2019 Nontena Electric Supply Resource Procurement Plan

NorthWestern Energy

Delivering a Bright Future

The 2019 Plan

The 2019 Electricity Supply Resource Procurement Plan...

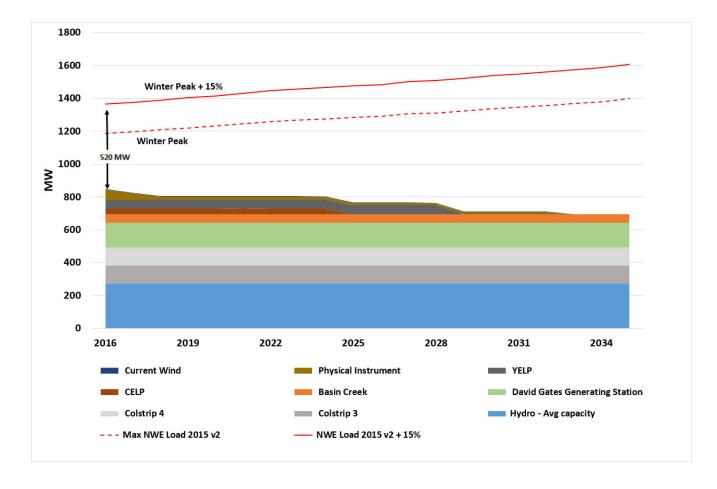
...is a comprehensive analysis of possible ways to meet our customers' current and future needs. ...considers a wide range of future conditions, resource types and resource combinations.

- ...is based on current estimates, forecasts, and assumptions (technologies, future prices, etc.). ...uses proxy resource characteristics and costs.
- ...is a snapshot in time (1st quarter 2019) and is updated on a regular basis (2/3 years).
- ...uses proxy resource characteristics and costs.

Key Take-Away: NorthWestern is short on capacity and so is the region.

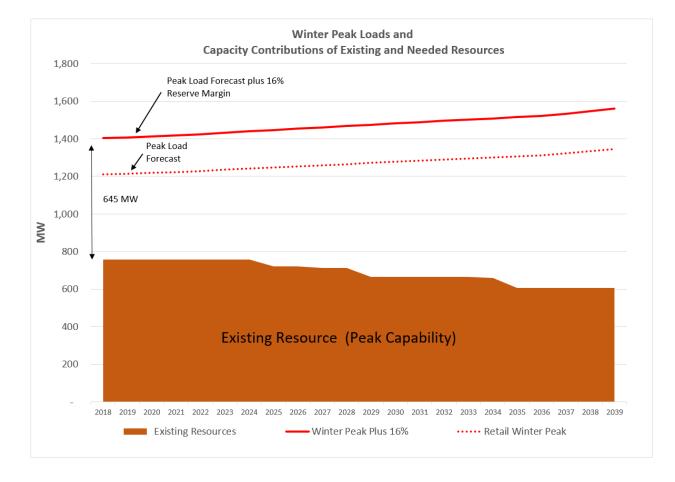


NorthWestern Energy 2015 Resource Plan – Capacity Need



NorthWestern Energy Delivering a Bright Future

NorthWestern Energy's Current Capacity Deficit





The market is changing - NWPCC

Table 6 - 5: Announced Planned Coal Retirements in the Pacific Northwest*

Plant	Retirement	Capacity &	Location	Ownership
	Date	Operating Year		
J.E. Corette	2015	173 MW (1968)	MT	PPL Montana
Hardin	2018	116 MW (2006)	MT	Rocky Mountain Power ¹
North Valmy 1	2019 ²	254 MW (1981)	NV	Idaho Power,
North Valmy 2	2025	268 MW (1985)		Sierra Pacific Power (50/50)
Boardman	2020	600 MW (1980)	OR	Portland General Electric, Idaho Power (90/10)
Centralia 1	2020	670 MW (1971)	WA	TransAlta
Centralia 2	2025	670 MW (1971)		
Colstrip 1	2022	360 MW (1975)	MT	Puget Sound Energy, Talen Energy (50/50)
Colstrip 2		360 MW (1976)		
Jim Bridger 1	2028	578 MW (1974)	WY	PacifiCorp (2/3) ⁴ , Idaho Power (1/3)
Jim Bridger 2 ³	2032	578 MW (1975)		
Regional Utility Total		1,899 MW		
Regional Total (incl. IPPs) 3,772 MW				
¹ Not related to PacifiCorp				

² Uncertainty remains regarding North Valmy unit 1 retirement date of 2019 or 2025

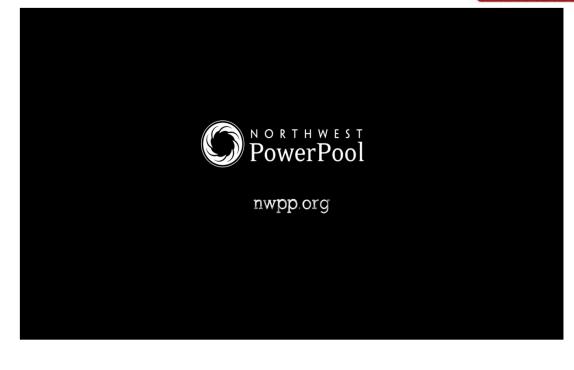
³ Per PacifiCorp's 2017 IRP Update

⁴ Regional total includes only PacifiCorp's load to the region (38%)

* For detailed project information, please see the Council's generating resources project database



Regional View on Capacity: John Fazio (Video)

