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June 28, 2012

MEMORANDUM

TO: Council Members

FROM: Charlie Black, Power Planning Division Director

SUBJECT: Update on Mid-Term Assessment for the Sixth Power Plan

Staff has made further progress incorporating input received from a variety of sources regarding the overall scope and specific topics to be addressed in the Mid-Term Assessment for the Sixth Power Plan. At the July meeting, staff will present to the Council a proposed framework for organizing elements of the Mid-Term Assessment, including topics that appear most timely to analyze in the Mid-Term Assessment and topics to be flagged for the Seventh Power Plan. Analysis on a number of topics has begun; these will also be described for the Council.

The proposed framework for organizing the Mid-Term Assessment includes the following elements:

1. Recap of Sixth Power Plan Analysis, Resource Strategy and Action Plan
2. Narratives on Developments Since the Sixth Power Plan
3. Updates to Key Forecasts and Assumptions
4. Evaluation of the Sixth Power Plan Resource Strategy in Light of Recent Circumstances
5. Progress Reports on Existing Regional Efforts to Address Key Issues
6. Other Topics for Analysis in the Mid-Term Assessment
7. Topics Flagged for Analysis in the Seventh Power Plan

Additional materials will be provided under separate cover before the meeting.

c:\users\cblack\documents\c memo on mid-term assessment.docx (Charlie Black)



Sixth Northwest Electric Power and Conservation Plan

Mid-Term Assessment Update

July 10-11, 2012

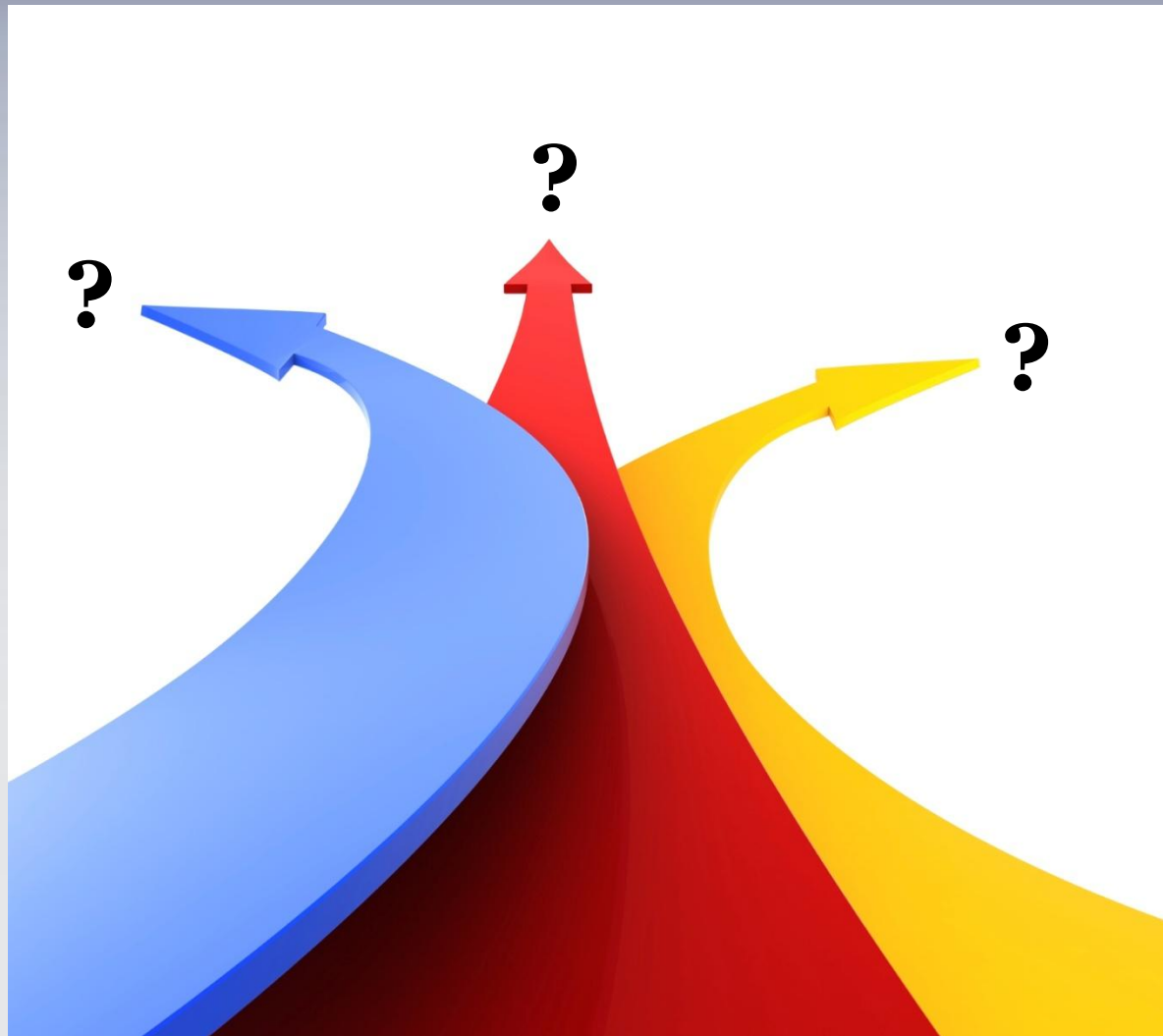
Roadmap for the Mid-Term Assessment



Agenda

- **Check and confirm primary objectives for the mid-term assessment**
- **Define a framework for analysis**
- **Set the schedule**

Is the Region on Course?

