SOUTHWESTERN PUBLIC SERVICE COMPANY
2026 INTEGRATED RESOURCE PLAN

Workshop #6 Facilitated Stakeholder Process
July 21, 2026

Xcel Energy®

IMPORTANT NOTES

Although the modeling presented today incorporates updated modeling assumptions, the results are still considered draft. SPS will continue to check the model inputs and outputs for accuracy. Any corrections or changes to the modeling inputs and assumptions may change the results. SPS will present full and final results prior to filing the IRP.

When determining the most cost-effective portfolio of resources in the IRP process, SPS relies upon generic cost estimates for modeling new generating resources. Future resource acquisitions will be dependent upon the firm pricing and availability of new resources (i.e., actual bids).

OPEN ITEMS

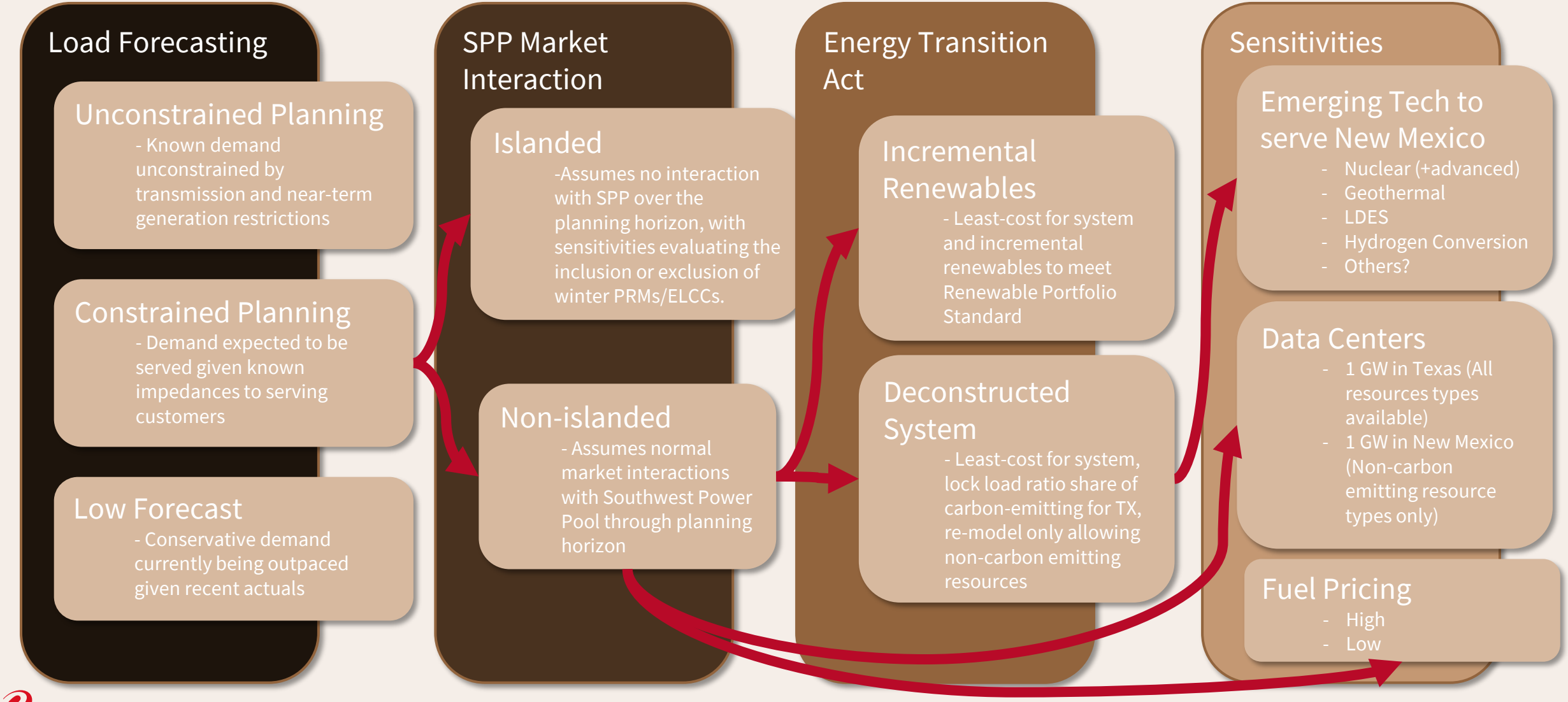
- Agreed upon modifications to modeling activities:
  - Include additional battery energy storage options (6- and 8-hour duration) in all model runs. Note that this change requires the utility to rerun all scenarios analyzed to date.
  - 2) Add a scenario focused on the low-load forecast in an NM-focused or “split” NM-TX system configuration, with renewable portfolio standard- and ETA-compliant assumptions.
  - 3) Modify the parameters of some emerging technology resources as outlined in slides 29-31 of the Revised Xcel Energy Slide Deck. SPS presented the consistent methodology used for determining these parameters and expressed a willingness to have further discussions with individuals on this topic.
  - 4) Adjust the planning reserve margin (PRM) value in the “markets off, island” scenario by using the summer PRM value year-round instead of different summer and winter PRM values. Capacity accreditation values will be seasonally adjusted to be consistent with all other model runs.
- Follow up with Energy Futures Group regarding expected unserved energy amounts (frequency and timing), emerging technology assumptions, and scenario requests
- Model a scenario forcing in small modular reactors
- Consider an analysis of revenue requirements and rate impacts

MODELING TREE

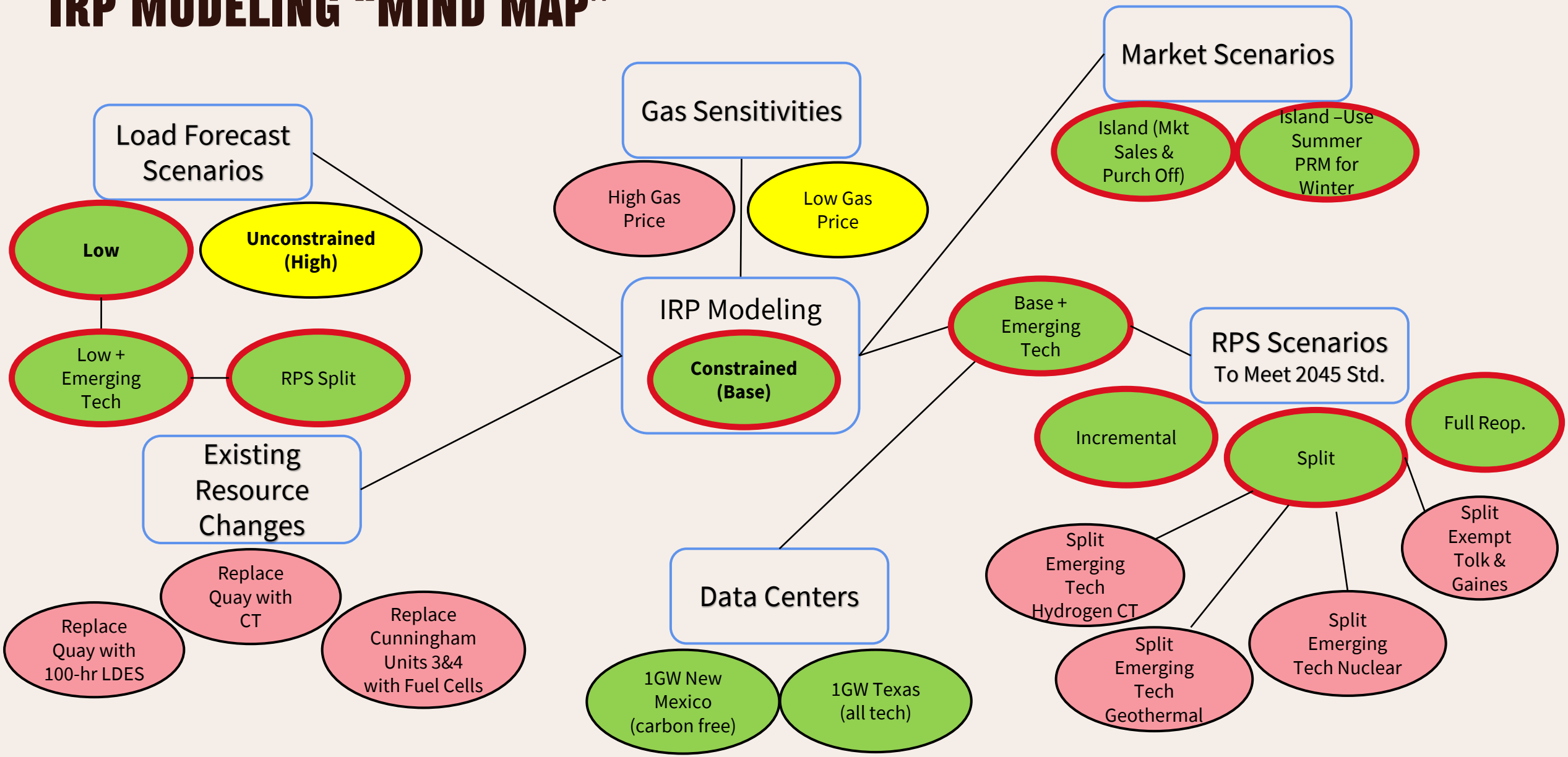
PRELIMINARY RESULTS

CONCEPTUAL MODELING TREE

All resource types available in all models except where otherwise noted.



IRP MODELING "MIND MAP"



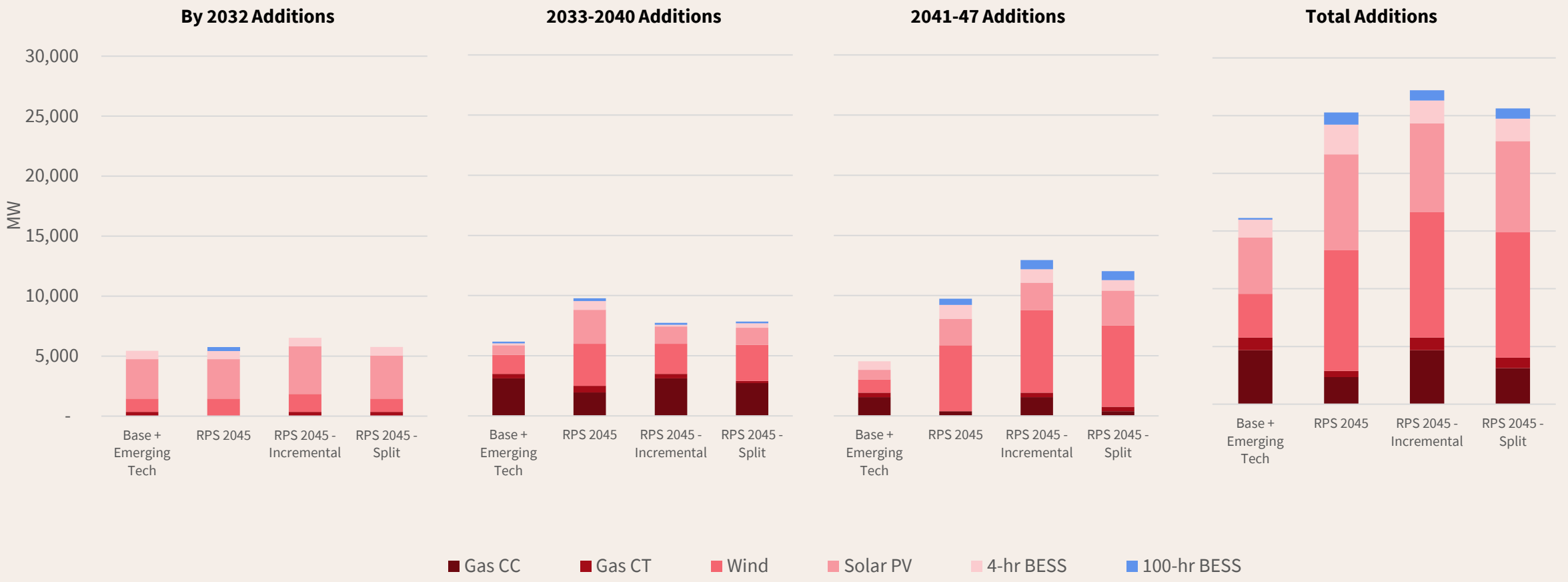
NAMEPLATE ADDITIONS

SUMMARY OF SUMMER NAMEPLATE CAPACITY ADDITIONS IN GROUPED SCENARIOS

PRELIMINARY RESULTS

NAMEPLATE ADDITIONS, SUMMER CAPACITY (MW) – RPS

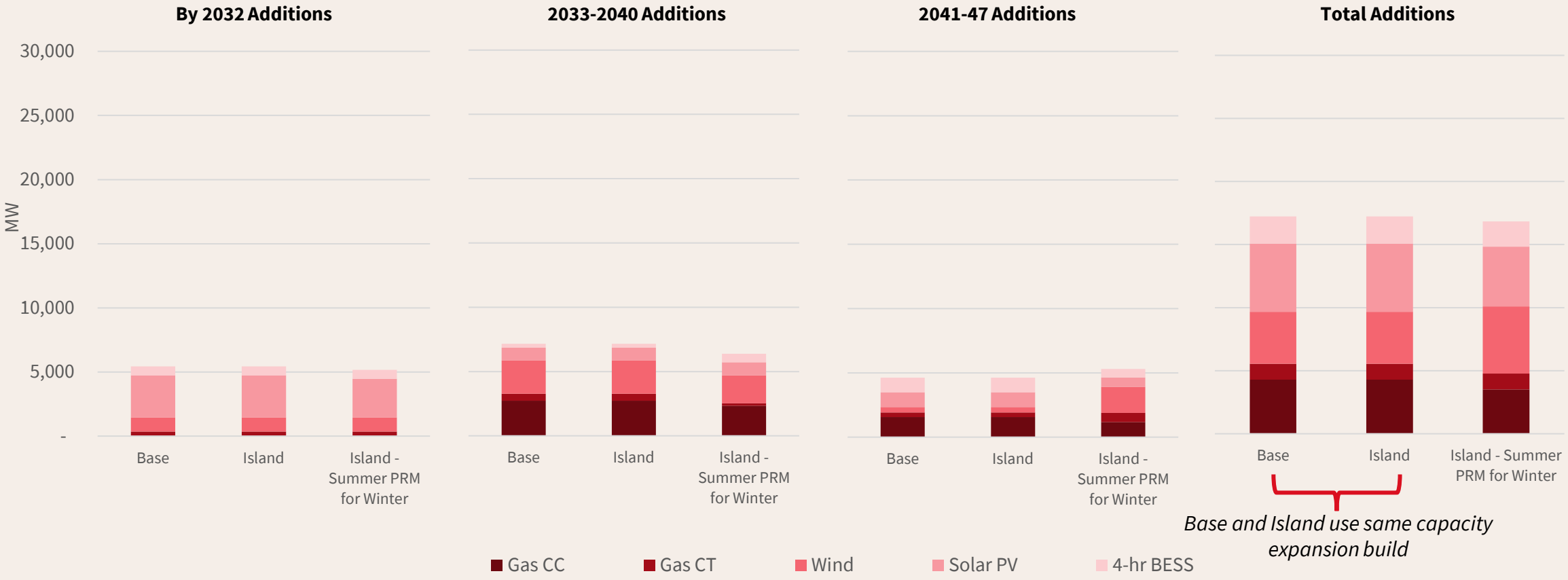
Incremental Resources Over the IRP Horizon



Preliminary Results. Subject to change.

NAMEPLATE ADDITIONS, SUMMER CAPACITY (MW) – ISLAND

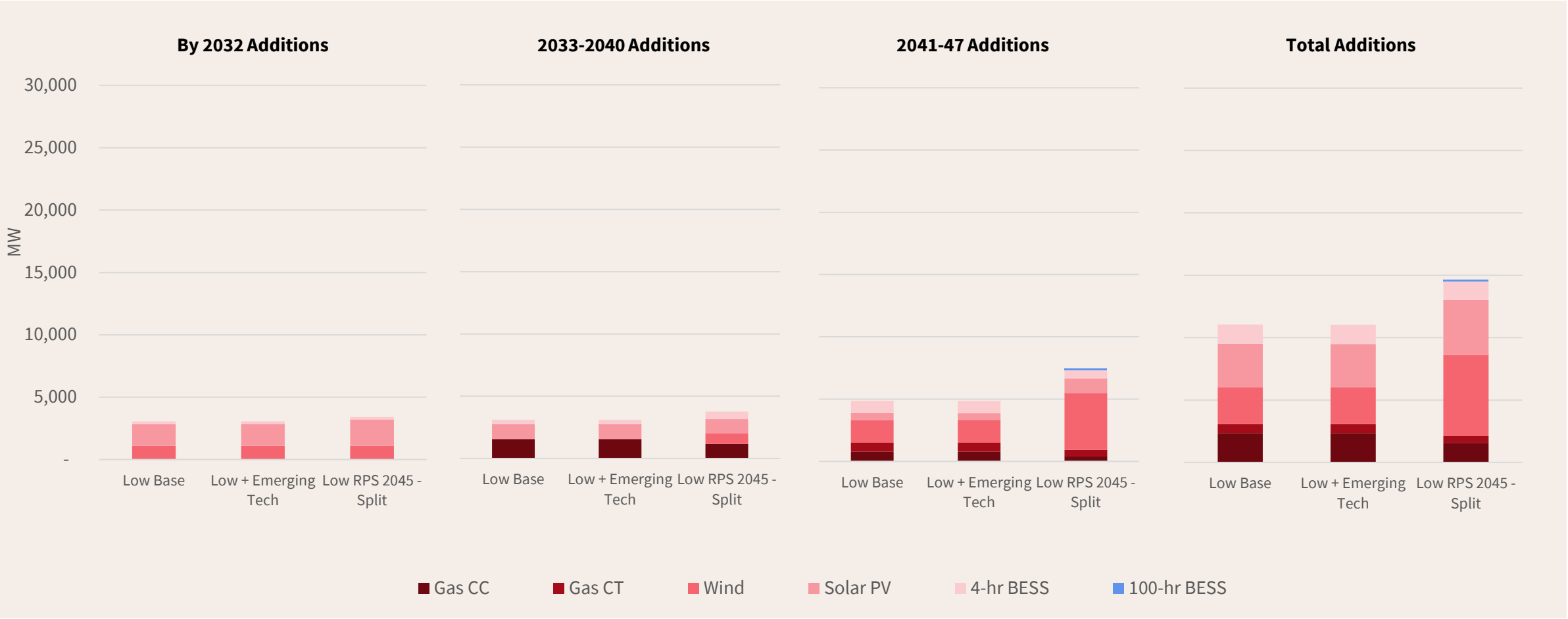
Incremental Resources Over the IRP Horizon



Preliminary Results. Subject to change.

NAMEPLATE ADDITIONS, SUMMER CAPACITY (MW) – LOW

Incremental Resources Over the IRP Horizon



Preliminary Results. Subject to change.

