

The State of the Wind Industry

Michael Skelly
Clean Line Energy

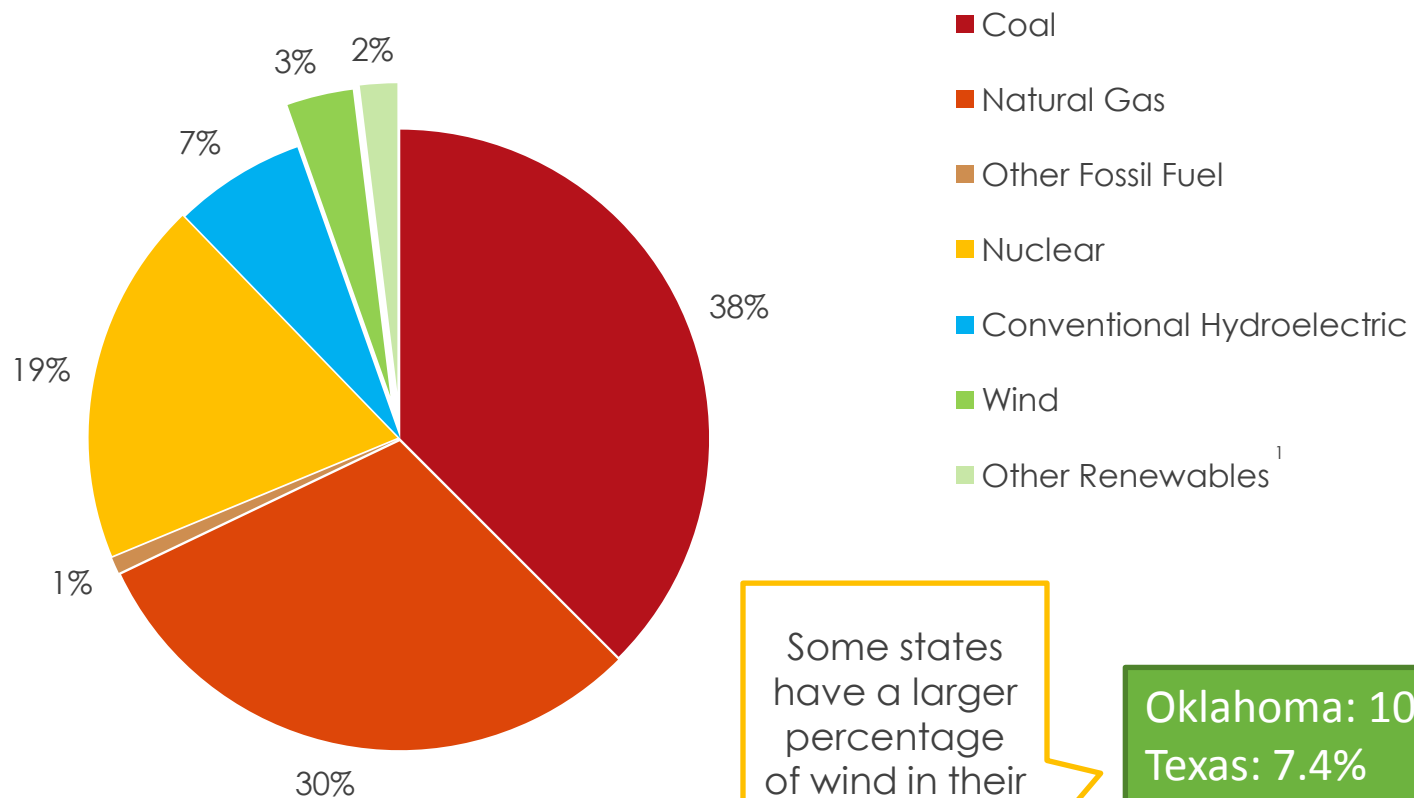
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Renewables currently constitute a relatively small portion of the U.S.'s electricity generation mix...