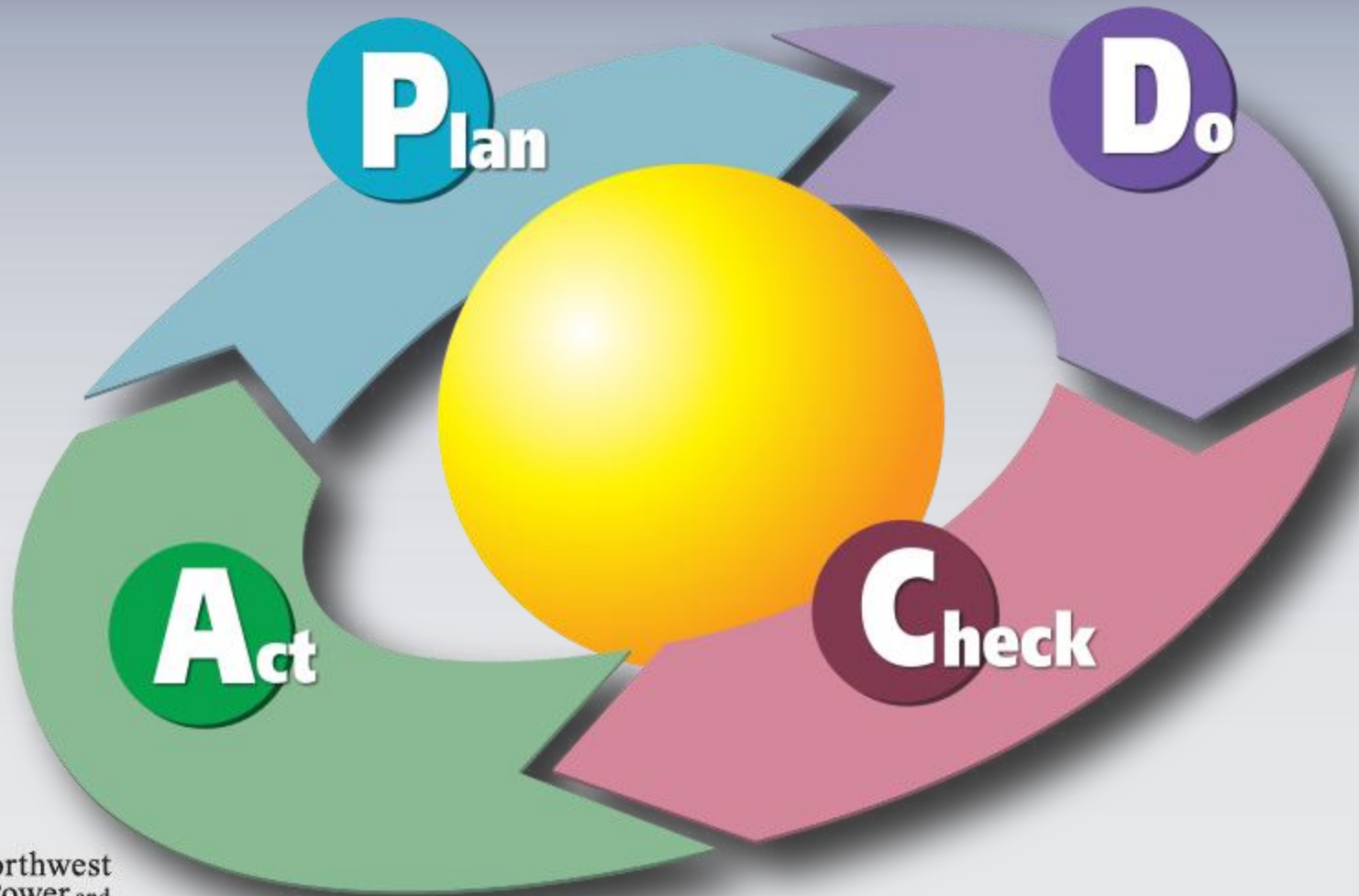


Objectives

- **Assess implementation of the Sixth Power Plan resource strategy and action plan**
 - **How have efforts toward the targets progressed so far?**
 - **Have recent conditions been similar to, or much different from, what was assumed?**
 - **Does the future look much different than it did when the plan was developed?**
 - **How do changes in conditions and/or the outlook affect the viability of the resource strategy?**

- **Council decision on what changes, if any, should be made to the resource strategy and/or action plan**

