



April 14, 2026

Hon. Michelle Phillips
Secretary to the Commission
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Case 20-E-0197 – Proceeding on Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act.

Dear Secretary Phillips:

Materials for the Energy Policy Planning Advisory Council (EPPAC) on Monday, April 20, 2026, are enclosed. The agenda and instructions for participating are below.

April 20, 2026 (2:00 p.m. – 4:00 p.m.)

<https://meetny-gov.webex.com/meetny-gov/j.php?MTID=m0f83f368f262074bca249af892794611>

Phone-Only Access: +1 (929) 251-9612

Access Code: 2820 542 5243

Agenda

1. Welcome and Process Review (DPS)
2. Stage 5 Results (JU/NYISO)
3. Next Steps and Closing (DPS)

As described in the Order Approving a Coordinated Grid Planning Process issued on August 17, 2023, interested stakeholders may attend and listen but only EPPAC members will be speaking and actively participating in the meeting. The meetings will be recorded and links to the recordings will be filed in this proceeding. Questions concerning the EPPAC should be directed to EPPAC@dps.ny.gov.

Sincerely,

Jalila Aissi
Assistant Counsel

CGPP Stage 5: Capacity Expansion Results

NYISO Staff

Long Term Assessments Department

Energy Policy Planning Advisory Council (EPPAC)

April 20, 2026

Agenda

- **Studies with Projections for the Future System**
- **Overview of CGPP Stage 5**
- **CGPP Scenario Review**
- **Assumptions Changes for Stage 5**
- **CGPP Stage 5 Scenario Results Comparison**

Studies with Projections for the Future System

■ Joint Utility Coordinated Grid Planning Process (CGPP)

- The NYISO participates in the CGPP as a member of the Energy Policy Planning Advisory Council (EPPAC) and through requested study work from the Joint Utilities (*i.e.*, requested economic planning studies), primarily focused on capacity expansion assessments for CGPP Stages 1 and 5
- The NYISO provided various capacity expansion results for Stage 1 throughout 2024 and 2025. This presentation provides the capacity expansion results for Stage 5.
- As discussed with EPPAC during prior meetings, this first cycle of CGPP looks through year 2042 and includes, among other objects, the CLCPA 70x30 and 0x40 policy targets

■ NYISO's System & Resource Outlook (Outlook)

- The NYISO's Outlook, conducted in collaboration with stakeholders and state agencies, provides a comprehensive overview of potential resource development over the next 20 years and highlights opportunities for transmission investment driven by economics and public policy in New York State. The Outlook examines a wide range of potential future system conditions and compares possible pathways to an increasingly greener resource mix.
- The most recently completed Outlook was published in July 2024. The 2023-2042 Outlook can be found [here](#).
- In 2025 the NYISO began the 2025-2044 Outlook with NYISO stakeholders. Recent stakeholder presentations included scenario capacity expansion results ([here](#)) and further sensitivity and methodology details ([here](#)). The 2025-2044 Outlook is scheduled to be published in July 2026.

■ New York State Energy Plan

- The 2025 State Energy Plan, published in [December 2025](#), provides broad program and policy direction to guide energy-related decision making within New York State.

Overview of CGPP Stage 5

- **The intent of this presentation is to show capacity expansion results for three main scenarios as part of CGPP Stage 5 based upon assumptions specified by DPS, NYSERDA, and the Joint Utilities.**
- **CGPP Stage 5 is notably different from Stage 1 as it includes:**
 - Specific local “headroom” projects provided by the Joint Utilities in replacement of generic assumptions, and
 - Conceptual bulk transmission projects provided by DPS staff, the Joint Utilities, and NYSERDA
- **This presentation identifies which specified local headroom projects and conceptual bulk projects were selected by the capacity expansion model, along with the installed capacity and generation mix.**
- **To support the presentation of results, NYISO provides a review of CGPP scenarios, key assumptions, and updates to the model as they pertain to Stage 5 as part of today’s presentation**
 - Details of the local headroom and conceptual bulk projects were presented by the Joint Utilities at the February 23, 2026 EPPAC meeting

CGPP Scenario Review

CGPP Main Scenario Summary

Scenario	Name	Stage 1 EPPAC Presentation	Description
1	State Scenario (SS)	<u>4/15/2024</u>	<p>Main CGPP scenario with assumptions determined by DPS Staff, NYSERDA, and the Joint Utilities. (see slide 6 for details). CLCPA policy targets are enforced (70x30, 0x40, etc).</p> <p>A notable assumption in the State Scenario, compared to S2 and S3, is the use of new and retrofit hydrogen-powered combustion turbines as the only candidate dispatchable emission-free resource (DEFER) option.</p>
2	Scenario 2 (S2)	<u>10/18/2024</u>	State Scenario with DEFER options as (i) high-capital, low-operating (HcLo) and (ii) hydrogen-powered fuel cells (note: this sensitivity does not include the hydrogen combustion DEFER option)
3	Scenario 3 (S3)	<u>8/5/2024</u>	<p>Assumption changes relative to the State Scenario include:</p> <ul style="list-style-type: none"> • Adjusted load profiles and increased energy demand • Large loads consistent with State Scenario • No EV load flexibility • DEFER option is hydrogen-powered fuel cell

Key State Scenario Assumptions

- **Energy demand and peak loads are based on the “Scenario 2” forecast from the Climate Action Council (CaC) Integration Analysis with additional large loads and electrolysis load**
 - Large loads in the 2023 Gold Book baseline forecast incremental to state modeling forecasts are included in the load forecast
 - Half of economy wide H₂ demand met by in-state electrolysis, which increases the forecasted load
- **Sub-zonal constraints model estimated transmission headroom of local transmission and distribution system and marginal upgrade costs**
- **Load portion of formula for calculating the achievement of 70x30 includes electrolysis and net storage charge**
- **Net zero annual NYCA imports start in 2040**
- **Age-based fossil retirements for existing units are assumed**
- **New and retrofit hydrogen-powered combustion turbines are the only candidate dispatchable emission-free resource (DEFR) option**
 - Corresponding increases in electrolysis load in Zones A-E
 - High operating cost to run the hydrogen-powered units
- **Capital costs for candidate renewable resources are assumed by technology type per NYSERDA Supply Curve Analysis**

Scenario 2 Assumption Changes

Assumption changes relative to the State Scenario, specified by DPS, NYSERDA, and the Joint Utilities, only include changes to the DEFR options:

■ HcLo DEFR:

- Uses capital cost data from the 2024 NREL Annual Technology Baseline with the costs in 2022 dollars as:
 - 2037: \$6,900/kW
 - 2038: \$6,705/kW
 - 2039: \$6,510/kW
 - 2040: \$6,314/kW
 - 2041: \$6,184/kW
 - 2042: \$6,054/kW
- Allow unrestricted (MW) builds of this new HcLo resource in Zones A-E
- Allow up to 500MW of this resource in each of Zones F and G
- No specific minimum block size or capacity limit are assumed
- Any zonal capital cost multipliers for this resource should be taken from NYISO's "Outlook" assumptions for the "High Capital/Low Operating" cost resource (zonal multiplier groupings are A-F, GHI, J, K)
- Allow builds of this resource to begin in 2037
- Fixed and variable O&M costs are taken from the NYISO's 2023-2042 Outlook assumptions for HcLo
- All other HcLo characteristics not specified above are taken from the HcLo assumptions in the 2023-2042 Outlook (see Appendix C and Appendix F)
- The HcLo DEFR are not hydrogen-powered based and is intended as a general assumption for a range of different carbon free technologies, such as nuclear

■ Fuel cell DEFR

- Addition of fuel cell resource with all modeling assumptions as provided by DPS and the Joint Utilities in CGPP Scenario 3
- Allow builds of new fuel cell resource in all NYCA zones

■ This sensitivity does not include hydrogen combustion or retrofit options; only the DEFR candidates stated above

Scenario 3 Assumption Changes

- **Assumption changes relative to the State Scenario, specified by DPS, NYSERDA, and the Joint Utilities, include:**
 - Adjusted load profiles and increased energy demand per NYSERDA CaC 2022 Scenario 3: Accelerated Transition Away from Combustion Forecast
 - Large loads consistent with State Scenario
 - No EV load flexibility
 - DEFR option is hydrogen-powered fuel cell
- **All other assumptions remain consistent with State Scenario**

