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June 4, 2019

MEMORANDUM

TO: Power Committee Members

FROM: Council Staff

SUBJECT: Forecast Out of Region Loads for 2021 Power Plan

BACKGROUND:

Presenter: John Ollis

Summary: In preparation for the 2021 Power Plan, staff will be providing the Power Committee a series of presentations on different aspects to developing the Plan. This presentation will be on the forecast of out of region loads.

Relevance: While the mandate of the Council is to forecast load for the Northwest, the region is connected to the rest of the Western United states through markets where electricity can be traded and bilateral contracts with utilities located outside the region. The supply and demand of those markets and utilities will ultimately impact the price and reliability of the Northwest system. To estimate the impact on the cost and reliability of the regional system, we compile a forecast of the loads for the balancing authorities in the Western Electricity Coordinating Council (WECC).

Workplan: A.5.2 Update models to get ready for 2021 Power Plan modeling

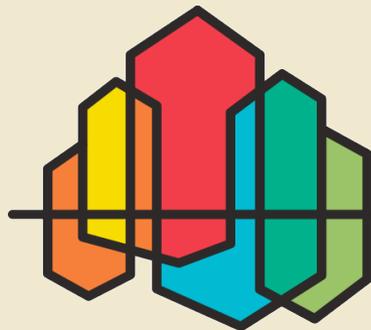
More Info: None

Forecast Load Outside the Region

Power Committee

June 11, 2019

John Ollis



THE 2021
NORTHWEST
POWER PLAN

FOR A SECURE & AFFORDABLE
ENERGY FUTURE

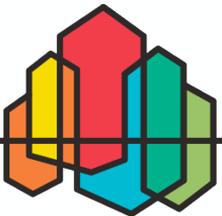
Forecast Load
Outside the
NW



Estimating
System
Adequacy
Requirements

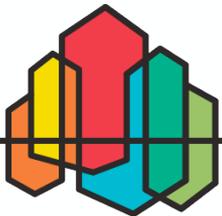


Forecast
Electricity
Prices



Out-of-Region Load Forecasts

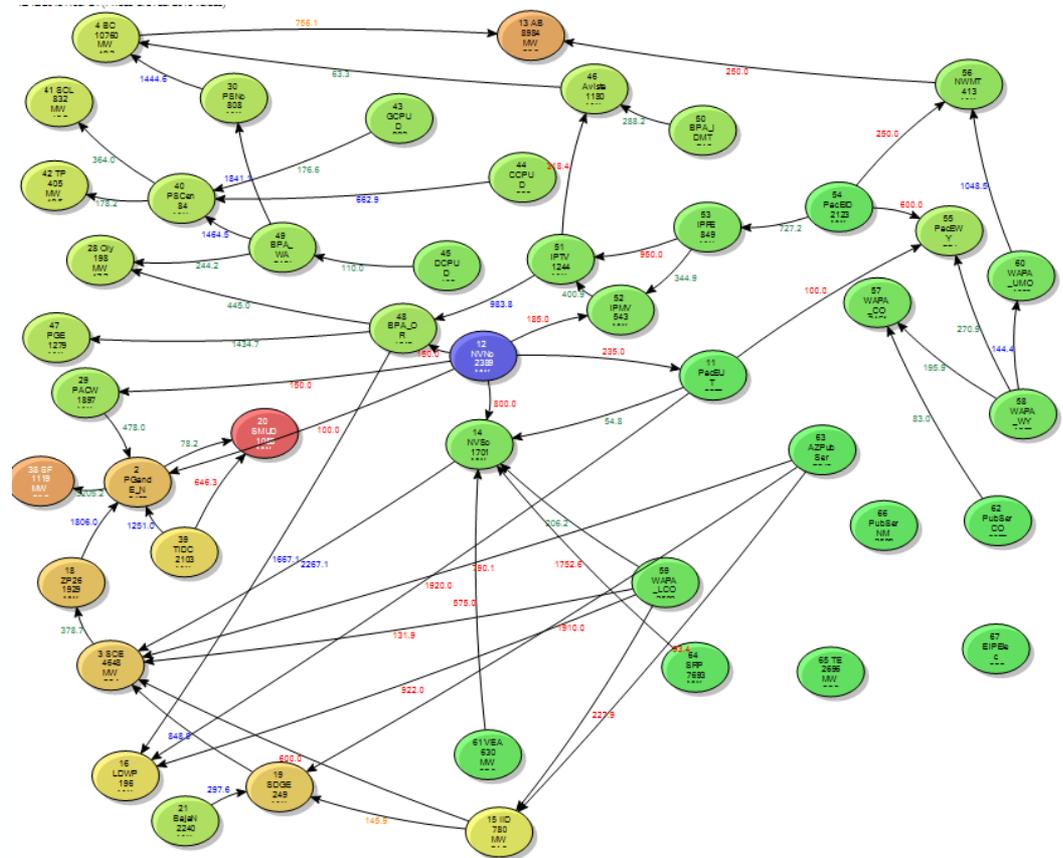
- Regional resource strategies are affected by market supply and demand dynamics external to the region.
 - To run any WECC-wide model need a load forecast for each balancing authority (BA) area modeled
- Load forecasts external to the region are informed by two main sources:
 1. CEC (California load forecast)
 2. AURORA base WECC dataset – which in turn sources much of its data from the following sources:
 - NERC
 - EIA Form 826
 - FERC Form 714
 - Statistics Canada (for provincial information)



Processes Requiring Load by BA

These hourly load forecasts are used directly by the following processes:

- External electricity price forecast (in AURORA), and
- Estimating system adequacy requirements (in GENESYS)



Plan issues associated with forecast

- Clean Energy and RPS targets are often associated with demand forecasts and target resources that may also be considered in the regional stack.
 - California, New Mexico, Nevada, Arizona, and Colorado have state policies that acquire resources based on a percentage electric load served.
- Expected acquisition of energy efficiency is sometimes baked into these forecasts with little fidelity on how it is counted.
 - CEC load forecast is an exception. Good information available.
- Climate change data may or may not be incorporated into current forecasts

