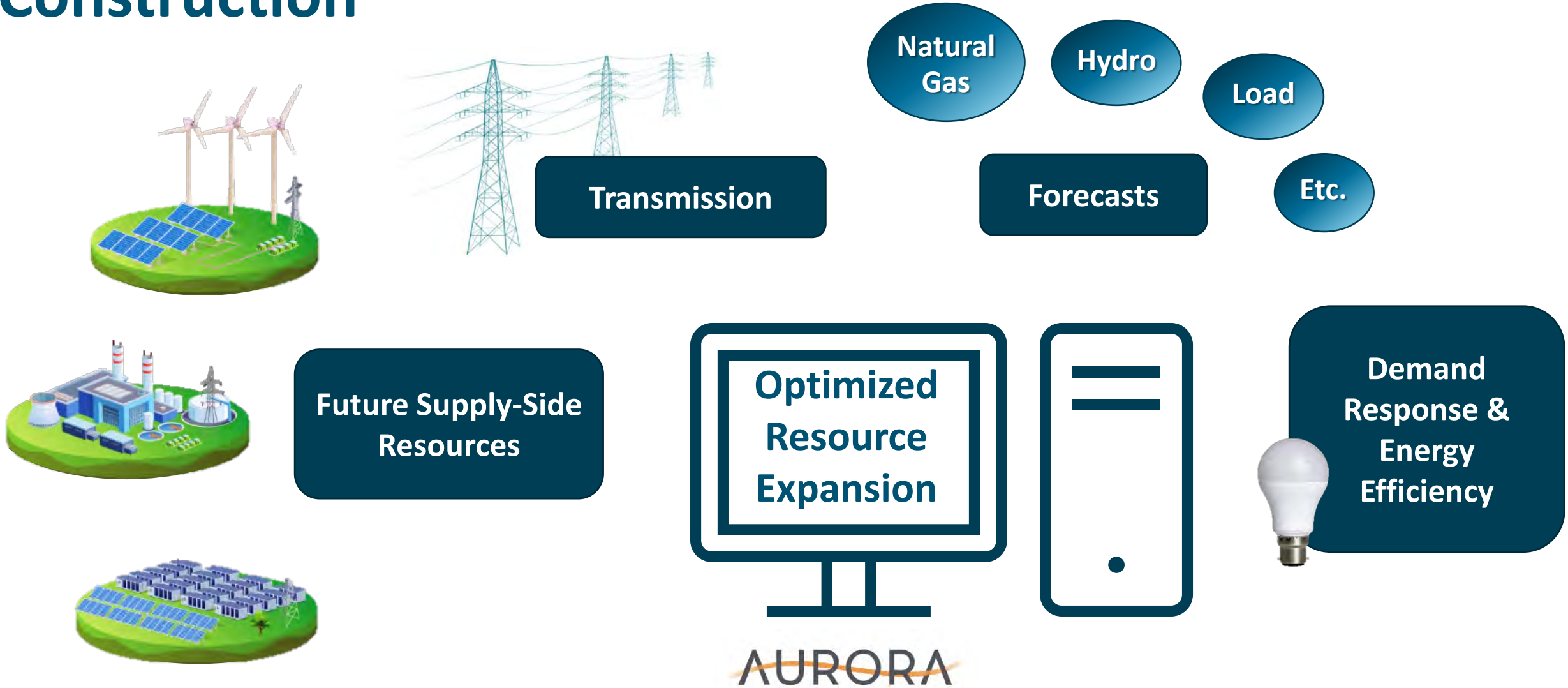


Modeling Scenarios Follow-up

December 2024

Integrated Resource Plan Construction



Integrated Resource Plan Construction

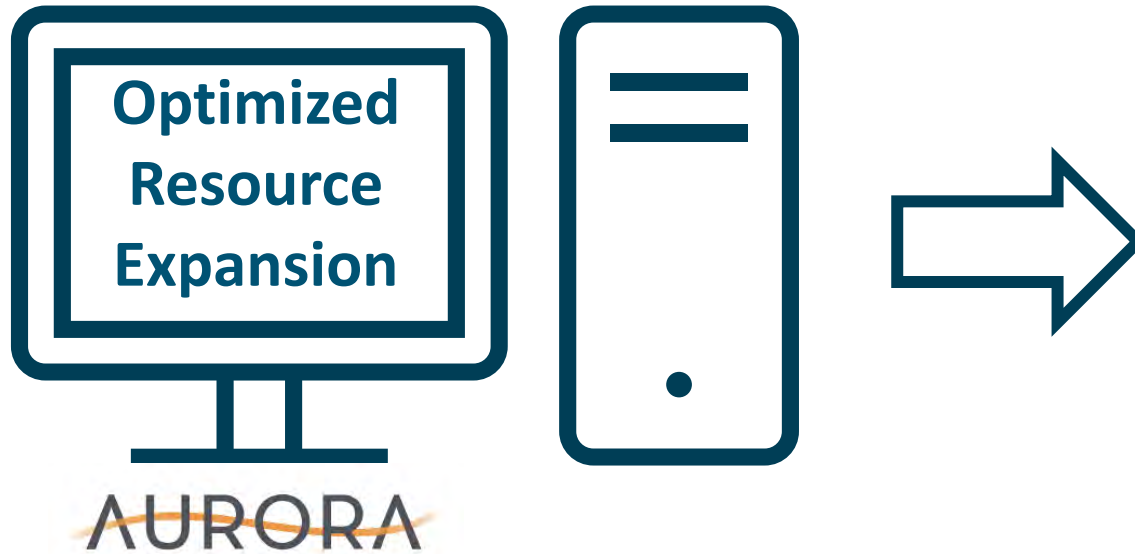


Table 1.1 Preferred Portfolio additions and coal exits (MW) *2023 IRP*

Year	Preferred Portfolio—Valmy 1 & 2 (MW)											EE Forecast
	Coal Exits	Gas	H2	Wind	Solar	4 Hr	8 Hr	100 Hr	Trans.	Geo	DR	
2024	-357	357	0	0	100	96	0	0	0	0	0	17
2025	0	0	0	0	200	227	0	0	0	0	0	18
2026	-134	261	0	0	100	0	0	0	Jul B2H	0	0	19
2027	0	0	0	400	375	5	0	0	0	0	0	20
2028	0	0	0	400	150	5	0	0	0	0	0	21
2029	0	0	0	400	0	5	0	0	GW1	0	20	22
2030	-350	350	0	100	500	155	0	0	0	30	0	21
2031	0	0	0	400	400	5	0	0	GW2	0	0	21
2032	0	0	0	100	100	205	0	0	0	0	0	20
2033	0	0	0	0	0	105	0	0	0	0	20	20
2034	0	0	0	0	0	5	0	0	0	0	40	19
2035	0	0	0	0	0	5	0	0	0	0	40	18

IRPAC Modeling Scenarios Feedback

Clean Baseload Resource

90% Clean By 2045

- Extreme Cold Temperatures**
- High Temp Resource Output**
- Constrained Resource Availability
- Extreme Evening Temperatures**
- High Summer Temperatures**
- Delayed Transmission Dates
- Constant 100+ Degree Days**
- Constrained Market Access
- Decreased Resource Life**

- No EPA Rule**
- Resource Permitting Constraints
- No PURPA Renewals**
- Over Forecasted Resource Cost Declines
- Regional Extreme Weather
- No PPA Renewals**
- No Carbon Cost
- Time of Use
- Under Forecasted Resource Cost Declines
- Inclusion of Nuclear**
- Low Hydro**
- Low Snowpack**