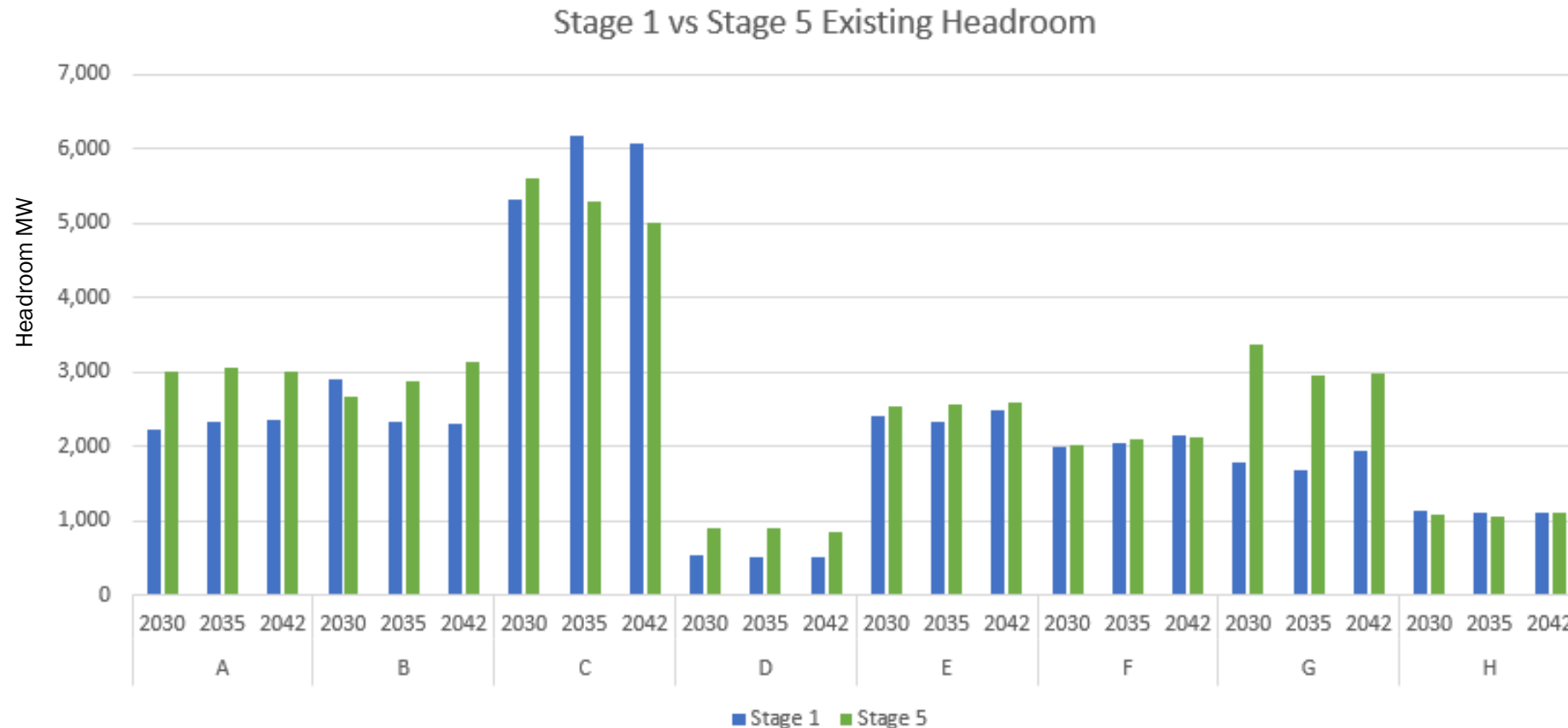
Assumptions Changes for Stage 5

Stage 5 Modeling: Updates to Stage 1 Assumptions

- **The Joint Utilities reviewed updates to Stage 1 Assumptions, specified by DPS, NYSERDA, and the Joint Utilities, at EPPAC on 2/23/2026**
- **Clean Path New York (CPNY) HVDC has been removed from all three scenarios**
- **Zone K existing headroom: higher values**
- **Zone J headroom:**
 - In Stage 1 only, OSW capacity was considered
 - For Stage 5, all resource types (4-hr, 8-hr ESR, OSW, H2 DEFR) will be considered in the Zone J headroom constraint
- **Bulk-connected generators excluded from local headroom constraints**
- **Generic headroom cost applied in Stage 1 is replaced by zone-specific projects developed in Stage 3**
 - The cost of new LT&D headroom in Stage 5 is greater than what was available to the Stage 1 model

Stage 5 Existing Headroom Assumptions

- The Joint Utilities updated existing headroom as follows for use in Stage 5 analysis:



Incremental Headroom Assumptions for Stage 5

- **The Joint Utilities reviewed headroom projects at EPPAC on 2/23/2026. Headroom project details were provided to the NYISO by the Joint Utilities for modeling in Stage 5.**
 - Various headroom project information, such as cost and size, has been provided
 - No project design details were provided, such as from/to substations, kV levels, or components
 - These headroom projects replace the generic headroom projects and cost used in Stage 1
- **The capacity expansion model allows headroom to be built any year after the earliest proposed in-service year specified for each project**
 - The earliest in-service year for the provided headroom projects is 2031
- **Some of the specified projects are dependent on others, meaning some projects can only be built after another project is built**
- **Projects are assumed to be “blocky” (*i.e.*, discrete, nonlinear), meaning the project must build the headroom capacity and cost specified (bulk transmission)**
 - This diverges from the linear headroom optimization that was assumed by the Joint Utilities and DPS Staff for use in Stage 1
 - All other model components (e.g., generator expansion) assume linear optimization
- **Generally, Stage 5 headroom projects are more expensive than what was assumed in Stage 1. In addition, the amount of headroom assumed available is a limiting factor.**

Stage 3: Local T&D Projects For Modeling in Stage 5

Project Name/Identifier	Line Miles	New/ Rebuilt Substations	Substation Upgrades/ Expansions	Cat 1/ Cat 2	NYCA Zone	Incremental Headroom*	In-service Year
Central Hudson 2035 project	65	1	14	Cat 1	G	281	2035
Central Hudson 2042 project	37	0	3	Cat 2	G	185	2042
Con Edison Project #1	16	1	2	Cat 1	I-to-J	750	2033
Con Edison Project #2	0	1	0	Cat 1	J	1500	2033
NG Zone A 2040 Project	235	2	6	Cat 2	A	740	2040
NG Zone B 2035 Project	90	0	2	Cat 1	B	480	2035
NG Zone C 2035 Project	19	0	2	Cat 1	C	190	2035
NG Zone E 2035 Project	197	4	4	Cat 1	E	970	2035
NG Zone E 2035 Project	123	3	2	Cat 1	E	1440	2035
NG Zone F 2035 Project	109	2	10	Cat 1	F	900	2035
LIPA Project A	15	0	2	Cat 1	K	500	2035
LIPA Project B	9	1	1	Cat 2	K	885	2040
LIPA Project C	6	0	2	Cat 2	K	229	2040
O&R Project 1	39	5	0	Cat 1	G	298	2035
NYSEG Lancaster 2035	0	1	0	Cat 1	A	120	2031
RG&E Rochester 2035	8	0	4	Cat 1	B	130	2032
RG&E Rochester 2042	5	0	1	Cat 2	B	80	2035
NYSEG Geneva/Auburn 2035	5	0	3	Cat 1	C	50	2035
NYSEG Hornell/Elmira/Bath 2035	136	1	9	Cat 1	C	740	2035
NYSEG Binghamton 2035	85	0	2	Cat 1	C	920	2034
NYSEG Hornell/Elmira/Bath 2042	65	0	3	Cat 2	C	430	2035
RG&E Genesee Valley 2042	99	1	2	Cat 2	B	60	2042
NYSEG Ithaca 2035	27	0	0	Cat 1	C	70	2035
NYSEG Oneonta 2035	9	3	0	Cat 1	E	100	2035
NYSEG Oneonta 2042	10	0	1	Cat 2	E	170	2035

The Joint Utilities reviewed headroom projects at [EPPAC on 2/23/2026](#)

Note, this table does not include Zone D Placeholder or Zone J backstop headroom projects. These additional projects were provided by the Joint Utilities to solve infeasibilities that were seen in the capacity expansion model during initial Stage 5 testing.

Zonal Transmission Expansion Assumptions for Stage 5

- **Conceptual bulk transmission projects were provided to the NYISO by the Joint Utilities, DPS, and NYSERDA for modeling in Stage 5**
 - Information on the conceptual projects focuses on the additional transfer capabilities, and no project design details were provided (such as from/to substations, kV levels, or components)
- **These projects allow an option for the capacity expansion model to expand the zonal “pipes” (i.e., increase zone-to-zone energy transfer) at an assumed cost**
- **Some of the specified bulk transmission solutions are dependent on others, meaning some projects can only be built after another project is built**
- **The conceptual projects are modeled as “all or nothing”; without information on individual components, the capacity expansion model cannot determine if a smaller project may be just as effective.**
- **One out of four of the conceptual bulk transmission solutions is assumed to reduce the LCR requirement(s)**

DPS Staff/NYSERDA/Joint Utility Conceptual Bulk Solution Overview

Project Name/Identifier	Zonal and Interface Transfers	Provided Increase in Transfer Limit (MW)	In-Service Year	Dependencies
West-to-East Concept	A-B	0	2035	*All increases in zonal transfer limits come at the same single cost. *The new E-H pipe should be considered a stand-alone pipe.
	A-C	640		
	B-C	0		
	C-E / Volney East	1,890		
	E-F	428		
	E-G / Marcy South	850		
	E-H	1,240		
	G-H / UPNY-ConEd	570		
	Dysinger East	530		
	West Central	570		
	Central East	350		
	Total East	1,100		
UPNY-SENY	850			
North-to-South Concept (Alternative B)	D-F	2,820	2035	*The new D-F pipe should be considered a stand-alone pipe.
	D-E (Moses South)	160		
Extension to Zone J	H-J	2,570	2035	*Can only be selected if the West-to-East concept is also selected. *Cannot be selected if the E-J Option is selected. *Options should be: a) West-to-East alone OR b) West-to-East plus extension to J OR c) West-to-East plus E-J option. *Impact to G-H / UPNY Coned would replace that of the West-to-East Concept. *The new H-J pipe should be considered a stand-alone pipe. *Note that the cost cited is for the extension alone (incremental to the cost of the West-to-East concept).
	G-H / UPNY-ConEd	655		
	Sprainbrook - Dunwoodie South	0		
E-J Option	E-J	1,200	2035	*Can only be selected if the West-to-East concept is also selected. *Cannot be selected if the Extension to Zone J is selected. *Options should be: a) West-to-East alone OR b) West-to-East plus extension to J OR c) West-to-East plus E-J option. *The new E-J pipe should be considered a stand-alone pipe. *A 600 MW contribution to Zone J LCRs should be assumed. *Note that the cost cited is for the E-J option alone (incremental to the cost of the West-to-East concept).