U.S. Net Electricity Generation By Fuel Type 2012 Year-To-Date

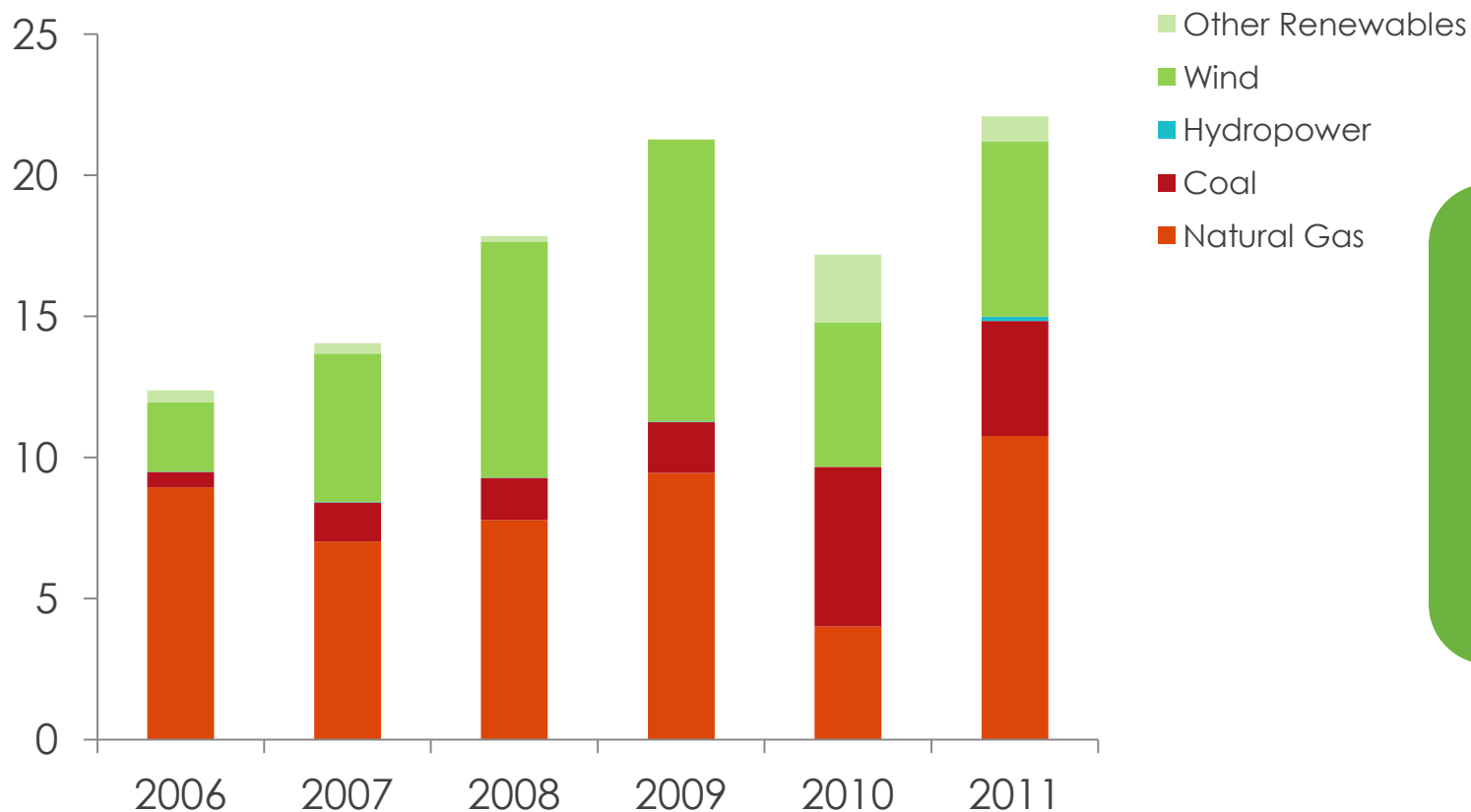


1. Includes generation from Wood, Waste, Geothermal, and Solar

Source: EIA

...but are an increasingly large proportion of new generating capacity