NPV COMPARISONS

SUMMARY OF NET PRESENT VALUES OF PORTFOLIO COST FOR GROUPED SCENARIOS

PRELIMINARY RESULTS

SUMMARY NPV COMPARISONS FOR RPS

Least Cost Portfolio to meet a RPS45 Needs

Name of Scenario	Description	Emerging Tech Available	NPV through 2047 ($BB)
Base + Emerging Tech Available (B+ET)	• Least-cost portfolio with all technologies available for selection	Yes	$50.52
RPS 2045	• Optimized portfolio on B+ET resource options • 100% renewable energy requirement in 2045 for NM share of load	Yes	$50.59 ↑ $0.07
RPS 2045 – Incremental	• B+ET portfolio locked, solve for incremental additions • 100% renewable energy requirement in 2045 for NM share of load	Yes	$52.88 ↑ $2.36
RPS 2045 - Split	• TX load share of B+ET portfolio locked, solve for NM share only • 100% renewable energy requirement in 2045 for NM share of load	Yes	$51.12 ↑ $0.60

EUE: NPV totals include zero hours of EUE for the *Base + Emerging Tech Available (B+ET)* scenario, 25K MWh ($14M) of EUE for the *RPS 2045* scenario, 1 MWh ($1K) of EUE for the *RPS 2045 – Incremental* and zero MWh EUE for the *RPS 2045 – Split* scenario.

Capacity Payments: NPV totals include $40K of Capacity Payment Cost for the *Base + Emerging Tech Available (B+ET)* scenario, $12K for *RPS 2045* and $0 for *RPS 2045 – Incremental* and *RPS 2045 – Split*

Capacity Payment Cost Assumption (2 X CONE): $139.85*2 = $279.70/kW-year

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

SUMMARY NPV COMPARISONS FOR ISLAND SCENARIOS

Least Cost Portfolio to meet a Multi Jurisdictional Baseline

Name of Scenario	Description	Emerging Tech Available	NPV through 2047 ($BB)
Constrained (Base)	• Least-cost portfolio with no emerging tech resource options	No	$50.58
Island – Summer PRM for Winter	• Fully reoptimized portfolio on Base resource options • Market sales and purchases turned off • Summer PRM also used for Winter season	No	$73.29 ↑ **$22.71**
Island	• Base portfolio locked • Market sales and purchases turned off	No	$64.89 ↑ **$14.31**

EUE: NPV totals include zero MWh of EUE cost for the *Constrained (Base)* scenario, 18.3M MWh ($19.44B) of EUE for the *Island – Summer PRM for Winter* scenario and 7.7M MWh ($9.49B) of EUE for the *Island* scenario.

Capacity Payments: NPV totals include $7K of Capacity Payment Cost for the *Constrained (Base)* scenario, $11K for *Island – Summer PRM for Winter* and $7K for *Island*

Capacity Payment Cost Assumption (2 X CONE): $139.85*2 = $279.70/kW-year

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

SUMMARY NPV COMPARISONS FOR LOW FORECAST SCENARIOS

Least Cost Portfolio to meet a Multi Jurisdictional Baseline

Name of Scenario	Description	Emerging Tech Available	NPV through 2047 ($BB)
Low Base	• Least-cost portfolio with no emerging tech resource options	No	$32.87
Low + Emerging Tech	• Least-cost portfolio with all technologies available for selection	Yes	$32.87
Low RPS 2045 - Split	• TX load share of B+ET portfolio locked, solve for NM share only • 100% renewable energy requirement in 2045 for NM share of load	Yes	$32.96 ↑ **$0.09**

EUE: NPV totals include zero MWh of EUE cost for the *Low Base* scenario, zero MWh of EUE for the *Low + Emerging Tech* scenario and zero MWh of EUE for the *Low RPS 2045 – Split* scenario.

Capacity Payments: NPV totals include $495K of Capacity Payment Cost for the *Low Base* scenario, $208K for *Low + Emerging Tech* and $73K for *Low RPS 2045 - Split*

Capacity Payment Cost Assumption (2 X CONE): $139.85*2 = $279.70/kW-year

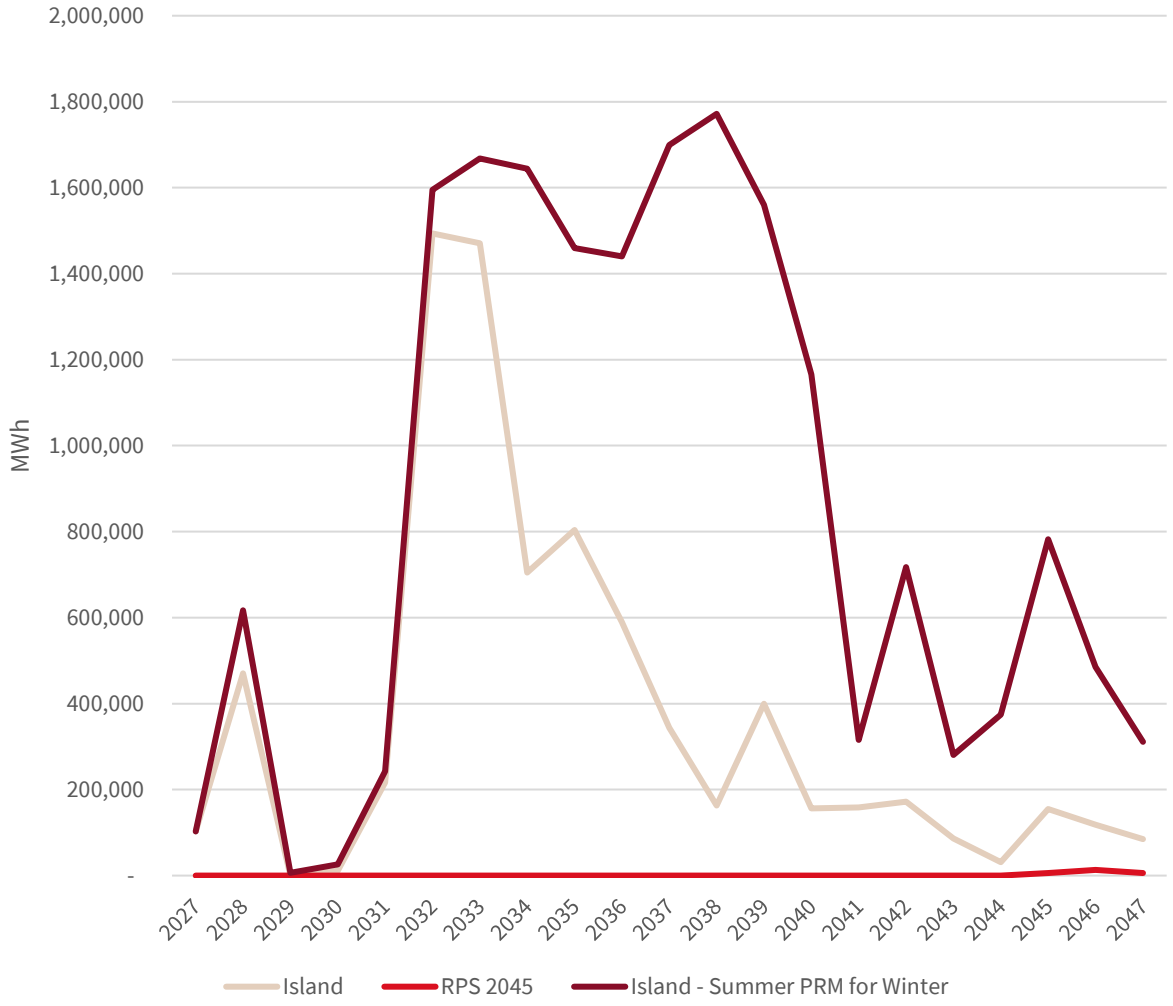
Expected Unserved Energy (EUE) Cost Assumption: $2,000/MWh

EUE COMPARISONS

SUMMARY OF EXPECTED UNSERVED ENERGY

PRELIMINARY RESULTS

ANNUAL EUE (MWH) – ALL SCENARIOS



Scenario	EUE (MWH)	Cost NPV ($MM)
Constrained (Base)	0	$0
Island – Summer PRM for Winter	18,264,885	$19,442
Island	7,730,372	$9,291
Base + Emerging Tech	0	$0
RPS 2045	25,155	$14
RPS 2045 – Incremental	1	$0
RPS 2045 - Split	0	$0
Low Base	0	$0
Low + Emerging Tech	0	$0
Low RPS 2045 - Split	0	$0

CAPACITY RESULTS

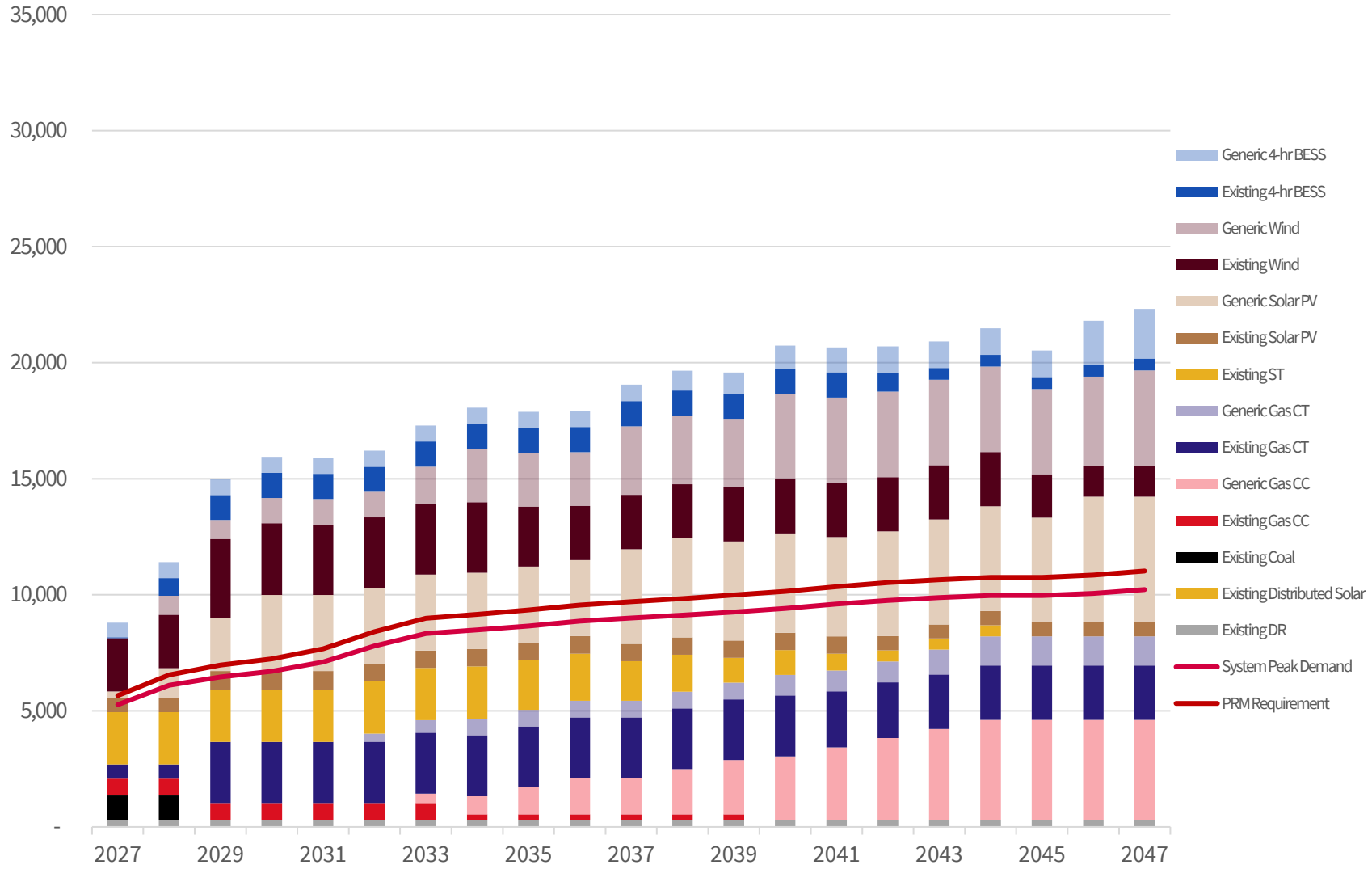
SUMMARY OF PORTFOLIO CAPACITY RESULTS BY SCENARIO

PRELIMINARY RESULTS

CONSTRAINED FORECAST SCENARIOS

BASE BUILD (MW)

Nameplate through 2047



Forecast Assumption:
2026 V1 Constrained Planning Forecast

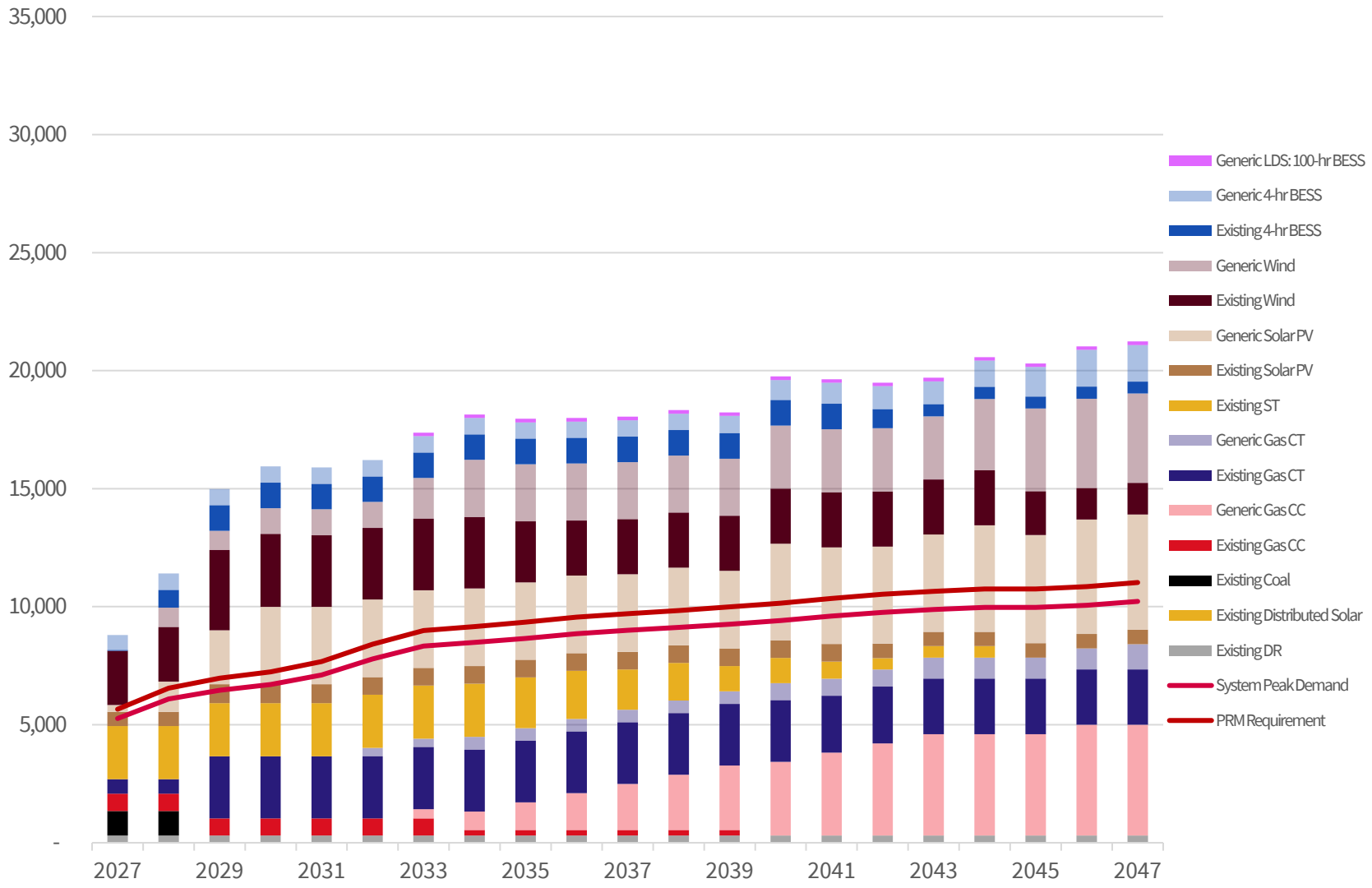
Description and/or Limits:
Base Constrained Planning Load. No emerging technology available

NPV through 2047 ($M):
$50,577

EUE:
0 MWh

BASE + EMERGING TECH (MW)

Nameplate through 2047



Forecast Assumption:
2026 V1 Constrained Planning Forecast

Description and/or Limits:
Solves for Constrained Planning Load with emerging technology available.

