

SOUTHWESTERN PUBLIC SERVICE COMPANY 2026 INTEGRATED RESOURCE PLAN

Follow Up Questions From
Workshop #6B
Facilitated Stakeholder Process



STAKEHOLDER FOLLOW UP QUESTIONS FROM WORKSHOP 6B

- Q. In the systemwide carbon free scenarios, are 6- and 8-hr batteries available? (Chelsea Hotaling, EFG)
- A. Correction to a statement made during the workshop. When we developed this scenario, it was late in the process, and SPS decided to remove 6- and 8-hr BESS options as they added significant model run time and we wanted to be able to present results at Workshop 6B on August 5. It is possible that 6- and 8-hr BESS resources could have been selected in these scenarios if they had been available. SPS does not believe results would have directionally changed. These runs are characterized as theoretical-only as SPS could not plan the systemwide needs with these restrictions.



STAKEHOLDER FOLLOW UP QUESTIONS FROM WORKSHOP 6B (CONT'D)

- Q. In the Quay resource replacement scenario, is the base case replacement a 4-hr battery? (Chelsea Hotaling, EFG)
- A. Yes, in the Base scenario, the model did show Quay being replaced with 4-hr BESS resources. This is most likely a limitation of modeling as we did not allow for selections of thermal resources at this location because generic thermal capacities exceed the Point-of-Interconnection at this location (i.e. did not model recipes or smaller thermal resources). However, in the thermal comparison, we showed we did scale down a CT to work with the POI constraint, and costs were similar to the LDES scenario.



STAKEHOLDER FOLLOW UP QUESTIONS FROM WORKSHOP 6B (CONT'D)

Q. Are SPP's proposed 765kv transmission projects incorporated into SPS's transmission topology into the 2030s? (Chris Leger, Interwest)

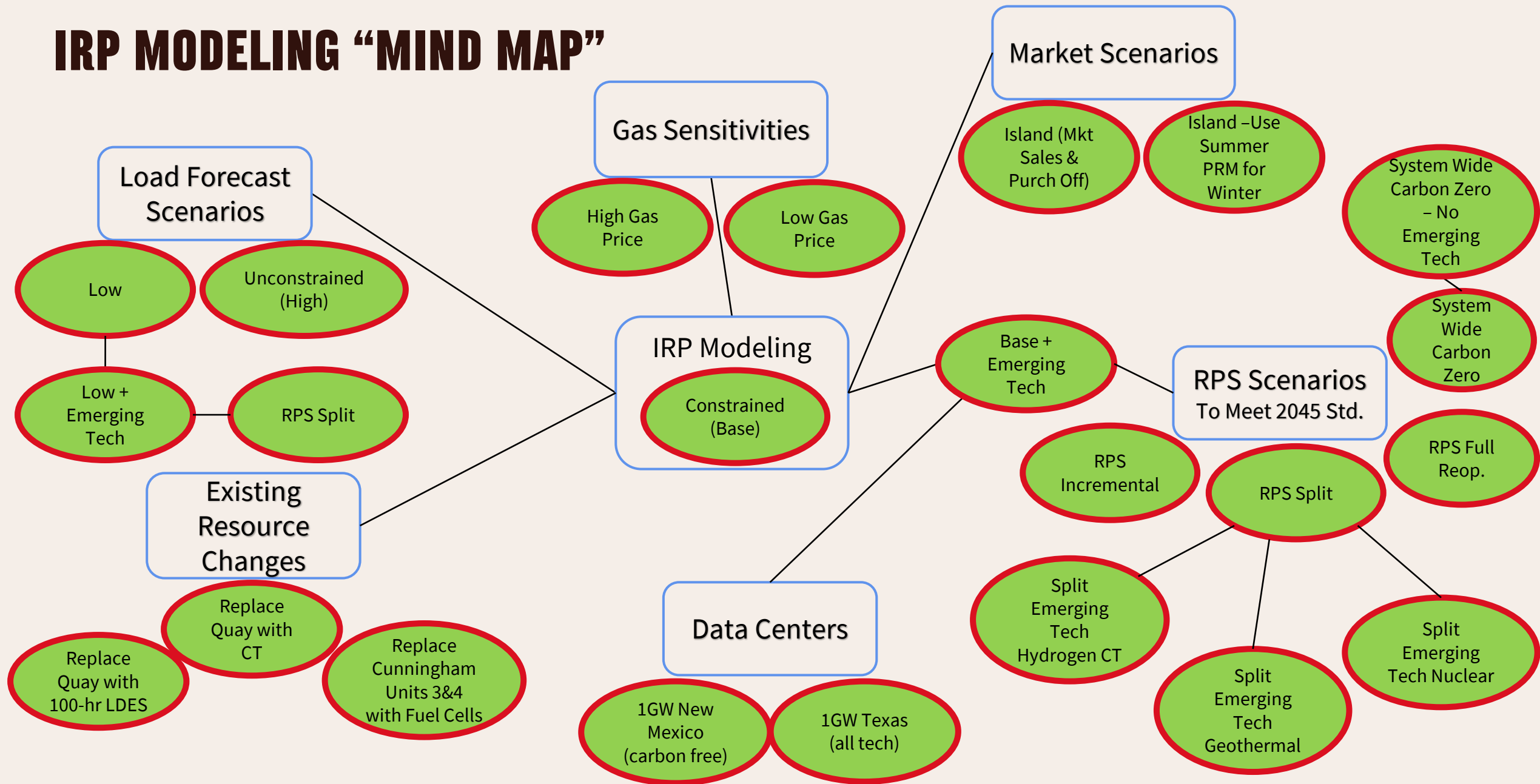
A. Yes.