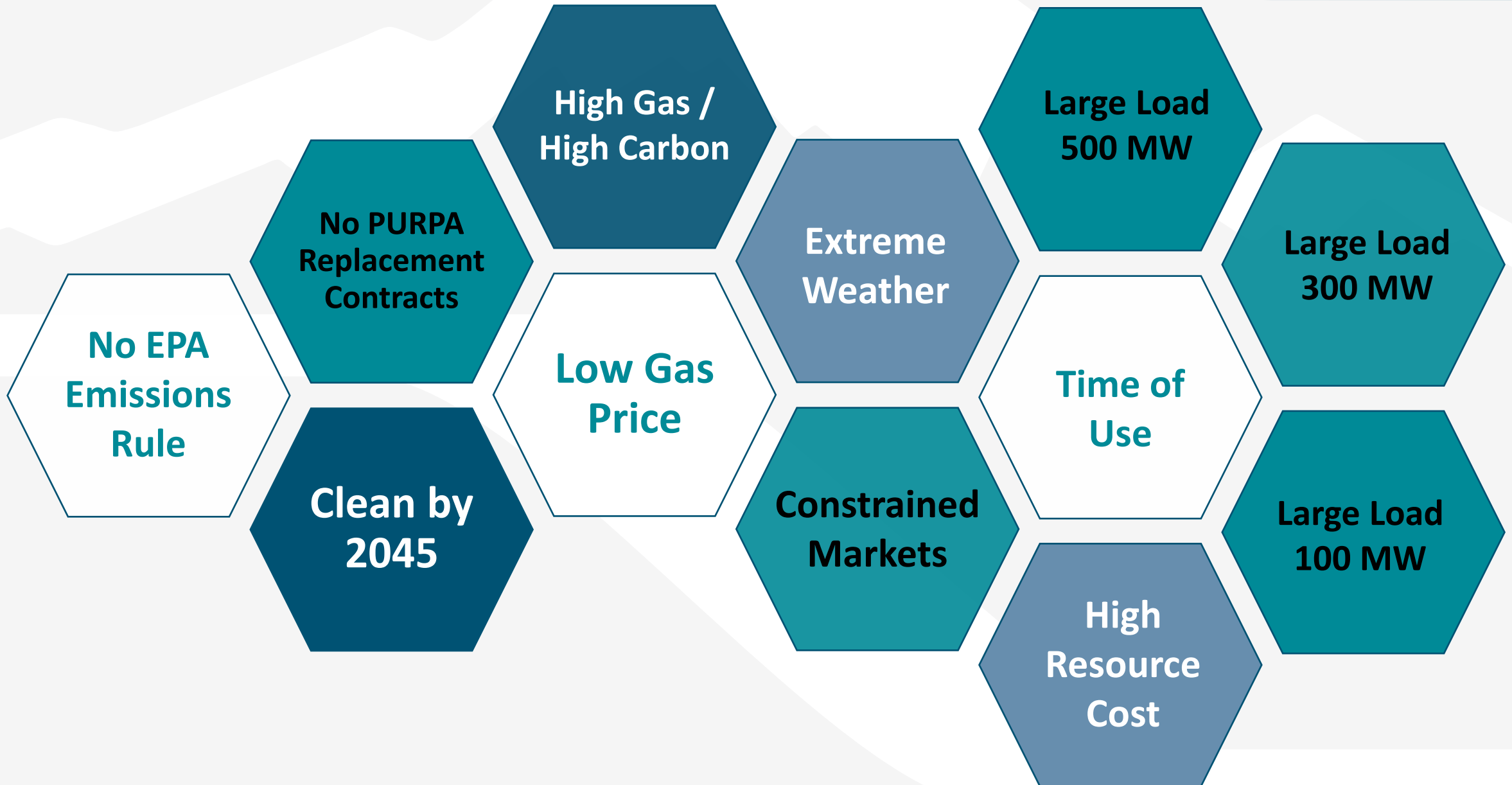


Scenarios vs Sensitivities

Scenario: Change a planning condition input/constraint and run the AURORA LTCE model to generate a new specific resource buildout.

Sensitivity: Use planning condition inputs and force in a different resource selection that was not included in the preferred portfolio. Used as part of the IRP validation and verification plan.

DRAFT 2025 IRP Scenarios



Bridger

- Carbon Capture
- Gas Conversion
- Exit

Resource Specific*

- Nuclear
- Natural Gas
- Energy Efficiency
- Demand Response

*These are examples. Resource specific sensitivities will be developed after seeing the preferred portfolio resource mix.