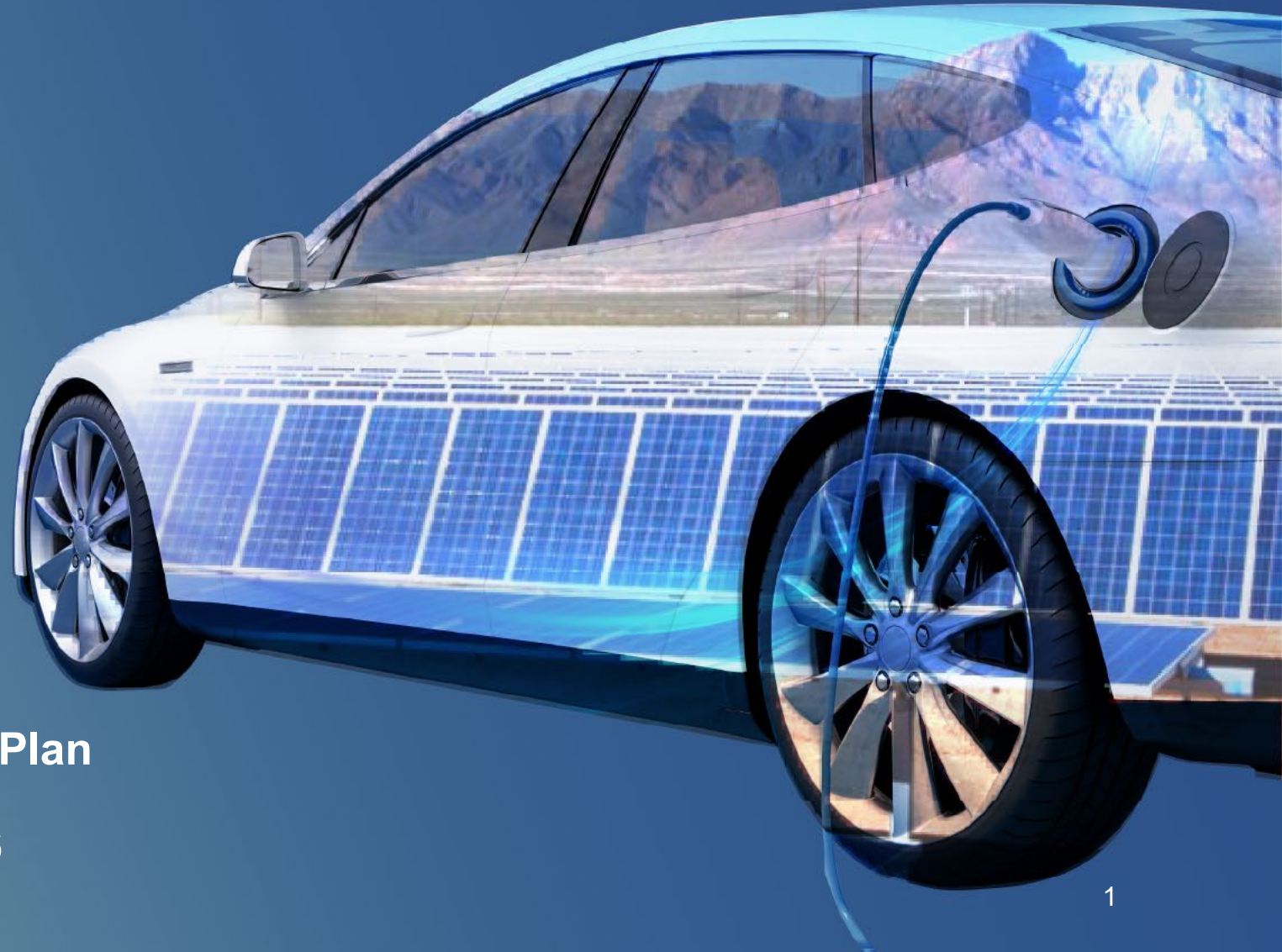




**El Paso Electric Company
2025 New Mexico Integrated Resource Plan**

**Stakeholder Engagement Workshop #6
June 17, 2025**

Welcome

2025 El Paso Electric Company Integrated Resource Plan Public Participation Workshop

Agenda:

- Welcome
- Safe Harbor
- Introduction & Overview
- Statement of Need and Action Plan
- Updated Base Case Modeling Results
- Scenario and Sensitivity Modeling Results

Safe Harbor

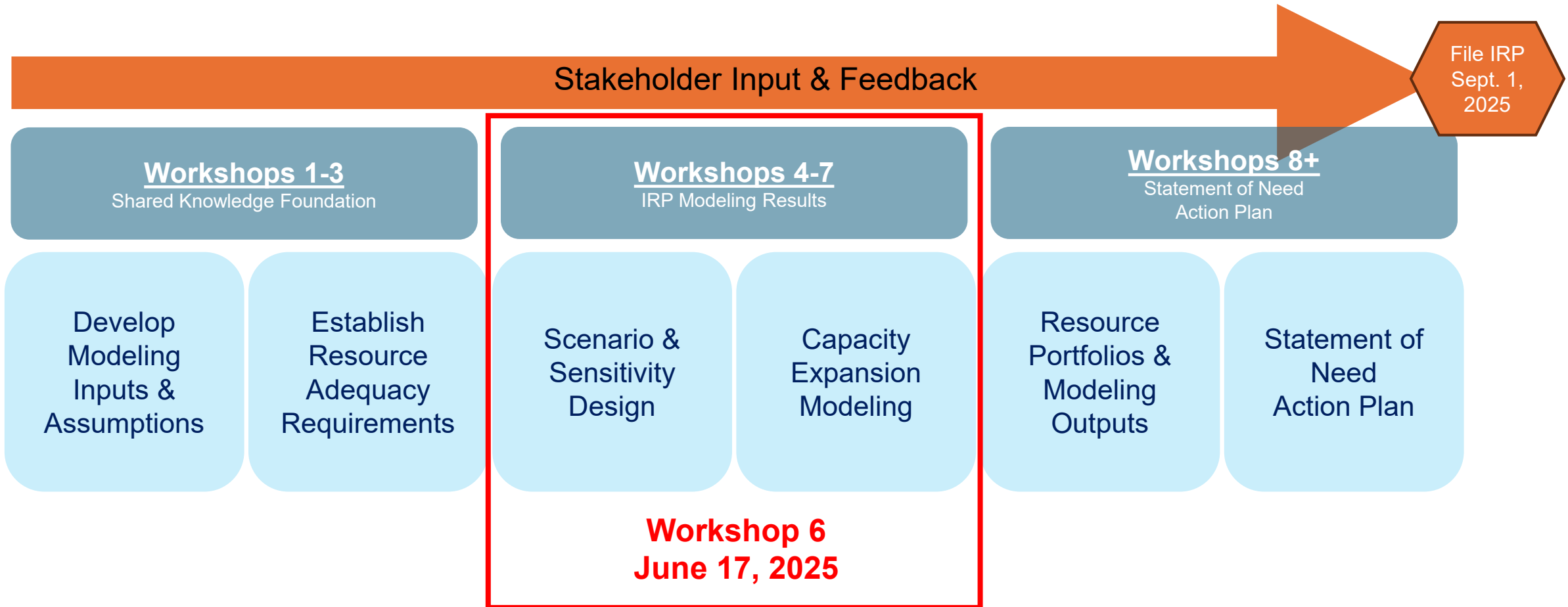
Certain matters discussed in this Integrated Resource Plan ("IRP") facilitated stakeholder process presentation other than statements of historical information are "forward-looking statements" made pursuant to the safe harbor provisions of the Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended.

Forward-looking statements often include words like we "believe", "anticipate", "target", "project", "expect", "predict", "pro forma", "estimate", "intend", "will", "is designed to", "plan" and words of similar meaning, or are indicated by the Company's discussion of strategies or trends. Forward-looking statements describe the Company's future plans, objectives, expectations or goals and include, but are not limited to, statements regarding [anticipated future generation costs, resource need, customer growth rates, rate structure, fuel costs, purchased power pricing]. Such statements are subject to a variety of risks, uncertainties and other factors, most of which are beyond El Paso Electric Company's ("EPE" or the "Company") control, and many of which could have a significant impact on the Company's operations, results of operations, and financial condition, and could cause actual results to differ materially from those anticipated.. Any such forward-looking statement is qualified by reference to these risks and factors. EPE cautions that these risks and factors are not exclusive.

Although the Company believes that the expectations reflected in such forward-looking statements are reasonable, no assurances can be given that these expectations will prove to be correct. Forward-looking statements by their nature that could substantial risks and uncertainties that could significantly impact expected results, and actual future results could differ materially from those described in such statements. Management cautions against putting undue reliance on forward-looking statements or projecting any future assumptions based on such statements. Forward-looking statements speak only as of the date of this IRP facilitated stakeholder process presentation, and EPE does not undertake to update any forward-looking statement contained herein, except to the extent the events or circumstances constitute material changes in this IRP that are required to be reported to the New Mexico Public Regulation Commission ("NMPRC" or "Commission") pursuant to its IRP Rule, 17.7.3 New Mexico Administrative Code.

Overview & Introduction

IRP Overview



- Additional Office Hours: TBD After Workshop No. 7 for deeper discussion on capacity expansion modeling

Statement of Need and Action Plan

2021 IRP Four-Year Action Plan

In EPE's 2021 IRP, the Company filed a Four-Year Action Plan in accordance with the IRP Rule.

EPE's Amended 2021 IRP was accepted by the Commission in Case No. 21-00242-UT.

1

Hecate and Buena Vista selected resources

2

EPE's Annual Renewable Energy Act Plans beginning with its 2021 Plan

3

Regulatory approval process of its Energy Efficiency & Load Management Plans & Efficient Use of Energy Act Plans

4

2021 New Mexico RFP

5

Demand Side Management Potential Study

6

Voluntary customer programs for renewable energy

7

Abandonment of EPE generation units

IRP Statement of Need Requirements

17.7.3.10

STATEMENT OF NEED:

- A. The statement of need is a description and explanation of the amount and the types of new resources, including the technical characteristics of any proposed new resources, to be procured, expressed in terms of energy or capacity, necessary to reliably meet an identified level of electricity demand in the planning horizon and to effect state policies.
- B. The statement of need shall not solely be based on projections of peak load. The need may be attributed to, but not limited by, incremental load growth, renewable energy customer programs, or replacement of existing resources, and may be defined in terms of meeting net capacity, providing reliability reserves, securing flexible resources, securing demand-side resources, securing renewable energy, expanding or modifying transmission or distribution grids, or securing energy storage as required to comply with resource requirements established by statute or commission decisions.

IRP Action Plan

17.7.3.11

ACTION PLAN:

- A. The utility's action plan shall:
- (1) detail the specific actions the utility shall take to implement the IRP spanning a three-year period following the filing of the utility's IRP;
 - (2) detail the specific actions the utility shall take to develop any resource solicitations or contracting activities to fulfill the statement of need as accepted by the commission; and
 - (3) include a status report of the specific actions contained in the previous action plan.

IRP Statement of Need

Topics Discussed to Date

- Obligation to Serve
- Reliability
 - Challenges
 - RPS standards
- Affordability
- Load Growth
 - Electrification
 - Economic Development
 - Large Load Customers
- Planning Horizon
- Applicable State Policies
 - Renewable Energy Act
 - Efficient Use of Energy Act
- T&D Considerations

IRP Action Plan

Examples of Based on Topics Discussed to Date

1. Develop an all-source RFP for resource needs in the ___ to ____ time period.
2. Follow the Commission's rules for the RFP
3. Seek all needed Commission approvals for selected resources (e.g. CCNs, PPAs)
4. As needed, procure other renewable resources and renewables plus storage to ensure compliance with 50% RPS in 2030.
5. Add demand response to EPE's resource portfolio.
6. Determine how EPE will treat large load customers.
7. Implement required steps to join SPP Markets+
8. Study expanded market interaction
9. Retire/extend the life of units based on the current Life Extension Analysis.

Base Case Modeling Results

“Base” Modeling Cases

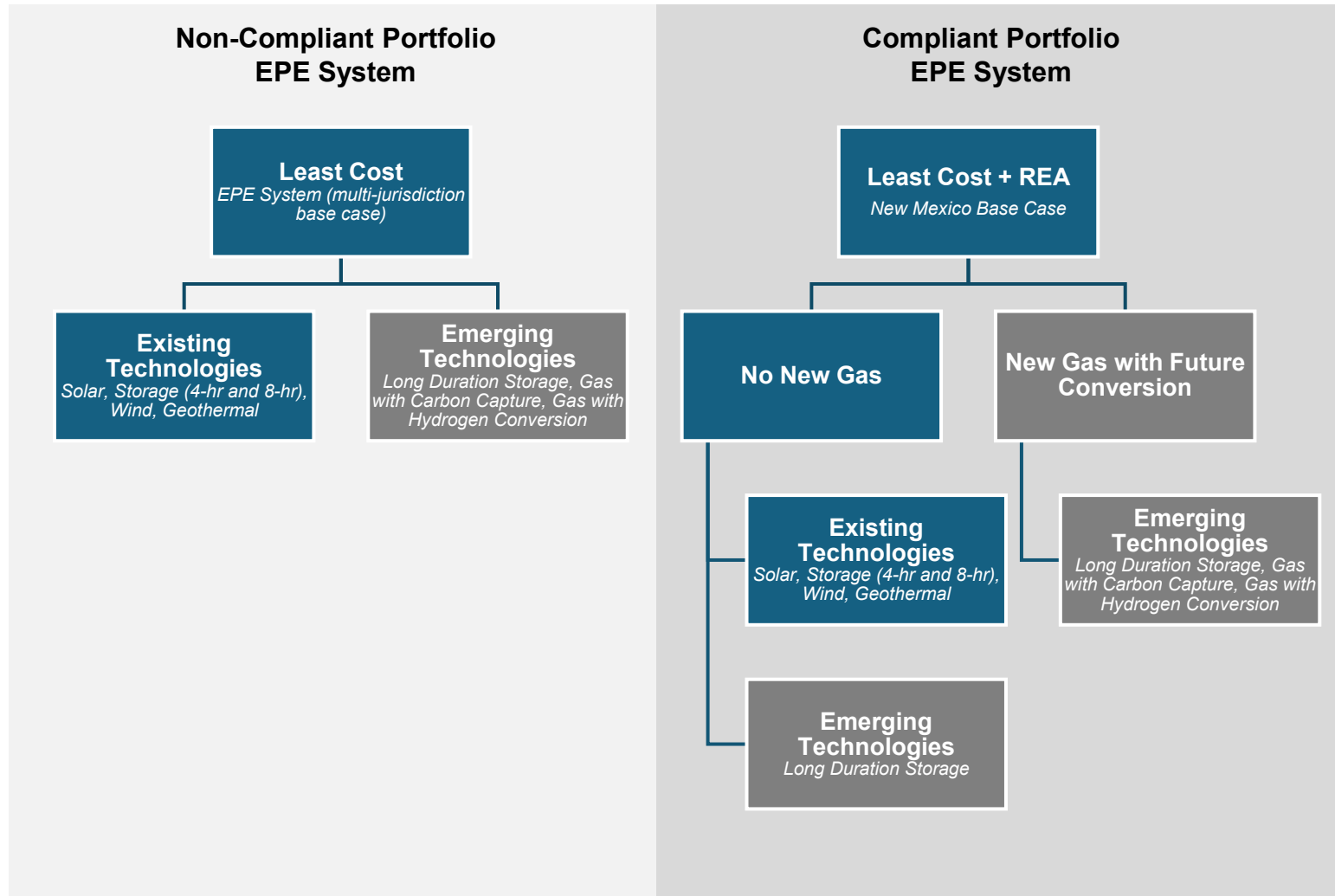
IMPORTANT NOTE: No new gas is added for New Mexico Retail load in the base case

1. Least Cost EPE System Portfolio

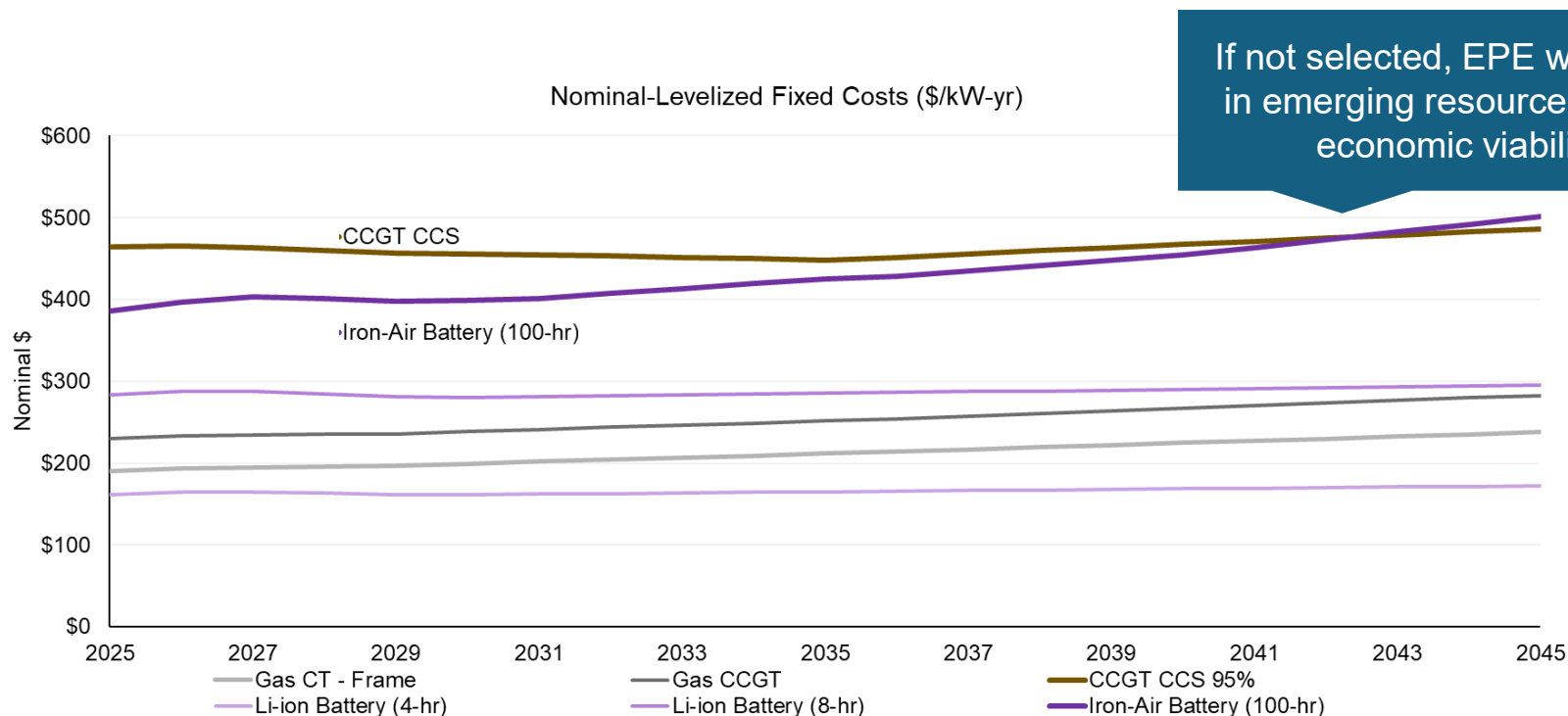
- Existing mature and commercially viable technologies only

