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The Economic Development Benefits of Wind Power

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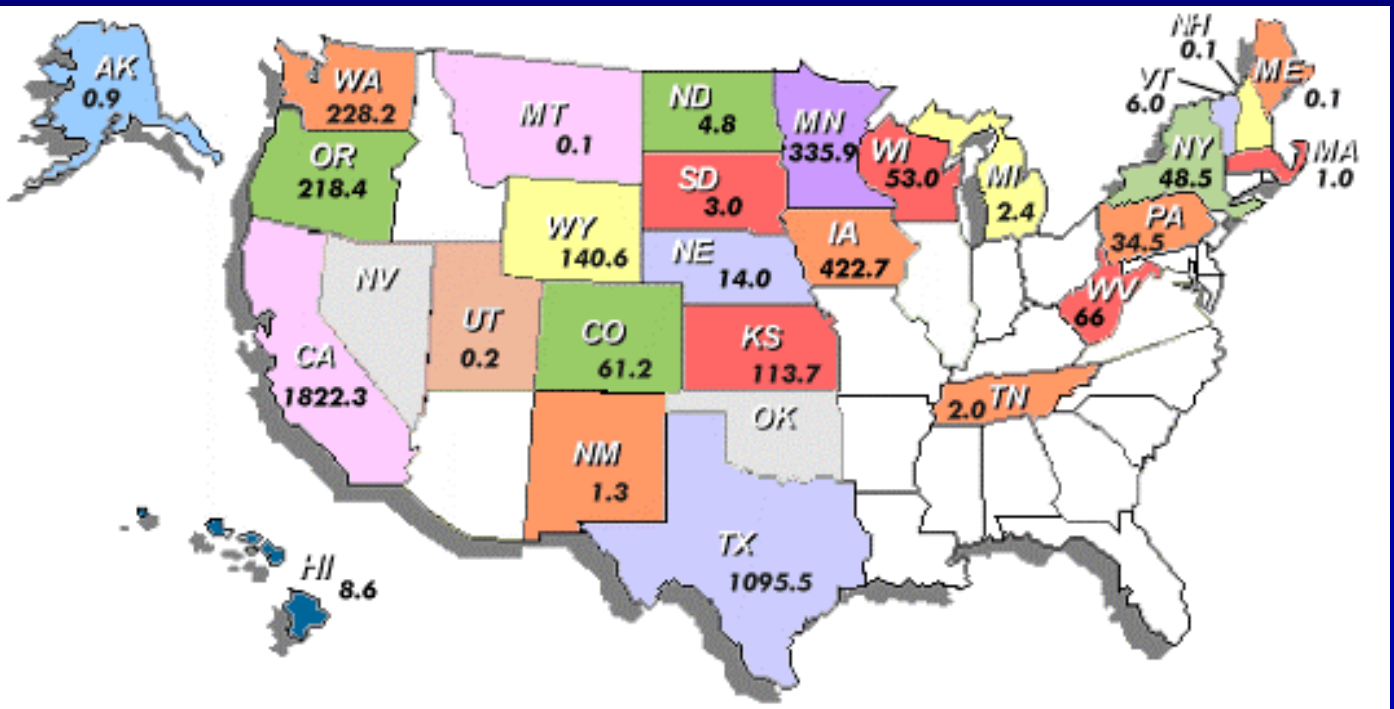
U.S. Wind Power Capacity (Megawatts)



- 66% growth & $1.7 billion investment in US in 2001
- ~30% annual average growth rate globally since 1995

