Indiana Michigan Power Company

INDIANA IRP
STAKEHOLDER MEETING #3B

January 27, 2025

INDIANA MICHIGAN POWER℠

An AEP Company

Welcome & Introductions

I&M Leadership Team

David Lucas | Vice President, Regulatory and Finance
Andrew Williamson | Director, Regulatory Services
Ed Locigno | Regulatory Analysis & Case Manager
Regiana Sistevaris | Manager, Regulatory Services
Austin DeNeff | Regulatory Consultant Senior

1898 & Co.

Brian Despard | Senior Project Manager

I&M Resource Planning

Josh Burkholder | Managing Director, Resource Planning
Kayla Zellers | Director, Resource Planning
Mohamed Abukaram | Director, Resource Planning
Mark Sklar-Chik | Staff Analyst, Resource Planning

I&M Infrastructure Development

Tim Gaul | Director, Regulated Infrastructure Development
Justin Dehan | Manager, Regulated Infrastructure Development

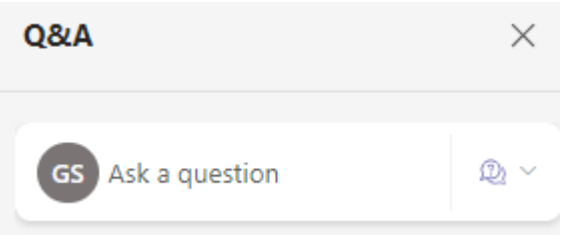
Agenda

Time (EST)	Agenda Topic	Lead
1:00-1:10	**Welcome & Introductions**	**Andrew Williamson Josh Burkholder Brian Despard**
1:10-1:20	**Review of Stakeholder Meeting 3A**	**Kayla Zellers**
1:20-2:00	**Expansion Plan Modeling Results** • Scenario: Base Reference Review • Sensitivities: Expanded Wind Availability (Base and EER), Base with High IN Load, Base with Low IN Load, High Tech Cost	**Mohamed Abukaram**
2:00-2:10	**Short Break**	
2:10-2:40	**Expansion Plan Modeling Results** • Sensitivities: Rockport Unit 1 Retires 2025, Rockport Unit 1 Retires 2026, Exit OVEC ICPA in 2030	**Mohamed Abukaram**
2:40-3:00	**Results Comparison and Draft Portfolio Performance Indicators**	**Kayla Zellers**
3:00-3:10	**Remaining Modeling and Next Steps**	**Kayla Zellers**
3:10-3:30	**Open Discussion** • Feedback From Stakeholders	**Andrew Williamson Josh Burkholder**

Participation

- Participants joining today's meeting will be in a "listen-only" mode. Please use the "Raise" function to be recognized and unmuted.
- During the presentation, please enter questions at any time into the Teams Q&A feature. Questions will be addressed after each section. At the end of the presentation, we will open up the floor for additional questions, thoughts, ideas, and suggestions.
- All questions and answers will be logged and provided on the IRP website. Any questions not answered during the meeting will be answered after the meeting and provided in the Q&A log posted to the IRP website.
- Questions, thoughts, ideas, and suggestion related to Stakeholder Meeting 3B can be provided to I&MIRP@aep.com following this meeting.

Click the Q&A feature at the top of the Teams screen



Guidelines

- Please focus questions, thoughts, ideas, and suggestions to the IRP process and the content being discussed in this meeting. Time will be taken during this meeting to respond to questions.
- Please respect other participants and their views by not addressing other participants directly and not commenting on the views expressed by others.
- This meeting will not be recorded or transcribed.
- Any further questions or comments can be provided to I&MIRP@aep.com.

Public Stakeholder Meetings 3A & 3B

Modeling Results to be Presented at Stakeholder Meetings 3A and 3B

- I&M is modeling 4 market scenarios & 11 market sensitivities and will present modeling results in stakeholder meetings (i.e., 3A and 3B)

Scenario	Stakeholder Meeting 3A or 3B
Base Reference	3A
High Economic Growth	3A
Low Economic Growth	3A
Enhanced Environmental Regulations (EER)	3A

Sensitivities	Stakeholder Meeting 3A or 3B
Base under EPA Section 111(b)(d) Requirements	3A
Low Carbon: Transition to Objective	3A
Low Carbon: Expanded Build Limits	3A
Base with High IN Load	3B
Base with Low IN Load	3B
Rockport Unit 1 Retires 2025	3B
Rockport Unit 1 Retires 2026	3B
Exit OVEC ICPA in 2030	3B
High Technology Cost	3B
Expanded Wind Availability (Base)	3B
Expanded Wind Availability (EER)	3B

Base Reference Case Portfolio Review

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	325
2026	0	0	0	0	0	0	0	0	28	1,500
2027	0	0	0	0	0	0	0	0	59	1,875
2028	200	599	450	0	1,800	0	1,000	0	94	0
2029	200	596	450	0	2,700	0	1,000	0	100	0
2030	200	593	450	0	3,600	0	1,500	0	97	0
2031	200	590	450	0	3,600	0	2,000	0	96	0
2032	200	587	450	0	3,600	0	2,000	0	115	0
2033	200	584	450	0	3,600	0	2,000	0	131	0
2034	200	581	450	1,030	3,600	0	2,000	0	144	0
2035	200	578	450	1,030	3,600	0	2,000	888	156	0
2036	200	575	450	2,060	3,600	0	2,000	888	169	0
2037	200	572	450	2,060	3,600	0	2,000	888	177	0
2038	200	569	450	2,060	3,600	0	2,000	1,880	185	0
2039	200	566	450	2,060	3,600	0	2,000	1,880	193	0
2040	200	563	450	2,060	3,600	0	2,000	1,880	201	0
2041	200	560	450	2,060	3,600	0	2,000	1,880	206	0
2042	200	557	450	2,060	3,600	0	2,000	1,880	211	0
2043	0	554	450	2,060	3,600	0	2,000	1,880	213	0
2044	0	551	450	2,060	3,600	0	2,000	1,880	220	0

Purpose of Scenario:

- Evaluating the most economical solution to meet capacity and energy needs considering all base modeling parameters and assumptions
- Establishes the point of reference for other scenarios and sensitivities

*Nuclear includes Cook SLR

Expanded Wind Availability Portfolios

Resource Type	First Year Available	Last Year Available	Annual Build Limit (MW)	Cumulative Build Limit through 2030 (MW)	Total Cumulative Build Limit Through Planning Horizon (MW)
WIND (15 YEAR)	2028	N/A	~~200~~ 1,200	~~400~~ 1,200	4,000
WIND (30 YEAR)	2031	N/A	400	N/A	

- The Expanded Wind Availability Portfolios were modeled to reflect updated market intelligence on available wind resources through 2030

- These expanded build limits were modeled under the Base Reference assumptions and the Enhanced Environmental Regulations (EER) assumptions. EPA compliant gas unit capacity factor constraints were applied in the Expanded Wind Availability (EER) sensitivity

EPA Compliant Gas Unit Capacity Factors			
Resource Type	**Capacity Factor Limit**	**Starting Year Enforced**	**EPA Section 111 Rule (b)(d)**
Existing CC	50%	2030	Proposed
Existing CT	50%	2030	Proposed
New CC	40%	Immediate	Final
New CT	20%	Immediate	Final

Expanded Wind Availability (Base) Portfolio

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	325
2026	0	0	0	0	0	0	0	0	27	1,500
2027	0	0	0	0	0	0	0	0	58	1,875
2028	1,200	150	0	0	1,800	0	1,000	0	92	0
2029	1,200	149	0	0	2,700	0	1,000	0	110	0
2030	1,200	148	0	0	3,600	0	1,500	0	120	0
2031	1,200	147	0	0	3,600	0	2,000	0	129	0
2032	1,200	147	0	0	3,600	0	2,000	0	146	0
2033	1,200	146	0	0	3,600	0	2,000	0	158	0
2034	1,200	145	0	1,030	3,600	0	2,000	0	168	0
2035	1,200	144	0	1,030	3,600	0	2,000	888	180	0
2036	1,200	144	0	2,060	3,600	0	2,000	888	191	0
2037	1,200	143	0	2,060	3,600	0	2,000	888	199	0
2038	1,200	142	0	2,060	3,600	0	2,000	1,880	206	0
2039	1,200	141	0	2,060	3,600	0	2,000	1,880	212	0
2040	1,200	141	0	2,060	3,600	0	2,000	1,880	217	0
2041	1,200	140	0	2,060	3,600	0	2,000	1,880	221	0
2042	1,200	139	0	2,060	3,600	230	2,000	1,880	225	0
2043	0	0	0	2,060	3,600	230	2,000	1,880	227	0
2044	0	0	0	2,060	3,600	230	2,000	1,880	229	0

Purpose of Scenario:

- Evaluating the most economical solution to meet capacity and energy needs considering all base modeling parameters and additional wind availability through 2030

Observations through 2030:

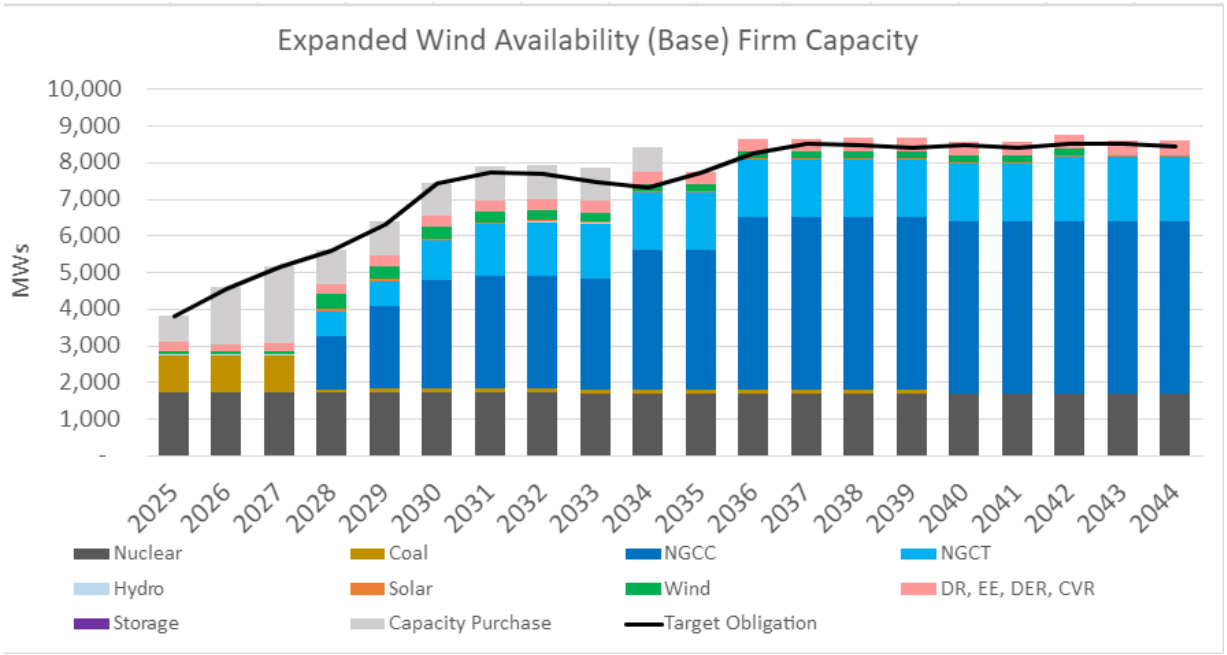
- Additional wind selected by the model reduces solar and storage resources compared to the reference scenario
- Selected all available existing CC's by 2030 and existing CT's were selected to meet capacity obligation similar to the reference scenario

