



ARP EXECUTIVE COMMITTEE AGENDA PACKAGE

August 17, 2023

**9:15 a.m. [NOTE TIME] (or immediately
following the Board of Directors meeting)**

Dial-in Info: 1-321-299-0575

Meeting ID Number 245 855 860 504#

Committee Members

Howard McKinnon, Havana - Chair

Lynne Tejeda, Key West – Vice Chair

Christina Simmons, Bushnell

Lynne Mila, Clewiston

Jan Bagnall, Fort Meade

Javier Cisneros, Fort Pierce

Robert Page, Green Cove Springs

Allen Putnam, Jacksonville Beach

Brian Horton, Kissimmee

Brad Chase, Leesburg

Mike New, Newberry

Doug Peebles, Ocala

Drew Mullins, Starke

Meeting Location

Florida Municipal Power Agency

8553 Commodity Circle

Orlando, FL 32819

(407) 355-7767



MEMORANDUM

TO: FMPA Executive Committee
 FROM: Jacob A. Williams, General Manager and CEO
 DATE: August 08, 2023
 RE: FMPA Telephonic Executive Committee Meeting
Thursday, August 17, 2023 at 9:15 a.m. [NOTE TIME]
 (or immediately following the Board of Directors meeting)
 PLACE: Florida Municipal Power Agency
 8553 Commodity Circle, Orlando, FL 32819
 Fredrick M. Bryant Board Room

DIAL-IN: 321-299-0575, Meeting Number 245 855 860 504

[Click here to join the meeting](#)

(If you have trouble connecting via phone or internet, call 407-355-7767)

Chairman Howard McKinnon, Presiding

AGENDA

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***Item also on the Board of Directors Agenda.**

**** Item(s) Subject to Super Majority Vote**

NOTE: One or more participants in the above referenced public meeting may participate by telephone. At the above location there will be a speaker telephone so that any interested person can attend this public meeting and be fully informed of the discussions taking place either in person or by telephone communication. If anyone chooses to appeal any decision that may be made at this public meeting, such person will need a record of the proceedings and should accordingly ensure that a verbatim record of the proceedings is made, which includes the oral statements and evidence upon which such appeal is based. This public meeting may be continued to a date and time certain, which will be announced at the meeting. Any person requiring a special accommodation to participate in this public meeting because of a disability, should contact FMPA at (407) 355-7767 or (888) 774-7606, at least two (2) business days in advance to make appropriate arrangements.

**AGENDA ITEM 1 - CALL TO ORDER,
ROLL CALL, DECLARATION OF
QUORUM**

**Executive Committee
August 17, 2023**

**AGENDA ITEM 2 – Set Agenda (by
Vote)**

**Executive Committee
August 17, 2023**

**AGENDA ITEM 3 – RECOGNITION OF
GUESTS**

**Executive Committee
August 17, 2023**

**AGENDA ITEM 4 – PUBLIC
COMMENTS (INDIVIDUAL
COMMENTS TO BE LIMITED TO 3
MINUTES)**

**Executive Committee
August 17, 2023**

**AGENDA ITEM 5 – COMMENTS
FROM THE CHAIR**

**Executive Committee
August 17, 2023**

**AGENDA ITEM 6 – REPORT FROM
THE GENERAL MANAGER**

**Executive Committee
August 17, 2023**

**AGENDA ITEM 7 – CONSENT
AGENDA**

- a. Approval of Meeting Minutes –
Meetings Held July 19, 2023 and ARP
Telephonic Rate Workshop Held July
12, 2023**

**Executive Committee
August 17, 2023**

CLERKS DULY NOTIFIEDJULY 10, 2023
AGENDA PACKAGES POSTED.....JULY 10, 2023

MINUTES
EXECUTIVE COMMITTEE MEETING
THURSDAY, JULY 19, 2023
THE VINOY® RENAISSANCE ST. PETERSBURG
RESORT AND GOLF CLUB

PARTICIPANTS
PRESENT: Lynne Mila, Clewiston
Jan Bagnall, Fort Meade
Javier Cisneros, Fort Pierce
Bob Page, Green Cove Springs
Howard McKinnon, Havana
Allen Putnam, Jacksonville Beach
Lynne Tejeda, Key West
Brian Horton, Kissimmee
Jim Williams, Leesburg
Mike New, Newberry
Doug Peebles, Ocala
Drew Mullins, Starke

*joined after roll call

OTHERS
PRESENT Brad Hiers, Bartow
Randy Martin, Clewiston
Danny Williams, Clewiston
Daniel Rutherford, Fort Pierce
Barbara Quinones, Homestead
Reginald Hardes, Kissimmee
Larry Mattern, Kissimmee
Brad Chase, Leesburg
Steve Langley, Mt. Dora
Mike Mace, PFM
Rob Taplar, GDS
George Forbes, Beaches Energy

STAFF
PRESENT Jacob Williams, General Manager and CEO
Jody Finklea, General Counsel and Chief Legal Officer
Ken Rutter, Chief Operating Officer
Linda S. Howard, Chief Financial Officer
Rich Popp, Treasurer and Risk Director
LaKenya VanNorman, Senior Regulatory Compliance Specialist
Mike McCleary, Member Services Manager

Jose Bravo, Manager of Member Services Development
Chris Gowder, Vice President IT/OT and Systems Ops
Wayne Koback, IT Manager
Dan O'Hagan, Assistant General Counsel and Manager of
Regulatory Compliance
Sue Utley, Executive Asst. /Asst. Secy. to the Board
Lindsay Jack, Senior Administrative & Member Services Assistant
Sharon Adams, Vice President of Human Resources & Shared
Services
Susan Schumann, Manager of External Affairs and Solar Projects
Mary Kathryn Patterson, Senior Public Relations Specialist

ITEM 1 - CALL TO ORDER, ROLL CALL, AND DECLARATION OF QUORUM

Chair Howard McKinnon, Havana, called the FMPA Executive Committee meeting to order at 9 a.m. on Wednesday, July 19, 2023, in the Mirror Lake Ballroom, The Vinoy® Renaissance St. Petersburg Resort and Golf Club, 501 5th Avenue, NE, St. Petersburg, Florida. The roll was taken, and a quorum was declared with 12 members present out of a possible 13.

ITEM 2 – SET AGENDA (BY VOTE)

Allen Putnam, Jacksonville Beach, moved approval of the agenda as presented.
Brian Horton, Kissimmee, seconded the motion. Motion carried 12-0.

ITEM 3 – RECOGNITION OF GUESTS

Chair Howard McKinnon welcomed Mary Kathryn Patterson, Senior Public Relations Specialist and Reginald Hardee, Kissimmee.

ITEM 4 – PUBLIC COMMENTS

None.

ITEM 5 – COMMENTS FROM THE CHAIRMAN

Linda Howard, you will be deeply missed. You were a great example, and your work is invaluable to us. He also congratulated Rich Popp and said we look forward to working with you.

ITEM 6 – REPORT FROM GENERAL MANAGER

A reminder that tomorrow, Thursday is the Board of Directors luncheon at Noon.

Policy Makers, please attend the meeting even if you are not a policy maker. We will be

discussing EPA information.

ITEM 7 – CONSENT AGENDA

- a. Approval of Meeting Minutes – Meetings Held June 15, 2023 and ARP Telephonic Rate Workshop Held June 13, 2023
- b. Approval of Treasury Reports – As of May 31, 2023
- c. Approval of the Agency and All-Requirements Project Financials as of May 31, 2023
- d. ARP 12-month Capacity Reserve Margin Report

MOTION: Allen Putnam, Jacksonville Beach, moved approval of the Consent Agenda as presented. Javier Cisneros, Fort Pierce, seconded the motion. Motion Carried 12-0.

ITEM 8 – ACTION ITEMS:

- a. Nomination and Election of Officers

Jody Finklea explained the process for the Nomination and Election of Officers.

MOTION: Bob Page, Green Cove Springs, moved approval to nominate the current Executive Committee officers for another term. Allen Putnam, Jacksonville Beach, seconded the motion. Motion carried 12-0.

- b. Approval of Stock Island Fuel Inventory Waiver

Ken Rutter Presented the Stock Island Fuel Inventory Waiver.

Lynne Tejeda, Key West, said that she is very comfortable with this.

MOTION: Lynne Tejeda, Key West, moved approval of the Stock Island Fuel Inventory Waiver. Allen Putnam, Jacksonville Beach, seconded the motion. Motion carried 12-0.

ITEM 9 – INFORMATION ITEMS:

a. Notice of Annual Continuing Disclosure Report of the Fiscal Year Ended September 30, 2022.

Linda S. Howard presented the Annual Continuing Disclosure Report of the Fiscal Year Ending September 30, 2022.

ITEM 10 – Member Comments

Javier Cisneros, Fort Pierce, said that Larry Mattern has been very good to work with and he has been absorbing his knowledge. “Thank you and Congratulations, Larry.”