U.S. New Generation Capacity Additions Gigawatt

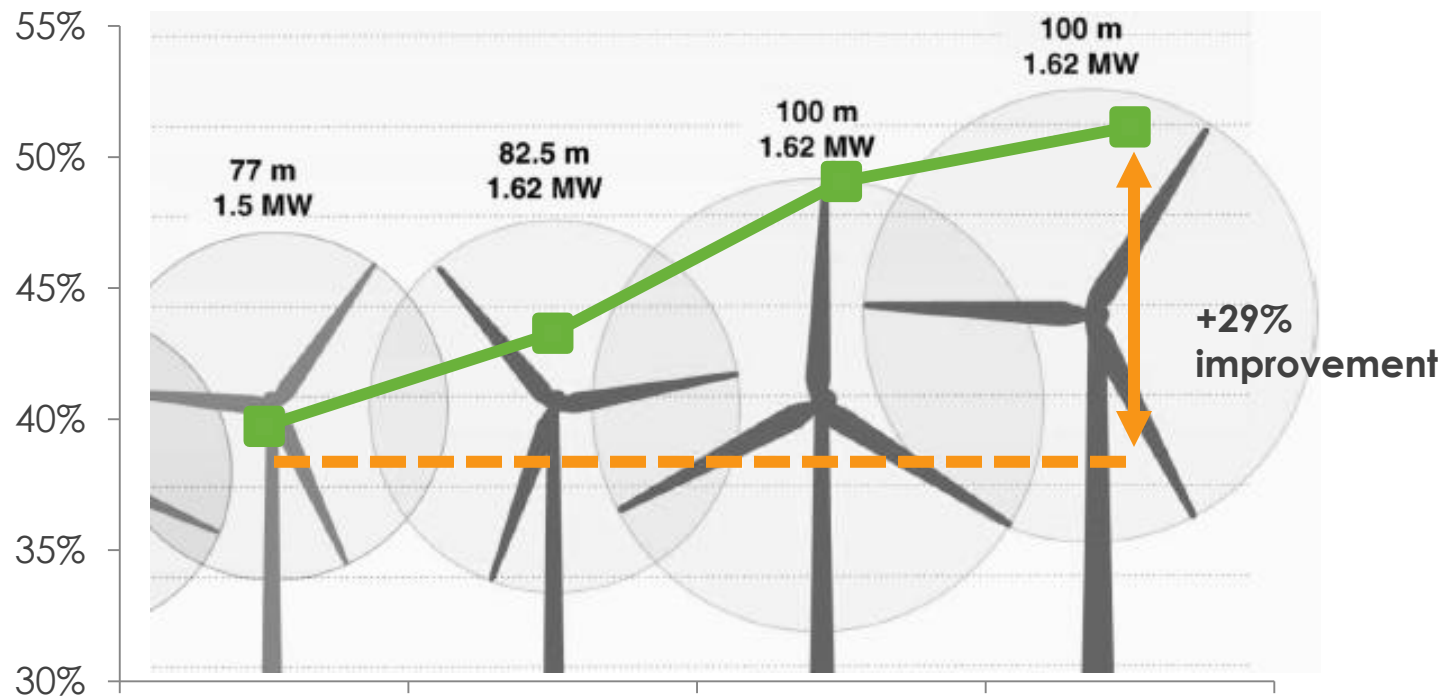


**In 2012, 13.1
GW of new
wind
generation
facilities were
installed in
the U.S.**

Improving wind turbine technology is increasing capacity factors and reducing wind costs . . .