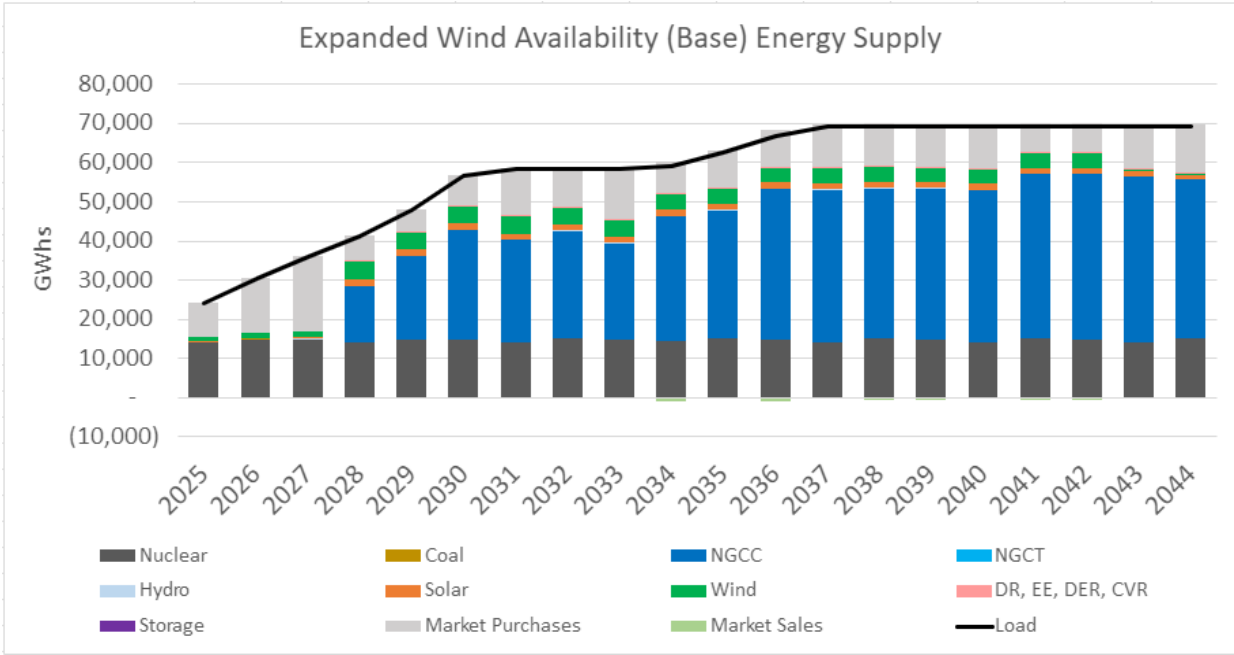
Observations for 2031+:

- New CC built in 2034 and 2036 to meet the load growth in the same period and the expiration of existing capacity purchase agreements similar to the reference scenario
- New CT built in 2042 compared to the reference scenario to meet capacity obligation
- Cook SLR selected in 2035 and 2038

*Nuclear includes Cook SLR

Expanded Wind Availability (Base) Portfolio





Observations:

- Additional wind selected compared to the reference scenario providing additional capacity and energy in the portfolio
- Nuclear resources provide consistent Carbon-free capacity and energy
- Natural gas resources are generally the most economic options to meet the growing capacity obligations and needed energy supply
- Capacity additions in 2033 and 2034 built in preparation of load increases that occur from 2034-2037

*Nuclear includes Cook SLR

Expanded Wind Availability (EER) Portfolio

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	325
2026	0	0	0	0	0	0	0	0	27	1,500
2027	0	0	0	0	0	0	0	0	57	1,875
2028	1,000	599	50	0	1,800	0	1,000	0	90	0
2029	1,000	596	50	0	2,700	0	1,000	0	113	0
2030	1,000	593	50	0	3,600	0	1,500	0	129	0
2031	1,400	590	50	0	5,400	0	1,500	0	143	0
2032	1,800	587	50	0	5,400	0	1,500	0	166	0
2033	2,200	1,182	50	0	5,400	0	1,500	0	182	0
2034	2,600	1,775	50	0	5,400	0	1,500	0	196	0
2035	2,800	2,364	50	0	5,400	0	1,500	888	212	0
2036	3,200	2,951	50	0	5,400	0	1,500	888	228	0
2037	3,600	3,534	50	0	5,400	0	1,500	888	240	0
2038	4,000	3,815	50	0	5,400	0	1,500	1,880	251	0
2039	4,000	3,796	50	0	5,400	0	1,500	1,880	260	0
2040	4,000	3,776	50	0	5,400	0	1,500	1,880	269	0
2041	4,000	3,757	50	0	5,400	0	1,500	1,880	276	0
2042	4,000	3,737	50	0	5,400	0	1,500	1,880	281	0
2043	3,000	4,167	50	0	5,400	230	1,500	1,880	286	0
2044	3,000	4,145	50	0	5,400	230	1,500	1,880	290	0

Purpose of Scenario:

- Evaluating the most economical solution to meet capacity and energy needs considering implementation of EPA Section 111(b)(d) greenhouse gas rules and associated market commodity price impacts with the expansion of wind availability through 2030

Observations through 2030:

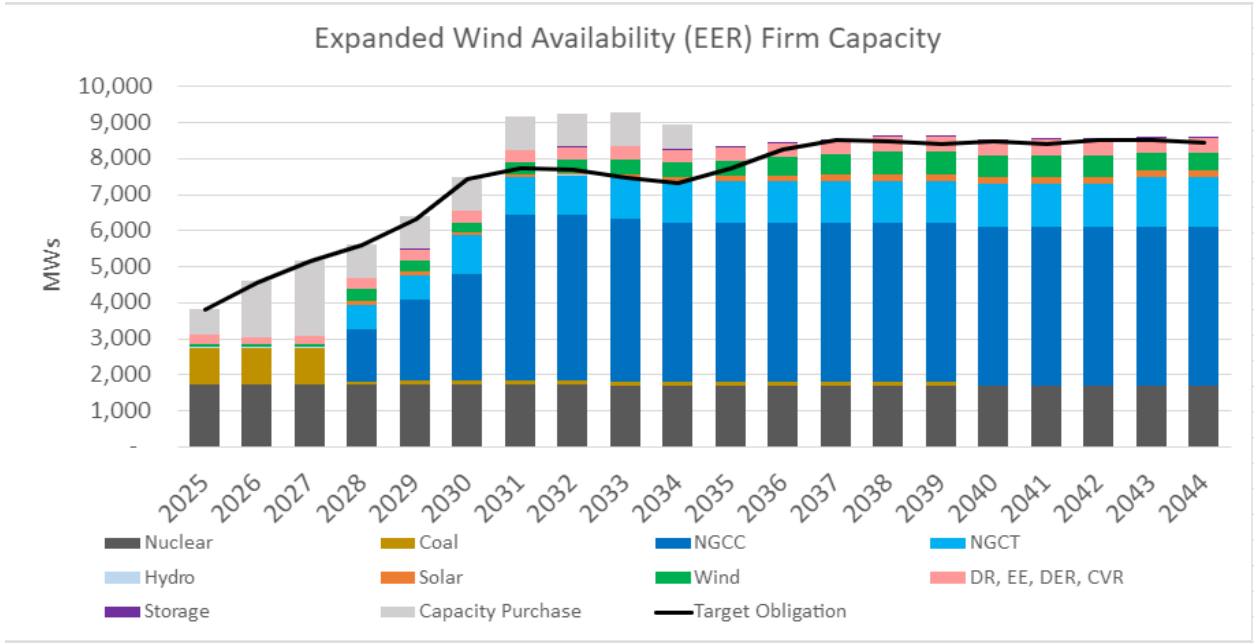
- Additional wind selected by the model reduces solar and storage resources compared to the EER scenario
- Selected all available existing CC's by 2030 and existing CT's were selected to meet capacity obligation

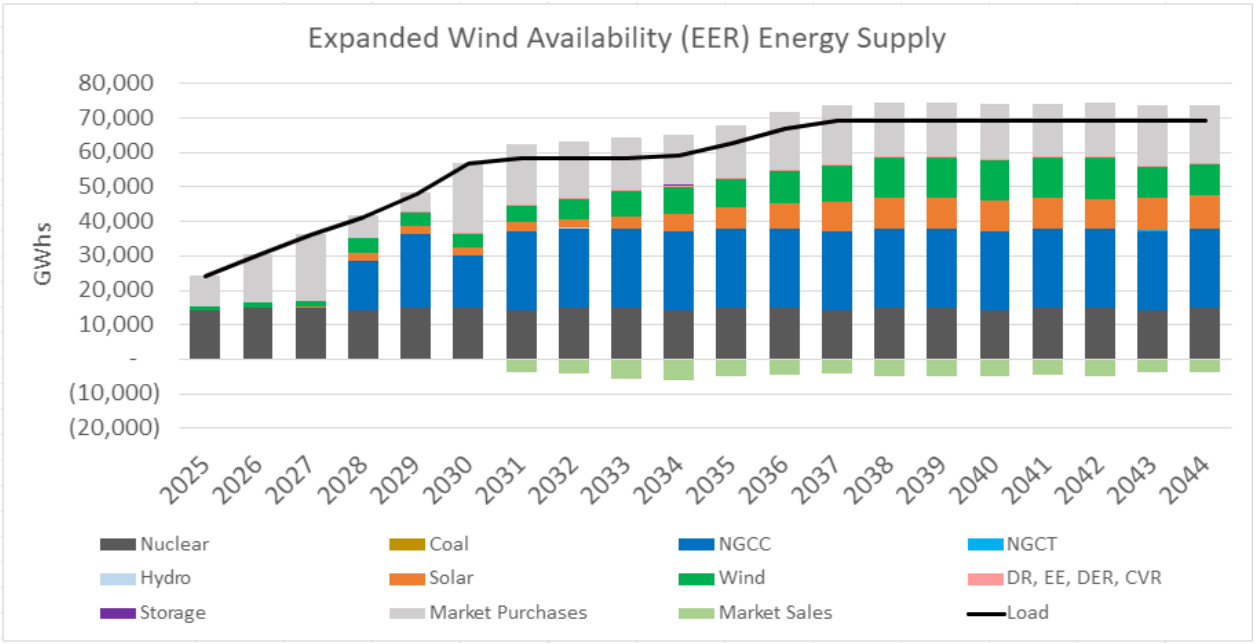
Observations for 2031+:

- Similar to the EER scenario, substantial wind, solar, and existing CC's selected to meet the load growth and the expiration of existing capacity purchase agreements
- Cook SLR selected in 2035 and 2038

*Nuclear includes Cook SLR

Expanded Wind Availability (EER) Portfolio



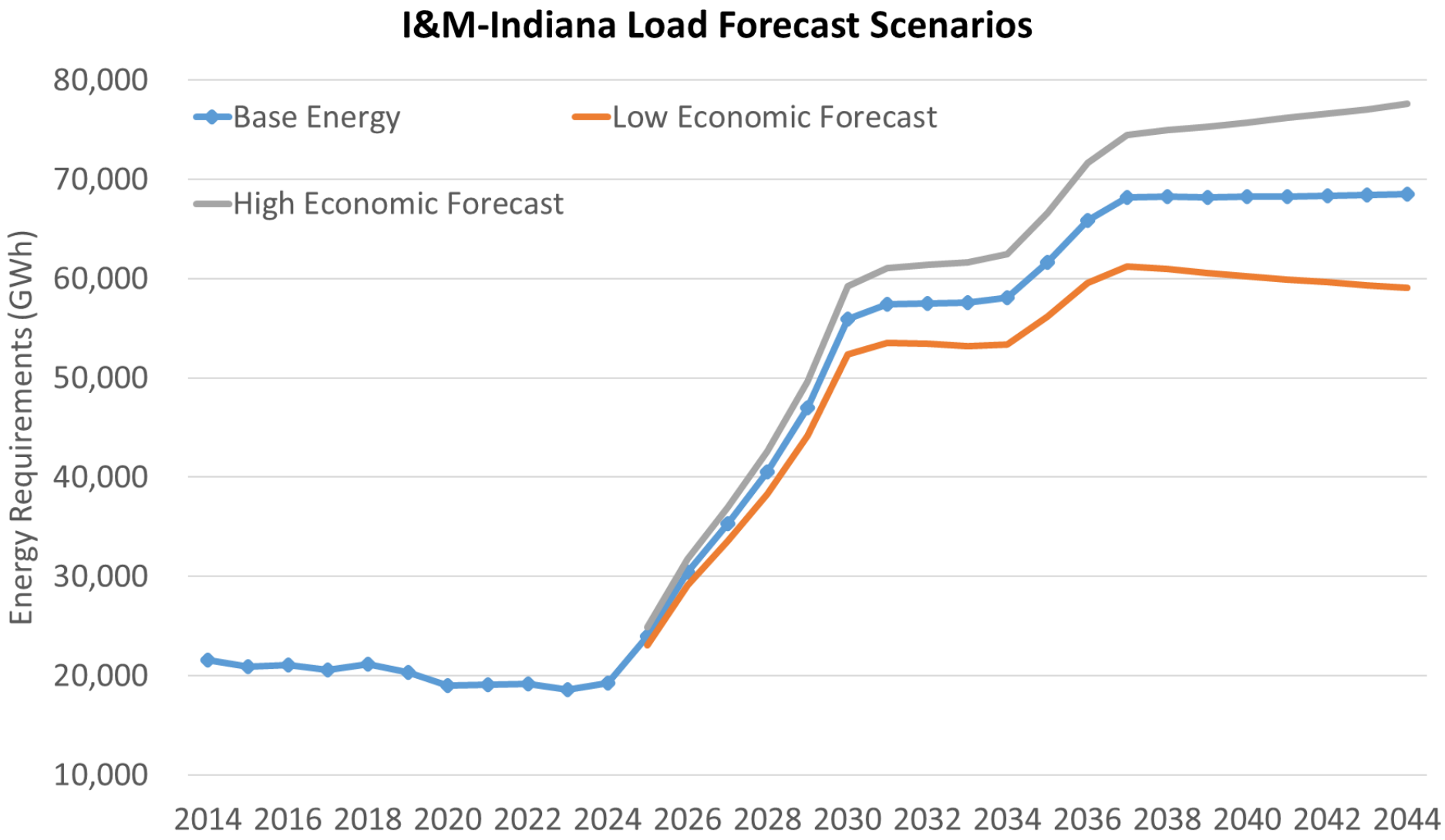


Observations:

- Additional wind selected in 2028 results in more wind capacity and energy throughout the planning horizon compared to the EER scenario
- Capacity factor limitations associated with EPA Section 111(b)(d) compliance result in significantly more energy contributions from other resources
- Nuclear and natural gas resources that have higher accreditation values are selected to cover most of the capacity obligation
- Capacity additions in 2031-2034 built in preparation of load increases that occur from 2034-2037 and to provide necessary energy supply to meet import limits
- Added renewable resources result in additional energy market sales starting in 2031

*Nuclear includes Cook SLR

Base with High and Low Load Forecast Cases



Base with High Load Portfolio

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage**	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	350
2026	0	0	0	0	0	0	0	0	28	1,650
2027	0	0	0	0	0	0	0	0	59	2,000
2028	200	1,796	451	0	1,800	0	1,000	0	94	200
2029	200	1,787	451	0	2,700	0	1,500	0	100	0
2030	200	1,778	451	0	3,600	0	2,000	0	97	0
2031	600	1,769	451	0	3,600	0	3,000	0	96	0
2032	600	1,760	451	0	3,600	0	3,000	0	95	0
2033	600	1,751	451	0	3,600	0	3,000	0	91	0
2034	600	1,742	451	1,030	3,600	0	3,000	0	88	0
2035	600	1,733	451	1,030	3,600	0	3,000	888	86	0
2036	600	1,724	451	2,060	3,600	0	3,000	888	84	0
2037	1,000	1,715	451	2,060	3,600	0	3,000	888	80	0
2038	1,200	1,706	451	2,060	3,600	0	3,000	1,880	76	0
2039	1,200	1,697	451	2,060	3,600	0	3,000	1,880	75	0
2040	1,200	1,688	451	2,060	3,600	0	3,000	1,880	74	0
2041	1,200	1,679	451	2,060	3,600	0	3,000	1,880	68	0
2042	1,200	1,670	451	2,060	3,600	230	3,000	1,880	62	0
2043	1,000	1,107	451	2,060	3,600	460	3,000	1,880	56	0
2044	1,000	1,251	451	2,060	3,600	460	3,000	1,880	55	0

*Nuclear includes Cook SLR
** Storage includes Distribution-Sited Storage resources

Purpose of Scenario:

- Evaluating the most economical solution to meet capacity and energy needs considering base modeling parameters and assumptions with High Load forecast scenario

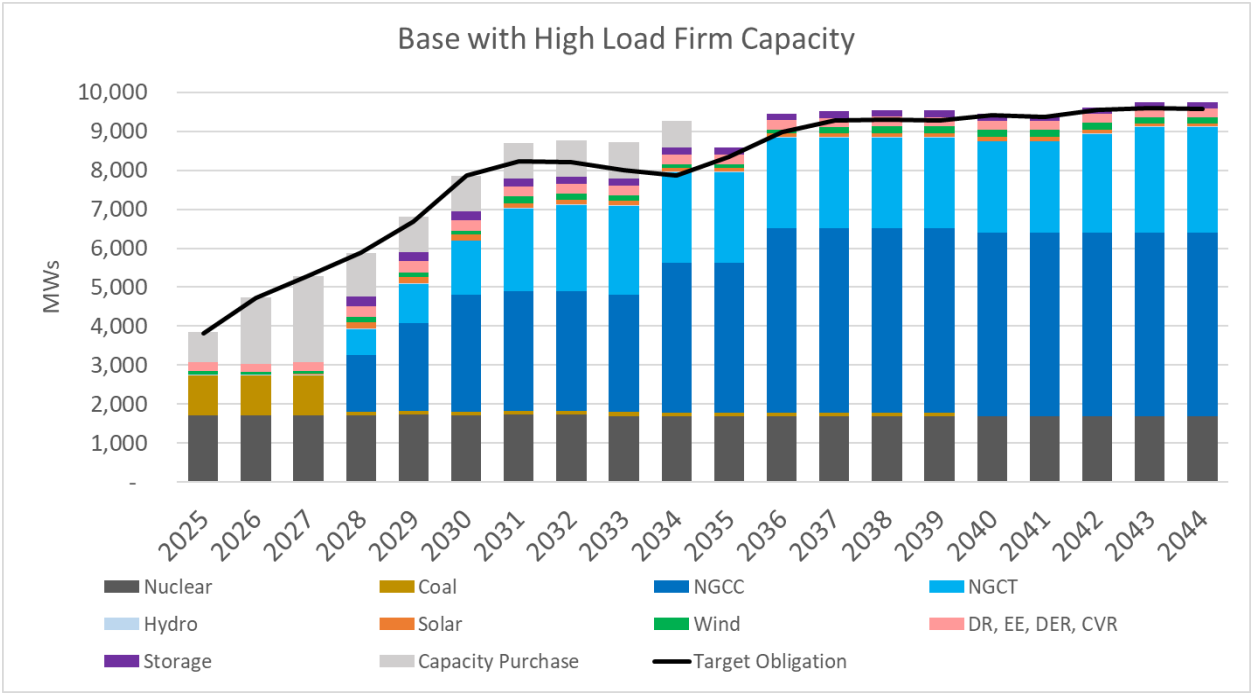
Observations through 2030:

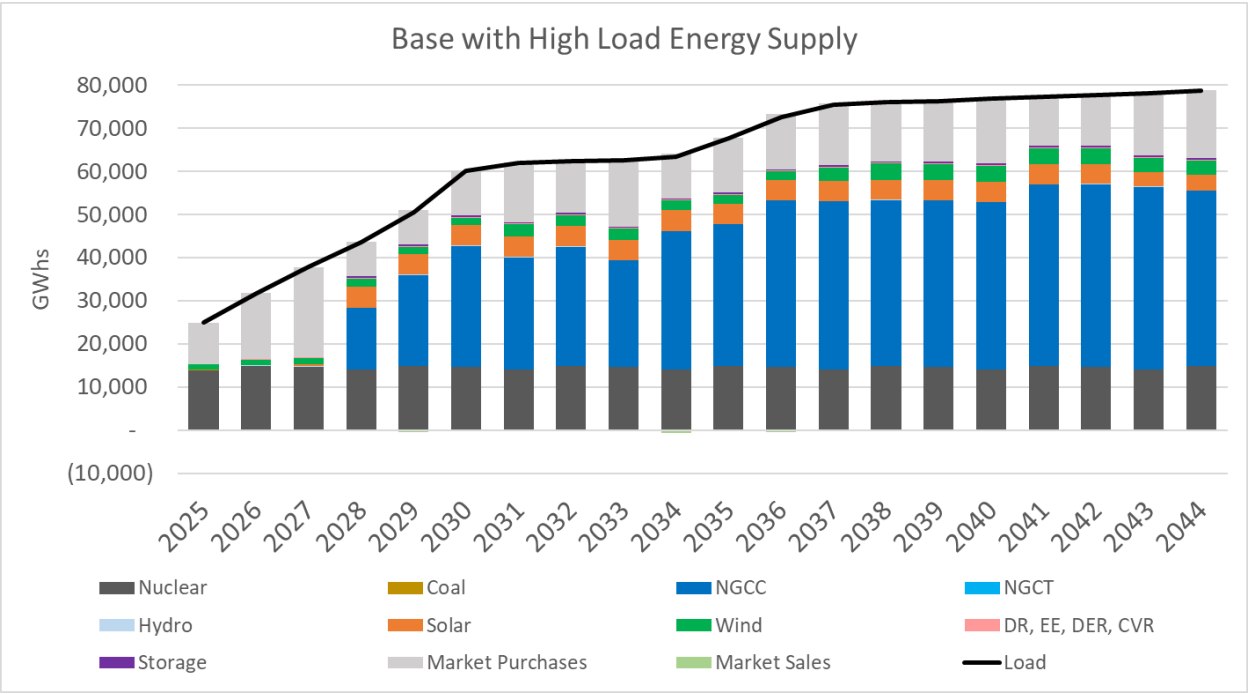
- Solar, wind, storage, and gas resources selected in 2028 in response to load growth by 2030
- Selected all available existing CC's by 2030 and existing CT's were selected to meet capacity obligation
- Increased Short Term Capacity purchased compared to reference scenario due to increased Capacity Obligation due to higher load
- Additional solar and CT resources selected by 2030 in response to higher load compared to reference scenario

Observations for 2031+:

- More wind and CT's are selected compared to the reference scenario
- New CC built in 2034 and 2036 to meet the load growth in the same period and the expiration of existing capacity purchase agreements similar to the reference scenario
- Cook SLR selected in 2035 and 2038

Base with High Load Portfolio





Observations:

- Higher load growth results in additional renewable resources compared to the reference scenario that provide significant energy supply
- Nuclear resources provide consistent Carbon-free capacity and energy
- Natural gas resources are generally the most economic options to meet the growing capacity obligations and needed energy supply
- Capacity additions in 2031-2034 built in preparation of load increases that occur from 2034-2037 and to provide necessary energy supply to meet import limits

*Nuclear includes Cook SLR

Base with Low Load Portfolio

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	75
2026	0	0	0	0	0	0	0	0	23	1,275
2027	0	0	0	0	0	0	0	0	49	1,525
2028	200	0	0	0	1,800	0	1,000	0	79	0
2029	200	0	0	0	2,700	0	1,000	0	97	0
2030	200	0	0	0	3,600	0	1,500	0	106	0
2031	600	0	0	0	3,600	0	2,000	0	115	0
2032	600	0	0	0	3,600	0	2,000	0	111	0
2033	800	0	0	0	3,600	0	2,000	0	105	0
2034	800	0	0	1,030	3,600	0	2,000	0	100	0
2035	800	0	0	1,030	3,600	0	2,000	888	99	0
2036	800	0	0	1,030	3,600	0	2,000	888	96	0
2037	1,200	0	0	1,030	3,600	0	2,000	888	92	0
2038	1,200	0	0	1,030	3,600	0	2,000	1,880	87	0
2039	1,200	0	0	1,030	3,600	0	2,000	1,880	84	0
2040	1,200	0	0	1,030	3,600	0	2,000	1,880	81	0
2041	1,200	0	0	1,030	3,600	0	2,000	1,880	73	0
2042	1,200	0	0	1,030	3,600	0	2,000	1,880	65	0
2043	1,000	0	0	1,030	3,600	0	2,000	1,880	58	0
2044	1,000	0	0	1,030	3,600	0	2,000	1,880	53	0

Purpose of Scenario:

- Evaluating the most economical solution to meet capacity and energy needs considering base modeling parameters and assumptions with Low Load forecast scenario

Observations through 2030:

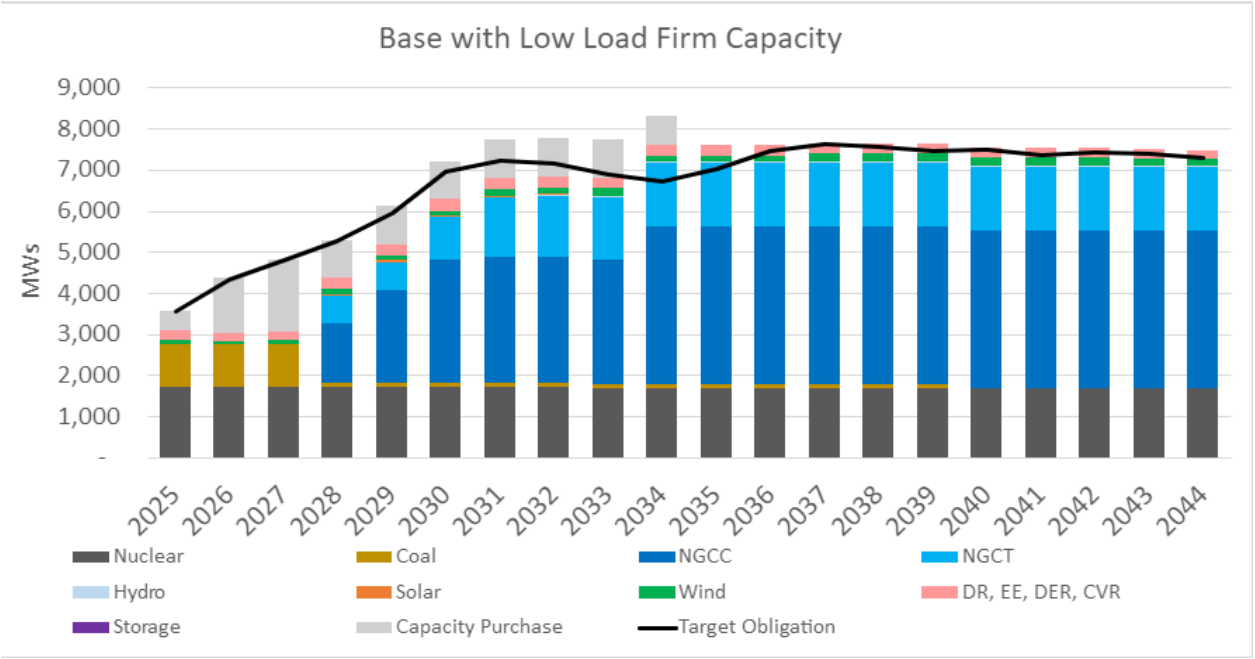
- Wind and gas resources selected in 2028 in response to load growth by 2030
- Selected all available existing CC's by 2030 and existing CT's were selected to meet capacity obligation
- Unlike the reference scenario, less short term capacity and no solar or storage are selected

