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March 1, 2016

MEMORANDUM

TO: Council Members

FROM: Ben Kujala and John Fazio

SUBJECT: GENESYS Redevelopment Update

BACKGROUND:

Presenter: Ben Kujala and John Fazio

Summary The Seventh Power Plan identified the redevelopment of the GENESYS model as Council action item (ANLSYS-22). Staff has initiated the process of model redevelopment. The first step in this process is to determine the scope of the redevelopment through consultations with advisory committees and other interested parties. Staff will use the results of this consultation process as the basis for its recommendation to the Council on the scope and approach for GENESYS model redevelopment.

Relevance The GENESYS model is one of three major analytical tools used by the Council. In addition to its role in the development of the Council's power plans, GENESYS is used to conduct the Regional Resource Adequacy Assessments. It is also used by Bonneville to assess the adequacy of the federal system and to support an assessment of its resource needs.

Workplan: 1. B. Develop Seventh Power Plan and maintain analytical capability

Background: GENESYS is used to determine the adequacy metrics for the power plan and to develop the Council's annual power supply adequacy assessment. It is the primary model used to represent the operation of the regional hydroelectric system with consideration for non-power constraints identified in the Council's Fish and Wildlife Program and in the biological opinion.

GENESYS Model Redevelopment Update Project

March 8, 2016

General Timeline

March 2016	Take straw-man proposal for requirements to advisory committees and interested parties and solicit feedback
March – April 2016	Incorporate feedback into draft redevelopment requirements
April 2016	Finalize proposed redevelopment requirements with advisory committees and interested parties and incorporate into a draft for Power Committee review
May 2016	Bring redevelopment requirements to the Power Committee
April – May 2016	Work with contractors to develop technical specifications and a proposed approach for redevelopment
May 2016	Finalize proposed approach to redeveloping GENESYS with advisory committees and interested parties and solicit feedback
June 2016	Bring proposed approach to the Power Committee and Full Council
FY17	Redevelop GENESYS

Goals for Redevelopment

- **Improve Current Capabilities in:**
 - Reserve and Flexibility Modeling
 - Hydro Capacity Studies
 - Usability
- **Incorporate Adaptable Elements for Scenario Analysis, e.g. increased renewable generation, Energy Imbalance Markets, etc.**

Questions?