The Deming Cycle



Framework for Analysis

- 1. Recap the Sixth Power Plan analysis, resource strategy and action plan**
- 2. Scan the overall situation and prepare narratives describing developments since the Sixth Power Plan**
- 3. Identify and analyze major topics for the mid-term assessment**
- 4. ‘Tee up’ other topics for the Seventh Power Plan**
- 5. Report on progress of existing regional efforts**
- 6. Update key forecasts and assumptions**
- 7. Evaluate the Sixth Power Plan’s resource strategy and action plan in light of recent developments and updated forecasts**
- 8. Develop conclusions and recommendations for Council consideration**

1. Recap Sixth Plan

- **Analysis**
 - **Major assumptions and forecasts**
 - **Analytical approach**

- **Resource strategy**
 - **Conservation**
 - **Renewable generation**
 - **Natural gas-fired generation**

- **Action plan**

2. Situation Scan and Narratives

- **Strong conservation acquisition during 2010-2011**
- **Soft regional economy**
- **Low natural gas prices**
- **Emissions regulations – more on mercury and particulates, not as much on greenhouse gas**
- **Coal plant retirements announced**
- **Continuing wind power development and further challenges for integration/balancing**
- **Utilities taking action to acquire new generating resources**

2. Situation Scan and Narratives

- **Low short-term wholesale power prices**
- **BPA tiered rates implemented**
- **Demand response evolving**
- **Conditions vary widely across the region's utilities**
- **NW faces growing capacity/adequacy/flexibility constraints**
- **Resources, regulations and markets in neighboring regions are changing**
- **Growing need to coordinate power and transmission system**
- **Growing need to coordinate electric and natural gas systems**

3. Major Topics for the MTA

- **Conservation resources**
 - **Assess regional progress toward the 1,200 average megawatt target for 2010-2014**
 - **Assess BPA progress toward achieving its share of the target**
 - **Develop the business case for conservation**
- **Renewable generating resources**
 - **Compare recent development with Sixth Plan**
 - **Report on integration of intermittent generation**
- **Natural gas-fired generating resources**
 - **Compare recent development with Sixth Plan**
 - **Identify major factors driving utility needs for acquisition**

3. Major Topics for the MTA

- **Changes to regional and out-of-region resources**
 - **Regulatory (mercury, particulates, greenhouse gas, once-through cooling, renewable portfolio standards)**
 - **Announced retirements of coal-fired generating projects**
- **Differences among the region's utilities**
 - **Large/small, urban/rural, growing/not growing, surplus/deficit**
 - **Implications for implementation of the Power Plan**

3. Major Topics for the MTA

- **Council resource modeling**
 - **Summarize the overall modeling and analysis system (flowchart)**
 - **Describe each major model**
 - **Describe how energy, capacity, resource adequacy and flexibility are modeled**
 - **Provide results from expert peer review of the regional portfolio model**

4. Topics for Seventh Power Plan

- **Climate change (policies and impacts)**
- **Changes to existing generating resources (e.g., coal plant retirements)**
- **Renewable resources (policies, costs, development, impacts)**
- **Multidimensional planning (energy, capacity, adequacy, flexibility)**
- **Coordinating power and transmission system planning, operations**
- **Coordinating power and natural gas system planning, operations**

4. Topics for Seventh Power Plan

- **Council resource analysis processes and tools**
 - **Increase transparency**
 - **Balance emphasis on energy, capacity, adequacy, flexibility**
 - **Strengthen support for decision-making by the Council**
 - **Increase usefulness to Power Plan implementers**
 - **Explore ways to reflect intra-regional diversity**

5. Regional Efforts

- **Resource adequacy forum (Council and BPA)**
- **Wind integration forum (Council and BPA)**
- **Oversupply technical oversight committee (Council)**
- **Power and natural gas planning task force (PNUCC)**
- **Conservation deployment (BPA, Utilities, NEET, NEAA, RTF)**

6. Forecasts and Assumptions

- **Regional electric demand forecast**
- **Natural gas price forecast**
- **Forecasts of greenhouse gas costs in the Northwest and other regions**
- **Generating resource availabilities and costs**
- **Wholesale power price forecast**
- **Pace and cost of conservation acquisition**

One Thing We Know



The trouble with our times is that the future is not
what it used to be.

Paul Valery

7. Evaluate Resource Strategy

- **Identify forecasts and assumptions that have greatest impact on overall costs and risks**
- **Check updated assumptions and forecasts against ranges used in Sixth Plan analysis**
- **Perform additional regional portfolio modeling analysis as needed**
- **Check whether the Sixth Plan resource strategy is still least-cost, least-risk**

8. Conclusions and Recommendations

- **Is the region on track implementing the Sixth Power Plan?**
- **Has the situation and/or outlook changed in ways that indicate the strategy needs to be revised?**
- **If so, is a major change in direction needed or can the existing strategy be adjusted?**
- **What topics are emerging as candidates for the Seventh Power Plan?**

Schedule

- **July: framework; electric demand forecast; natural gas price forecast**
- **August: Sixth Power Plan recap; situation scan and narratives; wholesale power price forecast**
- **September: major topics; regional efforts; resource strategy evaluation**
- **October: conclusions and recommendations; draft report**