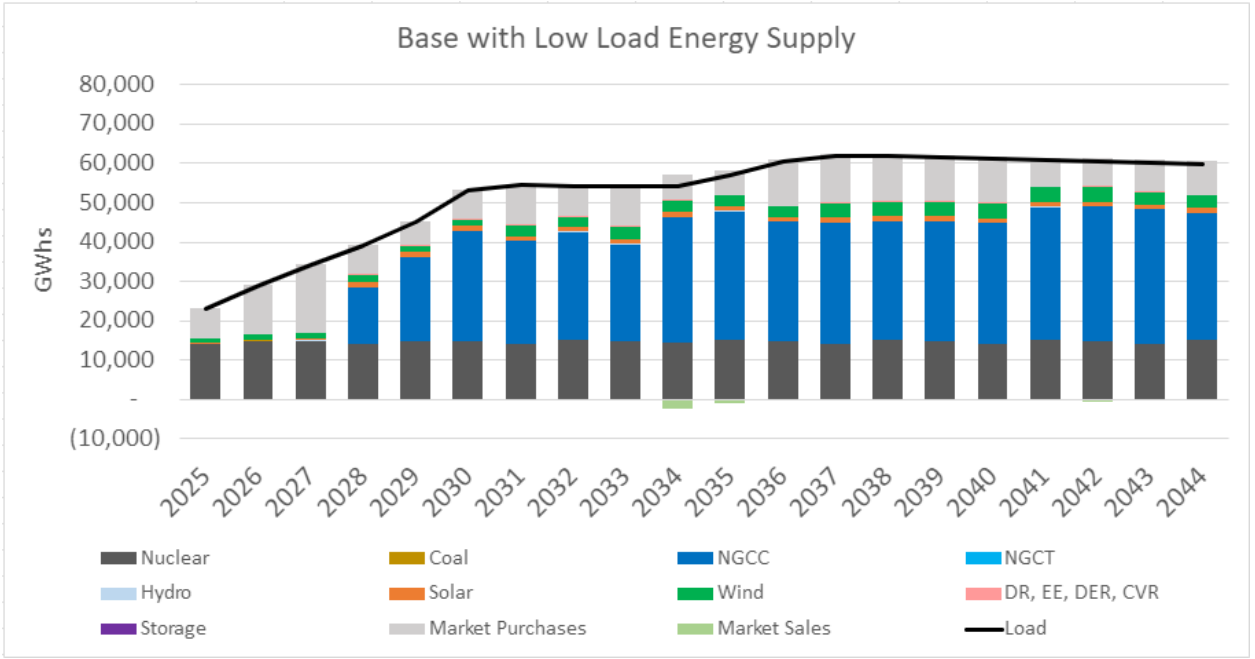
Observations for 2031+:

- New CC built in 2034 and additional wind resources built to meet the load growth in the same period and the expiration of existing capacity purchase agreements
- Cook SLR selected in 2035 and 2038

*Nuclear includes Cook SLR

Base with Low Load Portfolio





Observations:

- Nuclear resources provide consistent Carbon-free capacity and energy
- Natural gas resources are generally the most economic options to meet the growing capacity obligations and needed energy supply
- Capacity additions in 2031-2035 built in preparation of load increases that occur from 2034-2037

*Nuclear includes Cook SLR

High Technology Cost Sensitivity Assumptions

Technology	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Wind	4%	6%	8%	9%	11%	13%	13%	14%	14%	15%	15%	16%	16%	17%	17%	18%	18%	19%	19%	20%
Solar	3%	5%	6%	8%	11%	13%	16%	19%	22%	26%	31%	30%	30%	30%	30%	30%	30%	29%	29%	29%
Nuclear Small Modular Reactor						25%	29%	32%	37%	41%	46%	47%	48%	50%	51%	52%	53%	54%	54%	55%
NG Combustion Turbine	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%	48%
NG Combined Cycle	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%	41%
Storage (4-Hour)	28%	27%	27%	26%	25%	24%	25%	26%	27%	29%	30%	31%	32%	34%	35%	37%	38%	40%	41%	43%
Storage (6-Hour)	28%	28%	27%	27%	26%	26%	27%	28%	29%	31%	32%	33%	35%	36%	38%	40%	41%	43%	45%	47%
Storage (8-Hour)	29%	28%	28%	27%	27%	26%	28%	29%	30%	32%	33%	35%	36%	38%	39%	41%	43%	45%	47%	49%

- For the High Technology Cost sensitivity, the installed costs for resource options are modified by the above percentages relative to the reference scenario
- Combustion Turbine and Combined Cycle percentage increase are for existing and new resource options
- Solar with Storage options are a weighted average of the cost changes for Solar and Storage technologies
  - (75% weight on Solar and 25% weight on Storage)
- Increases were sourced from NREL ATB and recent market intelligence

High Technology Cost Portfolio

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	325
2026	0	0	0	0	0	0	0	0	28	1,500
2027	0	0	0	0	0	0	0	0	59	1,875
2028	200	599	450	0	1,800	0	1,000	0	94	0
2029	200	596	450	0	2,700	0	1,000	0	100	0
2030	200	593	450	0	3,600	0	1,500	0	97	0
2031	200	590	450	0	3,600	0	2,000	0	96	0
2032	200	587	450	0	3,600	0	2,000	0	115	0
2033	200	584	450	0	3,600	0	2,000	0	131	0
2034	200	581	450	1,030	3,600	0	2,000	0	144	0
2035	200	578	450	1,030	3,600	0	2,000	888	156	0
2036	200	575	450	2,060	3,600	0	2,000	888	169	0
2037	200	572	450	2,060	3,600	0	2,000	888	177	0
2038	200	569	450	2,060	3,600	0	2,000	1,880	185	0
2039	200	566	450	2,060	3,600	0	2,000	1,880	193	0
2040	200	563	450	2,060	3,600	0	2,000	1,880	201	0
2041	200	560	450	2,060	3,600	0	2,000	1,880	207	0
2042	200	557	450	2,060	3,600	0	2,000	1,880	211	0
2043	0	554	450	2,060	3,600	0	2,000	1,880	213	0
2044	0	551	450	2,060	3,600	0	2,000	1,880	220	0

Purpose of Scenario:

- Evaluating the most economical solution to meet capacity and energy needs considering base modeling parameters and assumptions with increased resource installed costs

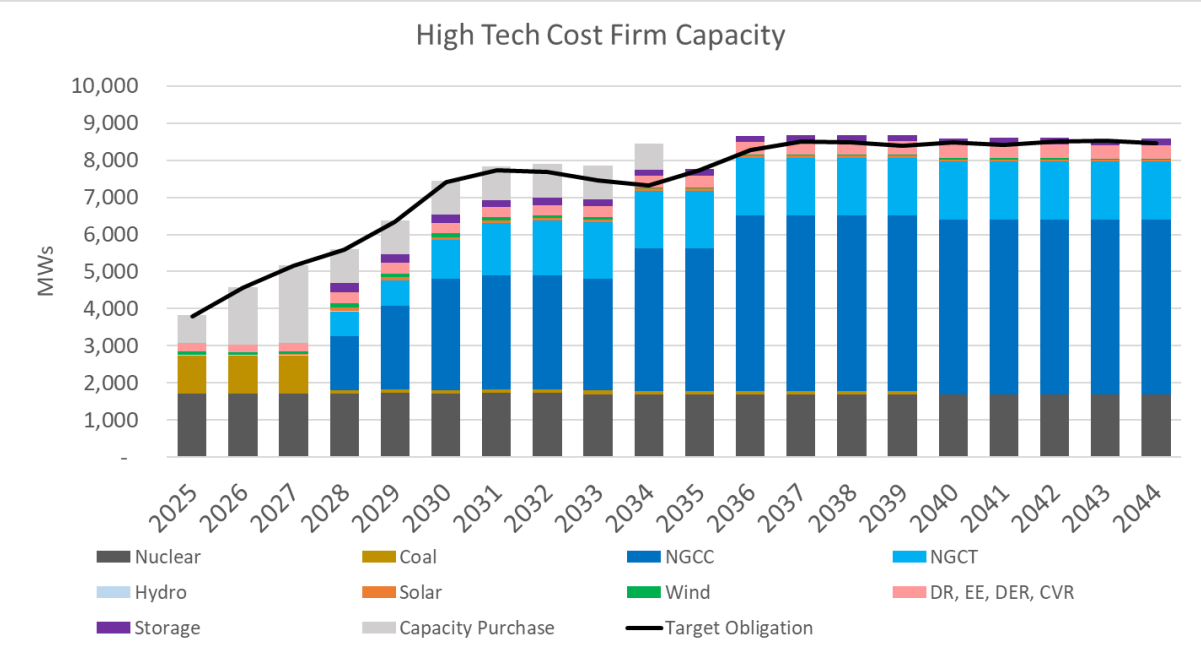
Observations through 2030:

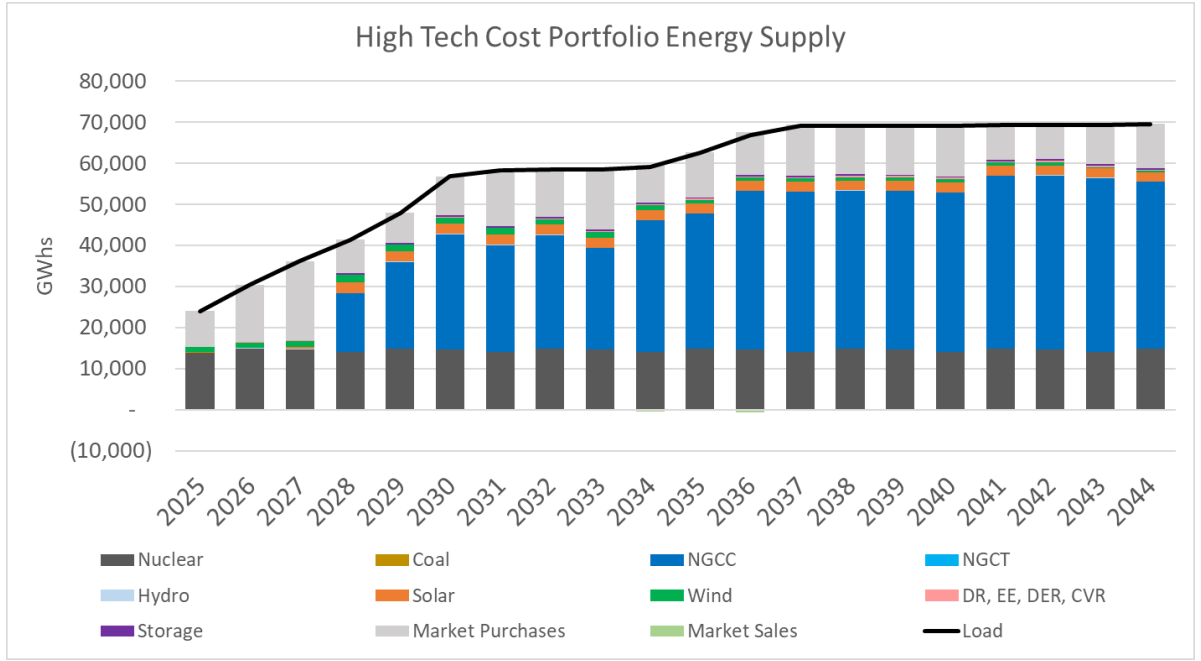
- Resources selected are identical to the reference case starting in 2025 and for the remainder of the planning horizon
- Solar, wind, storage, and gas resources selected in 2028 to meet the capacity and energy obligations are not impacted by the higher cost assumptions
- Selected all available existing CC's by 2030 and existing CT's were selected to meet capacity obligation

Observations for 2031+:

- New CC built in 2034 and 2036 to meet the capacity and energy obligations are not impacted by the higher cost assumptions
- Cook SLR selected in 2035 and 2038

High Technology Cost Portfolio





Observations:

- Resources selected are identical to the reference case starting in 2025 and for the remainder of the planning horizon

