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October 1, 2008

MEMORANDUM

TO: Power Committee

FROM: Terry Morlan

SUBJECT: Discussion of Preliminary Outline of the Sixth Power Plan

I have developed a preliminary draft outline for the Sixth Power Plan. It is possible that the final outline will bear little resemblance to this one, but the process of developing an outline helps frame the topics and issues that the plan must deal with. It also helps to fill out and organize our thinking about the plan and what it should accomplish.

Although the outline is a first cut, a discussion with the Power Committee will be useful. It will give staff a chance to hear ideas from the Council on the plan's organization and content. It will give Council members a way to start thinking about the plan as a more concrete product instead of the rather isolated and abstract components that we have talked about so far.

The general structure of the proposed plan is similar to the Council's Fifth Power Plan. There are five components with increasing amounts of detail and specificity: a executive summary, an overview of the plan, a short-term action (or implementation) plan, and a more detailed document that describes the plan in several chapters, and a set of very detailed technical appendices. The general structure is shown below:

Executive Summary

Overview

Implementation Plan

Body of the Plan

Introduction

Background

Assumptions and Forecasts

Resource Strategy

Discussion of Key Issues

Climate Change, Capacity and Ancillary Services, Transmission

Administrator's Obligations

Appendices

I have attached three items: an annotated high-level outline, a schematic of the power plan with issues to be addressed in each area of the analysis, and a PowerPoint presentation I plan to use for this discussion.

Attachments

Draft Outline for the Sixth Power Plan

Power Committee
October 1, 2008
Missoula, MT



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Five Levels of Detail

- Executive Summary
 - Overview
 - Implementation Plan
- } Published in Color
- Main Body of Plan
 - Appendices
- } Available on Website



2



Executive Summary

- Short (10-15 pages)
 - Focused on findings, recommendations, and implementation actions

Overview

- Compact description of the Plan (25-30 pages)
 - The current environment and issues
 - Summary of the resource strategy and actions
 - Resource needs
 - Conservation and generation alternatives
 - Implementation plan

Implementation Plan

- Description of actions needed in region to implement the Plan (20-25 pages)
 - Includes Council actions and recommendations for others in the region
 - Bonneville
 - Utilities
 - State and local government
 - Others

Main Body of Plan

- Description of analysis, findings, and recommendations (130-150 pages)
 - Introduction
 - Background
 - Assumptions and forecasts
 - Resource strategy
 - Climate change issues
 - Capacity and ancillary services
 - Plus sections on Bonneville, adequacy standards, and possibly others

Appendices

- Separate appendices providing details on forecasts, models, analysis, some required elements of the Plan (Unlimited pages)
 - Economic forecasts
 - Fuel prices
 - Demand forecast
 - Electricity price forecast
 - Conservation assessment
 - Demand response
 - Model conservation stds.
 - MCS cost effectiveness
 - Smart grid approaches
 - Generating resources
 - Climate change issues
 - Fish and Wildlife program
 - Model descriptions
 - Others as needed



PROPOSED OUTLINE FOR DISCUSSION PURPOSES

Executive Summary

This provides a high level summary of the plan that focuses on the recommendations and implementation actions (15 pages)

Overview

The overview would provide a longer summary of the plan and the underlying assumptions and analysis. (25 pages)

Implementation Plan

Usually called the Action Plan, this is the section of the plan that describes what specific actions the region should be undertaking in the next five years to move toward the long-term plan. (10-15 pages. My view is that the action plan in the 5th Plan was too detailed in some areas.)

Body of the Plan

This is the detailed version of the Power Plan, but it is backed up by Appendices with far more detailed analysis and data. (120 - 150 pages)

Introduction

This section introduces the Power Plan. It describes the Council and the basic purposes of the Power Plan. It describes the goals of the plan in general terms. It should introduce the theme of the plan and the major issue facing the regional power system. It may contain a vision for the future of the power system (5 pages)

Background

This section could be called the planning environment. It would describe the past trends in the region's loads and resources and our current state of adequacy. It would describe the current state of the region's power system, fuel and electricity prices, and major policy issues, such as climate change and the growing need for capacity analysis and transmission system enhancement. It could include a discussion of past Council plans, and, in particular, the Fifth Plan and its implementation status. (20 pages)

Assumptions and Forecasts

This section would contain the forecast of energy prices and demand for electricity. Conservation and generating resource alternatives and their cost and other characteristics would be described. (30 pages)

Resource Strategy

The resource strategy section would describe how the strategy is developed; how loads are met with conservation and generating resources that minimize cost, reduce risk, and meet environmental goals and requirements. This section

would also discuss any specific scenarios that are examined relating to climate change policies. (30 pages)

Discussion of Key Issues

This section is intended to focus on particular issues including, climate change, capacity and ancillary services, and transmission. For example, this is where analysis of alternative policies on climate change would be discussed. This might include a scenario of meeting different CO2 emission goals at least cost, or describing the cost of meeting climate change goals versus a traditional least cost electricity plan. These could be separate chapters? (30 pages)

Administrator's Obligations

I think that the plan needs a section addressing the administrator's obligation directly. It would describe how the plan applies to Bonneville's actions, and may recognize the relationship of Bonneville's Resource Program to the Power Plan. (5 pages)

Relationship to the Fish and Wildlife Program

This section describes the relationship between the Council's Fish and Wildlife Program and the Power Plan.