Javier Cisneros, Fort Pierce, inquired about the hedging discussion. Jacob Williams advised that we will have a full discussion on hedging in the fall, around October.

ITEM 11 – Adjournment

There being no further business, the meeting was adjourned at 9:35 a.m.

Howard McKinnon
Chairman, Executive Committee

Sue Utley
Assistant Secretary

Approved: _____

Seal

PUBLIC NOTICE SENT TO CLERKS.....July 05, 2023
AGENDA PACKAGES SENT TO MEMBERSJuly 11, 2023

**MINUTES
EXECUTIVE COMMITTEE
ALL-REQUIREMENTS POWER SUPPLY PROJECT
TELEPHONIC RATES MEETING
WEDNESDAY, JULY 12, 2023
FLORIDA MUNICIPAL POWER AGENCY
8553 COMMODITY CIRCLE
ORLANDO, FLORIDA 32819**

COMMITTEE MEMBERS PRESENT VIA TELEPHONE

Christina Simmons, Bushnell
Lynne Mila, Clewiston
Jan Bagnall, Fort Meade
Javier Cisneros, Fort Pierce
Robert C. Page, Green Cove Springs
Howard McKinnon, Havana
Allen Putnam, Jacksonville Beach
Lynne Tejeda, Key West
Larry Mattern, Kissimmee
Brad Chase, Leesburg
Mike New, Newberry
Doug Peebles, Ocala
Drew Mullins, Starke

STAFF PRESENT

Jacob Williams, General Manager and CEO
Linda S. Howard, Chief Financial Officer
Sue Utle, Executive Assistant to General Manager and CEO / Asst.
Secy. to the Board
Lindsay Jack, Administrative Specialist
Jason Wolfe, Financial Planning, Rates and Budget Director
Denise Fuentes, Financial Planning, Budget and Financial Analyst II
Danyel Sullivan-Marrero, Controller

Item 1 – Call to Order and Roll Call

Sue Utle, called the Executive Committee All-Requirements Telephonic Rate Workshop to order at 2 p.m. on Wednesday, July 12, 2023, via telephone. A speaker telephone for public attendance and participation was located in the 1st Floor Conference Room at Florida Municipal Power Agency, 8553 Commodity Circle, Orlando, Florida.

Item 2 – Review of June ARP Rate Calculation

Denise Fuentes gave an update on the June natural gas markets, provided an overview of the May loads, and reviewed the June ARP rate calculation.

Item 3 – Member Comments

None.

Item 4 - Adjournment

There being no further business, the meeting was adjourned at 2:05 p.m.

Approved

LT/lj

**AGENDA ITEM 7 – CONSENT
AGENDA**

- b. Approval of Treasury Reports as
of June 30, 2023**

**Executive Committee
August 17, 2023**



AGENDA PACKAGE MEMORANDUM

TO: FMPA Executive Committee
FROM: Sena Mitchell
DATE: August 8, 2023
ITEM: EC 7(b) – Approval of the All-Requirements Project Treasury Reports as of June 30, 2023

- Introduction
- This report is a quick summary update on the Treasury Department’s functions.
 - The Treasury Department reports for June are posted in the member portal section of FMPA’s website.
-

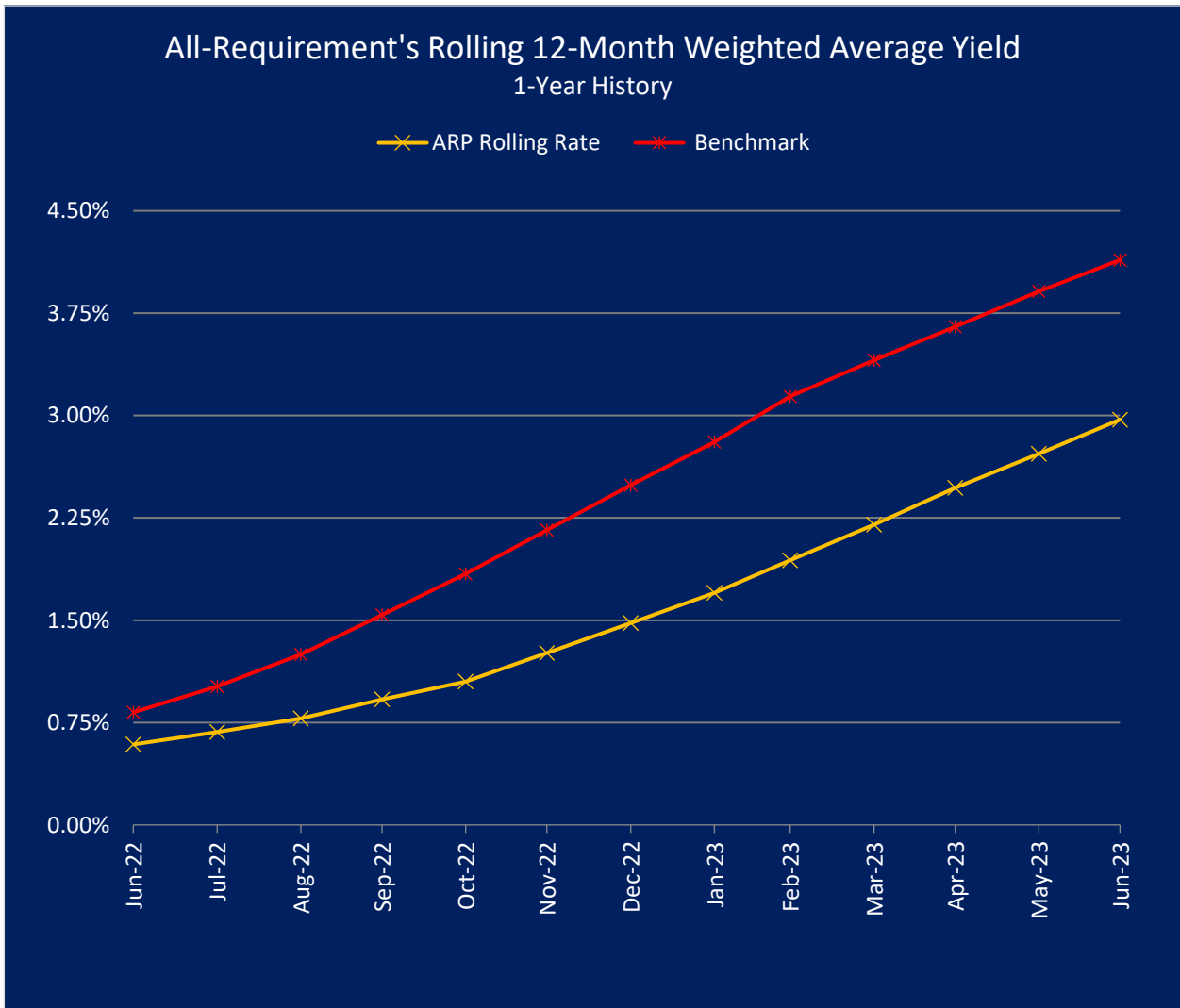
Debt Discussion

The All-Requirements Project has variable rate and fixed rate debt. The variable rate and fixed rate percentages of total debt are 1.90% and 98.10% respectively. The estimated debt interest funding for fiscal year 2023 as of June 30, 2023, is \$33,367,236. The total amount of debt outstanding is \$791,395,000.

