

SunZia Wind and Transmission

IEP, September 24, 2023



Agenda

- Pattern Energy – California’s premier Renewable Energy Provider
- Overview of SunZia
 - SunZia Transmission HVDC
 - SunZia Wind
- NM Wind + California Solar = Affordable reliability
- SPTO Tariff

Pattern Energy

California's Premiere Clean Power Company

35 Million Californians Served | Founded in San Francisco, 2009

SunZia

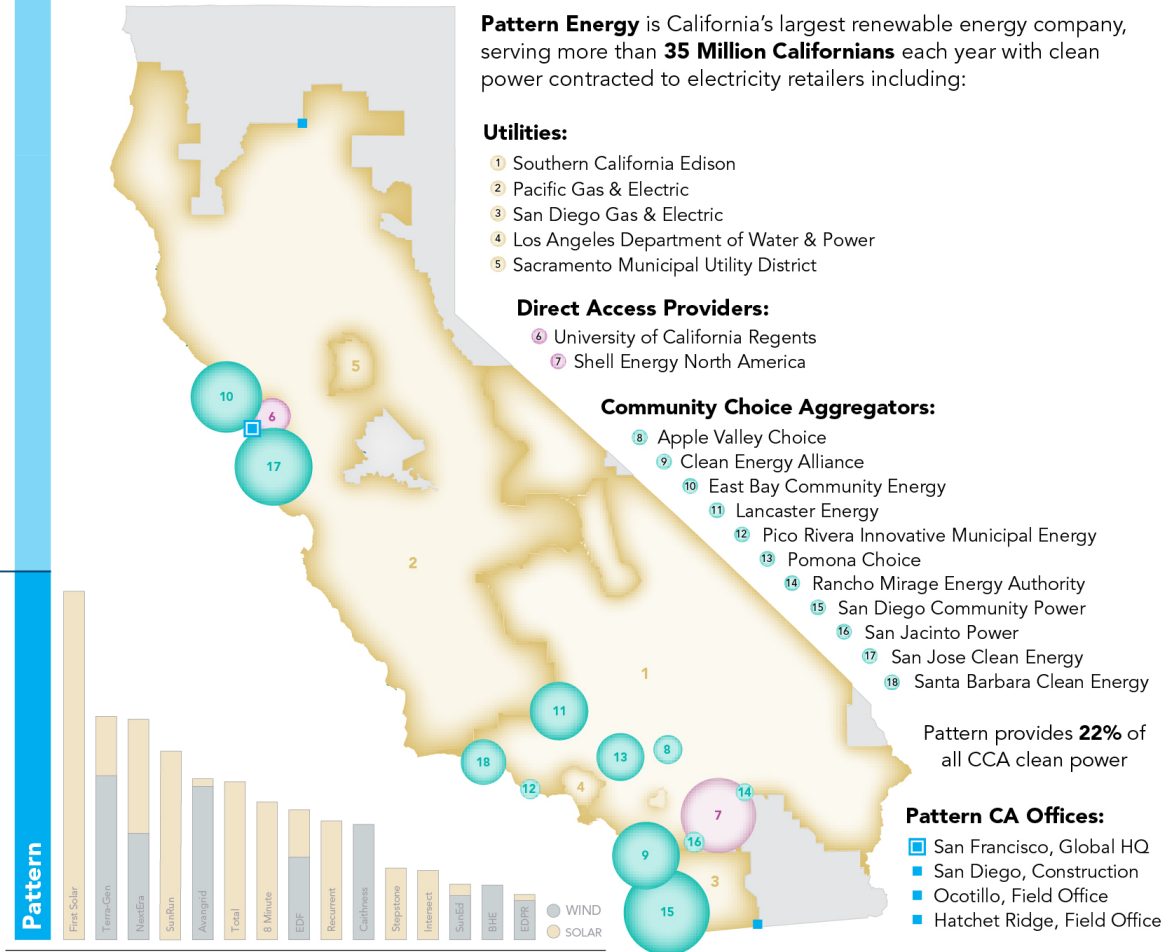
Pattern Wind for CA:
Under Construction
12,800 GWh / YR
3,515 MW