NPV through 2047 ($M):
$50,520

EUE:
0 MWh

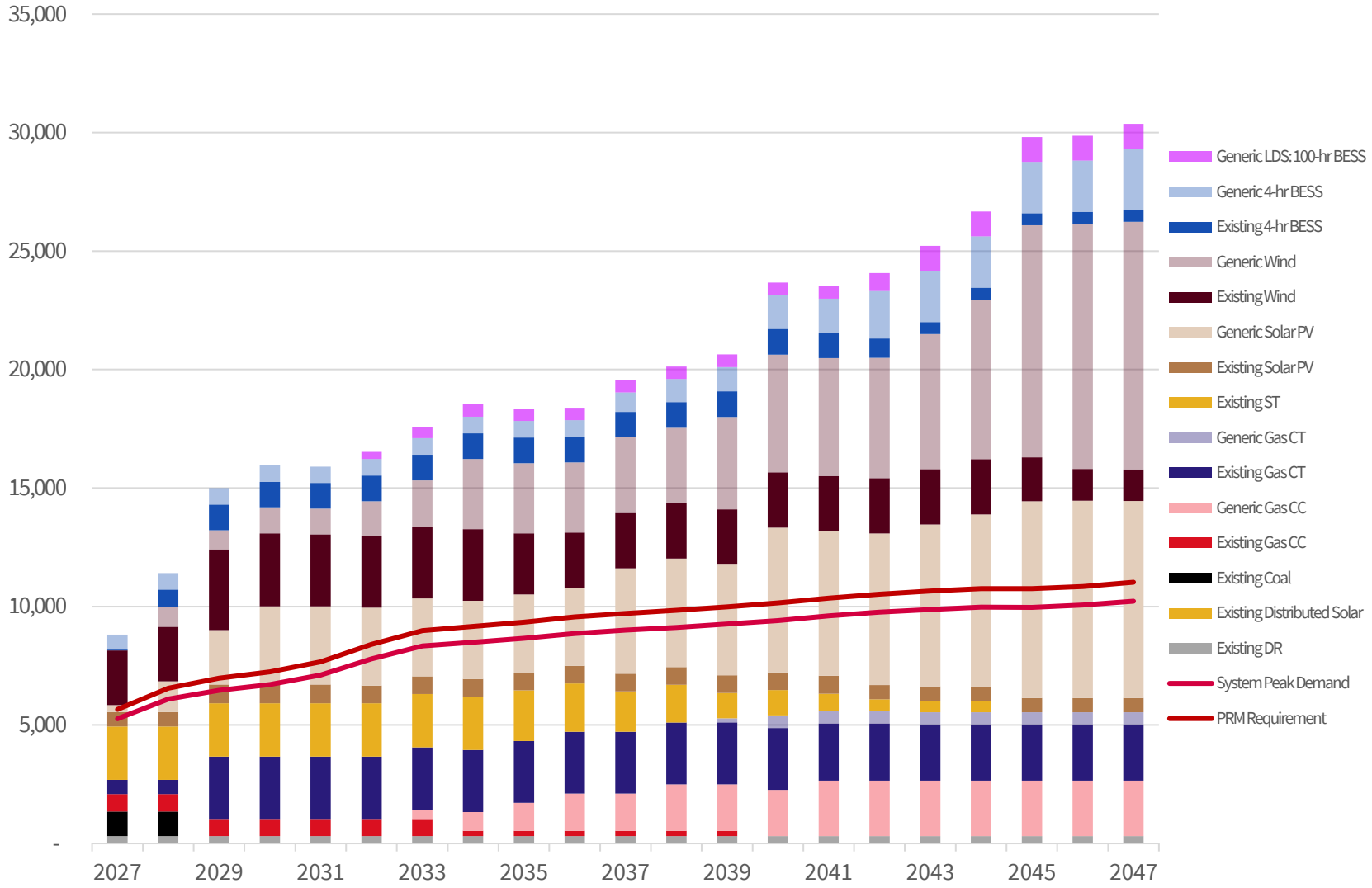
RPS 2045

MULTI-JURISDICTIONAL OPTIMIZATION OF RESOURCE ADDITIONS FOR RPS

PRELIMINARY RESULTS

RPS 2045

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

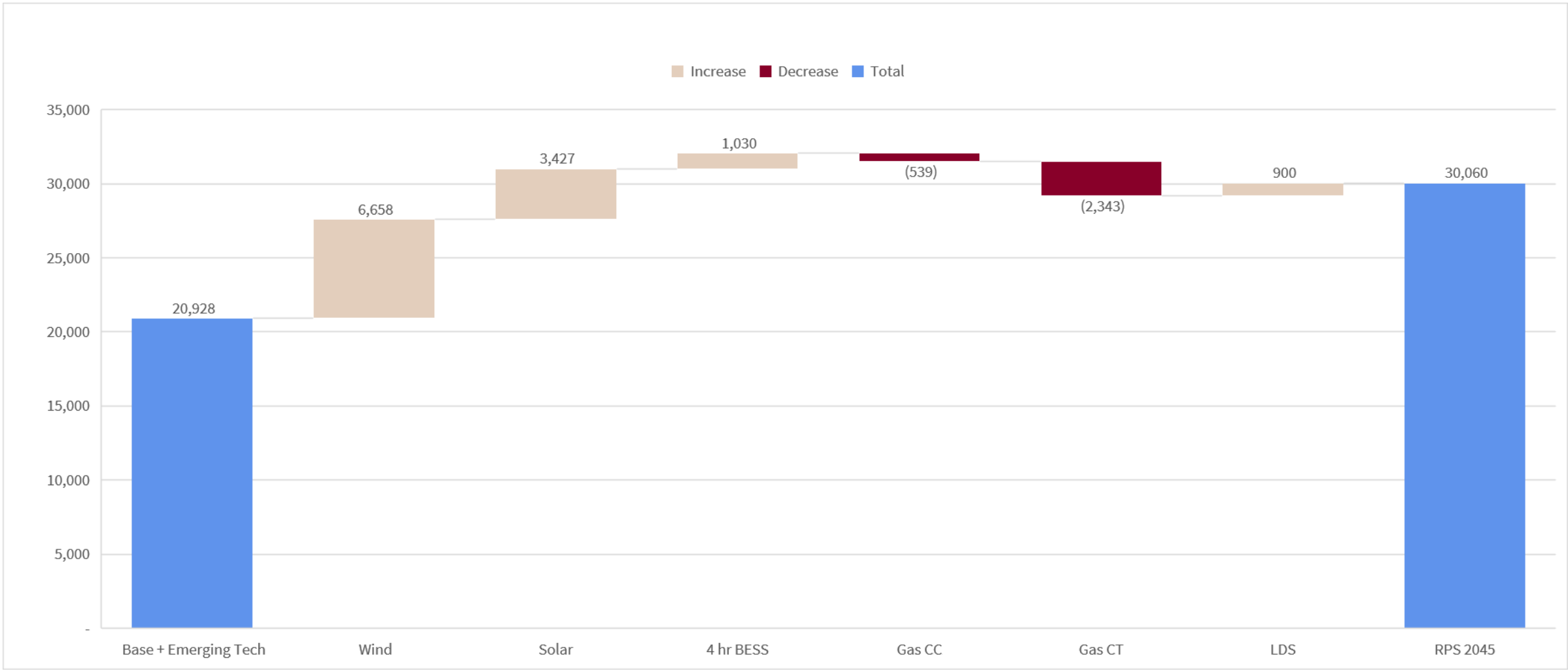
NPV through 2047 ($M):
$50,593

EUE: 25,155 MWh / $14.03M

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

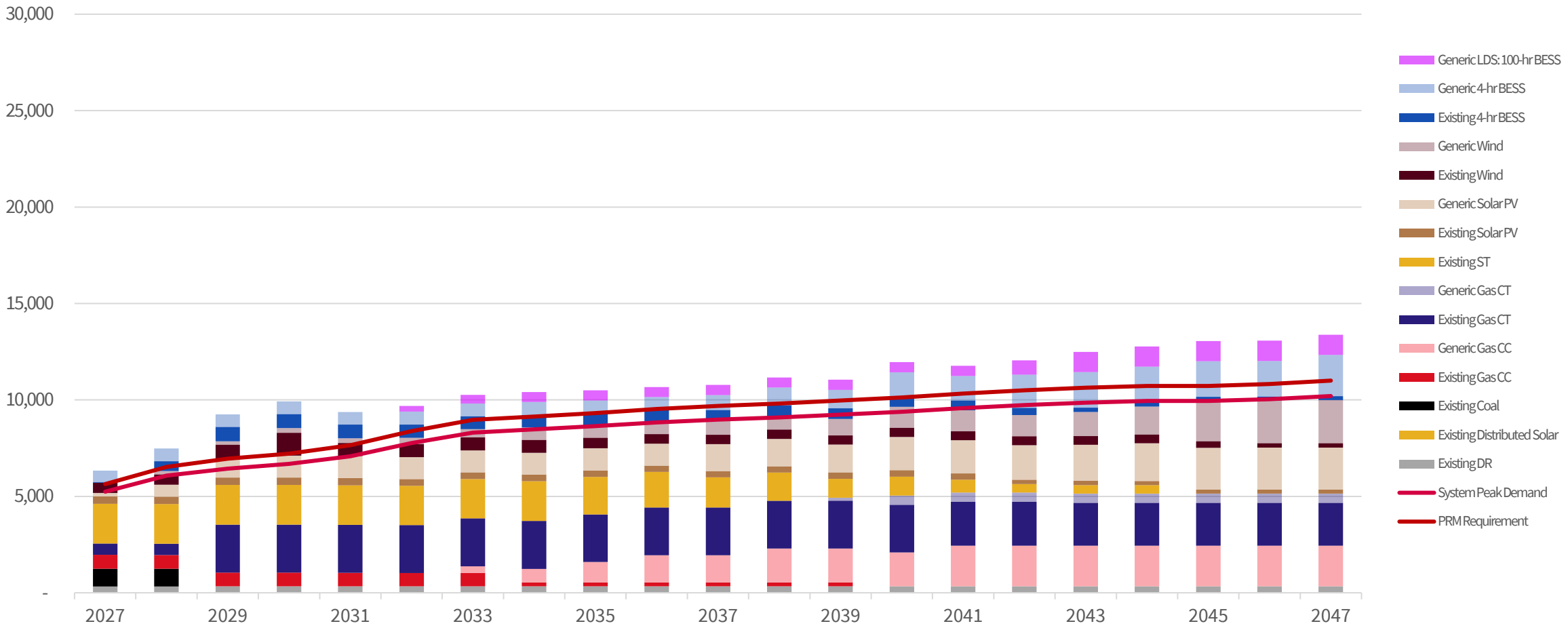
RPS 2045: CAPACITY DIFFERENCE IN 2047 FROM BASE + EMERGING TECH

Nameplate Difference in 2047 (MW)



SUMMER ACCREDITED CAPACITY (MW)

RPS Compliance Using Multi-Jurisdictional Optimization Through 2045

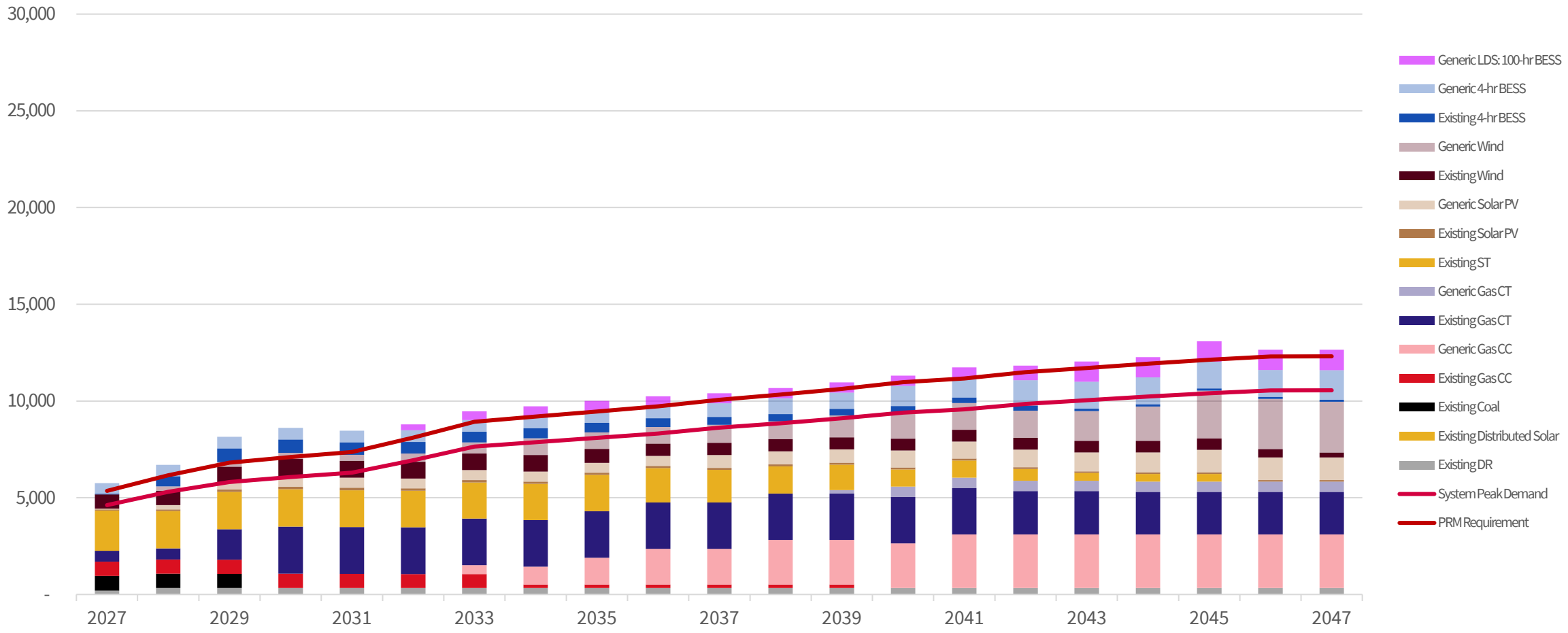


Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

WINTER ACCREDITED CAPACITY (MW)

RPS Compliance Using Multi-Jurisdictional Optimization Through 2045



Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

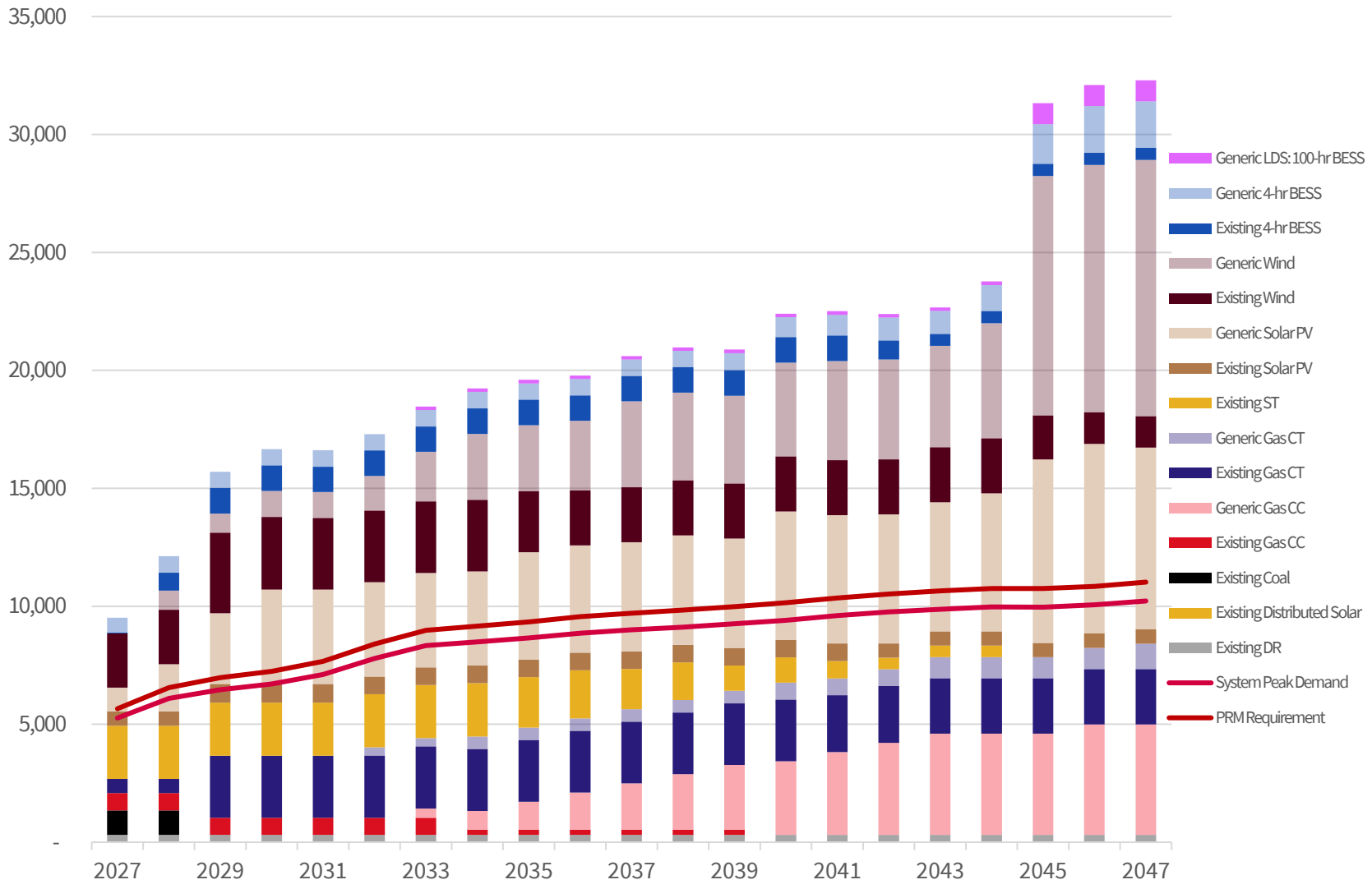
RPS 2045 – INCREMENTAL

RPS COMPLIANCE THROUGH INCREMENTAL RESOURCE ADDITIONS

PRELIMINARY RESULTS

RPS 2045 – INCREMENTAL

Nameplate through 2047 (MW)



Forecast Assumption:
2026 V1 Constrained Planning Forecast

Description and/or Limits:
Locks in base plan to meet Constrained PL, then incrementally adds resources to meet RPS

