Assessment
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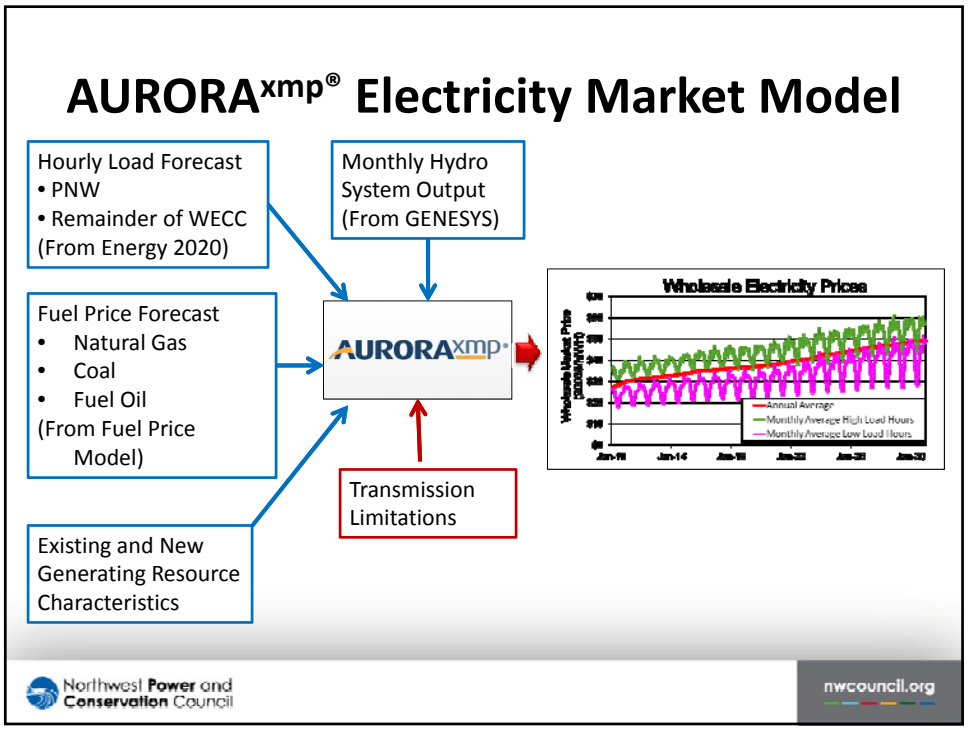
AURORA xmp® Electricity Market Model
Hourly Load Forecast
• PNW
• Remainder of WECC
(From Energy 2020)
Monthly Hydro System Output
(From GENESYS)
Fuel Price Forecast
• Natural Gas
• Coal
• Fuel Oil
(From Fuel Price Model)
AURORAxmp
Wholesale Electricity Prices
Transmission Limitations
Existing and New Generating Resource Characteristics
Northwest Power and Conservation Council
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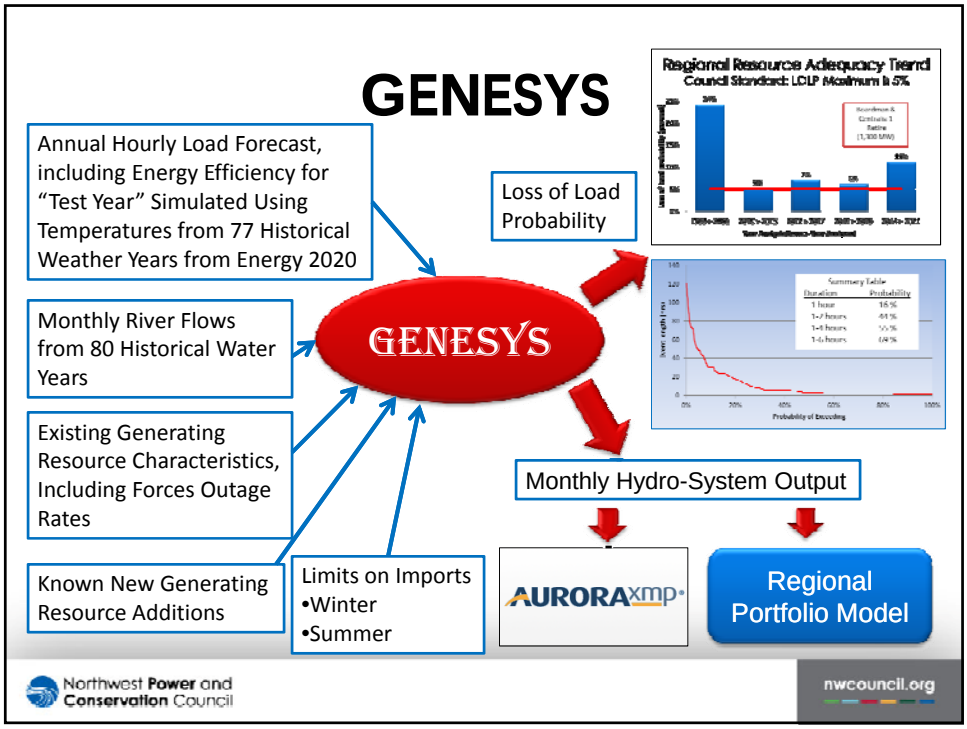
GENESYS
Annual Hourly Load Forecast, including Energy Efficiency for "Test Year" Simulated Using Temperatures from 77 Historical Weather Years from Energy 2020
Loss of Load Probability
Monthly River Flows from 80 Historical Water Years
GENESYS
Existing Generating Resource Characteristics, Including Forces Outage Rates
Known New Generating Resource Additions
Limits on Imports
•Winter
•Summer
Monthly Hydro-System Output
AURORAxmp
Regional Portfolio Model
Northwest Power and Conservation Council
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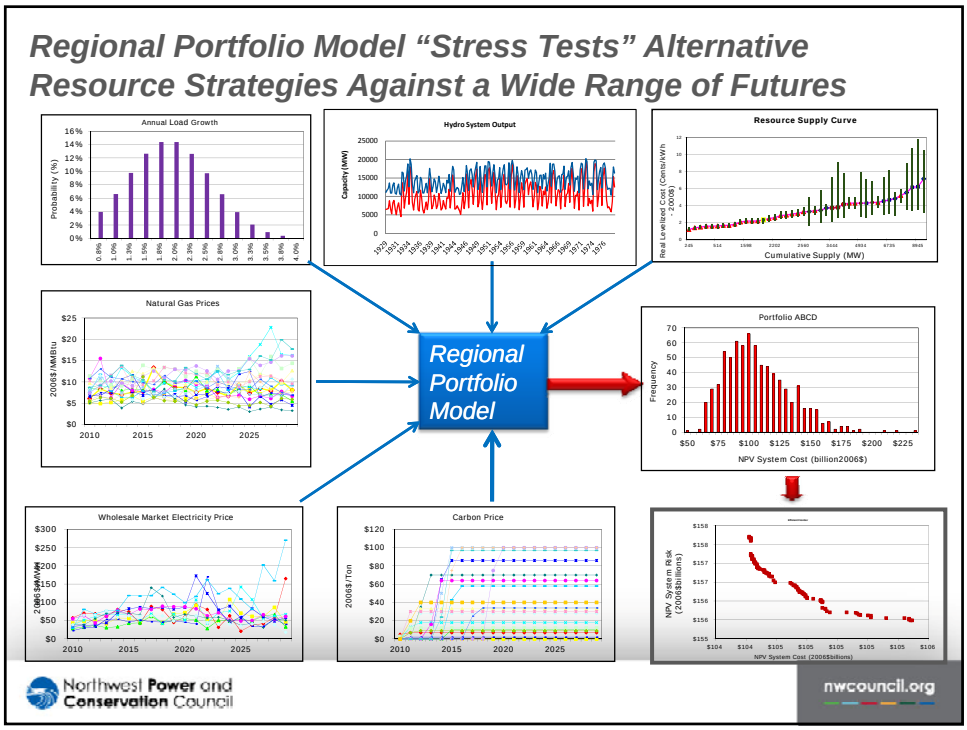
Regional Portfolio Model "Stress Tests" Alternative Resource Strategies Against a Wide Range of Futures
Annual Load Growth
Hydro System Output
Resource Supply Curve
Natural Gas Prices
Regional Portfolio Model
Portfolio ABCD
Wholesale Market Electricity Price
Carbon Price
Northwest Power and Conservation Council
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Regional Portfolio Model (RPM)