Note: Items shown in blue text reflect changes requested by DPS, NYSEERDA, and the Joint Utilities that was not included in February 23, 2026 EPPAC presentation by the Joint Utilities.



CGPP Stage 5 Scenario Results Comparison

Important Headroom Projects Caveats

- **Because of the zonal construct, there may be a disconnect in the capacity expansion model between the county-level cost associated with generation capacity and zonal headroom projects selected by the model**
 - For example, in Zone E, much of the selected capacity is in Jefferson County, while a headroom project like “NYSEG Oneonta” may have significant geographic separation
 - Production cost modeling may offer a better solution for evaluating headroom in future cycles of CGPP
 - Changes in future cycles of the CGPP based on the Commission's Order in November 2025 are intended to address this issue
- **Zonal construct of capacity expansion model limits modeling capability for local headroom projects, *i.e.*, pipe-and-bubble model does not include details of the local T&D system in NY**
- **Capacity expansion model assumes the ability to simultaneously co-optimize generation and transmission over a long-term planning horizon to meet load, policy targets (e.g., 70x30, 0x40, etc.), and other operational/capacity constraints**
- **Stage 5 zonal capacity mix changes when compared to Stage 1 due to headroom assumption changes (i.e., cost and project size) in the capacity expansion model, as directed by the Joint Utilities**

Important Conceptual Bulk Solution Caveats

- **Conceptual bulk solutions are modeled as single projects. Upgrades to individual interfaces or pipes cannot be selected by the model, as the capacity expansion model is limited to building the entirety of the project.**
- **The details for conceptual bulk solutions and corresponding upgrades were not provided to the NYISO. Issues such as voltage support may not be identified or addressed by the conceptual bulk solutions.**
 - Emerging high voltage challenges and operational responses were discussed with NYISO stakeholders during the April 16, 2026 Operating Committee Meeting ([here](#))
- **Although the capacity expansion model selected headroom projects and conceptual bulk projects, additional analysis would be necessary to assess the transmission needs and these projects as potential solutions**

Key Takeaways

- **The model results only show headroom project additions by 2035 in Scenario 3, but the headroom project additions increase in all scenarios by 2040**
 - The model selects less headroom to be built in Stage 5, as compared to Stage 1, around 2035 due to higher assumed costs for headroom projects and removal of bulk generators from local headroom constraints
 - With more costly headroom additions in Stage 5, the model may find it more economic to place generation capacity where there is available existing headroom. However, the model may not use all existing headroom prior to finding it optimal to build additional headroom
 - In Stage 1, the model likely found other zones to be more economic as the model could incur a low generation cost plus a lower assumed headroom cost
 - All scenarios show at least one headroom project addition between 2035-2040
- **Headroom capacity is limited in Stage 5 as compared to Stage 1 because it is based on explicit, discrete headroom project capacity provided by the Joint Utilities**
 - The max amount of headroom capacity offered by projects in a zone is ~2.6 GW (excluding backstop headroom)
 - This leads to a lower capacity build in Stage 5 for some zones (e.g., Zone F)

Note caveats on slides 18-19

Key Takeaways (continued)

- 10 out of 30 headroom projects are selected by the model in all three scenarios (also referred to as “incremental headroom” in the following results slides)
- By 2042, the State Scenario requires 12 GW of incremental headroom, Scenario 2 requires 9 GW, Scenario 3 requires 18 GW
- With respect to the conceptual bulk projects modeled, capacity expansion results show some projects being selected to increase zonal transmission capability
 - The West-to-East Concept is selected in 2040 in all three scenarios
 - The E-J Option is selected in only Scenario 3 in 2041
 - The North-to-South Concept and the Zone J Extension are not selected in any of the scenarios

Note caveats on slides 18-19

Stage 5 Conceptual Bulk Project Selection

Project Name/Identifier	Scenario	Project Selection Count	Project Selected by Scenario							
			2035	2036	2037	2038	2039	2040	2041	2042
West-to-East Concept	SS	3						✓		
	S2							✓		
	S3							✓		
North-to-South Concept (Alternative B)	SS	0								
	S2									
	S3									
Extension to Zone J	SS	0								
	S2									
	S3									
E-J Option	SS	1								
	S2									
	S3								✓	

✓ indicates the year the project is selected. The project then remains in service for the remainder of the study period.

Project Selection Count Key Not Selected In Any Scenario Selected In At Least One Scenario Selected In All Scenarios

Stage 5 Headroom Project Selection (Zones A-C)

Project Name/Identifier	NYCA Zone	Headroom: State Scen. (MW)	Scenario	Project Selection Count	Project Selected by Scenario									
					2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
NG Zone A 2040 Project	A	740	SS	1										
			S2											
			S3								✓			
NYSEG Lancaster 2035	A	120	SS	2										
			S2											
			S3								✓			
NG Zone B 2035 Project	B	480	SS	1										
			S2											
			S3									✓		
RG&E Genesee Valley 2042	B	60	SS	0										
			S2											
			S3											
RG&E Rochester 2035	B	130	SS	3									✓	
			S2									✓		
			S3							✓				
RG&E Rochester 2042	B	80	SS	1	N/A									
			S2		N/A									
			S3		N/A									
NG Zone C 2035 Project	C	190	SS	3									✓	
			S2									✓		
			S3								✓			
NYSEG Binghamton 2035	C	920	SS	3									✓	
			S2									✓		
			S3									✓		
NYSEG Geneva/Auburn 2035	C	50	SS	1	N/A									
			S2		N/A									
			S3		N/A									
NYSEG Hornell/Elmira/Bath 2035	C	740	SS	3									✓	
			S2									✓		
			S3									✓		
NYSEG Hornell/Elmira/Bath 2042	C	430	SS	1	N/A									
			S2		N/A									
			S3		N/A									
NYSEG Ithaca 2035	C	70	SS	0										
			S2											
			S3											

✓ indicates the year the project is selected. The project then remains in service for the remainder of the study period.

Headroom projects labeled as N/A were not available for the given scenario according to inputs provided by the Joint Utilities

Project Selection Count Key Not Selected In Any Scenario Selected In At Least One Scenario Selected In All Scenarios



Stage 5 Headroom Project Selection (Zones D-G)

Project Name/Identifier	NYCA Zone	Headroom: State Scen. (MW)	Scenario	Project Selection Count	Project Selected by Scenario										
					2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	
Zone D Placeholder	D	1000	SS	3									✓		
			S2									✓			
			S3									✓			
NG Zone E 2035 Project	E	970	SS	2								✓			
			S2												
			S3							✓					
NG Zone E 2035 Project	E	1440	SS	3					✓						
			S2						✓						
			S3			✓									
NYSEG Oneonta 2035	E	100	SS	2								✓			
			S2									✓			
			S3									✓			
NYSEG Oneonta 2042	E	170	SS	2	N/A										
			S2										✓		
			S3										✓		
NG Zone F 2035 Project	F	900	SS	3									✓		
			S2									✓			
			S3							✓					
Central Hudson 2035 project	G	281	SS	0											
			S2												
			S3												
Central Hudson 2042 project	G	185	SS	0											
			S2												
			S3												
O&R Project 1	G	298	SS	0											
			S2												
			S3												

✓ indicates the year the project is selected. The project then remains in service for the remainder of the study period.

Headroom projects labeled as N/A were not available for the given scenario according to inputs provided by the Joint Utilities

Project Selection Count Key Not Selected In Any Scenario Selected In At Least One Scenario Selected In All Scenarios



Stage 5 Headroom Project Selection (Zones J-K)

Project Name/Identifier	NYCA Zone	Headroom: State Scen. (MW)	Scenario	Project Selection Count	Project Selected by Scenario										
					2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	
Con Edison Project #2	J	1500	SS	3									✓		
			S2										✓		
			S3				✓								
Con Edison Backstop Project #1	J	1500	SS	1											
			S2												
			S3							✓					
Con Edison Backstop Project #2	J	1500	SS	1											
			S2												
			S3									✓			
Con Edison Backstop Project #3	J	1500	SS	1											
			S2												
			S3									✓			
Con Edison Backstop Project #4	J	2000	SS	3									✓		
			S2												
			S3					✓							
LIPA Project A	K	500	SS	2										✓	
			S2												
			S3										✓		
LIPA Project B	K	885	SS	2										✓	
			S2												
			S3										✓		
LIPA Project C	K	229	SS	1											
			S2												
			S3										✓		
Con Edison Project #1 *	I-J	750	SS	3								✓			
			S2									✓			
			S3		✓										