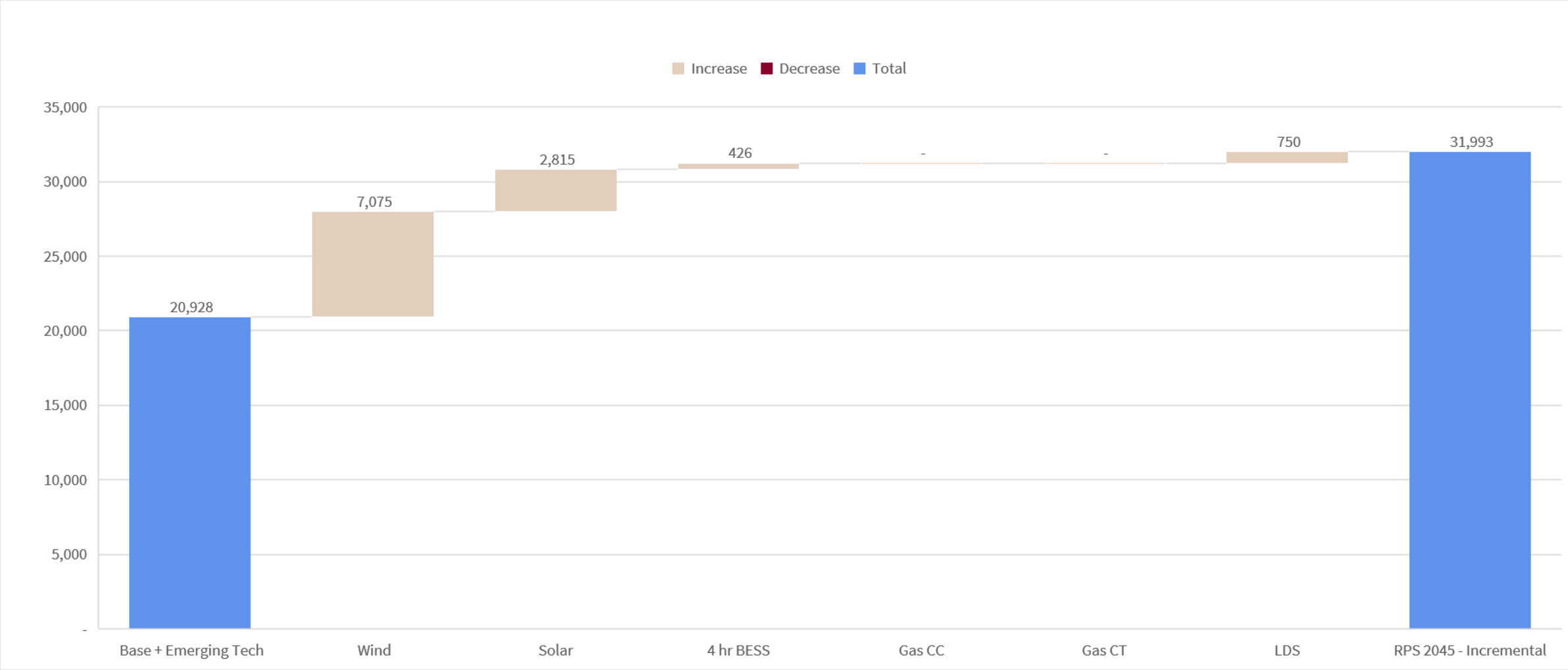
NPV through 2047 ($M):
$52,875

EUE: 1 MWh / $1.2K

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

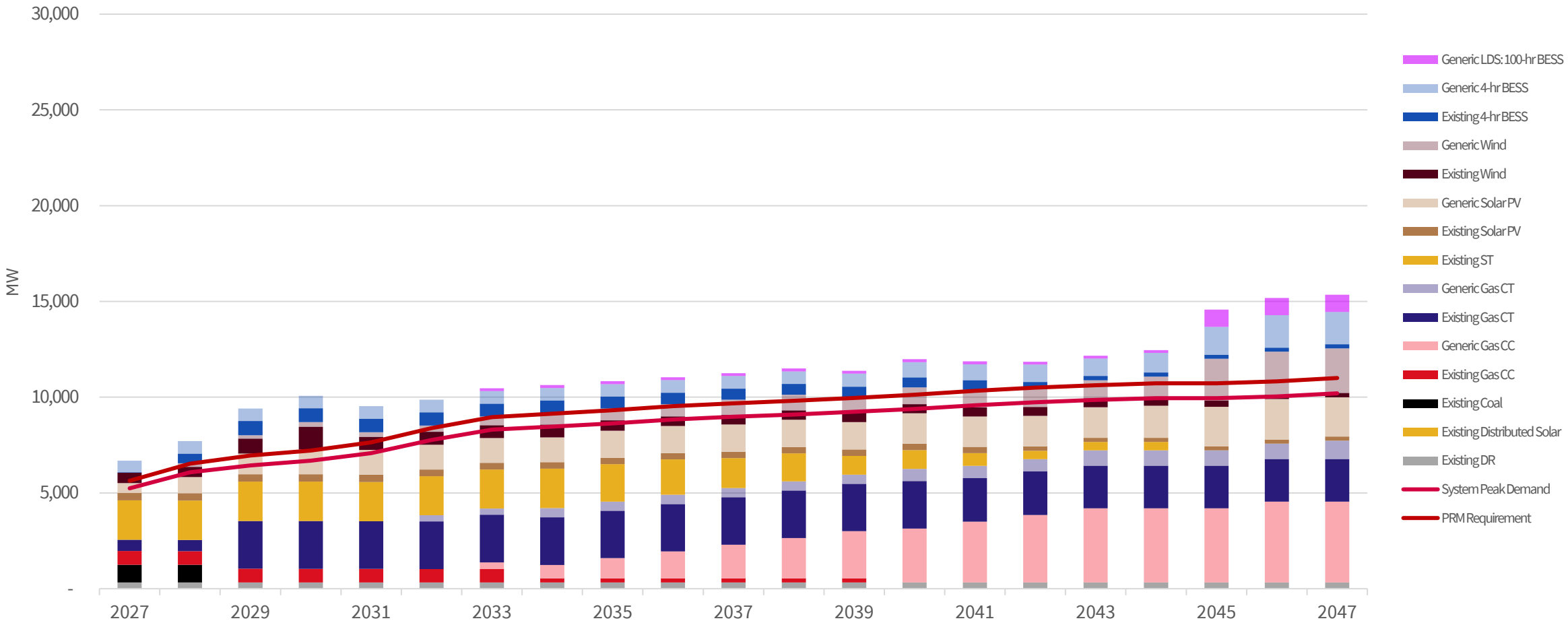
RPS 2045 – INCREMENTAL: CAPACITY DIFFERENCE IN 2047 FROM BASE + EMERGING TECH

Nameplate Difference in 2047 (MW)



SUMMER ACCREDITED CAPACITY (MW)

Incremental RPS Compliance Through 2045

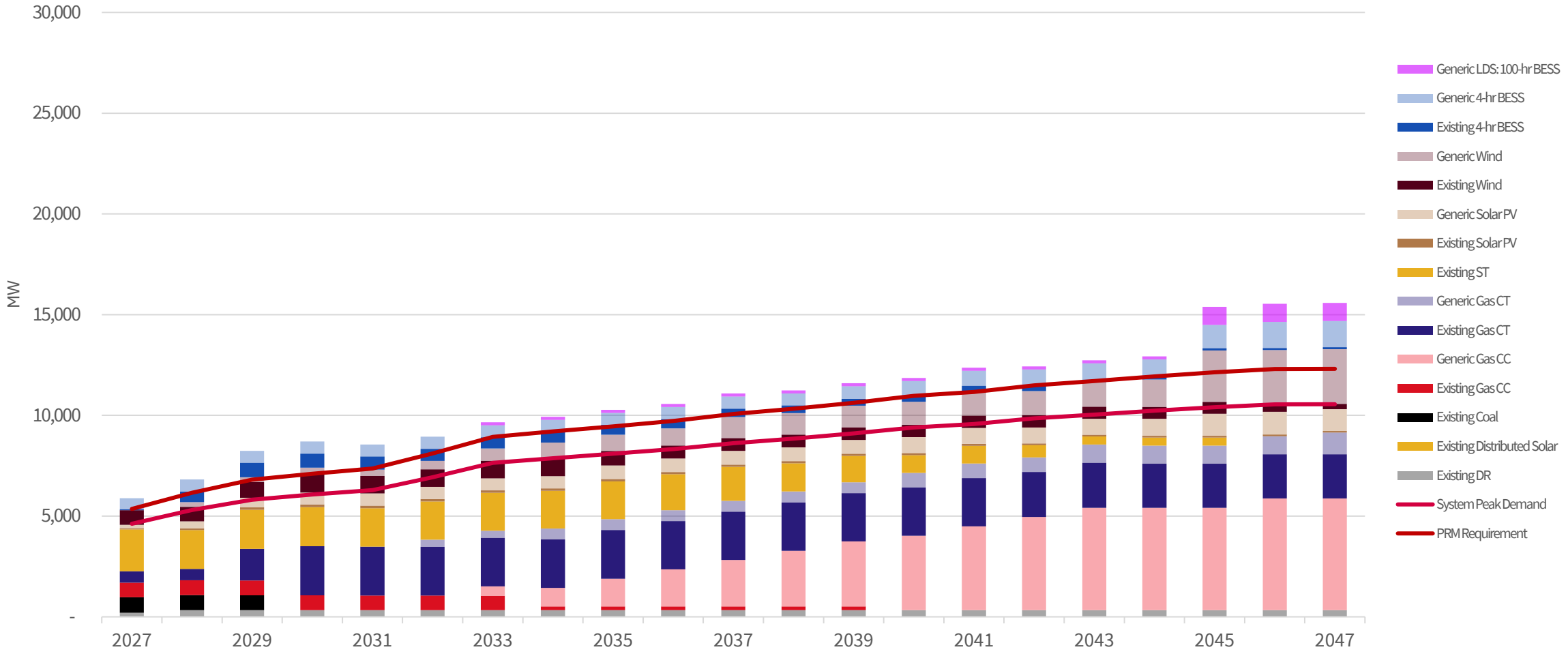


Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

WINTER ACCREDITED CAPACITY (MW)

Incremental RPS Compliance Through 2045



Preliminary Results. Subject to change. *Distributed Solar is approximately 100 MW.

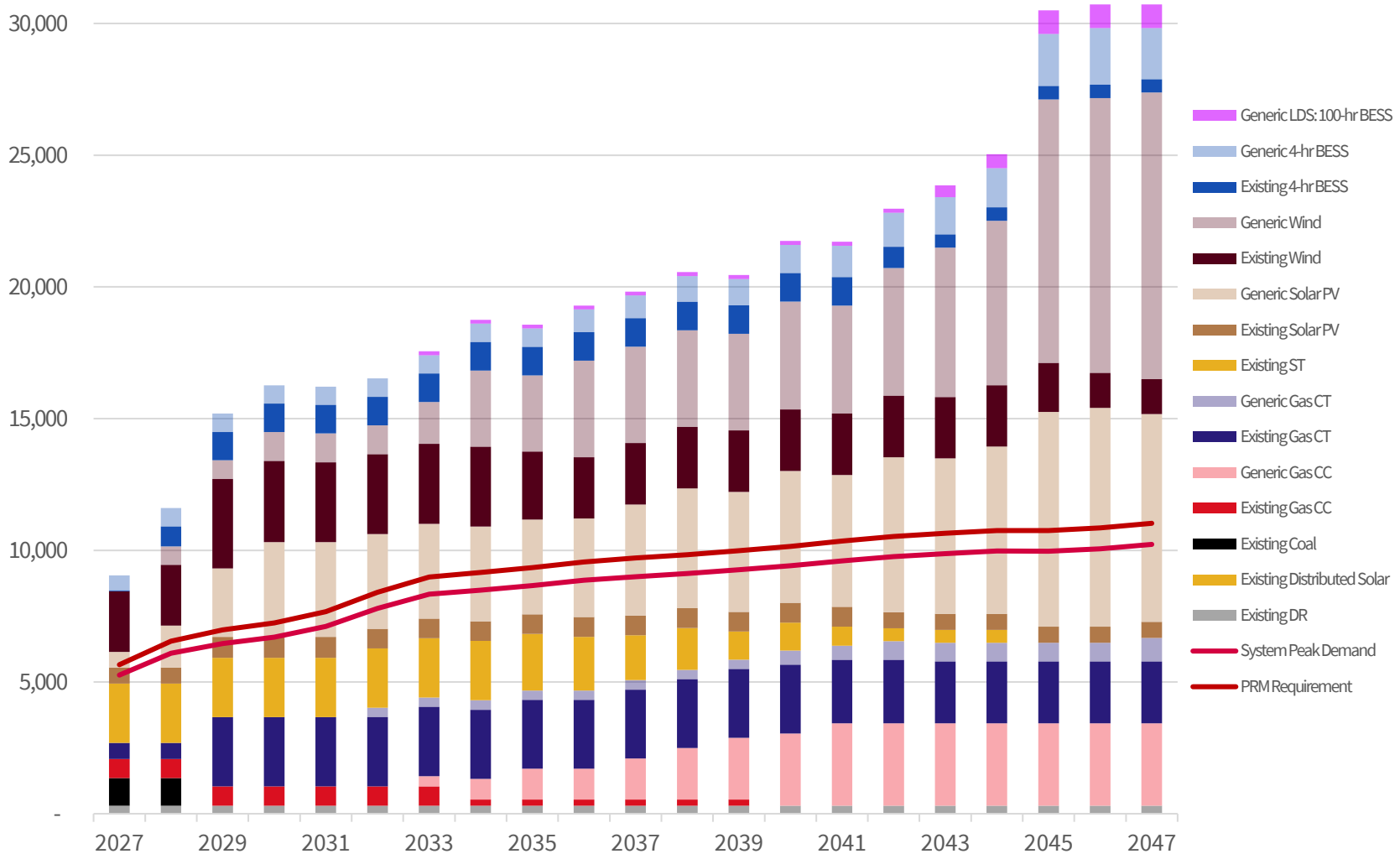
RPS 2045 – SPLIT

RPS COMPLIANCE THROUGH A SPLIT PORTFOLIO

PRELIMINARY RESULTS

RPS 2045 – SPLIT

Nameplate through 2047 (MW)



Forecast Assumption:
2026 V1 Constrained Planning Forecast

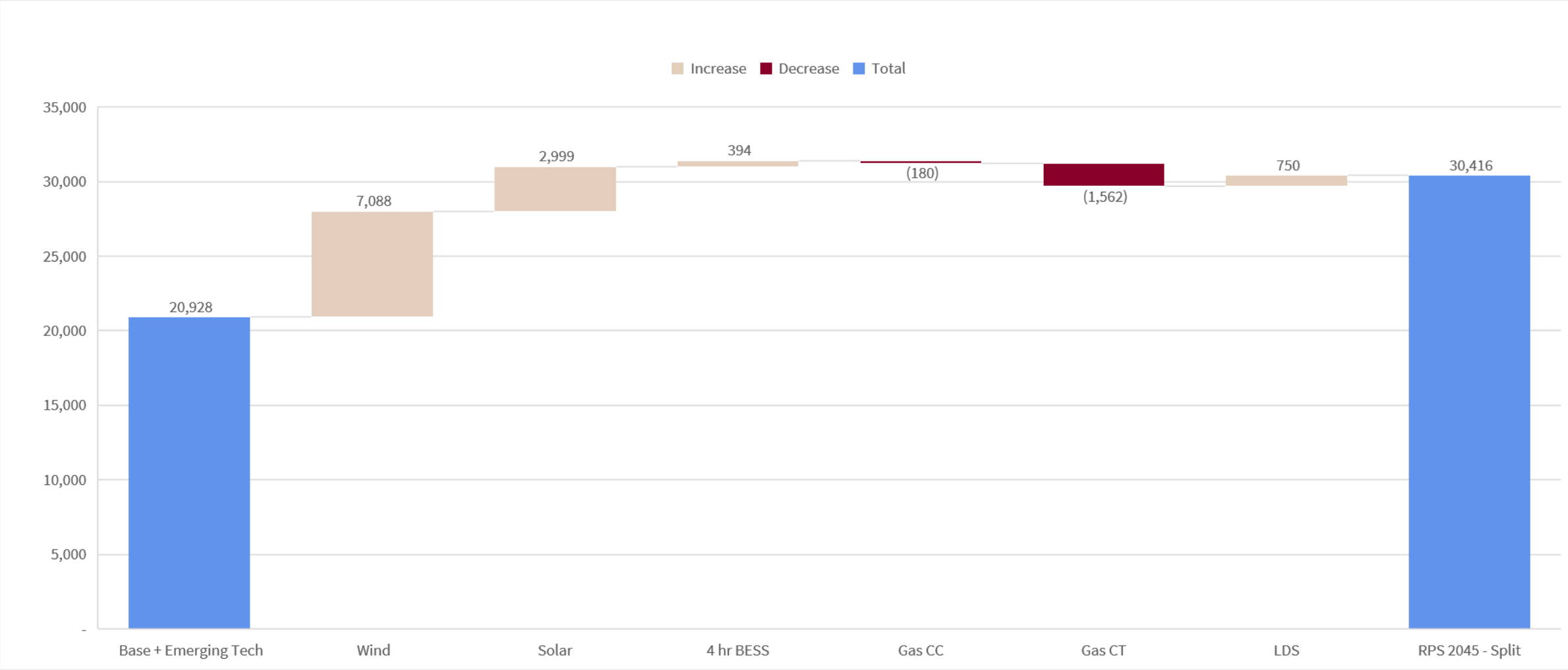
Description and/or Limits:
Locks in TX load share of resources, then optimizes to solve for NM RPS compliance.

NPV through 2047 ($M):
$51,123

EUE:
0 MWh

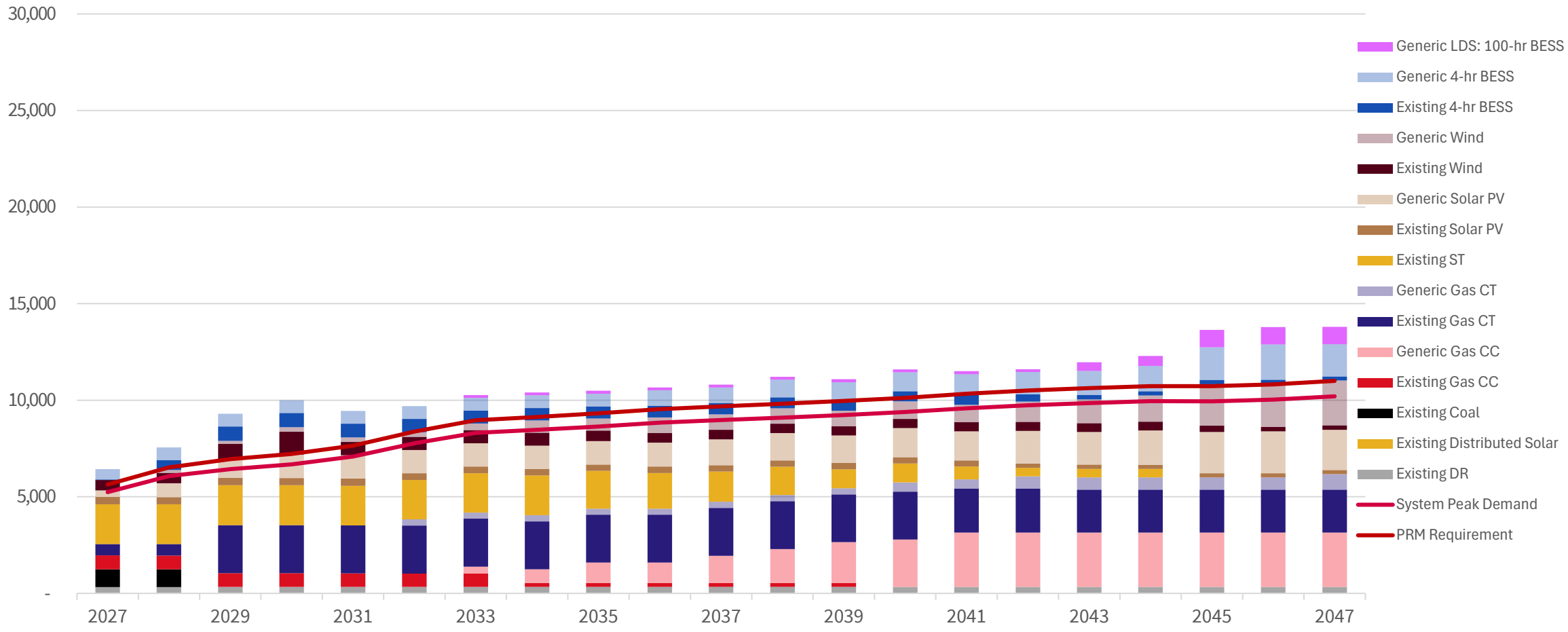
RPS 2045 – SPLIT: CAPACITY DIFFERENCE IN 2047 FROM BASE + EMERGING TECH

Nameplate Difference in 2047 (MW)



SUMMER ACCREDITED CAPACITY (MW)

Split RPS Compliance Through 2045

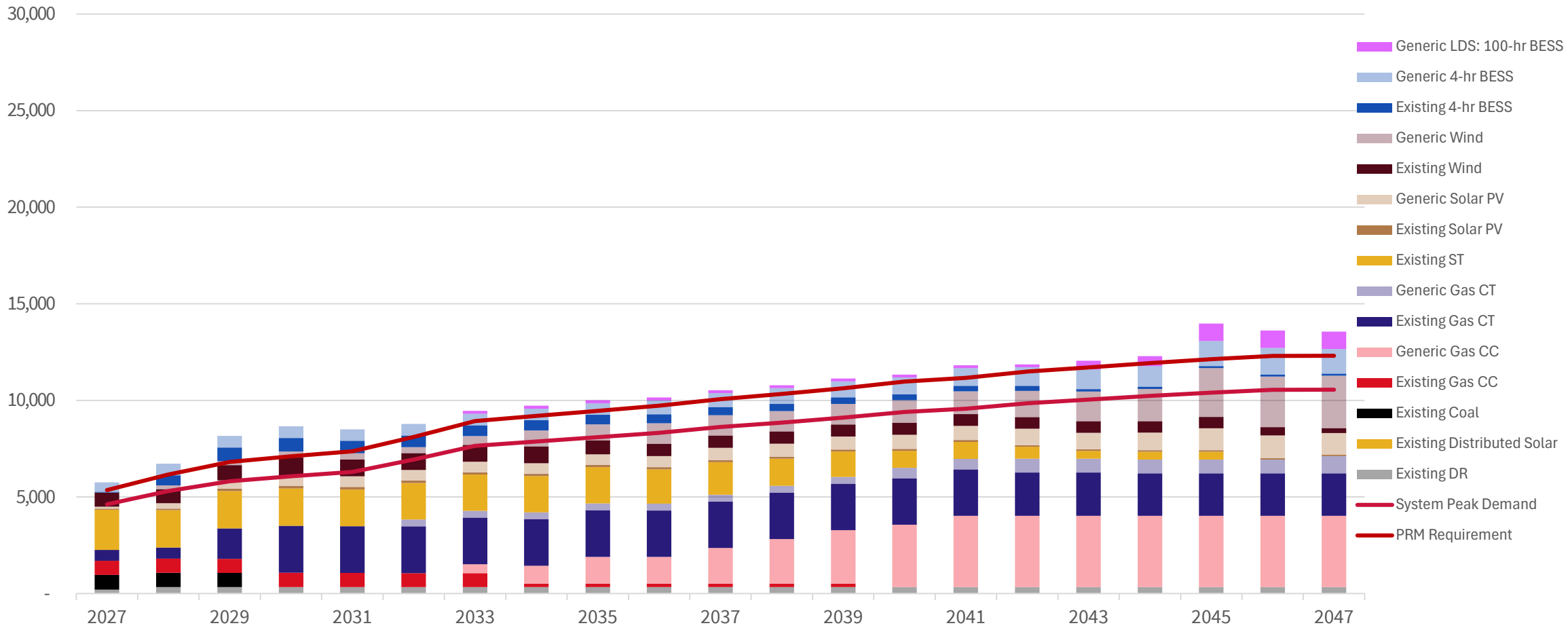


Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

WINTER ACCREDITED CAPACITY (MW)

Split RPS Compliance Through 2045



Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

MODELING APPROACH - BUILDING FOR TEXAS POLICY AND NEW MEXICO REQUIREMENTS

Bridging two states' rules

- SPS operates across both New Mexico and Texas
- Texas' planning is governed by **least-cost planning, maintaining reliability, competitive bidding** among generation options and the use of an all-of-the-above set of energy technologies.
- New Mexico's planning is governed by its **Energy Transition Act (ETA)** and **Renewable Portfolio Standard (RPS)**, which push toward carbon-free generation, with requirements to consider reliability and costs.
- SPS's Modeling Approach is a multi-step solution to implement a multi-jurisdictional systemwide resource planning solution.