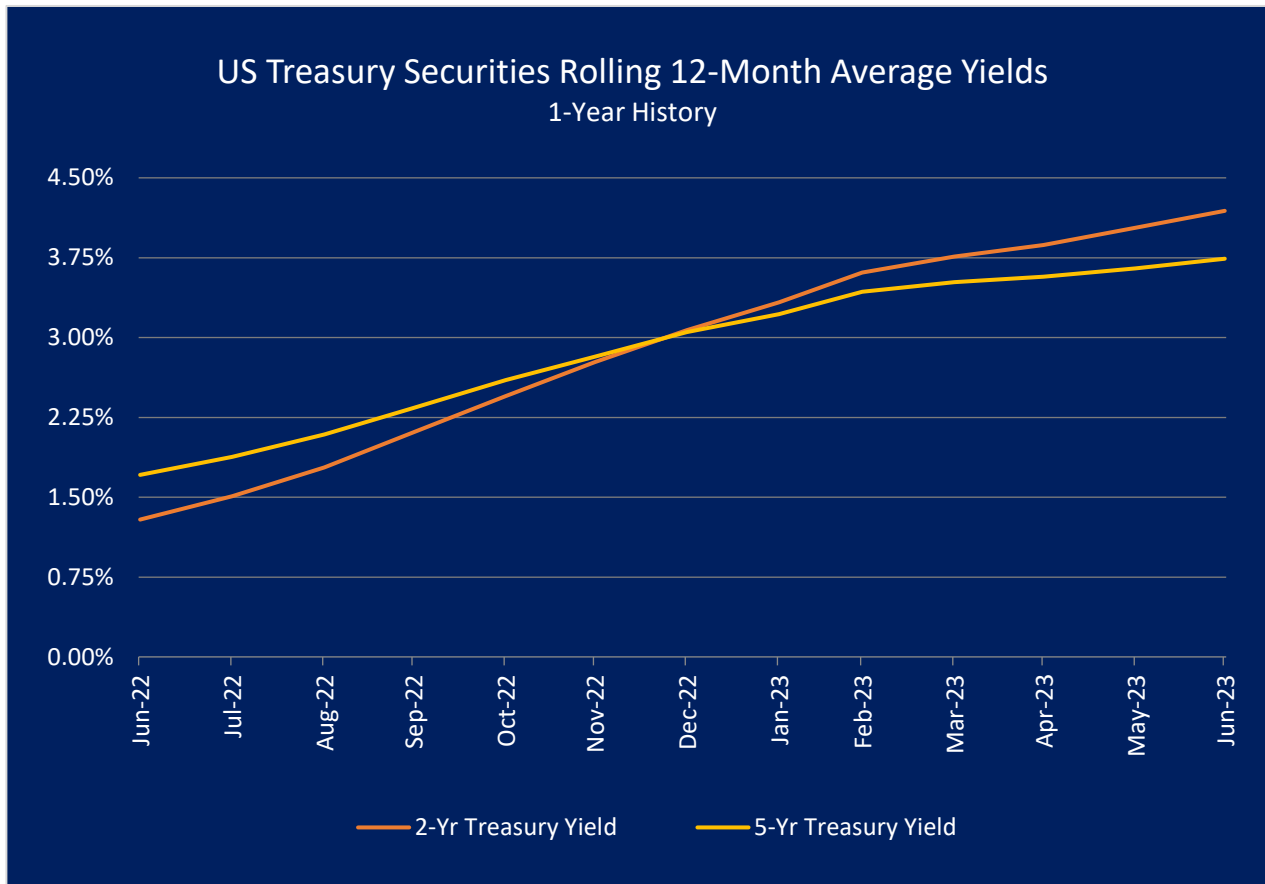
Investment Discussion

The investments in the Project are comprised of debt from the government-sponsored enterprises such as the Federal Farm Credit Bank, Federal Home Loan Bank, Federal Home Loan Mortgage Corporation (Freddie Mac), and Federal National Mortgage Association (Fannie Mae), as well as investments in U.S. Treasuries, Municipal Bonds, Certificates of Deposits, Corporate Notes, Commercial Paper, Local Government Investment Pools and Money Market Mutual Funds.

As of June 30, 2023, the All-Requirements Project investment portfolio had a rolling 12-month weighted average yield of 2.97%, reflecting the All-Requirements Project need for liquidity. The benchmarks (SBA’s Florida Prime Fund and the 2-year US Treasury Note) and the Project’s rolling 12-month weighted average yields are graphed below:



Below is a graph of the rolling 12-month average US Treasury yields for the past year. The orange line is the 2-year Treasury which had a rolling 12-month average yield on June 30, 2023 of 4.19%. The yellow line is the 5-year Treasury rolling 12-month average yield which was 3.74%.



The Investment Report for June is posted in the “Member Portal” section of FMMPA’s website.

Recommended Motion

Move for approval of the Treasury Reports for June 30, 2023

**AGENDA ITEM 7 – CONSENT
AGENDA**

- c. Approval of the Agency and All-Requirements Project Financials as of June 30, 2023**

**Executive Committee
August 17, 2023**



Rich Popp
Chief Financial Officer

MEMORANDUM

TO: FMPA Executive Committee
FROM: Rich Popp
DATE: August 8, 2023
SUBJECT: EC 7c – Approval of the Agency and All-Requirements Project Financials for the period ended June 30, 2023

Discussion: The summary and detailed financial statements, which include GASB #62 transactions, of the Agency and All- Requirements Project for the period ended June 30, 2023 are posted on the Document Portal section of FMPA’s website.

Recommended Motion: Move approval of the Agency and All-Requirements Project Financial reports for the month of June 30, 2023.

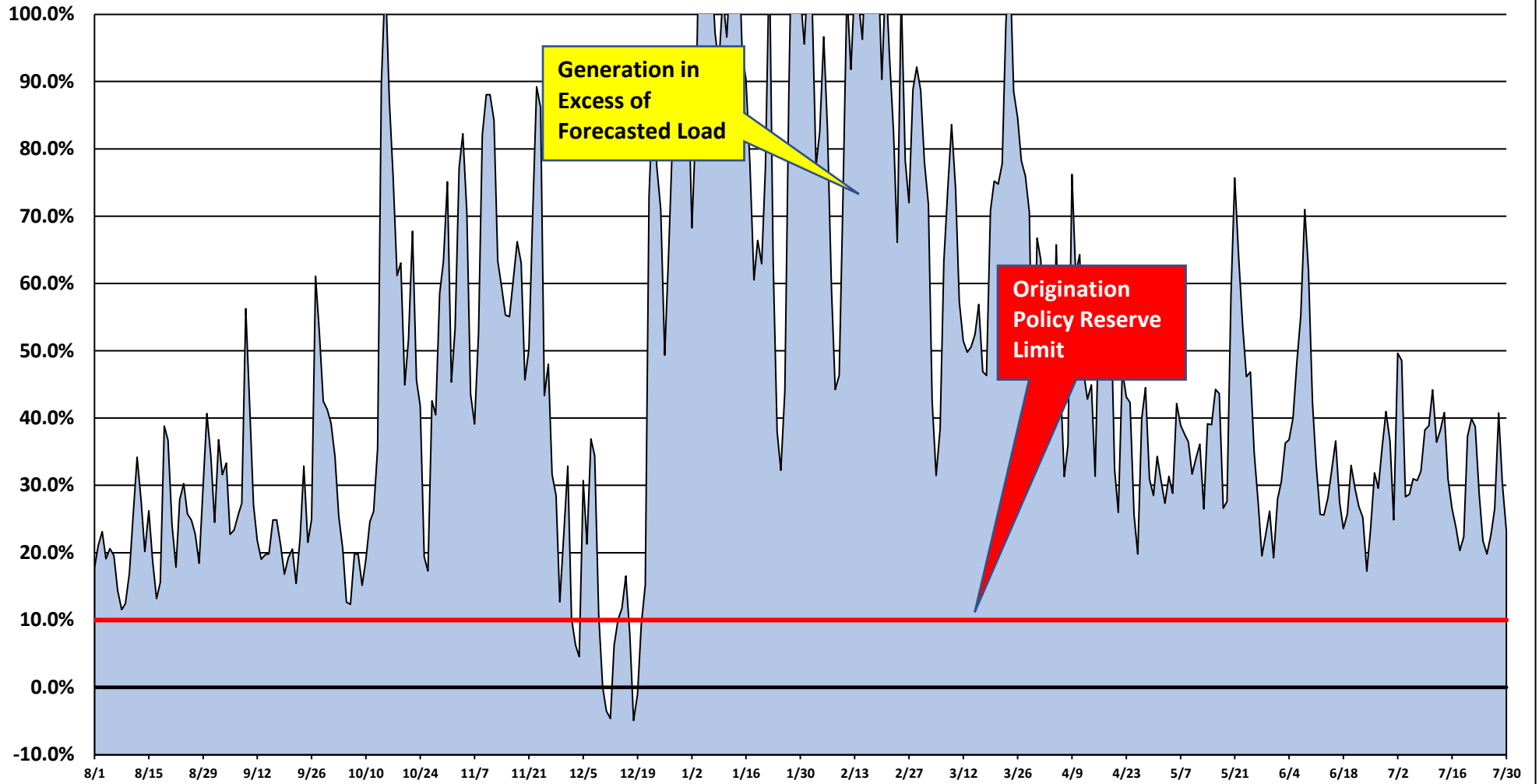
RP/GF

**AGENDA ITEM 7 – CONSENT
AGENDA**

**d. ARP 12-month Capacity Reserve
Margin Report**

**Executive Committee
August 17, 2023**

ARP Daily Reserve Margins August 2023 through July 2024



AGENDA ITEM 8 – ACTION ITEMS

a. None

**Executive Committee
August 17, 2023**

**AGENDA ITEM 9 – INFORMATION
ITEMS**

a. IRP Phase 2 Update

**Executive Committee
August 17, 2023**



9a - IRP Phase 2 Update

Executive Committee

August 17, 2023

Phase 2 Focused on Technology Characterization

Characterize Viable Resource Alternatives (Cost, Performance)

Phase 1 (Complete)

- Load and Resource Balance to 2050
- Preliminary Resource Competitiveness Evaluation
- Listing/Framing Future Options

Phase 2 (Complete)