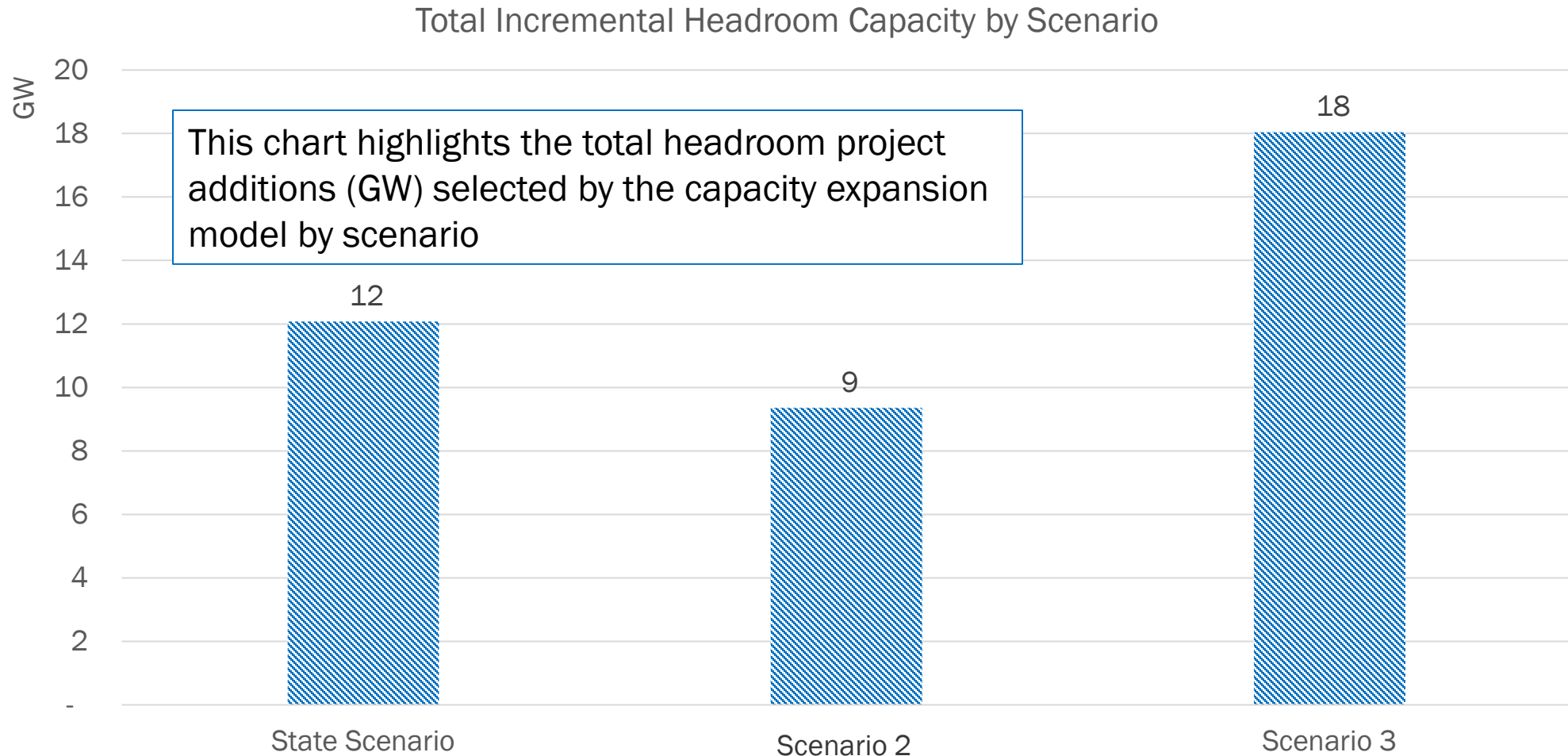
✓ indicates the year the project is selected. The project then remains in service for the remainder of the study period.

*Con Edison Project #1 differs from other projects as it is a zone-to-zone project

Project Selection Count Key Not Selected In Any Scenario Selected In At Least One Scenario Selected In All Scenarios

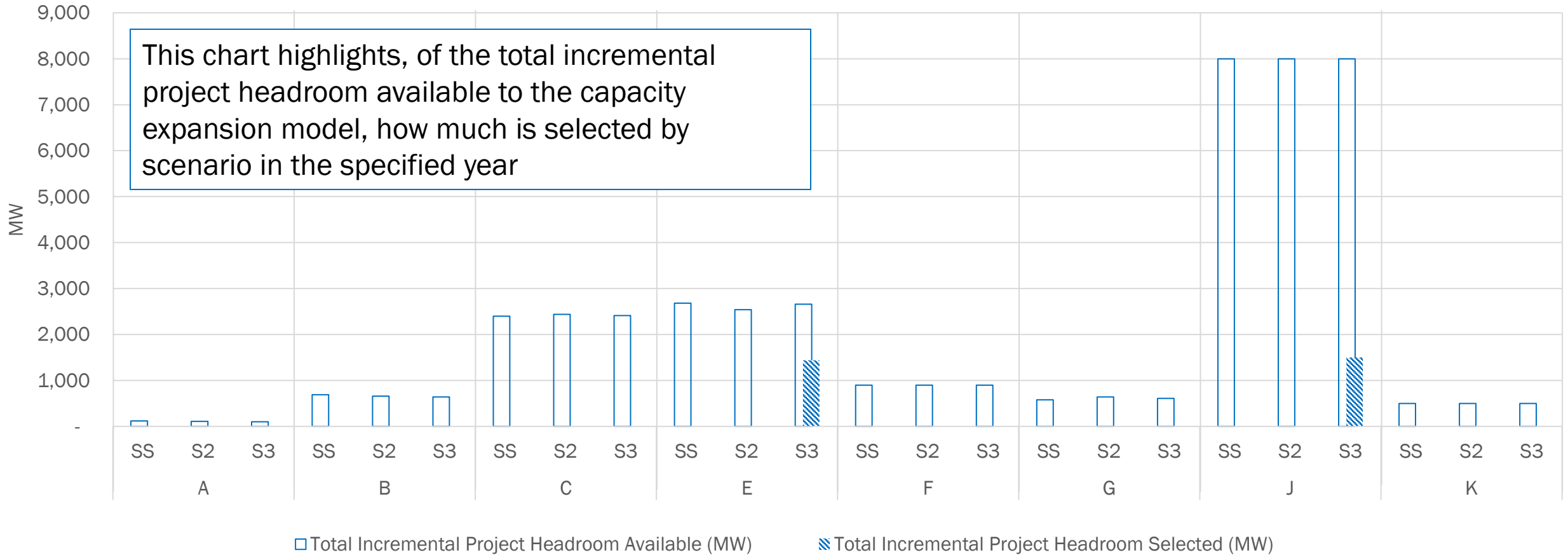


Total Incremental Headroom Additions by Scenario



Zonal Incremental Headroom Comparison- 2035

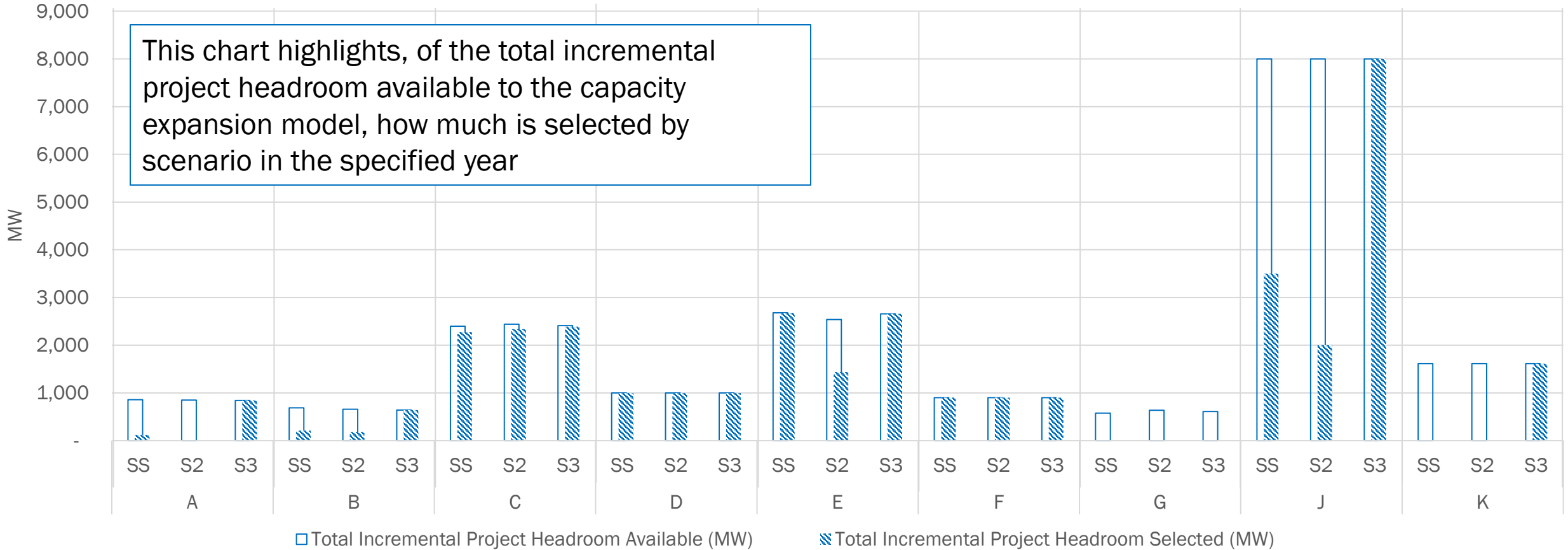
Total Incremental Headroom by Scenario



No headroom projects were offered in Zones H or I in CGPP Stage 5
 Zone D Placeholder becomes available in 2040