What It Does

- Tests alternative resource mixes and development timing (aka, *Resource Strategies*) against a range of future conditions (e.g., load growth, natural gas prices, emissions costs/limits, etc.)
- Identifies the "least cost" *Resource Strategy* for a given level of "risk"

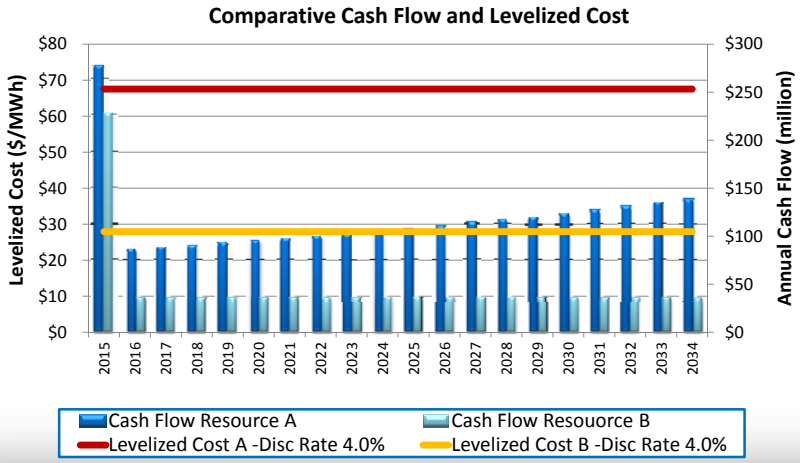
What It Doesn't Do

- Determine what is an acceptable level of "risk"
- Determine what is an acceptable level of "cost"
- Decide which *Resource Strategy* is "The Plan"

Council Financial Calculators

ProCost	Council developed tool. Used to calculate levelized costs of saved energy from efficiency resources based on measure and program cost and how the capital, operating and financing costs of installation are shared between consumers and ratepayer funded programs.
MicroFin	Council developed tool. Used to calculate the levelized cost of generating resources based on each project's cost structure and the share of capital, operating and financing costs borne by different project sponsors.

Microfin and ProCost Are Used to Provide Cost Comparisons Between Resources with Different Patterns of Annual Cost (i.e., cash flows) and Lifetimes



Requirements for Power Plan Advisory Committees

The **Northwest Power Act** requires the Council to insure widespread public involvement in the formulation of regional power policies

- Establish a voluntary scientific and statistical advisory committee (SSAC) to assist in the development and amendment of the power plan
- Ensure membership includes representatives of the Federal and various regional, State, local, and Indian Tribal Governments, consumer groups, and customers

Seven-for-Seven Power Plan Advisory Committees

- Conservation Resources Advisory Committee (CRAC)
- Demand Forecasting Advisory Committee (DFAC)
- Natural Gas Advisory Committee (NGAC)
- Generating Resources Advisory Committee (GRAC)
- Resource Adequacy Advisory Committee (RAAC)
- System Analysis Advisory Committee (SAAC)
- Resource Strategies Advisory Committee (RSAC)

Formation and Operation of Power Plan Advisory Committees

- Committees chartered for two years
- Committees report to the Executive Director
- Council staff usually chair & vice chair, though not required
- Members selected based on their technical expertise and experience.
  - Council solicits nominations for membership from regional stakeholders
  - Final appointments made by the Executive Director
- All meetings are open to the public
  - All notices, agendas, materials, minutes, membership lists, etc. are posted on each committee's webpage
- Committees serve in *advisory* capacity only
  - No votes are taken
  - Role is to review information, vet assumptions and information and make recommendations to the Council.
- All advisory committees help develop action plan

Role of Council Members and Staff

- Council members are free to participate in all Advisory Committee meetings
- Staff
  - Prepare agenda and materials for the meetings
  - Facilitate meetings
  - Certify meeting minutes (required by law)
  - Report to the Executive Director and Council Members on all progress and recommendations

Advisory Committee that Also Assist in Plan Development

- Regional Technical Forum – Assist with review of conservation potential assessments

Sample of Issues On Which Advisory Committee Input Might Be Sought

- What should the Plan assume about the adoption of Emerging Technologies, such as solid-state lighting and solar photovoltaics (PV)?
- How should the Plan incorporate the 2020 provisions of the Energy Independence and Security Act's (EISA) general service lighting requirements?
- What cost reductions and performance improvements should be assumed for new wind and solar photovoltaics generating resources?
- What should be the upper and lower bounds of natural gas prices from 2016 – 2025?