Net Capacity Factor¹

At 8.5 meters per second wind speed



Improving GE 1.5-1.6 MW Turbine from 2005 - 2010 →

In meters

Rotor Diameter

77

82.5

100

100

Hub Height

80

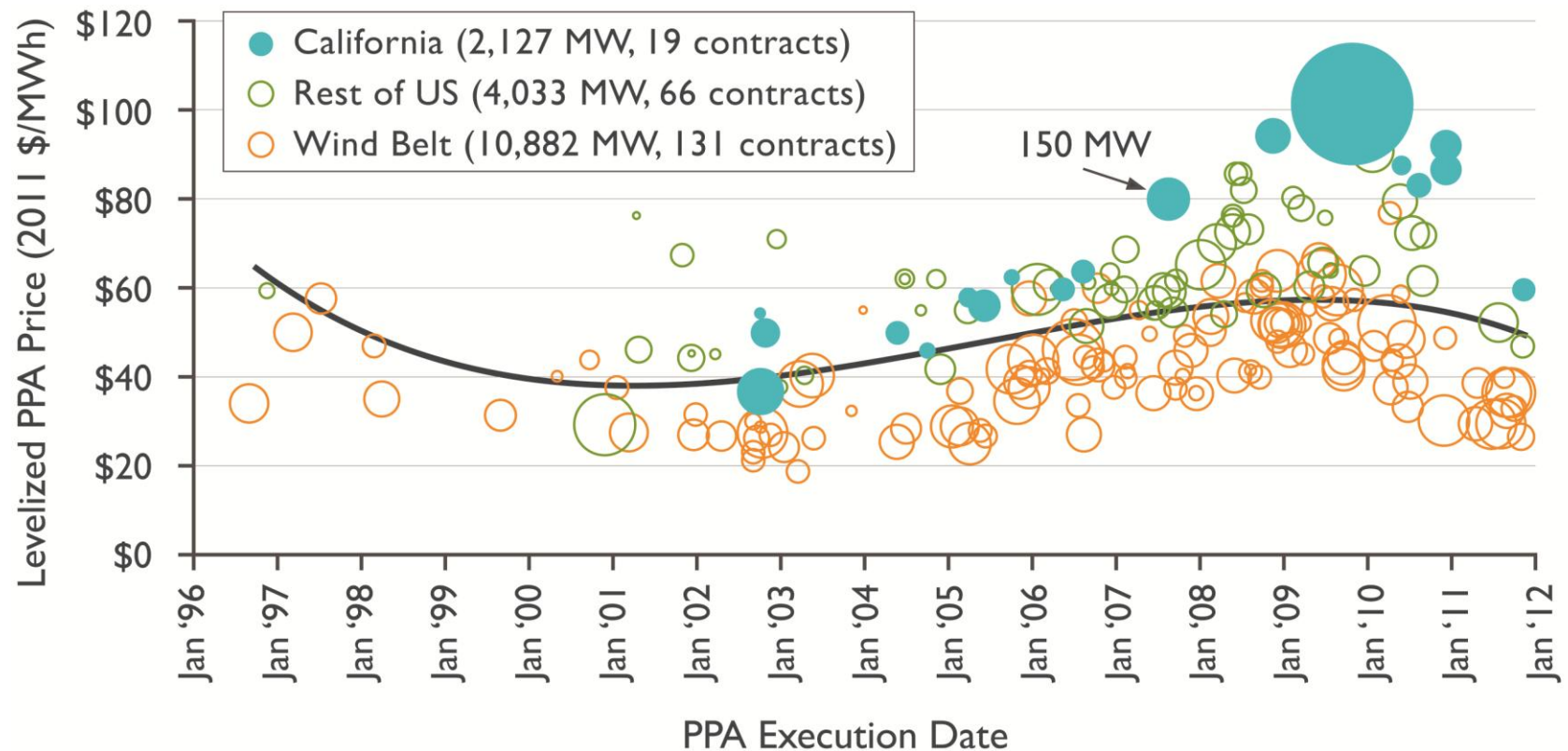
80

80

100

1. Assumptions: shear alpha = 0.2, Rayleigh distribution, 17% losses from GCF to NCF