2. Least Cost System Portfolio with REA for New Mexico Load

- No new gas resources to meet New Mexico retail load
- Existing mature and commercially viable technologies

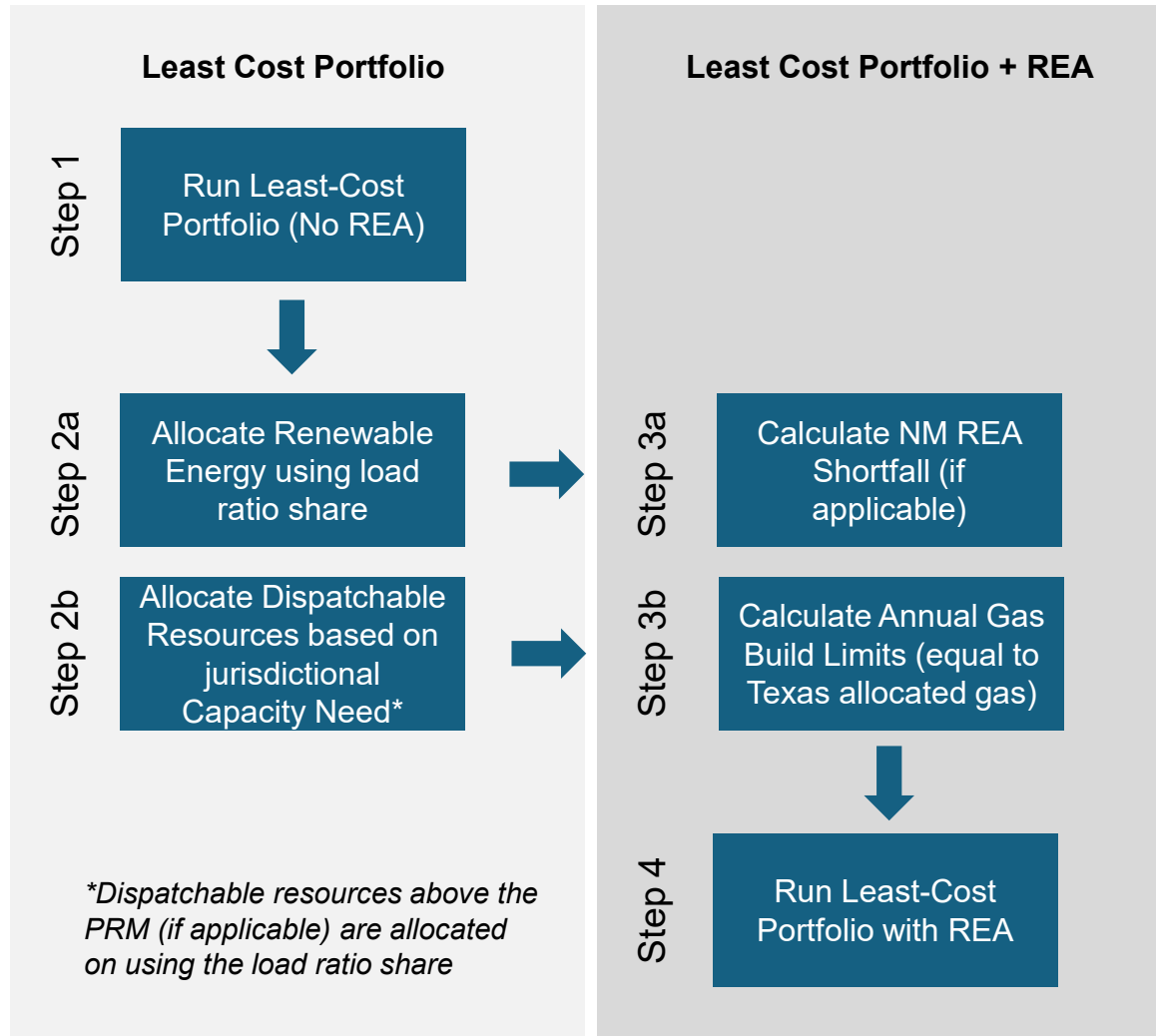


Candidate Resource: Levelized Fixed Costs (LFC)



- E3 is currently working with EPE to update assumptions for hydrogen thermal technology costs and finalize costs for CCS and Long Duration Storage (Iron-Air Battery 100-hr).
- Candidate resource costs from E3 proprietary forecasts, which are based on the 2024 Annual Technology Baseline (ATB) from the National Renewable Energy Laboratory with adjustments to reflect recent costs in the market
- Costs are generic new-resource cost assumptions for the ISP. Actual Procurement costs will be based on the outcome of a subsequent Request for Proposal (RFP)

Multi-Jurisdictional Modeling Approach



- EPE operates in Texas and New Mexico, each with distinct requirements
- Modeling requires a multi-step process to capture state-specific policies like New Mexico's RPS
- The modeling results in:
 - Least-cost renewables shared between jurisdictions
 - Additional RPS-driven renewables assigned to New Mexico
 - No new gas for New Mexico retail customers
 - Extra dispatchable resources for New Mexico PRM (if needed)

EPE System Position Loads and Resources Table

Loads and Resources

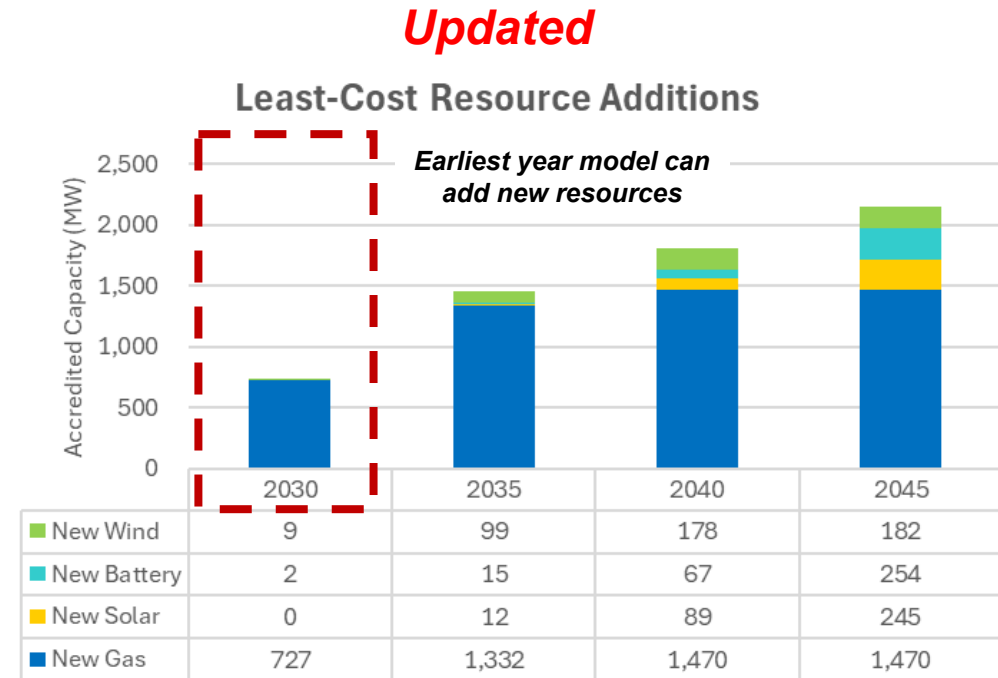
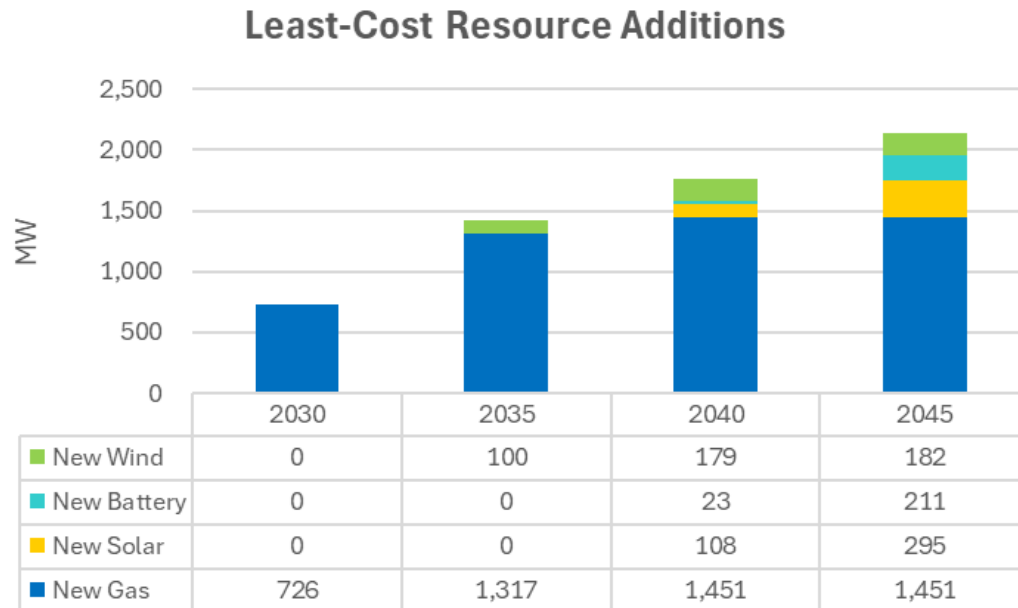
EPE System (Existing & Planned Resources Only)

	2026	2027	2028	2029	2030
Total Accredited Capacity (MW)	2,393	2,479	2,673	2,798	2,802
Firm Load Obligation	2,642	2,859	3,035	3,135	3,185
Total Planning Reserve Margin	238	257	273	282	350
Capacity Need	2,880	3,116	3,308	3,418	3,536
Resource Position (MW):					
Capacity Need Met (Short)	(488)	(636)	(635)	(620)	(734)

Based on E3's Loss-of-Load-Probability Analysis, the total planning reserve margin is set at 9% through 2029, with an increase to 11% in 2030.

EPE regularly updates its models and conducts quality control, which may result in changes to previously presented information, including the L&R. Please note an immaterial change of approximately 10 MW to EPE's capacity position. Always refer to the latest EPE presentations for the most current data.

Updated Least-Cost Modeling Results EPE System – Accredited Capacity



An immaterial change in resource additions to align with updated Loads and Resources table

EPE New Mexico Position

Least Cost + REA Updated Results

Loads and Resources

New Mexico (Existing & Planned Resources Only)

	2026	2027	2028	2029	2030
Total Accredited Capacity (MW)	484	493	455	445	445
Firm Load Obligation	536	582	587	595	604
Total Planning Reserve Margin	48	52	53	54	66
Capacity Need	584	634	640	649	671
Resource Position (MW):					
Capacity Need Met (Short)	(100)	(142)	(185)	(204)	(226)
% of Total System Need	20%	22%	29%	33%	31%

Cannot be met
with new gas
generation (all
years)

Based on E3's Loss-of-Load-Probability Analysis, the total planning reserve margin is set at 9% through 2029, with an increase to 11% in 2030.

EPE regularly updates its models and conducts quality control, which may result in changes to previously presented information, including the L&R. Please note an immaterial change of approximately 28 MW to EPE's capacity position. Always refer to the latest EPE presentations for the most current data.

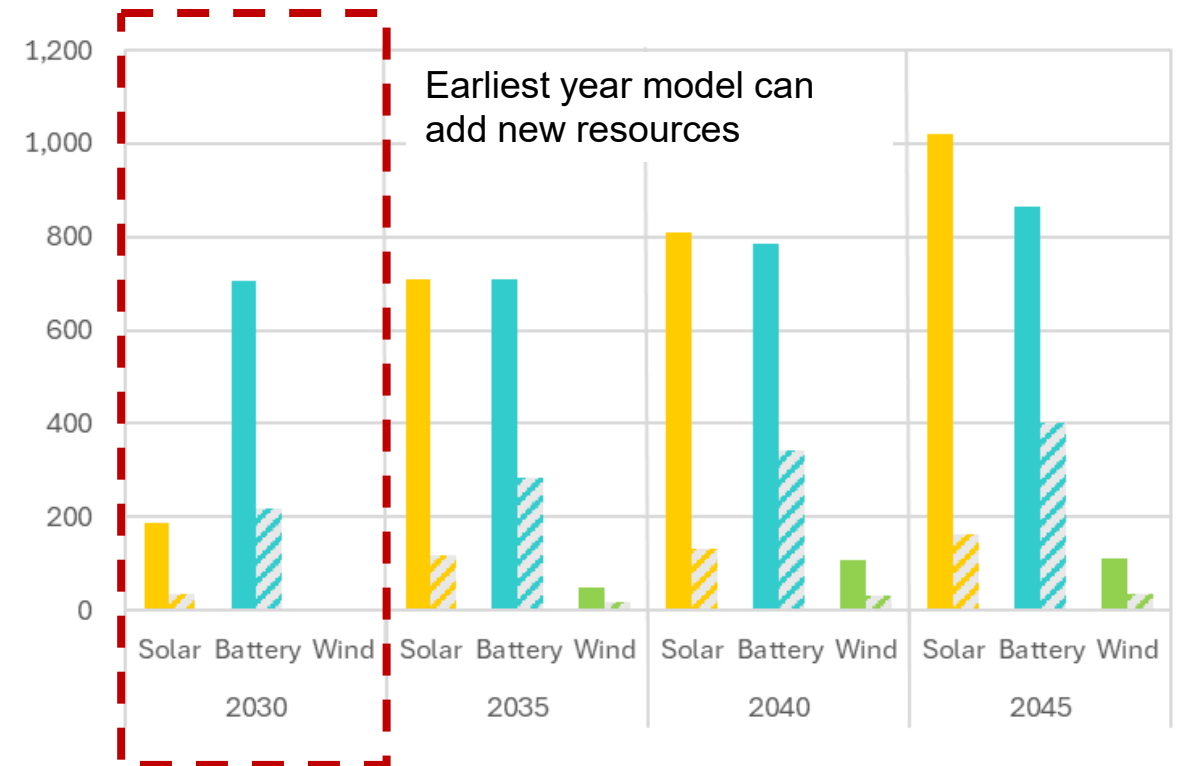
New Resource Additions

New Mexico System

New

Nameplate (MW)	2030	2035	2040	2045
Solar	189	710	808	1,020
Battery	706	711	785	865
Wind	4	50	109	112

Accredited (MW)	2030	2035	2040	2045
Need	(226)	(360)	(438)	(514)
Solar	37	118	134	162
Battery	220	283	342	402
Wind	2	18	33	34
Capacity	258	419	508	598

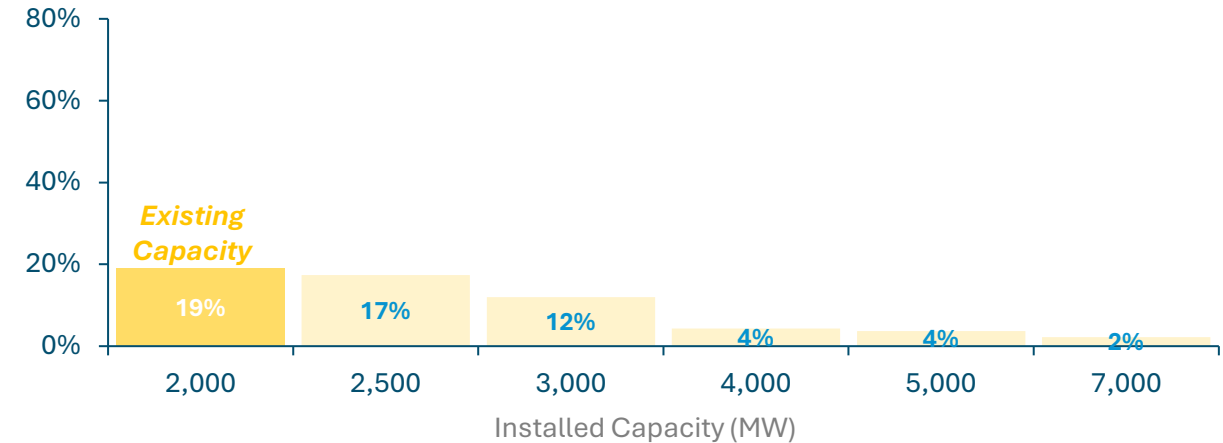


EPE is addressing a minor allocation issue between Texas and New Mexico. Once resolved, the approximate 32 MW overbuild in New Mexico in 2030 is expected to be re-allocated to Texas.

