

Western Electric Grid & Emerging RTO Impacts — Focus on New Mexico

Presentation to New Mexico Legislature's
Science, Technology and Telecom Interim Committee
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by
John C. Tysseling, Ph.D.



Estimated New Mexico Benefits from Western RTO Participation (2030)

Advanced Energy Economy study (2022) of estimated economic impacts associated with implementing a Western RTO — state-level reporting of the energy-related benefits from the operation of an RTO in the region. Specific operational and capacity savings focused on two broad categories of economic impacts :

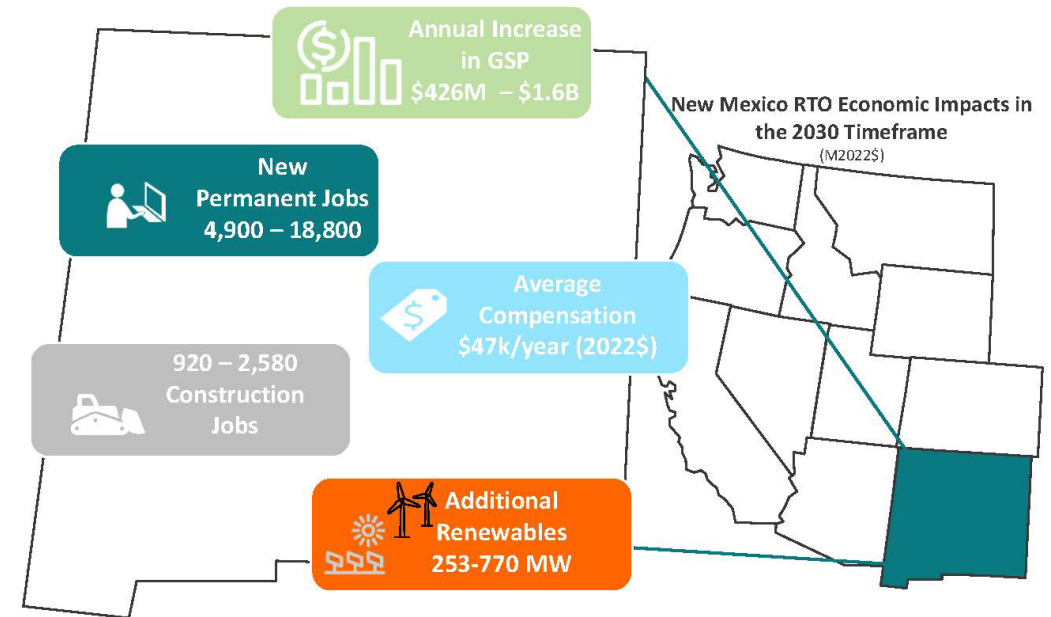
1. The economic impacts to Western states from **increased spending power for households due to lower electricity prices** under an RTO than under a continuation of the status quo in Western electricity markets, and
2. The **economic impacts from new or expanded business activity** due to RTO development, including both:
 - a. The **impact of lower electricity prices for businesses, incentivizing them to expand** in or locate to Western states, and
 - b. **Structural changes to the electricity market enabling new renewable energy development contracts** to meet corporate clean energy demand.

The study results are summarized in terms of:

1. Construction and permanent jobs;
2. Annual increases in Gross State Product (economic impacts), and
3. Incremental tax revenues (fiscal impacts, including property, sales and excise taxes).

Estimated 2030 Impacts from RTO implementation:

- Approximately **net electricity cost savings \$60 to \$85 million per year** (gross \$114 million) for NM customers;
- **Create from 4,900 to 18,000 permanent Jobs**, with average compensation of **\$47,000 per year**;
- From **\$426 million to \$1.6 billion in additional Gross State Product per year** (equivalent to 0.4% to 1.7% of NM's current GSP);
- **Increase state and local tax contributions ranging between \$33 million and \$116 million per year.**



Pattern Energy SunZia Project – Capital Investment

SunZia Transmission Capital Expenditure		
County	Mileage	Total Capital Spend (\$ thousands)
Torrance	59	\$ 113,327.2
Valencia	6	\$ 11,235.9
Socorro	109	\$ 210,962.9
Sierra	71	\$ 137,154.9
Luna	57	\$ 110,808.8
Grant	20	\$ 38,938.1
Hidalgo	32	\$ 62,572.1
New Mexico - Total	354	\$ 684,999.9
Greenlee	10	\$ 31,199.0
Graham	33	\$ 106,462.5
Cochise	58	\$ 184,942.5
Pima	16	\$ 52,427.2
Pinal	83	\$ 267,282.0
Arizona - Total	200	\$ 642,313.2
Out-of-State	-	\$ 2,640,797.2
Total	553	\$ 3,968,110.3