Zonal Incremental Headroom Comparison- 2040

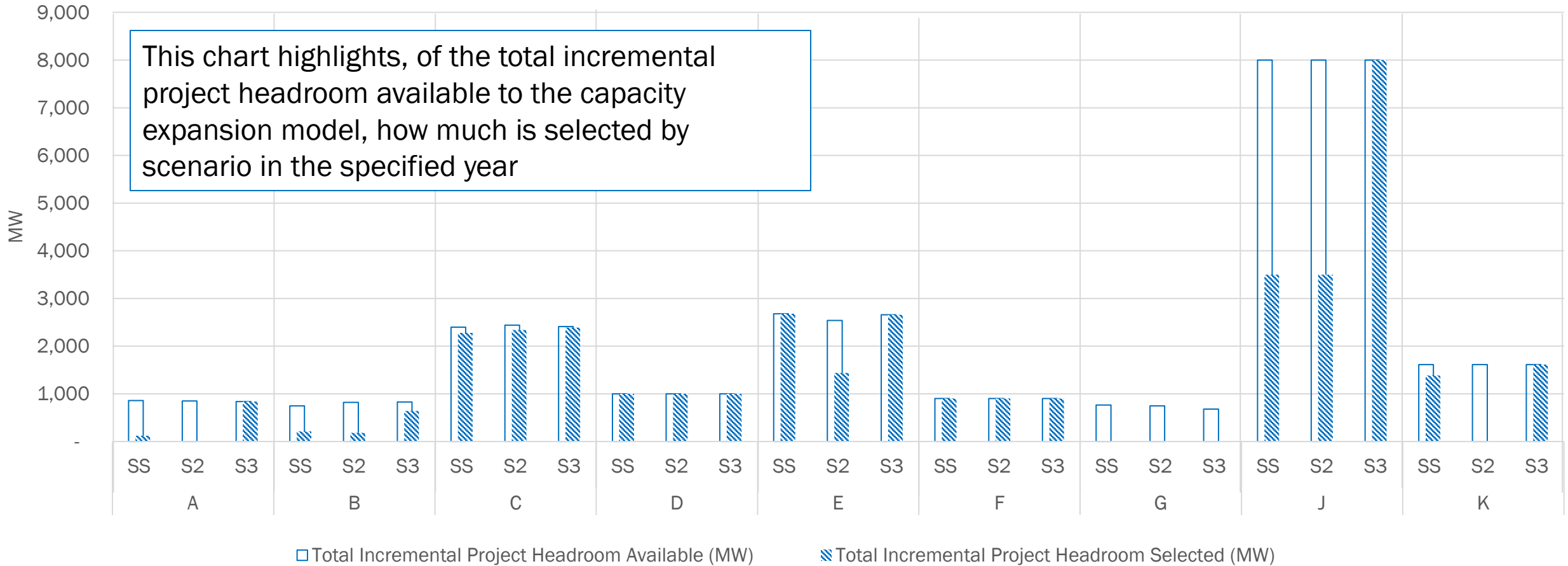
Total Incremental Headroom by Scenario



This chart compares headroom added by the model

Zonal Incremental Headroom Comparison – 2042

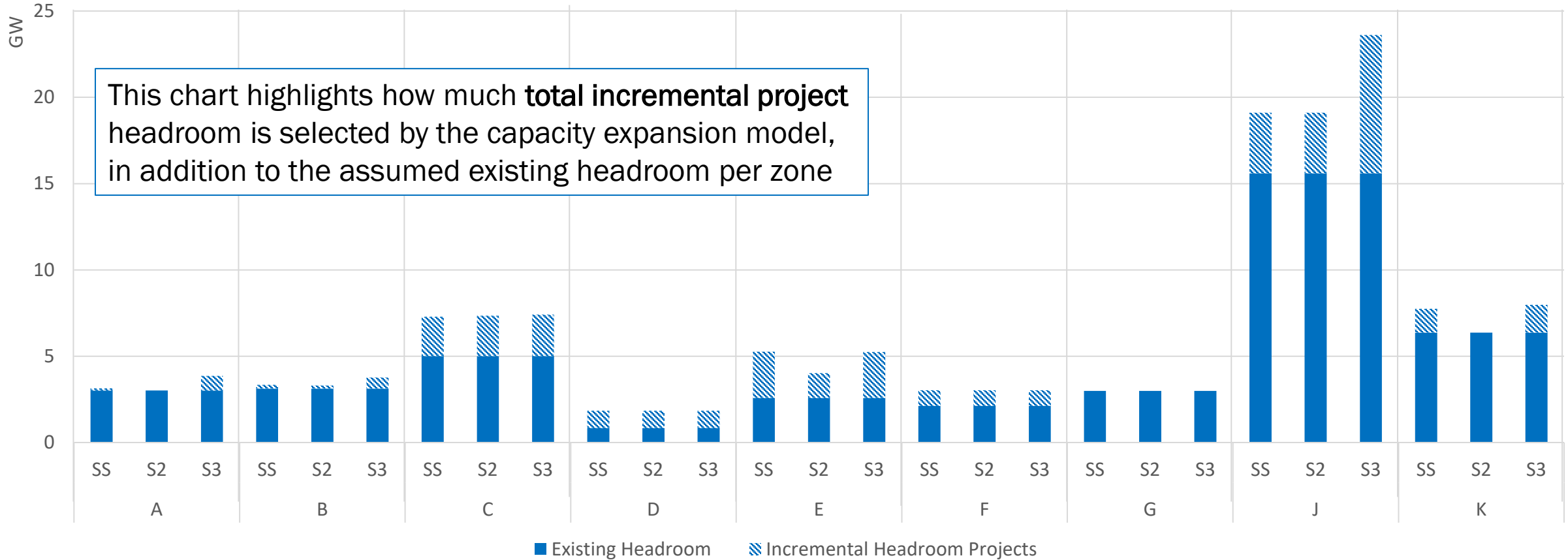
Total Incremental Headroom by Scenario



This chart compares headroom added by the model

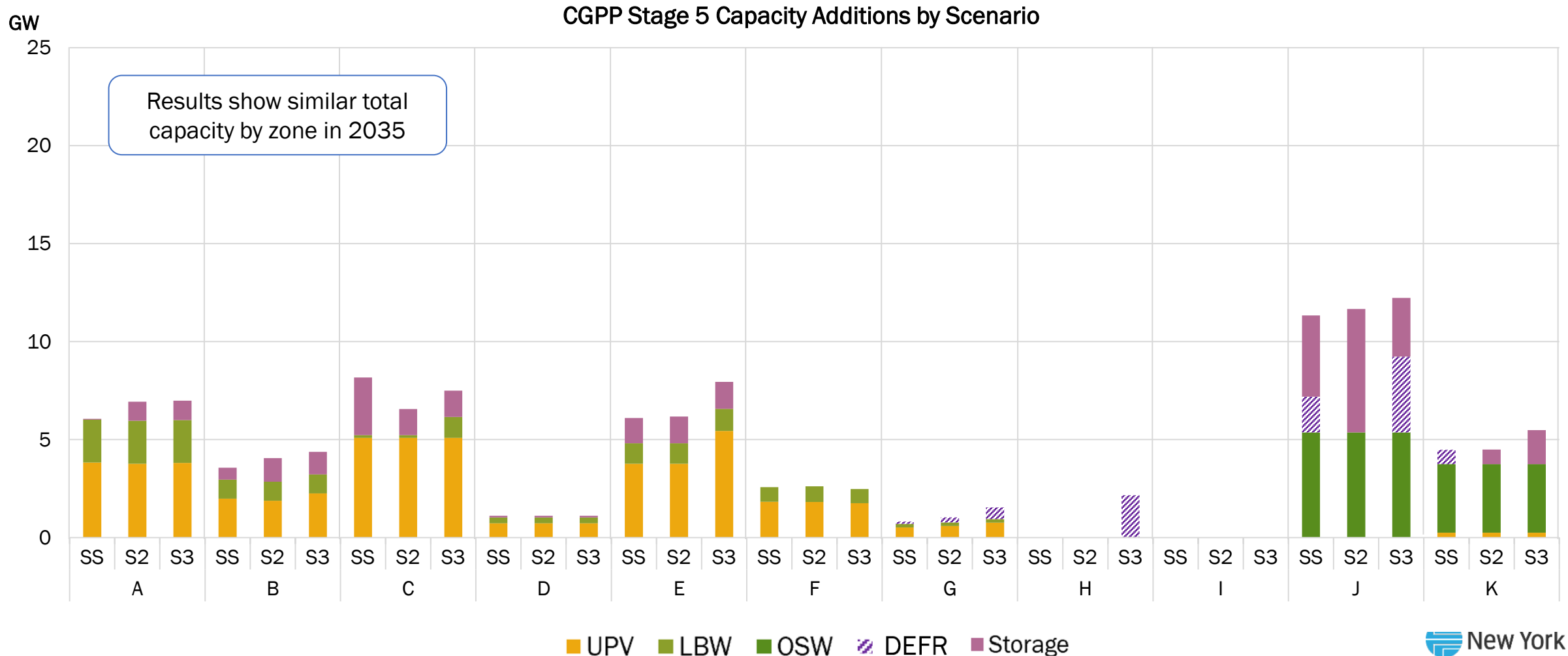
Existing vs Incremental Project Headroom (2042)

Stage 5 Existing vs Incremental Headroom Projects (2042)