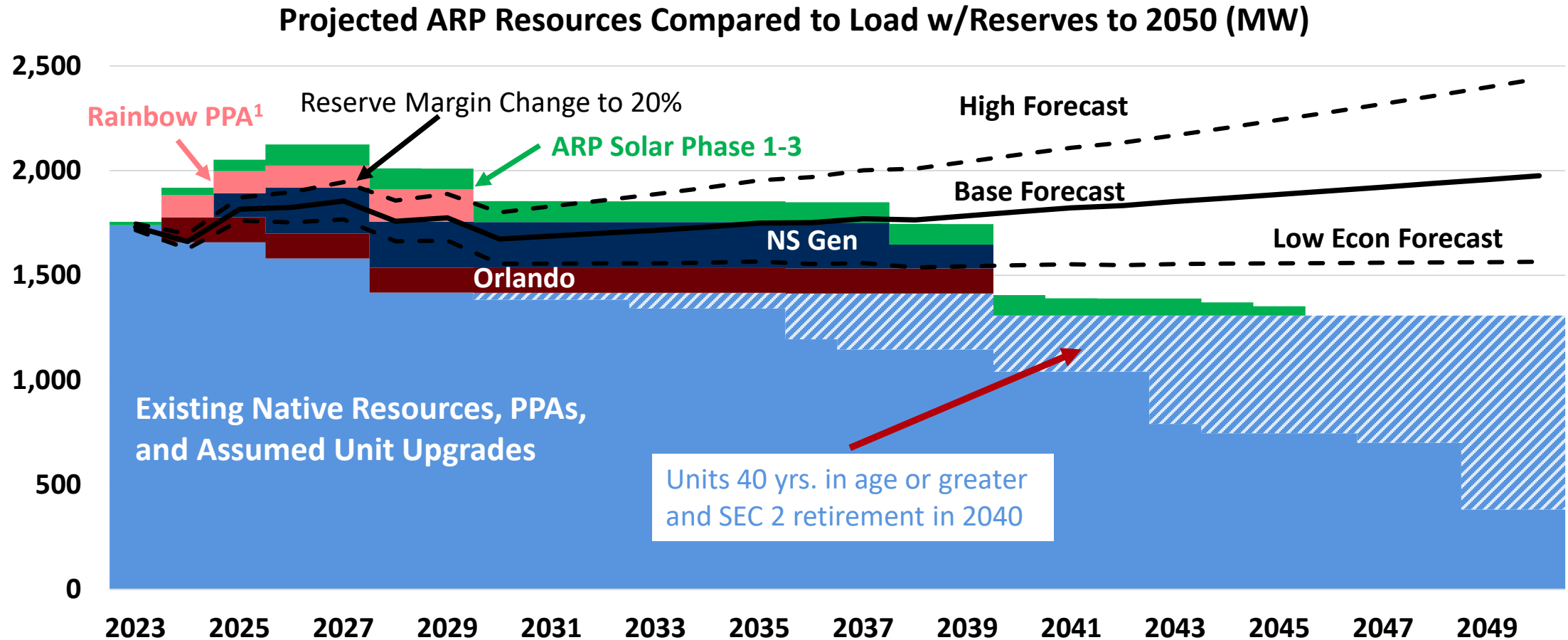
- Technology Characterization (cost and performance assumptions)
- Refine 20 Year Existing Resource Competitiveness vs. Options & Mkt

Phase 3 (Simulation Support)

- Scenario Modeling – Base Case
- Scenario Modeling – Emission Constrained Case
- NPV Cost by Scenario and Results

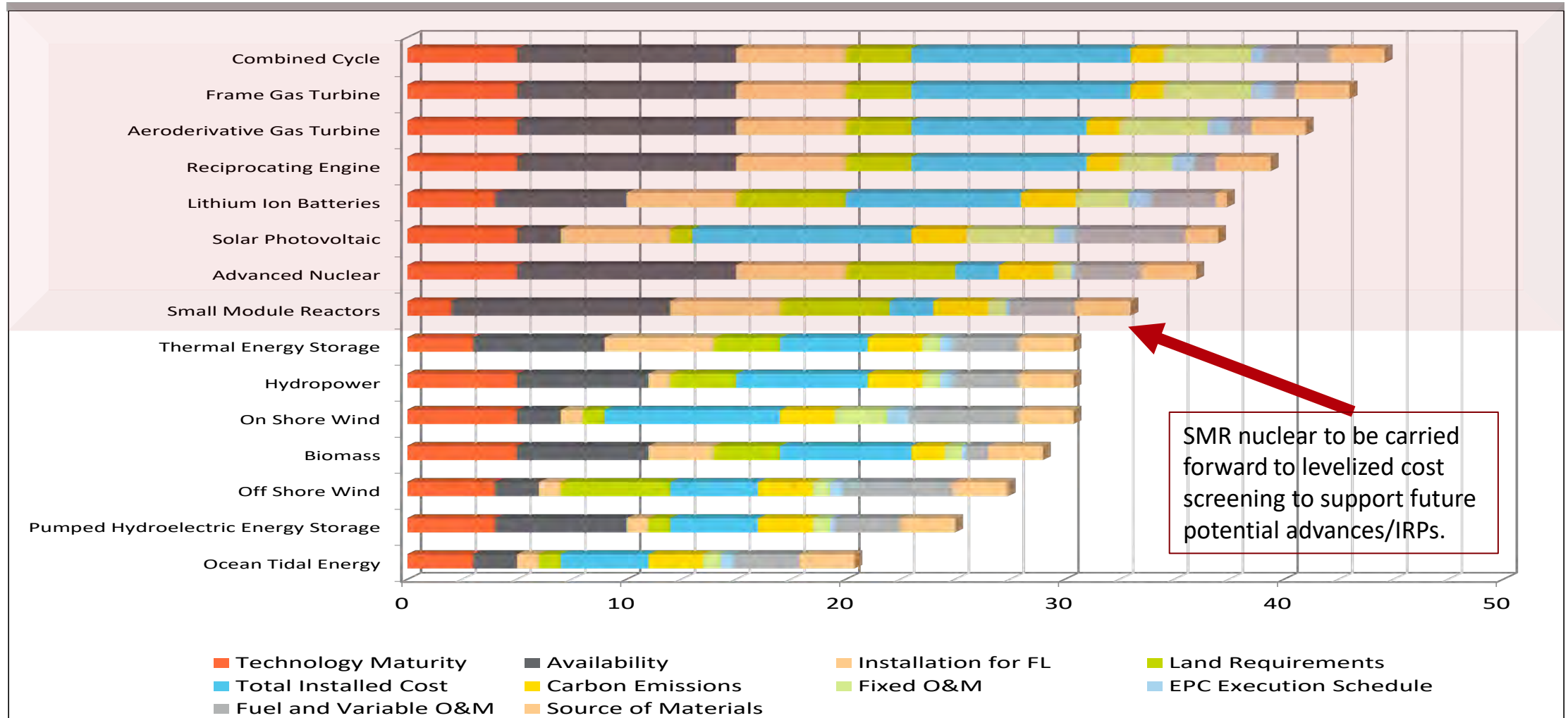
Updated Phase 1 Position With New Resource Adds

Asset Replacement Decisions Not Expected for 10 Years



Phase 2 Screening Results Drive Next Stage Analyses

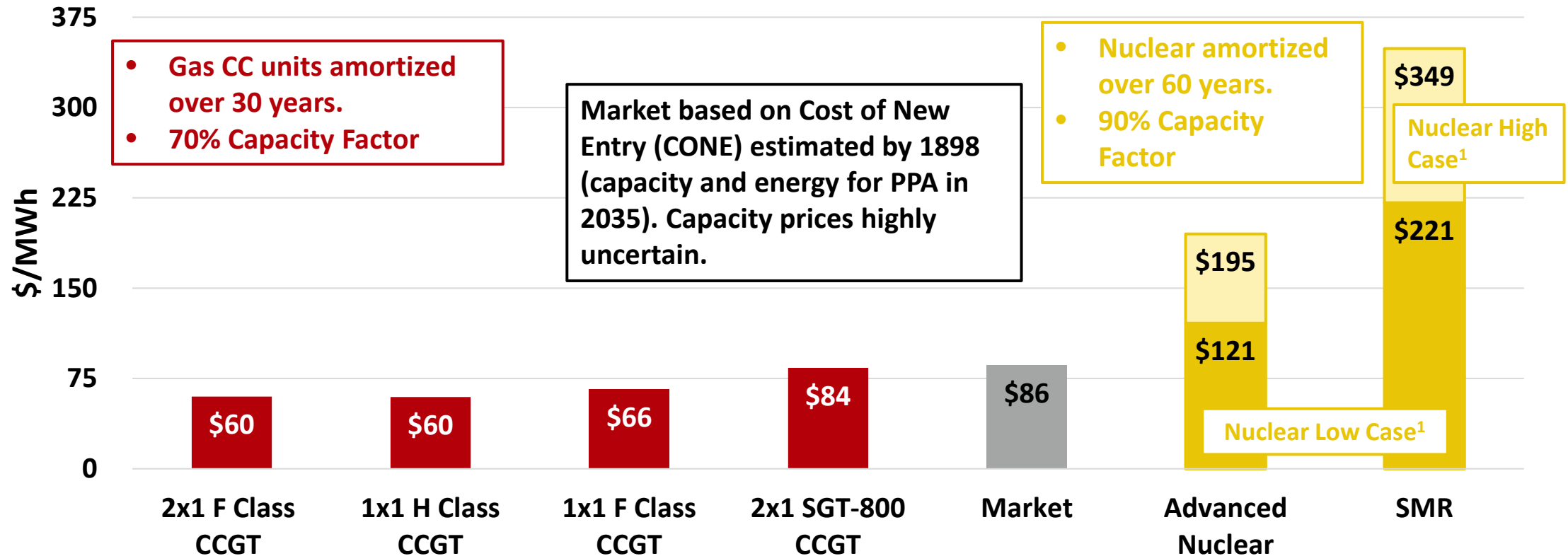
Gas, Solar, Nuclear, and Storage Scores Sufficient to Model*