10 Minute Break

Rockport Unit 1 Retires 2025 Portfolio

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	1,250
2026	0	0	0	0	0	0	0	0	28	2,425
2027	0	0	0	0	0	0	0	0	59	2,825
2028	200	599	450	0	1,800	0	1,000	0	94	0
2029	200	596	450	0	2,700	0	1,000	0	100	0
2030	200	593	450	0	3,600	0	1,500	0	97	0
2031	200	590	450	0	3,600	0	2,000	0	96	0
2032	200	587	450	0	3,600	0	2,000	0	115	0
2033	200	584	450	0	3,600	0	2,000	0	131	0
2034	200	581	450	1,030	3,600	0	2,000	0	144	0
2035	200	578	450	1,030	3,600	0	2,000	888	156	0
2036	200	575	450	2,060	3,600	0	2,000	888	169	0
2037	200	572	450	2,060	3,600	0	2,000	888	177	0
2038	200	569	450	2,060	3,600	0	2,000	1,880	185	0
2039	200	566	450	2,060	3,600	0	2,000	1,880	193	0
2040	200	563	450	2,060	3,600	0	2,000	1,880	201	0
2041	200	560	450	2,060	3,600	0	2,000	1,880	207	0
2042	200	557	450	2,060	3,600	0	2,000	1,880	211	0
2043	0	554	450	2,060	3,600	0	2,000	1,880	213	0
2044	0	551	450	2,060	3,600	0	2,000	1,880	220	0

Purpose of Scenario:**

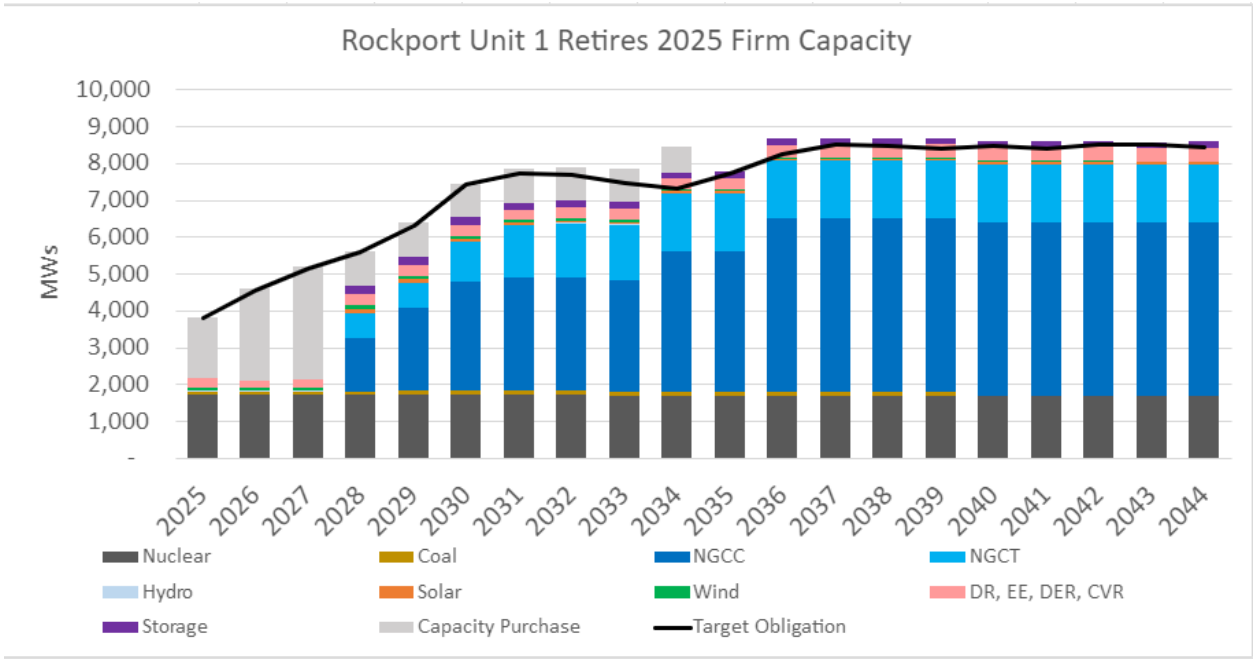
- Evaluating the most economical solution to meet capacity and energy needs considering base modeling parameters and assumptions of Rockport retiring 5/31/2025

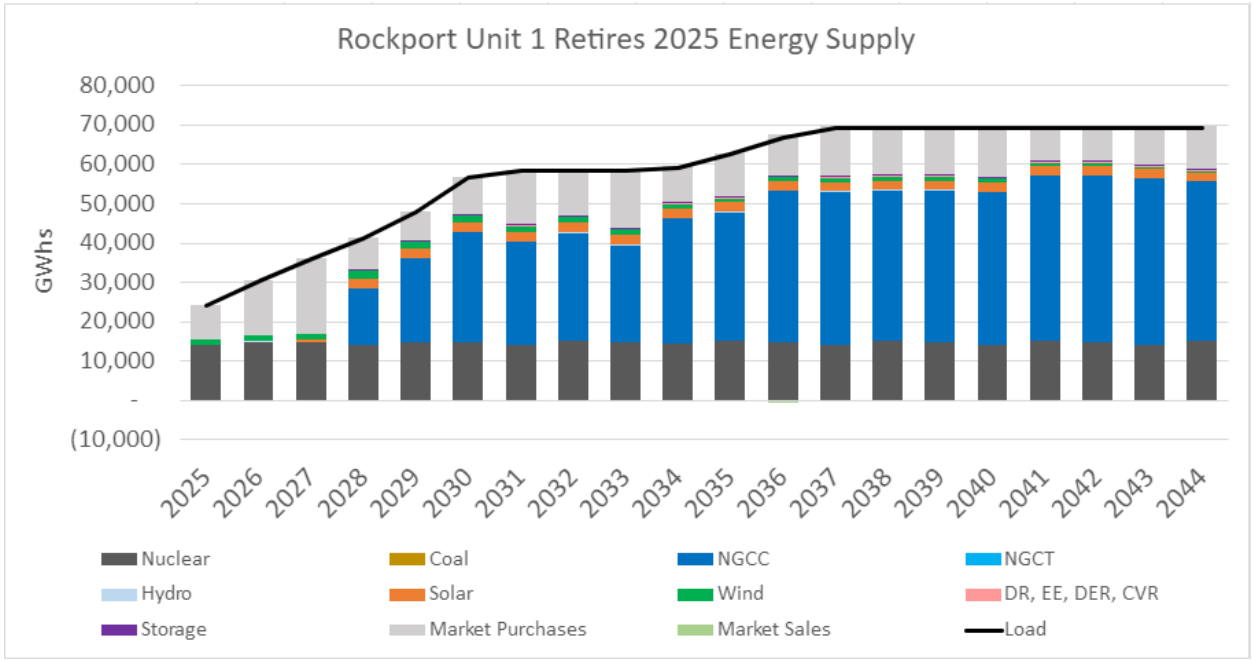
Observations through Planning Horizon:

- Additional Short Term Capacity purchases compared to the reference case until new resources become available in 2028
- Resources selected are identical to the reference case starting in 2028 and for the remainder of the planning horizon

*Nuclear includes Cook SLR
** Required per Cause No. 45546

Rockport Unit 1 Retires 2025 Portfolio





Observations:

- Resources selected are identical to the reference case starting in 2028 and for the remainder of the planning horizon

*Nuclear includes Cook SLR

Rockport Unit 1 Retires 2026 Portfolio

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	325
2026	0	0	0	0	0	0	0	0	28	2,425
2027	0	0	0	0	0	0	0	0	59	2,825
2028	200	599	450	0	1,800	0	1,000	0	94	0
2029	200	596	450	0	2,700	0	1,000	0	100	0
2030	200	593	450	0	3,600	0	1,500	0	97	0
2031	200	590	450	0	3,600	0	2,000	0	96	0
2032	200	587	450	0	3,600	0	2,000	0	115	0
2033	200	584	450	0	3,600	0	2,000	0	131	0
2034	200	581	450	1,030	3,600	0	2,000	0	144	0
2035	200	578	450	1,030	3,600	0	2,000	888	156	0
2036	200	575	450	2,060	3,600	0	2,000	888	169	0
2037	200	572	450	2,060	3,600	0	2,000	888	177	0
2038	200	569	450	2,060	3,600	0	2,000	1,880	185	0
2039	200	566	450	2,060	3,600	0	2,000	1,880	193	0
2040	200	563	450	2,060	3,600	0	2,000	1,880	201	0
2041	200	560	450	2,060	3,600	0	2,000	1,880	207	0
2042	200	557	450	2,060	3,600	0	2,000	1,880	211	0
2043	0	554	450	2,060	3,600	0	2,000	1,880	213	0
2044	0	551	450	2,060	3,600	0	2,000	1,880	220	0

Purpose of Scenario:**

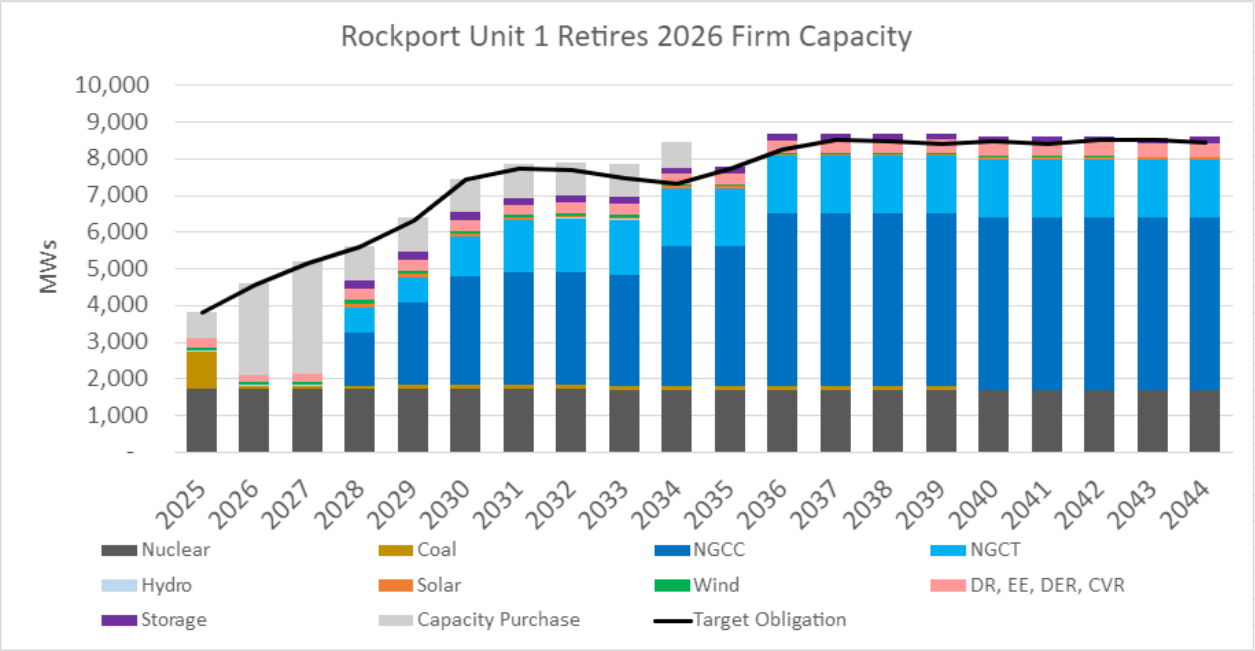
- Evaluating the most economical solution to meet capacity and energy needs considering base modeling parameters and assumptions of Rockport retiring 5/31/2026

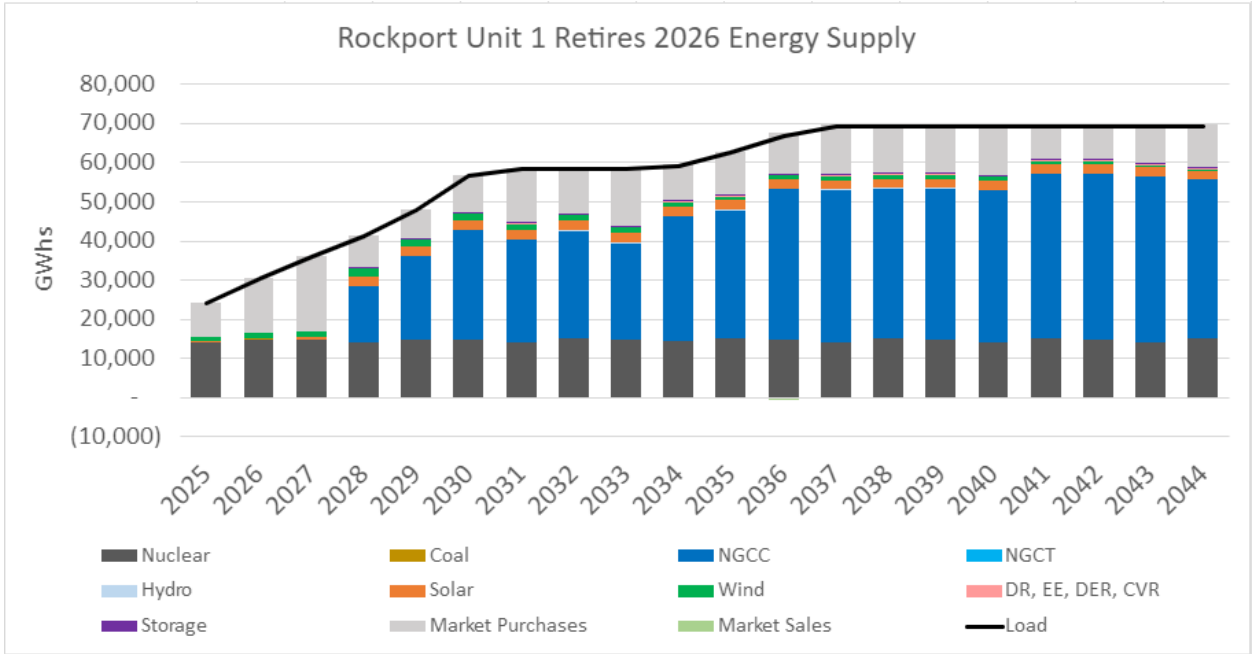
Observations through Planning Horizon:

- Additional Short Term Capacity purchases compared to the reference case until new resources become available in 2028
- Resources selected are identical to the reference case starting in 2028 and for the remainder of the planning horizon

*Nuclear includes Cook SLR
** Required per Cause No. 45546

Rockport Unit 1 Retires 2026 Portfolio





Observations:

- Resources selected are identical to the reference case starting in 2028 and for the remainder of the planning horizon

*Nuclear includes Cook SLR

Exit OVEC ICPA in 2030 Portfolio

Year	Nameplate MW								Accredited MW	
	Wind	Solar	Storage	New CC	Existing CC	New CT	Existing CT	Nuclear*	DR, EE, DER, CVR	Short Term Capacity
2025	0	0	0	0	0	0	0	0	1	325
2026	0	0	0	0	0	0	0	0	28	1,500
2027	0	0	0	0	0	0	0	0	59	1,875
2028	200	599	450	0	1,800	0	1,000	0	94	0
2029	200	596	450	0	1,800	0	2,000	0	119	0
2030	200	593	450	0	3,600	0	2,000	0	135	0
2031	200	590	450	0	3,600	0	2,000	0	151	0
2032	200	587	450	0	3,600	0	2,000	0	173	0
2033	200	584	450	0	3,600	0	2,000	0	190	0
2034	200	581	450	1,030	3,600	0	2,000	0	204	0
2035	200	578	450	1,030	3,600	0	2,000	888	221	0
2036	200	575	450	2,060	3,600	0	2,000	888	237	0
2037	200	572	450	2,060	3,600	0	2,000	888	250	0
2038	200	569	450	2,060	3,600	0	2,000	1,880	261	0
2039	200	566	450	2,060	3,600	0	2,000	1,880	270	0
2040	200	563	450	2,060	3,600	0	2,000	1,880	279	0
2041	200	560	450	2,060	3,600	0	2,000	1,880	286	0
2042	200	557	450	2,060	3,600	0	2,000	1,880	292	0
2043	0	554	450	2,060	3,600	0	2,000	1,880	298	0
2044	0	551	450	2,060	3,600	0	2,000	1,880	302	0

Purpose of Scenario:**

- Evaluating the most economical solution to meet capacity and energy needs considering base modeling parameters and assumptions of the termination of operation of the Ohio Valley Electric Corporation (OVEC) units under the Intercompany Power Agreement (ICPA) by the end of 2030

Observations through 2030:

- Resources selected are substantially similar to the reference case for 2028+
- Solar, wind, storage, and gas resources selected in 2028 in response to load growth by 2030
- Selected all available existing CC's by 2030 and existing CT's were selected to meet capacity obligation
- Additional DR, EE, DER, CVR selected compared to reference scenario

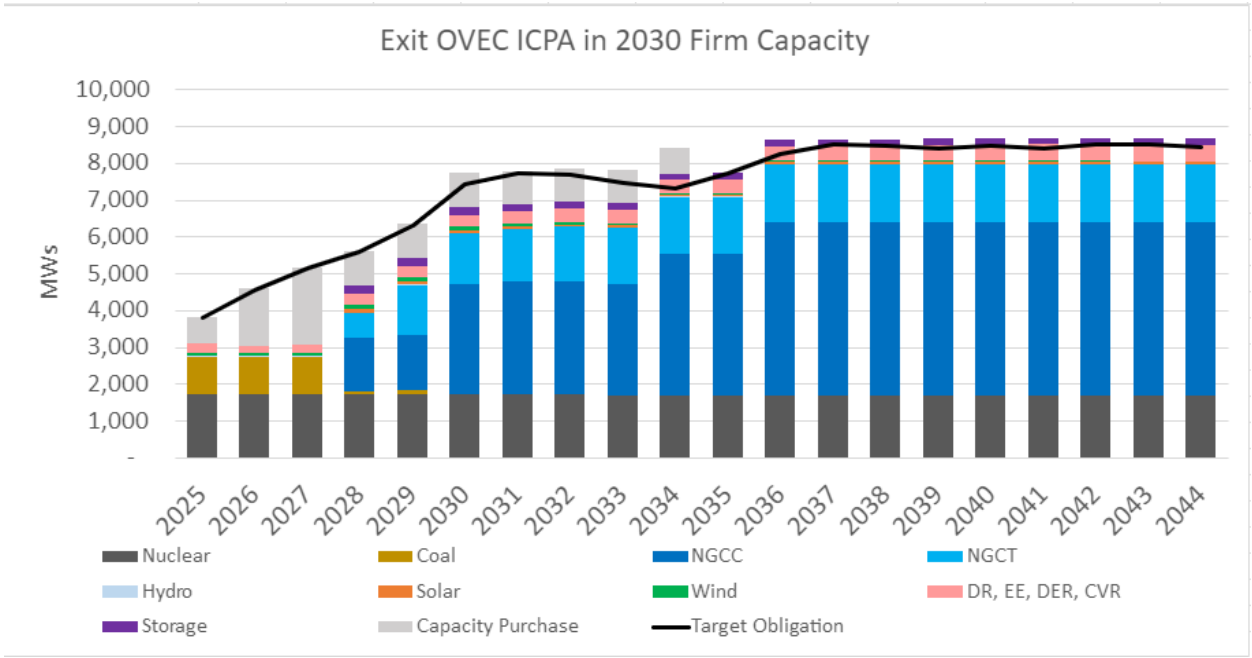
Observations for 2031+:

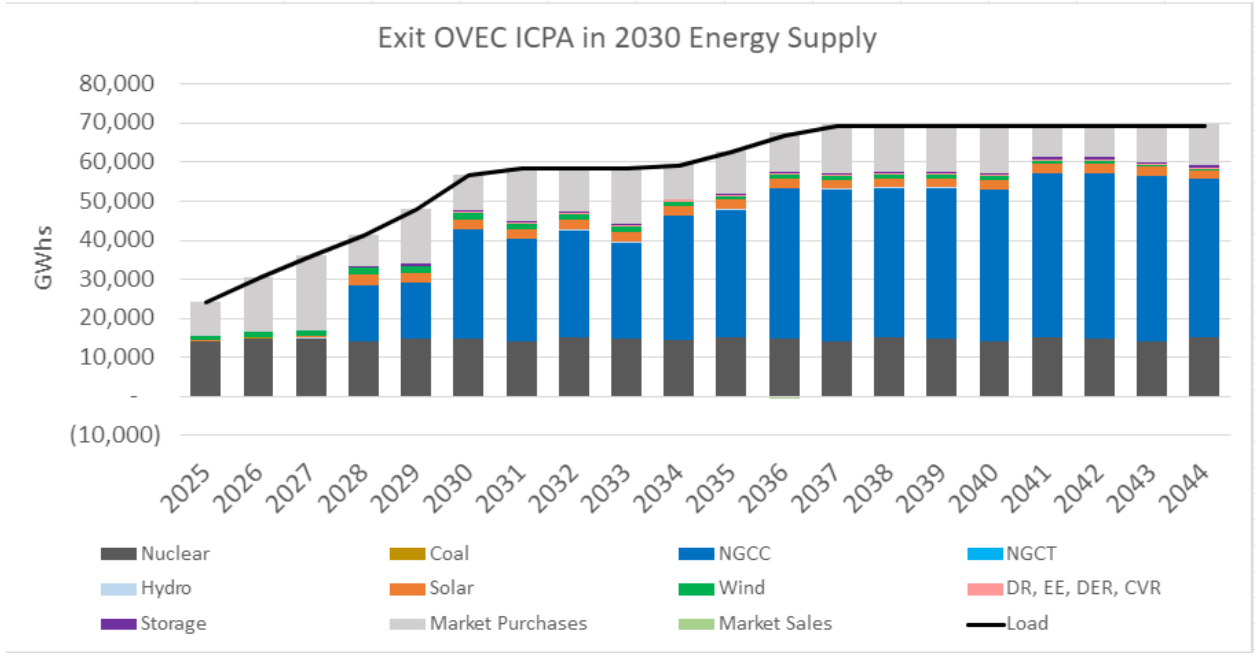
- New CC built in 2034 and 2036 to meet the load growth in the same period and the expiration of existing capacity purchase agreements
- Cook SLR selected in 2035 and 2038

*Nuclear includes Cook SLR

** Required per Cause No. 45546. The ICPA does not have any provision for early termination by one or more of the Sponsoring Companies.

Exit OVEC ICPA in 2030 Portfolio



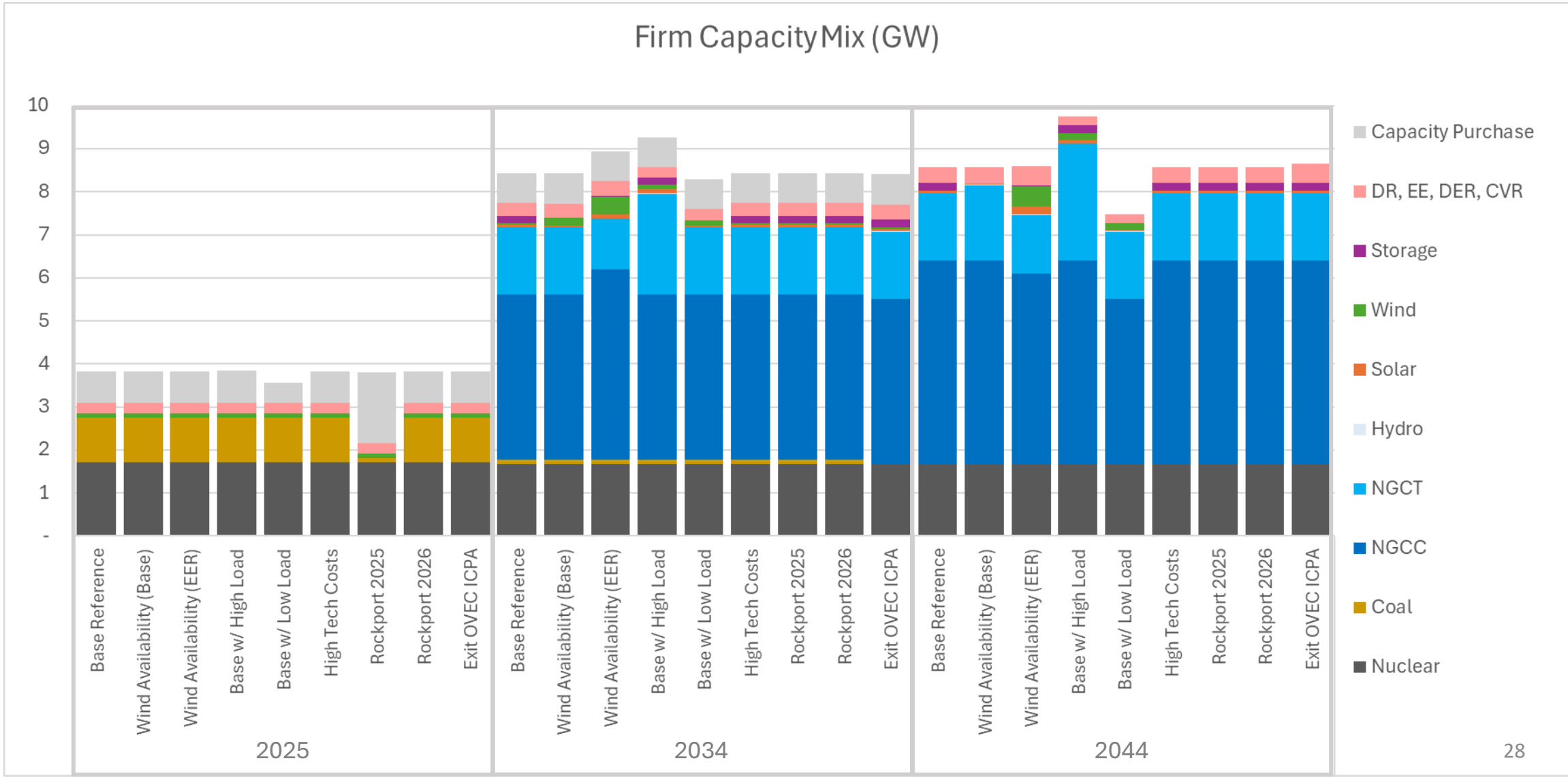


Observations:

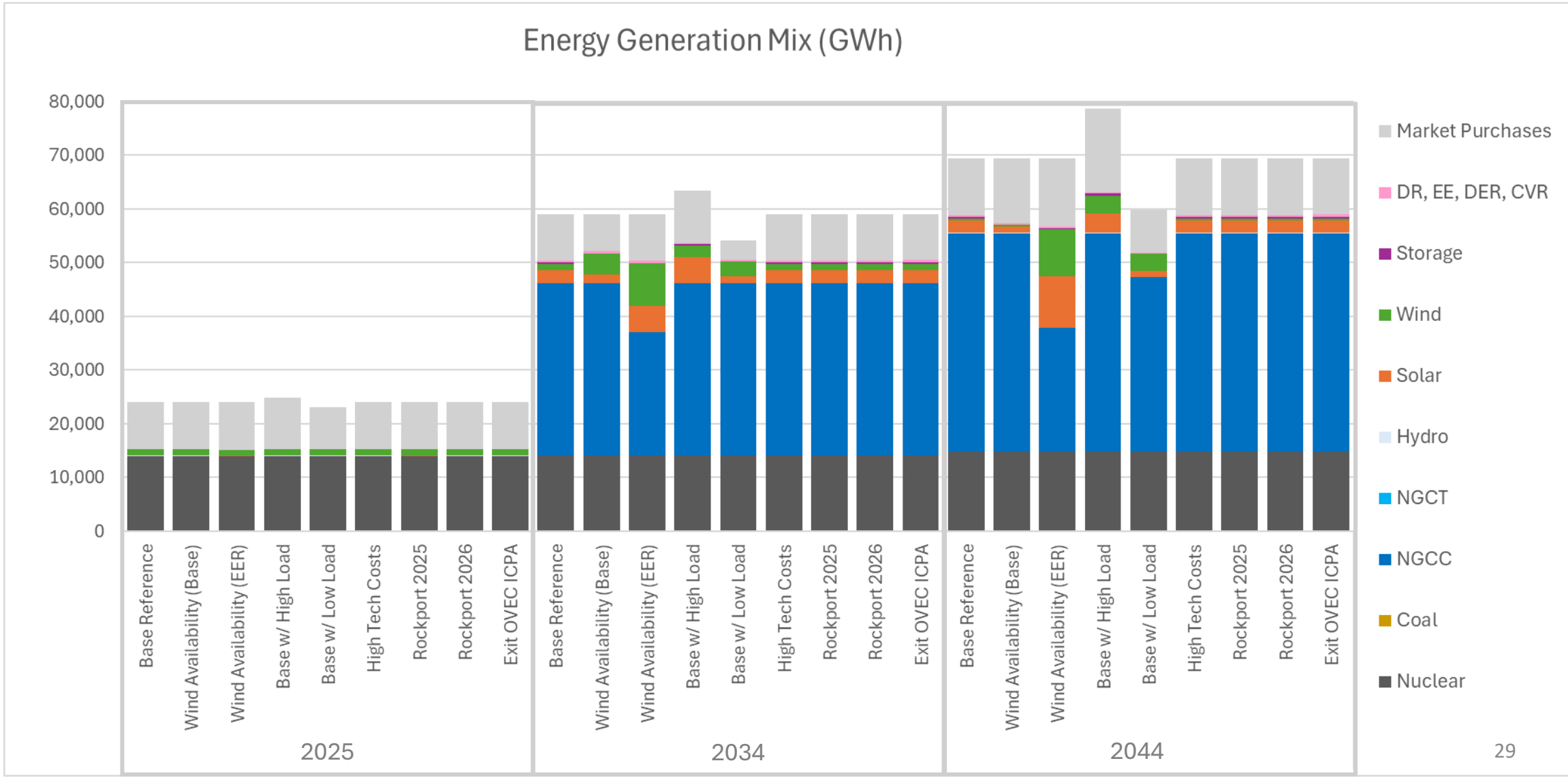
- Resources selected are substantially similar to the reference case for 2028+

*Nuclear includes Cook SLR

Results Summary Comparison



Results Summary Comparison



Resource Selection Results Summary Comparison

Portfolio	2034 Nameplate Capacity Additions (MW)								2044 Nameplate Capacity Additions (MW)							
	Wind	Solar	Storage	NGCT	NGCC	Nuclear*	DR, EE, DER, CVR**	**Total Additions**	Wind	Solar	Storage	NGCT	NGCC	Nuclear*	DR, EE, DER, CVR**	**Total Additions**
Base Reference	200	581	450	2,000	4,630	0	144	**8,005**	0	551	450	2,000	5,660	1,880	220	**10,761**
Expanded Wind Availability (Base)	1,200	145	0	2,000	4,630	0	168	**8,143**	0	0	0	2,230	5,660	1,880	229	**9,999**
Expanded Wind Availability (EER)	2,600	1,775	50	1,500	5,400	0	196	**11,521**	3,000	4,145	50	1,730	5,400	1,880	290	**16,495**
Base with High Load	600	1,742	451	3,000	4,630	0	88	**10,511**	1,000	1,251	451	3,460	5,660	1,880	55	**13,757**
Base with Low Load	800	0	0	2,000	4,630	0	100	**7,530**	1,000	0	0	2,000	4,630	1,880	53	**9,563**
High Technology Cost	200	581	450	2,000	4,630	0	144	**8,005**	0	551	450	2,000	5,660	1,880	220	**10,761**
Rockport Unit 1 Retires 2025	200	581	450	2,000	4,630	0	144	**8,005**	0	551	450	2,000	5,660	1,880	220	**10,761**
Rockport Unit 1 Retires 2026	200	581	450	2,000	4,630	0	144	**8,005**	0	551	450	2,000	5,660	1,880	220	**10,761**
Exit OVEC ICPA in 2030	200	581	450	2,000	4,630	0	204	**8,065**	0	551	450	2,000	5,660	1,880	302	**10,843**

*Nuclear includes Cook SLR
**DR, EE, DER, CVR values are accredited

Portfolio Performance Indicators

IURC Pillar	IRP Objective	Performance Indicator	Metric Description
Reliability	Maintain capacity reserve margin and the consideration of reliance on the market for the benefit of customers.	Energy Market Exposure – Purchases	NPV of market purchases and average volume exposure of market purchases (Costs and MWhs % of Internal Load) over 10 and 20 years. Lower values are better.
		Energy Market Exposure – Sales	NPV of market sales and average volume exposure of market sales (Revenues and MWhs % of Internal Load) over 10 and 20 years. Lower values are better.
		Planning Reserves	Average Target Reserve Margin over 10 and 20 years. Closest value to the % Target.
Affordability	Maintain focus on power supply cost and risks to customers	Net Present Value Revenue Requirement (NPVRR)	Portfolio 30yr NPVRR (power supply costs). Lower values are better.
		Near-Term Power Supply Cost Impacts (CAGR)	7-year CAGR of Annual Power Supply Cost. Lower values are better.
		Portfolio Resilience	Range of Portfolio NPVRR (power supply costs) dispatched across all Scenarios. Lower values are better.
Resiliency	Maintain diversity of resources and fleet dispatchability	Resource Diversity	Percent change in Diversity Index inclusive of Capacity and Energy Diversity in years 2034 and 2044. Higher values are better.
(Grid) Stability	Maintain fleet of flexible and dispatchable resources	Fleet Resiliency	Average % dispatchable capacity of company peak load over 10 and 20 years. Higher values are better.
Environmental Sustainability	Maintain focus on portfolio environmental sustainability benefits and compliance costs	Emissions Change	CO_2, NOx, SO_2 emissions change compared to 2005 levels in years 2034 and 2044. Higher values are better.
		Net Present Value Revenue Requirement (NPVRR)	Considered under Affordability Pillar above

Draft Portfolio Performance Comparison

Pillar	Affordability			Environmental Sustainability		
Performance Indicators and Metrics	***Short Term*** *7-yr Rate CAGR* Power Supply $/MWh	***Long Term*** *Supply Portfolio NPVRR Power Supply Costs*	***Portfolio Resilience:*** *High Minus Low Scenario Range, Portfolio NPVRR*	***Emissions Analysis:*** *% Change from 2005 Baseline*		
Year Ref.	2024-2031	2025-2044	2025-2044	2034 | 2044		
Units	%	$B	$B	% Change CO_2	% Change NOx	% Change SO_2
Base Reference	-0.5%	$32.0	[to be developed]	2034: -39% 2044: -24%	2034: -94% 2044: -93%	2034: -100% 2044: -100%
Expanded Wind Availability (Base)	-0.5%	$31.8	[to be developed]	2034: -39% 2044: -24%	2034: -94% 2044: -93%	2034: -100% 2044: -100%
Expanded Wind Availability (EER)	0.5%	$32.8	[to be developed]	2034: -56% 2044: -55%	2034: -95% 2044: -95%	2034: -100% 2044: -100%
Base with High Load	-0.1%	$34.9	[to be developed]	2034: -39% 2044: -24%	2034: -94% 2044: -93%	2034: -100% 2044: -100%
Base with Low Load	-0.7%	$28.3	[to be developed]	2034: -39% 2044: -39%	2034: -94% 2044: -94%	2034: -100% 2044: -100%
High Technology Costs	0.7%	$34.8	[to be developed]	2034: -39% 2044: -24%	2034: -94% 2044: -93%	2034: -100% 2044: -100%
Rockport Unit 1 Retires 2025	-0.5%	$32.6	[to be developed]	2034: -39% 2044: -24%	2034: -94% 2044: -93%	2034: -100% 2044: -100%
Rockport Unit 1 Retires 2026	-0.5%	$32.4	[to be developed]	2034: -39% 2044: -24%	2034: -94% 2044: -93%	2034: -100% 2044: -100%
Exit OVEC ICPA in 2030	-0.4%	$32.1	[to be developed]	2034: -39% 2044: -24%	2034: -94% 2044: -93%	2034: -100% 2044: -100%

Draft Portfolio Performance Comparison

Pillar	Reliability			Reliability/ Resiliency	Grid Stability Resiliency
Performance Indicators and Metrics	***Energy Market Risk*** *Purchases*	***Energy Market Risk*** *Sales*	***Planning Reserves*** *% Reserve Margin*	***Resource Diversity***	***Fleet Resiliency:*** *Dispatchable Capacity*
Year Ref.	10 years | 20 years	10 years | 20 years	10 years | 20 years	10 years | 20 years	10 years | 20 years
Units	NPV of Market Purchases & MWhs % of Total Demand	NPV of Market Sales & MWhs % of Total Demand	Average of Annual PRM %	Portfolio Index Percent Change from 2025	Dispatchable Nameplate MW/ % of Company Peak Demand
Base Reference	10 Years: $2.6B (27%) 20 Years: $4.3B (22%)	10 Years: $0.0B (0.1%) 20 Years: $0.1B (0.3%)	10 Years: -0.7% 20 Years: -3.4%	Capacity: 31% | 19% Energy: 173% | 139%	10 Years: 90% 20 Years: 97%
Expanded Wind Availability (Base)	10 Years: $2.4B (25%) 20 Years: $3.9B (20%)	10 Years: $0.0B (0.2%) 20 Years: $0.1B (0.6%)	10 Years: -0.6% 20 Years: -3.4%	Capacity: 28% | 12% Energy: 188% | 114%	10 Years: 86% 20 Years: 93%
Expanded Wind Availability (EER)	10 Years: $3.1B (31%) 20 Years: $5.4B (27%)	10 Years: $0.5B (3.5%) 20 Years: $1.3B (5.2%)	10 Years: 5.1% 20 Years: -0.6%	Capacity: 31% | 34% Energy: 296% | 318%	10 Years: 92% 20 Years: 92%
Base with High Load	10 Years: $2.8B (28%) 20 Years: $4.9B (23%)	10 Years: $0.0B (0.3%) 20 Years: $0.1B (0.3%)	10 Years: 0.8% 20 Years: -2.6%	Capacity: 34% | 25% Energy: 208% | 189%	10 Years: 92% 20 Years: 98%
Base with Low Load	10 Years: $2.1B (24%) 20 Years: $3.6B (20%)	10 Years: $0.1B (0.5%) 20 Years: $0.1B (0.7%)	10 Years: 2.3% 20 Years: -1.9%	Capacity: 24% | 19% Energy: 170% | 172%	10 Years: 92% 20 Years: 96%
High Technology Costs	10 Years: $2.6B (27%) 20 Years: $4.3B (22%)	10 Years: $0.0B (0.1%) 20 Years: $0.1B (0.3%)	10 Years: -0.7% 20 Years: -3.4%	Capacity: 31% | 19% Energy: 173% | 139%	10 Years: 90% 20 Years: 97%
Rockport Unit 1 Retires 2025	10 Years: $2.6B (27%) 20 Years: $4.3B (22%)	10 Years: $0.0B (0.1%) 20 Years: $0.1B (0.3%)	10 Years: -0.7% 20 Years: -3.4%	Capacity: 80% | 64% Energy: 183% | 148%	10 Years: 84% 20 Years: 95%
Rockport Unit 1 Retires 2026	10 Years: $2.6B (27%) 20 Years: $4.3B (22%)	10 Years: $0.0B (0.1%) 20 Years: $0.1B (0.3%)	10 Years: -0.6% 20 Years: -3.4%	Capacity: 31% | 19% Energy: 173% | 139%	10 Years: 86% 20 Years: 95%
Exit OVEC ICPA in 2030	10 Years: $2.8B (28%) 20 Years: $4.4B (22%)	10 Years: $0.0B (0.1%) 20 Years: $0.1B (0.3%)	10 Years: -0.6% 20 Years: -3.2%	Capacity: 27% | 21% Energy: 177% | 142%	10 Years: 90% 20 Years: 97%