Appendices

Fuel Price Forecast

Economic Forecast

Demand Forecast

Wholesale and Retail Price Forecast

Conservation

Demand Response

Smart Grid and New Approaches to Efficiency

Bulk Electric Generating Technologies

Cogeneration and Distributed Generation

Analytical Process and Model Descriptions

Model Conservation Standards

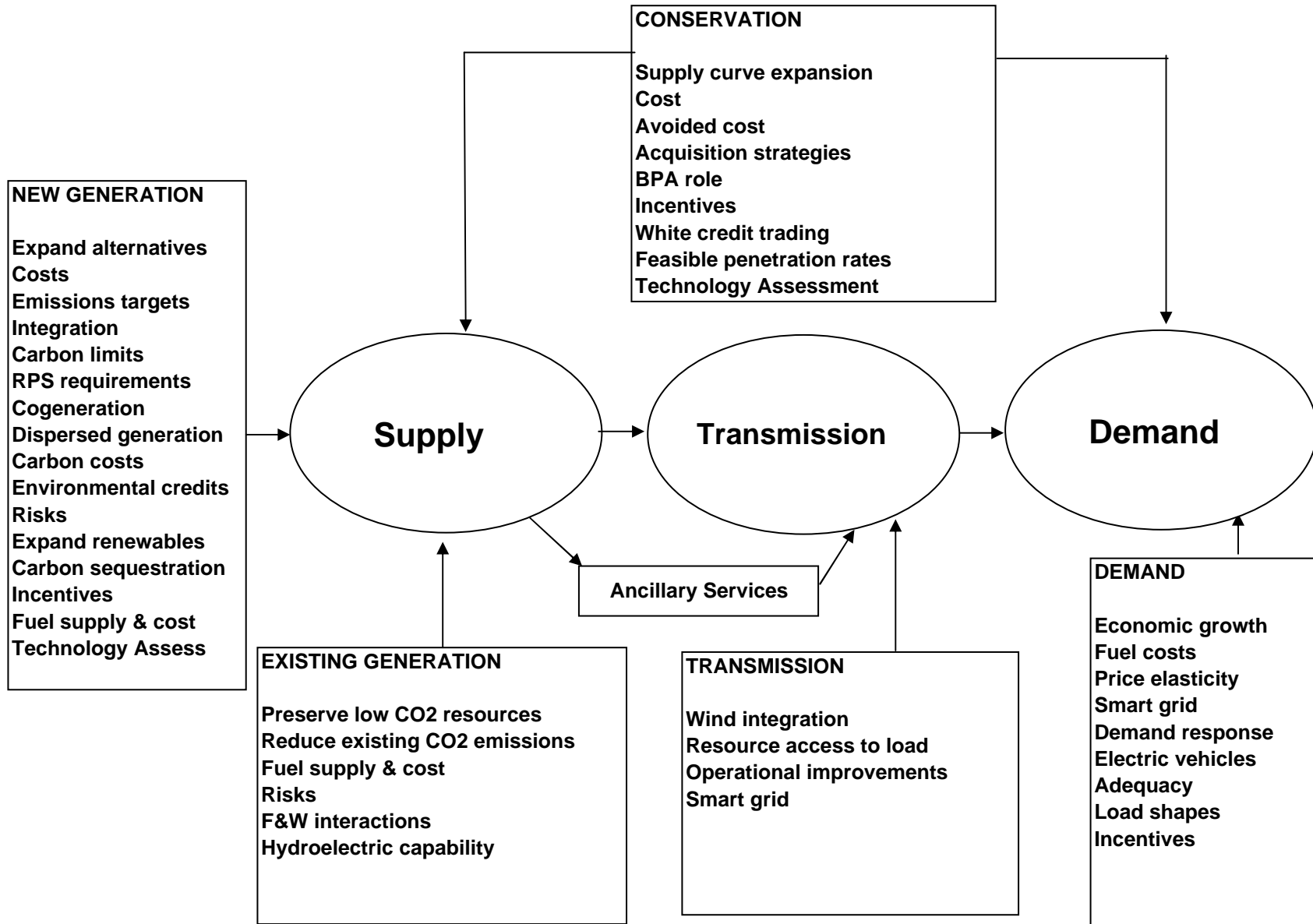
MCS Cost Effectiveness for Residences

Fish and Wildlife Program

Carbon Emission Reduction and Sequestration Technologies

Climate Change and the Hydroelectric System

Data Summary? (or included in each appendix)



NEW GENERATION

Expand alternatives
 Costs
 Emissions targets
 Integration
 Carbon limits
 RPS requirements
 Cogeneration
 Dispersed generation
 Carbon costs
 Environmental credits
 Risks
 Expand renewables
 Carbon sequestration
 Incentives
 Fuel supply & cost
 Technology Assess

CONSERVATION

Supply curve expansion
 Cost
 Avoided cost
 Acquisition strategies
 BPA role
 Incentives
 White credit trading
 Feasible penetration rates
 Technology Assessment

EXISTING GENERATION

Preserve low CO2 resources
 Reduce existing CO2 emissions
 Fuel supply & cost
 Risks
 F&W interactions
 Hydroelectric capability

TRANSMISSION

Wind integration
 Resource access to load
 Operational improvements
 Smart grid

DEMAND

Economic growth
 Fuel costs
 Price elasticity
 Smart grid
 Demand response
 Electric vehicles
 Adequacy
 Load shapes
 Incentives