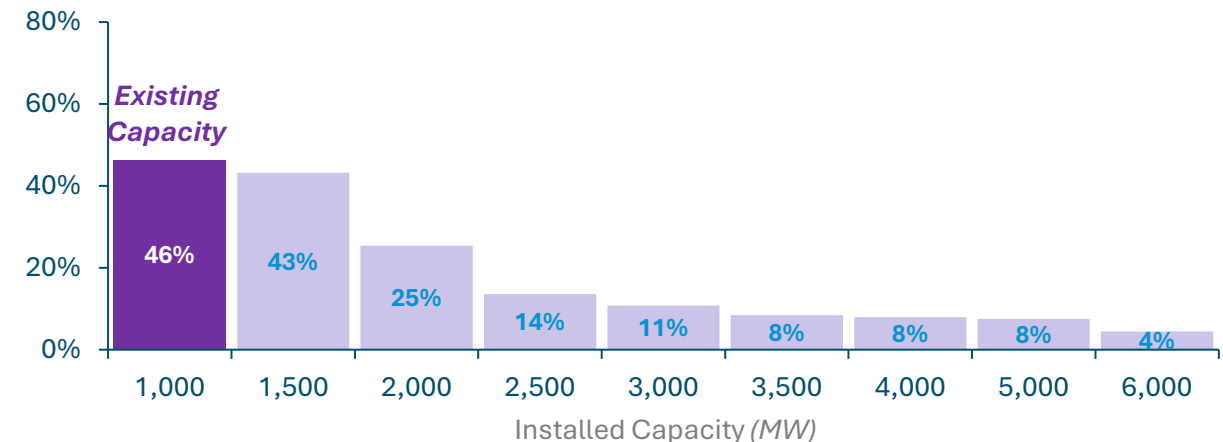
2030 Effective Load Carrying Capability (ELCC) Solar and Battery

- System risk is highest in evening hours that do not align with solar resource availability
- EPE System has significant share of solar and storage leading to lower capacity values with new additions
 - 4- hour batteries are suited to dispatch during net peak periods at low penetrations, but saturation effects are evident in base portfolio
 - As loss of load periods become longer, 4-hour batteries becomes less effective in mitigating loss of load events

Solar Incremental ELCC (%)



Storage Incremental ELCC (%)



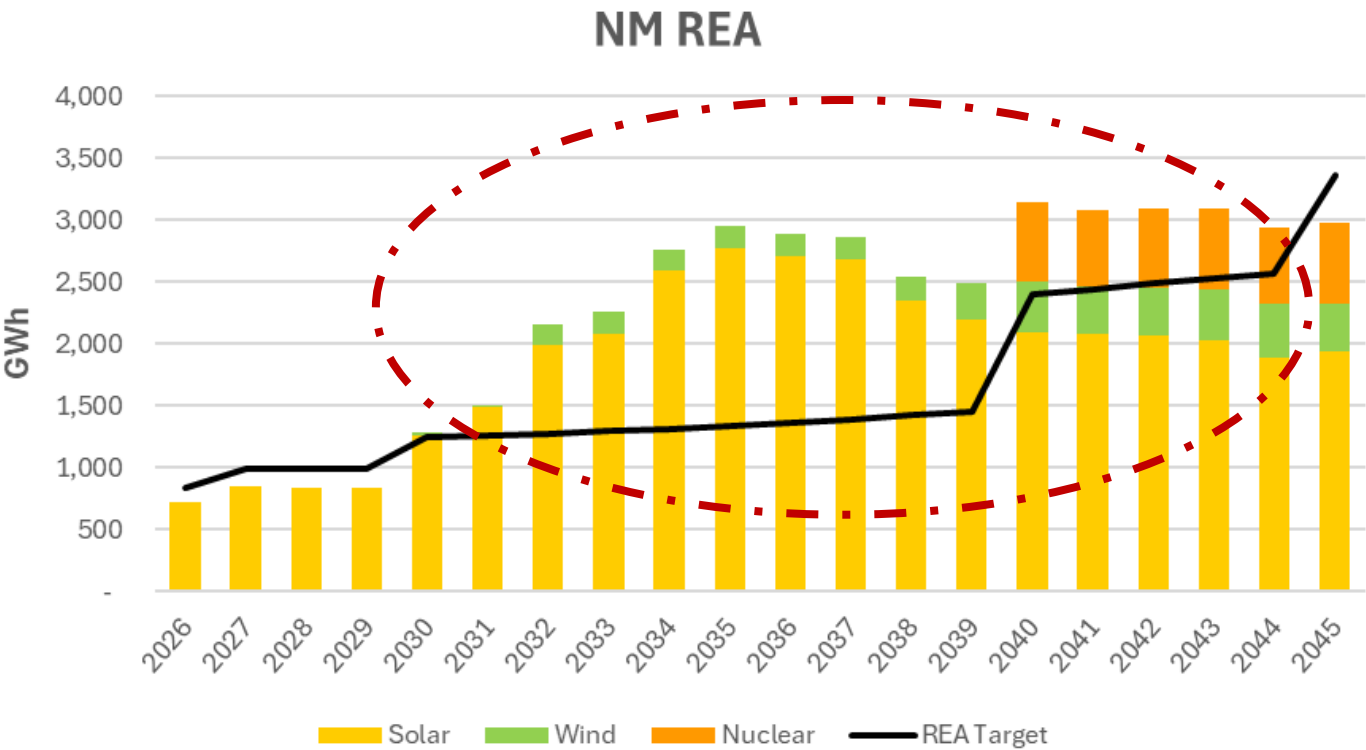
Base Results – RPS Compliance

Approximately 20% of EPE load is in New Mexico

- New Resources are being added to meet PRM requirement
- Portfolio exceeds the RPS in 2030

Year	RPS Req.
Current	40%
2030	50%
2040	80%
2045	100% Carbon Free

The Least Cost + REA case is selecting solar to meet the Planning Reserve Margin (PRM) requirement, which exceeds what's needed for the Renewable Portfolio Standard (RPS). This is a key point as we analyze the scenarios and sensitivities in more detail.



Key Takeaways

- 1 Meeting New Mexico's Renewable Portfolio Standard (RPS) targets with only existing commercially mature technologies (like wind, solar, and lithium-ion battery energy storage) necessitates a substantial overbuild of solar and battery storage.
- 2 This overbuild is likely cost-prohibitive, a trend that's also been demonstrated in other New Mexico utility Integrated Resource Plans (IRPs).
- 3 EPE's current limited access to high-quality wind resources intensifies the need for this solar and storage overbuild.
- 4 Therefore, alternative solutions — such as emerging technologies, demand-side solutions, or additional transmission access — are essential to meet New Mexico's RPS goals.
- 5 These results align with earlier expectations, and EPE's scenarios and sensitivities are well-positioned to evaluate alternative solutions.

Sensitivity Results

Stakeholder Requests

IMPORTANT MODELING NOTES



Please be advised that these modeling results are preliminary. They are currently undergoing continued QA/QC and are subject to revision

EPE is presented system cost benefits of each scenario not system savings. In other words, the cost of implementing the scenario are not included in these initial draft modeling results

Proposed Modeling Scenarios

Modeling Scenarios

- **Commercial & Industrial Demand Response Expansion:** Analyzing the effects of a broadened DR program specifically targeting C&I consumers. ☒
- **Integrated Residential Demand-Side Management:** Assessing a combined residential strategy encompassing time-of-use rates, DR, and BTM solar coupled with storage. ☒
- **Carbon Cost Integration:** Evaluating the implications of incorporating a social cost of carbon (carbon tax) into the modeling. ☐
- **Southwest Power Pool Market Enhancement:** Determining the benefits of improved power transfer capacity to and from the SPP ☒

Post-Analysis

- **Grid-Enhancing Technology Viability:** The potential of grid-enhancing technologies as an alternative to traditional transmission expansion.
- **Flexible Large Customer Load Feasibility:** The practicality and necessary attributes of incorporating new, flexible large customer loads into the system.

Metrics for Comparing Modeling Results

Sensitivity Name:	<i>Example</i> - Residential Demand Side Solution
Modeling Assumptions:	<i>Example</i> - 2,500 homes added per year over a 10-year period
Comparison to:	Base Case (Least Cost + REA)

	Horizon	System
New Resource Additions: Nameplate and Accredited Capacity (MW)	Every 5 years & 2030 through 2045	Total System & New Mexico
Change in Cumulative Nameplate Capacity (MW): Total Resources -and- New Resource Additions	2030 through 2045	Total System
Change in Annual System Costs	2030 through 2045	Total System
Change in Generation Mix (MWh)	2030 through 2045	Total System

EPE will host office hours to take a deeper dive into modeling results

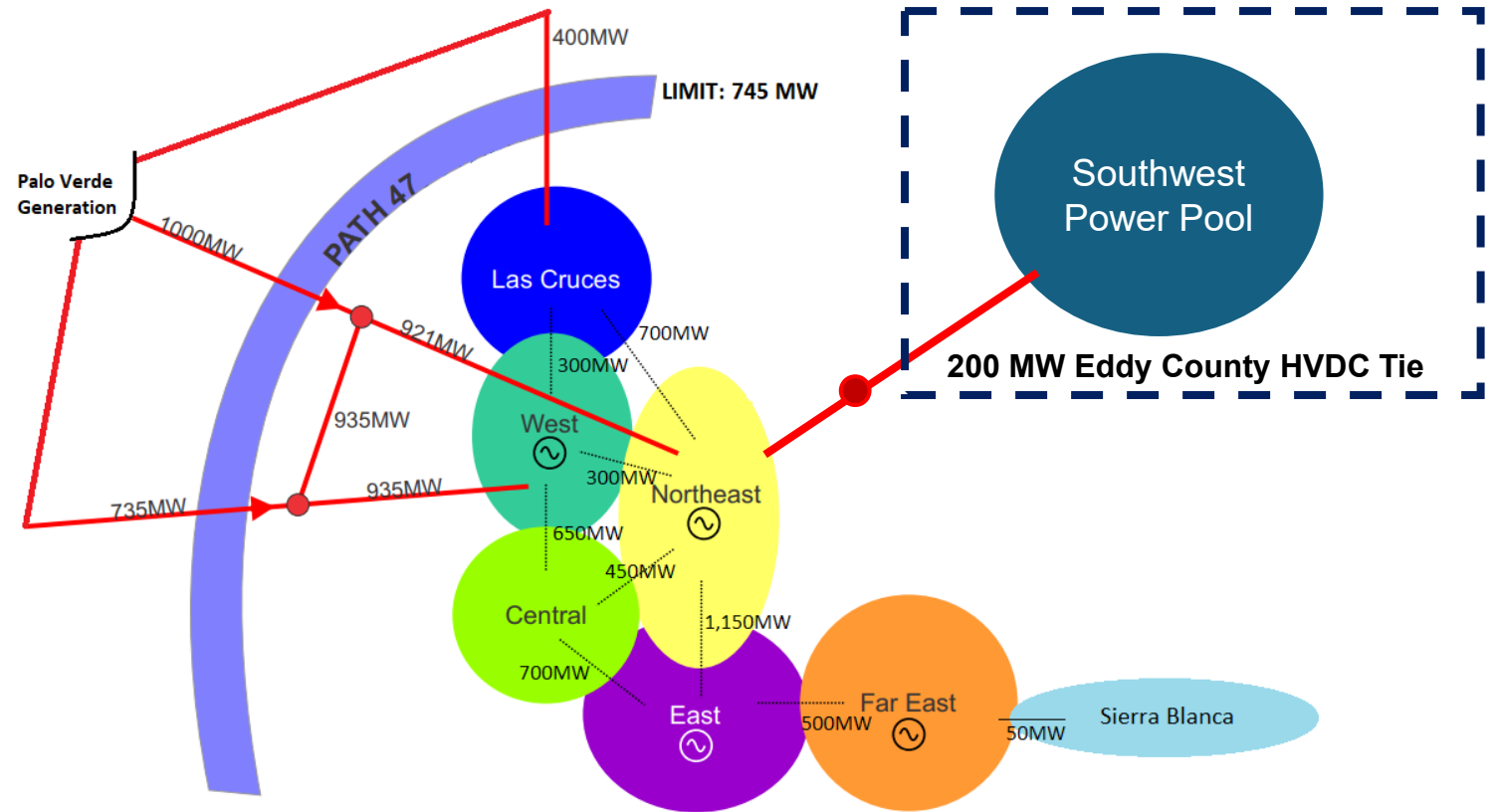
Southwest Power Pool Market Enhancement

Southwest Power Pool (SPP) Market Enhancement



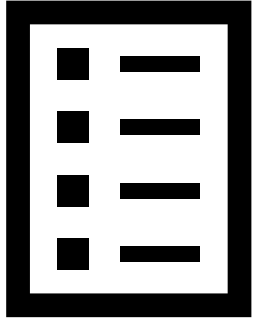
Southwest Power Pool Market Enhancement: Determining the benefits of improved power transfer capacity to and from the SPP

- EPE is connected to the SPP via a 200 MW Eddy County HVDC tie
- Current Eddy Tie is unreliable and requires additional investment



SPP Market Enhancement

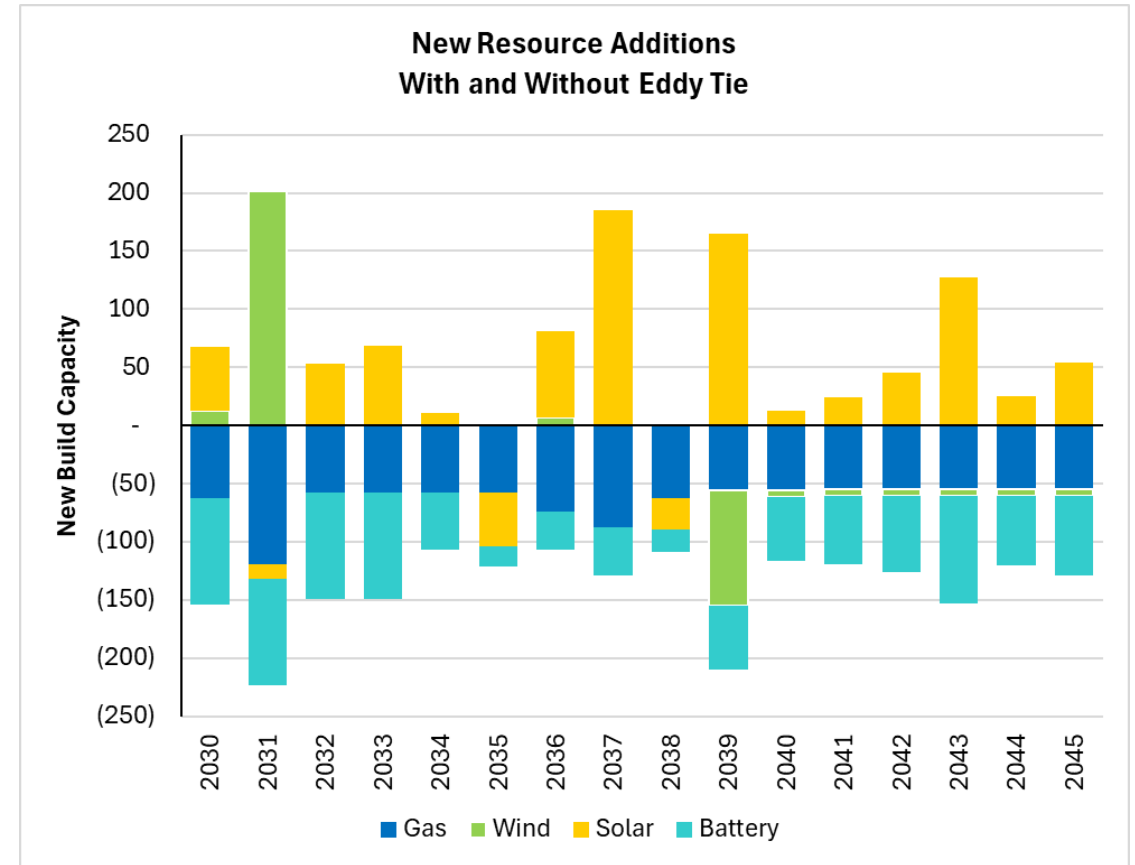
Modeling Assumptions



- Assumes the Base Case Load Forecast
- Rebuild the Eddy HVDC Tie in 2030
- Allow EPE to import or export up to 200 MW of power continuously
 - Assumes 200 MW bidirectional connection to the Northeast node in PLEXOS
- Market Price Forecasts
 - Prices for SPP Panhandle and Palo Verde from E3's Core Case Market Price forecast
- Assumes 70 MW of firm capacity provided across the Eddy Tie
 - Based on historical market purchases during critical periods
 - Potential to be higher through bilateral agreements with other entities

Change in Nameplate Capacity (MW) - **System** *SPP Market Enhancement compared to Least Cost + REA*

- **Wind:** The model brings wind generation online sooner, though the total amount of wind selected remains consistent.
- **Solar:** The timing of solar additions changes, ultimately resulting in a slight increase in total solar generation.
- **CT and Storage:** The model adds less new combustion turbine generation and energy storage.



New Resource Additions – System Nameplate

SPP Market Enhancement compared to Least Cost + REA

Without Eddy HVDC Tie

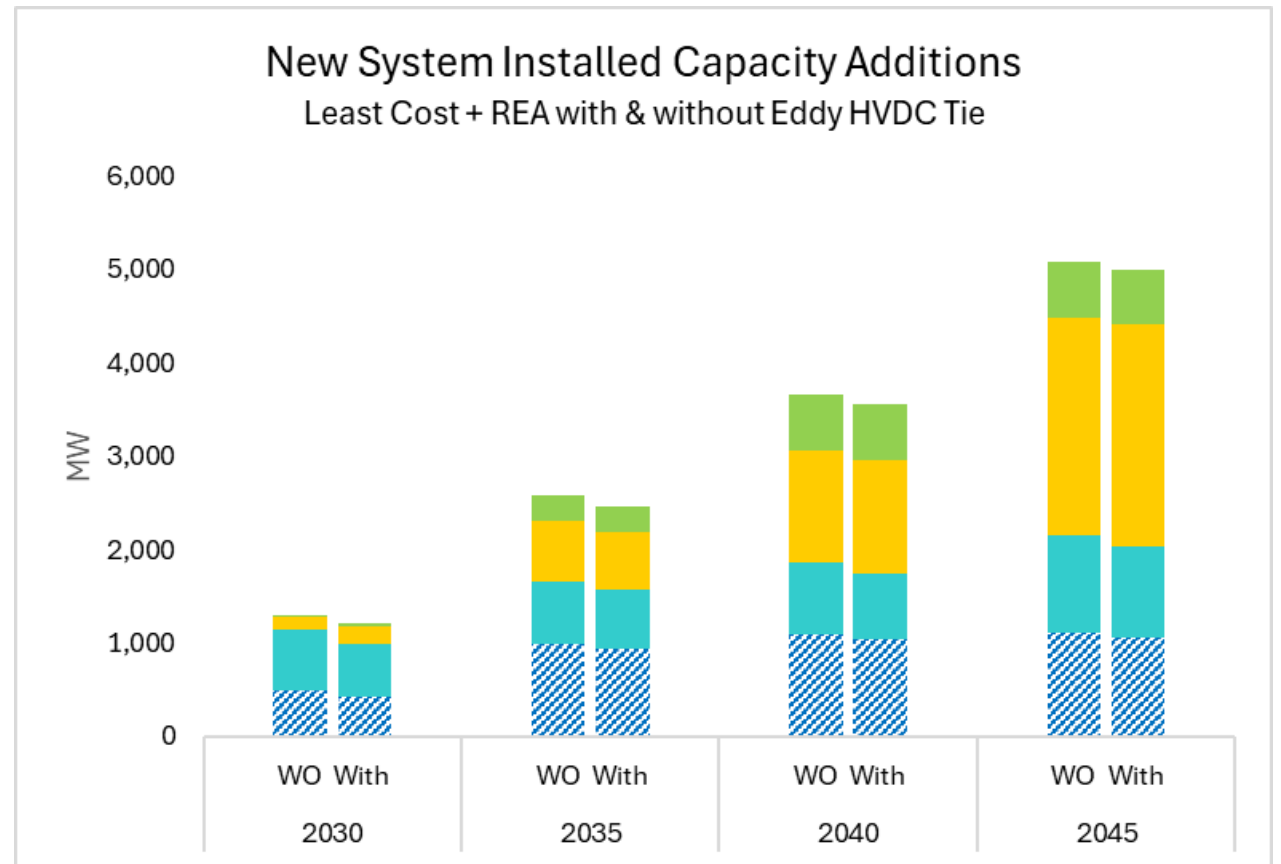
	2030	2035	2040	2045
Wind	24	276	598	598
Gas - CT	488	991	1,102	1,110
Standalone Solar	139	660	1,197	2,320
Standalone Battery	656	660	761	1,049

With Eddy HVDC Tie

	2030	2035	2040	2045
Wind	36	276	592	592
Gas - CT	425	933	1,046	1,055
Standalone Solar	194	614	1,210	2,375
Standalone Battery	564	643	706	981

Difference

	2030	2035	2040	2045
Wind	12	0	(6)	(6)
Gas - CT	(63)	(58)	(56)	(55)
Standalone Solar	55	(46)	13	54
Standalone Battery	(91)	(17)	(55)	(68)