- Total Capacity = 4,685 MW

Source: American Wind Energy Association

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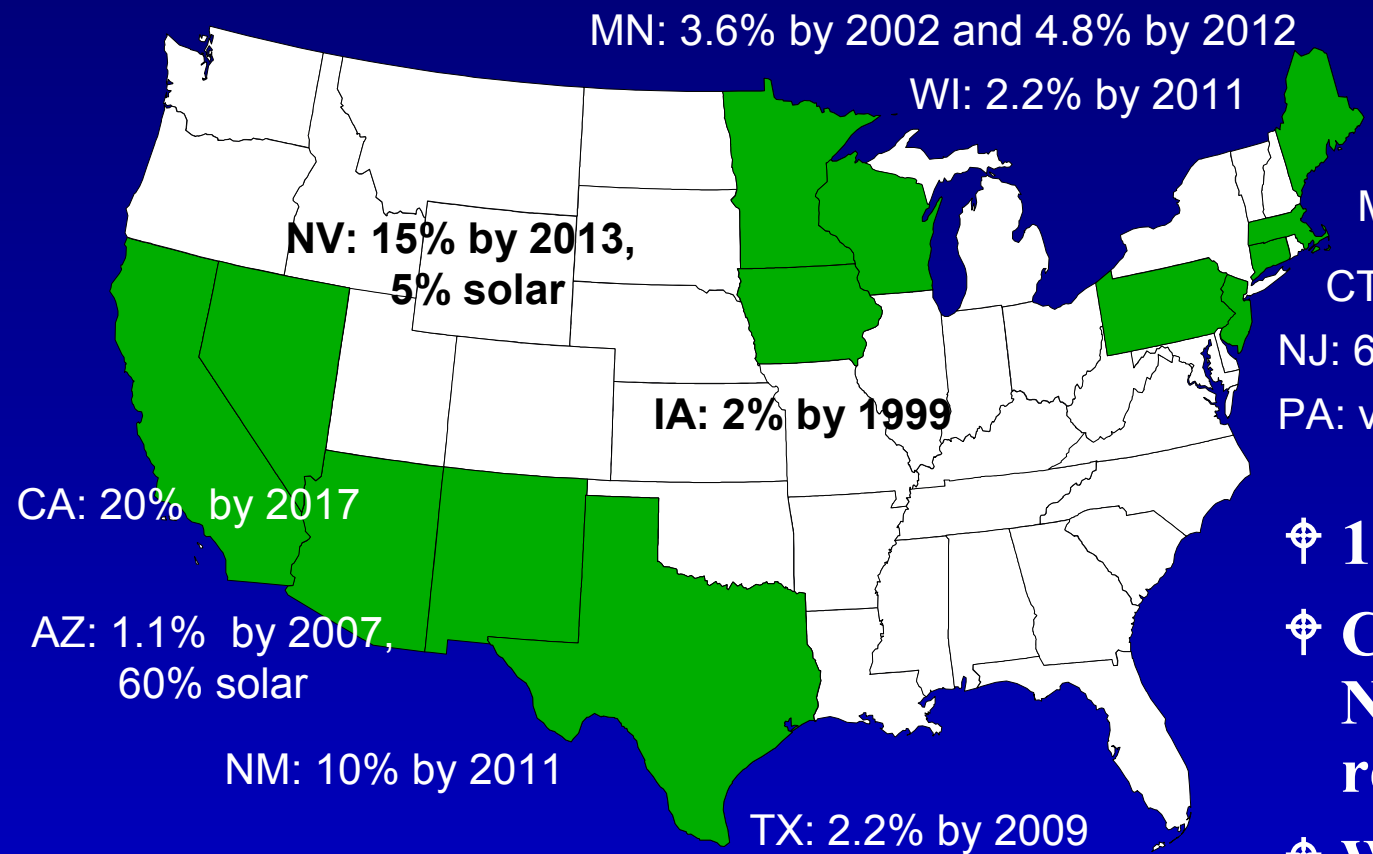
Renewable Energy Standards



- 13 states
- CA, WI, IA, MN, NV outside of restructuring
- WA, CO, NE, IL VT, MD up next??

