Utah Wind for Utah:

Better Turbines and the Five Myths to Large Scale Success

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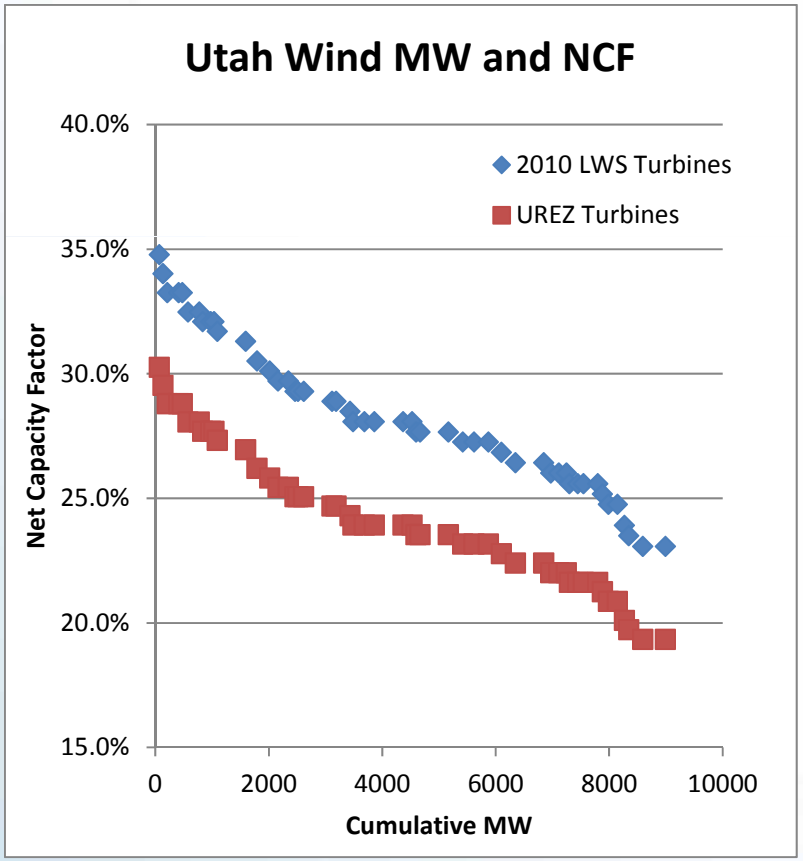
Improved Performance/Costs