Next Time - Planning for Uncertainty

- *Resource Strategies* – actions and policies over which the decision maker *has control* that will affect the outcome of decisions
- *Futures* – circumstances over which the decision maker *has no control* that will affect the outcome of decisions
- *Scenarios* – Combinations of *Resource Strategies* and *Futures* used to "stress test" how well what we control performs in a world we don't control

Questions?

Backup Slides

What's in a Power Plan?
Illustrative Plan Table of Contents:

Basic Requirements of the Northwest Electric Power Planning and Conservation Act of 1980

The Plan Shall Include:

- A *demand forecast* of at least twenty years
- A forecast of *power* (energy and capacity) resources required to meet forecast demand by resource priority type (e.g., conservation, renewable, etc.)
- An *energy conservation program*, including *model conservation standards*; and a *methodology for calculating surcharges* if recommended
- Regional *reliability and reserve requirements*, including recommended cost-effective methods of providing reserves
- *Research and development* recommendations;
- A *methodology* for determining quantifiable environmental costs and benefits
- A *fish and wildlife* program

Council's Planning Process

- Longest running Integrated Resource Planning Process in US (and likely the world)
- Council has publish six regional plans since 1983
- Council has no regulatory authority over utilities or state commissions*
- However, Council's plans serve as a reference against which utility specific IRPs are reviewed

*Resource acquisitions by the Bonneville Power Administration (BPA), a federal power marketing agency, must be "consistent with the Plan"

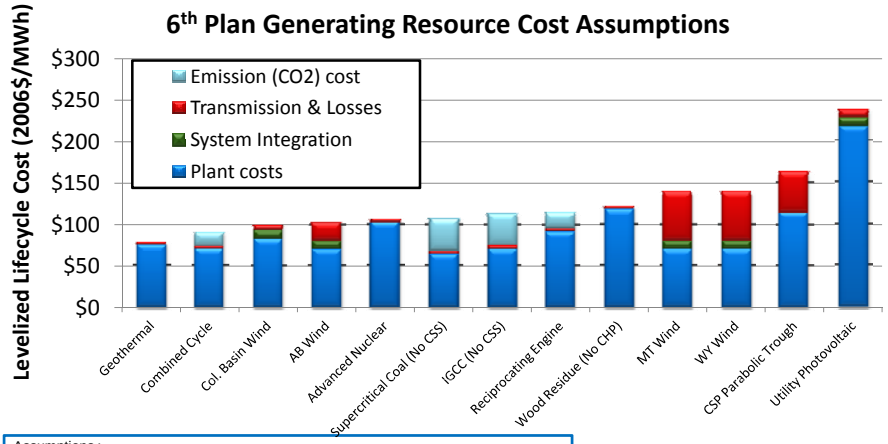
GENESYS Inputs

Into GENESYS	From	Comments
Electricity prices	AURORAxmp	For resource dispatch
Generating resources	Council's Generating Resource Database	Existing and planned
Hourly loads	Short-term Load Model	Single operating year
Energy efficiency	Power Plan targets	Incorporated directly into the hourly loads
Firm contracts	BPA White Book	Into and out of region only Subtracted from loads
Hydro data (e.g. BiOp)	BPA hydro studies	
Hourly wind generation	Council's temperature correlated synthetic data	Based on the federal fleet, subtracted from load

RPM Inputs

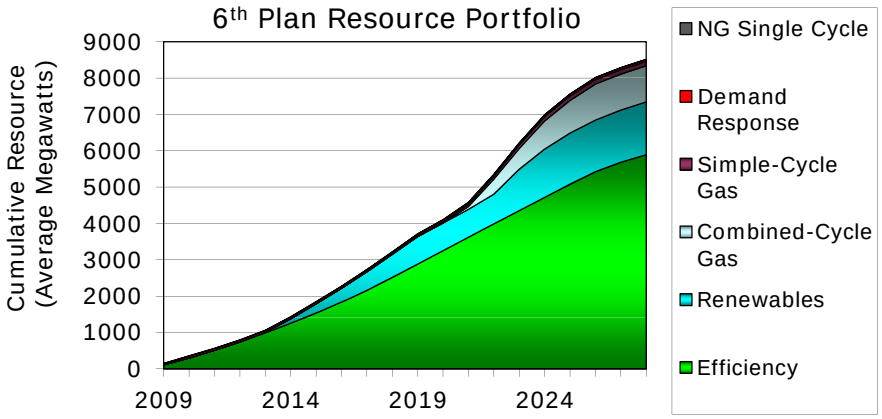
Into RPM	From	Comments
Electricity prices	AURORAxmp	
Generating resources	Council's Generating Resource Database	Same file that feeds into GENESYS
Frozen efficiency loads	Energy 2020 - Long-term Load Forecasting Model	20-year monthly average and monthly peak
Energy efficiency	Council's EE supply curves	GENESYS uses Plan taregts
Firm contracts	BPA White Book	Same file that feeds into GENESYS
Monthly hydro generation	GENESYS	
Hydro peak vs. Energy curves	TRAP model	Also used in GENESYS, extrapolated to 16-hr HLH
Annual load/resource minimum balance	GENESYS	Adequacy check for energy
Seasonal peak-hour planning margin	GENESYS	Adequacy check for capacity (new for 7th plan)

Generating Resource Cost



Assumptions :
Transmission cost & losses to point of LSE wholesale delivery
2020 service - no federal investment or production tax credits
Baseload operation (CC - 85%CF, Nuclear 87.5% CF, SCPC 85%)
Medium NG and coal price forecast (6th Plan draft)
6th Plan draft mean value CO2 cost (escalating, $8 in 2012 to $47 in 2029).

Sixth Plan Resource Portfolio*



*Expected Value Build Out. Actual build out schedule depends on future conditions

Council Meeting
Pendleton, Oregon

October 6-8, 2014

Minutes

Northwest Power and Conservation Council chair Bill Bradbury called the meeting to order at 1:32 p.m. on October 6, 2014. All members were present.