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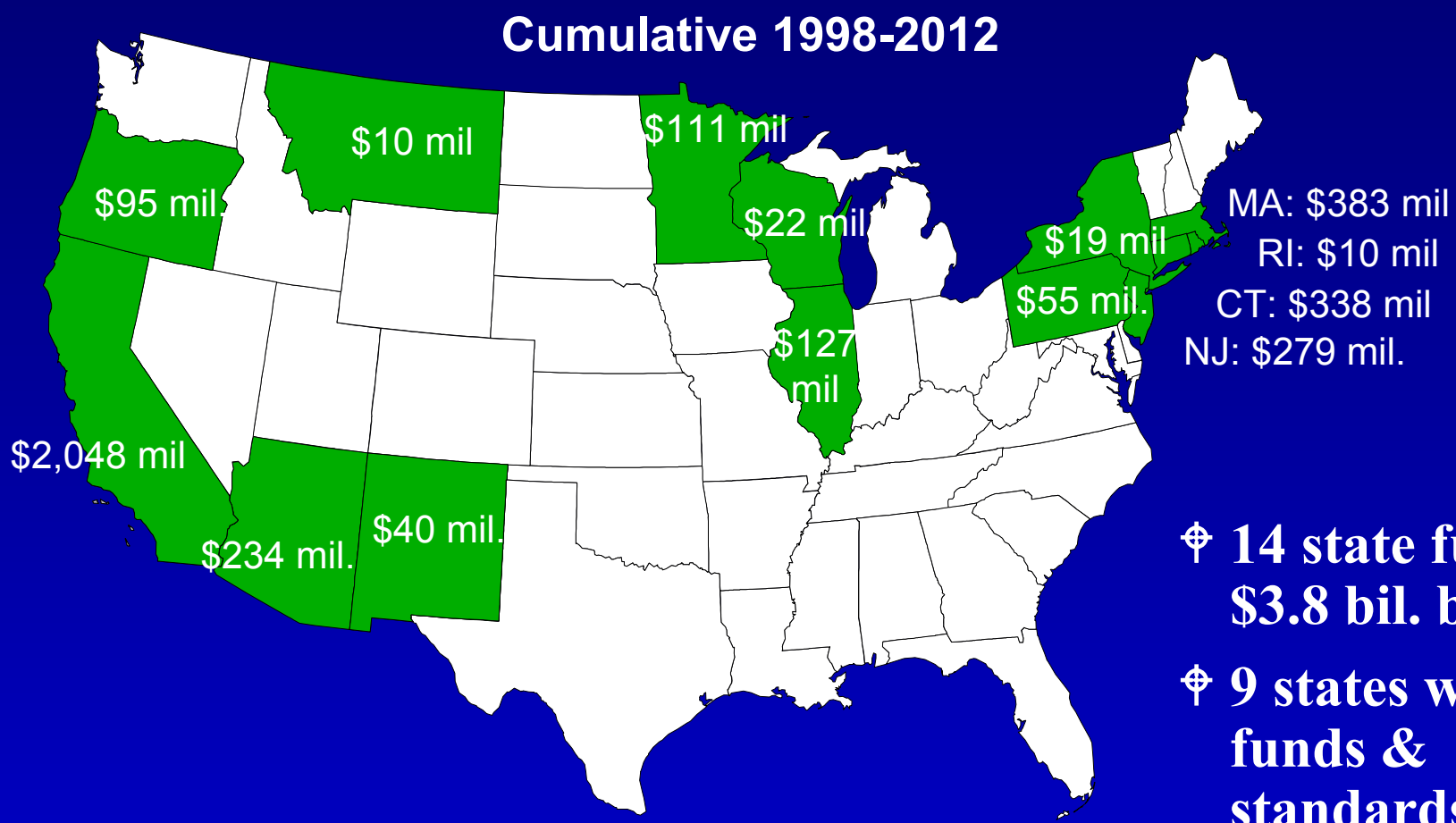
Renewable Energy Funds