Q. In the fully carbon zero, no emerging tech scenario, were all build limits removed? (Chelsea Hotaling, EFG)

A. No.



IRP MODELING “MIND MAP”



SUMMARY NPV COMPARISONS FORCED EMERGING TECH

Least Cost Portfolio to meet RPS 2045

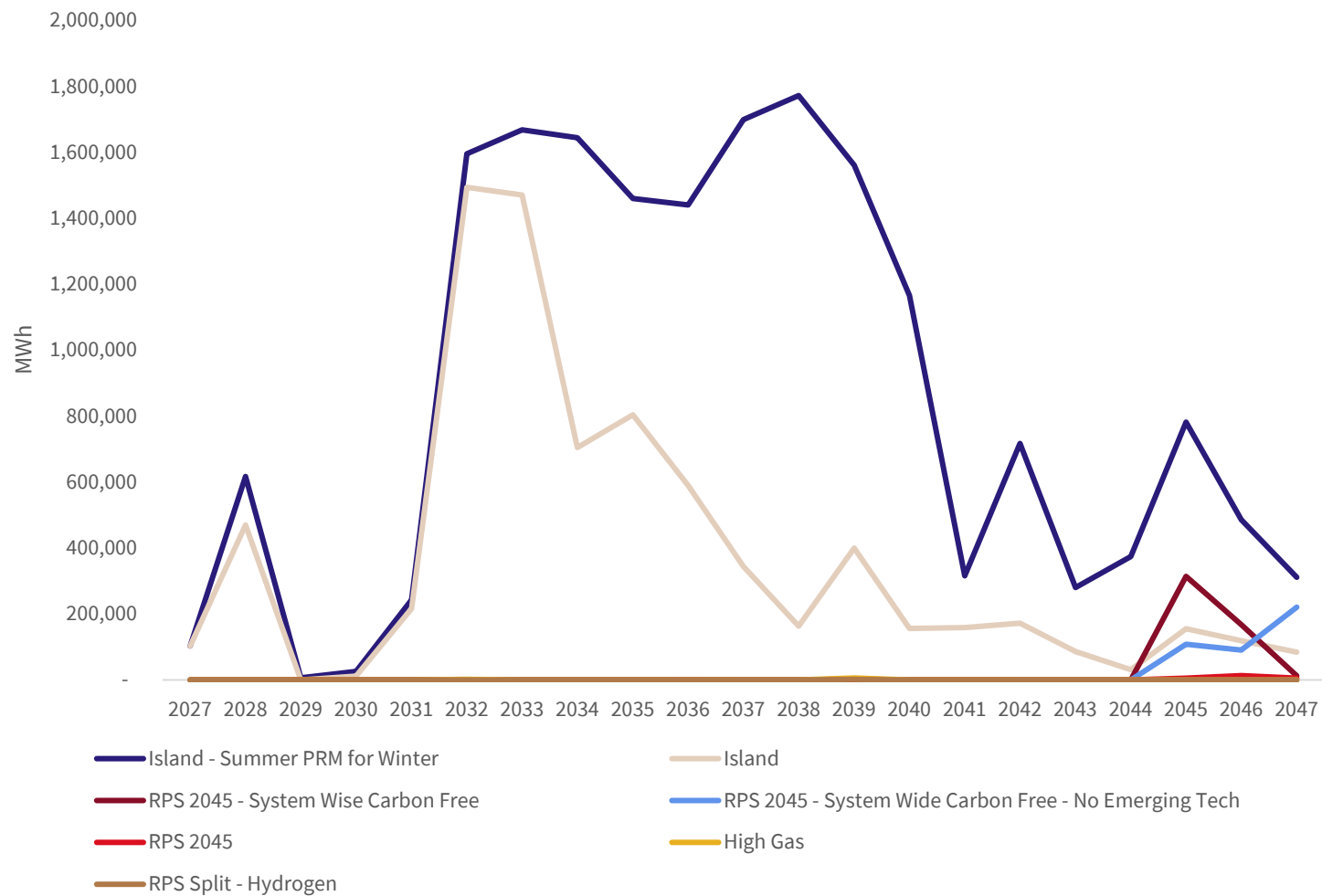
Metric	RPS 2045 - Split	RPS 2045 – Split - Nuclear	RPS 2045 – Split - Geothermal	RPS 2045 – Split – Hydrogen CT
NPV through 2047 (\$BB)	\$51.12	\$50.79  \$0.33	\$51.86  \$0.74	\$51.10  \$0.02
Description	- TX load share of B+ET portfolio locked, solve for NM share only 100% renewable energy requirement in 2045 for NM share of load	- TX load share of B+ET portfolio locked, solve for NM share only 100% renewable energy requirement in 2045 for NM share of load 900MW SMR required 2041	- TX load share of B+ET portfolio locked, solve for NM share only 100% renewable energy requirement in 2045 for NM share of load 250MW EGS required 2035	- TX load share of B+ET portfolio locked, solve for NM share only 100% renewable energy requirement in 2045 for NM share of load 200MW H2 CT required 2040
Emerging Tech Available	Yes	Yes	Yes	Yes
EUE	None	None	None	1,484 MWh (\$1.32M)
Capacity Payment	None	\$11K	\$183K	\$288K
Curtailment (GWh)	8,804	7,137	8,086	8,822

Capacity Payment Cost Assumption (2 X CONE): $\$139.85 \times 2 = \$279.70/\text{kW-year}$