SunZia Wind will be the largest renewable project in U.S. history, with 3x more power than the Hoover Dam

CA Fleet

Pattern Wind for CA:
Operational Facilities
7,700 GWh / YR
1,960 MW

Hatchet Ridge Wind
Ocotillo Wind
Broadview I Wind
Broadview II Wind
Grady Wind
Tecolote Wind
Red Cloud Wind
Duran Mesa Wind
Clines Corners Wind



America's Largest Clean Energy Project

3,500+ MW

American wind energy

~550 miles

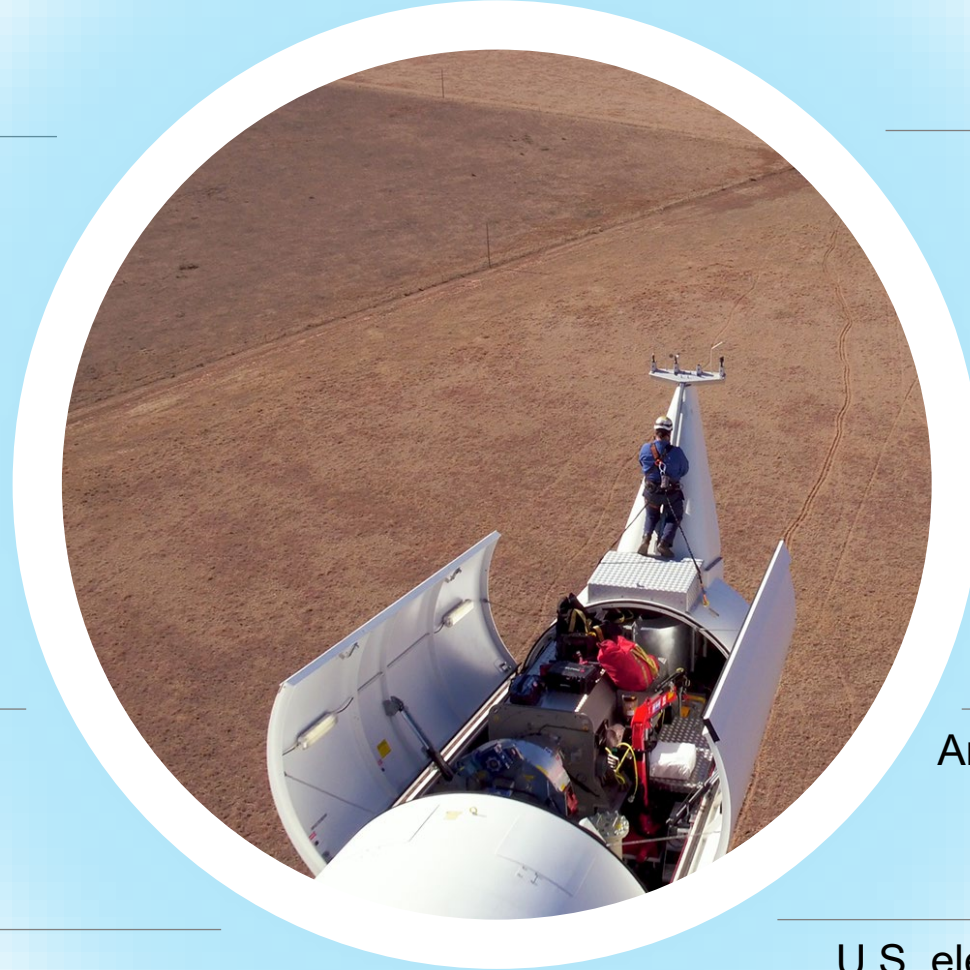
HVDC transmission infrastructure

>\$8 billion

Private investment

\$1 billion

Local economic benefits



11.5 million

Metric tons CO₂ annual offset

2,000

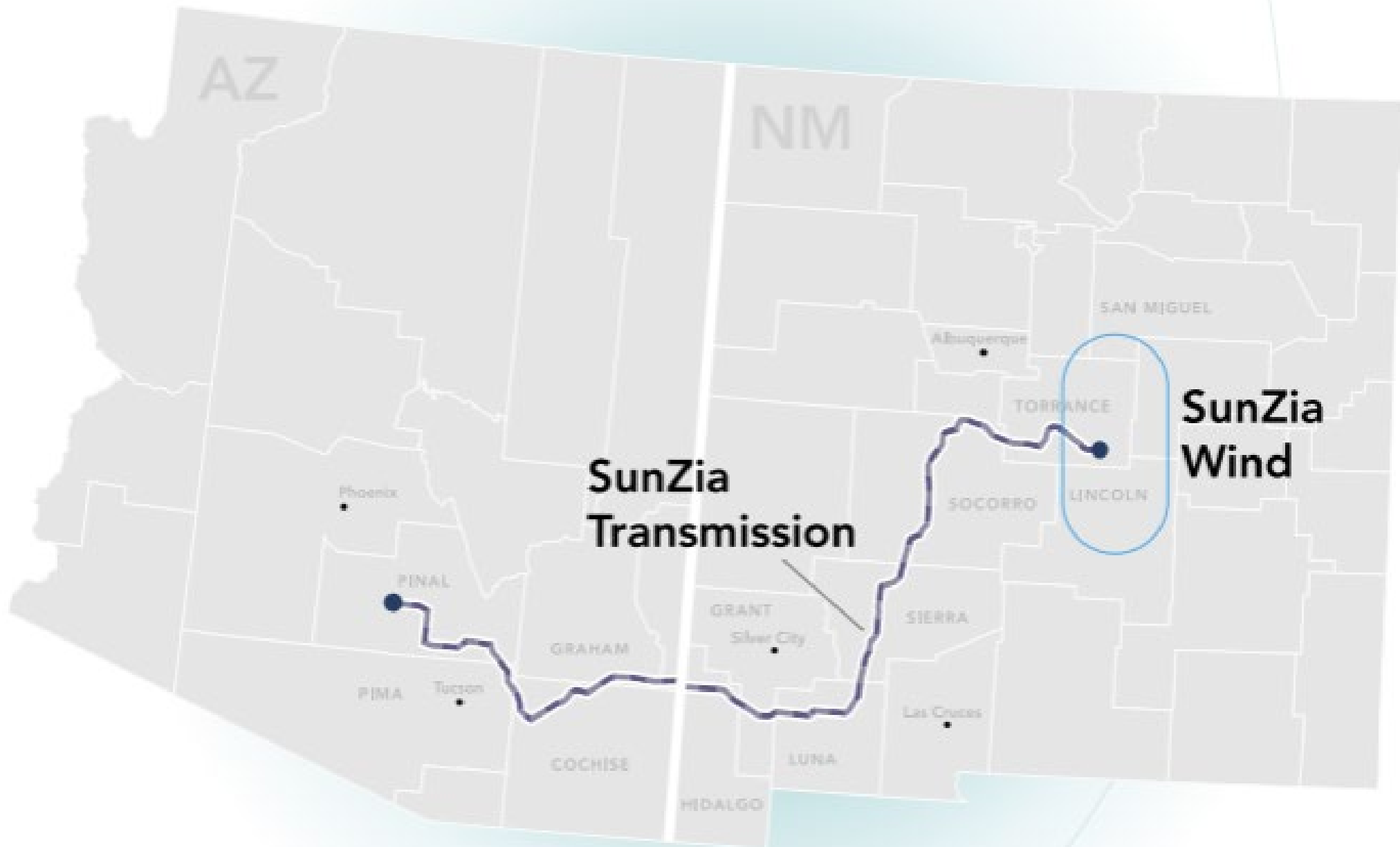
Clean energy construction jobs