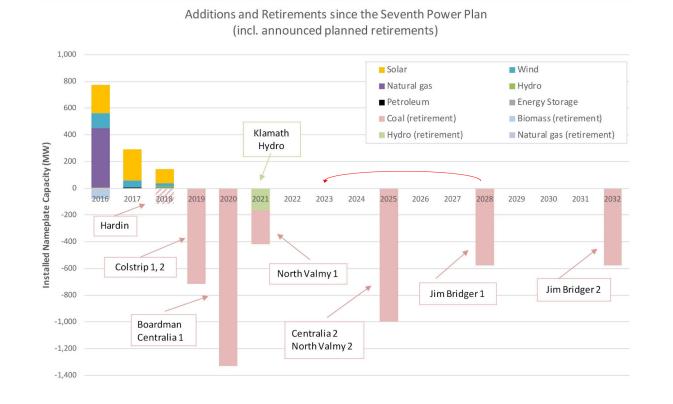


John Fazio is the Senior Power Systems Analyst for the Northwest Power and Conservation Council, located in Portland OR. The Council is an interstate compact agency made of the four northwestern states encompassing the Columbia River drainage (WA/OR/ID/MT). MT's governor appoints two members to the Council (currently Jennifer Anders and Bo Downen – they are Cabinet level appointments). John leads an annual adequacy assessment (a 5-yr look forward for the region) for the Council, and is considered to be a world-class expert on the subject of resource adequacy.

Link to John Fazio video: <u>https://vimeo.com/354085917</u>

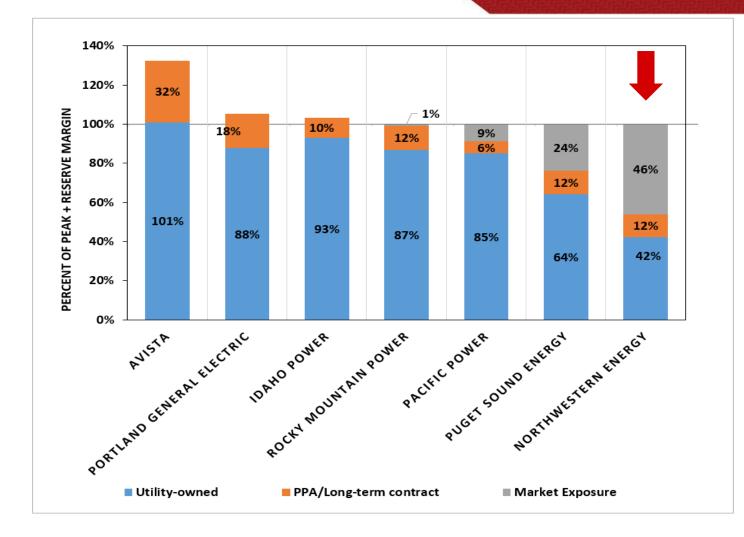


The market is changing - NWPCC



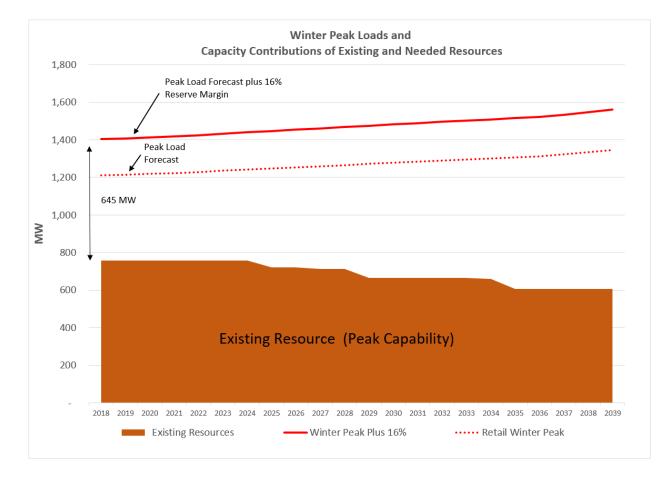


We rely heavily on the regional market.



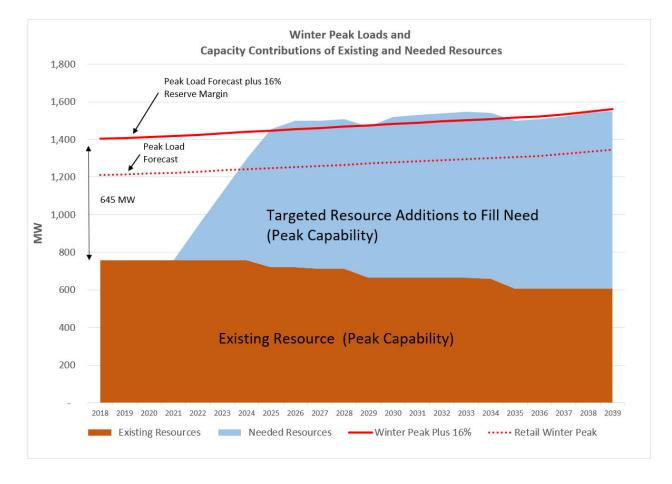


NorthWestern Energy's Current Capacity Deficit





NorthWestern Energy's Current Capacity Deficit





What's Next?

Competitive Solicitation (RFP)

- Actual resource decisions will be based on specific proposals, site characteristics, and actual costs and designs submitted by bidders.
- The process will include monitoring by the Public Service Commission, Montana Consumer Counsel, and independent third-party observers and evaluators.