1 Base Plan of generic resources is developed to meet both Texas and New Mexico load forecasts on a least-cost, and reliability basis – consistent with Texas policy

2 SPS reviews resources selected in base plan and then removes the New Mexico "load ratio share" of carbon-emitting resources while "locking-in" all other resources selected in the base plan.

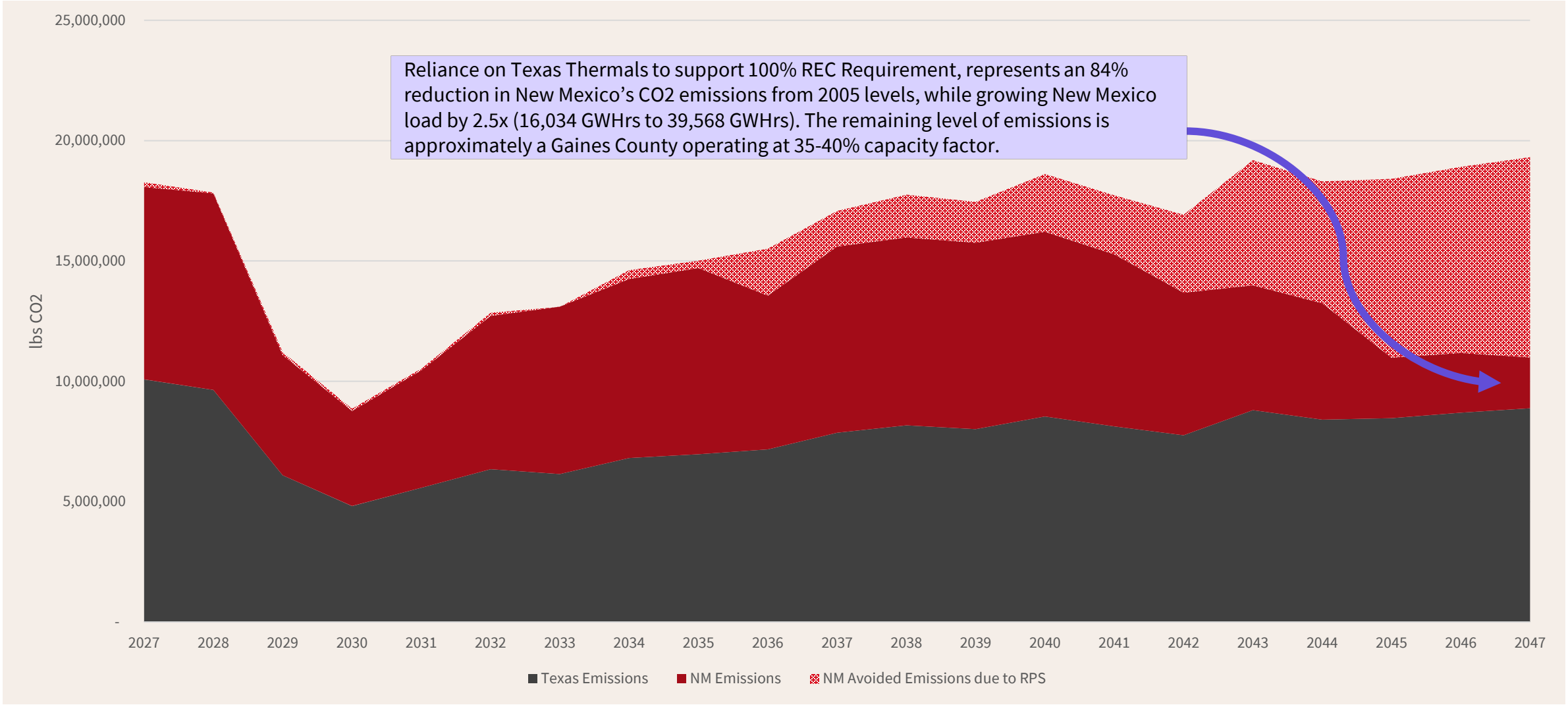
3 With the New Mexico carbon-emitting resources removed, New Mexico ETA requirements are added, and the model is re-expanded, allowing only non-carbon emitting resources for selection as additional New Mexico resources. 2045 goal is modeled as 100% REC requirement

4 Incremental cost between 1st Step and 3rd Step are attributed 100% to New Mexico as the cost of New Mexico ETA

5 Texas customers assigned load ratio share of least-cost resource portfolio from Step 1

AVOIDED LBS OF CO2 DUE TO RPS

Treating 2045 as 100% REC requirement on NM Load Ratio and not allowing Thermal generation for NM Load



Preliminary Results. Subject to change.

RESULTS AND NEXT STEPS

Currently the RPS Split Scenario indicates an incremental cost of $600 million through 2047 and contains ~2 million tons of CO2 Emission annual at 2047.

The CO2 emissions are a result of thermal resources dispatching to fulfill the hourly load obligation through the planning horizon. (Meaning the modeled portfolio doesn't contain enough non-carbon emitting firm dispatchable resources to offset the reliance on thermal generation not assigned to New Mexico to reliably serve the New Mexico load.)

The remaining level of New Mexico attributable emissions is approximately a Gaines County Plant operating at 35-40% capacity factor.

To model the costs of lowering the 2045 New Mexico attributable emissions further, SPS will begin modeling increasing PRM requirements on the NM RPS Expansion Stage to drive additional non-carbon emitting resources.

SPS's previous modeling of avoiding a similar level of combustion turbines in its 2024 RFP resulted in additional $5.5 billion from 2031 to 2045, on a NPV basis and required the addition of 873 MW of Solar, 830 MW of Wind and 3,368 MW of BESS resources.

This is a modeling approach only. SPS's approach to selecting resources in upcoming RFPs remains the same.

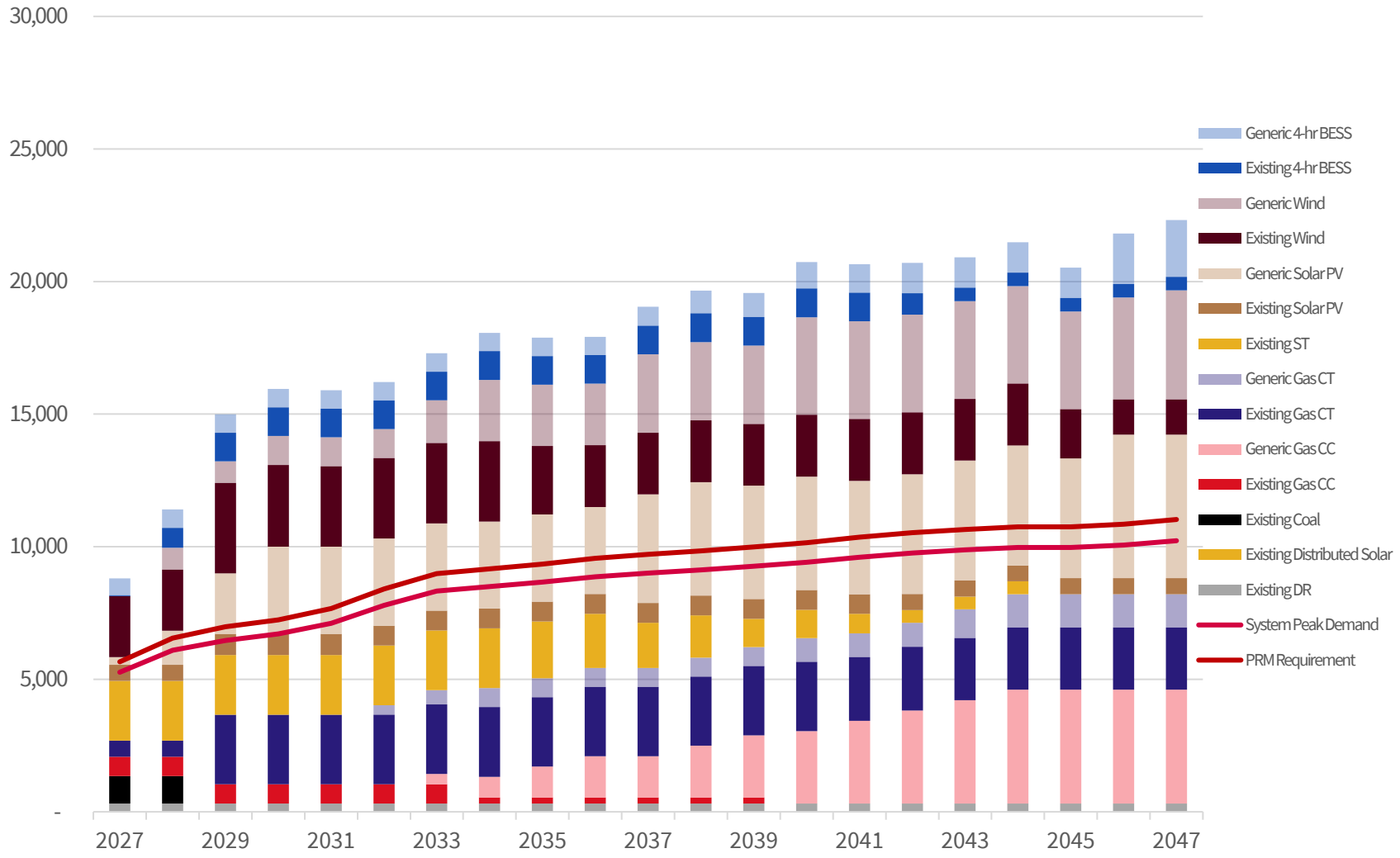
ISLAND

BASE PORTFOLIO WITH NO MARKET INTERACTION

PRELIMINARY RESULTS

ISLAND

Nameplate through 2047 (MW)



Forecast Assumption:
2026 V1 Constrained Planning Forecast

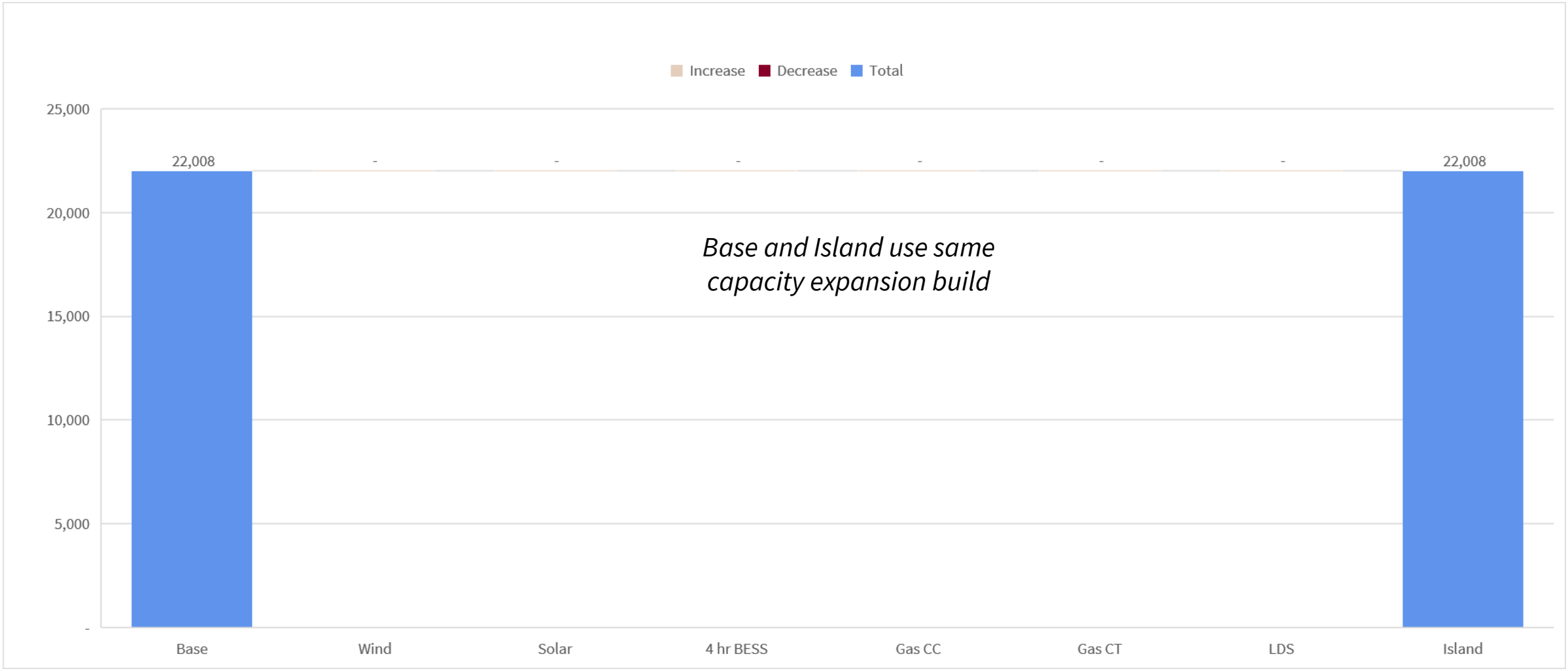
Description and/or Limits:
System can't buy or sell energy to the market

NPV through 2047 ($M):
$64,892

EUE:
7,730,372 MWh / $9.49B

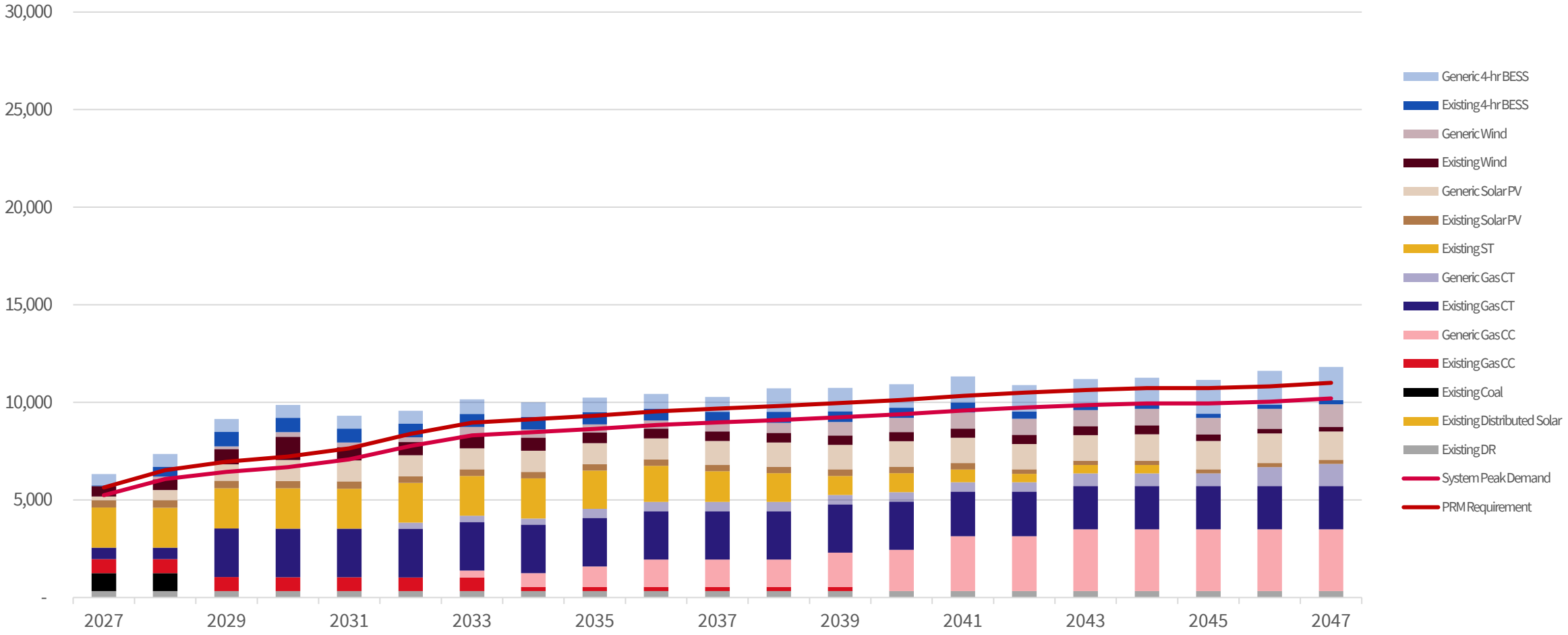
ISLAND: CAPACITY DIFFERENCE IN 2047 FROM BASE

Nameplate Difference in 2047 (MW)



SUMMER ACCREDITED CAPACITY (MW)