1. **Fish and Wildlife Program amendment process (breaks as needed):**
   Tony Grover, director, fish and wildlife division; John Shurts, general counsel; Patty O'Toole

The Council reviewed a new draft of its 2014 Fish and Wildlife (F&W) program which staff put together based on decisions made at its meeting in September. Staffer Patty O'Toole walked the Council through a set of proposed changes to the document submitted by central staff and the states.

The Council approved the text of a "Message from the Council" that would appear at the beginning of the program. The Council approved minor revisions and text reorganizations for various sections of the document, including Program Challenges, Predator Management, Protected Areas, Climate Change, and Wildlife Mitigation. In many cases, the changes were made to reduce redundancies in the text.

In the section on Fish Propagation, the Council discussed the use of definitions, including "wild fish," "natural-origin spawners," and "naturally spawning fish," and the need to have as much consistency as possible. The Council asked staff to work further on the issue and make recommendations at the Wednesday meeting about how the terms and their definitions should appear in the program and the glossary. The Council also reorganized some of the text and cut out redundant language in the Fish Propagation section. In the Adaptive Management section, some new language was inserted and some text was rewritten to make it more readable.

In the Investment Strategy section, the Council discussed language about BPA continuing to provide adequate support for terminal fisheries in the estuary and other basin locations beyond 2017. Vice-chair Jennifer Anders suggested that the program

include a definition of “terminal fisheries,” and Jim Yost recommended deleting “beyond 2017.” Both changes were accepted.

O’Toole explained language changes proposed for the program’s appendices, and the Council approved them. At the end of the discussion, O’Toole asked if the Council wanted staff to produce another complete new version of the document by the Wednesday meeting. Council members said that wasn’t necessary and that they could just review the text staff provides for the few last outstanding items, such as the definitions for the Fish Propagation section.

Bradbury concluded the day by saying that on Wednesday, the Council will consider the last of the proposed revisions and then be asked to make a final decision on whether it wishes to adopt the 2014 F&W Program.

Welcome

Bradbury resumed the meeting at 1:36 p.m. on October 7, 2014. He introduced Gary Burke, chairman of the Umatilla Board of Trustees, who welcomed the Council to the Umatilla Indian Reservation. Burke thanked the Council for its work on behalf of fish and wildlife and energy efficiency in the region. He went on to describe the tribe’s treaty rights and the importance of salmon to the tribe both as a foodstuff and for its religious significance.

I am glad we are working hand in hand with others to preserve the salmon, Burke said, adding that “once it is gone, we won’t get it back.” He stressed the importance of collaboration and consultation between the tribes and government agencies. The Umatilla have upheld all the treaty articles of law to date, and we are asking that others live up to them, too, Burke said. He encouraged the audience to see the tribal museum and learn about the culture. Thank you and we appreciate you coming here, Burke concluded.

Reports from Fish and Wildlife, Power and Public Affairs committee chairs:
Phil Rockefeller, chair, fish and wildlife committee; Pat Smith, chair, power committee; and Henry Lorenzen, chair, public affairs committee.

F&W Committee chair Phil Rockefeller was next with a committee report. He said the committee had the opportunity to learn about two BPA-funded projects in the Tucannon watershed. Rockefeller described a Yakama Nation project to recondition steelhead kelts so they can reproduce a second time. He recapped the sponsor’s response to Independent Scientific Review Panel concerns about the project and said staffer Mark Fritsch reported that most of the ISRP concerns have been addressed and others will be handled as part of the BPA project reporting process. Rockefeller said the committee passed a motion to accept the staff recommendation and to ask for another presentation on the project within two years.

He went on to describe a second project being managed by the Colville Tribe, which relates to burbot in Lake Roosevelt. The project goal is to have a harvestable population in the lake, but additional sampling to collect more data is needed. The project would

provide the additional sampling so the tribe can explore the prospects for harvesting a larger burbot population. The committee agreed by informal consensus to recommend this project continue and that it address issues raised by the ISRP, Rockefeller said, adding that the project sponsors were asked for another report to the committee within two years.

In addition, the committee had a briefing by Steve Martin, director of the Snake River Salmon Recovery Board, on improvements in the Tucannon watershed, he continued. The watershed restoration program has received high marks and we were happy to hear the good news from that project, Rockefeller concluded.

Power Committee chair Pat Smith reported that the committee had primers on methodologies to evaluate resources for the Seventh Power Plan. We looked at the process that will take place prior to information being input into the Regional Portfolio Model (RPM), he said. Smith described the methodologies staff proposes to determine the costs and characteristics for various types of resources. Between now and February, staff will finalize a list of the primary resources that will be input for the RPM, he said. Smith said there was also a report on the financial assumptions being used for the analysis, such as the discount rate. Staff wanted direction on how to move forward, and the committee agreed with staff recommendations on what to assume about things like tax incentives, he said, adding that the assumption is to go with what exists today rather than assume something different.

Smith said the committee also had an update on the RPM. The model is being tested with data from the Sixth Power Plan; the computer run was successful and there is a lot of confidence about the RPM development status, he said.

Public Affairs Committee chair Henry Lorenzen said staff is working on a new electronic newsletter, which will focus on development of the Seventh Power Plan. The newsletter will be aimed at a non-technical audience, he said.

2. Briefing on Regional Conservation Progress Survey Results,
Charlie Grist, manager, conservation resources; and, Jennifer Anziano, manager, Regional Technical Forum.

Staffers Charlie Grist and Jennifer Anziano reported that the region achieved 268 average megawatts (aMW) of conservation in 2013. The numbers come from an annual survey conducted by the Regional Technical Forum (RTF) and the Council, Anziano said. We requested the actual conservation savings and the expenditures for 2013, as well as projections for what utilities plan to achieve in 2014-2016 that we could compare to the targets in the Sixth Power Plan, she said.

Anziano described the survey data and collection process and noted that the results came from 80 utilities and represent 90 percent of the region's load. The results filled in by BPA and the Northwest Energy Efficiency Alliance (NEEA) bring the total to 100 percent of the load, she added.

