

# Grid Vision Plan

*Optimizing The Grid We Have & Building  
The Grid We Need*

# Delivering Our 800GW Grid Vision with 5 Solutions

Added capacity by 2035 (GW)

Optimize



① **Deploy** – ATTs to increase transfer capacity on the existing grid

~120-170



② **Develop** – on-site and local power generation to support load growth

~100-200



③ **Install** – storage and controllable load to shift demand and reduce peak strain

~120-250+

Build



④ **Expand** – local transmission to relieve bottlenecks and connect new supply

~200-300



⑤ **Connect** – links between regional seams and improve reliability

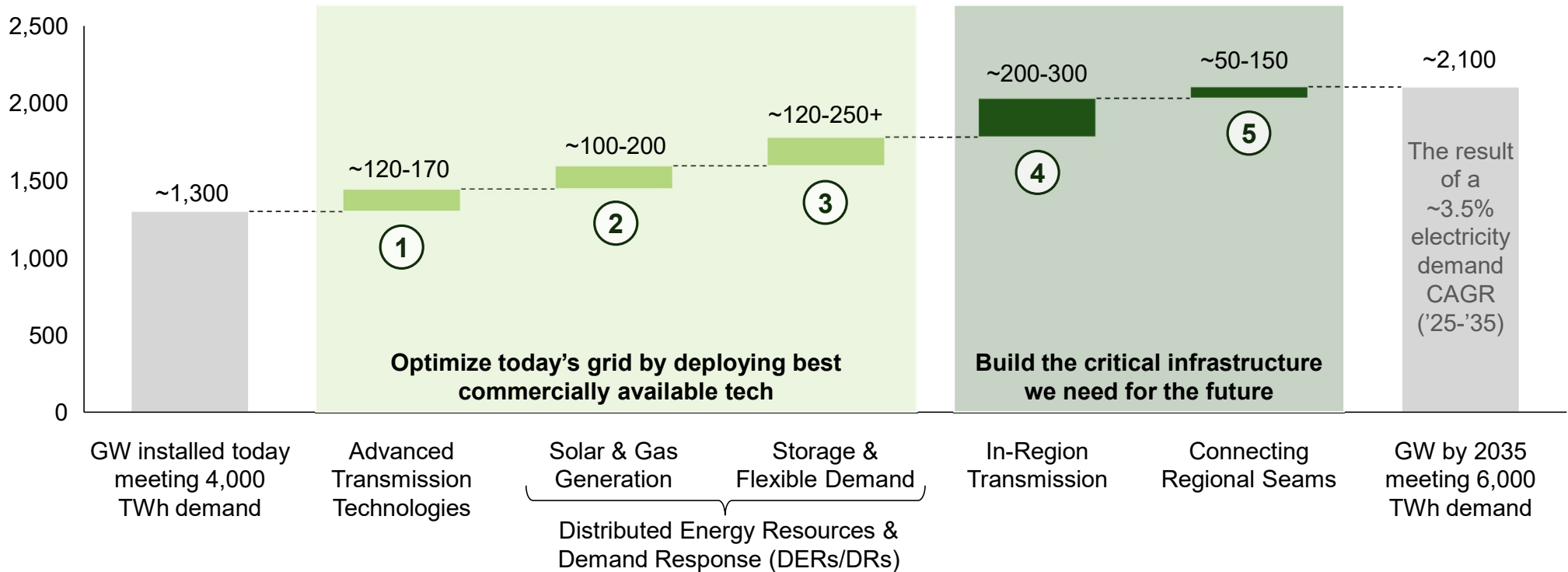
~50-150

**Enablers:** Policy reform, **technology** acceleration, and **market** alignment are critical to building the future grid

# Our Grid Vision Plan to Achieve 800+ Incremental GW by 2035

/ D I R E C T I O N A L

**Estimated Required Additional Installed Capacity by Grid Action, 2035 (GW)**



Note: Solar & Gas includes fuel-based generation and distributed solar. Storage & Flexible Demand includes distributed and FTM storage, EV charging, BAS, heat pumps and smart thermostats. DERs projected to 2030 using 2024–2028 CAGR; 2030–2035 assumes constant DER/DR share of capacity.

Sources: Wood Mackenzie DER Outlook 2023, NREL National Transmission Planning Study 2024, Brattle Group 2024, Energy Information Administration

# Grid Vision 2035: Connected, Flexible, Reliable, And Scalable

- 1
- 2
- 3
- 4
- 5



~ 6.5K miles of **yearly in-region transmission buildout** (of ~7K total), relieving local congestion and enabling new loads to be brought online



**VPPs** programs consist of ~275 GW incremental DER capacity (subset of 2035 total), dispatching distributed resources to reduce congestion



**AI-enabled GETs** increase capacity ~60 GW by optimizing power flow



**Expanded capacity** through buildout of ~100 additional HVDC lines



**Advanced Reconductoring** projects increase capacity ~50-100GW for existing lines



**National Tx backbone** with ~500 miles (of ~7K total) of yearly lines across regional seams to support affordability and reliability



