

2026 PNM IRP

Thermal Resource ELCC Analysis

- 1/27/2026





Owner and exclusive licensor of SERVM

- ⇒ Full hourly economy commitment and dispatch for thousands of weather, unit performance, fuel, regulatory, economic growth scenarios can be performed in hours.

Resource adequacy studies

- ⇒ Planning Reserve Margin, ELCC, Demand Response Evaluations, Market Design Assessments, Probabilistic Risk Assessments

Renewable integration, expansion planning, energy and capacity resource valuations

SERVM Applications

Resource adequacy:

- Loss of Load Expectation Studies
- Optimal Reserve Margin
- Operational Intermittent Integration Studies
Penetration Studies | System Flexibility Studies

Effective load carrying capability of resources

- Renewables
- Demand Response
- Storage
- Conventional Resources

Fuel reliability services

- Gas/Electric Interdependency Analysis
- Fuel Backup/Fixed Gas Transportation Analysis

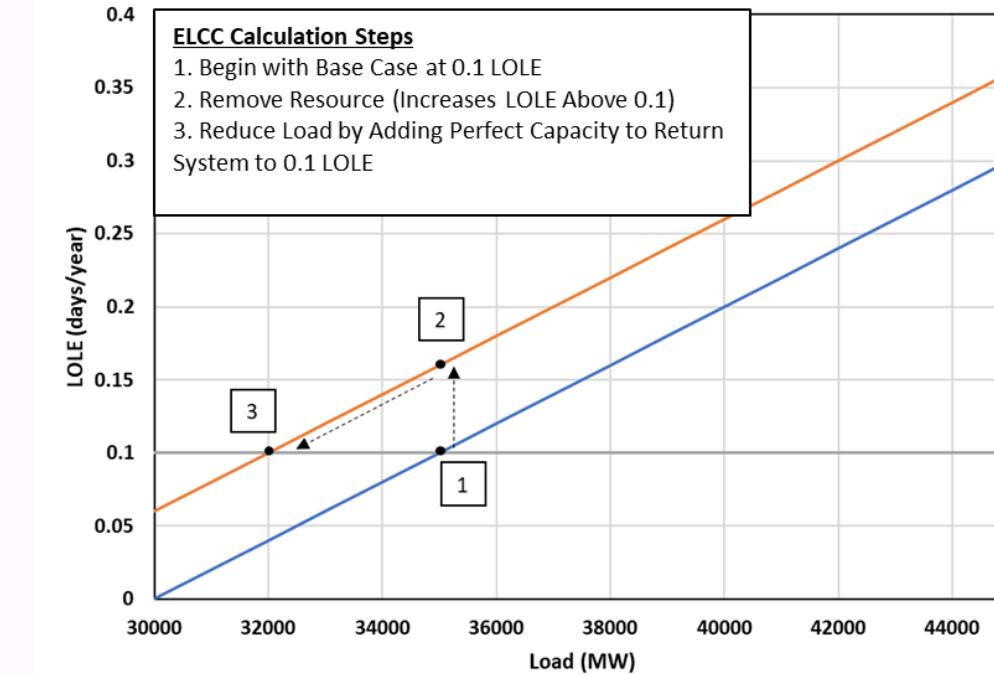
Transmission interface studies



Effective Load Carrying Capability

- **What is ELCC?**

- ELCC is a measure of a resource's ability to provide reliable capacity to a system.
- Can be calculated by determining how much additional load a system can serve because of the given resource.
- Similarly, capacity value can be calculated by determine how much perfect capacity is needed to have the same reliability contribution as the given resource.



→ Preliminary results

Thermal ELCC Methodology

- Why doesn't 1-EFOR tell the whole story?
 - **EFOR** represents the average forced outage rate across all hours of the year.
 - **ELCC** is driven by unit performance during hours of critical system need, *not by average annual performance*.
 - **Outages** may be higher or lower than the average and can coincide with peak risk hours, creating an asymmetric impact on reliability.
 - **Reliability impacts** from this asymmetry are often greater than what would be implied by a simple 1-EFOR availability assumption.

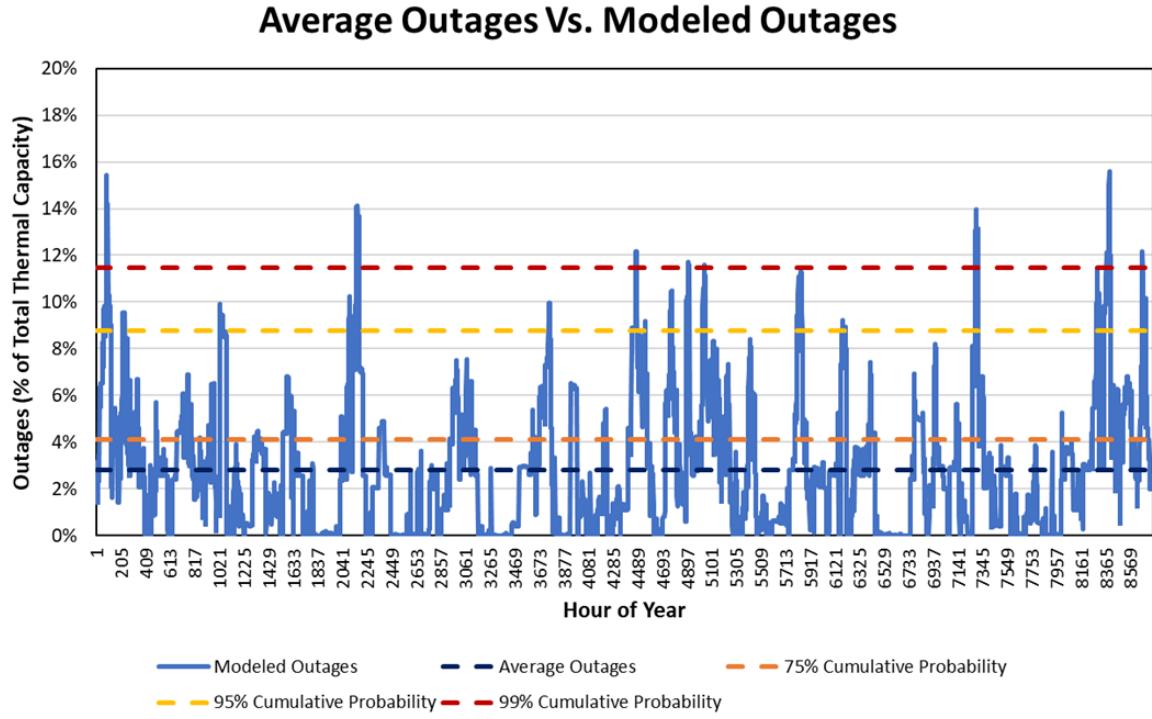
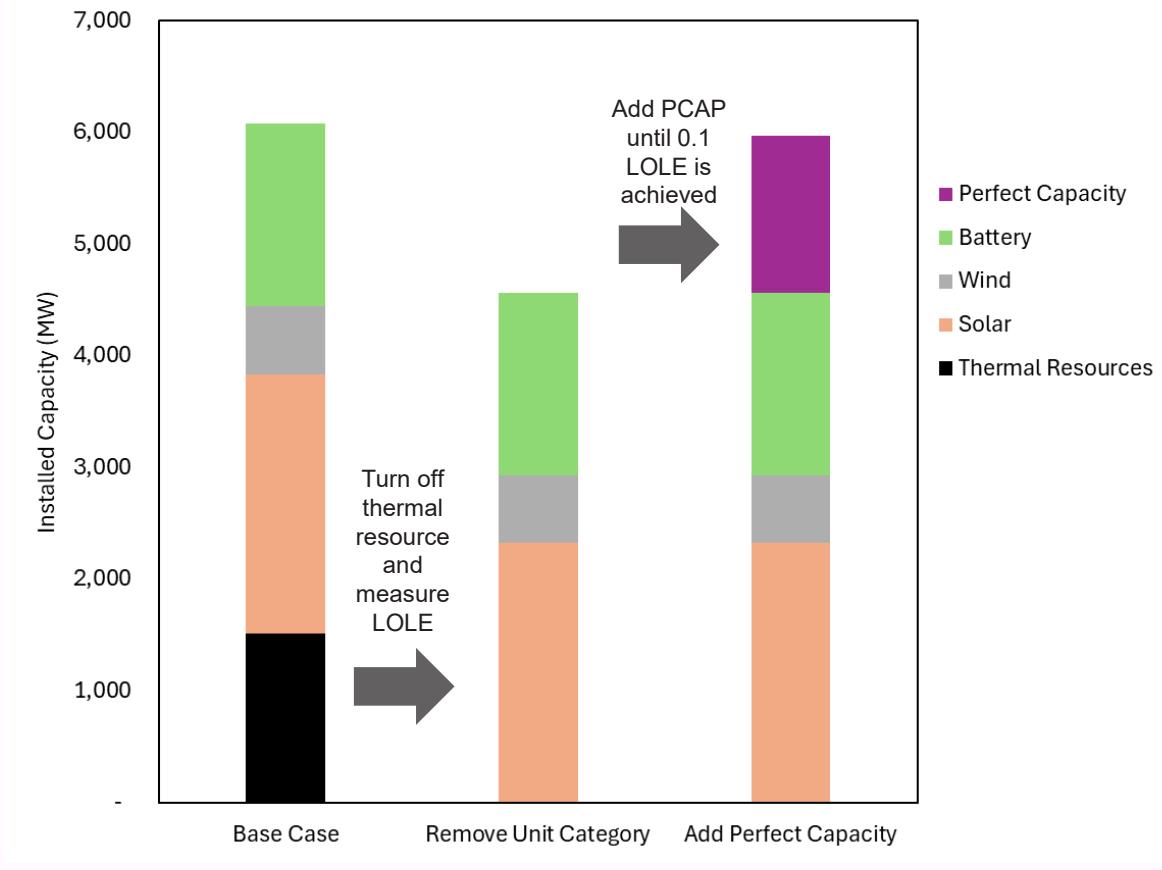


Chart is for illustrative purposes only and not reflective of the PNM system

→ Preliminary results

Thermal Resource ELCC Methodology

- **Base Case:** Start with the IRP base case calibrated to 0.1 days/year LOLE.
- **Remove Unit Category:** Turn off the selected unit category to isolate its contribution to reliability.
- **Capacity Replacement:** Replace the removed capacity with increasing levels of perfect capacity until reliability is restored to 0.1 LOLE.
- **ELCC Calculation:** The amount of perfect capacity needed to return the system to the starting reliability divided by the nameplate capacity removed is the unit category ELCC.



→ Preliminary results

Thermal Resource ELCC Methodology



1. Determine ELCC of entire Thermal Resource Portfolio.
2. Determine ELCC of each unit category individually.
3. Prorate the individual unit categories to ensure the sum of individual ELCCs is equal to the total portfolio ELCC.

→ Preliminary results

Preliminary Results

Unit Category	ICAP (MW)	Capacity Weighted EFOR (%)	Average Unit Size (MW)	ELCC (%)
CC	425	9%	213	xx%
CT	442	2%	88	xx%
Nuclear	288	4%	96	xx%
ST Coal	200	20%	100	xx%
ST Gas	146	15%	49	xx%

→ Preliminary results



Thank you