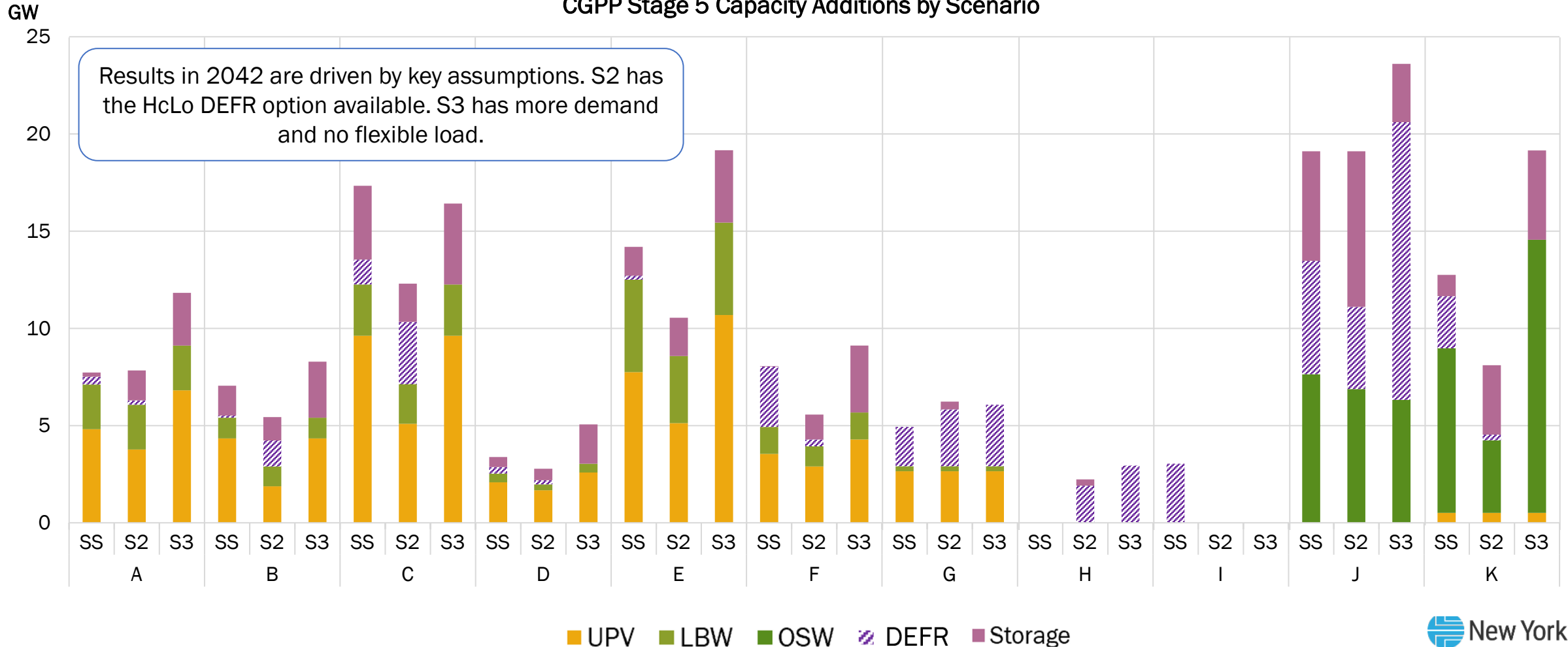
This chart compares headroom added by the model

Zonal Comparison - 2035

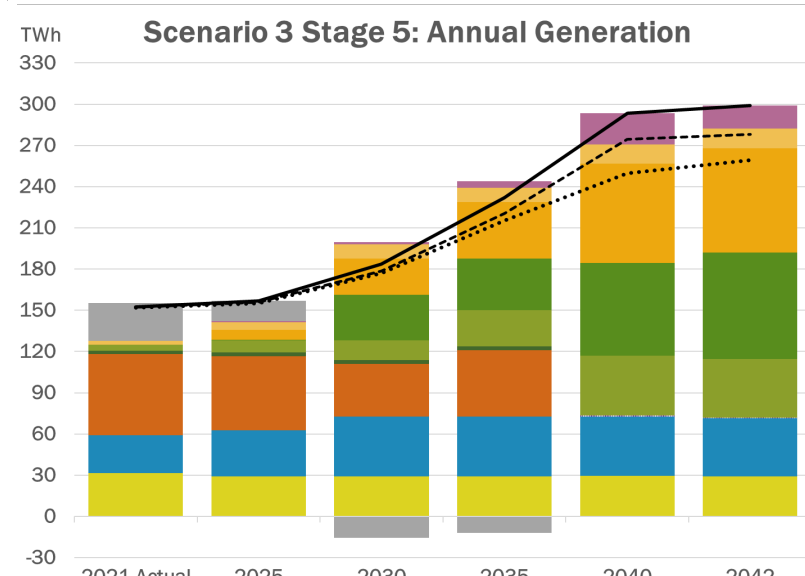
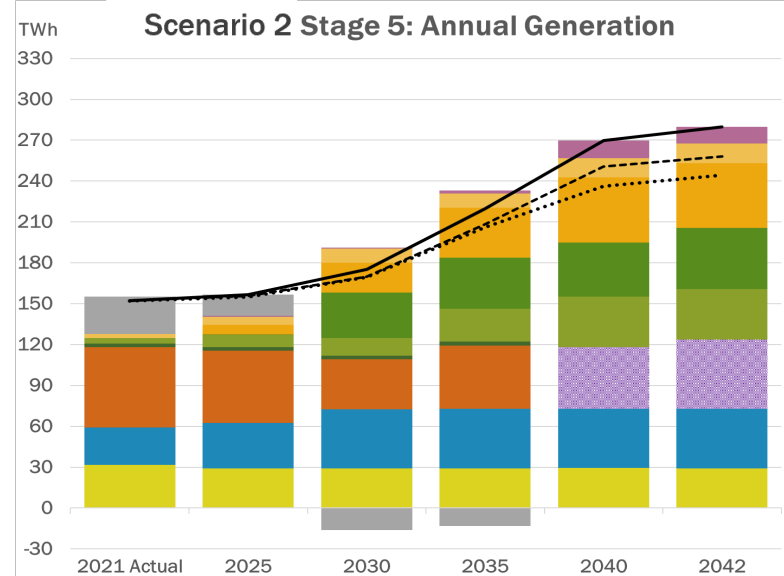
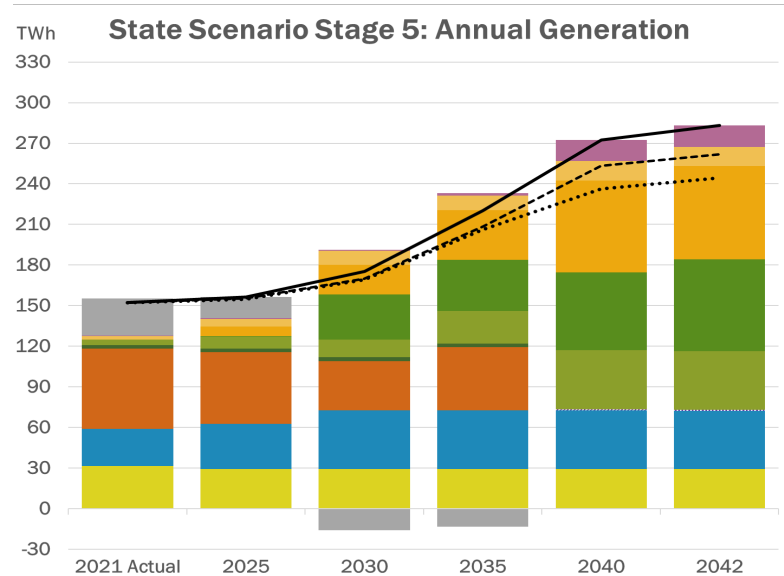
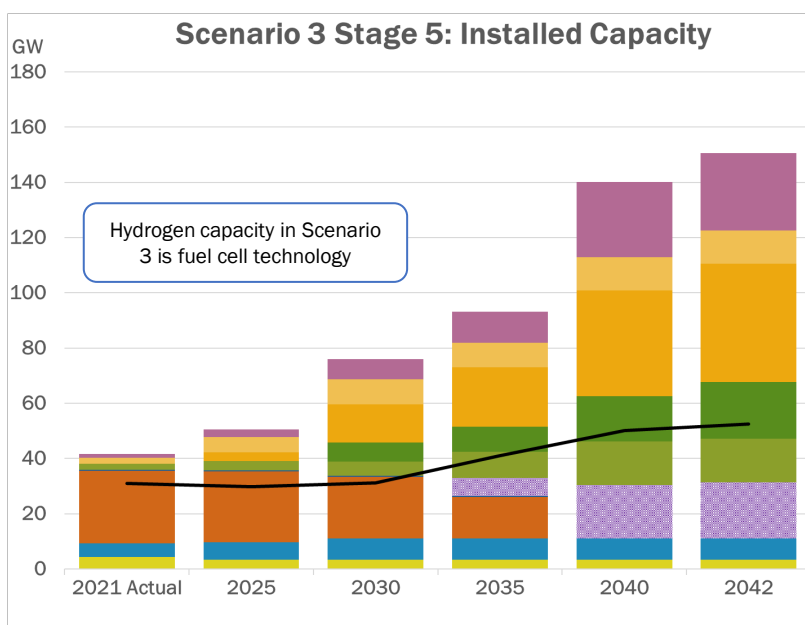
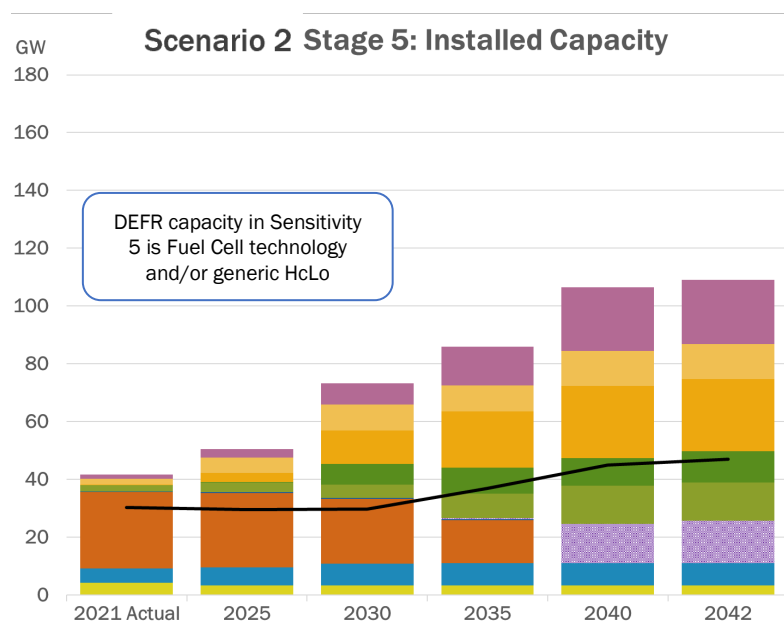
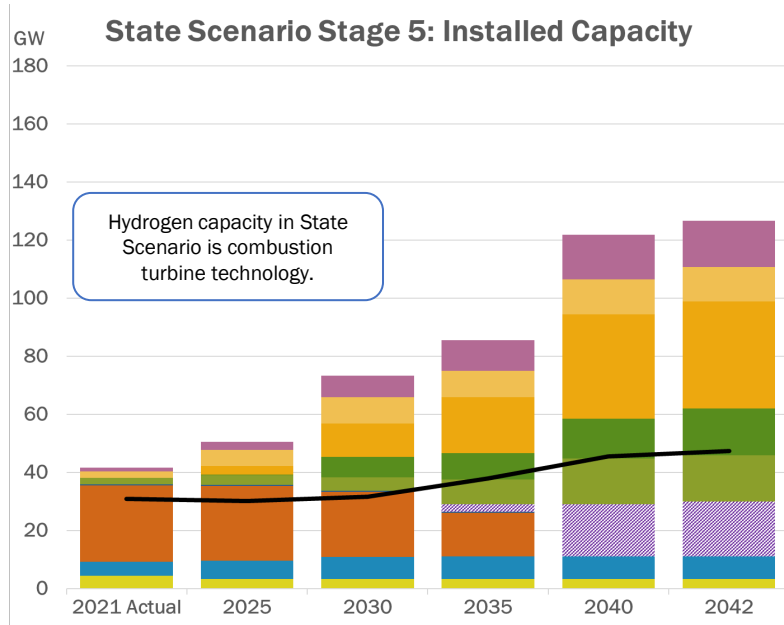