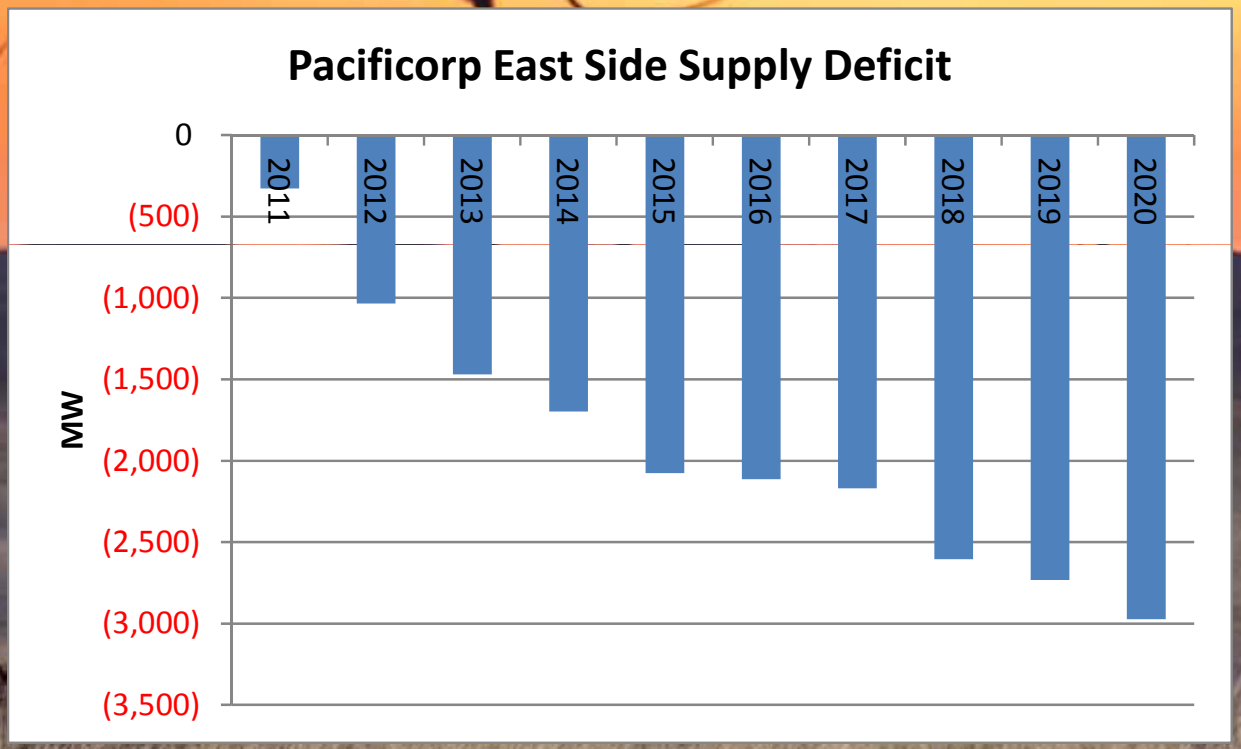
- Costs decreases >15% in 2 yrs
- For LWS sites, energy output is up 16% adding 450 basis pts to NCF
- Finance costs are 15% lower
- COE is more than 38% lower
- Not yet reflected in updates to the UREZ report or IRP's

Utility cost recovery methods indicate that UT wind is competitive to natural gas:

NCF	MW	Natural Gas $/mcf
30%	2015	$5.93
31.4%	1095	$5.39
33%	475	$4.85
35%	100	$4.31
37%	0	$3.77
40%	0	$3.23