The region is doing a great job of achieving conservation, Anziano stated. The 2013 accomplishments of 268 aMW slightly exceed the plan's 2013 target of 260 aMW, she pointed out. In every year since 2005, the region has achieved more conservation than called for in the power plan, and utilities in the Pacific Northwest have acquired nearly 2,000 aMW of savings since then, Anziano stated. In breaking out the savings by sector, she noted that while savings are greatest overall in the residential sector, commercial and agricultural savings show continued growth.

The spending on conservation has been stable since 2010, Anziano continued. The investment in energy efficiency in 2013 was $375 million (2006 dollars), she said. The average levelized cost of conservation remains low, and in 2013, it was $17 per megawatt-hour, down from $18 in 2011 and 2012, Anziano said. NEEA has done a lot for the region, adding 60 aMW to the 2013 savings, she added.

Booth asked why there is such a drop in the projected conservation savings in 2016. Not all utilities responded to that part of the survey and only 60 percent of the region's load is represented in the projection, Anziano explained. Based on the numbers we received, things look good for meeting the upper range of the five-year goal in the Sixth Power Plan, she stated.

In comparing conservation spending in the Northwest to the U.S. average, Anziano pointed out that the per-person spending of $28.02 here is nearly double the $16.17 average in the country. In addition, the region invests about twice the national average of its retail electric revenues in energy efficiency, with the Northwest at 3.4 percent of revenues compared with the 1.6 percent U.S. average, she said.

"A huge accomplishment" is the percent of load growth met by efficiency, Anziano said. Efficiency has met nearly 62 percent of Pacific Northwest load growth since 1980. This is "a significant finding" in the 2013 report, she added. In addition, since 1978, utility and BPA programs, energy codes and federal efficiency standards have produced almost 5,600 aMW of savings, Anziano said. "That is a big number" and is enough power to serve all of Oregon and Western Montana, she added.

Conservation has saved the region's electricity consumers nearly $3.5 billion and lowered the Pacific Northwest's coal emissions by an estimated 21.9 million tons, Anziano stated. In 2012, energy efficiency represented the region's second largest resource, behind hydro and ahead of coal, she reported.

A graph in the presentation showed that the 5,570 aMW in energy efficiency savings since 1978 exceed the annual firm energy output of the six largest hydro projects on the Columbia River, Anziano continued. These are significant savings, she stated.

I have trouble comparing the energy produced by the dams versus the avoided need for energy, Bradbury said. It doesn't seem like "an apples to apples" comparison, he stated. Without conservation, we would have had to build up this level of resources, Anziano said.

This is a tremendous legacy for the region, Grist added. Both the hydro system and efficiency programs produce an astounding amount of low-cost and carbon-free energy, he stated.

"Good news just keeps coming," Karier said. There were questions about whether the region could meet the targets in the Sixth Power Plan, and we have exceeded the targets and "at a ridiculously low price," he said. This is a testament to the region working well together – it's a phenomenal achievement for the Northwest, Karier stated.

This region is "a national, possibly international star' in energy conservation, Booth said. The ramp up in the Sixth Power Plan was steep in the early years and steep in the outlying 15 years, he said. Now the achievements are leveling off at around 270 aMW annually, Booth stated. As we approach the Seventh Plan, how do we address that? he asked. There is a leveling off of investment, too, Booth said, adding that energy demand remains level. The conservation target will be a big issue in the Seventh Plan, he stated.

We are embarking on the Seventh Plan and will look at this anew, Grist responded. Among the tidbits of information is what has been accomplished with federal standards since the Sixth Plan, he said, adding that almost 1,000 MW of the 6,000 MW in the last plan will be captured with federal standards. There will be adjustments going forward; we'll look at a new baseline and we'll remove things that have been accomplished, Grist said. We don't know yet, the trajectory may be different, he acknowledged.

Grist pointed out the impact of advances in technology, noting that solid state lighting is a big change on the horizon. We are putting together an estimate of what's left to do and what it costs, he said, adding that the new information will go into the Regional Portfolio Model analysis for the Seventh Power Plan.

Booth also questioned the graph that compares production at a dam with the conservation savings. That comparison needs another level of analysis, he said. We have the ability to ramp up those existing resources before we have to build more, Booth said.

It seems like "an apples to apples comparison" to me, Smith commented. There are other ways to analyze it but this seems close in terms of "apples to apples," he added.

There are other metrics in the high-level indicators, Lorenzen stated. Energy efficiency plays a part in reducing the cost of the system, and another impact that would be helpful to know is the effect on BPA rates, he said. We need to know how conservation affects BPA rates, Lorenzen stated.

3. Council Decision on Regional Technical Forum Work Plan and Budget:
Jennifer Anziano and Charlie Grist; Jim West, Co-Chair of the RTF PAC.

Grist said staff is looking for a decision on the RTF's 2015 work plan and budget in order to get contracts in place with analysts to proceed with the work. He described the process for developing the work plan before turning the presentation over to Anziano, who cited the major timelines and the "overarching theme" for the plan. She said there is increased emphasis on technical analysis for efficiency measures and described the

details of the effort. We'll bid out for six positions to do additional research, Anziano told the Council.

She went through the proposed 2015 work plan and said the total annual budget of $1.6 million is based on an agreement with the funders. Anziano described the plan's greater emphasis on accomplishing measure updates and development and on regional coordination. She explained how the work and budget are allocated for contract work that will be awarded under a Request for Proposal. All of the positions will be put out to bid and we will assemble a team from the responses, Anziano said.

The Council staff will continue to work with the RTF manager and participate in contract analysis, but there is a reduction in the "in-kind" contribution the Council makes, she explained. More of the work will transition to the RTF manager position, which is funded outside of the Council budget, Anziano pointed out. She went on to describe other items in the work plan and said it will be a challenge to get through all of the measures in the RTF meetings. Anziano concluded with a summary of the proposed 2015 RTF work plan and budget and the 2015-2019 Business and Operating Plan.

Smith, who co-chairs the RTF Policy Advisory Committee (PAC) with Jim West, told the Council the PAC meets quarterly and reviewed the budget and work plan at its last meeting. We gave unanimous support to the 2015 plan and a five-year budget, he said. The funding sponsors are on board with the proposal and the budget approach, Smith said. The PAC co-chairs recommend this to you, he stated.

