



Science, Technology and Telecommunications Committee

Brian Sarantos Director of Development – West Region

EDF Renewables – North America

September 16 2021



A Global Leader in **Low-Carbon Energy**

EDF Group

70+
years experience

\$19.6 B
EBITDA

164,727
employees

37.6 M
clients worldwide

EDF Renewables

\$1 B
EBITDA

22
operating countries

3,947
employees

23.4 TWh
green electricity

EDF Renewables North America

20 GW
developed

13 GW
O&M contract

34 GW
pipeline

35+
years experience

1,374
employees



Grid-Scale
Power



Distribution-Scale
Power



Onsite
Solutions



Asset
Optimization

as of 12/31/20

EDF Renewables North America



Grid-Scale Power

Bigger Projects. Bigger Impact.

- 20 GW developed of wind, solar and storage
- \$18+ billion to vendors, including lease payments made to landowners. (since 2010)
- Created and continually creating thousands of jobs



Distribution-Scale Power

Experience. Reliable. Integrated.

- 1200+ MW of solar installed
- 2500+ installations
- 20 states with O&M jobs for the life of projects.
- Specialize in environmentally sensitive sites and community solar



Onsite Solutions

Multiple Solutions. One Point of Contact.

- 400+ MW commercial solar installed
- 40 MWh onsite storage contracted
- 6,000+ EV charging stations installed
- Bundled or stand-alone systems with microgrid option



Asset Optimization

Accelerate Optional Excellence. Drive Profit

- 13 GW operations & maintenance
- 11.7 GW under OCC monitoring
- 7.8 GW assets under management
- 400+ asset optimization experts

Investments in the **Community**

These principles reflect our promise to our host communities, landowners, and other stakeholders:

- Honesty and transparency in all our development activities
- Engaging with all stakeholders and remaining open to taking input that will improve projects and mitigate impacts
- Being present and available in the community to ensure all voices are heard
- Treating landowners, host communities, and stakeholders fairly and equitably



Educational Commitments

- Regular project update letters
- Annual newsletters
- Community informational meetings
- Landowner get-togethers
- Sponsorship of community events
- Donations to community service organizations
- Presentations / assistance to local schools on wind technician courses or STEM curriculum
- Regular communication with County Commissioners and local stakeholders once the permitting process starts
- Pre-construction meeting with county stakeholders



EDF Renewables and the **Blood Tribe of Alberta**

- EDFR has developed a long-lasting and mutually beneficial relationship with the Blood Tribe (Kainai Nation), in Alberta.
- Since 2017, we have worked in partnership, to develop the 250MW Cypress Wind Project located near Medicine Hat, AB.
- The project is starting construction this summer and the parties have worked closely to develop an opportunities agreement, to ensure training and long-term job opportunities for Blood Tribe members.
- The opportunities agreement, will result in over 220 Blood Tribe Members trained in; construction, wind turbine maintenance and solar installation.
- On the back of the success at Cypress, we have gone on to develop a second partnership, to develop the **Pe Na Koam** 200MW wind project, which will be located on the Blood Tribe's reserve (the largest reserve in Canada).
- The EDFR development team is working closely with key tribe members, to ensure siting is sensitive to both on-going agricultural practices, but also to ensure minimum impacts on traditional plants, medicines and wildlife.



EDF Renewables in New Mexico

Operational Projects

- Roosevelt Wind
 - 250MW
 - Portales, NM
 - Owner: EDF Renewables
- Milo Wind
 - 49MW
 - Portales NM
 - Owner: EDF Renewables
- Oso Grande Wind
 - 250MW
 - Chaves & Lea Counties, NM
 - Owner: Tucson Electric Power (TEP)