Islanded System

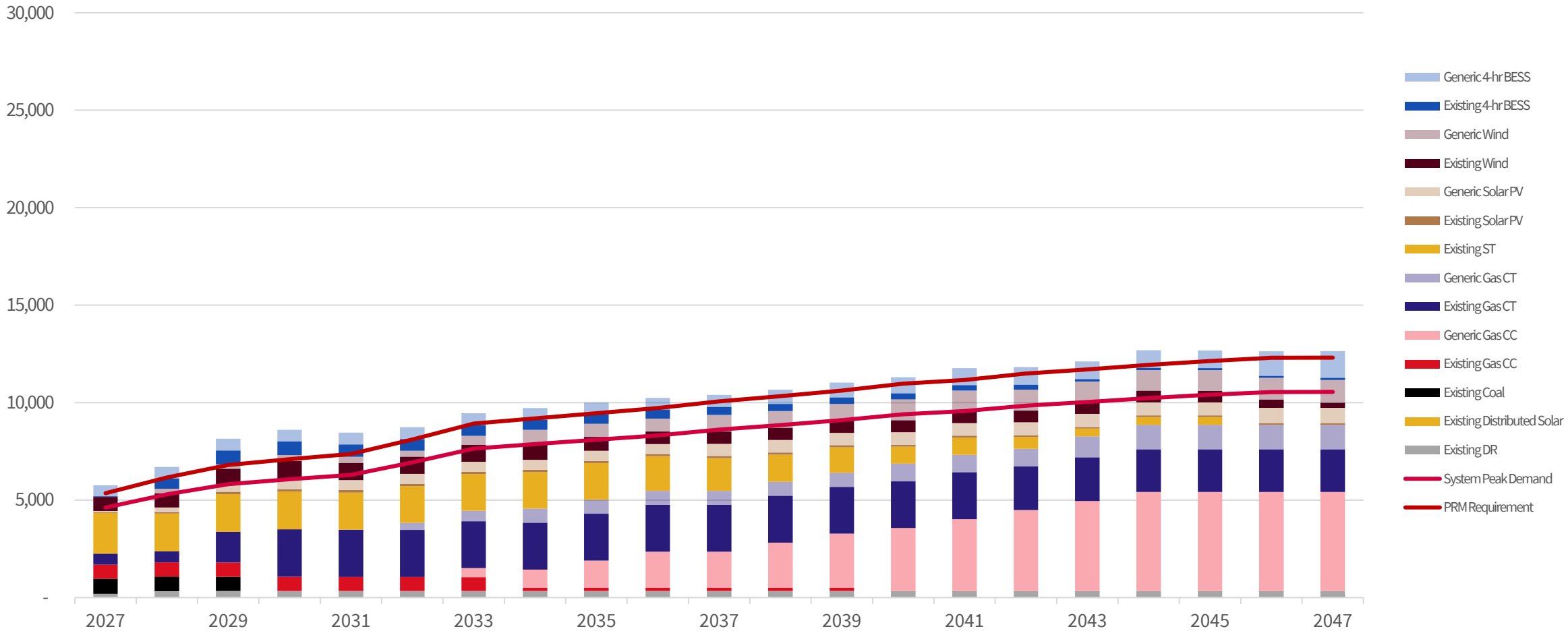


Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

WINTER ACCREDITED CAPACITY (MW)

Islanded System



Preliminary Results. Subject to change. *Distributed Solar is approximately 100 MW.

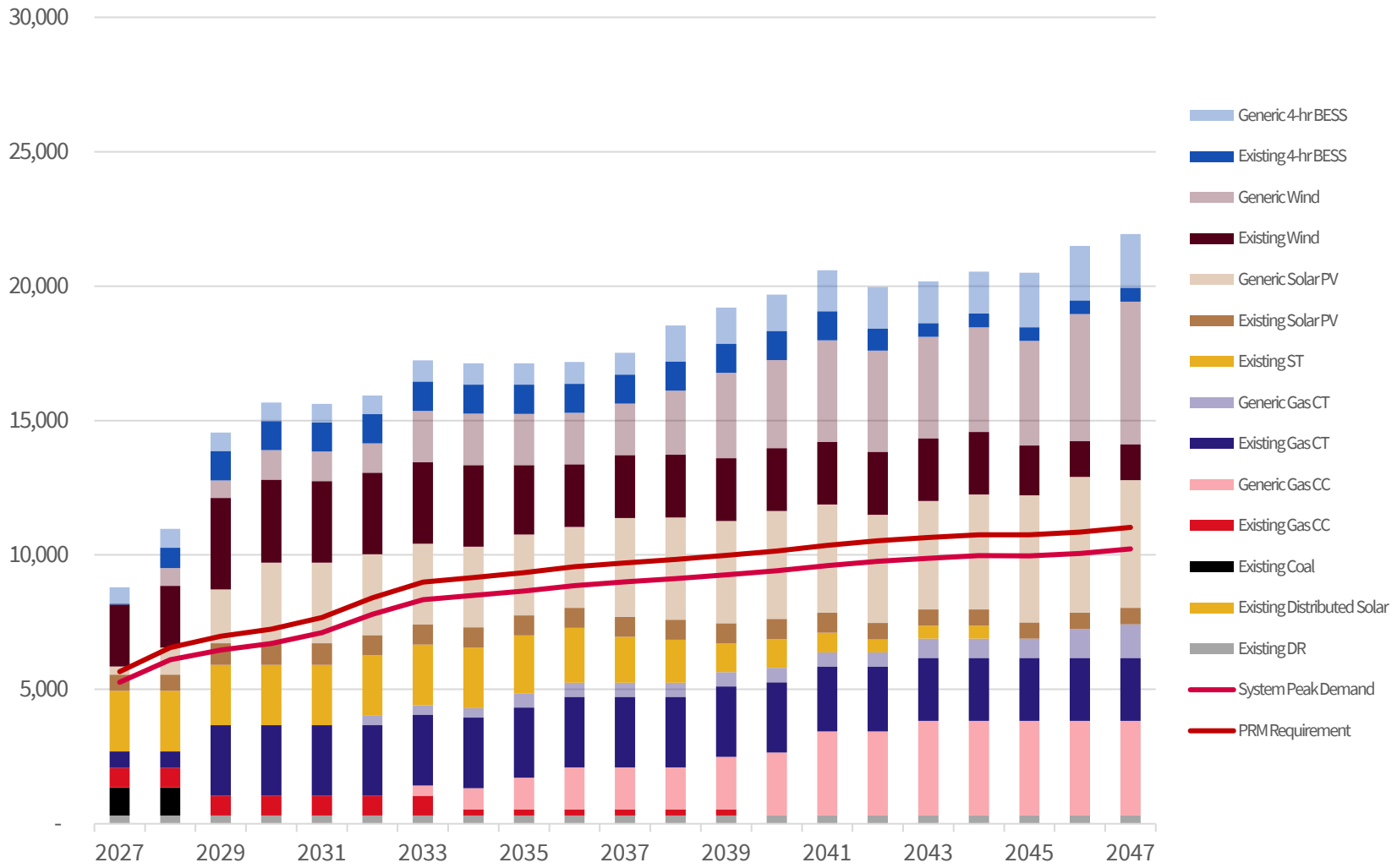
ISLAND - SUMMER PRM FOR WINTER

BASE PORTFOLIO WITH NO MARKET INTERACTION AND SUMMER PRM ALSO USED FOR WINTER

PRELIMINARY RESULTS

ISLAND - SUMMER PRM FOR WINTER

Nameplate Additions through 2047



Forecast Assumption:
Islanded System-Summer PRM for Winter

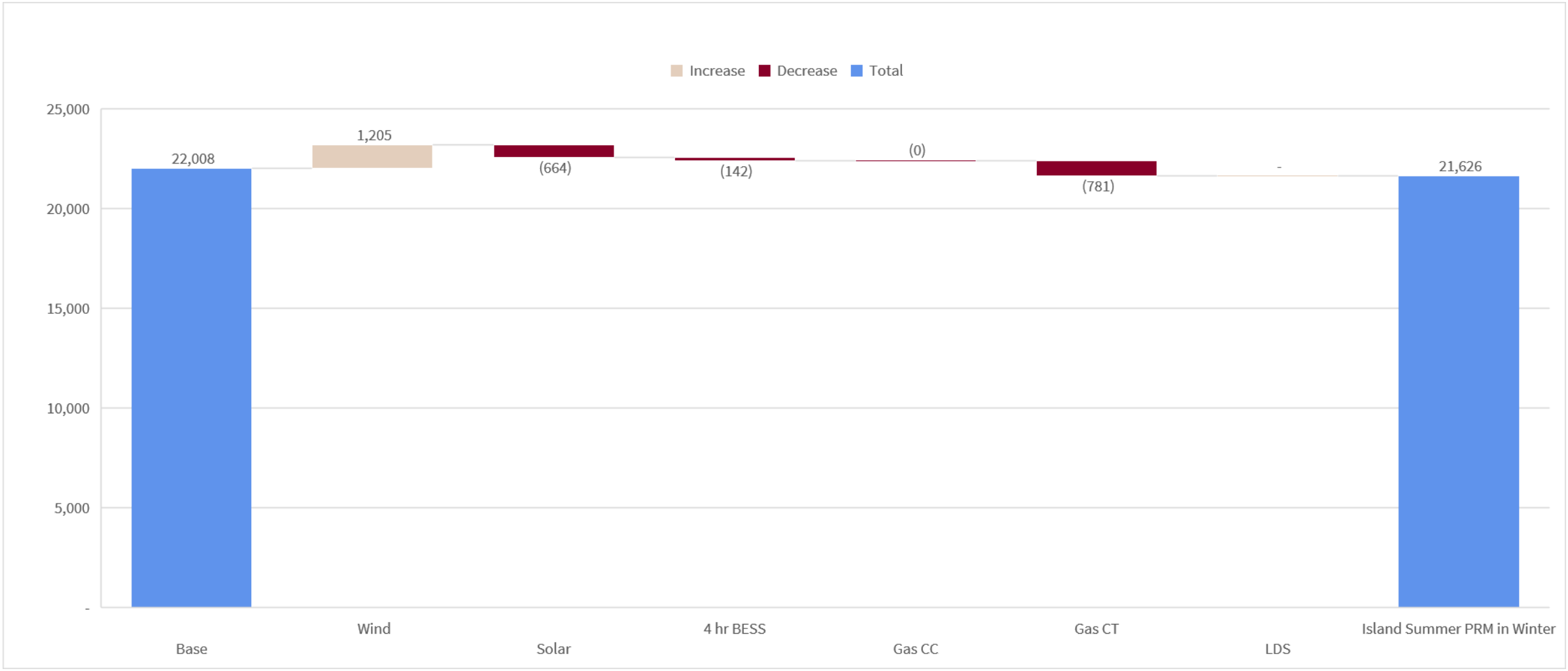
Description and/or Limits:
System can't buy or sell energy to the market and Summer PRM also used for the Winter season. No change to seasonal ELCCs.

NPV through 2047 ($M):
$73,287

EUE:
18,264,885 MWh / $19.44B

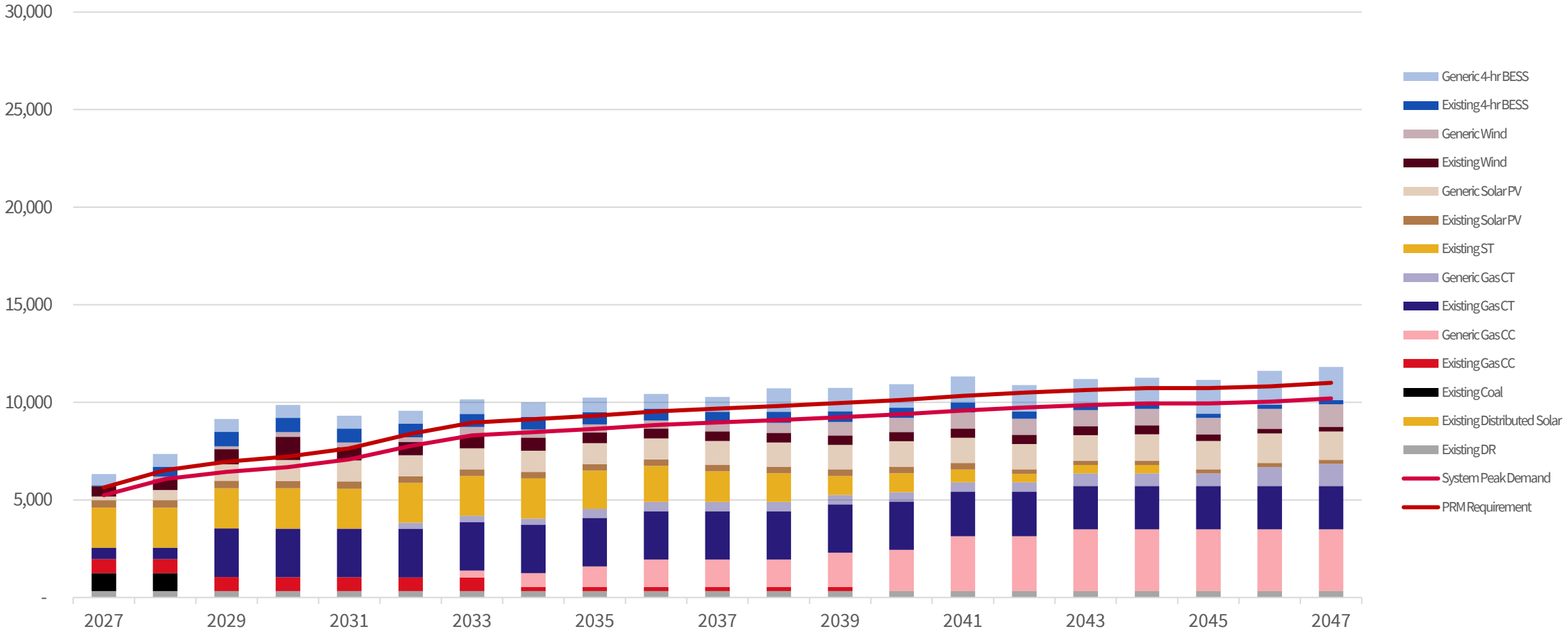
ISLAND SUMMER PRM FOR WINTER: CAPACITY DIFFERENCE IN 2047 FROM BASE

Nameplate Difference in 2047 (MW)



SUMMER ACCREDITED CAPACITY (MW)

Islanded System-Summer PRM for Winter

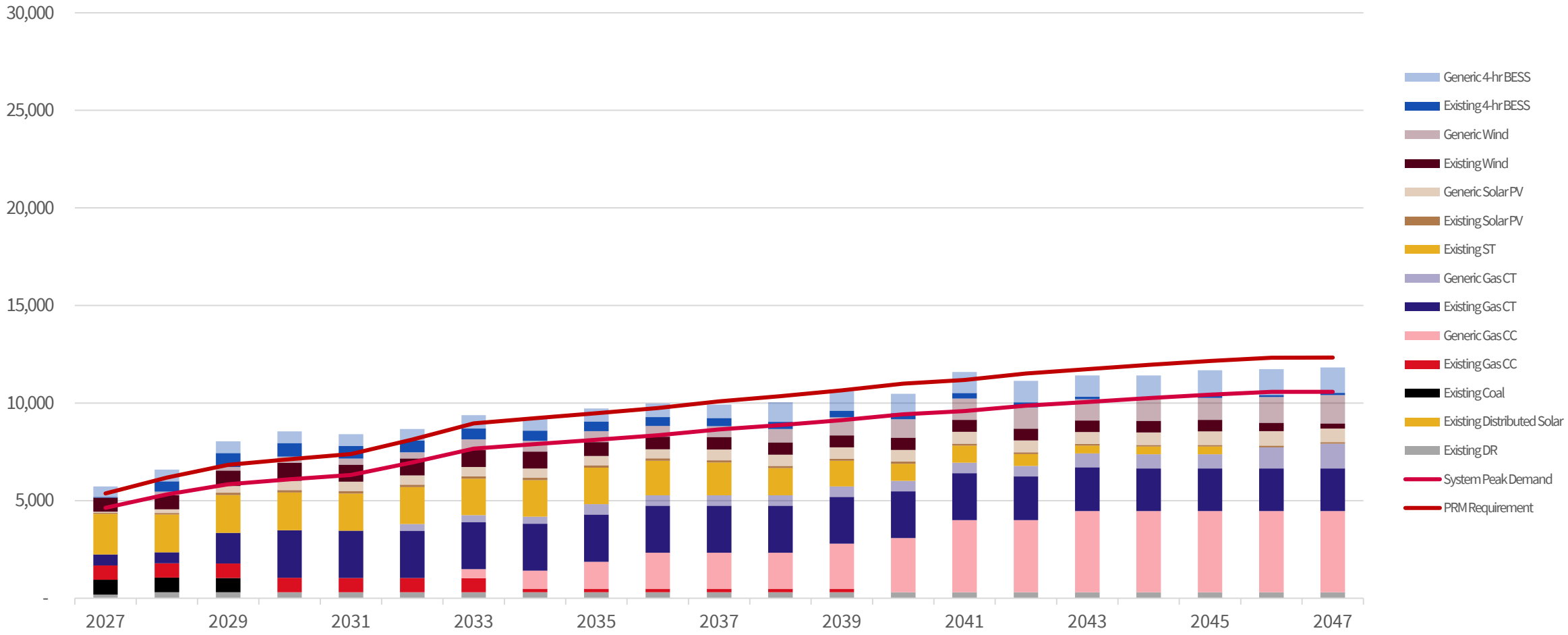


Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

WINTER ACCREDITED CAPACITY (MW)

Islanded System-Summer PRM for Winter



Preliminary Results. Subject to change. *Distributed Solar is approximately 100 MW.