Anders asked for clarification on the budget cycle. Staff said the 2016 work plan and budget would be presented to the Council in 2015. Anziano said the funding sponsors have agreed to a five-year plan. Grist said the five-year funding cycle is a huge improvement. It makes for a more stable system, the funders know what to expect, and it helps in their budget planning, he said.

Karier thanked Smith, West, and others for their participation on the PAC. All of the entities that have put their money behind the RTF have made it more productive. It is a key part of the energy efficiency program in the region, he stated. "This is impressive and has my full support," Karier added.

Anders made a motion that the Council approve the 2015 Work Plan, the 2015 Budget and the 2015-2019 Business Plan for the Regional Technical Forum as presented by staff. Lorenzen seconded the motion, which passed on a unanimous vote.

Break

4. Presentation by Werner Buehler, Executive Vice President, Oregon Trail Electric Consumers Cooperative; and Troy Cox, Manager, Columbia Power Cooperative Association.

Henry Lorenzen introduced Werner Buehler, executive vice president of Oregon Trail Electric Consumers Cooperative and Troy Cox, manager of Columbia Power Cooperative Association. Lorenzen noted that his appointment to the Council was bittersweet in that he had to resign from representing electric co-ops in Oregon. Two of

those co-ops are here today, and their presentations will give you an idea of what they face, he said.

Cox kicked off the presentation telling the Council that Columbia Power was incorporated in 1948 and energized in the 1950s. The median income in the service territory is $25,000 a year and there is a 21 percent poverty rate, he said. We have 10 full-time employees and 4 part time, with five linemen who cover 90 miles of transmission line, Cox said. We have about 1,000 miles of overhead distribution line and 14 miles of underground line, he said.

Columbia Power covers about 6,000 square miles, Cox continued. Within those miles, we have 1,822 services and only 1,200 members, so our ratio is close to one person per line mile, he added. Our average sales are about 2.2 million kilowatt-hours (kWh) and last year, our BPA bill was $840,000, Cox said. That bill is one-third of our revenues and one-third of that bill goes toward conservation, he explained.

We have no load growth in our service territory, Cox stated. We have less than .01 percent per year on the residential side and our commercial and irrigation load is not growing at all, he said. Irrigation is a huge summer load for us, but we have no large industrial load and no prospect of it, Cox said, adding that there's nothing to draw large industrial sites. We have no high-speed internet or other infrastructure large industries need, he acknowledged.

Most of our co-op members rely on state and some federal and school system jobs, along with ranching and farming, Cox went on. With no load growth, it is difficult to maintain our huge system, he stated. Cox noted that about six years ago, the co-op went to the Rural Utilities Service to get a substantial loan to cover the cost of rebuilding transmission lines, substations, and a main trunk line. It took so much time to get the loan approved, we were only able to cover half of the planned improvements and now have to figure out how to achieve the rest without burdening our members, he said.

Conservation programs are a big problem, Cox stated. BPA allocates us a portion of conservation money each year to help encourage members to do efficiency projects, he explained. Members approach us with projects, but once they see how little our conservation funds provide for the whole project, they find they don't have the money to go forward, Cox said. We struggle to spend the conservation money BPA allocates, he added. The people who take advantage of it would do their projects regardless of BPA's money, so "they get free money," Cox remarked.

There is no load growth in the system, and members want to lower their electricity bill, he continued. Those who can afford efficiency projects decrease their kWh use and that affects our budget, Cox explained. How do we maintain our system with the revenues dropping? he asked. We have no load growth to compensate for the customer savings, Cox pointed out.

It's a difficult decision for us to raise rates, and "we never want to do it," he said. We are a nonprofit and our margins go back into our system, Cox said. No one likes to raise

rates but to maintain our system and stay up to code, the money has to come from somewhere, he said. Any program that hinders our kWh sales hurts our budget and we have to recover the money somehow, Cox concluded.

Buehler said the Oregon Trail Electric Consumers Cooperative (OTEC) is one of the largest co-ops in Oregon with 30,000 meters in four counties. OTEC has local offices in Burns, John Day, Baker City, and La Grande, he added. OTEC has about $50 million in sales annually and maintains 3,000 miles of line, Buehler said. We have average demand of about 80 MW and maximum demand of 147 MW; OTEC is a full requirements customer of BPA, he said.

OTEC came about with the demise of CP National, a company that exited the power business to get heavily into telecommunications, Buehler explained. He noted that CP National had onerous PURPA cogeneration contracts for power that provided only 10 percent of energy needs but were 40 percent of the company's costs. We were "the poster child" for how those contracts were not working, Buehler indicated. Since the OTEC takeover, we have a strong equity level despite the PURPA contracts, he reported.

The industrial load in the territory, primarily wood products, has dropped 50 percent since the CP National time, and the local economies are such that loads are flat and declining, Buehler continued. A recent conservation assessment forecast OTEC loads will decline about 3 percent overall and residential use will decline 12 percent in the next 10 years, without conservation, he said.

OTEC has focused on cost cutting and reduced its employees from 100 to 80, Buehler said. We've raised rates .004 percent, he said. Even with SmartMeters and other technology, it is difficult to have enough employees to work on the lines, Buehler said.

We have plenty of trepidation toward expanding our conservation programs with loads that are flat and declining, he said. As a not-for-profit utility, our margins are $2 million to $3 million, but every year we lose $1 million in margins by participating in BPA's conservation program, Buehler said. OTEC has lost $9 million in margins over 10 years and our current programs are reducing it further, he pointed out.

We have to have enough revenue to operate the utility safely and reliably, Buehler continued. OTEC has investigated a rate redesign to decouple conservation, he said, adding that every BPA increase has been assigned to the utility's system charge, which went from $10 per month to $20.65. There is not enough incentive to justify time-of-day rates at the co-op since there is not much difference in price between peak and off peak, Buehler added.

The challenges before us can be solved, he stated. A broad sweeping regional policy has had unintended consequences; we face increasing power costs and increasing directives to acquire efficiency, but our loads are declining, Buehler explained. We have to collect the same revenue from fewer kWh, he said.

We urge the Council to discuss this as part of the Seventh Power Plan, Buehler stated. The question for us is how we serve our customers efficiently and whether we redesign the rate constructs, he said. It's important to OTEC and others in the region that the Council address and understand our situation, Buehler stated.