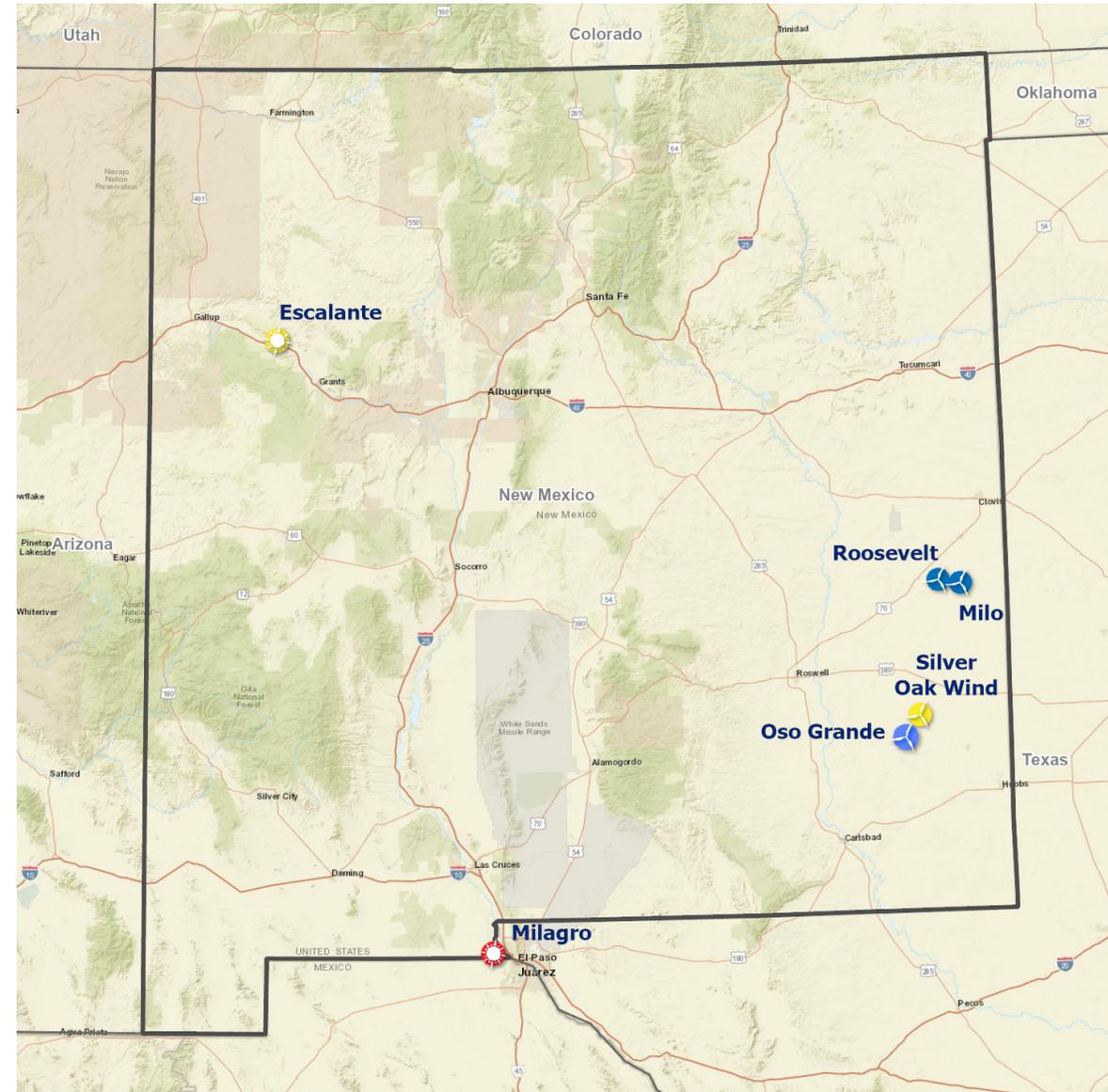
Direct Economic Impact

~\$150 million
local vendor spend

\$7+ million
in lease payments to
landowners

Milo/Roosevelt use an IRB and
make payments in lieu of
taxes

Oso Grande has no IRB and pays full
property tax rate to county,
municipality, schools & hospital
districts



*Oso Grande required significant stakeholder input from other Permian Basin operators and stakeholders.

Potential Future Development

Potential New Mexico Projects in Development

- Silver Oak Wind
 - ~500-750MW
 - Chaves and Lea County New Mexico
- Milagro Solar
 - 150MW PV + 75MW BESS
 - Dona Ana County New
- Escalante Solar
 - 150MW PV + 75MW
 - McKinley County New Mexico
- Initial Evaluation Development
 - Solar – 1850MW
 - Wind – 2000MW
 - BESS – 1500MW
 - Hydrogen Long Duration Storage – 750Mw-1000MW