LOW FORECAST SCENARIOS

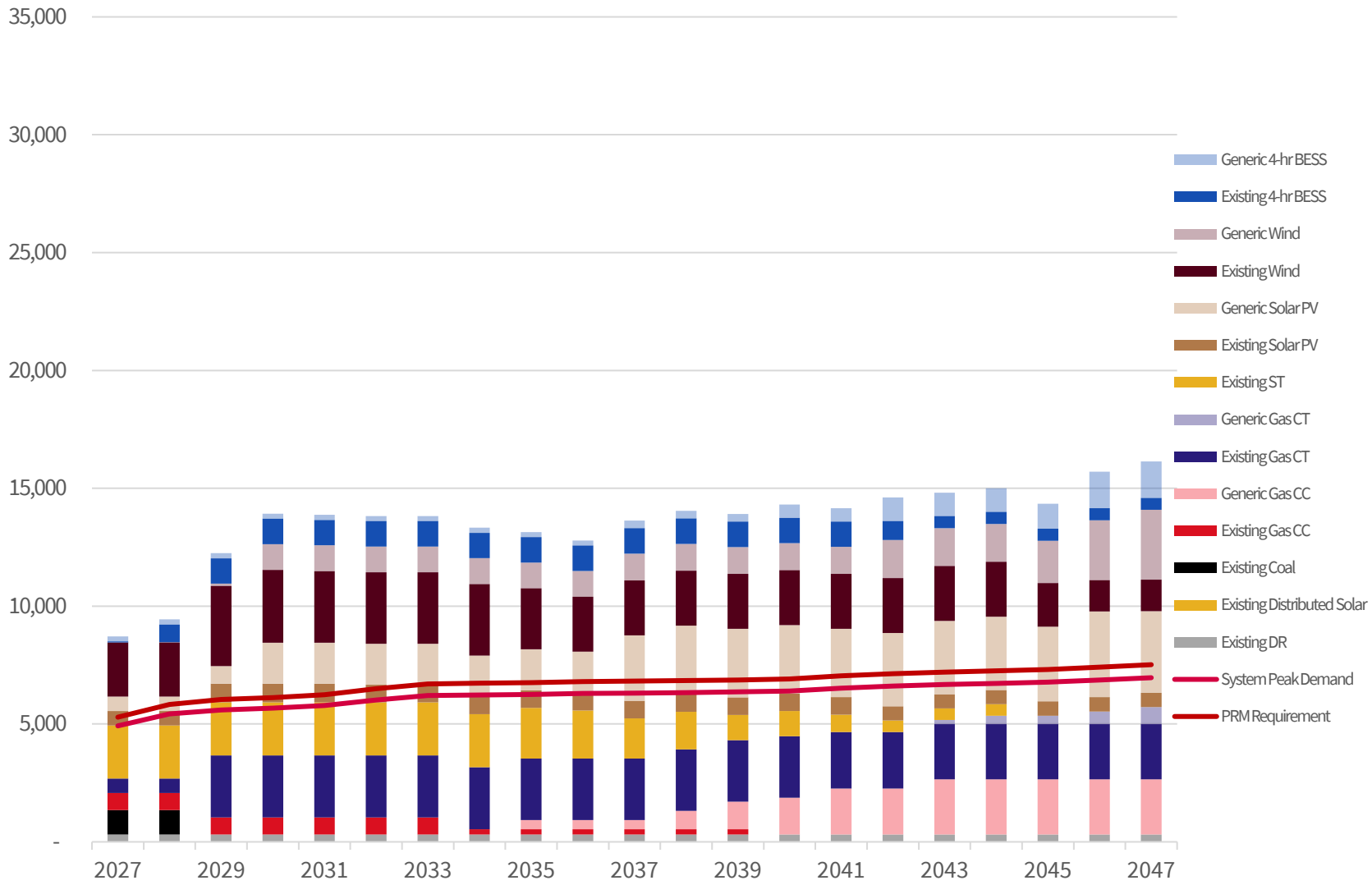
LOW BASE

LOW LOAD FORECAST WITH NO EMERGING TECH RESOURCE AVAILABLE

PRELIMINARY RESULTS

LOW BASE FORECAST

Nameplate through 2047 (MW)



Forecast Assumption:
2026 V1 Low Planning Forecast

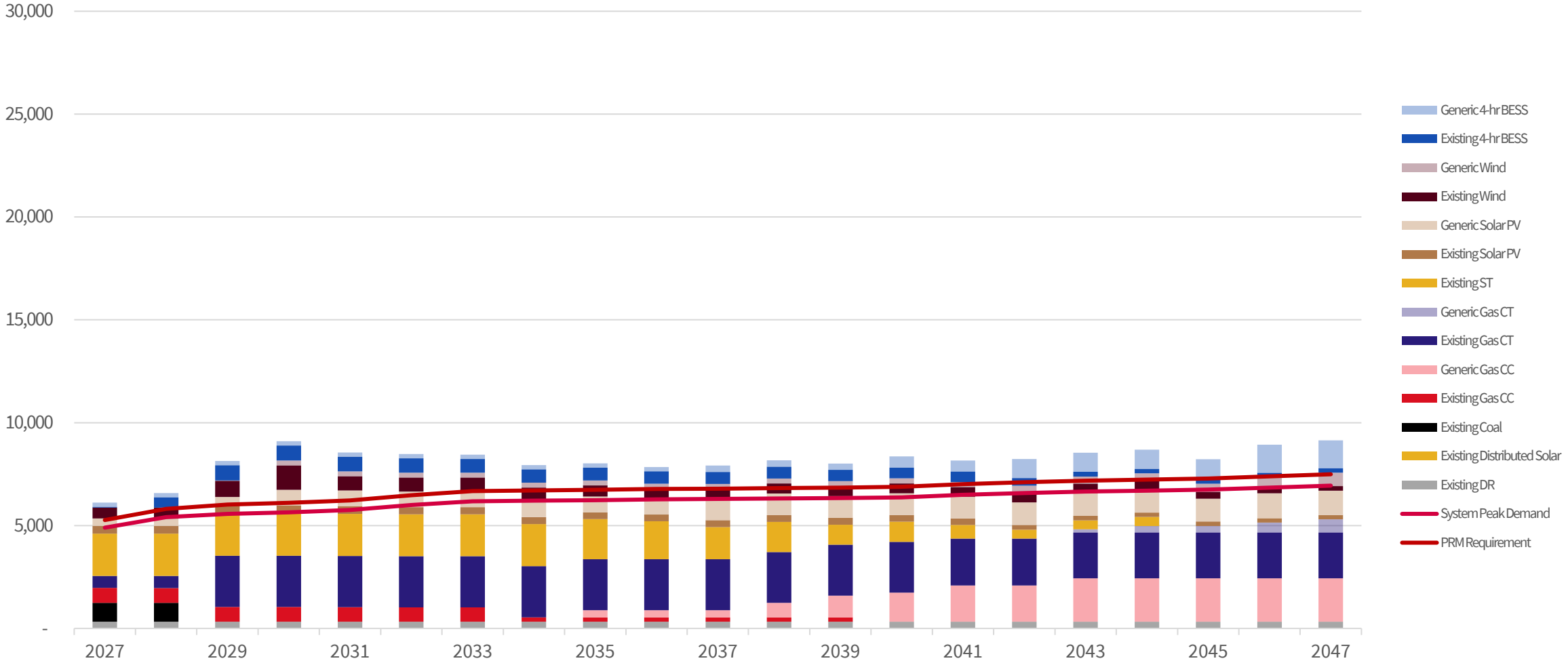
Description and/or Limits:
Optimizes for Low Planning forecast. No emerging tech available.

NPV through 2047 ($M):
$32,865

EUE:
0 MWh

SUMMER ACCREDITED CAPACITY (MW)

Low Base Forecast

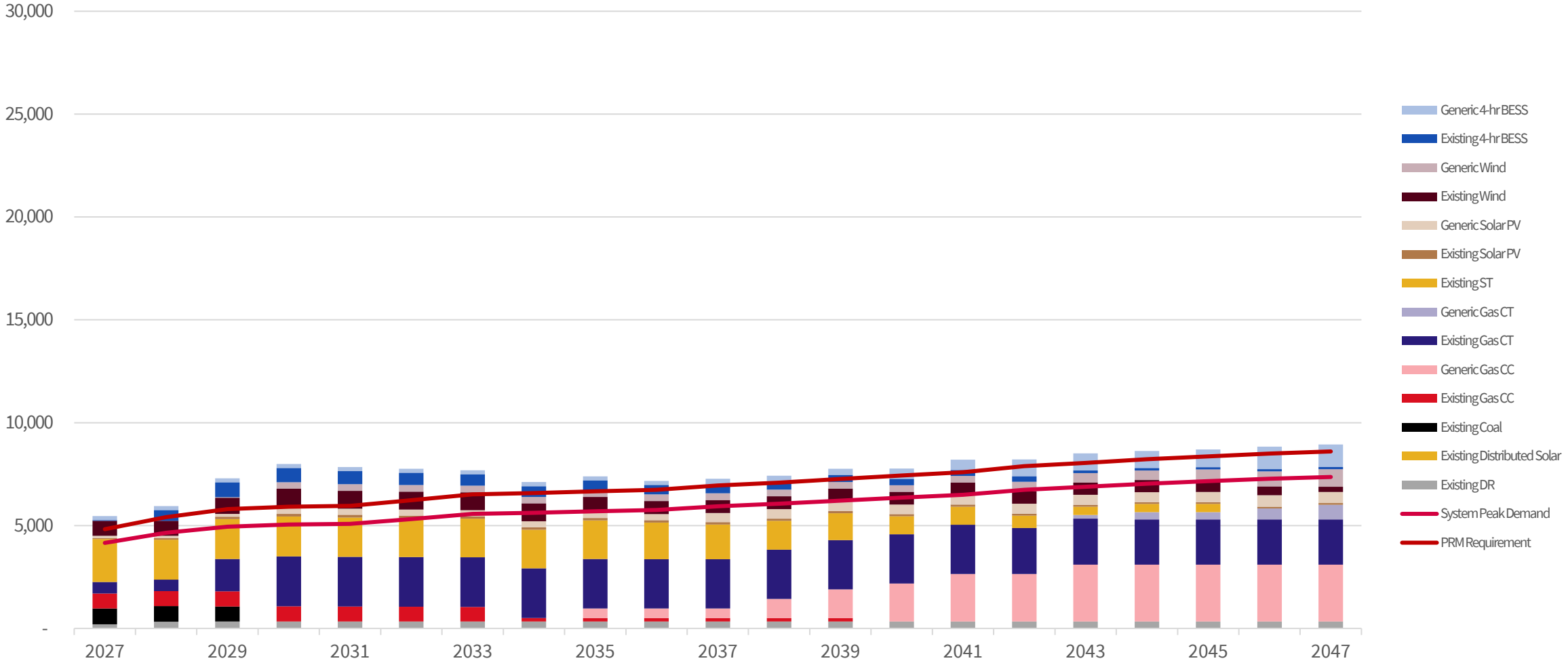


Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

WINTER ACCREDITED CAPACITY (MW)

Low Base Forecast



Preliminary Results. Subject to change. *Distributed Solar is approximately 100 MW.

LOW BASE + EMERGING TECH

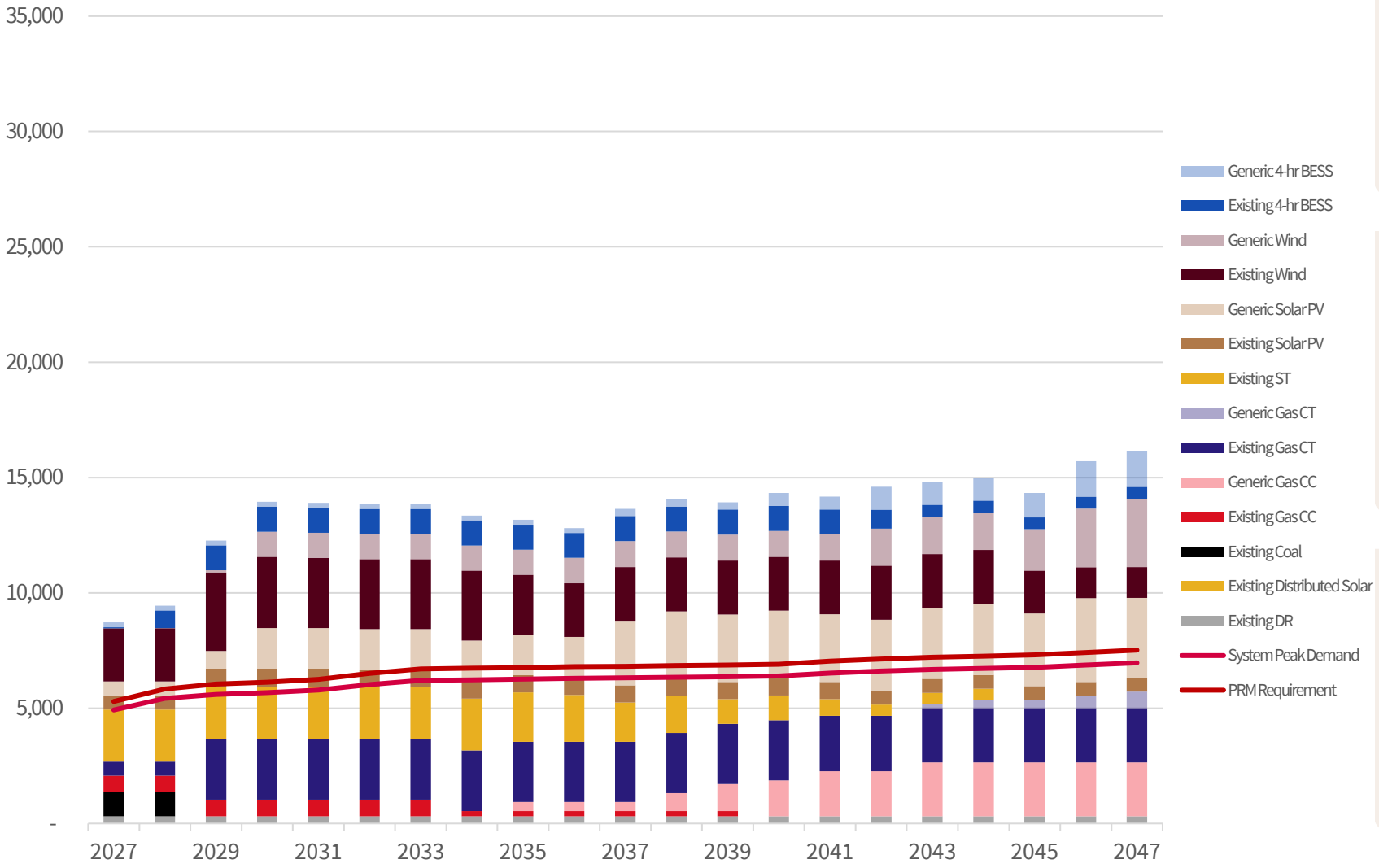
LOW LOAD FORECAST WITH EMERGING TECH RESOURCES AVAILABLE

PRELIMINARY RESULTS

LOW BASE + EMERGING TECH

Nameplate through 2047 (MW)

★ No Emerging Tech selected



Forecast Assumption:
2026 V1 Low Planning Forecast

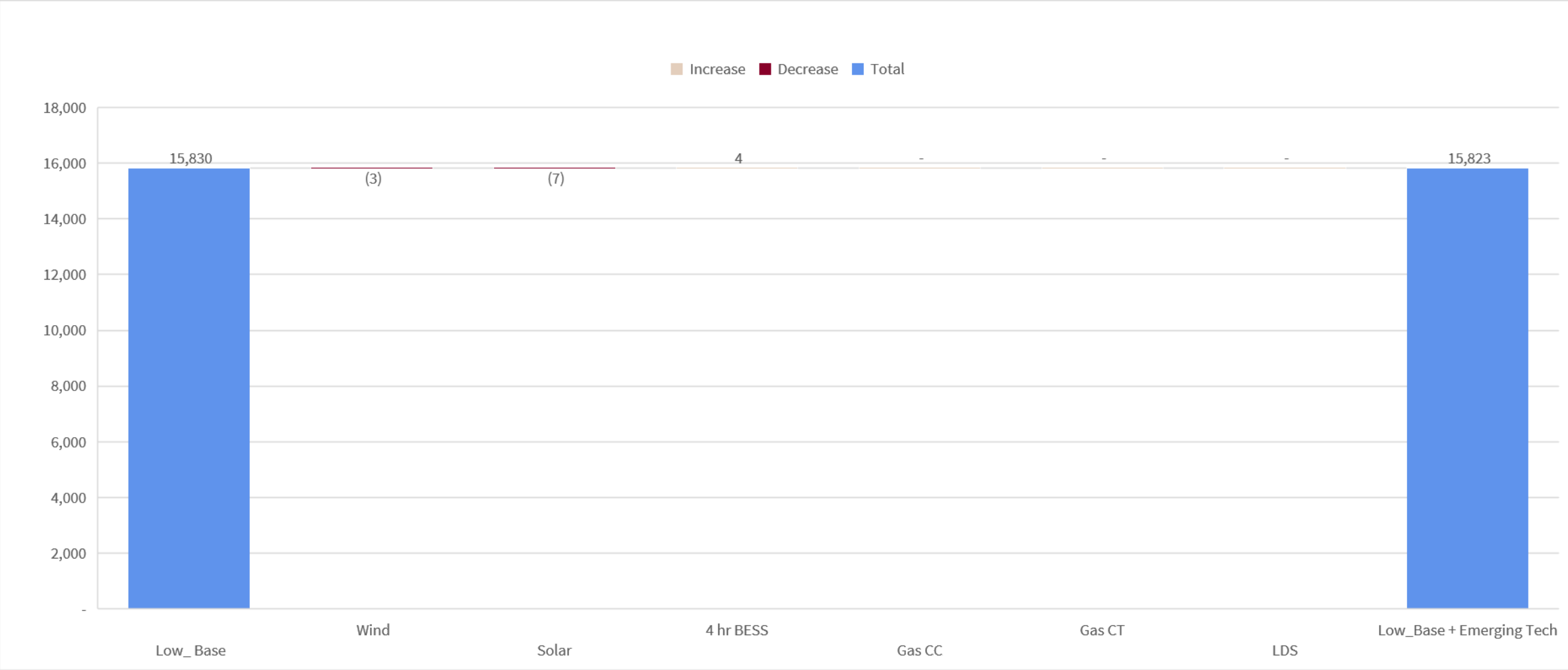
Description and/or Limits:
Solves for Low Planning forecast with emerging technology available.