MYTH #1
The Wasatch Front has all the energy it needs

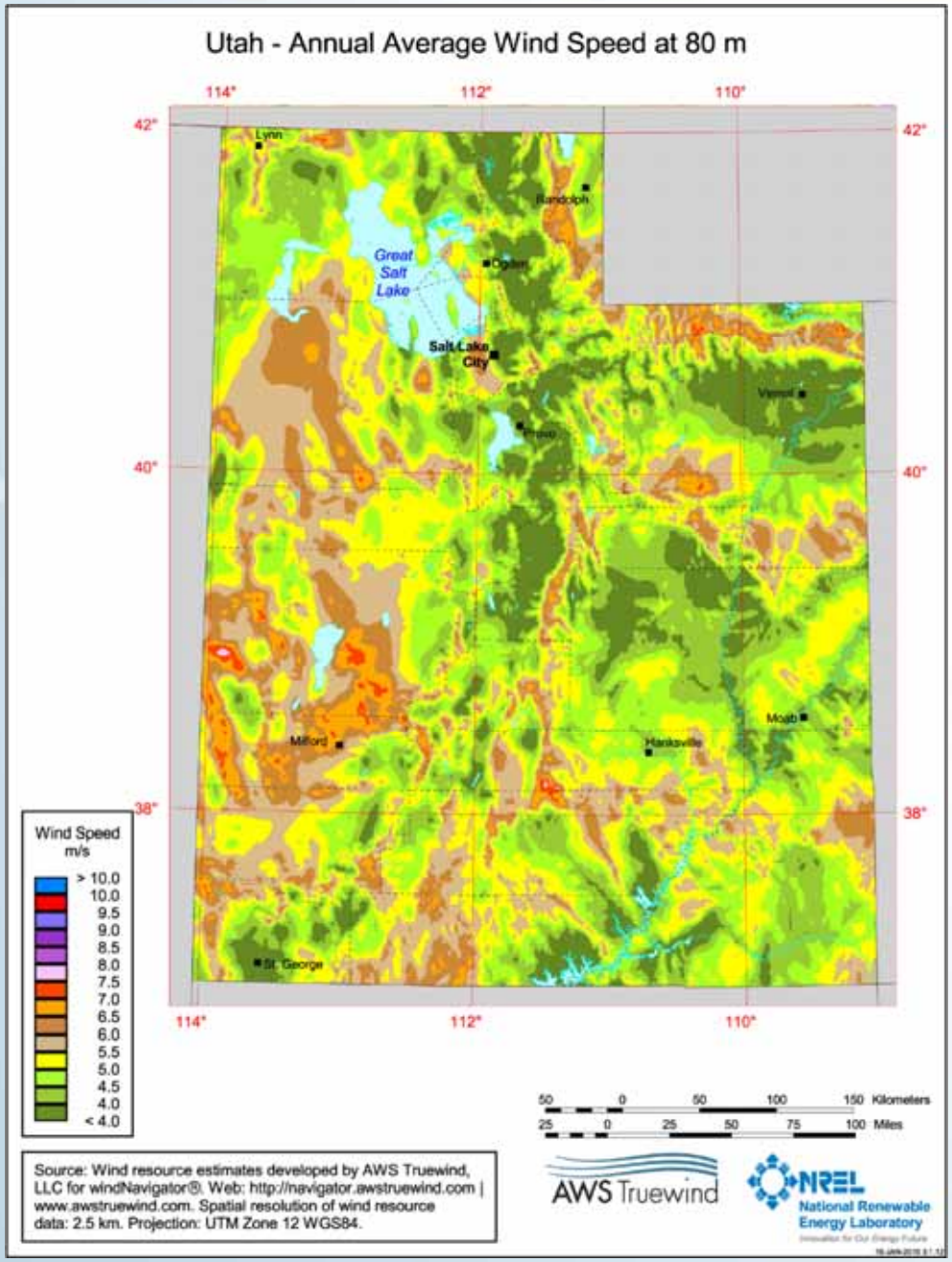


Wind Plants contribute 20% of nameplate capacity to Supply Deficits

MYTH #2

The transmission lines in Utah are full; renewables will need more than $700k/MW of new transmission.