Potential Offtake

EPE, TEP, SRP, LADWP,
CAISO

EPE

TSGT, PNM

EPE, PNM, TEP, SRP, APS,
LADWP, CAISO, NVE, PAC



Key Priorities for Renewable Energy Development in Today's Market

1

Interconnection and Transmission Availability

Locate and evaluate available transmission capacity from Point of Interconnection (POI) to Point of Receipt (POR) or Point of Delivery (POD)

- Exercise is to identify how many MWs can be put on the system without triggering system upgrades
- What is the most direct route of delivery to the off-takers POR. Upgrades are not always a limiting factor if they are reimbursable, but sometimes the overall schedule for these upgrades can impact project planning
- The more transmission system the electrons touch the higher the wheeling cost to move the power.
- Interconnection and transmission availability and location dictate offtake markets

2

Resource

The resource must be sufficient to make the project competitive in the market for output and availability

- How does this site compare to other Wind and Solar sites that are in your development pipeline
- Are there factors that can limit plant output through curtailment. As an example Cut in/Cut out speeds for Bats, Military operations solar production impacted by farming operations
- The resource must be robust enough to offset transmission wheeling costs to stay competitive in markets

*Projects becoming operational depend on successful PPA.

Land

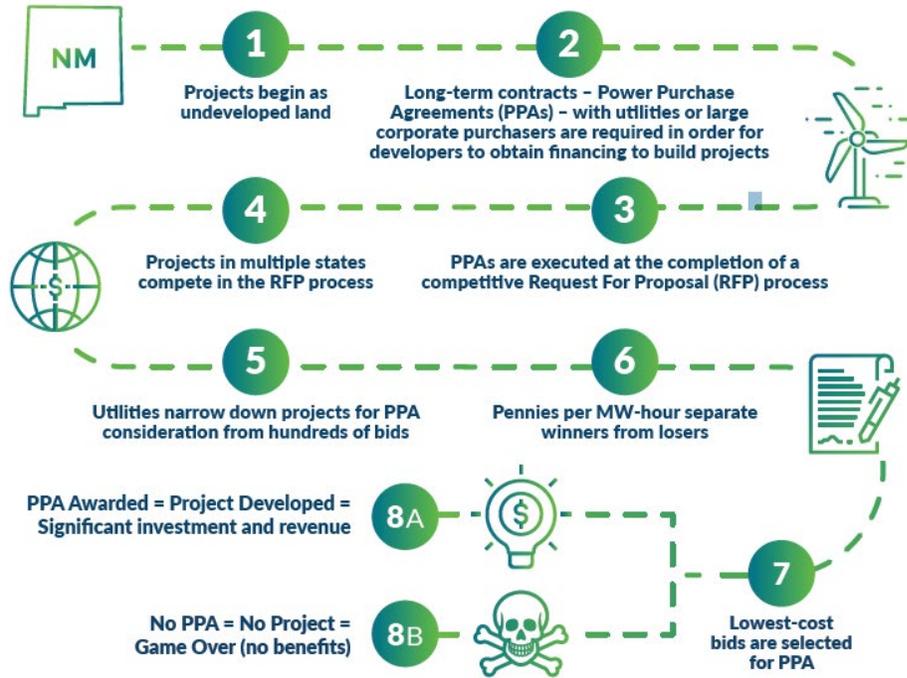
Is there sufficient land to optimize the plant size to meet market and CAPEX requirements

Land Evaluation:

- (Private) How many landowners? What kind of easements will affect the amount of contiguous land?
- (State) What are lease terms? Are there fatal flaws or requirements that make alternatives better? Competitive rates?
- (Federal) Are there incentives for siting the project on Federal land? PTC/ITC extension? Competitive rates? Consistent process?

3

How Renewable Energy Project Development Process Boosts New Mexico's Economy



State policy changes have potential to eliminate the viability of projects



Levying new state taxes = higher prices in RFP response

Higher MW/hour prices mean competitive bids and other states win = no PPA = no NM projects

Competitive tax rates, IRBs, positive regulatory environment = realizing NM's renewable energy potential



