Resource Adequacy Advisory Committee

Data Requirements

Technical Committee Meeting
November 20, 2013

Northwest Power and Conservation Council

Topics

1. Hourly loads
2. Energy Efficiency
3. Firm contracts
4. Hydro data
5. Peak vs. Energy curves
6. INC/DEC and associated files
7. BPA Wind data
8. Non-BPA wind data
9. Non-NW wind in the NW
10. Generating resources
11. SW market availability
12. Demand response and distributed generation
13. Standby resources

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Hourly Loads

- Lead: Massoud Jourabchi (Council)
- Source: Council's Short-term Model (STM)
- Format:
  - Matrix 8,760 hours by 77 temperature years
  - Explicit forecast for Idaho and region
  - East/west load split by static factors (.39/.61)
- Status: Done

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Energy Efficiency

- Lead: Massoud Jourabchi (Council)
- Source: Council's Short-term Model (STM)
- Format: Built into hourly loads
  - Option 1: Trending EE replaced by targets
  - Option 2: Trending EE
- Status: Done (will use option 1)

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Firm Contracts

- Lead: Pat Byrne (BPA)
- Source: BPA White Book
- Format: Genesys input file
- Status: Done (2 and 3 node topographies)

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Hydro Data

- Lead: Kim Fodrea (BPA)
- Source: BPA's HYDSIM model
- Format: Multiple files
- Status: Done (for 2015-19 operating years)

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Peak vs. Energy Curves

- Lead: John Fazio (Council)
- Source: Trapezoidal Model
- Format: Genesys input file
  - 2, 4 and 10 hour sustained peaking for range of monthly (period) energy
  - Set of curves for each node
- Status: In progress

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Balancing Reserves (INC/DEC)

- Lead: Pat Byrne (BPA)
- Source: BPA
- Format:
  - INC subtracted from hydro peaking in hydro maintenance file
  - DEC built into the peak vs. energy curves (higher min turbine flows at fed dams)
- Status: Done (900/1100 MW)

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BPA Wind Data

- Lead: Ben Kujala (Council)
- Source: Temp-correlated synthetic data
- Format: Capacity factors
  - Matrix 8,760 factors by 77 temperature years
  - 20 wind years for each temperature year
- Status: Done

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Non-BPA Wind Data

- Lead: John Fazio (Council)
- Source: Utilities, other entities
- Format: Undetermined
  - Need to model wind not in the BPA area
  - Need matrix of hourly wind patterns
  - Also need data for non-NW wind built in NW
- Status: Not underway

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Transmission

- Lead: John Fazio (Council)
- Source: AURORAxmp
- Format: Inter-nodal capacities
  - Need to match topography with AURORAxmp
  - Need to update East/West line nomogram
- Status: In progress

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Generating Resources

- Lead: Gillian Charles (Council)
- Source: Council's Project Database
- Format: Excel Spreadsheet
- Status: In progress
  - Final database ready soon
  - Need to convert data into GENESYS format

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SW Market Availability

- Lead: John Fazio (Council)
- Source: Many
  - Currently the CEC
  - Need to set up framework for future years
- Format: GENESYS input files
- Status: In progress
  - Need aggregate SW market on and off peak for winter and summer
  - Need within region market updates
  - Need potential markets for Idaho

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Demand Response and Distributed Generation

- Lead: Ben Kujala (Council)
- Source: Many
- Format: Unclear
- Status: Uncertain

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Standby Resources

- Lead: Rob Diffely (BPA)
- Source: Many
- Format: Input data for post processing program
  - Need energy components
  - Need capacity components
- Status: In progress

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