Total Capital Investment (\$ millions)	
New Mexico	\$ 4,704.8
Arizona	\$ 642.3
Out-of-State	\$ 12,169.9
TOTAL	\$ 17,516.9

SunZia Wind Capital Expenditure			
County	MW Capacity	Turbines	Total Capital Spend (\$ millions)
San Miguel	1,197	312	\$ 1,368.9
Torrance	2,203	574	\$ 2,519.4
Lincoln	115	30	\$ 131.5
New Mexico - Total	3,515	916	\$ 4,019.8
Out-of-State	-	-	\$ 9,529.1
Total	3,515	916	\$ 13,548.8

Transmission

Wind Generation

June 2023 NM Operating Wind Generation

- 4,409.0 MW Capacity
- 33 Identified Plants
- 3 Operated by Electric Utilities
- SunZia capacity is ~80% increase
- PNM 2022 peak demand 2,139 MW



Pattern Energy SunZia Project – NM Economic & Fiscal Impacts

New Mexico Economic and Fiscal Impacts - Wind Project 2016 - 2060 (\$millions)								
Description	Economic Impacts			Fiscal Impacts				
	Direct	Direct & Indirect	Direct, Indirect & Induced	GRT	Community Benefits	PILOT	Property Tax	State Land Office
Development	\$57.6	\$81.1	\$96.2	N/A	\$0.3	\$1.4	N/A	\$10.7
Construction	\$229.4	\$283.4	\$359.8	\$75.3	\$3.5	\$14.1	N/A	\$7.2
Operations	\$2,695.5	\$4,234.4	\$4,931.1	\$108.7	\$3.5	\$287.9	\$64.4	\$460.3
Total NM In-State	\$2,982.4	\$4,598.9	\$5,387.2	\$184.1	\$7.3	\$303.4	\$64.4	\$478.2
Out-of-State CapEx	\$9,529.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Impact	\$12,511.5	\$14,128.0	\$14,916.3	\$184.1	\$7.3	\$303.4	\$64.4	\$478.2
Total DPV @ 5%	\$10,877.8	\$11,570.6	\$11,934.6	\$105.9	\$4.8	\$151.6	\$12.3	\$171.9

Primary Direct ANNUAL Operational Impacts:

Turbine O&M \$ 36.0 million
Private Real Estate/Royalties \$ 31.3 million

SunZia Project Total New Mexico Impacts:

Direct Economic Impacts \$ 13,075.6 million
Direct+Indirect Econ Impacts \$ 14,811.8 million
Direct+Indirect+Induced Impacts \$ 15,756.8 million

Fiscal Impacts \$ 1,134.3 million

New Mexico Economic and Fiscal Impacts - Transmission Project 2008 - 2060 (\$thousands)									
Description	Economic Impacts			Fiscal Impacts					
	Direct	Direct & Indirect	Direct, Indirect & Induced	GRT	Community Benefits	BLM and Other Federal Agencies	Property Tax	State Land Office	RETA
Development	\$93,991.8	\$73,999.9	\$88,792.1	\$0.0	\$2,744.0	\$3,493.4	\$0.0	\$8,372.0	\$280.0
Construction	\$336,676.6	\$415,864.5	\$528,783.0	\$12,532.0	\$4,107.4	\$0.0	\$1,407.2	\$0.0	\$466.0
Operations	\$133,371.0	\$193,940.0	\$222,950.0	\$22,934.0	\$1,187.2	\$0.0	\$31,351.8	\$17,046.0	\$11,000.0
Total	\$564,039.4	\$683,804.4	\$840,525.1	\$35,466.0	\$8,038.6	\$3,493.4	\$32,759.0	\$25,418.0	\$11,746.0
Total DPV @ 5%	\$442,148.2	\$515,891.7	\$641,450.7	\$20,442.1	\$6,735.2	\$3,487.5	\$17,534.5	\$14,861.8	\$7,822.2



Contact Information for
John C. Tysseling, Ph.D., Principal
Energy Economic & Environmental Consultants LLC
11521 Sky Valley Way NE
Albuquerque, NM 87111

Email: jct@e3c.com

Phone: 505-710-9867