- 14 state funds = $3.8 bil. by 2012
- 9 states with funds & standards

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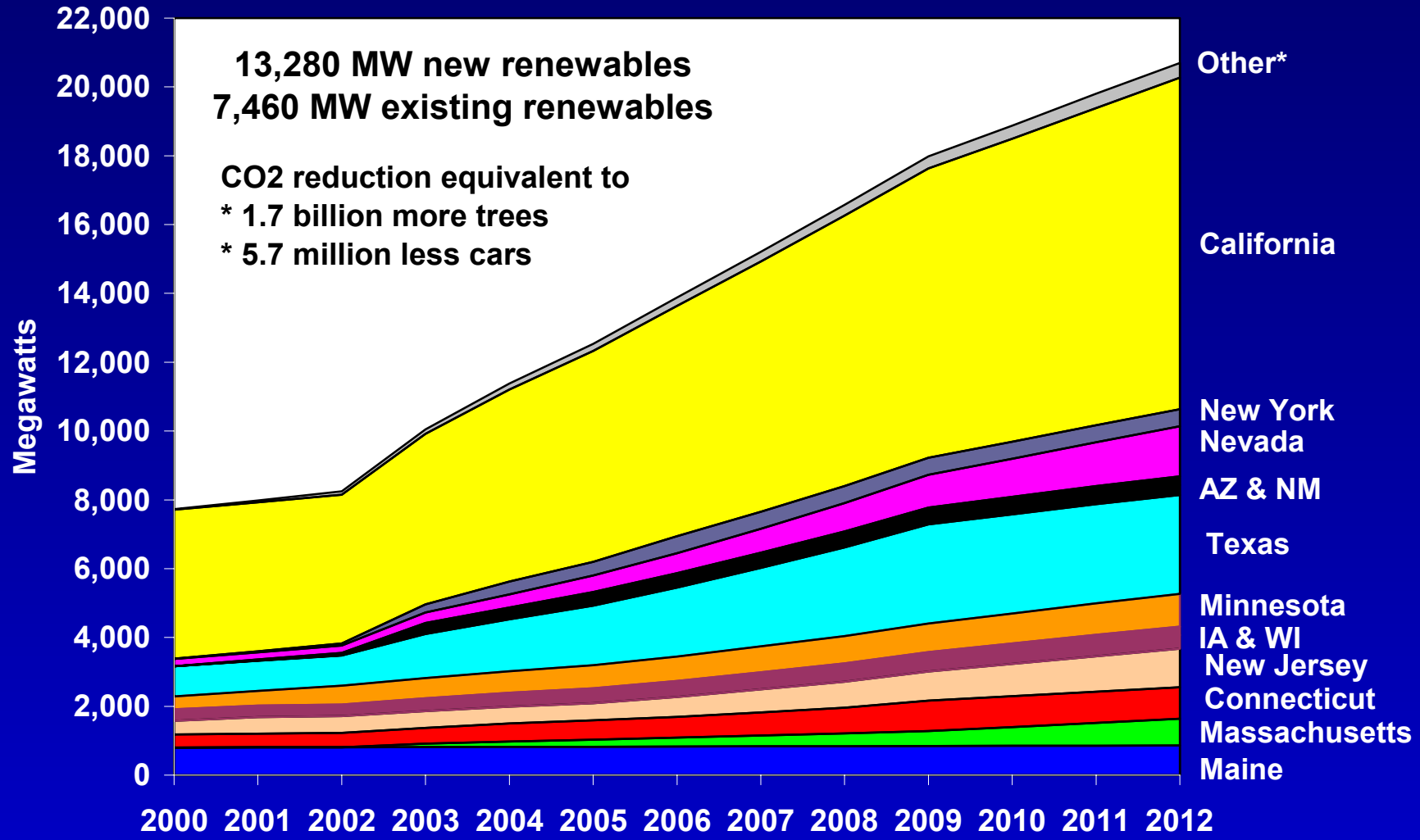
Renewables Expected from State Standards and Funds



*Includes Illinois, Montana, Oregon, Pennsylvania and Rhode Island.

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Wind Power Provides Rural Economic Benefits

- 240 MW of wind in Iowa
  - $640,000/yr in lease payments to farmers ($2,000/turbine/yr)
  - $2 million/yr in property taxes
  - $5.5 mil/yr in O&M income
  - 40 long-term O&M jobs
  - 200 short-term construction jobs
  - Doesn't include multiplier effect
- 107 MW wind project in MN
  - $500,000/yr in lease payments to farmers
  - $611,000 in property taxes in 2000 = 13% of total county taxes
  - 31 long-term local jobs and $909,000 in income from O&M (includes multiplier effect)

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Wind Power Creates New Manufacturing Jobs

- Danish wind turbine manufacturer (Vestas) announced plan to build plant in Portland OR
  - 1,000 new jobs
- Wind turbine blade plant in ND (LM Glasfiber)
  - 130 jobs = 20% of ND lignite coal industry
- Towers manufactured in several states, including WA, ND, NE, WI, & LA