Note: Sensitivity results are subject to change

New Resource Additions – New Mexico

SPP Market Enhancement compared to Least Cost + REA

Without Eddy HVDC Tie

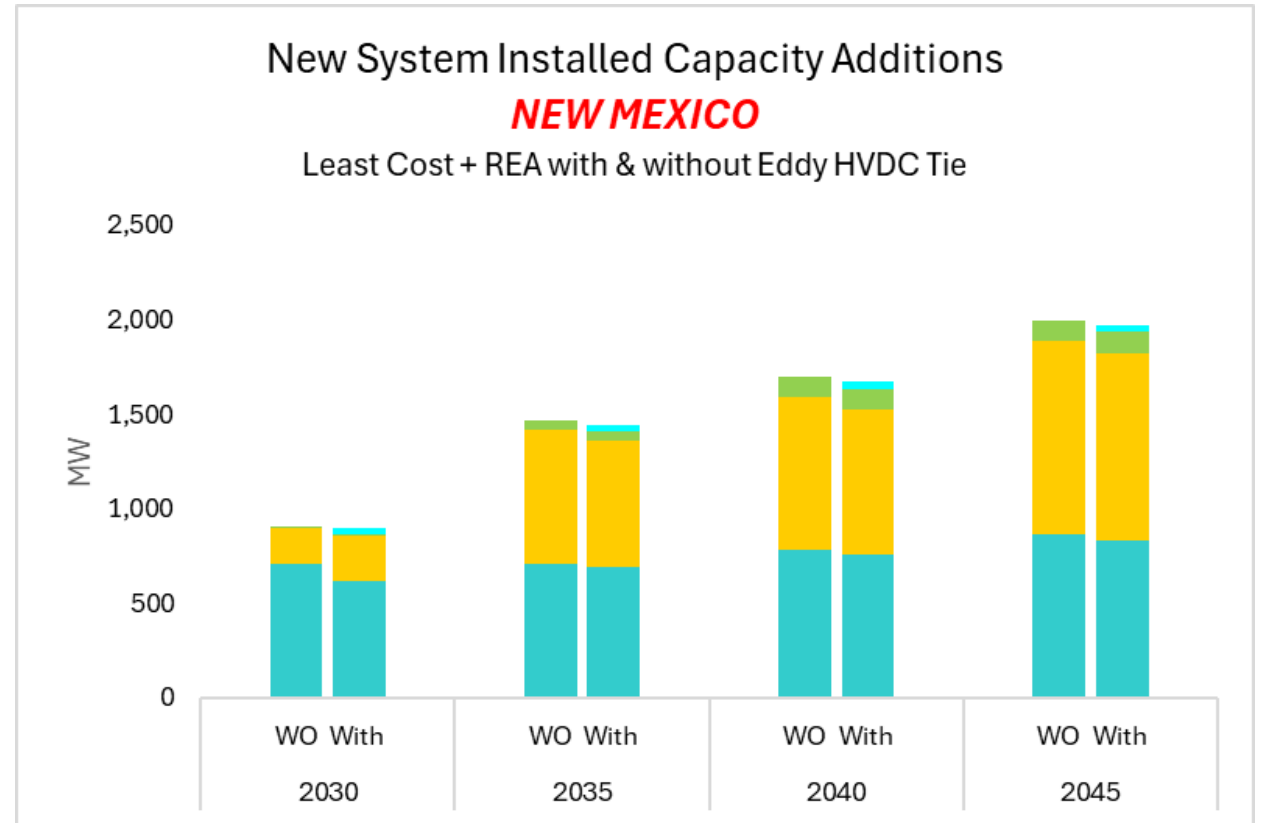
	2030	2035	2040	2045
Wind	4	50	109	112
Gas - CT	-	-	-	-
Standalone Solar	189	710	808	1,020
Standalone Battery	706	711	785	865
HVDC	-	-	-	-

With Eddy HVDC Tie

	2030	2035	2040	2045
Wind	7	50	108	110
Gas - CT	-	-	-	-
Standalone Solar	244	664	773	993
Standalone Battery	614	693	755	831
HVDC	36	36	37	37

Difference

	2030	2035	2040	2045
Wind	2	(0)	(1)	(1)
Gas - CT	-	-	-	-
Standalone Solar	55	(46)	(35)	(27)
Standalone Battery	(92)	(18)	(30)	(33)
HVDC	36	36	37	37



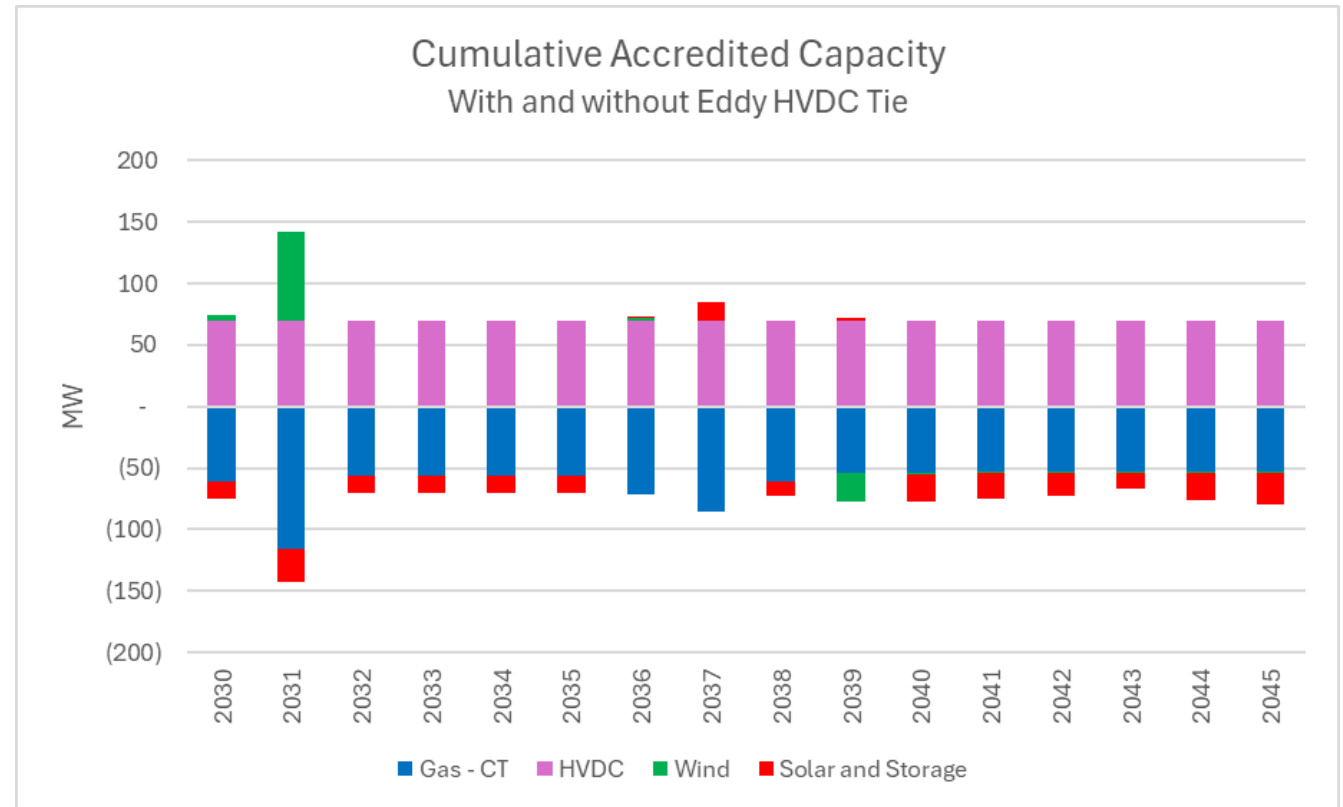
Note: Sensitivity results are subject to change

New Resource Additions – System Accredited

SPP Market Enhancement compared to Least Cost + REA

HVDC Accredited Capacity

- EPE used a conservative accredited capacity value of 70 MW for the Eddy HVDC Tie
- Avoids equivalent amount of accredited capacity from dispatchable resources (i.e., gas and storage)
- A test result including 200 MW of accredited capacity avoided 200 MW of dispatchable resources



New Resource Additions – System Accredited

SPP Market Enhancement compared to Least Cost + REA

Without Eddy HVDC Tie

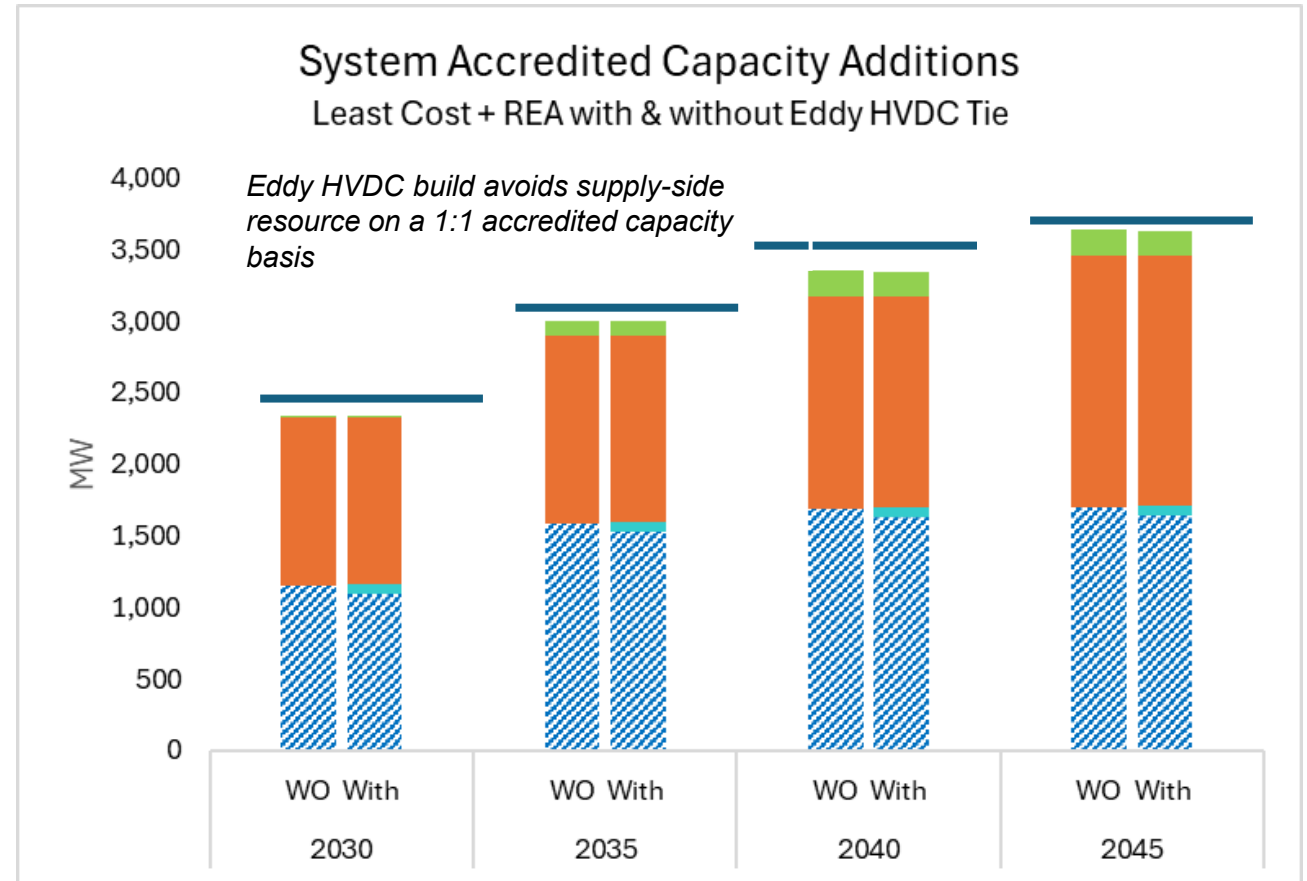
	2030	2035	2040	2045
Wind	9	99	178	182
Gas - CT	1,152	1,582	1,689	1,696
Solar and Storage	1,176	1,315	1,484	1,764
HVDC	-	-	-	-

With Eddy HVDC Tie

	2030	2035	2040	2045
Wind	13	99	176	180
Gas - CT	1,091	1,525	1,635	1,643
Solar and Storage	1,162	1,301	1,462	1,739
HVDC	70	70	70	70

Difference

	2030	2035	2040	2045
Wind	4	(0)	(1)	(1)
Gas - CT	(61)	(56)	(54)	(53)
Solar and Storage	(13)	(14)	(22)	(25)
HVDC	70	70	70	70
Total	0	(0)	(7)	(10)



Note: Sensitivity results are subject to change

New Resource Additions – New Mexico Accredited

SPP Market Enhancement compared to Least Cost + REA

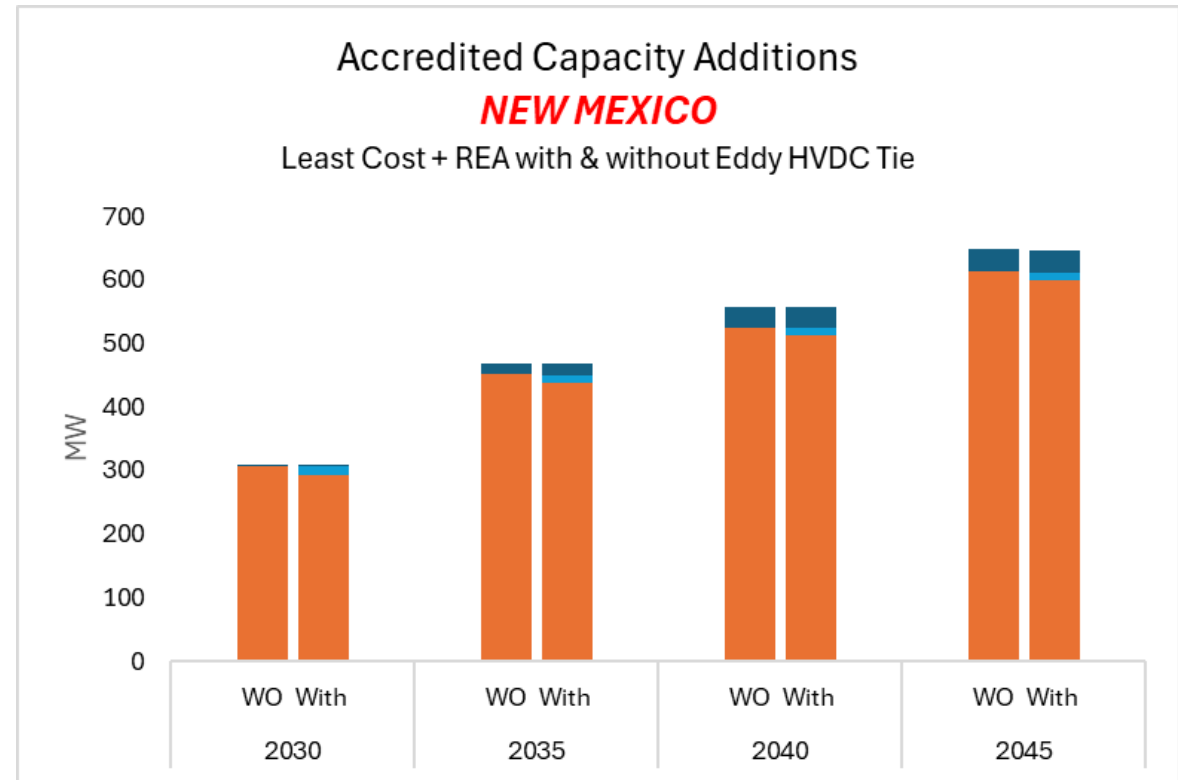
Without Eddy HVDC Tie

	2030	2035	2040	2045
Wind	2	18	33	34
Gas - CT	-	-	-	-
Solar and Storage	306	451	525	613
HVDC	-	-	-	-

	2030	2035	2040	2045
Wind	2	18	32	34
Gas - CT	-	-	-	-
Solar and Storage	293	437	512	599
HVDC	13	13	13	13

Difference

	2030	2035	2040	2045
Wind	1	(0)	(0)	(0)
Gas - CT	-	-	-	-
Solar and Storage	(13)	(14)	(14)	(14)
HVDC	13	13	13	13



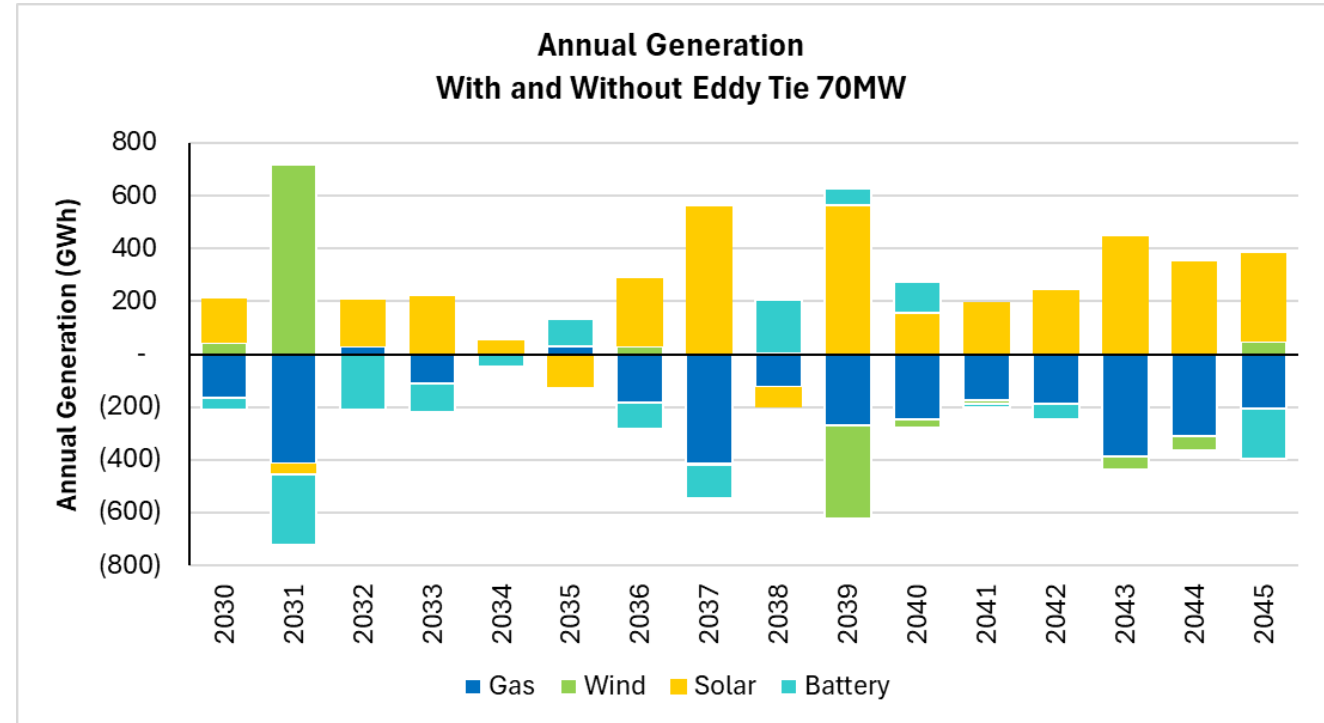
Note: Sensitivity results are subject to change

Change in Generation Mix (MWh) – **System**

SPP Market Enhancement compared to Least Cost + REA

Increased market interaction:

- Increased annual renewable energy generation from additional Solar resources
- Decreases generation from fewer natural gas-fired resources
- Provides EPE greater connectivity to wind-rich Southwest Power Pool
- Market connectivity provides diversity, resiliency, and economic opportunities

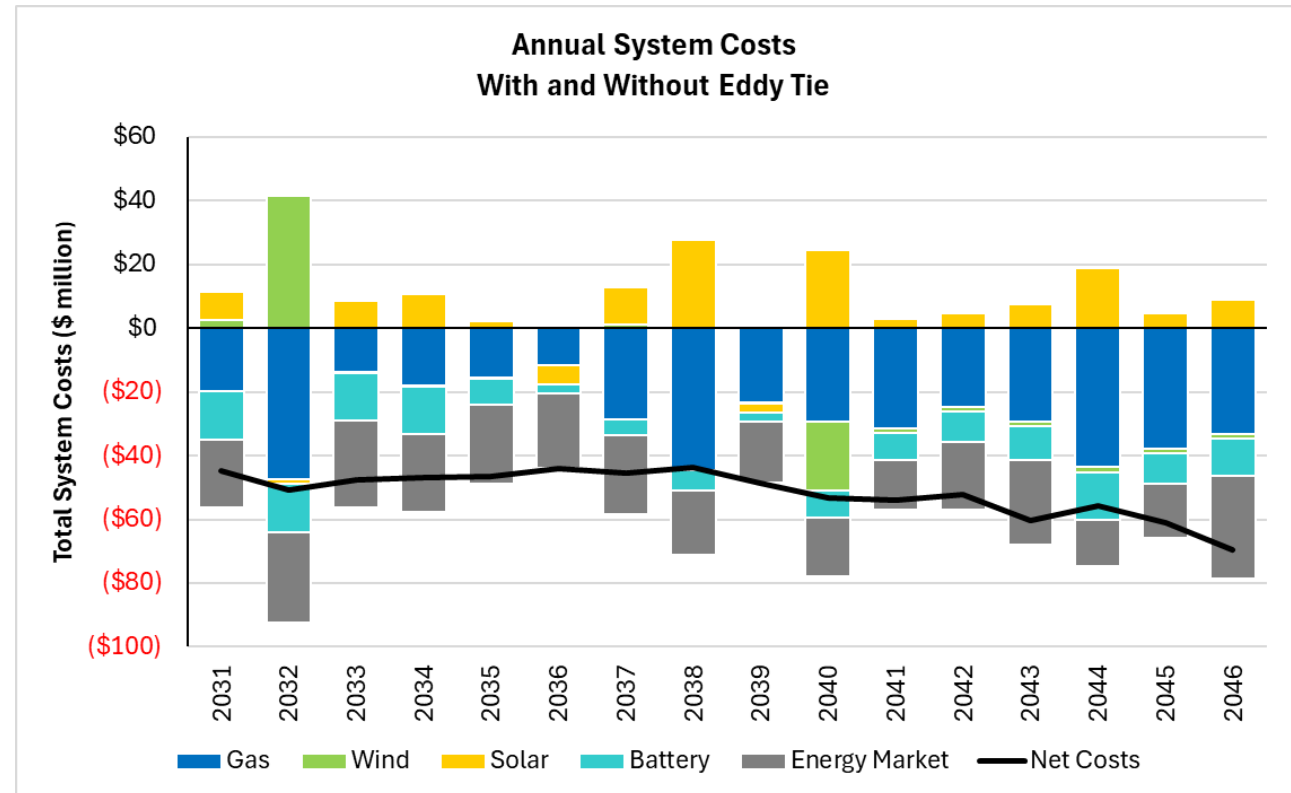


Note: Sensitivity results are subject to change

Change in Annual System Costs – **System**

SPP Market Enhancement compared to Least Cost + REA

- Analysis does not include the cost of rebuilding the tie or any bilateral agreements for capacity
- Based on 70 MW of accredited capacity
- Provides approximately \$50M of nominal benefits per year – more in the later years
- Cumulative benefits totaling \$824M, or \$376M NPV through 2045



Key Takeaways

- 1 Rebuilding the Eddy County HVDC tie provides 200 MW of bidirectional connectivity to the Southwest Power Pool
- 2 EPE's analysis assumed 70 MW of accredited capacity from the HVDC tie – which offset the equivalent amount of dispatchable accredited capacity (notable natural gas-fired generation and energy storage)
- 3 Overall increases renewable generation and decreases reliance on natural gas-fired generation
- 4 The economic benefit of the tie using the above assumptions is approximately \$50M per year (more in the latter years)
- 5 Market connectivity provides diversity, resiliency, and economic opportunities
- 6 Aligns with goals of providing reliable, affordable, and clean power

C&I Demand Response Scenario

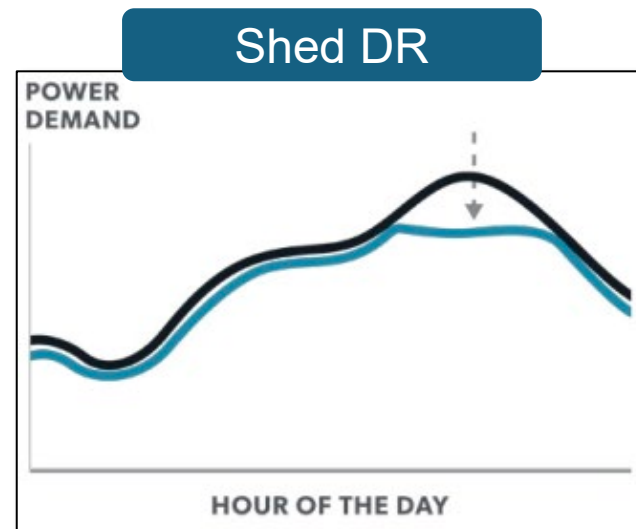
C&I Demand Response Scenario



Commercial & Industrial Demand Response Expansion: Analyze the effects of a broadened DR program specifically targeting C&I consumers

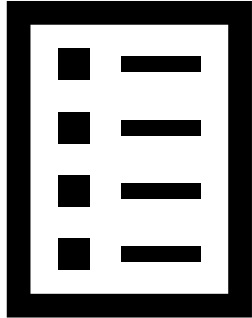


Alignment with Stakeholder Objectives: Offset the need for new peaking generation



C&I Demand Response Scenario

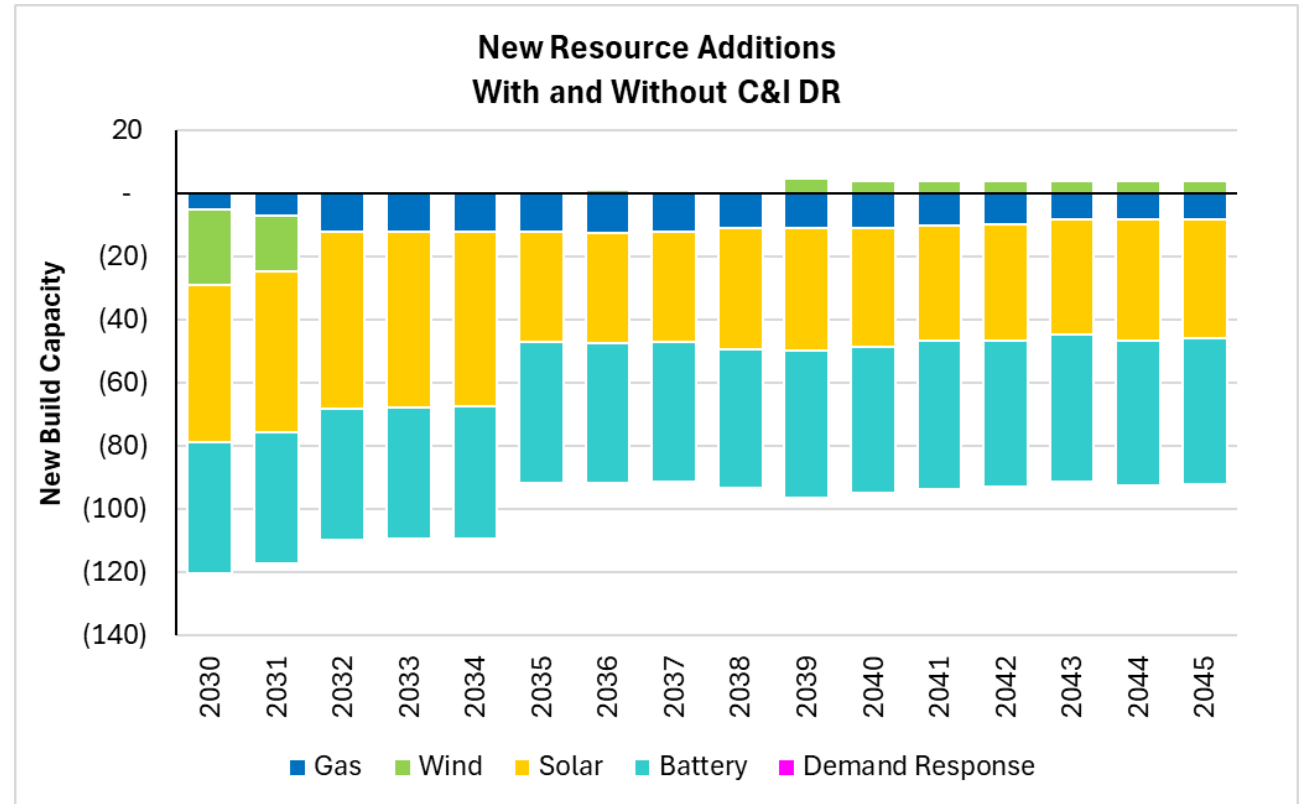
Modeling Assumptions



- Assumes the Base Case Load Forecast
- Assumes 100 MW Demand Response
 - 100% of Nameplate
 - 6 hours per call
 - 12 calls per season
 - 1 call per day

Change in Nameplate Capacity (MW) – **System** *C&I Demand Response compared to Least Cost + REA*

- Additional C&I Demand Response reduced the amount of solar and storage resources being added
- It had a marginal impact on the amount of gas CTs being added
- Recall, Least Cost + REA was building solar + storage to meet PRM requirements (in excess of the RPS)
- C&I DR can avoid some of this “overbuild”



New Resource Additions – System Nameplate

Demand Response to Least Cost + REA

Without C&I DR Program

	2030	2035	2040	2045
Wind	24	276	598	598
Gas - CT	488	991	1,102	1,110
Standalone Solar	139	660	1,197	2,320
Standalone Battery	656	660	761	1,049

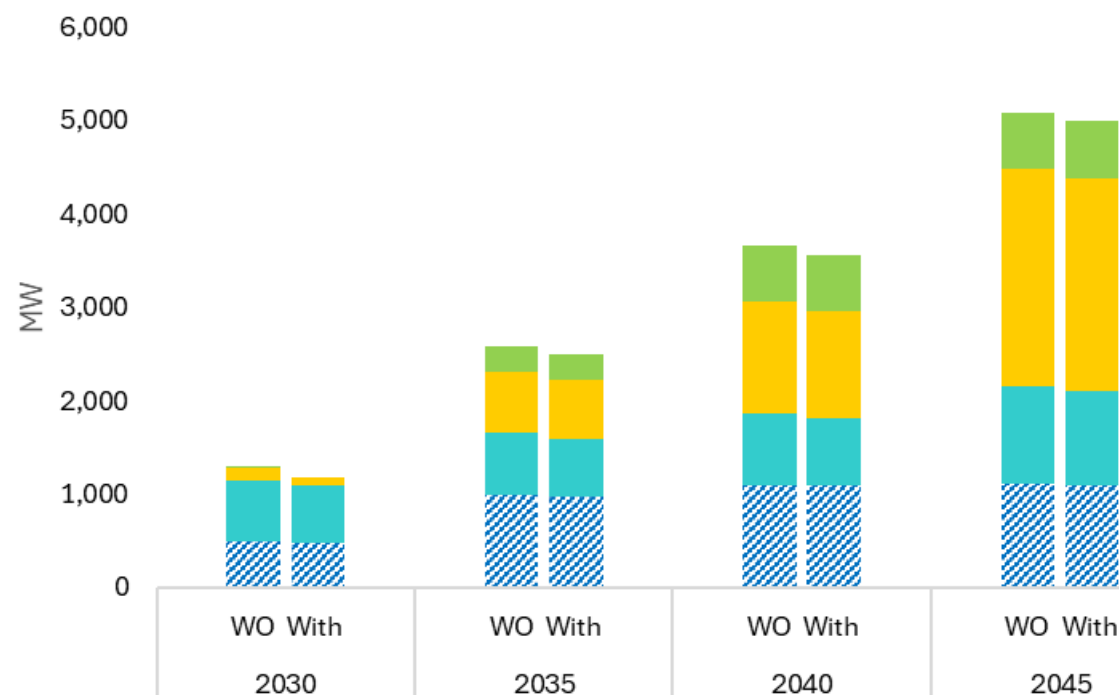
With C&I DR Program

	2030	2035	2040	2045
Wind	-	276	602	602
Gas - CT	483	979	1,091	1,102
Standalone Solar	89	625	1,159	2,282
Standalone Battery	614	616	715	1,003

Difference

	2030	2035	2040	2045
Wind	(24)	0	4	4
Gas - CT	(5)	(12)	(11)	(8)
Standalone Solar	(50)	(35)	(38)	(38)
Standalone Battery	(42)	(45)	(46)	(46)

New System Installed Capacity Additions
Least Cost + REA with & without C&I DR Program



Note: Sensitivity results are subject to change

New Resource Additions – New Mexico Nameplate

Demand Response to Least Cost + REA

Without C&I DR Program

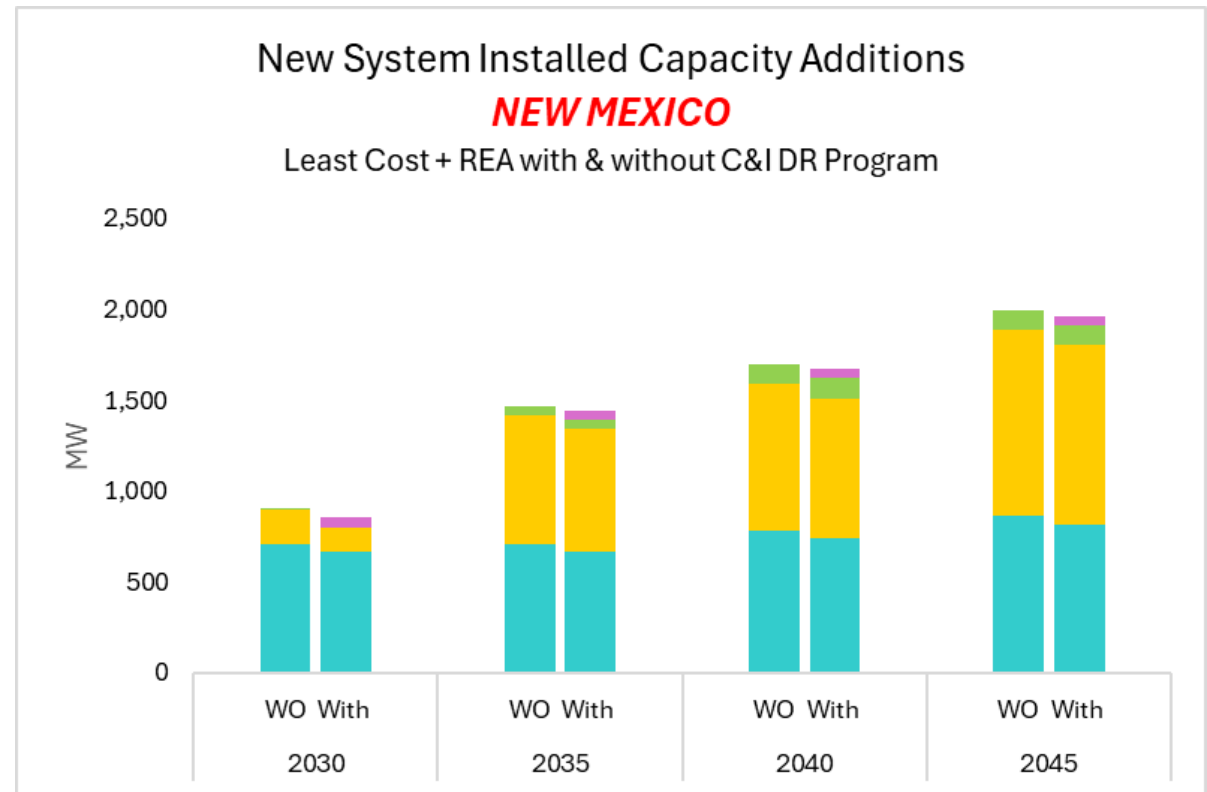
	2030	2035	2040	2045
Wind	4	50	109	112
Gas - CT	-	-	-	-
Standalone Solar	189	710	808	1,020
Standalone Battery	706	711	785	865
C&I DR	-	-	-	-

With C&I DR Program

	2030	2035	2040	2045
Wind	-	50	110	113
Gas - CT	-	-	-	-
Standalone Solar	139	674	772	984
Standalone Battery	664	666	739	819
C&I DR	50	50	50	50

Difference

	2030	2035	2040	2045
Wind	(4)	-	1	1
Gas - CT	-	-	-	-
Standalone Solar	(50)	(36)	(37)	(36)
Standalone Battery	(42)	(45)	(46)	(46)
C&I DR	50	50	50	50

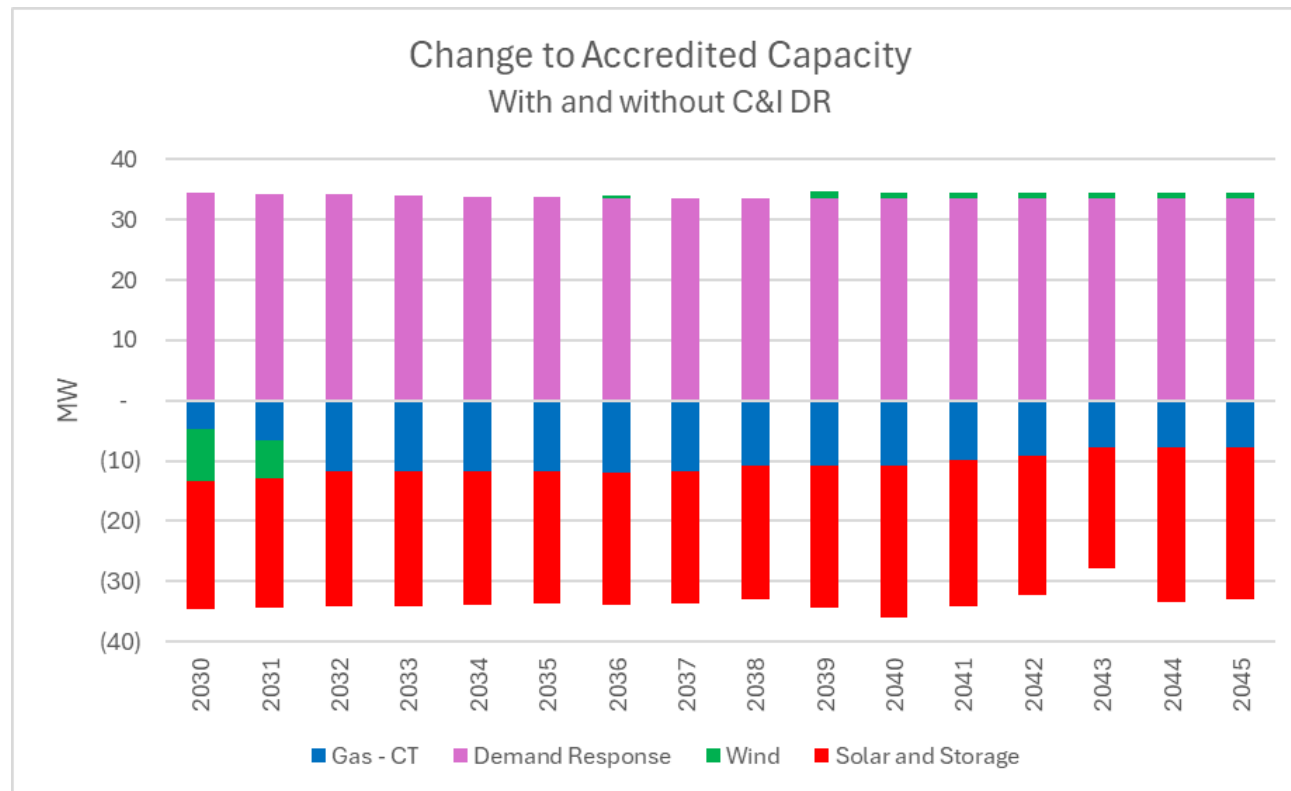


Note: Sensitivity results are subject to change

New Resource Additions – System Accredited

Demand Response to Least Cost + REA

- Modeling assumed ~35 MW of accredited capacity for demanded response
- Offset equivalent amount of solar + storage (and to a lesser extent gas CTs)
- Expanding the parameters of the DR (e.g., longer duration, increased number of calls etc.) can increase its ELCC



New Resource Additions – System Accredited

Demand Response to Least Cost + REA

Without C&I DR Program

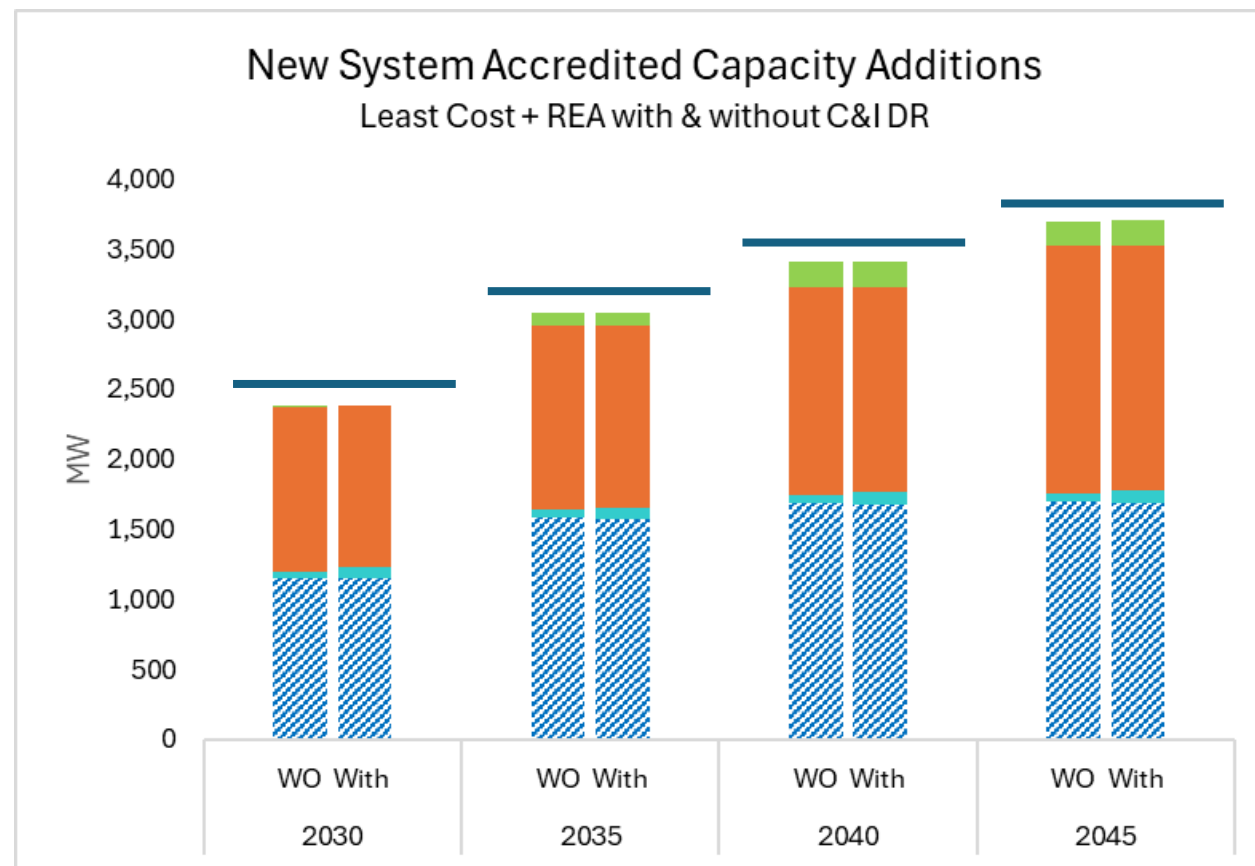
	2030	2035	2040	2045
Wind	9	99	178	182
Gas - CT	1,152	1,582	1,689	1,696
Solar and Storage	1,176	1,315	1,484	1,764
Demand Response Total	50	55	59	59

With C&I DR Program

	2030	2035	2040	2045
Wind	-	99	179	183
Gas - CT	1,147	1,570	1,678	1,688
Solar and Storage	1,154	1,293	1,458	1,739
Demand Response Total	85	89	93	93

Difference

	2030	2035	2040	2045
Wind	(9)	0	1	1
Gas - CT	(5)	(12)	(11)	(8)
Solar and Storage	(21)	(22)	(25)	(25)
Demand Response Total	35	34	34	34
TOTAL	0	(0)	(2)	2



Note: Sensitivity results are subject to change

New Resource Additions – New Mexico Accredited

Demand Response to Least Cost + REA

Without C&I DR Program

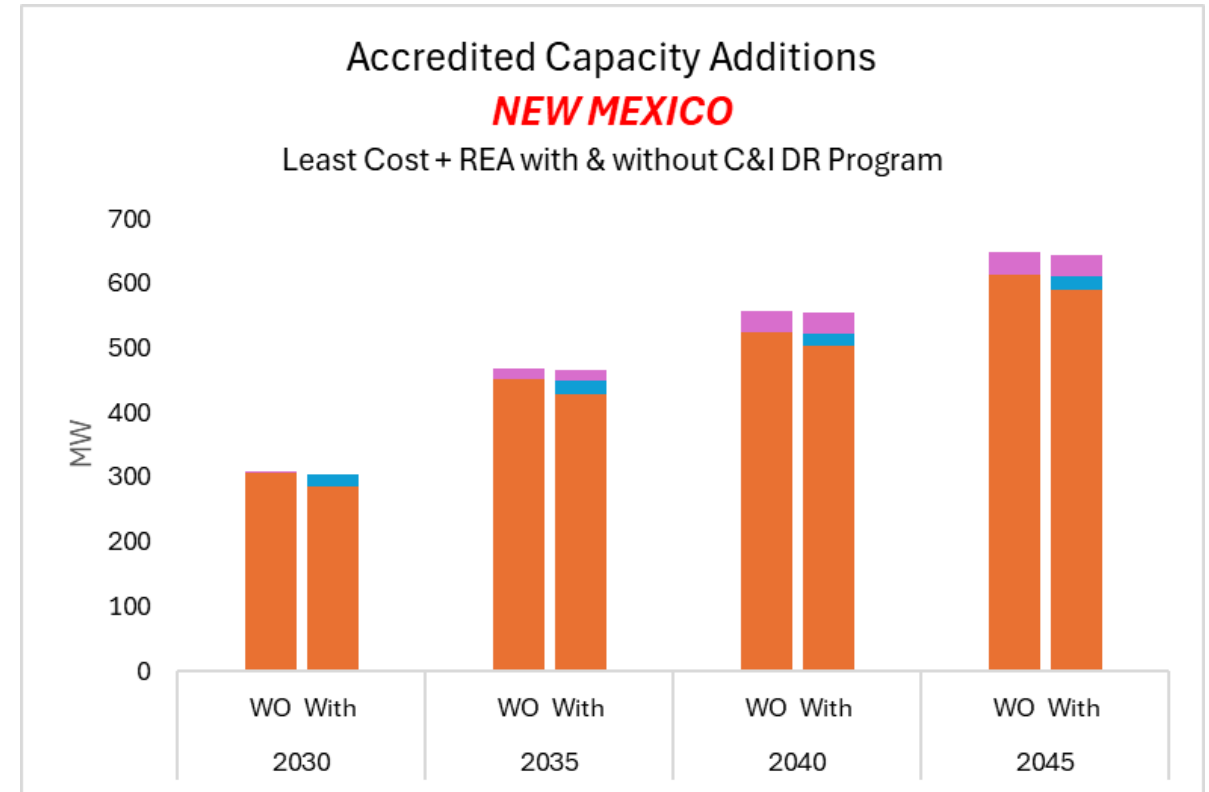
	2030	2035	2040	2045
Wind	2	18	33	34
Gas - CT	-	-	-	-
Solar and Storage	306	451	525	613
C&I DR	-	-	-	-

With C&I DR Program

	2030	2035	2040	2045
Wind	-	18	33	34
Gas - CT	-	-	-	-
Solar and Storage	285	428	503	590
C&I DR	20	20	20	20

Difference

	2030	2035	2040	2045
Wind	(2)	0	0	0
Gas - CT	-	-	-	-
Solar and Storage	(21)	(23)	(22)	(23)
C&I DR	20	20	20	20

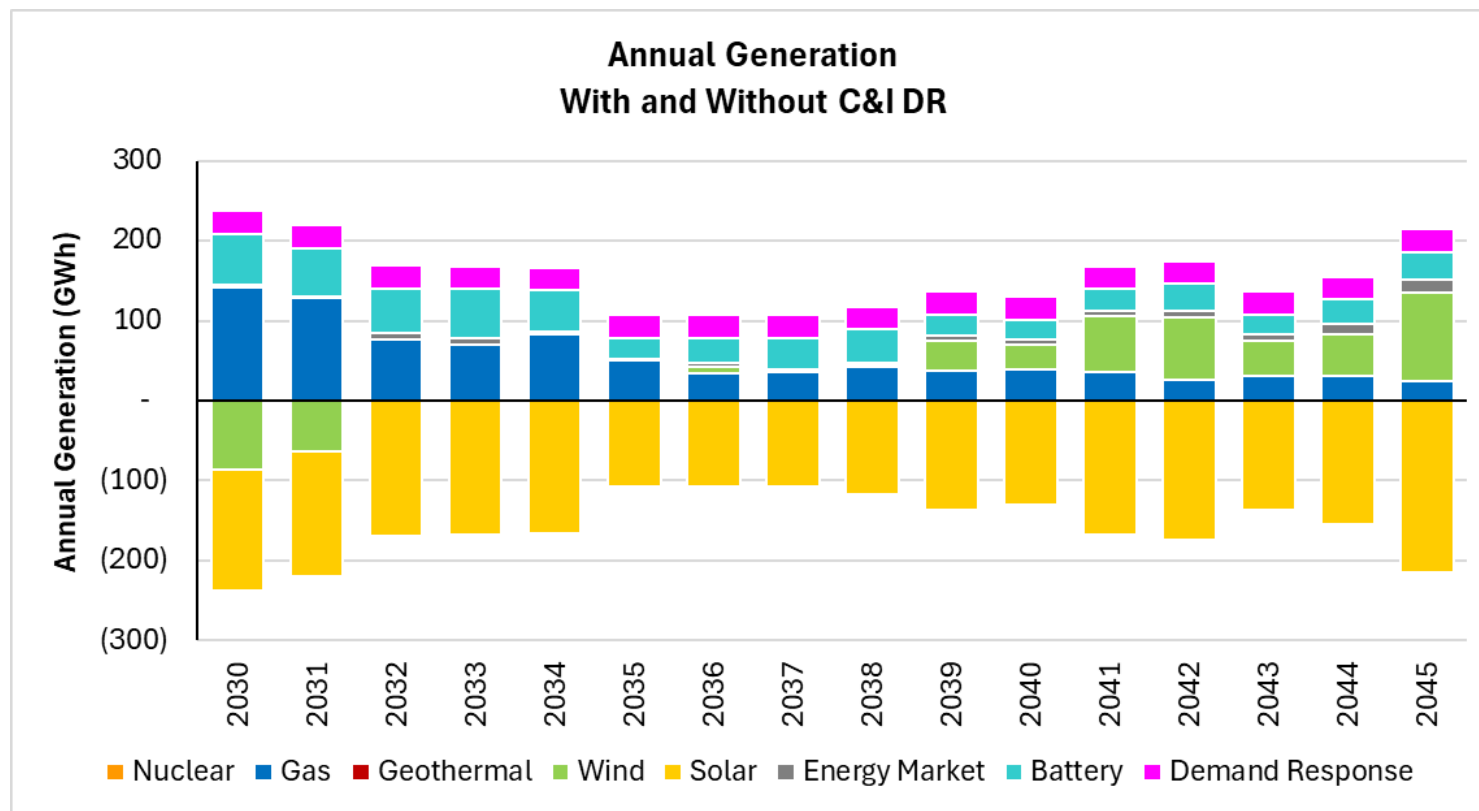


Note: Sensitivity results are subject to change

Change in Generation Mix (MWh) – **System**

C&I Demand Response Scenario compared to Least Cost + REA

- Less solar generation due to fewer solar + storage resources being added to meet PRM
- The demand previously met with solar resources is replaced by increased utilization of dispatchable resources (e.g., gas and storage)

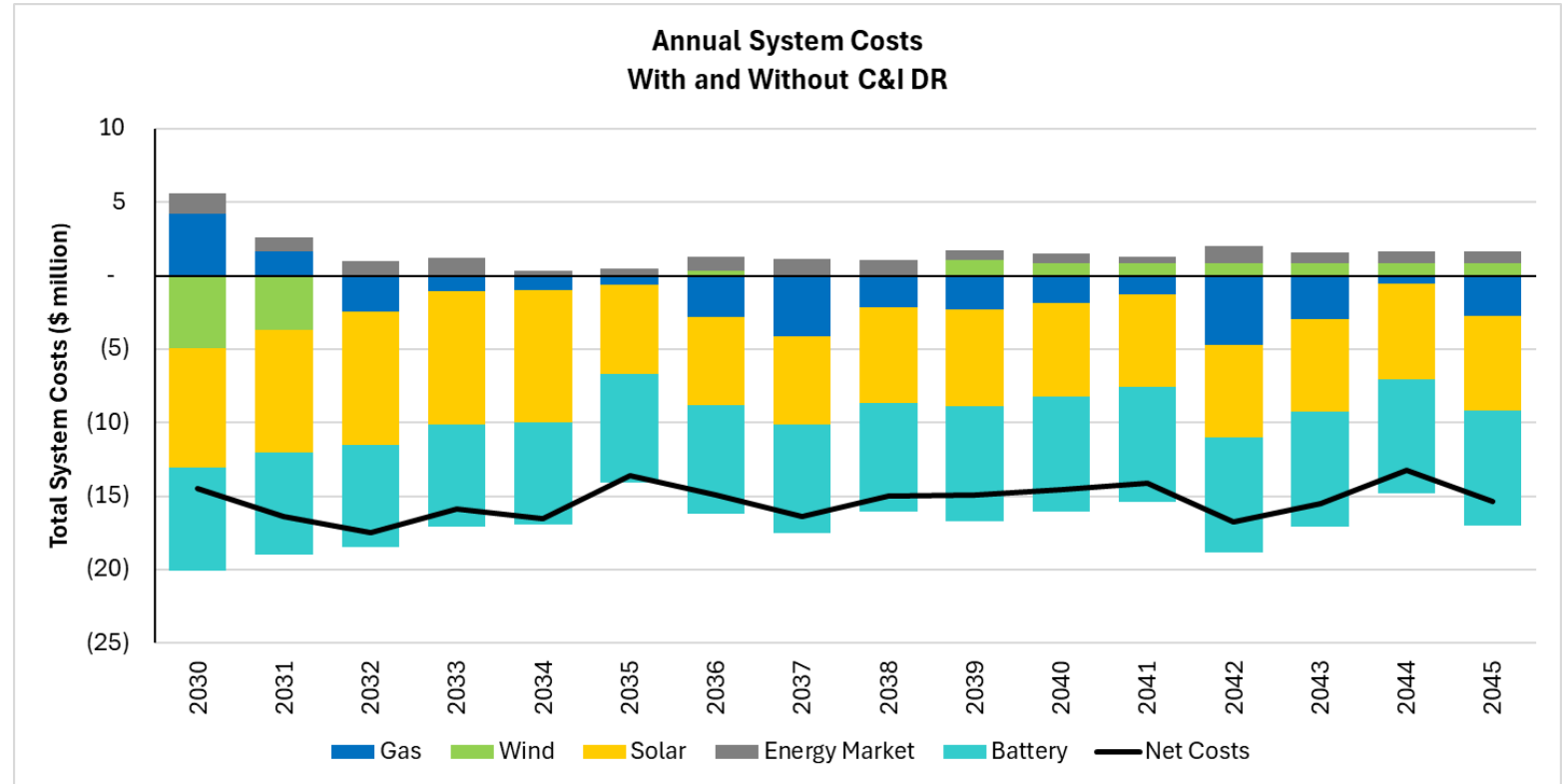


Note: Sensitivity results are subject to change

Annual System Costs – Total System

C&I Demand Response Scenario Compared to Least Cost + REA

- Analysis does not include the cost of implementing the C&I DR program
- Based on 35 MW of accredited capacity
- Provides approximately \$15 - \$20M of nominal benefits per year



Key Takeaways

- 1 Increased C&I Demand Response offsets the need for new supply-side resources to meet EPE's Planning Reserve Margin ("PRM") requirement
- 2 This avoids the need for EPE to build as much solar + storage to meet its PRM requirement
- 3 Dispatchable resources (i.e., gas and energy storage) are used to meet the demand met the additional solar + storage resources included in the base case
- 4 Expanding the parameters of the DR (e.g., longer duration, increased number of calls etc.) can increase its ELCC
- 5 Annual benefits of approximately \$15M - \$20M

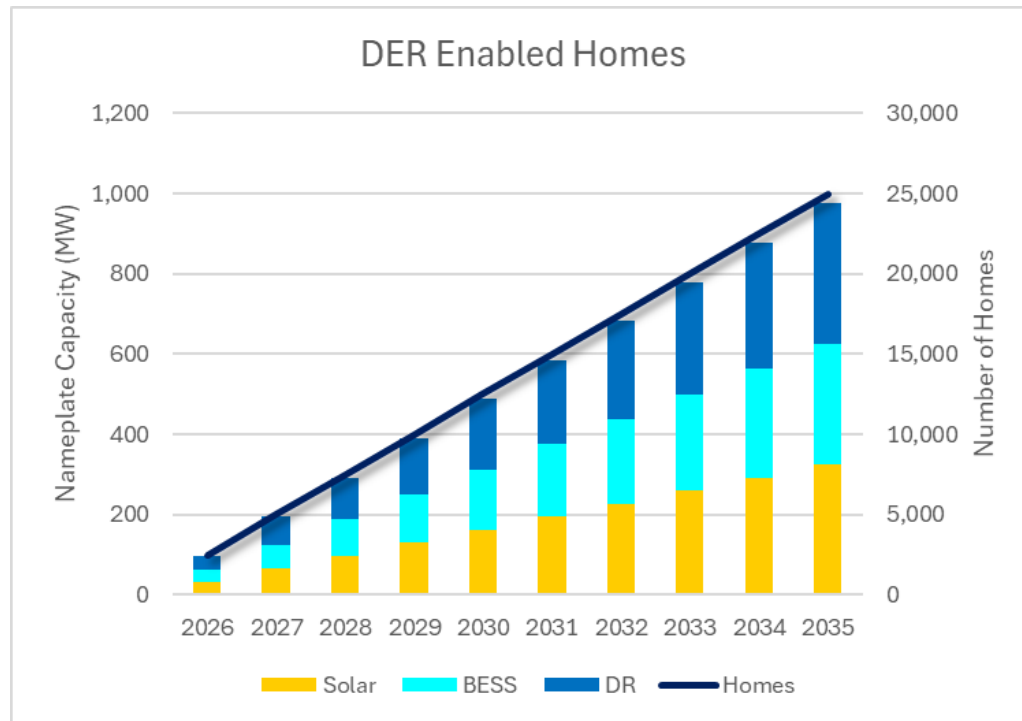
Residential Demand Side Solution

Residential Demand Side Solution

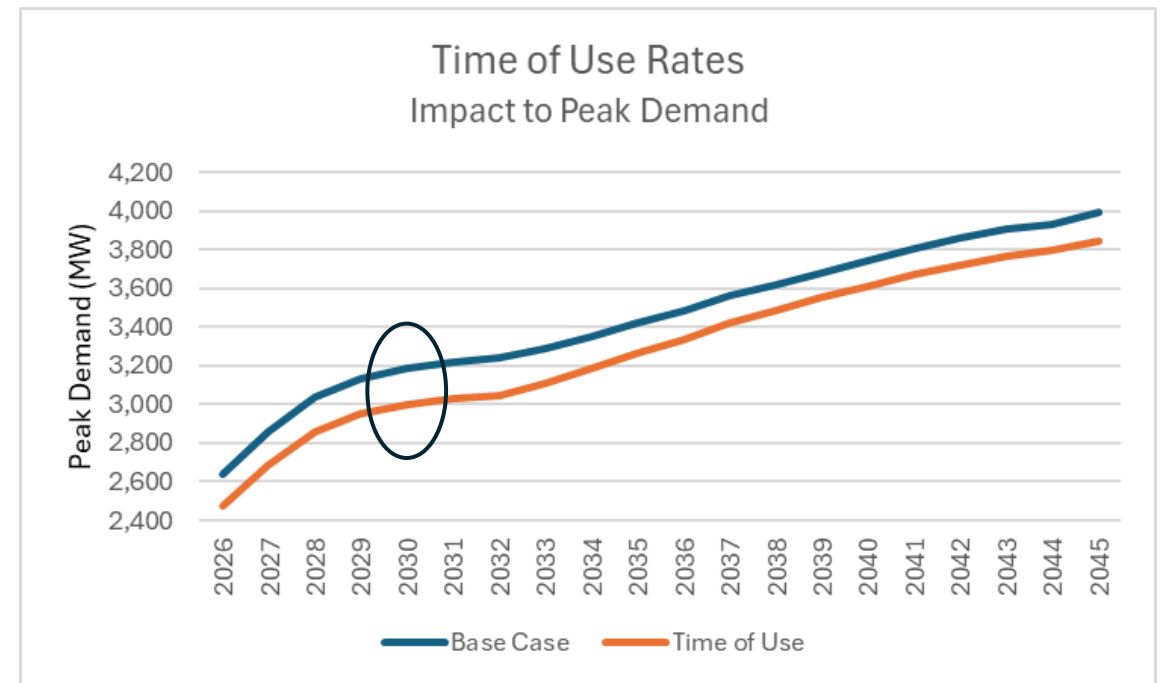


Integrated Residential Demand-Side Management: Assessing a combined residential strategy encompassing time-of-use rates, DR, and BTM solar coupled with storage.

2,500 homes added per year
over a 10-year period.



Shift in load from peak hours to non-peak
hours with Time of Use rates



Residential Demand Side Solution

Modeling Assumptions

- 2,500 homes added per year over a 10-year period:
 - Beginning 2026
- Each 2,500 homes provide
 - 32.5 MW of residential solar
 - 30.0 MW of BTM 8-hour storage
 - 35.0 MW of Demand Response
- DER enabled homes assumed at \$0 cost to calculate avoided cost of energy
- Assumes the Base Case Load Forecast with Time of Day (TOD) shift in load from peak hours to non-peak hours
- No change in total energy requirement
- TOD Assumptions:
 - Default opt-in TOD day with a 15% opt-out assumption*
 - On-peak hour usage decrease by 9.2%**

*15% opt-out rate was estimated in a Brattle Group Study analyzing TOD programs across various jurisdictions

**9.2% decrease in on-peak sales was estimated by the Brattle Group as part of the TVR pilot program approved by NM

Residential Demand Side Solution

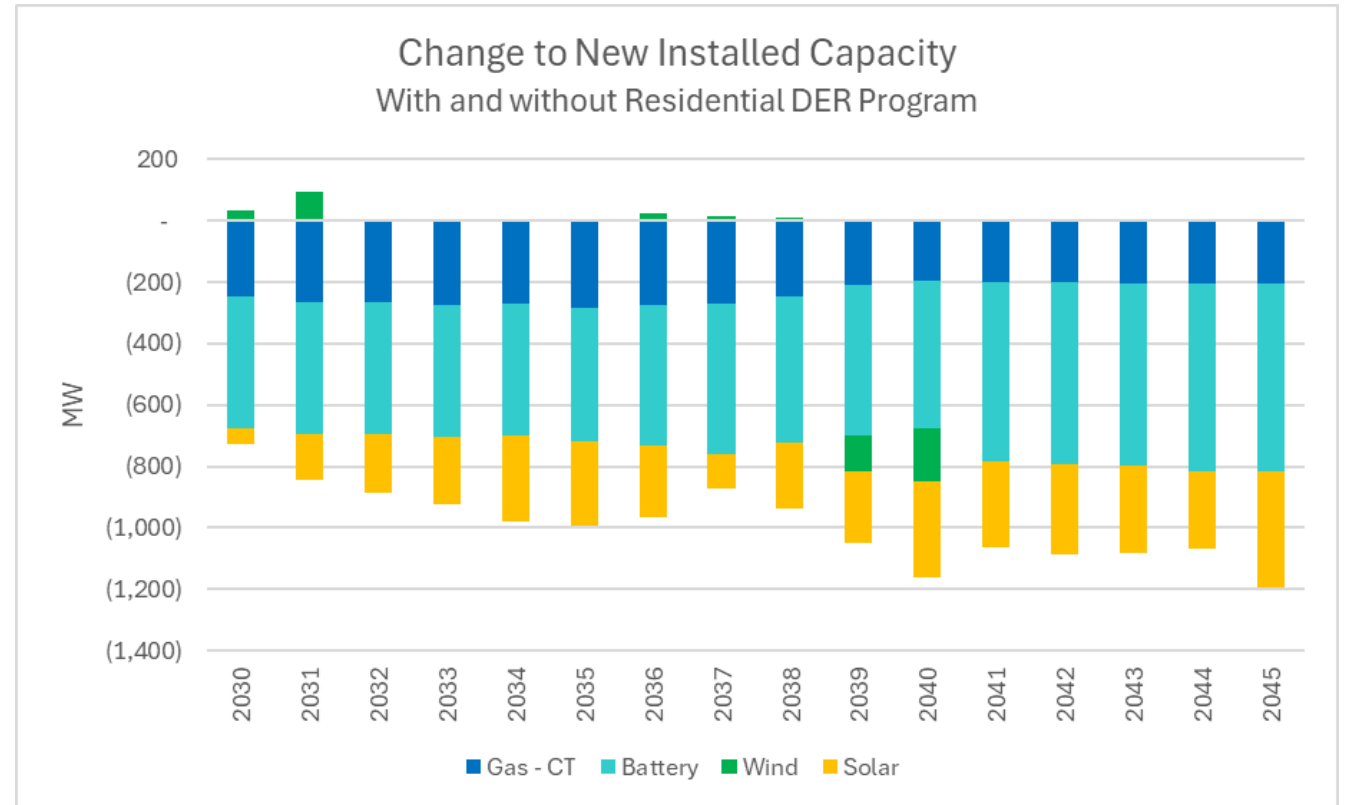
Additional Runs

- **Start Date Sensitivity:** We will begin incorporating new homes into the analysis in 2030 to enable a direct comparison with alternative resources
- **Time-of-Use Sensitivity:** Separate the time-of-use rates and DER components to further evaluate individual value streams
- **Energy Efficiency Savings:** Further evaluate potential system-wide energy delivery efficiency savings

Change in Nameplate Capacity (MW) – **System**

Demand Side Scenario compared to Least Cost + REA

- The demand side scenario significantly reduces the amount of dispatchable supply-side resources (i.e., gas CTs and energy storage)
- Also reduces the addition of utility scale solar
- **Graph does not include the additional demand-side solar, 8-hour storage, and demand response**



New Resource Additions – System Nameplate

Residential DER to Least Cost + REA

Without DER Program

	2030	2035	2040	2045
Wind	24	276	598	598
Gas - CT	488	991	1,102	1,110
Standalone Solar	139	660	1,197	2,320
Standalone Battery	656	660	761	1,049

With DER Program

	2030	2035	2040	2045
Wind	56	276	428	604
Gas - CT	243	710	907	907
Standalone Solar	84	384	881	1,941
Standalone Battery	226	226	278	437

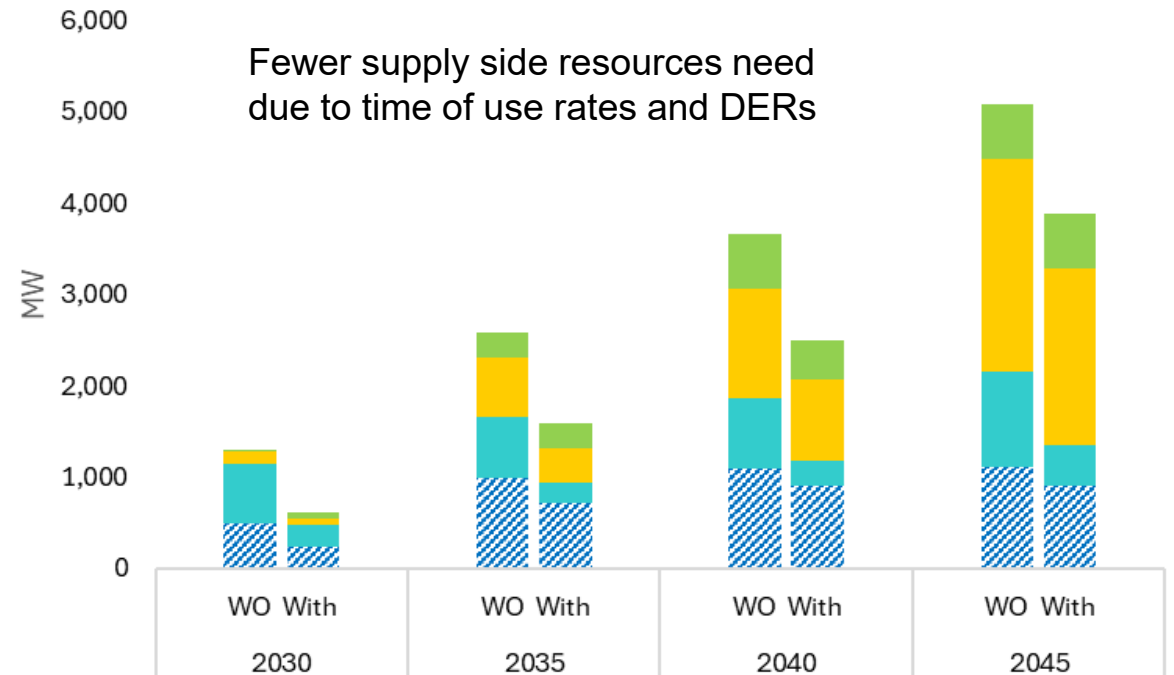
Difference

	2030	2035	2040	2045
Wind	32	0	(169)	6
Gas - CT	(245)	(281)	(194)	(202)
Standalone Solar	(54)	(276)	(316)	(379)
Standalone Battery	(430)	(434)	(483)	(612)

New System Installed Capacity Additions

Least Cost + REA with & without DER Program

Fewer supply side resources need
due to time of use rates and DERs



Note: Sensitivity results are subject to change

New Resource Additions – New Mexico Nameplate

Residential DER to Least Cost + REA

Without DER Program

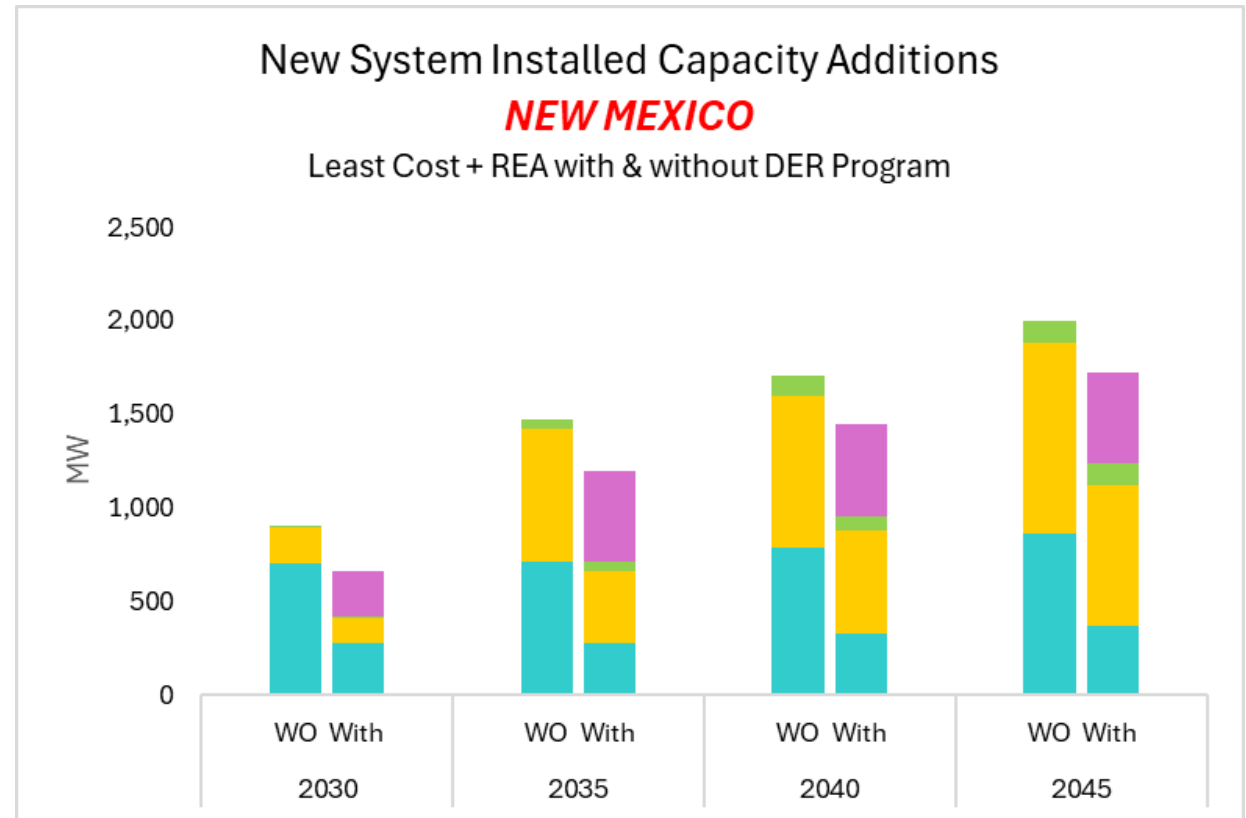
	2030	2035	2040	2045
Wind	4	50	109	112
Gas - CT	-	-	-	-
Standalone Solar	189	710	808	1,020
Standalone Battery	706	711	785	865
Residential DER	-	-	-	-

With DER Program

	2030	2035	2040	2045
Wind	10	50	78	113
Gas - CT	-	-	-	-
Standalone Solar	134	383	550	750
Standalone Battery	276	276	328	372
Residential DER	244	488	488	488

Difference

	2030	2035	2040	2045
Wind	6	-	(31)	1
Gas - CT	-	-	-	-
Standalone Solar	(55)	(327)	(258)	(270)
Standalone Battery	(430)	(435)	(457)	(492)
Residential DER	244	488	488	488

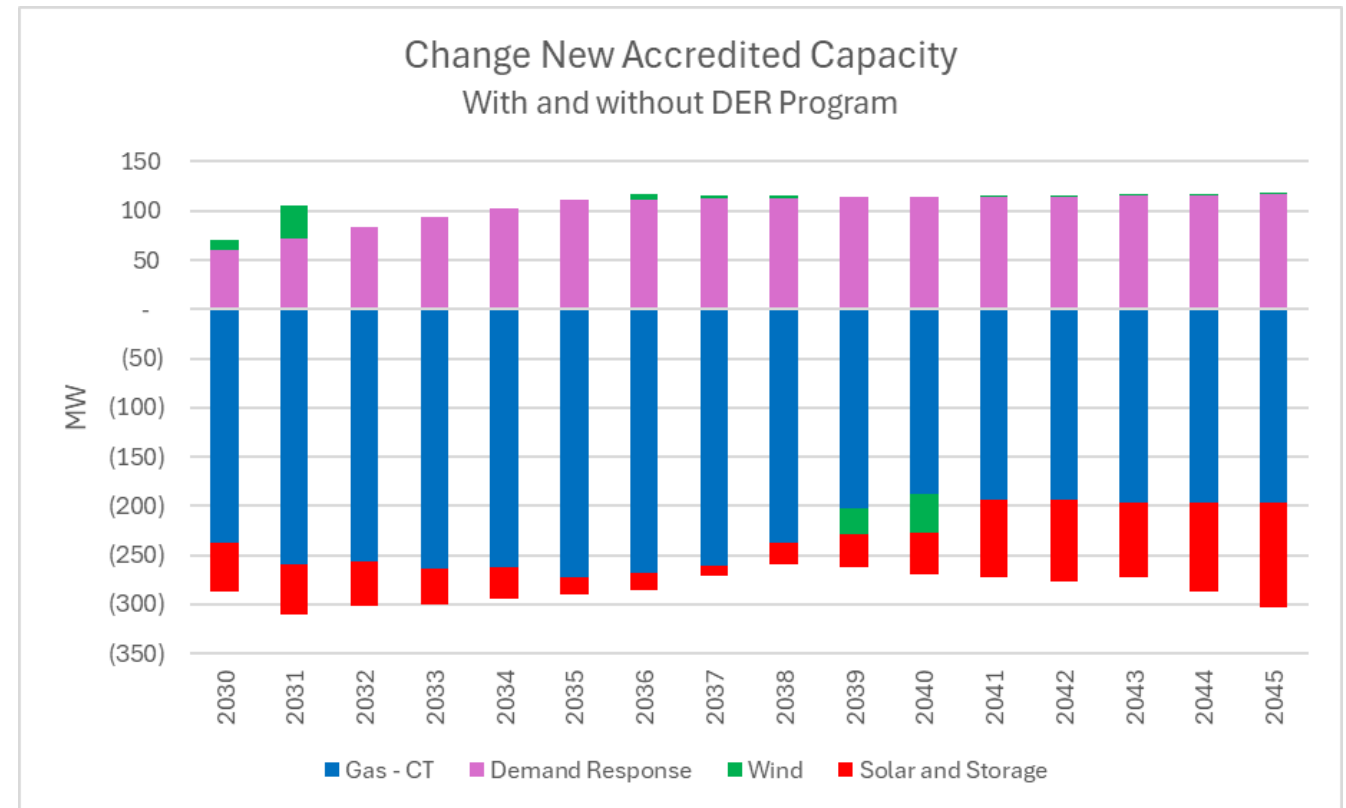


Note: Sensitivity results are subject to change

New Resource Additions – System Accredited

Residential Demand-Side to Least Cost + REA

- Significant reduction in system accredited capacity need driven by Time-of-Use rates
- Combination of Demand Response, 8-hour batteries, and Time-of-Use rates offsets need for dispatchable resources (notable gas generation)
- EPE will conduct additional analysis to evaluate DER and TOU value streams separately
- **Graph includes the additional demand-side solar, 8-hour storage, and demand response**



New Resource Additions – System Accredited

Demand Response to Least Cost + REA

Without DER Program

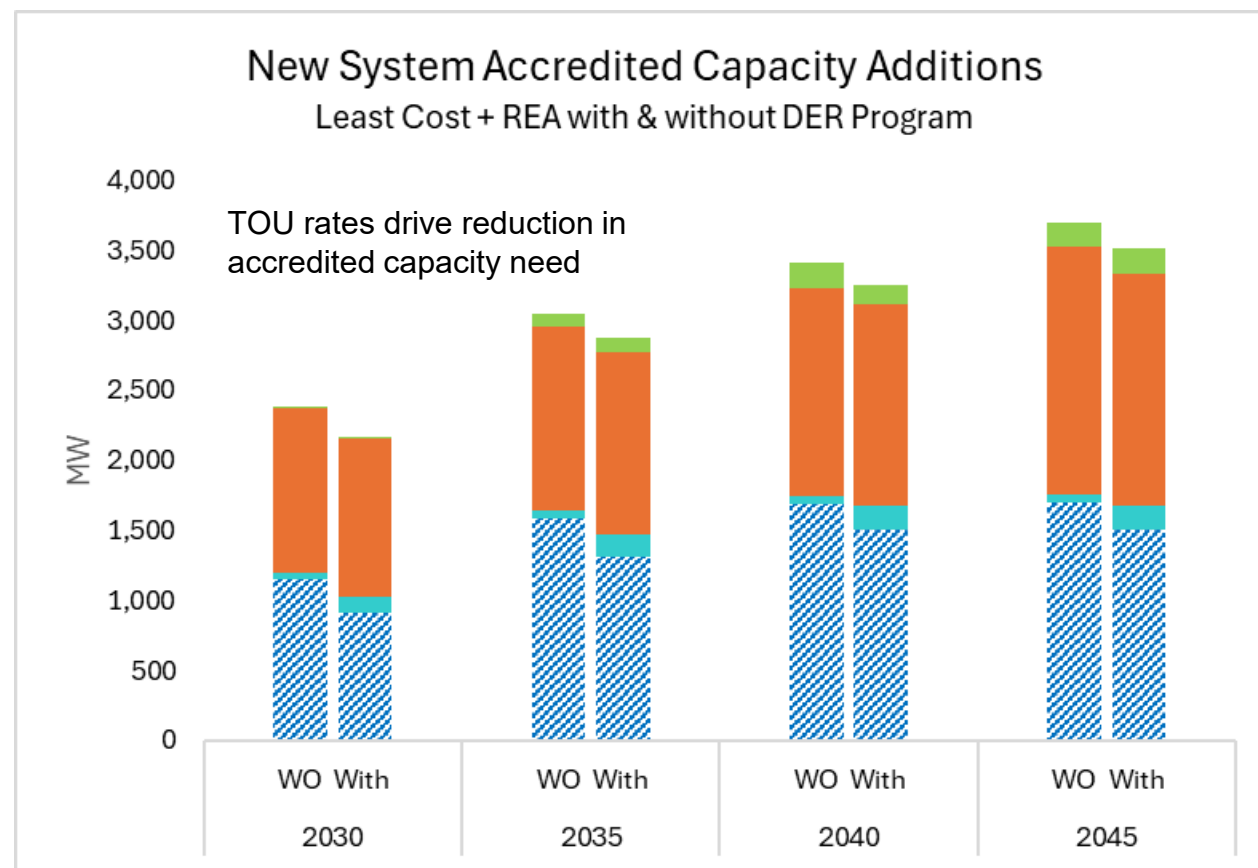
	2030	2035	2040	2045
Wind	9	99	178	182
Gas - CT	1,152	1,582	1,689	1,696
Solar and Storage	1,176	1,315	1,484	1,764
Demand Response Total	50	55	59	59

With DER Program

	2030	2035	2040	2045
Wind	20	99	139	183
Gas - CT	915	1,309	1,500	1,500
Solar and Storage	1,127	1,298	1,441	1,657
Demand Response Total	110	166	173	176

Difference

	2030	2035	2040	2045
Wind	11	0	(39)	1
Gas - CT	(237)	(273)	(189)	(196)
Solar and Storage	(49)	(17)	(42)	(107)
Demand Response Total	60	112	114	117
TOTAL	(215)	(178)	(156)	(185)



- Graph does not include the additional demand-side solar, 8-hour storage, and demand response

Note: Sensitivity results are subject to change

New Resource Additions – New Mexico Accredited

Demand Response to Least Cost + REA

Without DER Program

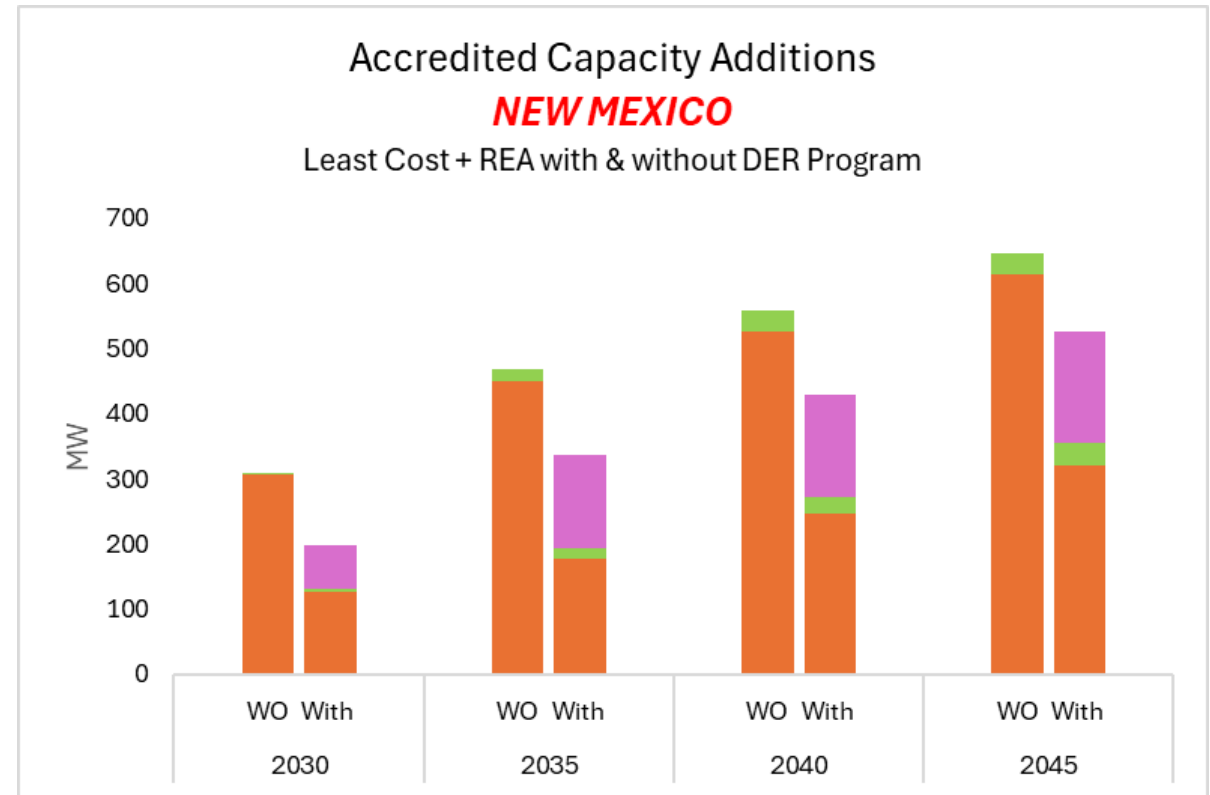
	2030	2035	2040	2045
Wind	2	18	33	34
Gas - CT	-	-	-	-
Solar and Storage	306	451	525	613
Residential DR	-	-	-	-

With DER Program

	2030	2035	2040	2045
Wind	4	18	25	34
Gas - CT	-	-	-	-
Solar and Storage	127	176	246	321
Residential DR	67	142	157	170

Difference

	2030	2035	2040	2045
Wind	2	0	(7)	0
Gas - CT	-	-	-	-
Solar and Storage	(179)	(274)	(279)	(292)
Residential DR	67	142	157	170

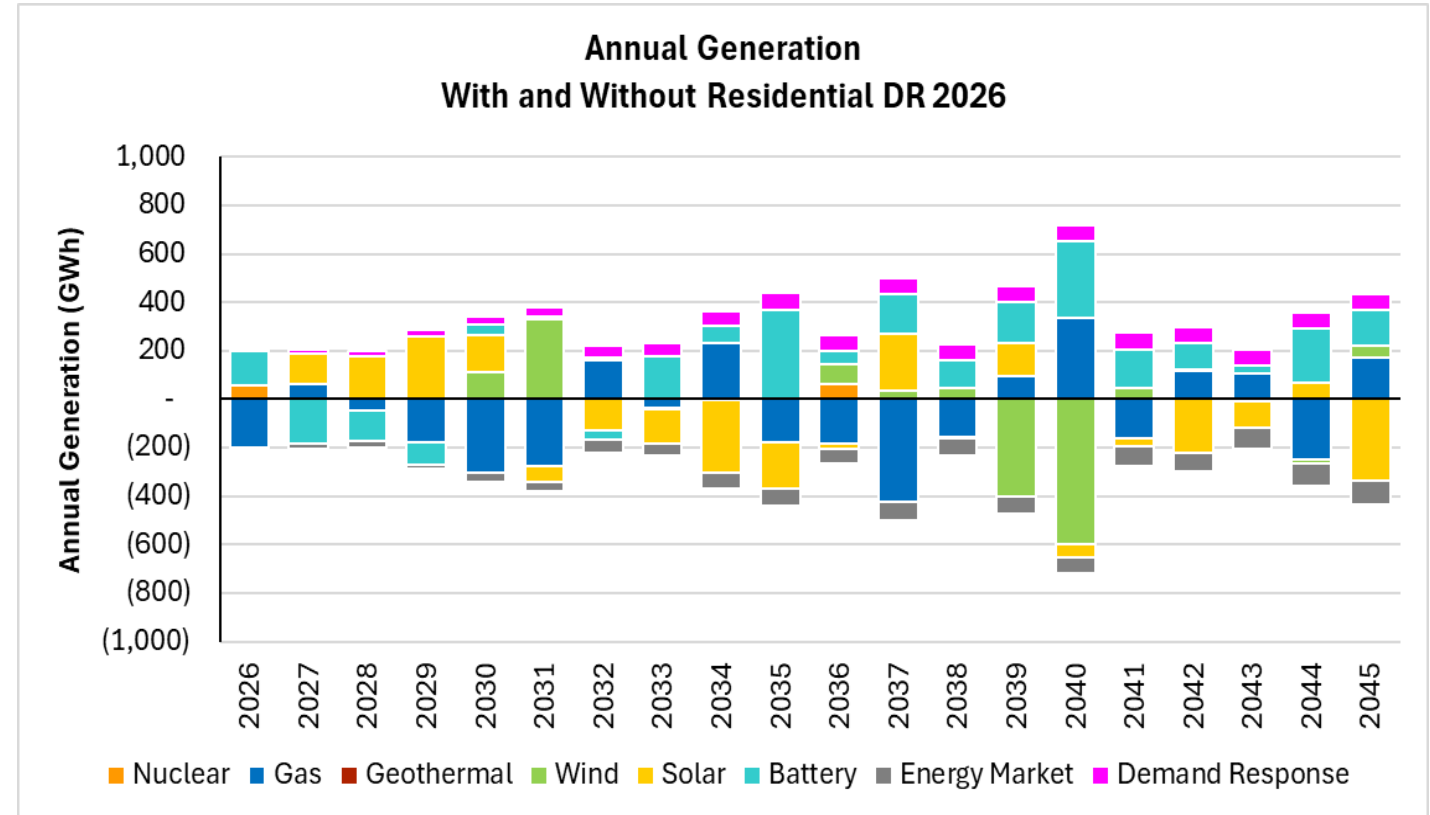


Note: Sensitivity results are subject to change

Change in Generation Mix (MWh) – **System**

Residential Demand Side Solution compared to Least Cost + REA

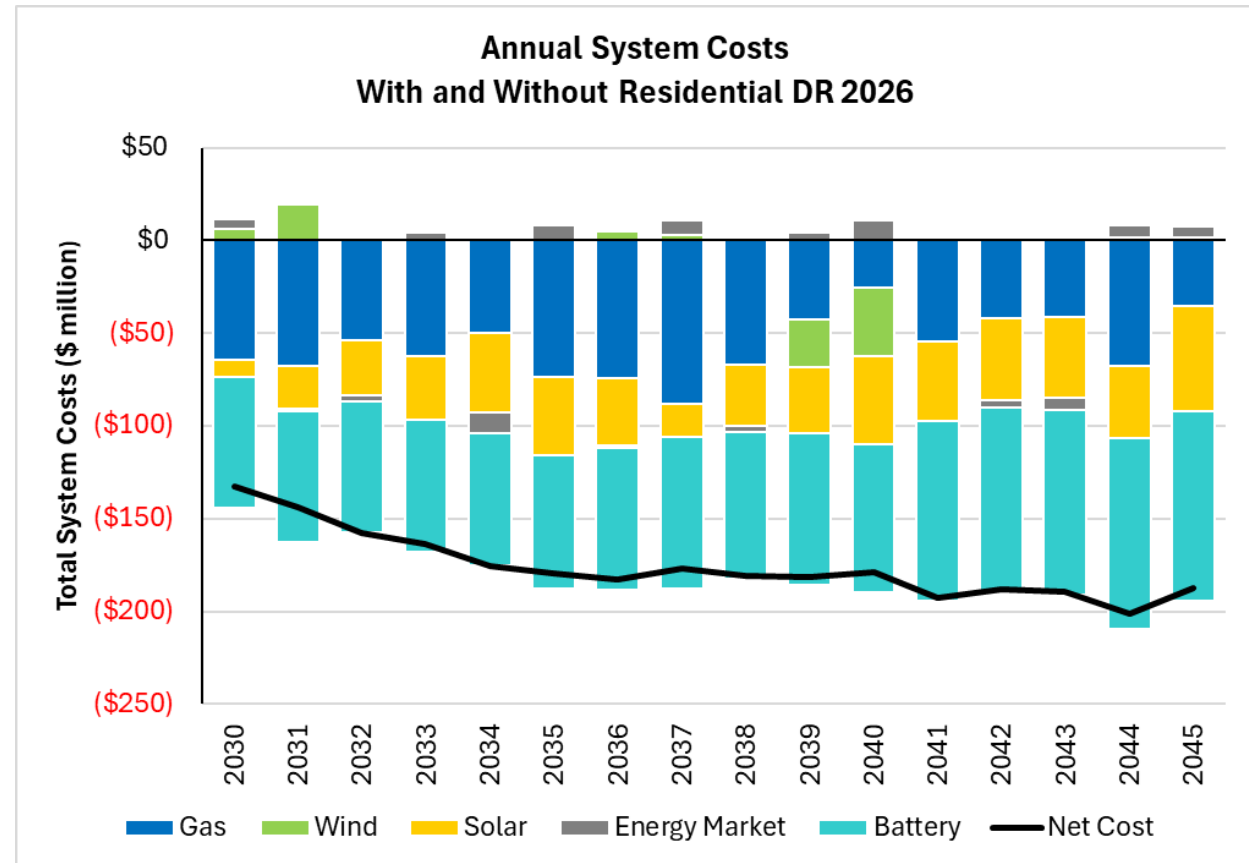
- Additional Solar + Storage DERs generally increase solar and storage production in most years (compared to the Least Cost + REA case)
- Often offsetting natural gas-fired generation, although in some years gas generation is high despite fewer years (i.e., existing gas generation has a higher capacity factor)



Annual System Costs – Total System

Demand Response Scenario Compared to Least Cost + REA

- Analysis does not include the cost of implementing the Residential DER program
- Provides close to \$150M of nominal benefits in 2030
- Increasing to \$200M once full implemented



Note: Sensitivity results are subject to change

Key Takeaways

- 1 Combination of significant addition of DERs (residential solar, 8-hour storage, and demand response) and Time-of-Use rates reduces the need for alternative supply-side resources
- 2 This scenario avoids some natural gas builds, and also supply-side batteries and 4-hour energy storage
- 3 To determine the individual value stream of DERs vs TOU, EPE will conduct additional analysis
- 4 Provides close to \$150M of annual nominal benefits in 2030
- 5 Increasing to \$200M annually once full implemented

Appendix

New Resource Assumptions

- Generic Candidate resources assumptions (pricing, capacity factor etc.)
- 2030 is the soonest candidate resources can be added
- Modeling results are indicative and directional
- Actual resource additions will be the result of a future competitive RFP

New Resource Indicative Timeline

1. File IRP/ISP – September 1, 2025
2. Approval of IRP/ISP – January 1, 2026
3. Develop and Issue RFP – April 1, 2026
4. Receive RFP Proposals – July 1, 2026
5. Evaluate RFP Proposals – October 1, 2026
6. File CCN with NMPRC – December 31, 2026
7. Regulatory Approval – December 31, 2027
8. Long Lead Time Equipment – December 31, 2028
9. Construction – December 31, 2029
10. Commercial Operation Date – Before Summer 2030