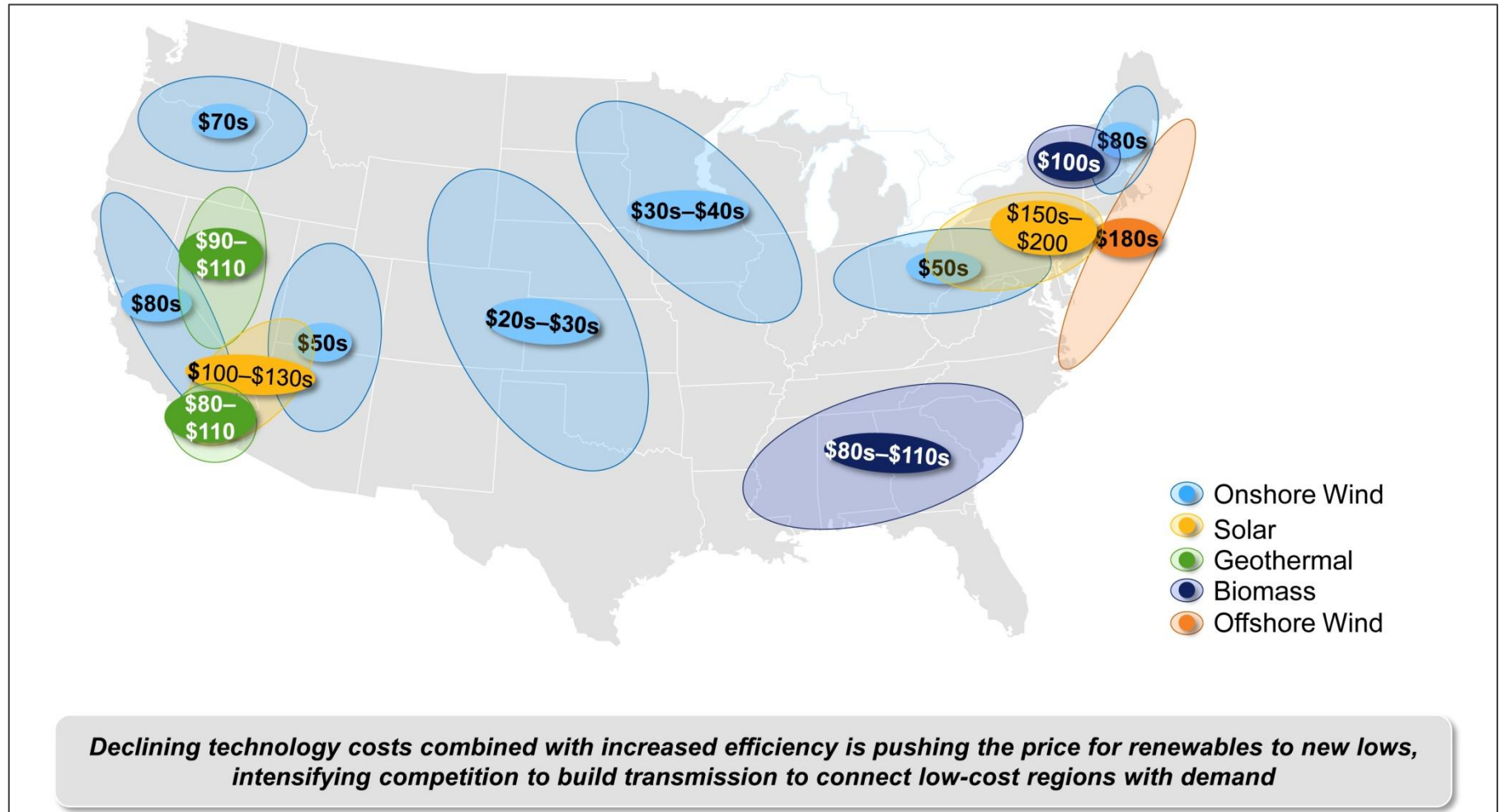
... Resulting in cheap wind power purchase agreements in the windiest parts of the country



Note: Size of "bubble" is proportional to project nameplate capacity.

The "Wind Belt" consists of the 13 states where the wind resource is the strongest: CO, IA, KS, MN, MO, MT, NE, NM, ND, **OK**, SD, TX, and WY.

