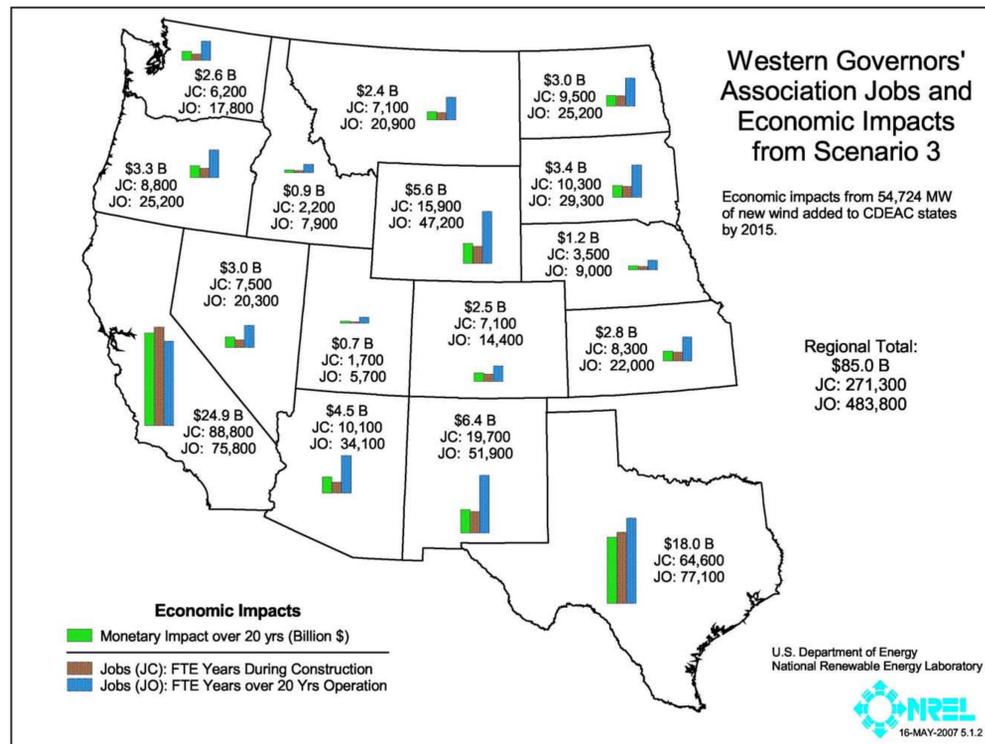
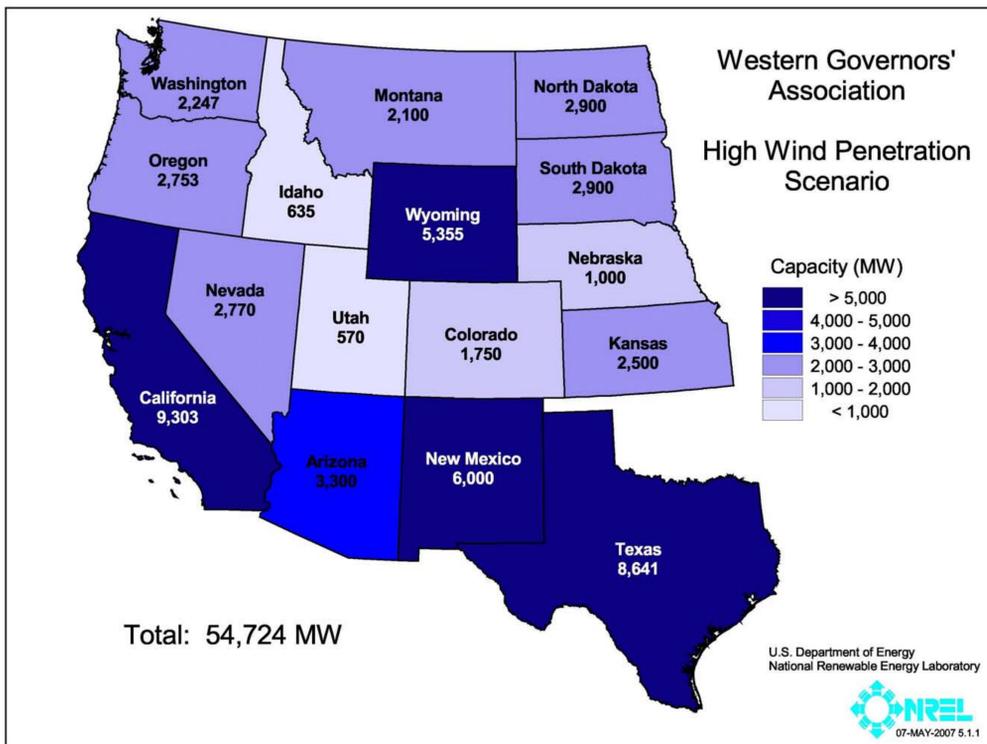


Economic Development Impacts from Wind Power in the Western Governors' Association States

Suzanne Tegen, NREL • Marshall Goldberg, MRG & Associates • Michael Milligan, NREL



The Western Governors' Association created the Clean and Diversified Energy Advisory Committee (CDEAC) "to utilize the region's diverse resources to produce affordable, sustainable, and environmentally responsible energy."



- ### Impacts to the Western U.S. from new wind power
- Rural economic development
 - Increased tax base for schools, roads and county services
 - Royalty revenue for landowners
 - Water savings in drought regions
 - Emissions reductions



Wind Energy's Economic impacts

On-site direct, off-site direct, Indirect, Induced

Wind energy's economic "ripple effect"

Direct Impacts

- | On-site | Off-site |
|---|--|
| Construction workers
Management
Administrative support
Cement truck drivers, road crews, maintenance workers | Boom truck & management, gas and gas station workers, blades and towers & workers
Hardware store purchases and workers, spare parts and their suppliers |

Indirect Impacts

These are jobs in and payments made to supporting businesses, such as bankers financing the construction, contractor, manufacturers and equipment suppliers.

Induced Impacts

These jobs and earnings result from the spending by people directly and indirectly supported by the project, including benefits to grocery store clerks, retail salespeople and child care providers.

Economic impacts to the Western U.S.

from CDEAC Scenario Three: 54.7 GW of new wind development by 2015
(Assuming most manufacturing happens outside the Western region.)

Wind energy's economic "ripple effect"

Direct Impacts from 54.7 GW

- Landowner Revenue: Over \$150 million/year
- Local Property Taxes: \$389,300,000/year
- Construction Phase: 127,000 new jobs
- \$23.5 billion to local economies
- Operational Phase (20 yrs): 13,400 new long-term jobs
- \$1.2 billion/year to local economies

Indirect Impacts

- Construction Phase: 66,000 new jobs
- \$7.5B to local economies
- Operational Phase: 3500 new long-term jobs
- \$360M/year to local economies

Induced Impacts

- Construction Phase: 79,000 new jobs
- \$8.3B to local economies
- Operational Phase: 7300 new long-term jobs
- \$721M/year to local economies

No discount or inflation rate used. No depreciation schedule used.

Construction Phase = 1-2 years
Operational Phase = 20+ years