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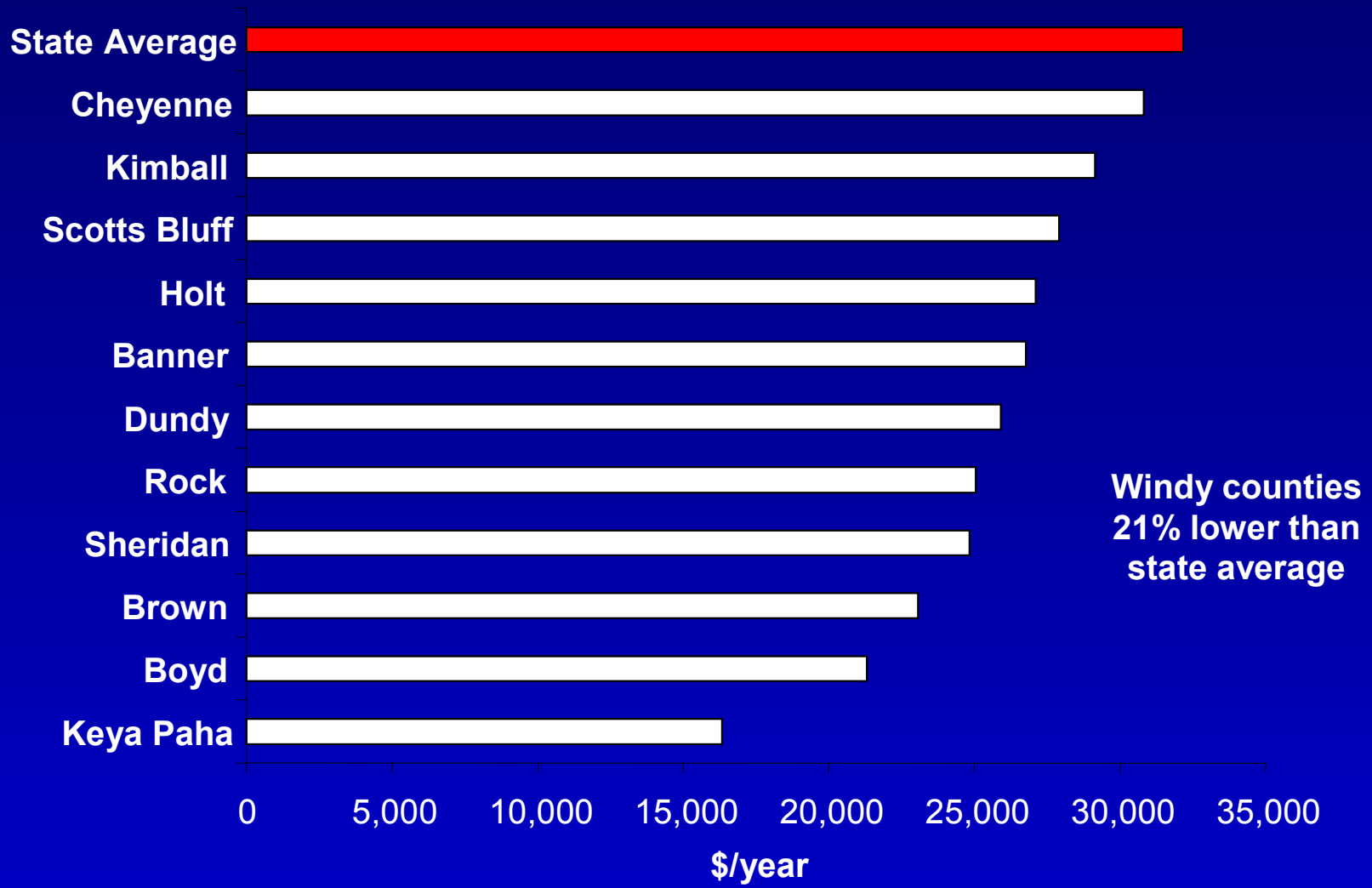
Median Income Lower in Nebraska's Windiest Counties