3+ million

Americans' electricity needs served

0.2%

U.S. electricity greenhouse gas reductions

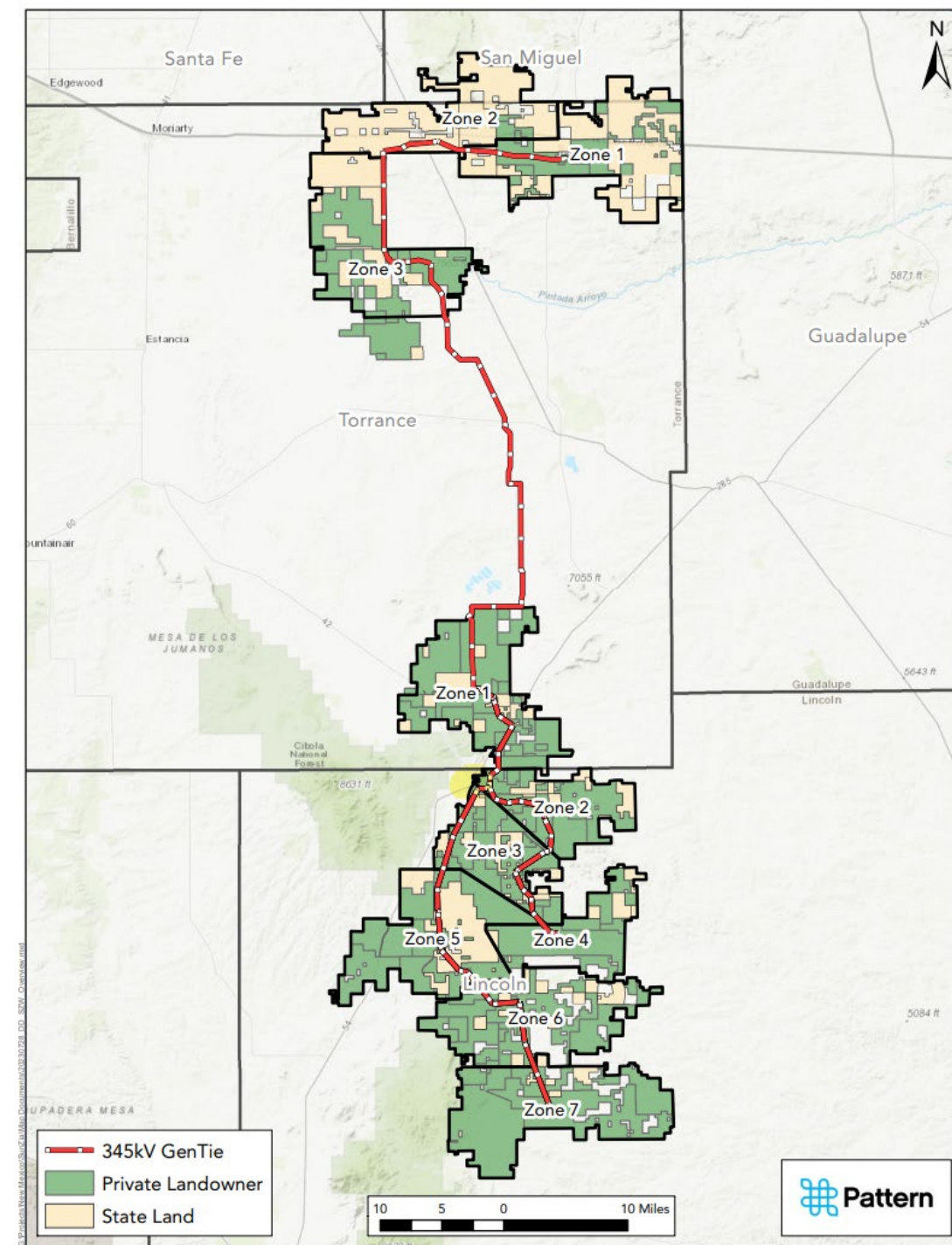


**SunZia
Transmission**

**SunZia
Wind**

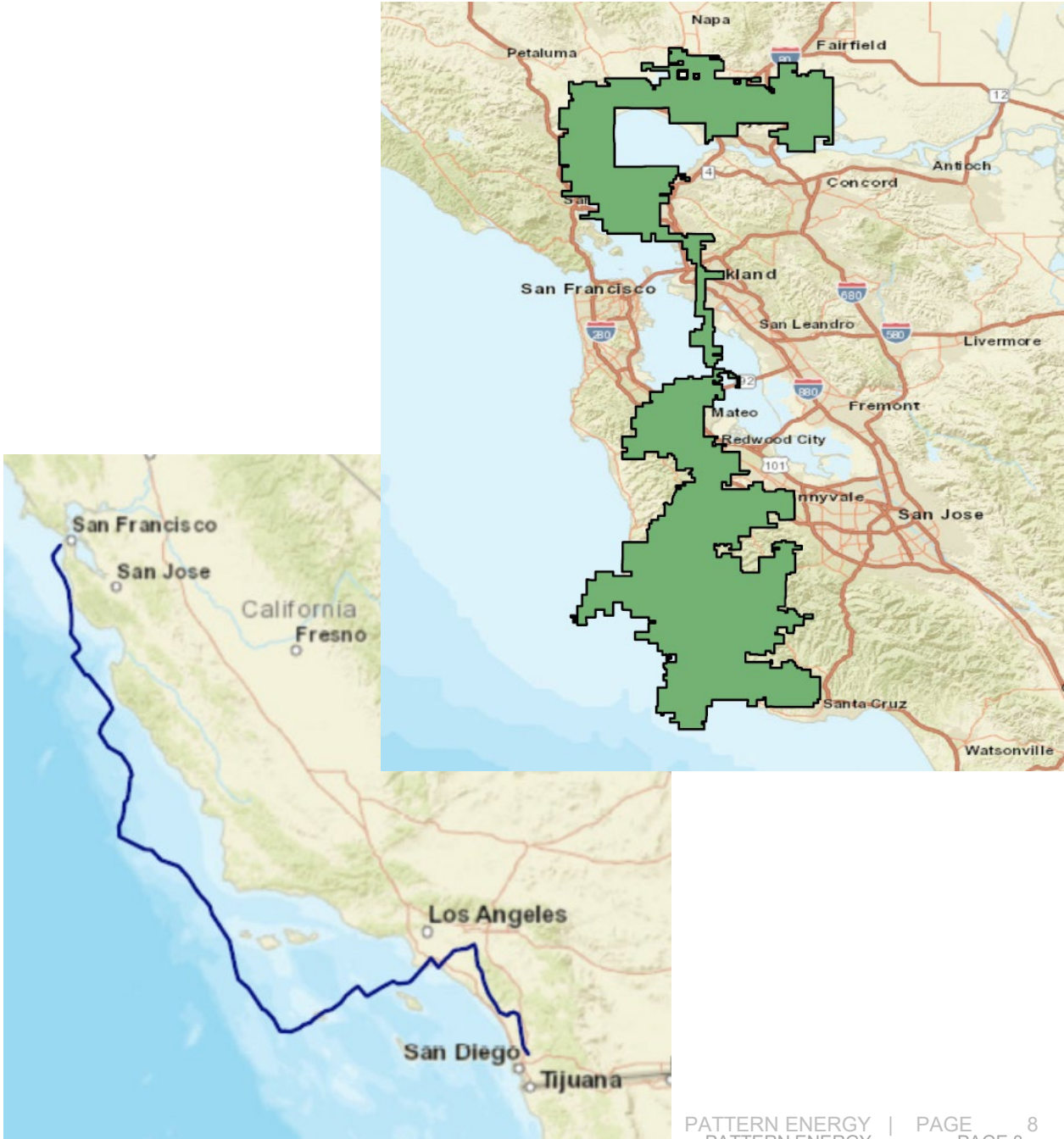
SunZia Wind – Total Project Area

- Development Period 2016 – 2026
- 3,515 MW
 - San Miguel County ~ 117 MW
 - Torrance County – 1,332 MW
 - Lincoln County - 2,066 MW
- Approximately 530,000 acres between private and state trust land
- Construction Q3 2023 – Q2 2026
- ~916 Turbines
- Maximum height - 699'
- Average hub height ~ 505'
- Blade tip height ~ 575'
- Performing environmental and cultural studies on the entire project area