Wind in the central US is the lowest cost renewable option

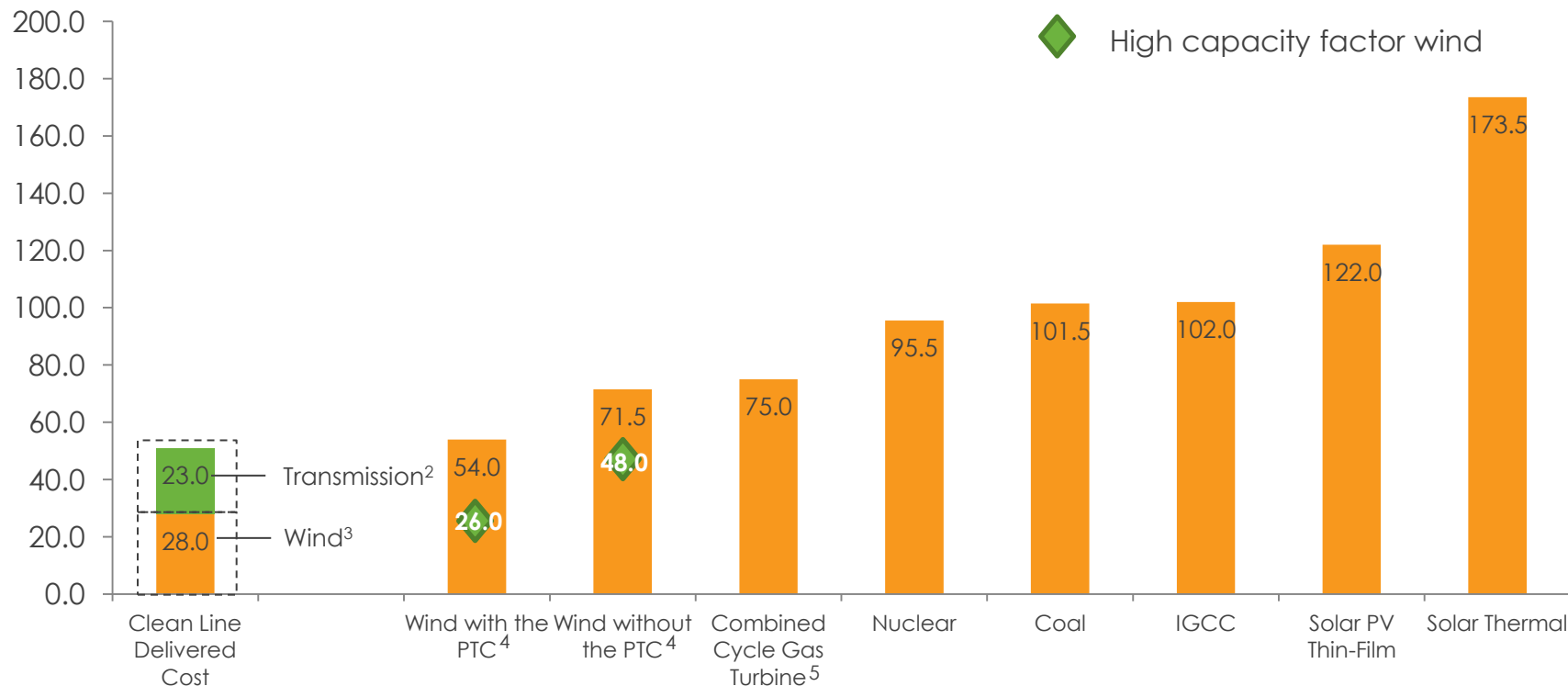


Source: IHS "US Wind Power Markets and Strategies: 2011–2025" Market Study Excerpt

High capacity factor wind is competitive with other sources of new generation, including gas at \$4.50/MMBtu