We have these issues with our rural utilities in Idaho, Bill Booth commented. The region benefits from conservation, but how do we rebalance this situation to protect the rural areas, he said. Perhaps the benefits that are generated from municipalities need to be shared with rural utilities, Booth suggested. Keeping the lights on in rural communities is a big deal, he added.

We hear similar concerns in Western Montana, Pat Smith said. The staffing reductions are similar at Lincoln Electric, he added. This issue may be something we need to look at in the next plan and we should talk about some ideas, Smith stated. Rural people like efficiency and self-sufficiency, he noted, adding that there is probably a rural constituency that likes the programs.

You are right, Buehler responded, but how do you make efficiency work, integrate it into what we are doing today, and still have enough revenue to make the system work. The transition is the struggle and it will take more study into how the transition can be made, he stated.

People approach us with solar and wind projects, but once they find out the real cost, they back out, Cox added. I agree with that, Buehler answered. We could do things that make it easier for customers to take on projects, he said.

The real challenge for the region is that conservation is an overall benefit, Lorenzen stated. The question is how to encourage conservation in a way that doesn't adversely impact utilities such as yours, he added. It would help us to know the impact of these programs on BPA rates, Lorenzen said. We need that full picture to understand the impact to the region's utilities, he added. The ultimate conclusion may be that for utilities with negative load growth, the benefit would be to pay BPA to do the conservation in the region, Lorenzen suggested. Maybe not in your service territory but elsewhere because the region as a whole would benefit, he said.

Henry is thinking of this in the right way, Tom Karier responded. There should be a benefit in the BPA wholesale rates, he said. We would need to look at whether this is a fair exchange for utilities such as yours, Karier told the co-ops.

If conservation wasn't in the picture, would that remove the problems you are encountering in terms of declining load? Phil Rockefeller asked. Is conservation the root problem or are other factors part of problem? he asked.

Conservation is compounding the problem, Cox responded.

If the conservation program went away, would you have residents taking advantage with and some conservation would take place? he asked. The end goal is to reduce the customer bill, Buehler replied. It is a problem when you have declining loads and on top

of that you have to do conservation, he said. The financial impacts are real, Buehler added.

Will your business model work in the long term or would you be better off joining with a larger entity? Rockefeller asked. If you go with someone larger, you spread the pain more broadly, Buehler replied.

Rockefeller cited the example of equalization in state school funding. Could BPA play some kind of role like that? he asked. Somewhere the business model has to be adjusted and the Council could play a constructive role in looking at the options, Rockefeller added.

Jim Yost asked about the way in which co-ops lose revenue due to conservation. OTEC buys power from BPA and marks it up to cover costs; but if I can't sell that kWh, I lose money, Buehler replied. Because we have no load growth, what you see with Troy and I is the canary in the mine, he added.

5. Council business:

- **Approval of minutes**

Anders made a motion that the Council approve for the signature of the Vice-Chair the minutes of the September 9-10, 2014 Council Meeting held in Portland, Oregon. Rockefeller seconded the motion, which passed unanimously.

Public comment on the Environmental Methodology Issue Paper (Council document 2014-09) or the Power Plan High-Level Indicators Issue Paper (Council document 2014-10). Public comment may also be offered on any other issue before the Council with the exception of the Columbia River Basin Fish and Wildlife Program.

Wendy Gerlitz of the Northwest Energy Coalition (NWEC), told the Council NWEC will submit written comments on both issue papers. She directed her comments to the Environmental Methodology paper and the treatment and questions surrounding the proposed EPA regulations on carbon emissions. We propose the Council in doing its Seventh Power Plan consider the EPA regulations as existing regulations even though they are draft, Gerlitz said.

The rules are draft now but they will become final and the Seventh Power Plan should include the impact of those regulations, she reiterated. Gerlitz added that the two regulatons proposed by EPA are probably not the end of greenhouse gas regulations. The regulations will not be "the end all and be all" and there will be effects from future regulations to be considered, she concluded.

How are we currently treating the two EPA regulations? Bradbury asked. That question is open for comment, Gerlitz responded, but on page 6 of the issue paper, it says that while the Council doesn't include draft regulations in its power plan, it would be good for the Council to assume some scenarios in which they would apply, she explained.

NWEC says it is not an open question, and we say you should treat these regulations as the baseline, Gerlitz stated.

If utilities are making the assumption these regulations should apply, does that mean they won't be litigating them? Smith asked.

I don't think that is the case, Gerlitz responded. There is a great deal of uncertainty, but in some cases, even final federal rules are being litigated, she said. "We have to go with what we know to be true," Gerlitz stated. You can assume the regulations or some version of them will be impacting the Seventh Power Plan, she said.

EPA has said it would propose five major changes to rule 111(d) before it's adopted, Yost pointed out. But you want us to accept the existing proposal into the plan, he said. I don't think that is reasonable, Yost added. I'm not saying we shouldn't take carbon into consideration, he said, but you have to be more reasonable with the Council. Don't ask us to do something as illogical as accepting a rule that EPA has already said it would change, Yost said. "Join the real world" and help us instead of being part of the problem, he added.

To not include the EPA intent is equally remiss, Gerlitz responded. Your staff can figure out the best way to include the draft regulations in the power plan, she said. They can figure out what needs to be modeled to figure out the intent of EPA, Gerlitz stated.

To what extent are we to analyze the existing system? Lorenzen asked. The proposed 111(d) rule would directly apply to potential new resources, but in terms of what exists today, it could affect the operation of resources, he said. That could be the way it comes into play, Lorenzen added. If we had a hypothetical high carbon tax, we could conclude that plants would shut down, but that might not happen, he said. Our plan wouldn't reflect reality so we have to be careful about how we do this, Lorenzen stated.

6. Council decision and adoption of the amendments to the Columbia River Basin Fish and Wildlife Program

Bradbury called the meeting back to order at 9:00 a.m. on October 8, 2014. We are almost through developing a F&W amendment for 2014, which we will work from for the next five years, he said, before turning the meeting over to Patty O'Toole.

O'Toole pointed out that an issue or two remained to be resolved, in particular the definition of wild fish. Staff has come up with a few options and also has a definition for terminal fisheries, she said.