Phase 2 Model Shows Gas Least Cost Unconstrained

Nuclear Costs Could Improve As Market Emphasis Expands

Baseload Options 2035 Levelized Cost At Expected Capacity Factor (\$/MWh)

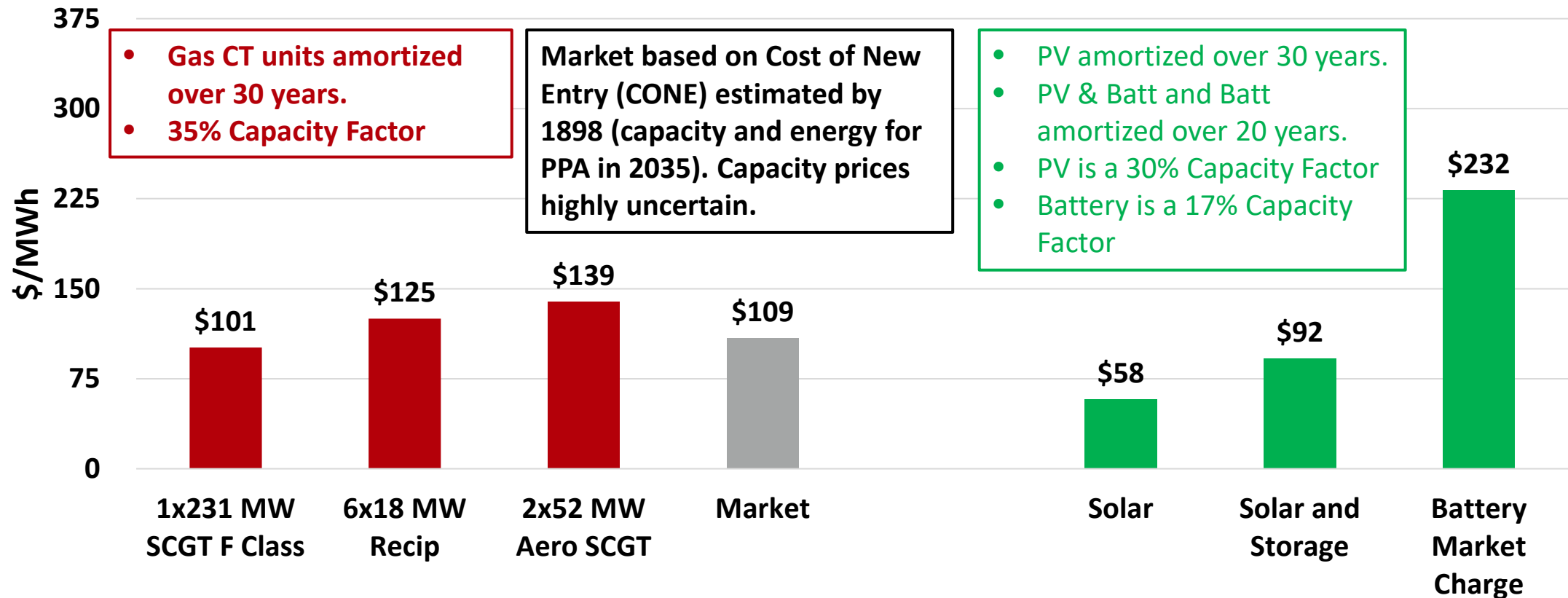


1 –Nuclear High Case based on projections that include delays and cost increases seen in recent projects. Nuclear Low Case assumes adoption of regulatory and construction efficiency gains as public support for nuclear increases.

Larger Scale Gas Peakers Lower Cost, BESS 4 Hr. Limit

Solar Energy Only Is Lower Cost but Not Dispatchable

Peaking and Duration-Limited Options 2035 Average Levelized Cost (\$/MWh)



- Gas CT units amortized over 30 years.
- 35% Capacity Factor

Market based on Cost of New Entry (CONE) estimated by 1898 (capacity and energy for PPA in 2035). Capacity prices highly uncertain.

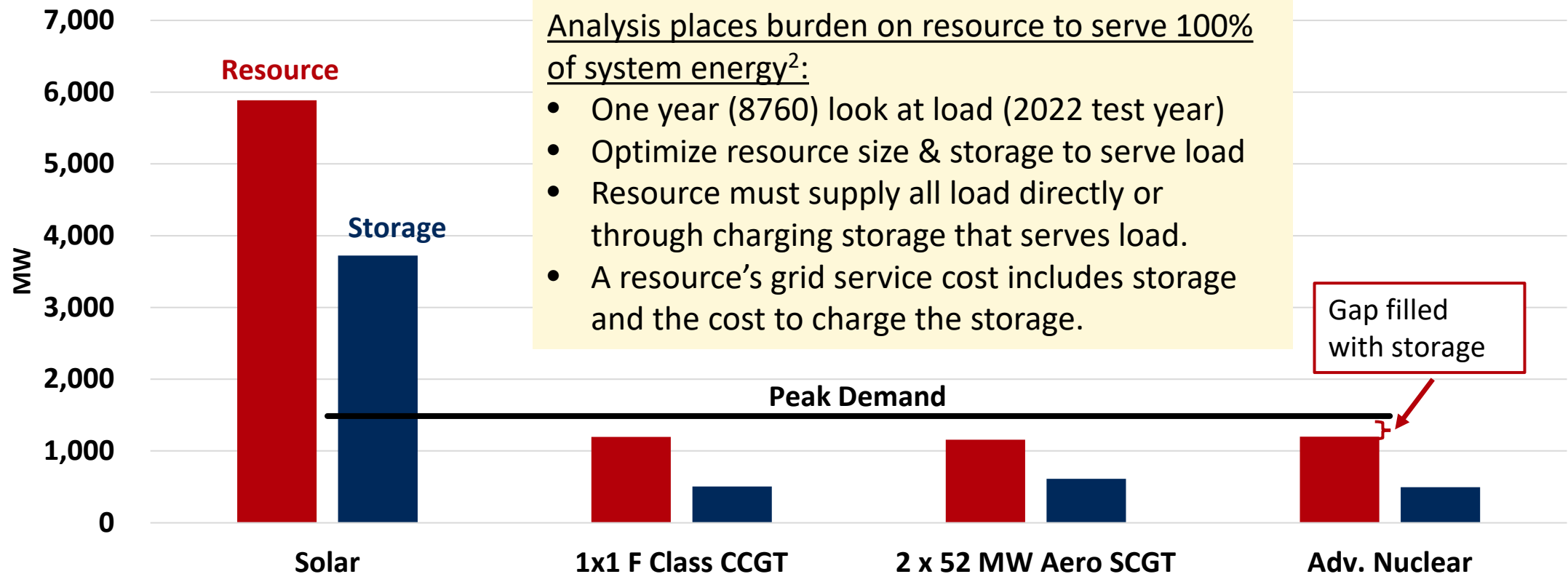
- PV amortized over 30 years.
- PV & Batt and Batt amortized over 20 years.
- PV is a 30% Capacity Factor
- Battery is a 17% Capacity Factor

Includes 30% ITC from IRA

Intermittent PV Serving All Load Drives Vast Overbuild

More Storage Required to Manage Weather-Driven Energy

Resource and Storage Capacity Required to Serve Entire System¹ (MW)

