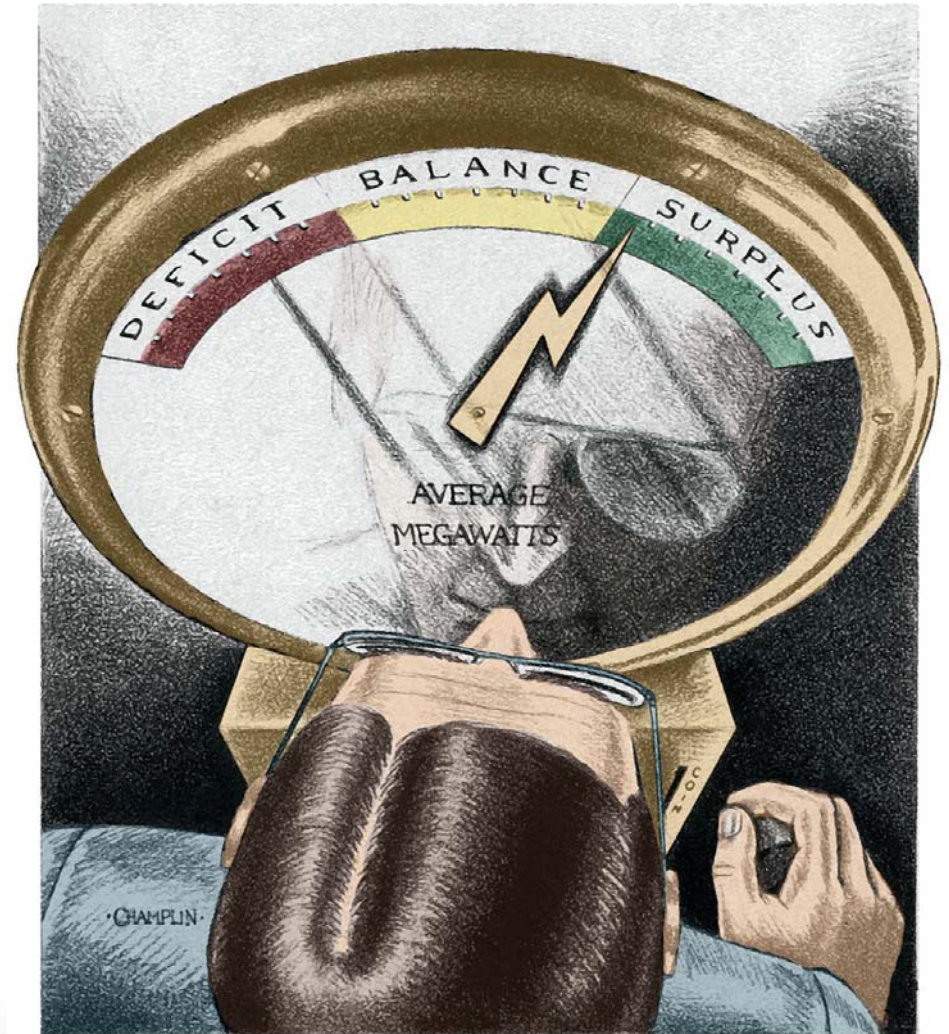


Review: Resource Adequacy 2019

RAAC Steering Committee
November 17, 2014
Portland, Oregon



Outline

- **Changes since the 2017 assessment**
- **Sensitivity to imports and load**
- **Resource Dispatch Order**
- **Effect of standby resources**
- **Schedule for 2020-21 assessment**

Changes since the 2017 Assessment¹

Item	Change from 2017 Assessment
2017 LOLP	7%
Net Load Growth (incl. EE targets)	260 MWa
EE Targets	700 MWa
Dispatchable Generating Capacity	670 MW
New Wind Capacity	260 MW
Standby Energy	- 42,200 MW-hours
Standby Winter Capacity	37 MW
Standby Summer Capacity	113 MW
Winter HLH Import Availability	800 MW
2019 LOLP	6%

Sensitivity to Imports and Load

LOLP Results for 2019 (%)