The staff definition for terminal fishery is fine and seems non-controversial, Rockefeller commented. As for wild fish, there are three variations on the definition and the members are divided on these, he said. We need to get to a consensus, Rockefeller stated.

The Council had a lengthy discussion about the definition. Karier said what was lacking in the previous definition was a clear term for what we count on the fish ladders and spawning grounds. What we count are fish without a fin clip, he said, adding that we know these fish have spent their life in a natural environment, he said. Lorenzen pointed out that some fish released from tribal hatcheries are not clipped. Not all unclipped fish came from gravel so that will skew the count, he said.

There is a term in the region for what we count, “and it is called wild fish,” Booth stated. If we look at the capability for separating wild from hatchery fish, most hatchery fish are marked; the identifier is the mark, he said. The NOAA delisting standard is based on wild fish, Booth said; any unmarked fish is counted as wild. In the harvest programs, we have no other way to tell the origin so we separate fish into wild and hatchery; any unmarked fish is considered wild and it goes back, he explained. The term “wild” is well known and understood by fisheries managers and others, Booth said.

When it gets to a scientific definition of what we are looking at, we have the latitude to define this as we want, he continued. We could stick with the regionally understood definition, which is definition number 2 on the staff list, Booth pointed out. We might be aiming for a higher standard, and it would be nice “if all streams were populated with blue-blooded lineage,” he added. But at the level we deal, it is simply hatchery and wild fish, Booth stated. For simplicity sake, I prefer definition number 2, he said.

The people managing the fisheries are responsible to get to the delisting point and many would like to get there to have enhanced harvest, Booth went on. We are having a record year for sockeye, one-third of which are natural, he said. The Shoshone Bannock tribe would like to have a fishery on those fish, Booth said. We have been in an ex parte period and haven’t had recent conversations with the folks in Idaho, but based on prior conversations, I know the definition number 3 would create practical compliance problems in the real world, he said. This issue could be deflating for those working toward delisting, Booth added. Their goal is to reach delisting and it could be deflating to them if we impose a higher standard, he said.

I didn’t see this recommendation for referring to “multiple generations” offered by any fish managers, Booth stated. Some people like it but I don’t believe in our amendment process we received any support for that type of language from the fisheries managers, he said. I won’t vote for definition number 3 and adding an arbitrary standard to our definition of wild fish, Booth concluded.

I’m not sure that is what we had in mind when we were making definitions, Anders said. The wild fish definition is not a requirement and the only place it appears in the program is in a policy statement, she said. When we talk about what we count, it is a natural-origin fish, Anders said, adding that ultimately, I don’t think we will count wild fish, we will count natural origin fish. This is a statement about the populations, she continued. In the definition, we say we recognize this as a process and that these populations are coming back to the gravel year after year, Anders stated. She went on to explain why the Council would try to define wild and natural-origin separately. I don’t think definition number 3 would get us into trouble, Anders said. If we back off and go with definition

number 2, it is probably fine but it doesn't include a policy statement when you contemplate the cycle of the populations and what they are doing, she said. There is no intent here to infringe on what the managers are doing or the importance of the hatcheries, Anders said. It is simply a policy statement because we think it is right thing for the program, she concluded.

Bradbury asked about the impact of the definition on program management. That is the critical issue with the definition, he said.

Staffer Tony Grover said the Council sets a definition and the real-world effect is inside the program and the people affected by program. What we can't control is how someone takes something out of the program and uses it in a way the Council never intended in court, he said, adding that is what Booth is alluding to. There is likely not a high probability of that, but we don't know if there is no probability, he said. In the real world, the difference between definitions number 2 and 3 is that you get a better sense of time with number 3, Grover stated. I understand the need to capture the time element since time makes a fish wilder and wilder with succeeding generations, he indicated.

Staffer John Shurts said the wild fish definition in the F&W program is an aspirational policy. You want to make sure the habitat work is encouraging production of fish in the wild, and you are trying to give guidance in a long-term policy sense.

Yost suggested a vote. Bradbury explained that the two proposed definitions differ in that number 2 defines the fish as those that have successfully maintained natural production and number 3 adds to that success "multiple generations."

In a roll call vote, there was a 4 to 4 tie between definition number 2 and definition number 3. Shurts pointed out that the definition in the draft, which is most similar to number 2, would stand since there were not enough votes for a change.

Booth suggested that the meeting minutes should reflect that the definition of number 2 intends it to pertain to more than one generation.

The Council agreed the definition remains as it is in the draft since the vote to change it ended in a tie.

O'Toole said staff is compiling statistics on what was accomplished in the amendment process. She recapped the history of the process that began in September 2013. The Council received 400 sets of recommendations and 197 sets of comments on them, O'Toole said. There were 14 public work sessions and over 11 Council work sessions, she said. We released a draft program in May and had 10 public meetings and received 300 sets of comments and 25 public comments, O'Toole said, adding that there was a lot of interest from the local media. She added that the staff would continue to look at how to embrace technology to enhance on-line use of the program.

We have reached our destination and now it's time to consider adoption, O'Toole said. Staff will be working with legal counsel to prepare the findings and we are thinking those

will be ready in December, she said. Shurts reminded the Council that findings are part of the program.

Council members and staff offered a number of thank yous to those who helped in the amendment process.

Yost made a motion that the Council accept the 2014 amendments to the Fish and Wildlife Program. Anders seconded the motion, which passed on a unanimous vote. The F&W program for 2014 is officially adopted, Bradbury concluded.

Lorenzen asked if the Council is still under ex parte rules. Shurts said ex parte had ended, and the findings will be presented at the Council's December meeting.

Anders made a follow-up motion to honor the fine work of the staff in developing the amendments. She invited the staff to lunch at a future time in Portland. The motion was so ordered. Rockefeller acknowledged Patty O'Toole's outstanding performance in leading the amendment effort.

Bradbury wrapped up by saying it was an incredible opportunity to work with all of you to put this program together. It is a really large and major effort and one that all in the region should be proud of, he said. You've made me proud about where we as Northwesterners are going in order to keep the hydro system working and to have a strong fishery in the Columbia River, Bradbury stated.

Smith offered kudos to the bottoms-up process in developing the program and the level of engagement from the managers. I'd thank them for their level of engagement throughout the process, he said.

The meeting adjourned October 8 at 9:45 a.m.

Approved November ___, 2104

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Vice-chair

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