Zonal Comparison - 2042

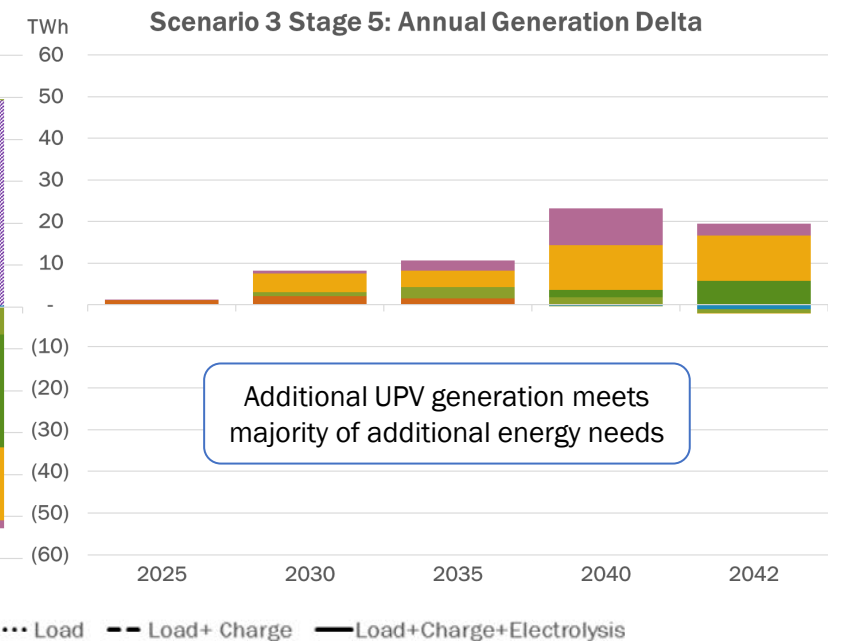
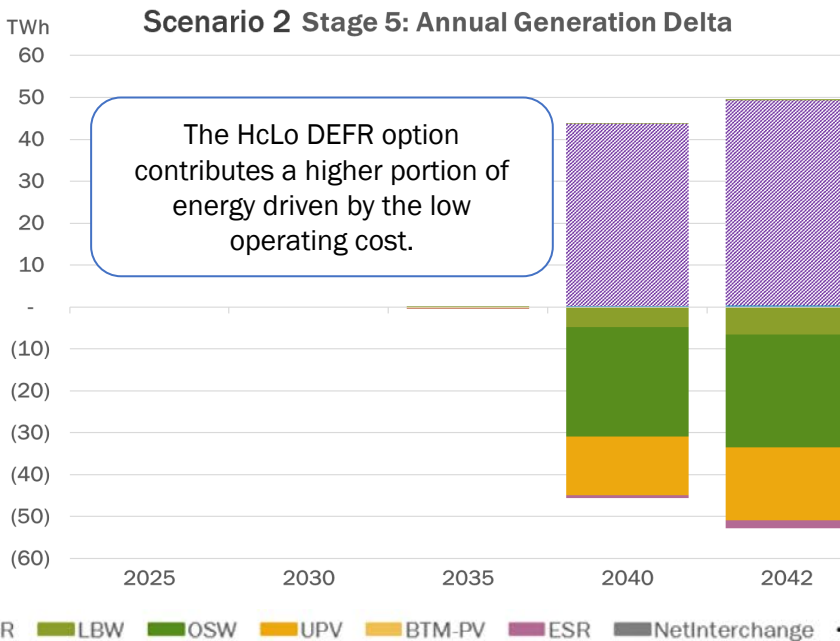
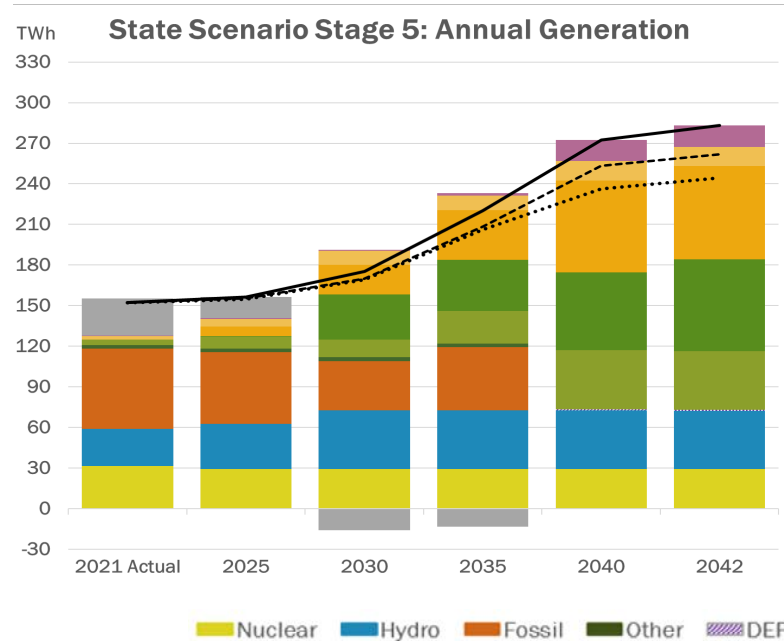
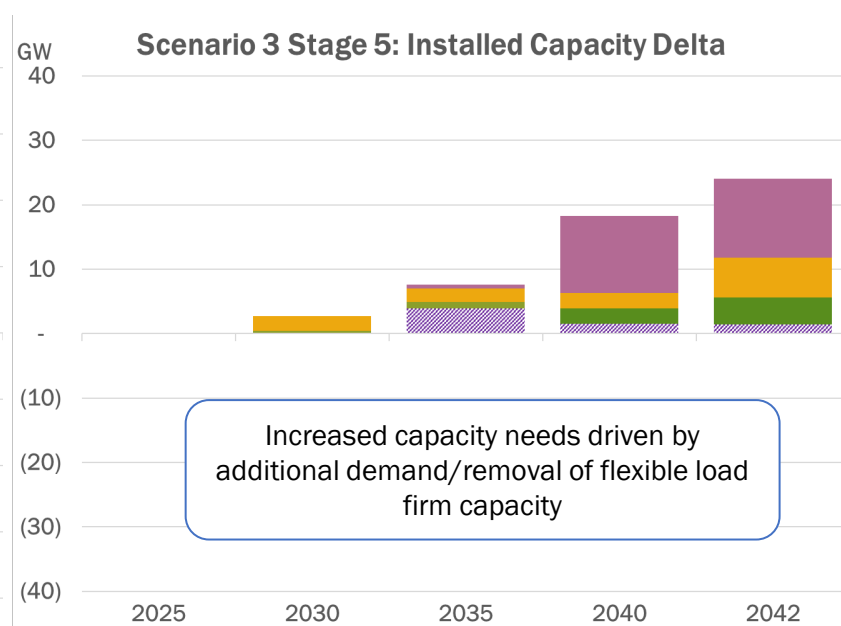
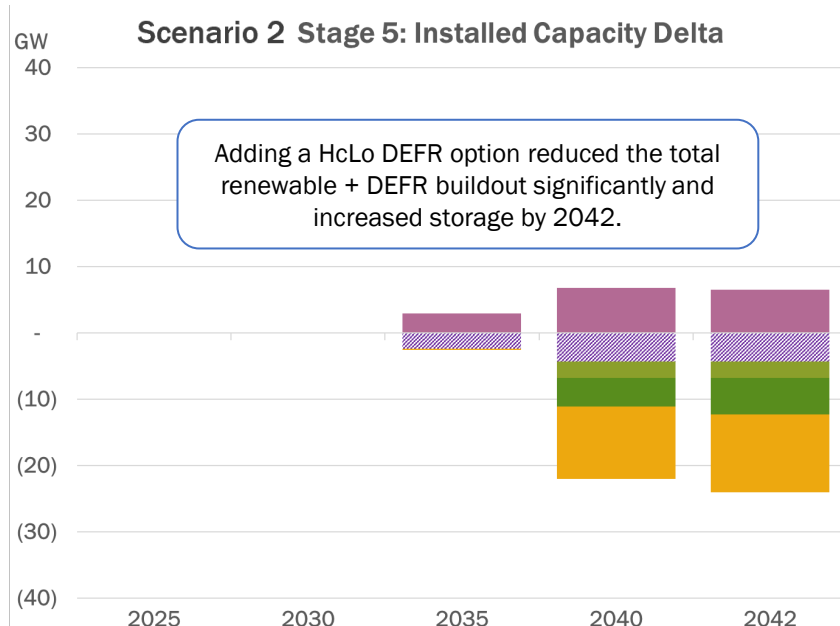
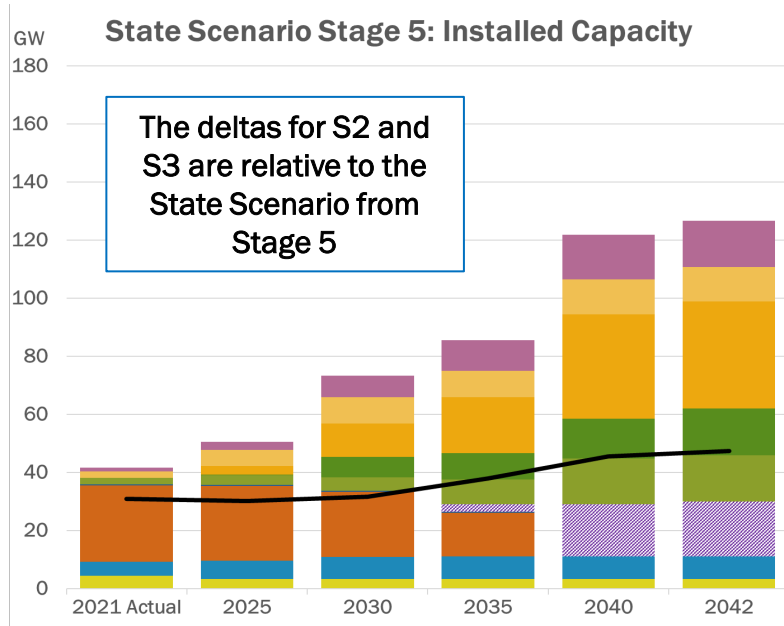
CGPP Stage 5 Capacity Additions by Scenario