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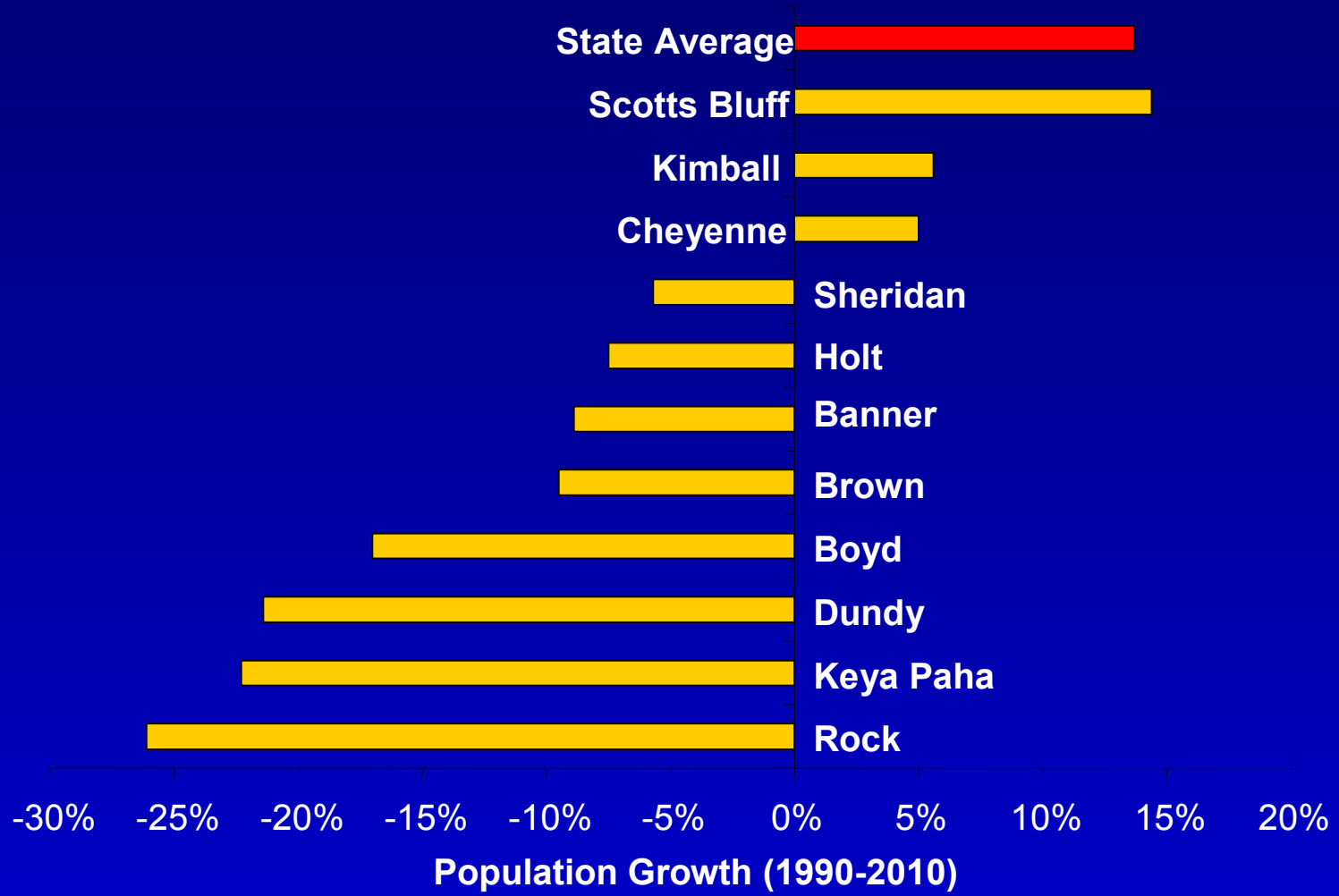
Population Declining in NE Windiest Counties, While State Grows



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Net Benefits of 10% NE Electricity from Wind by 2012

- 360 more jobs, $8 million more in income, and $35 million more in GSP than coal and gas
- $2.2 million in royalty payments to farmers and landowners ($2,000/turbine/year)
- $5.2 million in property tax revenues for rural communities
- Net benefits to state economy = $15 million per-year over a 20-year period