- 1** Projects begin as undeveloped land.
- 2** Renewable energy developers need long-term commitments – Power Purchase Agreements (PPAs) – with utilities or large corporate purchases in order to obtain financing to build the projects and connect to the transmission system.
- 3** To maximize customer affordability, utilities purchase power from developers through a competitive Request For Proposal (RFP) process before executing a Power Purchase Agreement (PPA).
- 4** Projects in multiple states compete in the RFP process. One RFP could receive hundreds of bids resulting in one or two developers building renewable energy projects.
- 5** Utilities select a shortlist of projects from one multi-state RFP process to move forward on a PPA. A state can price itself out of a PPA, losing out of the project.
- 6** Due to recent and significant price drops in the competitive renewable energy development industry, pennies per megawatt-hour separate the winners from the losers in an RFP process.
- 7** The lowest-cost bids are selected for PPA. The PPA is created between renewable energy developers and utilities or large corporate customers.
- 8** The development of a project is dependent on a PPA, which leads to significant investment and revenue generation for the state and local community. If no PPA is secured, then the project dies.

State policy changes pose significant impact on renewable energy development. One seemingly minor regulatory or legislative revision has the potential to eliminate the feasibility and viability of a project altogether along with its positive economic impact on the state.

The renewable energy industry is committed to working with policy makers when making decisions ensure there are no unintended consequences in an effort to harness the greatest benefits for New Mexico.



PoweringNM.com



Major WECC Transmission Projects

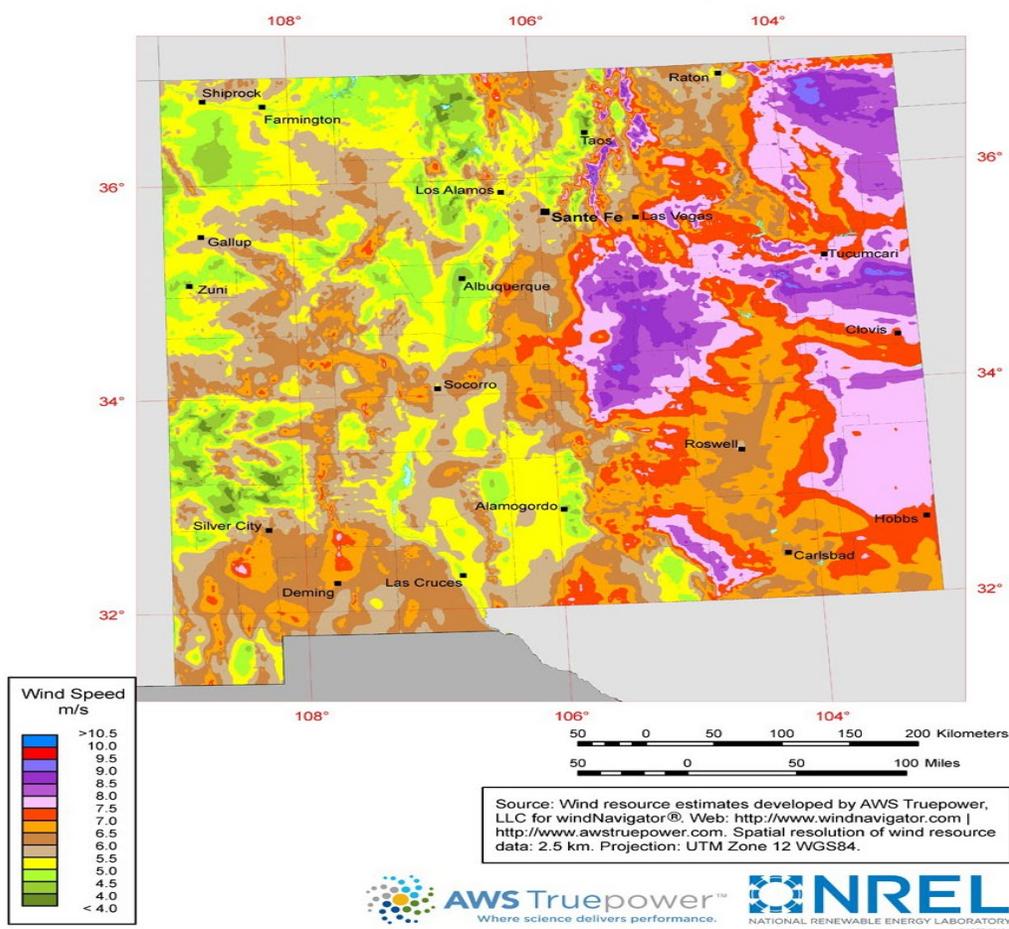


Project	Developer	Description
TransWest Express	Anschutz	WY wind to CA
Sunzia	MMR Group	NM wind to CA,AZ
Southline	Black Forest	NM wind to CA,AZ
Ten West Link	Starwood	AZ solar to CA
SWIP	LS Power	ID wind to NV,CA
Silverado Renewables Connection	GridLiance	NV solar to CA
Greenlink Nevada (West & North)	NV Energy	Increase renewable penetration
Cross-Tie Transmission Line	Transcanyon	WY,UT wind to NV,CA
Colstrip Upgrades	Multiple	MT wind to Pacific NW