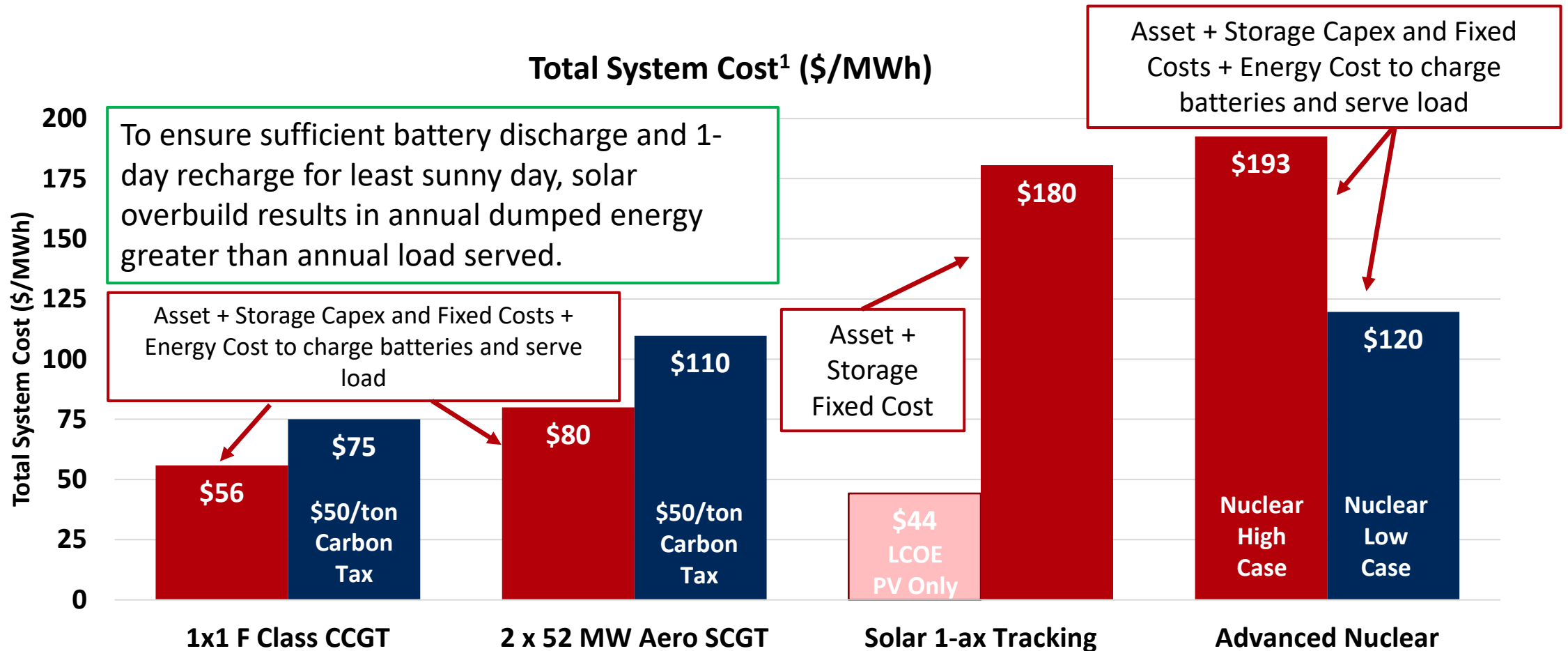


1 – Based on a study from Elsevier, “Levelized Full System Costs of Electricity” by Robert Idel, July 2022.

2 – In CC and Nuclear case, batteries are charged when load falls below unit minimum. Nuclear minimum assumed at 50% capacity (600 MW) and CC assumed at 50% of 3 of the 4 299 MW units (~150 MW x 3 for 449 MW).

Adding Grid Support Cost to Baseload PV Very Costly

PV and Nuclear More Competitive If Carbon Tax on Gas



1. Based on 2023 dollars and recent period FMPA ARP load shape. Costs for traditional resources lower per MWh versus 2035 build given inflation and higher energy volume served.

Phase 3 Efforts Initiated In Parallel with Phase 2

Leveraging Efficiencies with Existing TEA PLEXOS Model

- Staff working with TEA to update existing PLEXOS model with all Phase 1 load and resource characteristics
- Phase 2 filtered resource inputs (cost, performance, amortization period) and market PPA option parameters will be fed into PLEXOS platform as “menu” of resource options
- Resource competitiveness evaluations will drive replacement timeframes that allow PLEXOS to select least cost (lowest NPV) additions
 - 2035 and beyond key period for new resource options as assets age beyond 40 yrs.
- Base Case is unconstrained, with alternative scenarios to be based on range of constraints (e.g. emissions, fuel prices, alternative timelines)



Appendix – Additional Modeling Assumptions and Phase 2 Sensitivity Cases

Summary of 1898 Phase 2 Resource Assumptions

Independent Engineering Evaluation of all Phase 2 Options

Resource	Un-adjusted Capex (\$/kW) ²	Summer Capacity (MW) ⁴	Winter Capacity (MW)	Summer Heat Rate (MMBtu/MWh)
2x 52 Aero	1,921	89.2	107.9 ³	9.910
1x231 SCGT F Class	993	219.1	232.0	10.250
6x18 Recip	1,829	106.1	106.1	8.498
CC 2x1 SGT-80 ¹	1,800	200.7	214.0	6.943
CC 1x1 F Class ¹	1,320	394.8	409.8	6.393
CC 2x1 F Class ¹	1,010	806.4	833.7	6.423
CC 1x1 H Class ¹	1,010	593.0	612.3	6.284
SMR	26,248	73.7	73.7	11.580
Adv. Nuclear	15,047	1,110	1,110	10.442
Solar (1-ax track)	1,982	75	N/A	N/A
Solar and Storage ⁵	2,507	75	N/A	N/A
Storage Standalone	2,200	25	25	N/A

1 – Duct-fired capacity included in capex cost.

2 – 2023 Prices. Inflated to available year in model.

3 – Capacity values being double checked by 1898.

4 – Used for capex calculations.

5 – 75 MW of PV, 25 MW of storage. Cost on a \$/kW basis is based on 75 MW.

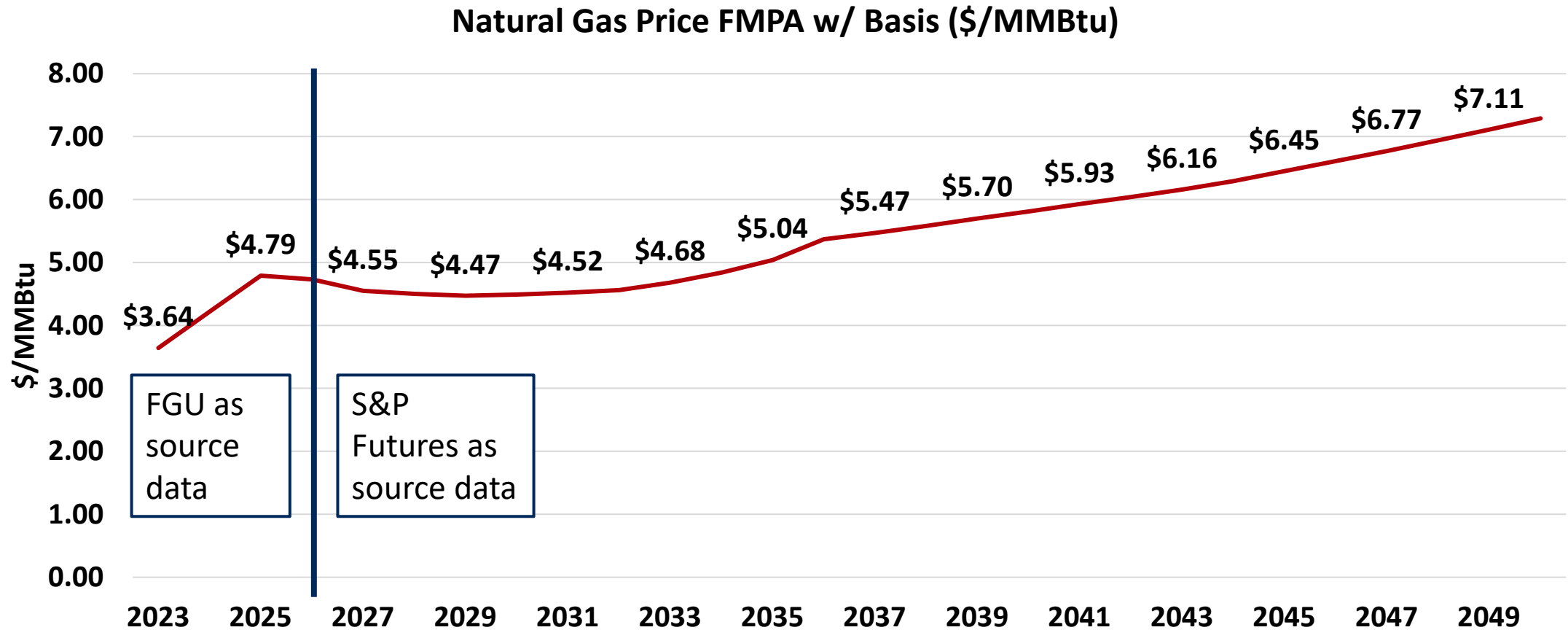
Resource Assumptions Matrix

Key Financial and Risk Parameters for Base Case Evaluation

Resource	Amortization Length (years)	Debt Rate (%)	IRA Credit (%)	Risk Premium (%)	Inflation (Capex & O&M) (%)
2x 52 Aero	30	5.5%	0%	0%	2.5%
1x231 SCGT F Class	30	5.5%	0%	0%	2.5%
6x18 Recip	30	5.5%	0%	0%	2.5%
CC 2x1 SGT-80	30	5.5%	0%	0%	2.5%
CC 1x1 F Class	30	5.5%	0%	0%	2.5%
CC 2x1 F Class	30	5.5%	0%	0%	2.5%
CC 1x1 H Class	30	5.5%	0%	0%	2.5%
SMR	60	5.5%	0%	0%	2.5%
Adv. Nuclear	60	5.5%	0%	0%	2.5%
Solar	30	5.5%	30%	0%	2.5%
Solar and Storage	20	5.0%	30%	0%	2.5%
Storage Standalone	20	5.0%	30%	0%	2.5%