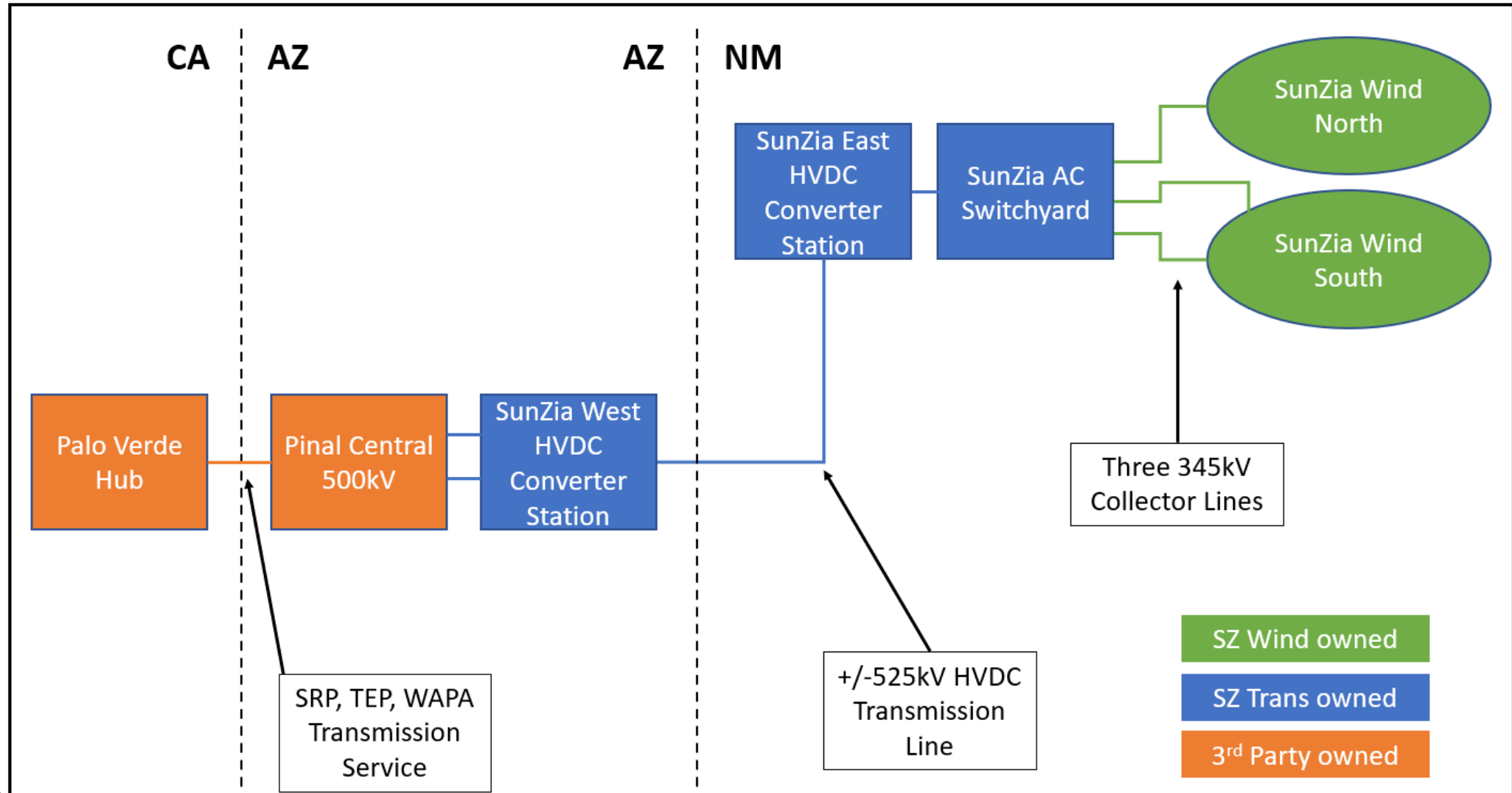


Project Scale and Context

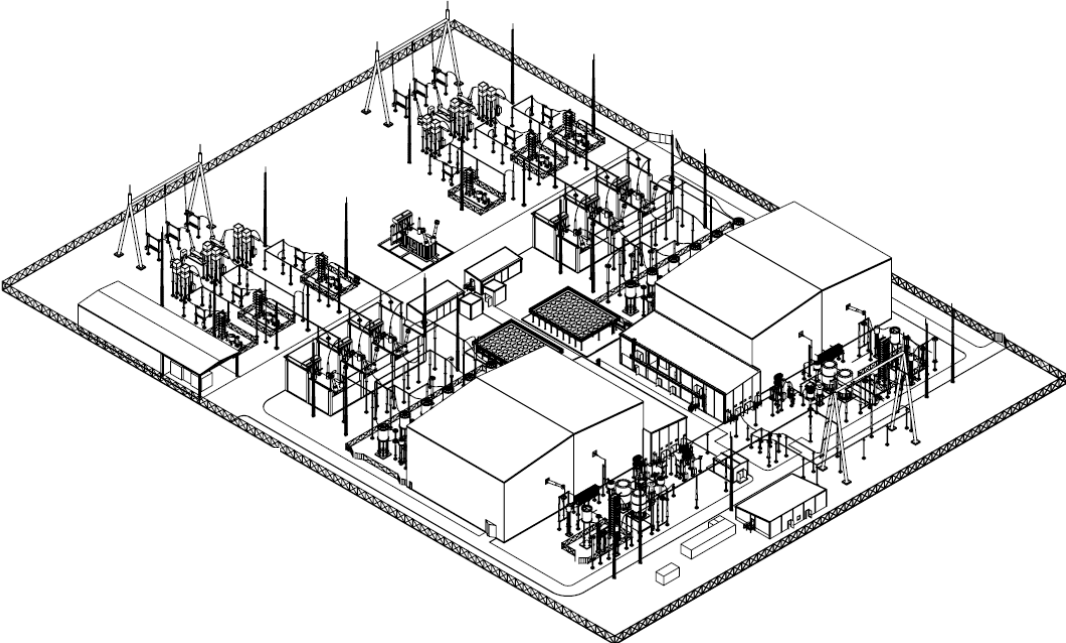
Project	MW / Cost
Diablo Canyon	2,256 MW Largest CA Generator
South Texas Project	2,760 MW Largest Nuclear Plant in TX
Hoover Dam	2,080 MW
Western Spirit	1,050 MW Largest Single-Phase Wind Project in US History
SunZia	3,515 MW wind + 3,000 MW transmission >\$8 billion Largest Wind farm in Western Hemisphere