New Mexico Wind & Solar Resources

Wind Resource

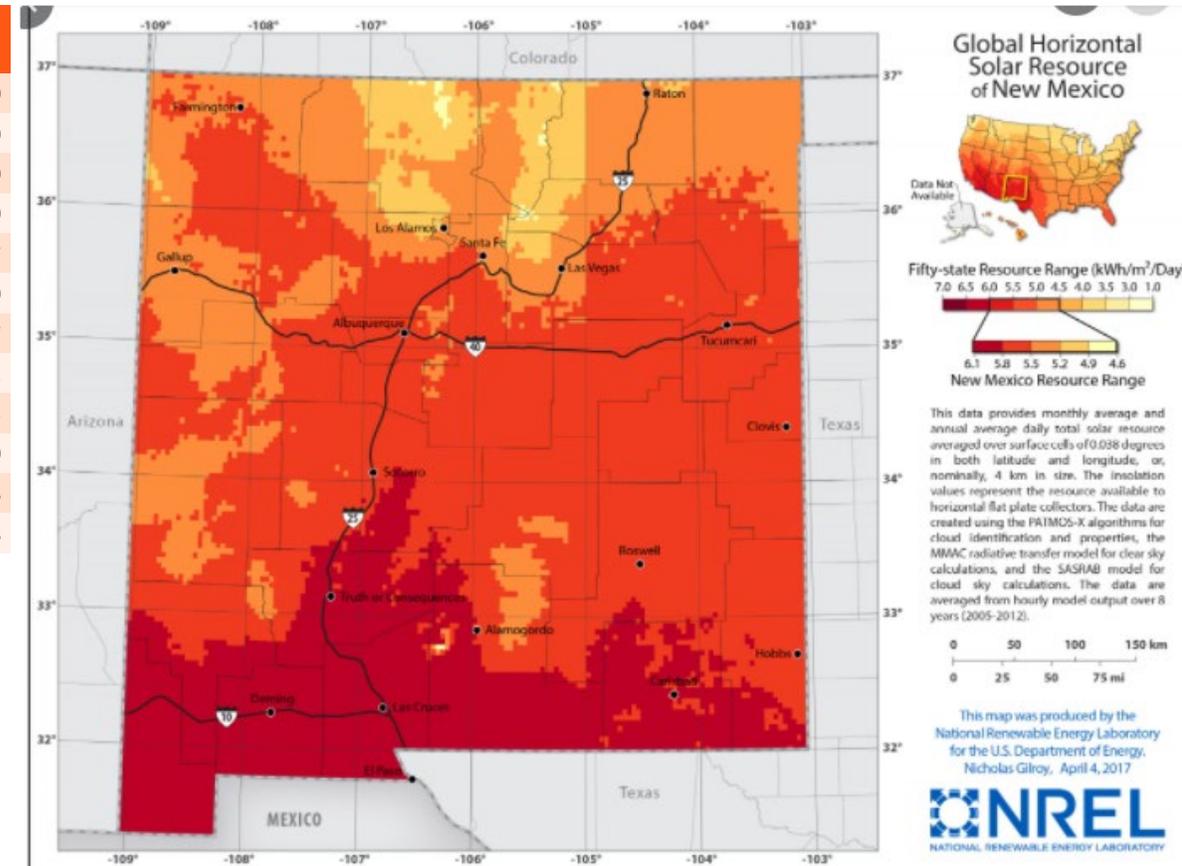
New Mexico - Annual Average Wind Speed at 80 m



Demand

Category	Demand 2024-2030
CA Solar	8,900
CA Storage	7,000
NV Solar	4,150
AZ Solar	3,550
AZ Storage	2,367
UT Solar	2,150
CO Solar	2,007
NM Wind	1,901
NM Solar	1,785
WA Solar	1,550
NV Storage	1,298
CA Wind	1,208

Solar Resource



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