Levelized Cost of Energy¹

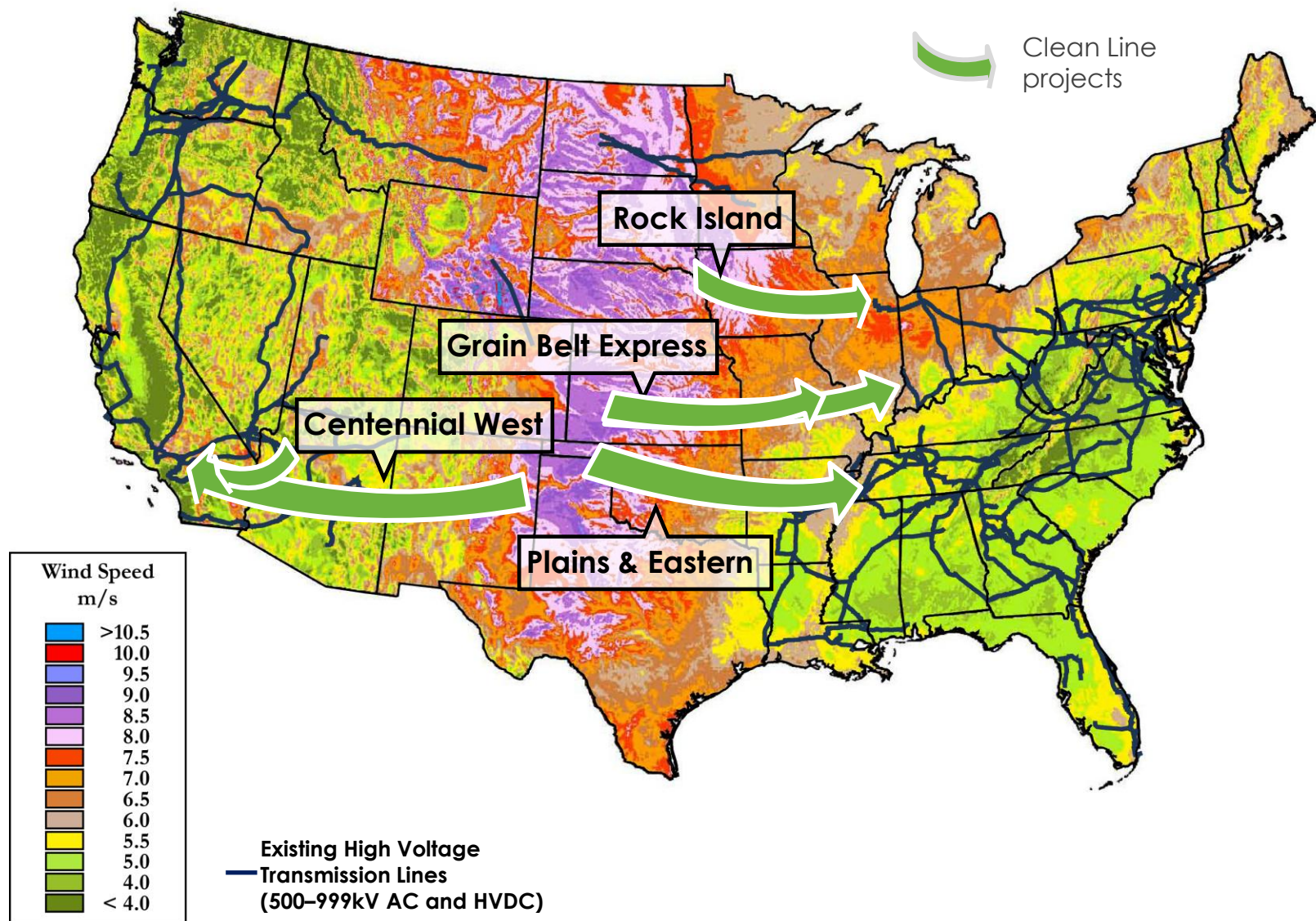
\$ / MWh



1. Cost of generation based on mid-point of Lazard's LCOE estimates. Unless noted, costs shown are unsubsidized.
2. Assumes ~725 miles of transmission at \$2 m per mile, end-point converter costs of \$300 m each and mid-point converter at \$150 m, & development cost of ~\$100 m.
3. Assumes capex costs of \$1,700/kW, O&M costs of \$10/MWh, Production Tax Credit, cost of capital of 9%.
4. High capacity factor wind cost uses low-end Lazard estimates for which the capacity factor is 48% and capex cost is \$1,500/kW.
5. Assumes \$4.50/MMBtu gas price. With $\pm 25\%$ variation in the fuel price, the Combined Cycle Gas Turbine LCOE ranges from \$61 - \$89/MWh and the IGCC LCOE ranges from \$88 - \$116/MWh.

Source: Clean Line, Lazard's 2012 Levelized Cost of Energy Analysis

Clean Line's projects connect the best wind resources to load centers



What Motivates Clean Line Employees?

- Having the unique opportunity to develop infrastructure responsibly
- Working at the frontier of the energy industry
- Thinking big and coming up with the right solutions to big problems
- Believing in the Clean Line philosophy on the right way to work with the public



Getting the Social License to Build

Listen and Address Stakeholder Concerns



Support Local Vendors



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Involve the Community

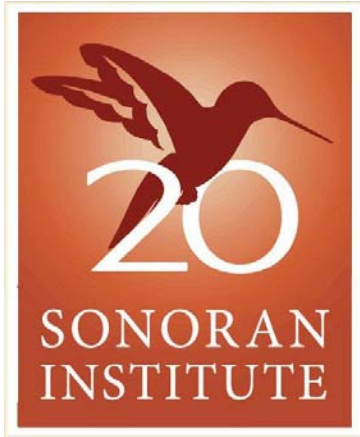


Garner 3rd Party Endorsements

"Clean Line's project is another great example of Oklahoma's strong legacy as an energy leader. Energy projects like the Plains & Eastern Clean Line are opportunities to develop Oklahoma's resources, create jobs and spur energy innovation"

--Mary Fallin, Governor of Oklahoma

Green Enterprises Have to Live Up to Higher Expectations



To successfully build large-scale infrastructure projects like transmission lines, siting must be a collaborative effort with the communities affected and with the environmental agencies that have regulatory authority.

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