Expected Unserved Energy (EUE) Cost Assumption: \$2,000/MWh



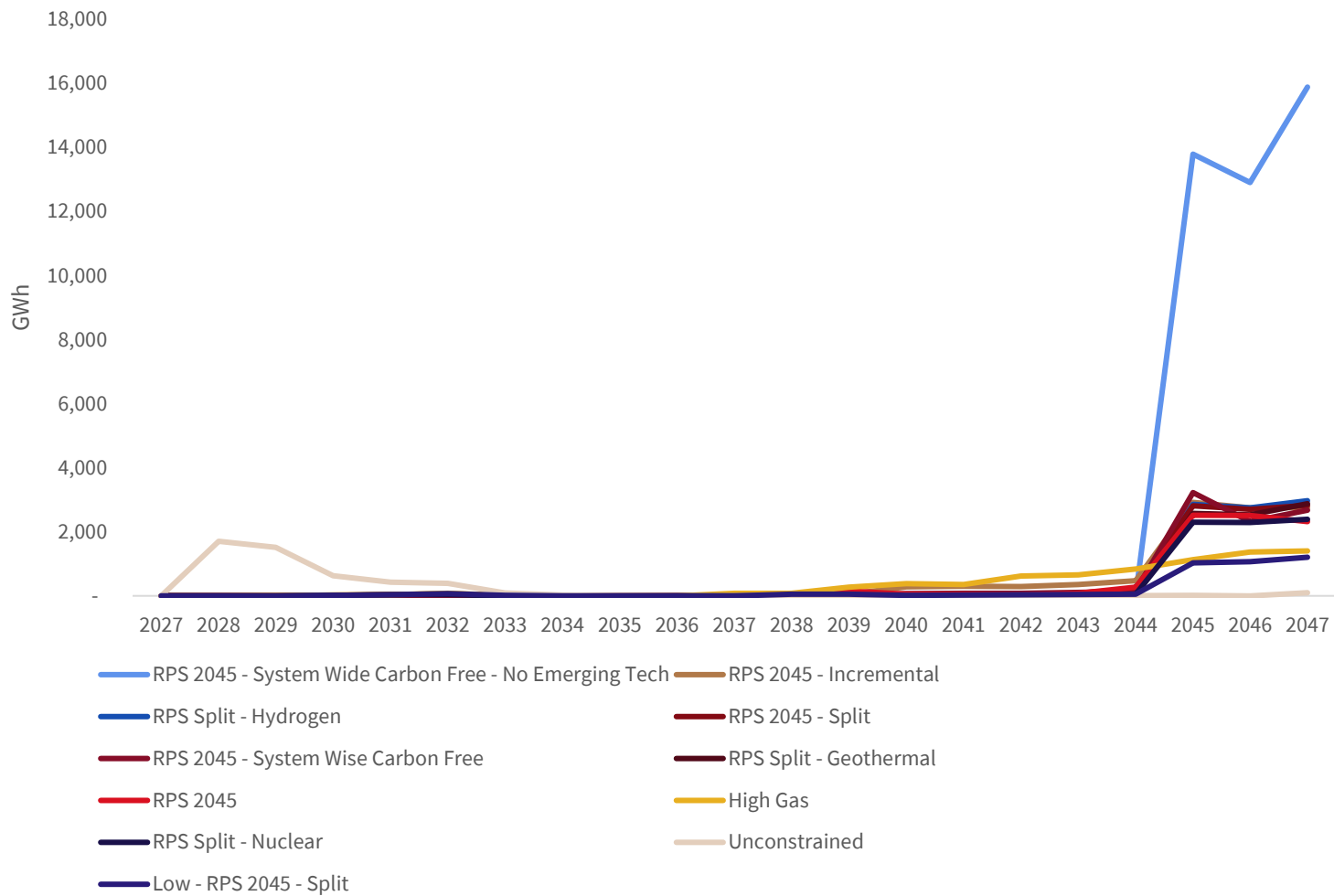
ANNUAL EUE (MWH) – ALL SCENARIOS



Scenario	EUE (MWH)	Cost NPV (\$MM)
Island – Summer PRM for Winter	18,264,885	\$19,442
Island	7,730,372	\$9,291
RPS 2045 – System Wide Carbon Free	496,395	\$287
RPS 2045 – System Wide Carbon Free – No Emerging Tech	419,818	\$228
RPS 2045	25,155	\$14
High Gas	7,709	\$8
RPS Split - Hydrogen	1,484	\$1