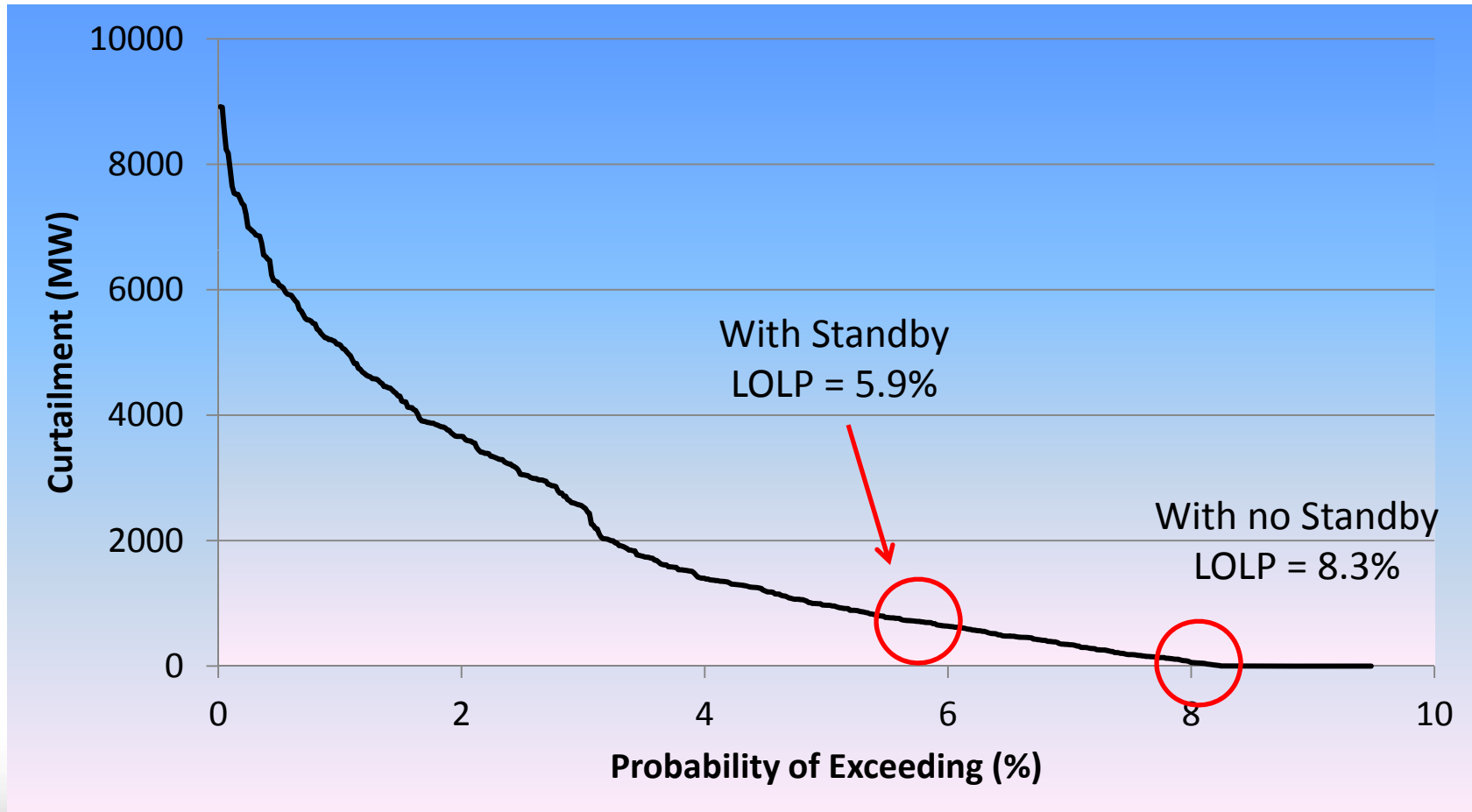
Load	-2.5%	-1.5%	Medium	+1.5%	+2.5%
Import					
0 (MW)	7.5	8.6	10.5	12.9	14.9
1700	4.5	5.3	6.5	8.0	9.3
2000	4.3	4.9	6.2	7.7	9.0
2500	4.0	4.7	5.9	7.2	8.5
3000	3.8	4.5	5.4	6.7	7.9
3400	3.7	4.4	5.3	6.4	7.7

Resource Dispatch Order

Resource	Description	
Firm Hydro and Thermal	From lowest to highest operating cost	Modeled in GENESYS
Non-firm and Markets	In-region and out-of-region markets, surplus hydro, borrowed hydro	
Standby Resources Type 1	Non-declared utility resources (diesel generators, etc.)	Modeled in Post Processor
Standby Resources Type 2	Buy-back provisions on load	
Emergency Action 1	More expensive non-declared resources or contract provisions	Not Modeled
Emergency Action 2	Governor's call for conservation	
Emergency Action 3	Rolling black outs or brown outs	

Effect of Standby Resources

Peak-Hour Curtailment Probability Curve



Schedule for 2020-21 Assessment

Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Tech	Review load, resource and other data; review model enhancements; identify key assumptions						
	Steering	Review all data; review and recommend key assumptions					
			Tech	Review preliminary 2020 assessment			
			Steering	Review preliminary 2020 assessment			
					Tech	Review final assessment	
					Steering	Review final assessment	
						Council Power	Review final
							Council Approval