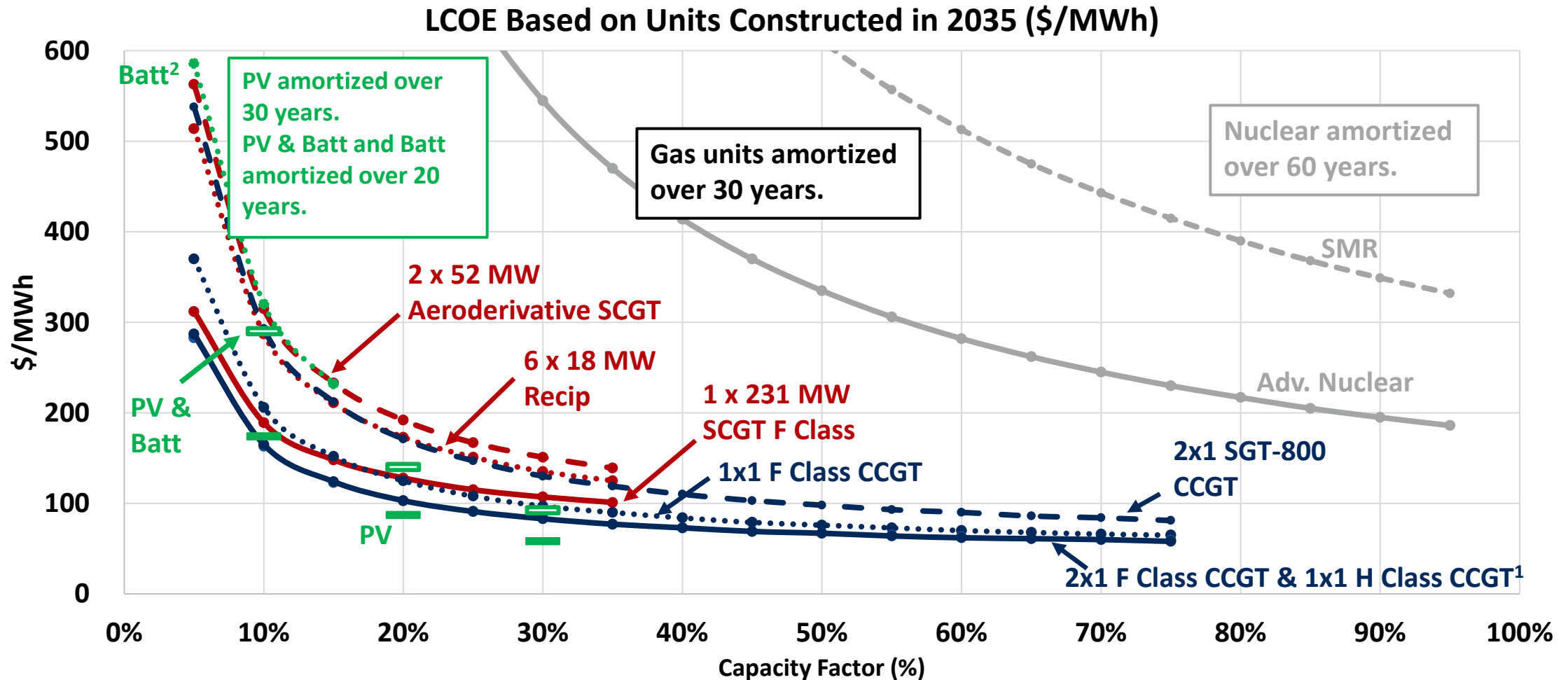
Projected Gas Price Used in LCOE Model

FGU 3-Year Look and S&P Futures for FTG Z3 in Later Years



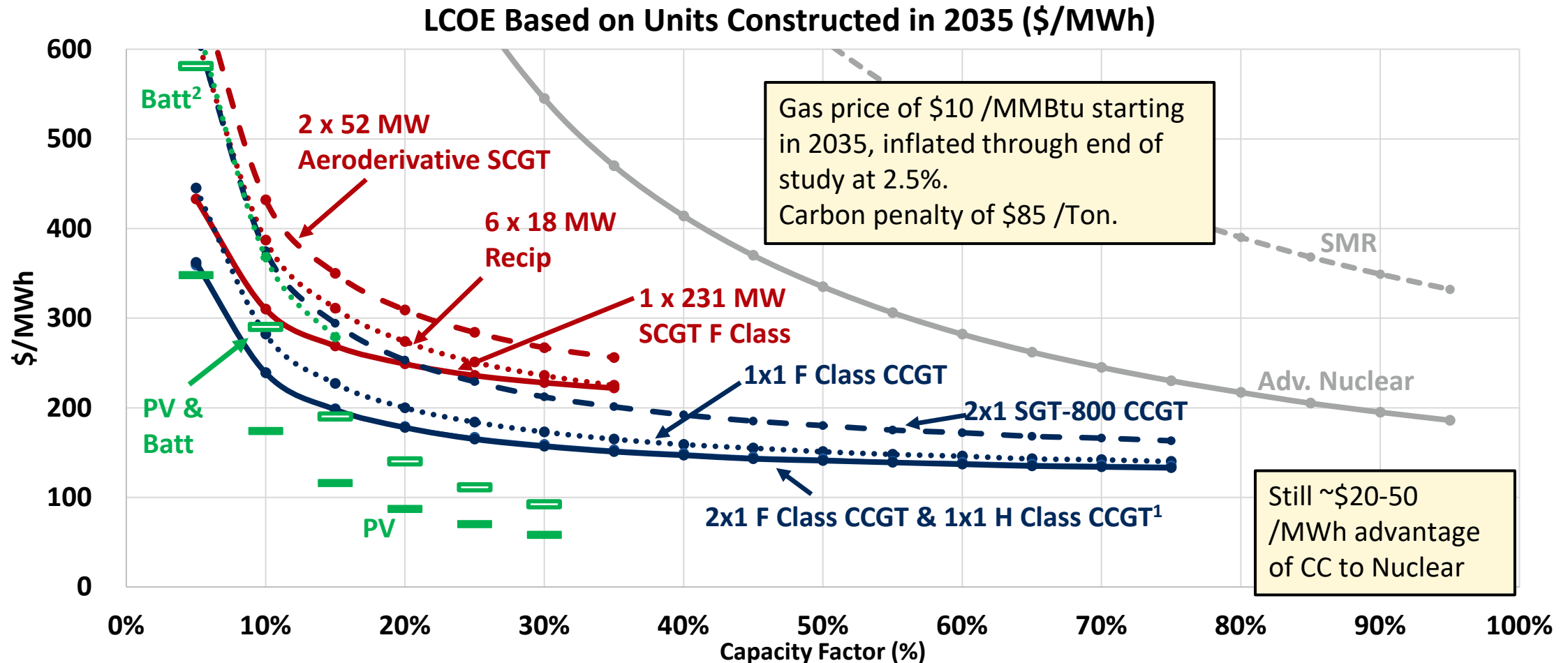
Levelized Cost of Energy (LCOE) - Energized In 2035