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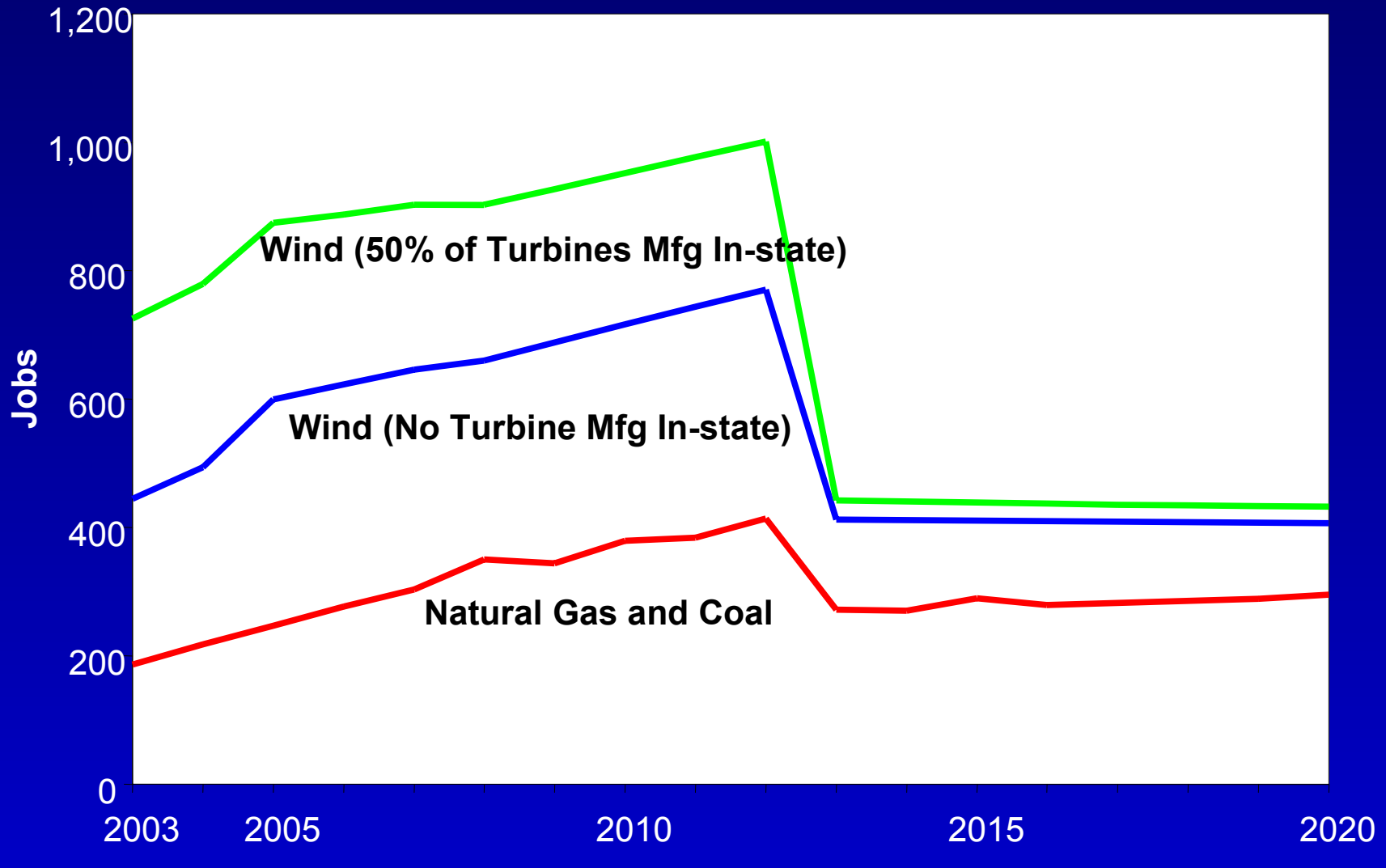
NE Jobs from Wind Power vs. Gas and Coal



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Economic Benefits of Proposed Wind Project in Kittitas Co, WA

- 390 MW from 265 turbines
- Construction: 185 jobs and $12 million in income
- O&M: 53 long-term jobs and $4 million/yr in income
  - includes $1.2 million in land lease payments @ $4,500/turbine
- $2.9 million/yr in property taxes
  - 11% increase over current revenues
- Views of wind turbines will not negatively impact property values

Source: ECONorthwest, Economic Impacts of Wind Power in Kittitas County, Oct. 2002.

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Regional Benefits of a National Renewables Standard of 20% by 2020

- Non-hydro renewables = 30% of Northwest electricity use by 2020
- $7 billion in new investments
- $400 million in property tax revenues for rural areas
- $100 million in land lease payments from wind power
- $2.8 billion from exporting renewable energy credits
- $3 billion savings on consumer energy bills
  - 7% lower electricity prices & 14% lower natural gas prices than business as usual
- 35% reduction in carbon dioxide emissions

Source: UCS, *Renewing Where We Live: What a National Renewable Energy Standard Means for the Northwest*, 2002.