Up to ~200 GWs of on-site and local **solar and gas generation** to support load growth



Up to ~250+ GWs of **storage and flexible demand** shaving peak load and supporting reliability

**Legend**

- 500 MW Data center (2026 operating / in-construction)
- 500 MW Data center (2035 planned)
- ▲ Example near-term Advanced Reconductor builds
- Example new VPP hub
- Example new storage hub
- Example new in-region line
- Example new cross-regional seam line
- Example new HVDC line
- Optimize
- Build

**Key enablers:**

**Policy**

Coordinated national and local policy that establishes cost allocation frameworks, planning authority, and permitting certainty

**Technology**

AI-enabled planning and harmonized grid data standards to reduce lead times, optimize power flows, and improve forecasts

**Market**

Outcome-based rate recovery congestion-driven price signals that direct capital toward high value grid upgrades

Source: NLR

# OpenMinds' Grid Vision Focuses on 6 Impact Projects

## 1 The U.S. Grid Vision Plan

Develop and communicate clear plan for optimizing today's grid and building tomorrow's grid



## 2 Federal and State Policy

Deliver data driven perspectives to influence policy that expedite transmission build-out

## 3 AI Planning

Showcase transformative technology and scale to key stakeholders to increase efficiency



## 4 ATTs

Highlight case studies and best practices to drive ATT adoption



## 5 Shovel Ready Interconnects

Identify specific, critical, and high value transmission projects to accelerate



## 6 Speed to Power Loop

Catalyze development of innovative, multi-grid transmission expansion



## Project Selection

Existing 6 projects selected for highest near-term OM impact

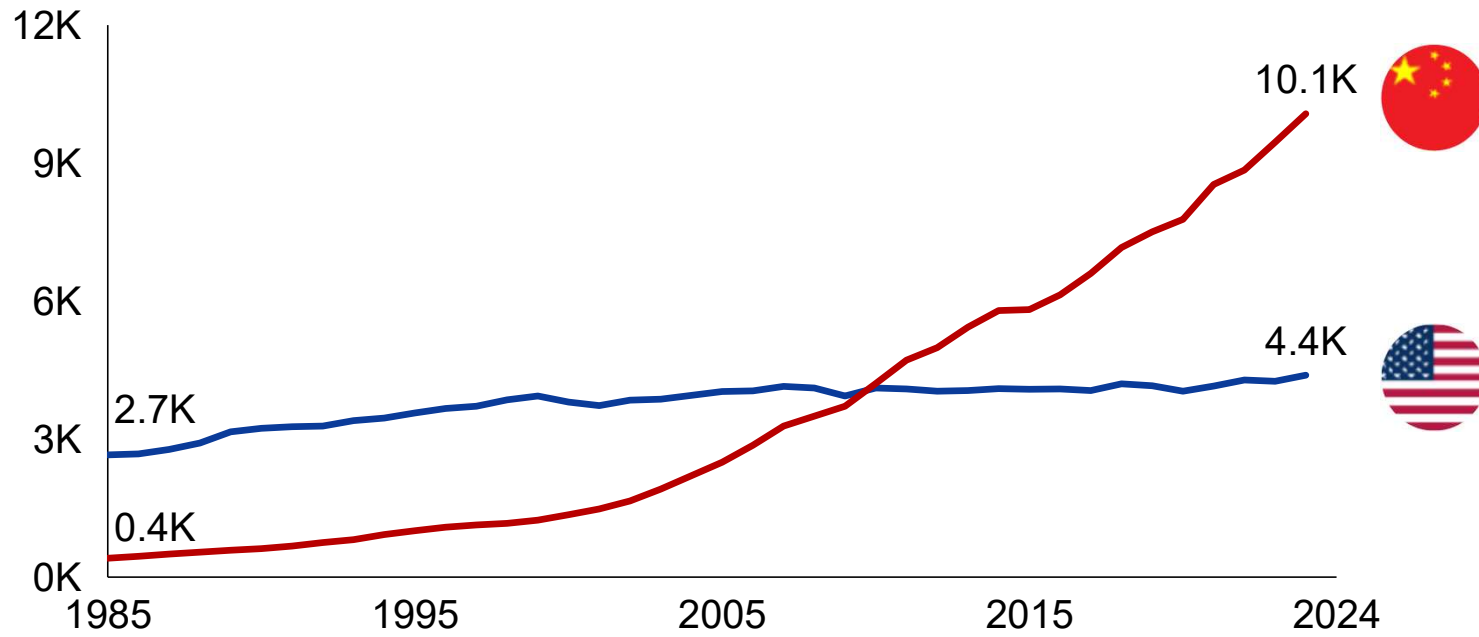
Projects for future consideration include nuclear, geothermal, storage, etc.



Developing the action plan and coalition to deliver reliable, affordable power to meet growing electricity demand

# China Is Electrifying Quickly

China vs U.S. Electricity Generation (TWh), 1985-2024



CAGR ('00-'24)	
China	8.7%
U.S.	0.6%

Since 2000, China's growth rate has exceeded the U.S. by ~15x annually

Source: [Our World in Data](#)