Gas Resources Least Cost in Unconstrained Environment



LCOE Sensitivity – High Gas and CO₂ Penalty Case

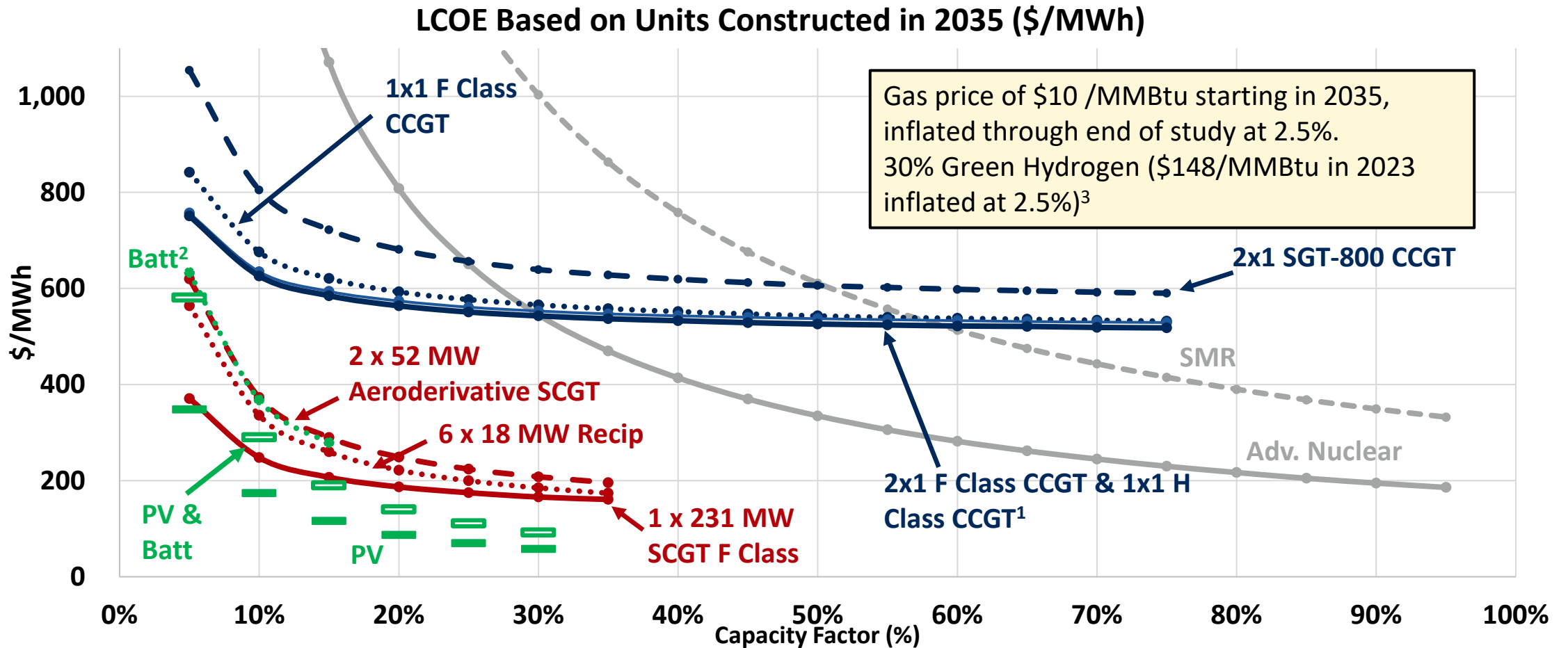
Gas Resources Not as Competitive w/ High Gas & Penalties



1 – There is a line for each generator; difference in costs are undistinguishable from each other on this graph.
 2 – Battery max capacity factor is 17%, (25 MW x 4 hours)/(25 MW x 24 hours), charged by grid (est. market energy).

LCOE Sensitivity – High Gas and Green H2 Case

Gas CCs Not Competitive with Estimated Green H2 Costs



1 – There is a line for each generator; difference in costs are undistinguishable from each other on this graph.

2 – Battery max capacity factor is 17%, (25 MW x 4 hours)/(25 MW x 24 hours), charged by grid (est. market energy).

3 – Green Hydrogen costs all-in (includes production, storage, infrastructure improvements) est. by 1898.

**AGENDA ITEM 9 – INFORMATION
ITEMS**

b. Natural Gas Capacity Update

**Executive Committee
August 17, 2023**



9b – Natural Gas Capacity Update

Executive
Committee
August 17, 2023

Opportunity to Bid on ORL East Leg Gas Capacity

Unique Bid Structure Too Met Project's Needs

- Summary of Bid:

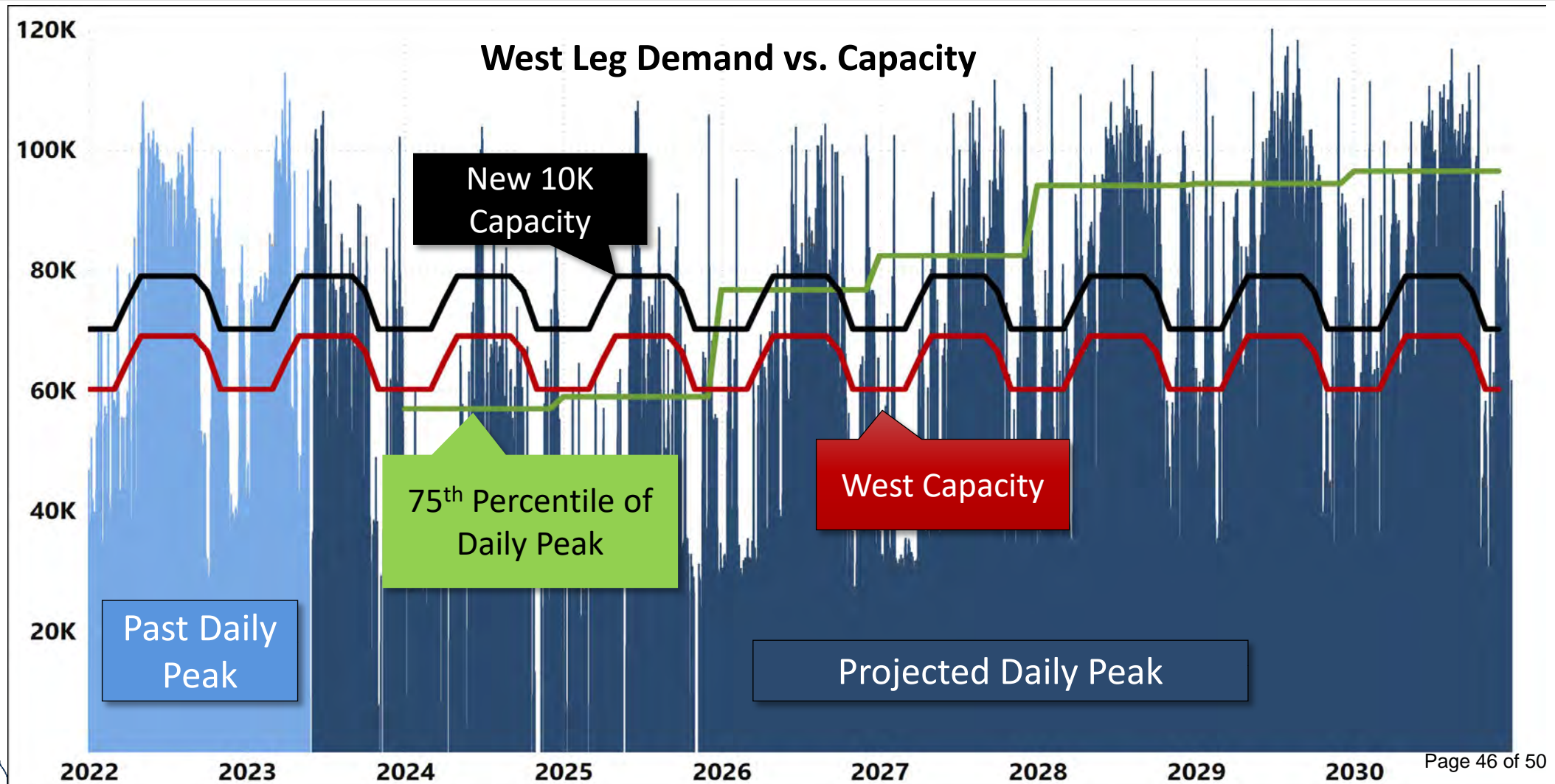
- FGT capacity for 20,000 MMBtu per day allocated equally on “East” and “West” Legs at the Tariff rate for 15 years.
 - Expected to remarket East portion to market
 - Retain West portion for ARP needs

- Bid Results:

- The Northern Star “Right of First Refusal” winning bid, was not FMMPA’s
- Winning bid was greater than the ARP membership term
- Northern Star rejected matching the winning bid

West Leg Demand Regularly Exceeds ARP Capacity

Historical Actuals Required More "West" Capacity



Mulberry Approval Considered Gas Capacity

Key Advantage of the Transaction Included Gas Capacity

- Mulberry Gas Capacity @ FTS-2 rate. Lowest Tariff rate.
 - Additional Capacity available at FTS-3 rate 73% higher cost than FTS-2
 - 9,980 MMBtu daily capacity
 - Mulberry Renewal is for 10 years
 - Eliminates the risk of gas delivery to Mulberry
 - Needed West Capacity can be delivered to Cane Island

Mulberry's West Capacity Renewal Notice Due Now

ROFR For 9,980MMBtu p/d

ROFR Process	Date Complete
Northern Star Notified FMPA of FGT ROFR Notice	Sept. 27
Northern Star Notified FMPA of winning ORL bid	Aug. 2
FMPA/FGU/Northern Star & Counsel agree in principal	Aug. 4
Northern Star Communicates with FGT to Renew	Aug. 7
Final execution of future assignment between ARP/NS	By Aug. 31

**AGENDA ITEM 10 – MEMBER
COMMENTS**

**Executive Committee
August 17, 2023**

AGENDA ITEM 11 – ADJOURNMENT

**Executive Committee
August 17, 2023**