EXISTING INFRASTRUCTURE

Line Name/Operator	Voltage	Length in/near Luna County	Capacity	Notes
Luna-Diablo Line (El Paso Electric, with WAPA interplay)	345 kV	~5-10 miles (loop near Afton Substation, south of Luna County)	~868 MW (firm transfer capacity per NREL study)	Single-circuit overhead line connecting Luna to Diablo Substation in Grant County; used for regional stability and renewable tie-ins. Part of the backbone for southern NM exports. El Paso Electric is the primary owner/operator, with WAPA involvement in upgrades and regional coordination.
Existing 115 kV Lines (WAPA/PNM)	115 kV	~120 miles (approximate; various segments east of Deming)	~100-200 MW per circuit (unconfirmed; approximate)	Older single-circuit wood-pole lines; being upgraded under Southline Project. Limited for large-scale renewables; congestion common during peak solar output.

These existing lines provide ~500-800 MW of total regional capacity but are often near limits. Major Projects Enhancing Capacity Luna County is central to several multi-billion-dollar initiatives under the New Mexico Renewable Energy Transmission Authority (RETA) and federal funding from the Bipartisan Infrastructure Law. These aim to unlock ~11 GW of untapped renewable potential statewide, with Luna as a southern hub.

PROJECTS IN PERMITTING AS OF NOVEMBER 2025

Project Name	Voltage/Type	Route Length (NM Portion)	Capacity	Status & Luna County Impact
Southline Transmission Project (Southwestern Power Group/WAPA; co-developed by Grid United and Black Forest Partners)	345 kV HVAC (double-circuit)	150 miles (includes 30 miles east of Deming from NM Hwy 9 to I-10; new Midpoint Substation in Luna)	Up to 1,000 MW (bidirectional)	Phase 1 (upgrades) complete; Phase 2 selected for DOE Transmission Facilitation Program funding in October 2024, with construction on Phase 1 expected to begin in the latter half of 2025 (projected in-service by 2028). Directly boosts Luna capacity by ~800 MW for renewables; interconnects 14 substations.
SunZia Transmission Project (Pattern Energy)	500 kV HVDC	520 miles total (traverses Luna County ~50-70 miles, from Sierra to Hidalgo)	Up to 4,500 MW (primarily renewables)	Groundbreaking 2023; construction ongoing (73% of transmission structures assembled and 67% erected as of mid-2025; 100% of pad grading and foundations complete), projected in-service by end of 2025 to early 2026 (ahead of initial schedule per WECC and developer reports). Adds massive export capacity through Luna; ties into 3.5 GW SunZia Wind farm in Torrance County.

RioSol Transmission Project (Southwestern Power Group/RETA)	500 kV HVAC	557 miles total (349 miles in NM, paralleling SunZia through Luna ~50 miles across Sierra, Luna, Grant, Hidalgo counties)	Up to 1,500-1,600 MW	FERC-approved capacity solicitation (Docket: ER24-2518-000) in July 2024; development complete with permits and ROW secured, construction projected to start 2026 following SunZia completion, in-service by 2028. Merchant line for local NM/AZ communities; enhances reliability in Deming area with off-ramps at 5+ substations.

Implications for Available Capacity

- Current (2025): ~500-1,000 MW total in Luna vicinity, with headroom varying seasonally (higher in winter, constrained in summer solar peaks).
- Near-Term (2026-2028): Post-project completion, regional capacity surges to ~7,000+ MW, enabling export of wind/solar equivalent to powering ~5-6 million homes. Bidirectional flow supports imports during low generation.