MYTH #3
We have plenty of time
to build at good sites

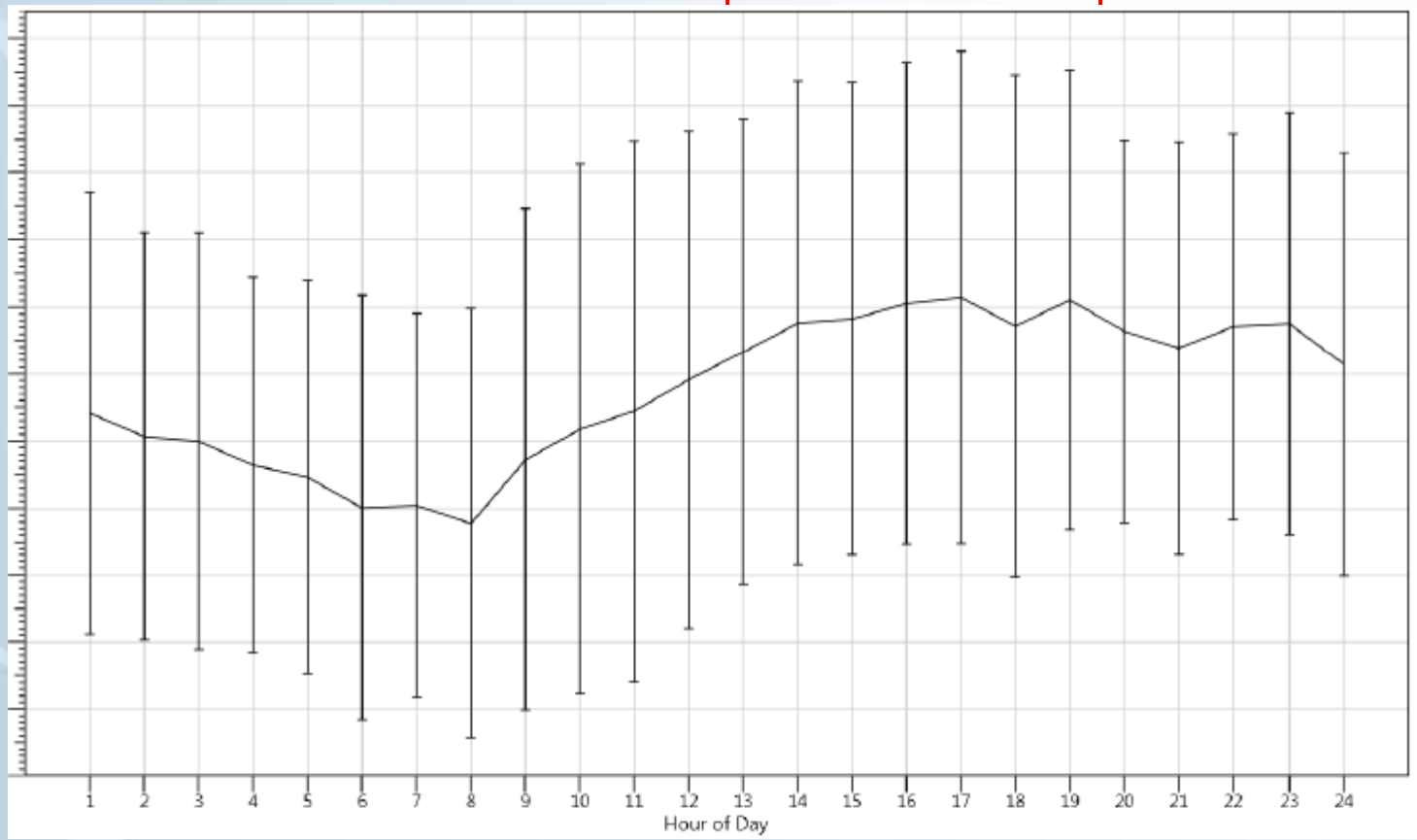


MYTH #4
The delivery of wind energy is poorly timed

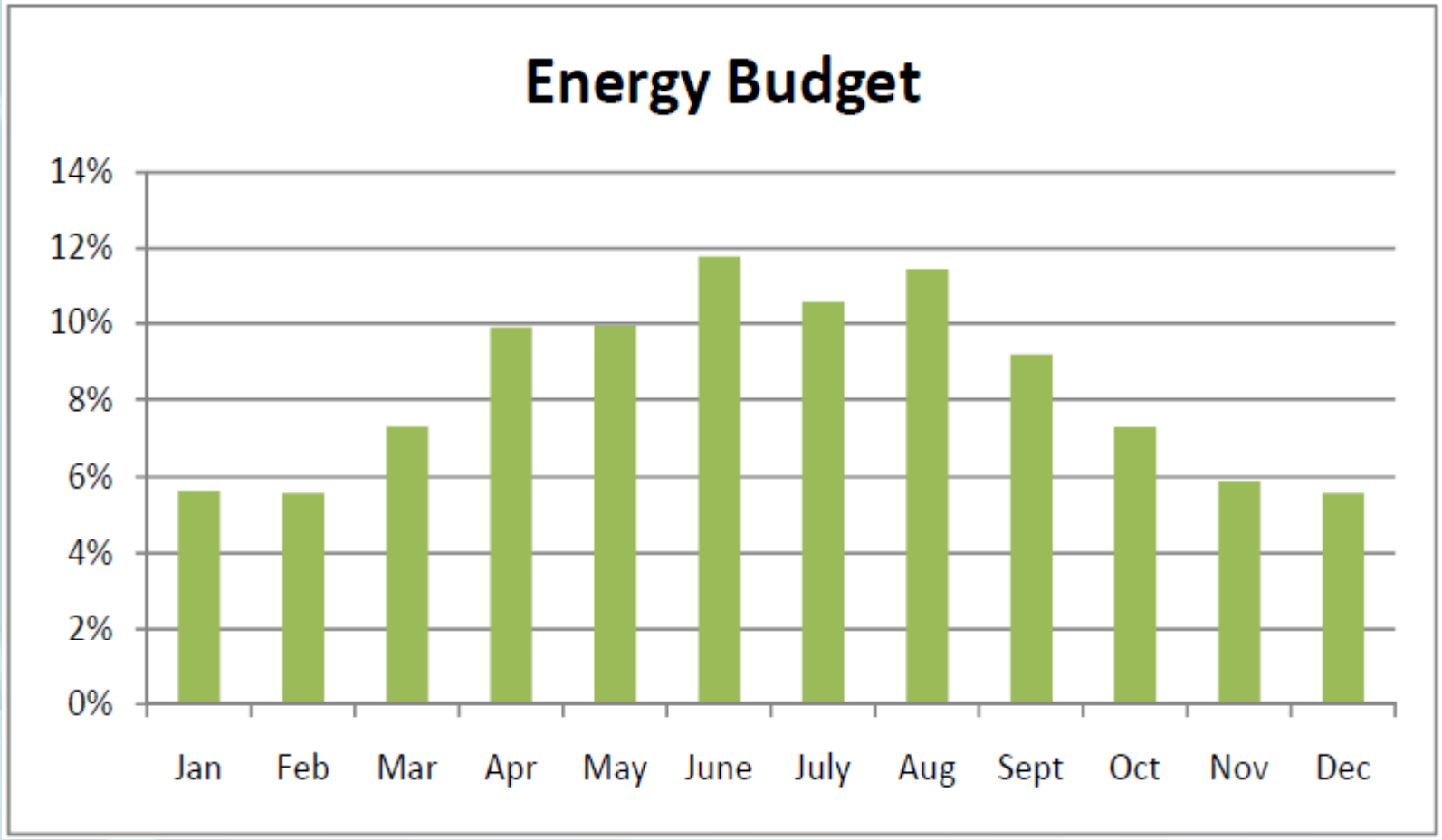
- Turbines produce when demand is low
- Energy delivery is at night
- Most of the energy is produced during the Spring and Fall

Average Daily Wind Speed for Central Utah in August

Afternoon Peaking



Monthly Energy Budget for Central Utah Wind Facility



MYTH #5
Utah wind is not "cost effective."
Wyoming Wind is much better.

2011 Utility IRP Cost Recovery	Utah CCCT Gas Plant	Utah Wind Farm**	Wyoming Wind Farm**
Net Capacity Factor	56%	34%	40%
Generation Costs $m/Mw	($1,104)	($1,893)	($1,893)
Intertie Costs $/Mw (50 miles)	$0	$53	$53
Trans. Upgrades $m/MW***	$0	$0	($1,035)
Nameplate Capacity Value	100%	20%	20%
Payment Factor	8.37%	8.55%	8.55%
Facility Operations $/Mw-yr	($10,190)	($31,930)	($31,930)
Cost of Energy			
Annual Payment $/Mwh	($18.84)	($52.83)	($44.91)
Fuel Costs $/Mwh*	($40.88)	$0.00	$0.00
Facility Operations $/Mw-yr	($2.08)	($10.72)	($9.11)
Delivery-integration $/Mwh	($4.67)	($9.70)	($9.70)
Tax Credit $/Mwh	-	$20.69	$20.69
Transmission Costs $/Mwh	$0	$0	($10)
Energy Costs $/Mwh	**($66.46)**	**($52.56)**	**($53.14)**
Capacity Benefit $/Mwh	$10.55	$2.11	$2.11
Costs (post Cap. Benefit	($55.92)	($50.45)	($51.03)

*Fuel costs of $5.39/mmBtu plus $3.35/Mwh fuel O/M

IRP assumed 5% lower ncf and $2.24m/Mw capital cost

**Interwest IRP Comments filed 10 Jan 2011

Est. East Side Capacity Value: $/Mw-yr $ 92,405

***Windstar to populous section

Conclusion

What can you do to support
wind energy in Utah?

Ask your local utility how to purchase Utah Wind for Utahns.

Ask your Congressman to support renewable legislation.