NPV through 2047 ($M):
$32,865

EUE:
0 MWh

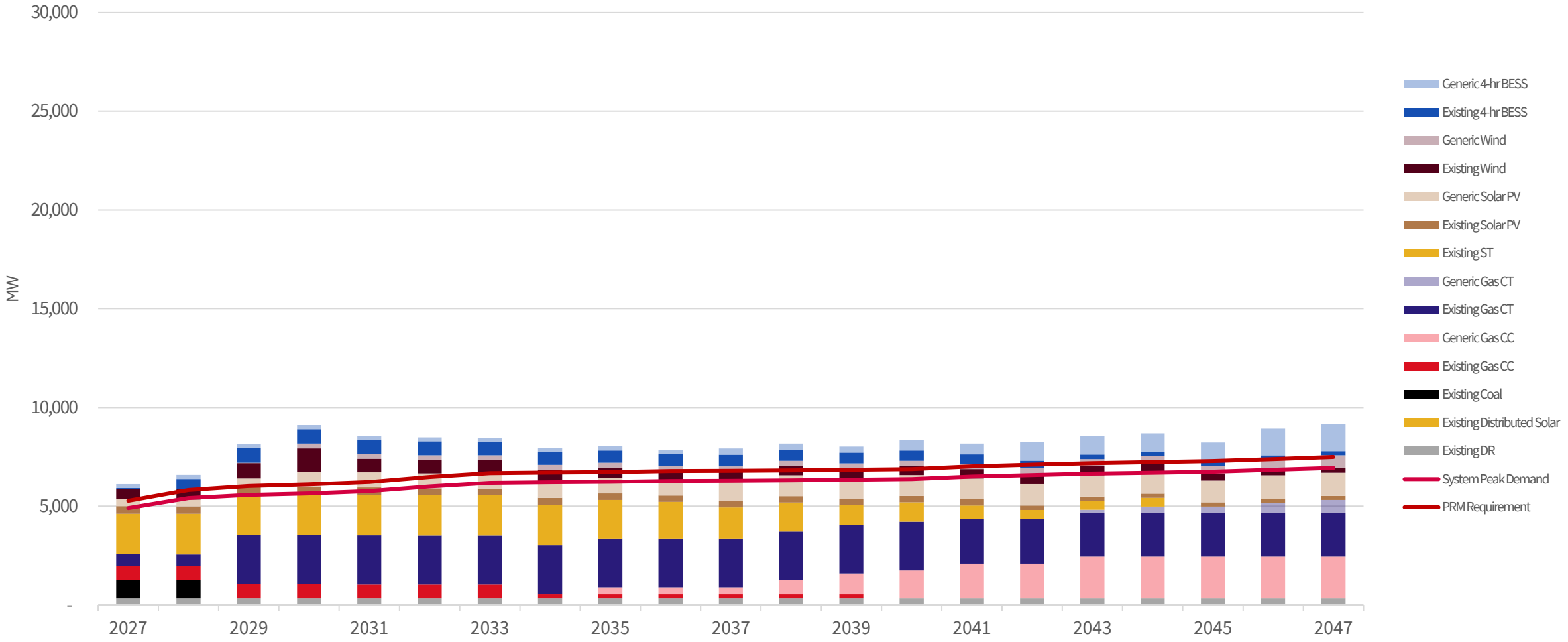
LOW BASE + EMERGING TECH: CAPACITY DIFFERENCE IN 2047 FROM LOW BASE

Nameplate Difference in 2047 (MW)



SUMMER ACCREDITED CAPACITY (MW)

Low Base + Emerging Tech

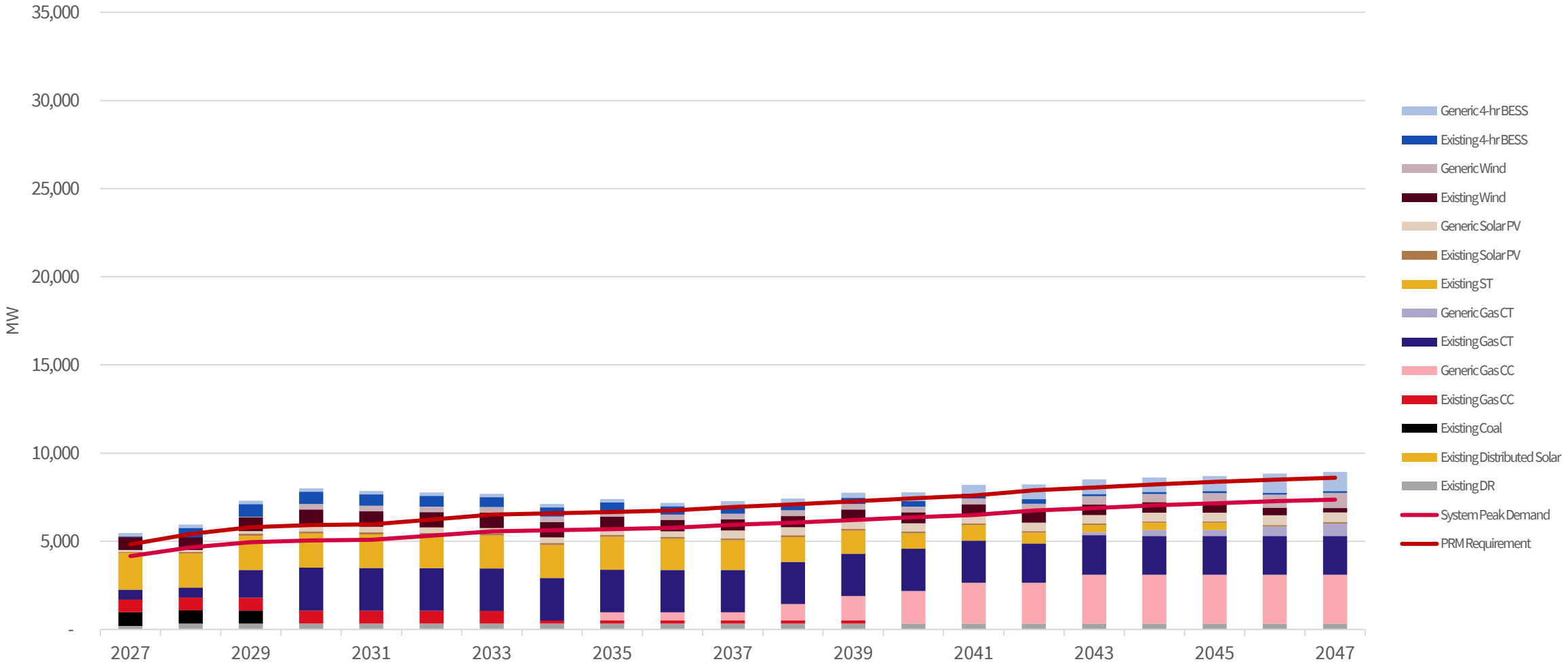


Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

WINTER ACCREDITED CAPACITY (MW)

Low Base + Emerging Tech



Preliminary Results. Subject to change. *Distributed Solar is approximately 100 MW.

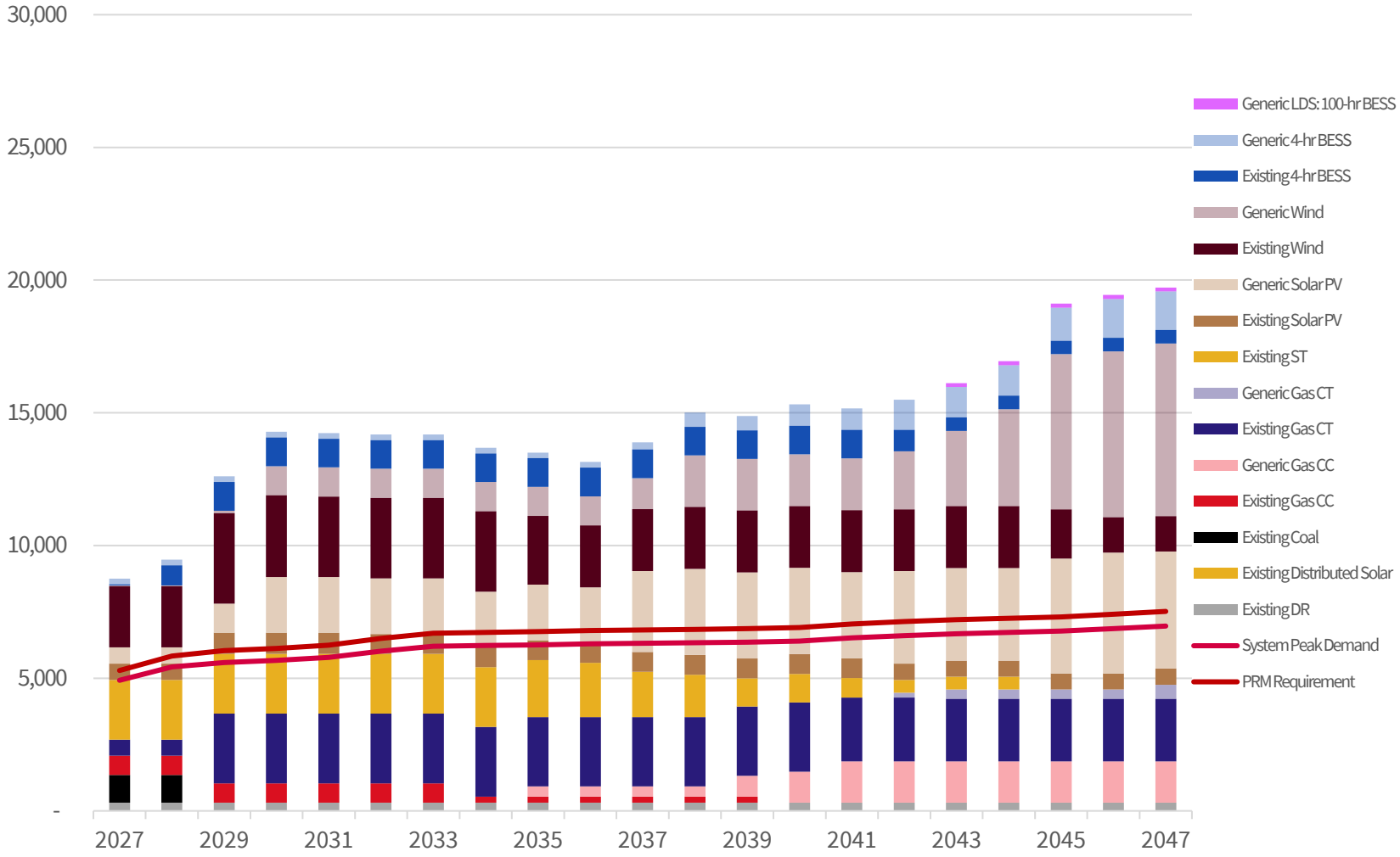
LOW RPS 2045 - SPLIT

LOW LOAD FORECAST WITH RPS COMPLIANCE THROUGH A SPLIT PORTFOLIO

PRELIMINARY RESULTS

LOW RPS 2045 – SPLIT

Nameplate through 2047



Forecast Assumption:
2026 V1 Low Planning Forecast

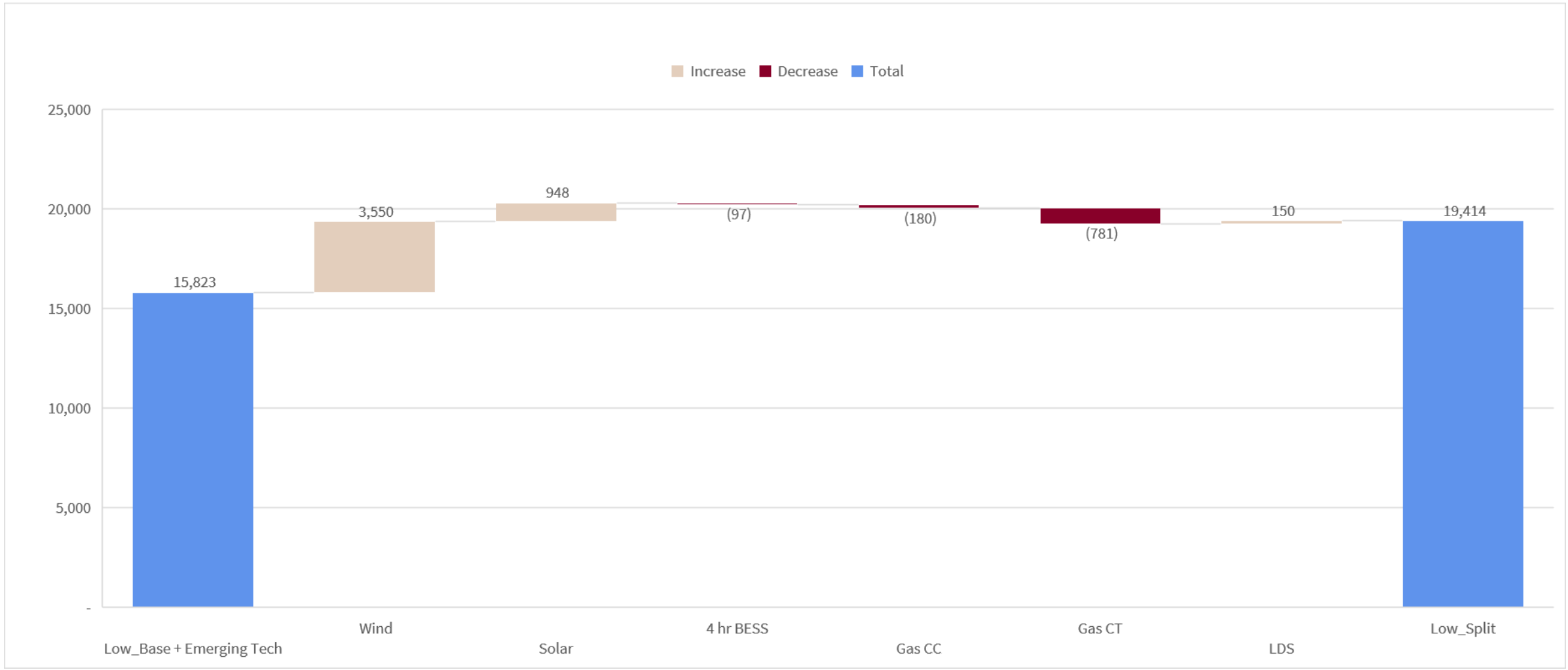
Description and/or Limits:
Locks in TX load share of resources, then optimizes to solve for NM RPS compliance.

NPV through 2047 ($M):
$32,959

EUE:
0 MWh

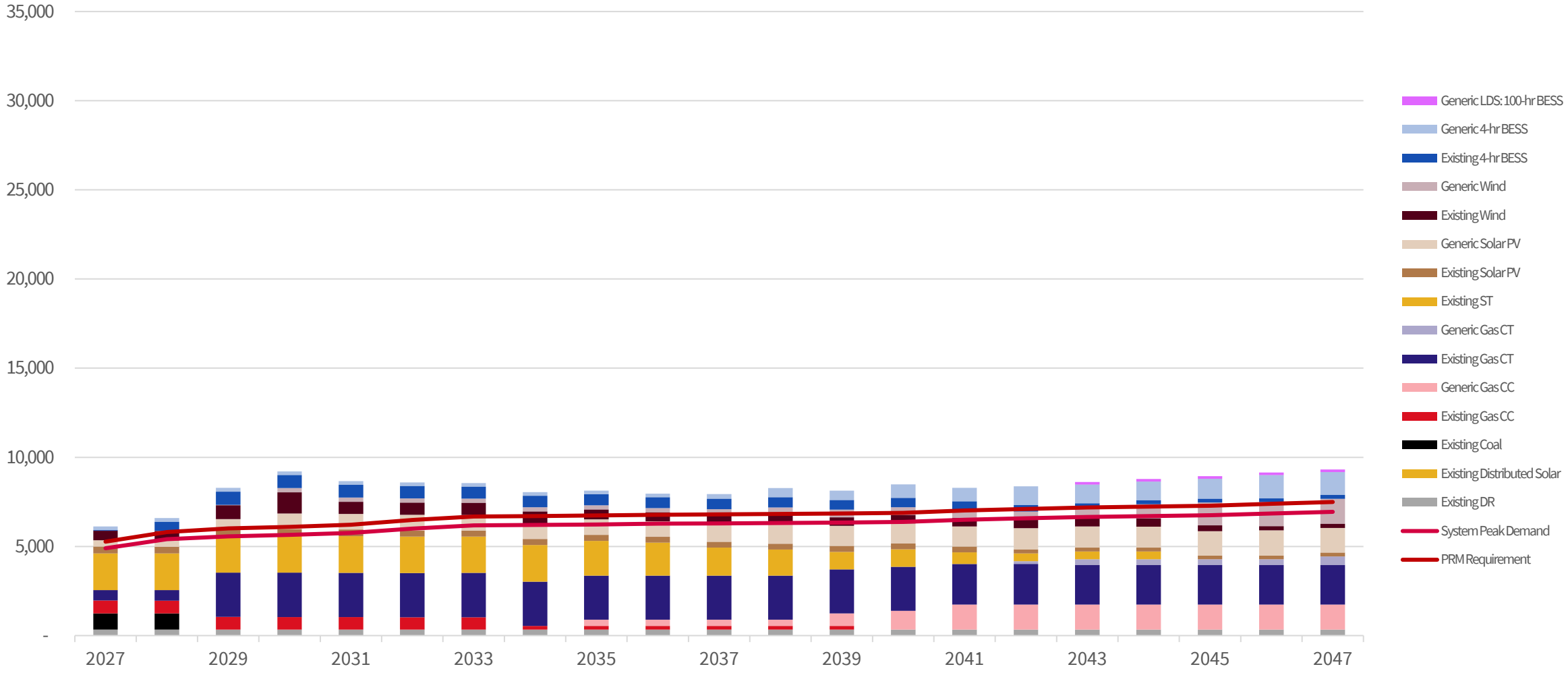
LOW RPS 2045 - SPLIT: CAPACITY DIFFERENCE IN 2047 FROM LOW BASE + EMERGING TECH

Nameplate Difference in 2047 (MW)



SUMMER ACCREDITED CAPACITY (MW)

Low Split RPS Compliance Through 2045

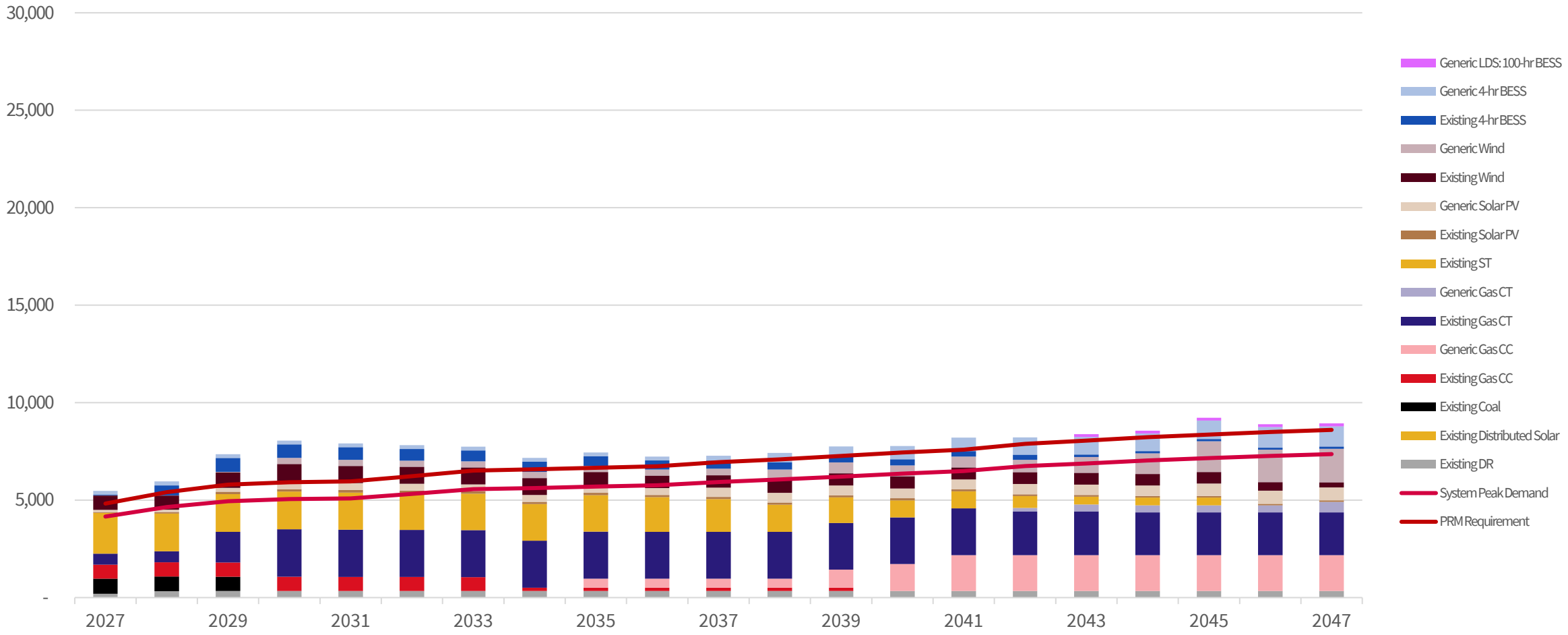


Preliminary Results. Subject to change.

*Distributed Solar is approximately 100 MW.

WINTER ACCREDITED CAPACITY (MW)

Split RPS Compliance Through 2045



Preliminary Results. Subject to change. *Distributed Solar is approximately 100 MW.

QUESTIONS?