All other scenarios have < \$100K cost

ANNUAL CURTAILMENT (GWH) – ALL SCENARIOS

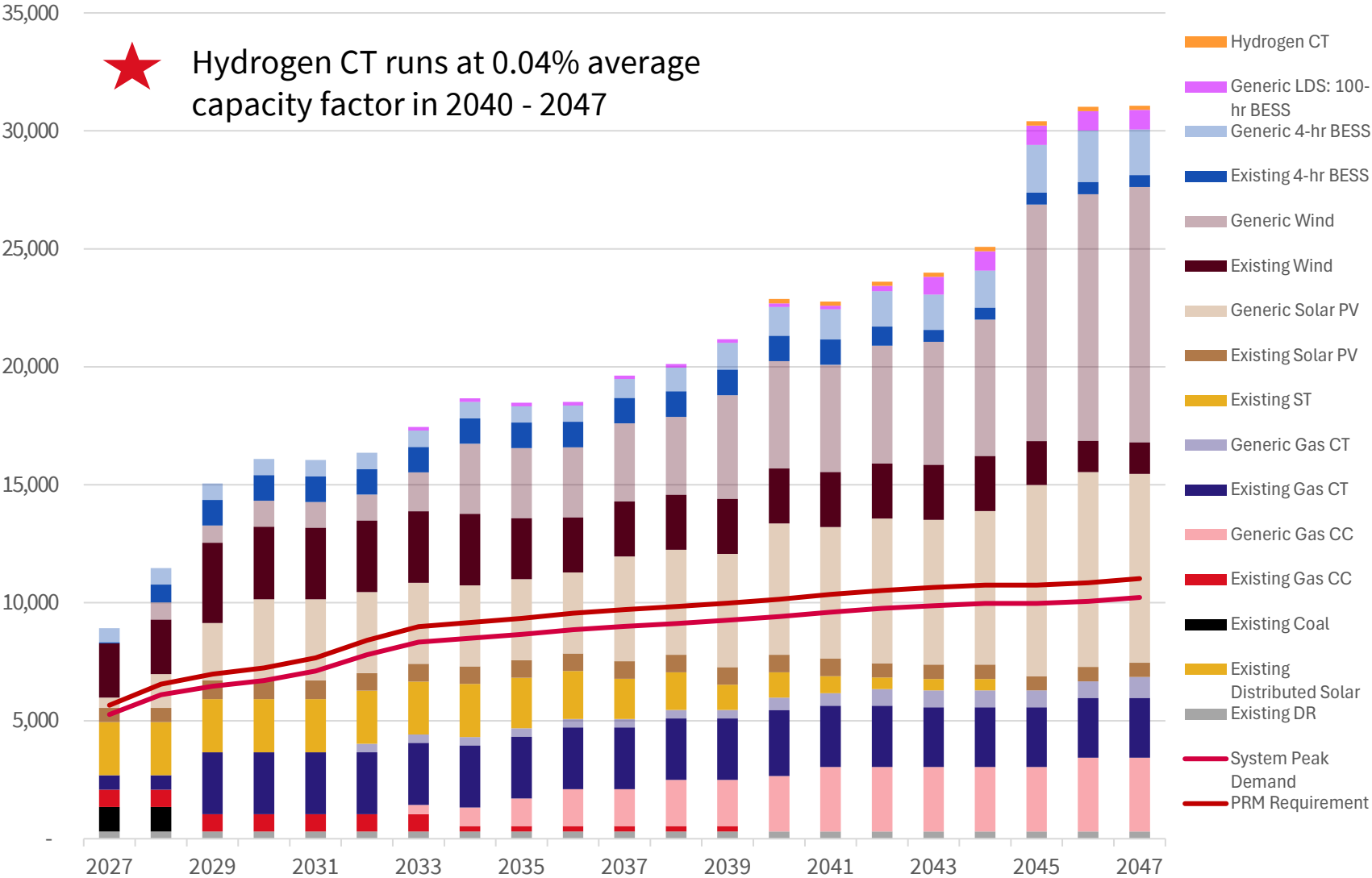


Scenario	Curtailment (GWH)
RPS 2045 – System Wide Carbon Free – No Emerging Tech	42,660
RPS 2045 - Incremental	10,417
RPS Split – Hydrogen	8,822
RPS 2045 - Split	8,804
RPS 2045 – System Wide Carbon Free	8,764
RPS Split – Geothermal	8,086
RPS 2045	8,049
High Gas	7,346
RPS Split – Nuclear	7,137
Unconstrained	4,957
Low – RPS 2045 - Split	3,725

All other scenarios have < 1K GWh

SPLIT TX/NM AND FORCE IN HYDROGEN

Nameplate through 2047 (MW)



Forecast Assumption:
2026 V1 Constrained
Planning Forecast

Description and/or Limits:
Solves for RPS compliance
through optimization of
resources additions across
both NM & TX jurisdictions.
200MW H2 CT is forced in
2040.

NPV through 2047 (\$M):
\$51,095

EUE: 1,484 MWh / \$1.3M

Operates as 100% REC requirement and
partially relies on TX load ratio share of
thermal resources.