Project Diagram

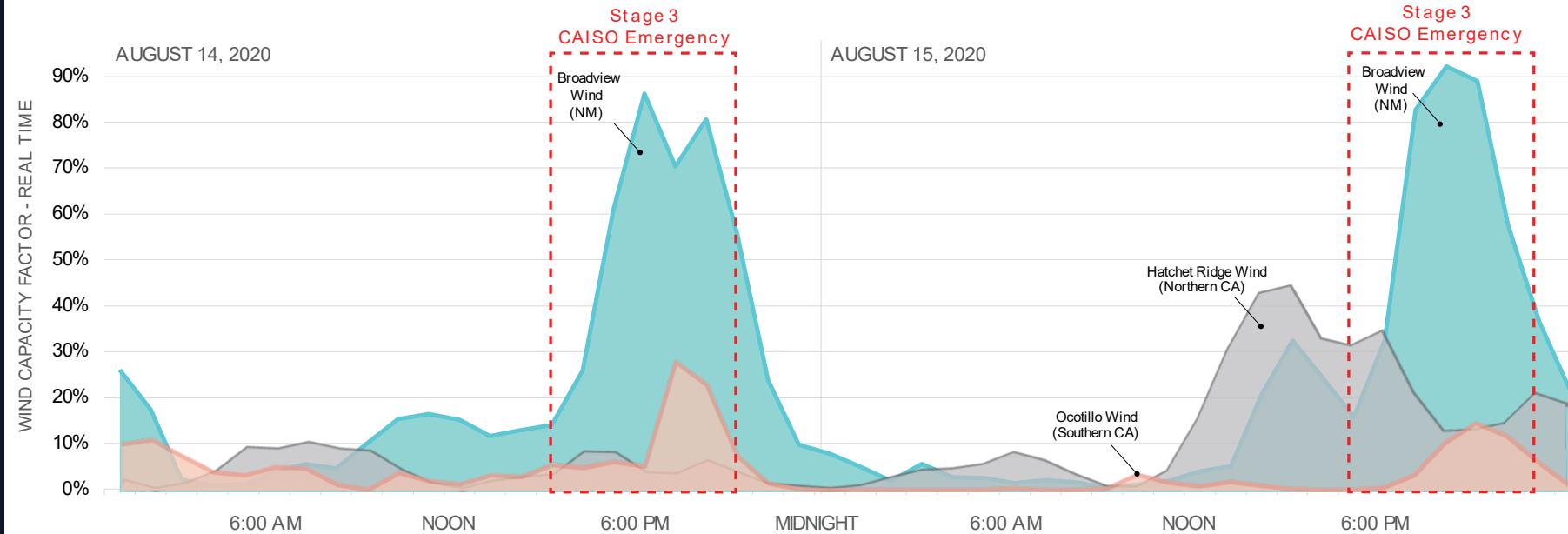


SunZia East HVDC Converter Station, Pete Heinrich AC Switchyard, and SunZia Wind South Laydown yard



Regional Diversity Means Reliability

- Regional transmission connects critical ramping wind to displace fossil fuels in a solar-rich system. A reliable, resilient 100% clean grid powered by the weather needs to be bigger than the weather.
- In 2020, Pattern's 540 MW of operating New Mexico wind serving California out-performed its local California wind facilities during the August 2020 blackouts. With Western Spirit now online and SunZia Wind in development, Pattern will enhance that resilience at ten times the scale, with 5,000 MW that ramps up when the market needs it most.



Pattern Energy Real Time Capacity Factors: California vs. New Mexico Wind Farms
As Delivered to the CAISO System During August 2020 Rolling Blackouts

SunZia in the News

Audubon Southwest

[Our Work](#) | [Birds](#) | [News](#) | [About Us](#) | [Get Involved](#) | [🔍](#)

Conservation

Why We Support Sunzia

Our hope in elevating Sunzia as a case study is to encourage the adoption of the best practices employed in this project in future projects and to let the industry know that we are willing and able to negotiate with them in good faith and get to “yes” should they develop projects that don’t sacrifice the habitat birds need to achieve the climate birds need. This project will bring 3.5 gigawatts of renewable energy onto the western grid and because of our involvement will do so with minimal impact to local bird life. We consider this a “win” and hope to see other projects follow the same example.



ALBUQUERQUE
JOURNAL

Going with the wind: Tiny Corona hangs its hopes on huge clean-energy projects

OLLIE REED JR. / JOURNAL STAFF WRITER Sep 3, 2023 Updated Sep 11, 2023

"And little places like this don't have a lot of resources," she said. "Also, the people involved in the (wind energy) projects are just gracious. They are very aware of the impact of their project on our community. They are very aware of people."



Construction Process

Underground Collection System







N1
3.8-354



SunZia Transmission Line Mobilization





Construction Process

Reclamation



Construction Process

Reclamation





Thank you!

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