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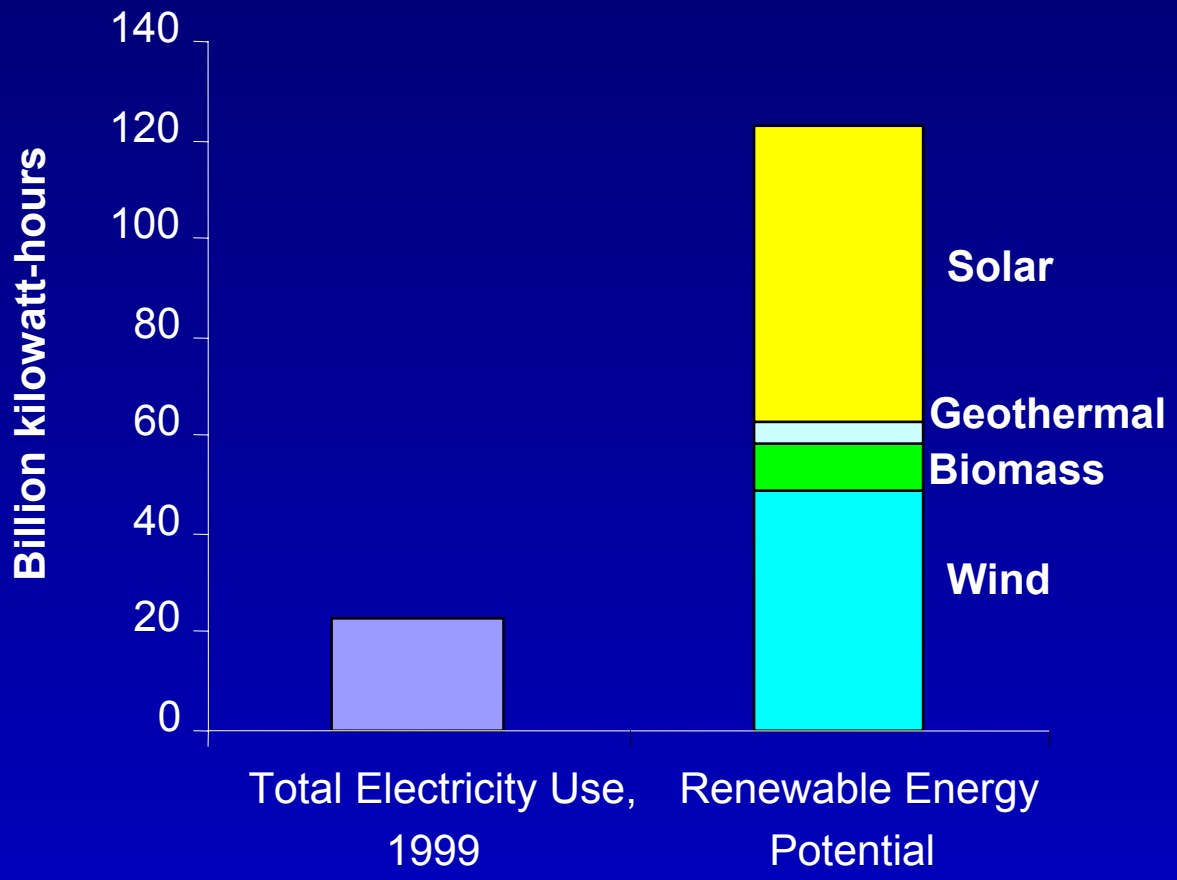
Idaho's Non-Hydro Renewable Energy Potential



- 2.7 times current use from wind, biomass, and geothermal
- over 5 times current use with solar

Source: Energy Information Administration; Renewable Energy Atlas of the West, 2002.

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Economic Benefits of 10% ID Electricity from Wind by 2013

- 10% in 2013 = ~1,000 MW of wind or 100 MW/year
- Construction impact (annual average)
  - 310 jobs, $8 million in income, $31 million in gross state product
- Operation and maintenance impacts
  - 630 jobs, $20 million in income, $40 million in gross state product
- $4.25 million/year in property taxes
- $4 million/year in land lease payments
- Key assumptions:
  - no turbines and 50% of towers are manufactured in state
  - 25% of financing from local sources
  - 1% property tax rate; assessed value = 50% of total cost
  - $4,000/MW lease payment

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Conclusions

- State policies are a key driver for wind energy development
- Wind power can provide significant economic benefits for farmers, ranchers, and rural areas
- Idaho could reap significant economic and environmental benefits by adopting strong policies for renewable energy