Appendix



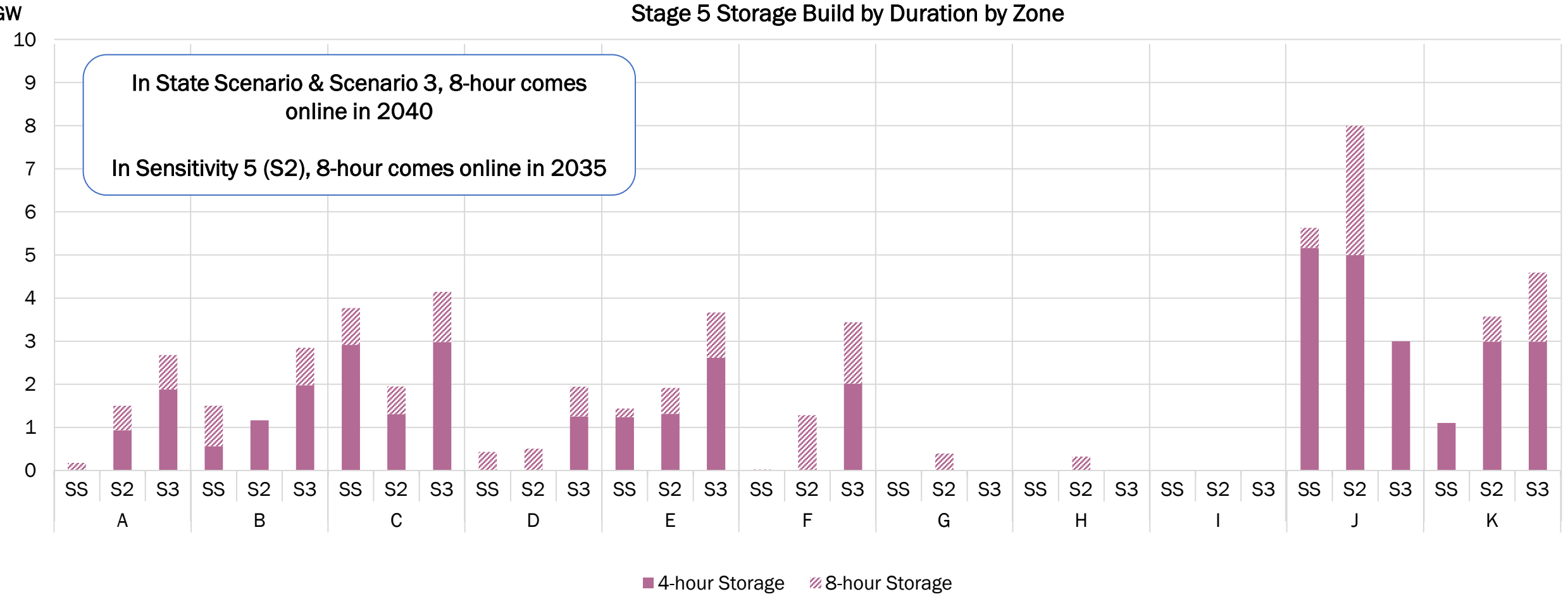
■ Nuclear
 ■ Hydro
 ■ Fossil
 ■ Other
 ■ DEFR
 ■ LBW
 ■ OSW
 ■ UPV
 ■ BTM-PV
 ■ ESR
 ■ NetInterchange
 ⋯ Load
 - - Load+ Charge
 — Load+Charge+Electrolysis



■ Nuclear
 ■ Hydro
 ■ Fossil
 ■ Other
 ■ DEFR
 ■ LBW
 ■ OSW
 ■ UPV
 ■ BTM-PV
 ■ ESR
 ■ NetInterchange
 ⋯ Load
 - - Load+ Charge
 — Load+Charge+Electrolysis

Zonal Storage by Type - 4-hour vs 8-hour (2042)

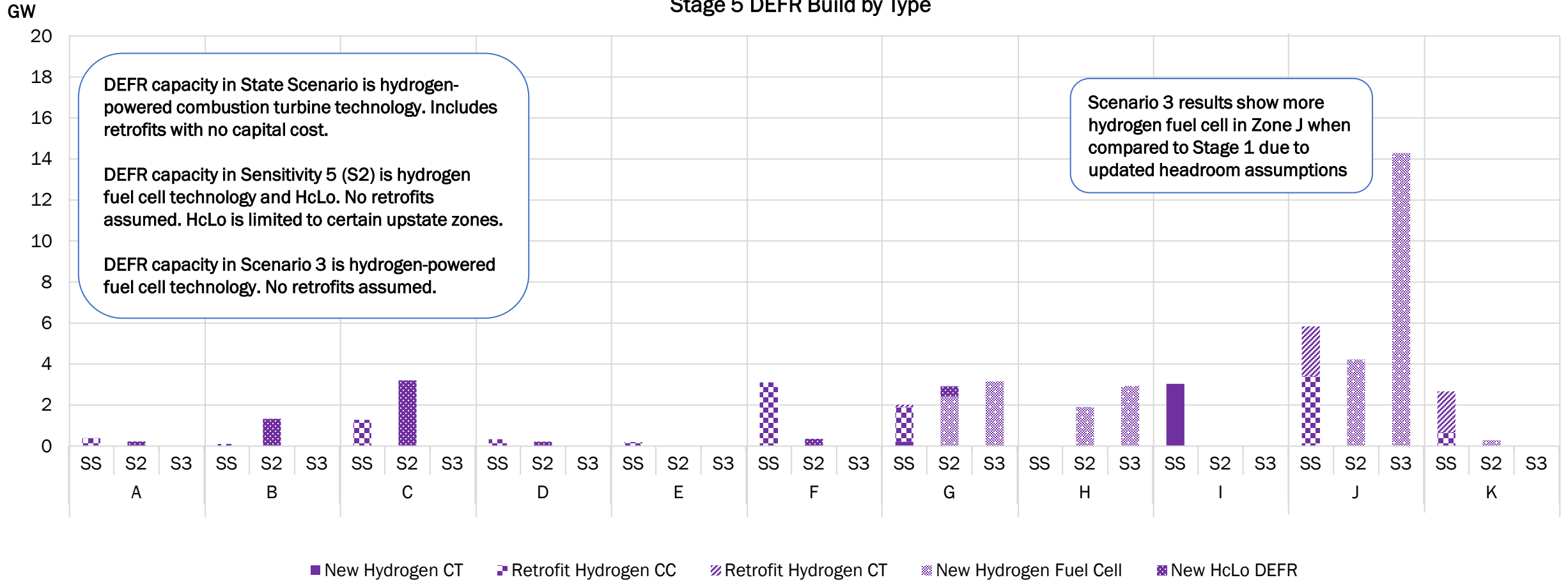
Stage 5 Storage Build by Duration by Zone



Candidate battery builds only, 0.24 GW of Contract capacity not shown here

Zonal DEFR Build by Type (2042)

Stage 5 DEFR Build by Type



Candidate builds only, no Contract DEFR builds in model

Our Mission & Vision



Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation