Data Centers and New Mexico's Energy Future

WNRC - Artesia

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Energy, Minerals and Natural Resources Department

Ben Shelton
Deputy Secretary

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EMNRD's Role in the Data Center Landscape

Clarifying Jurisdiction and Strategic Engagement

- EMNRD helps develop energy policy for the state (e.g., CETS, Grid Modernization Plan, Energy Security Plan)
- EMNRD does not permit energy assets for data center generation
- Forestry Division may issue incidental take permits for endangered plant species
- EMNRD intervenes in PRC dockets to support zero-carbon goals, grid planning, and the Governor's agenda broadly

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EMNRD Perspective: Grid Strain and Strategic Opportunity

Responding to Multi-Gigawatt Data Center Demand

Grid Strain from Hyperscale Growth

- Data centers are driving multi-gigawatt electricity demand, often growing several times faster than traditional load forecasts.
- This rapid growth can overwhelm transmission and interconnection capacity, leading to:
  - Price increases for other rate classes
  - Grid instability and potential cascading outages
  - Planning challenges for utilities and regulators

EMNRD's Strategic Response

- EMNRD views this as a policy inflection point: a chance to modernize the grid while protecting ratepayers.
- Supports solutions including:
  - Accelerated renewable energy development
  - Demand-response programs to shift energy use
  - Grid modernization tools like digital twins and real-time load balancing
  - Utility partnerships or self-generation by data centers to reduce grid strain

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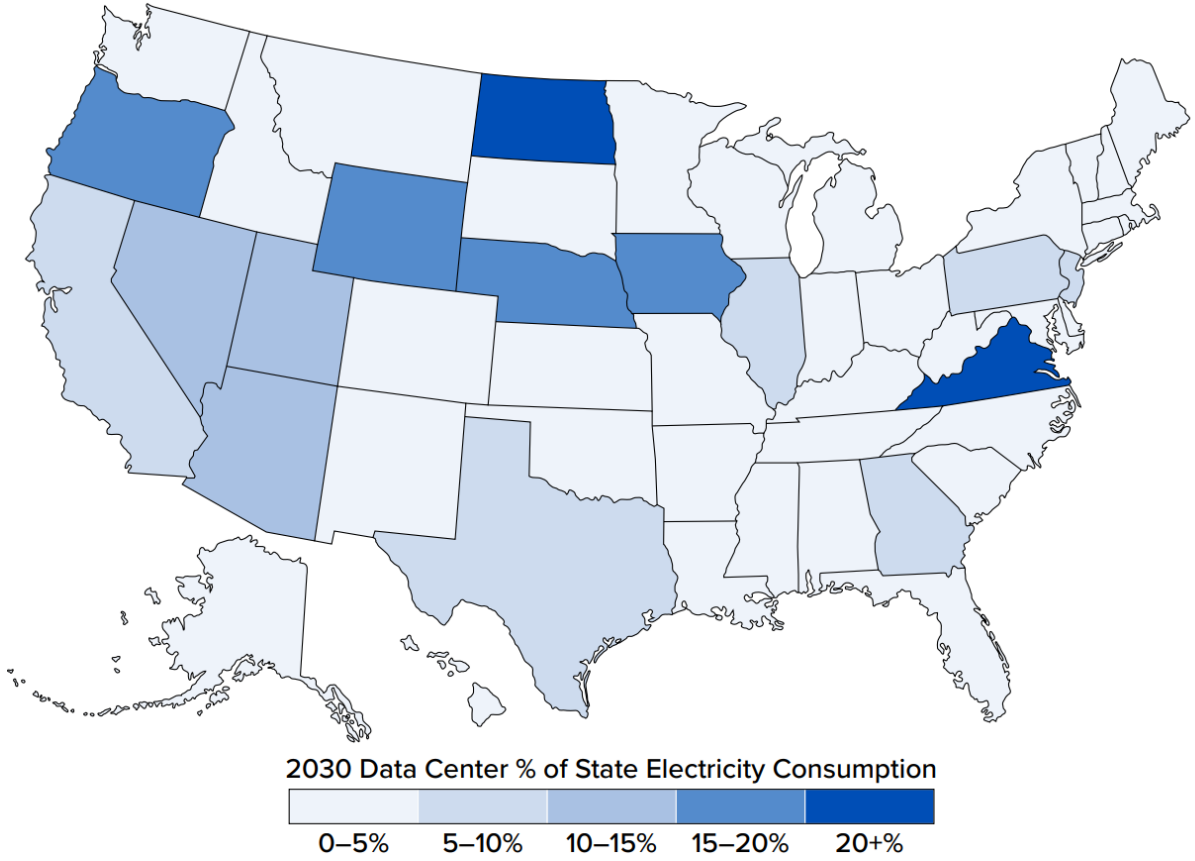
Data Center Electricity Demand – A National Perspective

Data centers are driving historic electricity demand across the U.S., with some states projected to exceed 20% of total consumption by 2030—highlighting the urgency for proactive grid planning and ratepayer protection in New Mexico.

Fig 1: 2030 projected data center share of electricity consumption

*Assumes average of the four growth scenarios and that non-data center loads grow at 1% annually

Source: EPRI, Powering Intelligence Analyzing Artificial Intelligence and Data Center Energy Consumption



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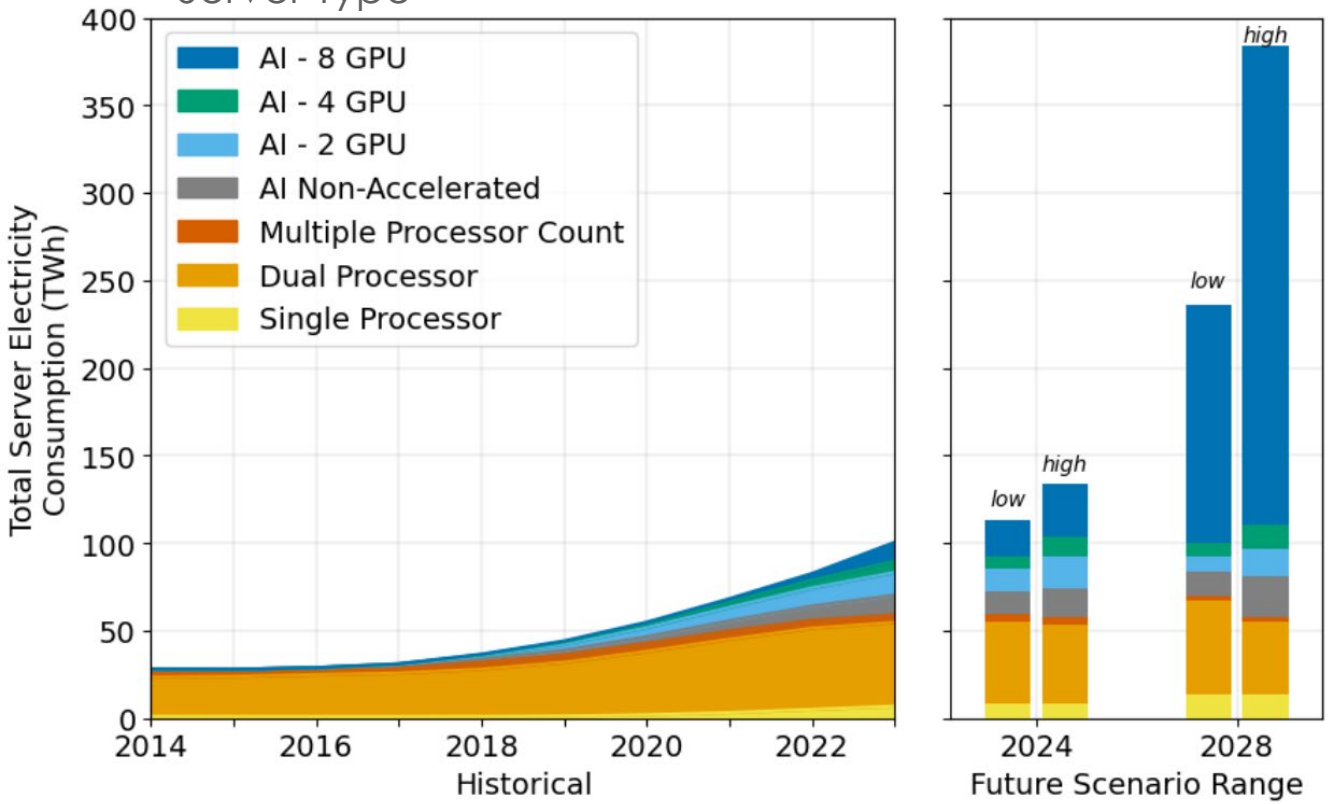
Data Center Electricity Demand Is Surging

AI Workloads Are Reshaping the Grid

Server energy use has tripled since 2014, with GPU-accelerated AI workloads now dominating growth.

- Server energy use grew from 30 TWh (2014) to 100 TWh (2023)
- GPU-accelerated AI servers jumped from <2 TWh (2017) to >40 TWh (2023)
- EMNRD sees this as a strategic inflection point for energy policy and grid planning

Fig 2: Total Data Center Electricity Use by Year and Server Type



Source: DOE, 2024 United States Data Center Energy Usage Report

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ETA Compliance and Utility Challenges

Understanding the Boundaries of the Energy Transition Act

- **Behind-the-meter generation is not subject to ETA compliance**
- Interconnected generation must comply with utility decarbonization targets (e.g., through the Renewable Portfolio Standard)
- This creates planning and compliance challenges for utilities facing multi-gigawatt load growth

Table 1: RPS Compliance Timeline by Utility Type (2020-2045)

Year	IOUs (e.g., PNM, SPS, EPE)	Co-ops (e.g., Kit Carson, Central NM Electric)	Munis (e.g., Farmington, Aztec)
2020	20% renewables	10% renewables	10% renewables
2025	40% renewables	15% renewables	15% renewables
2030	50% renewables	20% renewables	20% renewables
2040	80% renewables	50% renewables	50% renewables
2045	100% zero-carbon electricity	80% renewables	80% renewables

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New Policy Development: Microgrids

Clarifying RPS Treatment Under HB 93 (2025)

Under HB 93 (2025), non-renewable energy from interconnected microgrids doesn't count toward the 2030 RPS target—it's deferred until 2035.

- 2025 HB 93 codified at NMSA 62-17-12
- Establishes a delayed compliance window of 2035 (instead of 2030) for energy from interconnected microgrids*
- Applies to projects over 20MW (about 16,500 average U.S. homes)

Implications for Utilities and Developers

- Utilities must meet 2030 RPS targets without relying on non-renewable microgrid generation
- May affect resource planning, procurement strategies, and interconnection decisions
- EMNRD encourages early coordination to align microgrid deployment with long-term decarbonization goals

*Provisions in HB 93 only apply if the microgrid interconnects with a utility regulated by the ETA.

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Leveraging Data Centers to Accelerate Clean Energy

When structured thoughtfully, hyperscale data centers offer stable demand, premium payments, and long-term contracts that can accelerate renewable energy development, modernize the grid, and reduce costs for other ratepayers.

Simplified Benefits Framework

- Anchor Customers: Stable demand supports utility-scale renewables
- Green Premiums: Above-market payments can offset ratepayer costs and provide funding for grid modernization and batteries.
- Long-Term PPAs: De-risk investment and attract private capital
- Grid Reliability: Data centers can help fund transmission, smart grid tech, and flexible load management

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Questions?

Ben Shelton

Deputy Secretary, EMNRD

Benjamin.Shelton@emnrd.nm.gov

Projections of Potential Power Consumption in NM

Table 3 presents a view of the energy consumption from data centers in NM. These projections are categorized into three scenarios: low growth, moderate growth, high growth, and higher growth

Table 2: Projections to 2030 of potential power consumption for states with significant data center load in 2023

FORECASTED SCENARIOS: PROJECTIONS OF POTENTIAL POWER CONSUMPTION BY STATE (2023–2030)										
	2023 Load		Low-growth Scenario (3.71%)		Moderate-growth Scenario (5%)		High-growth Scenario (10%)		Higher-growth Scenario (15%)	
STATE	MWh/y	% of Total State Electricity Consumed (%EC)	MWh/y	% of Total State Electricity Consumed (%EC)	MWh/y	% of Total State Electricity Consumed (%EC)	MWh/y	% of Total State Electricity Consumed (%EC)	MWh/y	% of Total State Electricity Consumed (%EC)
New Mexico	402,960	1.48%	520,004	1.78%	567,005	1.94%	785,255	2.66%	1,069,926	3.60%

Source: EPRI, Powering Intelligence Analyzing Artificial Intelligence and Data Center Energy Consumption

*percentage of state electricity demand (%EC)

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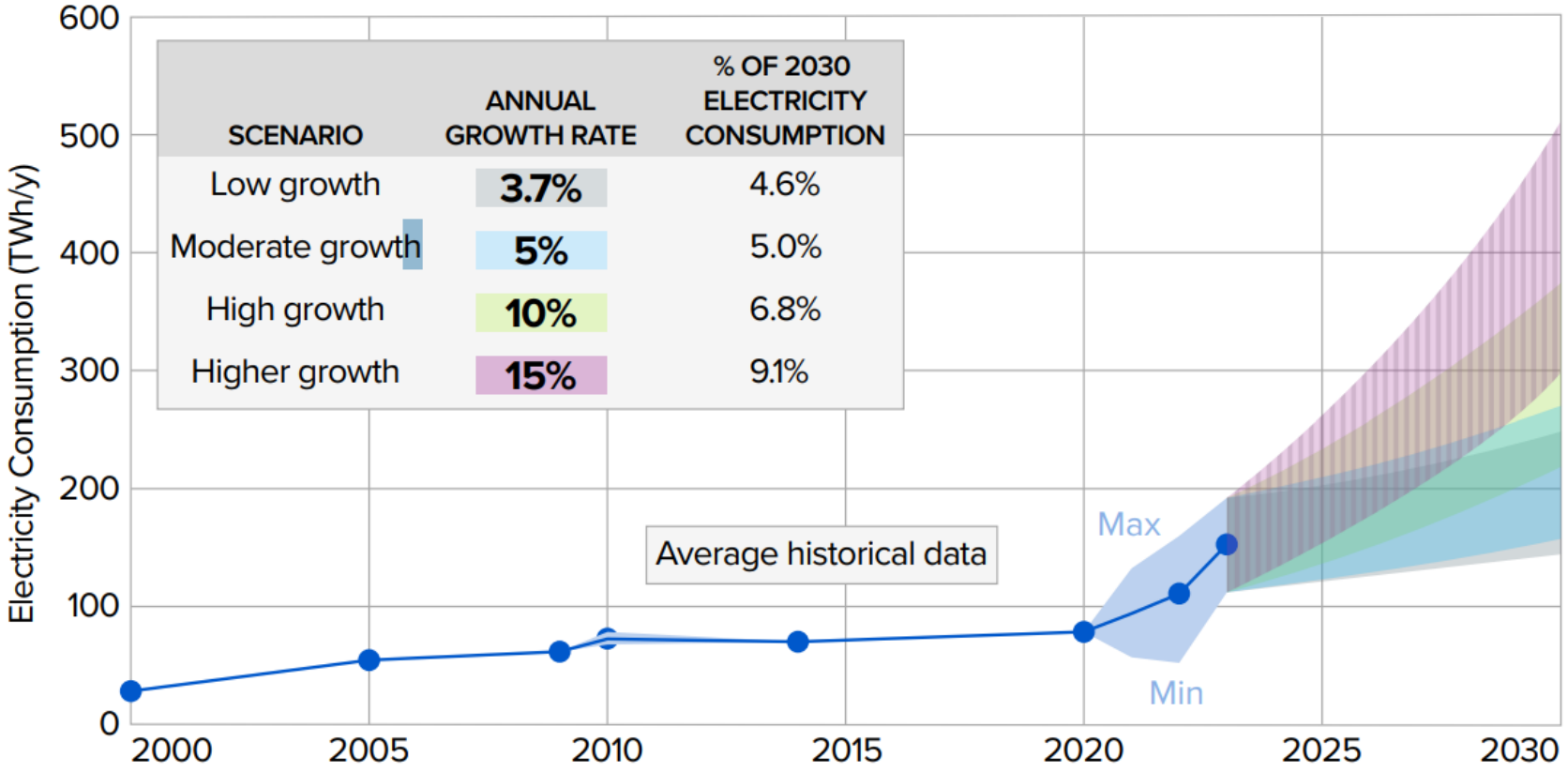
Projections of Potential Power Consumption in NM - Assumptions

- Developed by EPRI using public data, industry forecasts, and historical trends
- Reflects uncertainty in AI model proliferation, internet traffic, storage demand, and efficiency gains
- Assumes 1% annual growth in non-data center electricity demand

Fig 3: Projections of potential power consumption in U.S. Data Center scenarios, 2023-2030



Source: EPRI, Powering Intelligence Analyzing Artificial Intelligence and Data Center Energy Consumption

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Projections of Potential Power Consumption in NM - Assumptions

- Growth projections reflect current usage, technological trends, and expert insights
- Key drivers—AI demand, hardware evolution, and operational standards—are rapidly changing
- Load forecasts are bounded estimates, not fixed predictions

Table 3. Forecasted load projections: Parameters of power consumption in each of the four U.S. data center scenarios, 2022-2030

COMPOSITION OF GROWTH SCENARIOS (2023—2030)				
GROWTH SCENARIO	CAGR (%)	AVERAGE 2023 DATA CENTER LOAD (MWH)	AVERAGE PROJECTED LOAD, 2030 (MWH)	CHANGE IN GROWTH (Δ)
Higher Growth	15%	152,120,846	403,906,136	166%
High Growth	10%	152,120,846	296,440,493	95%
Moderate Growth	5%	152,120,846	214,049,306	41%
Low Growth	3.7%	152,120,846	196,305,818	29%

Source: EPRI, Powering Intelligence Analyzing Artificial Intelligence and Data Center Energy Consumption

*compound annual growth rate (CAGR)

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