Revised 2021 Resource Adequacy Assessment for the PNW

# DRAFT Outline

## Where have we been adequacy-wise (last year’s assessment)

* Power supply should be adequate through 2020 (LOLP about 5% in 2020)
* Est. for 2021 LOLP 8.3% due to loss of Boardman and Centralia 1 (1,330 MW)
* Primarily a winter capacity shortfall
* Estimated capacity need by 2021 about 1,150 MW (med load growth, done using CCCT as replacement resources).

## What has changed since last year’s 2021 assessment

* 2021 annual average load forecast slightly lower – will slightly lower LOLP
* New load forecasting model (hybrid) – higher winter peaks will increase LOLP – planning to review these loads in September
* Added regional INC/DEC (instead of BPA only) – will increase LOLP
* Includes 7th plan EE target of 1,400 aMW by 2021 instead of 6th plan target – neutral effect to LOLP
* 6th plan EE hourly shapes same as load shape, whereas 7th plant EE hourly shapes not tied to load shapes – should lower LOLP

## Where are we now?

* Current 2021 LOLP is 10% (medium load growth)
* In spite of lower annual average load forecast, increased balancing reserves and revised peak-load forecast made LOLP estimate grow
* Capacity need range:  
  0 MW low load growth, 1,040 MW med growth, 2,230 MW for high growth
* Capacity needs assessed by processing curtailment record, not using replacement resources as was done last year.

## Added uncertainty – Colstrip 1 & 2 will close no later than July 2022

* Loss of 307 MW of regionally committed nameplate capacity
* Other half of Colstrip 1 & 2 capacity is assumed to not be available for regional use
* If closed for 2021, LOLP rises to 13.2%
* Capacity need range:  
  30 MW low growth, 1,360 MW med growth, 2,560 MW for high growth
* Note: Loss of 307 MW of coal requires about 330 MW of new capacity because the ASCC for coal is greater than one (the energy provided by coal during LLHs allows HLH hydro sustained peak capability to increase).

## What is being planned?

* Utilities
  + About 550 MW of planned capacity (prior to announcement of Colstrip retirements)
  + Utilities are actively planning to replace lost coal capacity
* 7th plan
  + Robust result for DR as a cost-effective way to mitigate adequacy issues, results indicate a cost-effective range from 600 to over 2,700 MW
  + But processes to develop DR have not been thoroughly developed
  + New RPS requirements do not help with winter capacity problems

## What actions should we take?

* No need to panic – Assessment satisfied the objective to warn the region that taking no actions would lead to an inadequate supply – but actions are being planned
* Utilities are actively involved in IRP processes and considerations for replacing lost coal capacity are ongoing
* Continued acquisition of EE is a high priority
* If needed, additional generating capacity can be acquired in time
* Continue to review status on an annual basis

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