Remaining Modeling and Next Steps

Stakeholder Meeting 3B

- Meeting Minutes will be posted on February 11, 2025

Stakeholder Meeting 4: March 5, 2025

- Risk Analysis: Stochastics
- Preferred Plan

Submit IRP: March 28, 2025

Feedback and Discussion

INDIANA MICHIGAN POWER℠

An AEP Company

Resource Modeling Parameters (Baseload Resources)

Base Load (New Resources)					
Resource Type	First Year Available	Annual Build Limit (MW)	Cumulative Build Limit through 2030 (MW)	Total Cumulative Build Limit Through Planning Horizon (MW)	Installed Cost[1] $/kW
NUCLEAR SMALL MODULAR REACTOR	2037	600	N/A	5,100	$11,700
NEW NG COMBINED CYCLE (2x1)	2031	1,030	N/A	5,600	$1,800
NEW NG COMBINED CYCLE (1x1)	2031	420	N/A		$2,000
NEW NG COMBINED CYCLE W/CARBON CAPTURE SYSTEM (CCS)	2035	380	N/A	3,800	$4,300

Base Load (Existing Resources)								
Resource Type	First Year Available	Last Year Available	Annual Build Limit (MW)	Cumulative Build Limit through 2030 (MW)	Total Cumulative Build Limit Through Planning Horizon (MW)	Installed Cost[1] $/kW	Installed Cost[1] $/MW-D
EXISTING NG COMBINED CYCLE (5 YEAR)	2028	2031	1,800	3,600	5,400	N/A	~~$485~~ $680
EXISTING NG COMBINED CYCLE (10 YEAR)	2028	2031					
EXISTING NG COMBINED CYCLE (20 YEAR)	2028	2031				$1,100	N/A

Note 1: Costs represent nominal dollars in the first year that the resource is available

Resource Modeling Parameters (Peaking Resources)

Peaking (New Resources)					
Resource Type	First Year Available	Annual Build Limit (MW)	Cumulative Build Limit through 2030 (MW)	Total Cumulative Build Limit Through Planning Horizon (MW)	Installed Cost[1] $/kW
NEW COMBUSTION TURBINE	2030	920	920	6,670	$1,500
COMBUSTION TURBINES AERODERIVATIVE	2031	330	N/A	1,320	$2,020
RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)	2031	100	N/A	400	$3,300

Peaking (Existing Resources)							
Resource Type	First Year Available	Last Year Available	Annual Build Limit (MW)	Cumulative Build Limit through 2030 (MW)	Total Cumulative Build Limit Through Planning Horizon (MW)	Installed Cost[1] $/kW	Installed Cost[1] $/MW-D
EXISTING NG COMBUSTION TURBINE (5 YEAR)	2028	2031	1,000	3,000	4,000	N/A	~~$320~~ $493
EXISTING NG COMBUSTION TURBINE (10 YEAR)	2028	2031					
EXISTING NG COMBUSTION TURBINE (20 YEAR)	2028	2031				~~$540~~ $644	N/A

Note 1: Costs represent nominal dollars in the first year that the resource is available

Resource Modeling Parameters (Intermittent Resources)

Intermittent (Wind & Solar)						
Resource Type	First Year Available	Annual Build Limit (MW)	Cumulative Build Limit through 2030 (MW)	Total Cumulative Build Limit Through Planning Horizon (MW)	Installed Cost[1] $/kW	Installed Cost[1] $/MWh
WIND (15 YEAR)	~~2029~~ 2028	~~600~~ 200	~~800~~ 400	~~3200~~ 4000	N/A	$86
WIND (30 YEAR)	2031	400	N/A		$3,000	N/A
SOLAR (15 YEAR)	2028	600	1,200	4,800	N/A	$85
SOLAR (35 YEAR)[2]	2028	600	1,200	4,800	$2,500	N/A
SOLAR w/STORAGE (4-HOUR)	2028	600	750	1,350	$3,100	N/A

Intermittent (Storage)					
Resource Type	First Year Available	Annual Build Limit (MW)	Cumulative Build Limit through 2030 (MW)	Total Cumulative Build Limit Through Planning Horizon (MW)	Installed Cost[1] $/kW
NEW STORAGE (4-HOUR)	2028	250	500	3,000	$2,000
NEW STORAGE (6-HOUR)	2029	150	300	1,800	$3,000
NEW STORAGE (8-HOUR)	2029	100	200	1,200	$4,000
NEW STORAGE (100-HOUR)	2032	40	N/A	240	$2,800

Note 1: Costs represent nominal dollars in the first year that the resource is available

Preliminary PJM ELCC and FPR Forecasts

ELCC Class	2026/ 27	2027/ 28	2028/ 29	2029/ 30	2030/ 31	2031/ 32	2032/ 33	2033/ 34	2034/ 35
Onshore Wind	35%	33%	28%	25%	23%	21%	19%	17%	15%
Offshore Wind	61%	56%	47%	44%	38%	37%	33%	27%	20%
Fixed-Tilt Solar	7%	6%	5%	5%	4%	4%	4%	4%	3%
Tracking Solar	11%	8%	7%	7%	6%	5%	5%	5%	4%
Landfill Intermittent	54%	55%	55%	56%	56%	56%	56%	56%	54%
Hydro Intermittent	38%	40%	37%	37%	37%	37%	39%	38%	38%
4-hr Storage	56%	52%	55%	51%	49%	42%	42%	40%	38%
6-hr Storage	64%	61%	65%	61%	61%	54%	54%	53%	52%
8-hr Storage	67%	64%	67%	64%	65%	60%	60%	60%	60%
10-hr Storage	76%	73%	75%	72%	73%	68%	69%	70%	70%
Demand Resource	70%	66%	65%	63%	60%	56%	55%	53%	51%
Nuclear	95%	95%	95%	96%	95%	96%	96%	94%	93%
Coal	84%	84%	84%	85%	85%	86%	86%	83%	79%
Gas Combined Cycle	79%	80%	81%	83%	83%	85%	85%	84%	82%
Gas Combustion Turbine	61%	63%	66%	68%	70%	71%	74%	76%	78%
Gas Combustion Turbine Dual Fuel	79%	79%	80%	80%	81%	82%	83%	83%	83%
Diesel Utility	92%	92%	92%	92%	92%	93%	93%	93%	92%
Steam	74%	73%	74%	75%	74%	75%	76%	74%	73%

https://www.pjm.com/-/media/planning/res-adeq/elcc/preliminary-elcc-class-ratings-for-period-2026-2027-through-2034-2035.ashx

Delivery Year	Forecast Pool Requirement (% of Peak Load)
2026/27	93.67%
2027/28	92.69%
2028/29	92.75%
2029/30	93.47%
2030/31	92.96%
2031/32	92.72%
2032/33	92.10%
2033/34	89.99%
2034/35	87.09%

- I&M's forecasted capacity need is influenced by the accredited capacity PJM recognizes for I&M's resources (i.e., ELCC Class values) as well as by the load requirement PJM sets (i.e., the "FPR" or Forecast Pool Requirement)
- PJM's forecasted decline in ELCC class values for resources such as wind, solar, and storage is offset, in part, by a lower forecasted peak load requirement (i.e., a lower FPR)

Affordability

The Affordability indicators compare the cost to customers under Base Case market scenario conditions over the short- and long-term and the Portfolio cost range when evaluated across the different market scenarios.

Performance Indicator	Metric	Description
Near-term	7-year Power Supply Cost CAGR under the Base Case (2024-2031)	• I&M measures and considers the expected Compound Annual Growth Rate ("CAGR") of expected power supply costs for the years 2024-2031 as the metric for the short-term performance indicator • A lower number is better, indicating slower growth in power supply costs
Long-term	Portfolio NPVRR under the Base Case (2025-2044)	• I&M measures and considers the growth in Net Present Value Revenue Requirement (power supply costs) over 20 years as the long-term metric • NPVRR represents total long-term cost paid by I&M related to power supply. This includes plant O&M costs, fuel costs, environmental costs, net purchases and sales of energy and capacity, property and income taxes, and the return on capital • A lower number is better, indicating lower costs to supply customers with power
Portfolio Resilience	High Minus Low Scenario Range 20-yr NPVRR (2025-2044)	• I&M measures and considers the range of 20-yr NPVRR reported by each portfolio across all PJM market scenarios. This metric reports the difference between the highest and lowest cost scenarios reported by the candidate portfolio on an NPVRR • A lower number is better, indicating a tighter grouping of expected customer costs across a wide range of long-term market conditions

Reliability

The Reliability indicators compare the amount of excess reserves and the reliance on market resources to serve customers across candidate portfolios.

Performance Indicator	Metric	Description
Planning Reserves	Reserve Margin %	• I&M measures and considers the average amount of firm capacity in each candidate portfolio over 10 and 20 years • A higher number is better, indicating more reserves are available to meet PJM requirements
Energy Market Risk	Portfolio Cost Range of market purchases, MWhs as % of internal Load	• I&M measures and considers the reliance of each candidate portfolio on market purchases to balance seasonal generation with customer load • The metric reports the NPV of the cost of market purchases and the average MWhs as a % of internal load over 10 and 20 years • A lower number indicates less reliance on the market to meet customer needs
	Portfolio Revenue Range of market sales, MWhs as % of internal Load	• I&M measures and considers the reliance of each candidate portfolio on market sales to balance seasonal generation with customer load • The metric reports the NPV of the cost of market sales and the average MWhs as a % of internal load over 10 and 20 years • A lower number indicates less reliance on the market to meet customer needs

Resiliency

The Resiliency indicators compare the amount of dispatchable capacity in the fleet and the technology diversity for capacity and energy of the Indiana generating mix across candidate portfolios.

Performance Indicator	Metric	Description
Resource Diversity	Percent Change of the Capacity and Energy Diversity Index in 2034 and 2044	• I&M measures and considers the capacity and energy diversity of new technologies added to its portfolio when comparing candidate portfolios • The metric will use the Shannon-Weiner Index to measure the number of different technologies and their respective contribution to the portfolio totals for both capacity and energy diversity for each Portfolio. A percent change from 2025 is calculated in year 2034 and 2044 • A higher number is better. A portfolio that includes diverse resources for both capacity and energy delivery mitigates customers' performance risk when conditions for that technology are unfavorable
Fleet Resiliency	Nameplate MW of dispatchable units in 2034 and 2044	• I&M measures and considers the average amount of dispatchable units added to the portfolio over 10 and 20 years • The metric for this indicator is the average of total Nameplate MW of dispatchable units as a percent of company peak demand • A higher number is better, indicating greater ability to ramp generation up or down to react to market conditions and follow load

(Grid) Stability

The Grid Stability indicator compares the amount of dispatchable capacity in the fleet, and the technology diversity of the Indiana generating mix across candidate portfolios.

Performance Indicator	Metric	Description
Fleet Resiliency	Nameplate MW of dispatchable units in 2034 and 2044	• I&M measures and considers the average amount of dispatchable units added to the portfolio over 10 and 20 years • The metric for this indicator is the average of total Nameplate MW of dispatchable units as a percent of company peak demand • A higher number is better, indicating greater ability to ramp generation up or down to react to market conditions and follow load

Sustainability

I&M also considered a Sustainability indicator to compare portfolio performance towards meeting corporate sustainability targets.

Performance Indicator	Metric	Description
CO_2, NOx, SO_2, Emissions	2034 & 2044 % Change from 2005 Baseline	• I&M measures and considers the total amount of expected CO_2, NOx and SO_2 emissions of each candidate portfolio. • This metric compares the forecasted emissions of candidate portfolios in 2034 and 2044 under Reference Case market conditions with actual historical emissions from the year 2005. • A higher number indicates greater levels of emissions reductions have been achieved and customers are less exposed to potential future CO_2 costs.