



Wind Project Finance Overview⁽¹⁾

Brad Haight(2)
Hackstaff Gessler LLC
1601 Blake Street, Suite 301
Denver, CO 80202
303-534-4317
bhaight@hackstaffgessler.com
www.hackstaffgessler.com

Wind energy drivers

- Federal incentives (e.g. Production Tax Credit and accelerated depreciation)
- State mandates (i.e. renewable portfolio standards)
- Increasing fossil-fuel power costs
- Improved equipment and technology
- Increasing utility comfort and familiarity with intermittent resources
- Climate change concerns (and related regulatory issues)
- Foreign developer entry in the US wind business
- Threat of a carbon tax or cap and trade system

Wind energy potential

- Wind energy accounts for less than 1% of US electricity production⁽³⁾
- Potential for wind energy to supply 20% of US electricity⁽⁴⁾
 - (compare 20% of Danish electricity supplied by wind; 9% in Spain; 7% in Germany⁽⁵⁾)
- By third quarter 2007, 13,884 installed MW in the US, with 5720 MW under construction⁽⁶⁾
- To satisfy 20% of US electricity production (based on current figures and without considering increased electricity consumption), over 250,000 MW of wind must be built

Effects of wind energy potential

- Approximately 25% annual, average industry growth⁽⁷⁾
- Influx of foreign developers⁽⁸⁾ (in part, taking advantage of a weak dollar, but also attracted to rich market), and numerous new, domestic developers
- Competition
- ... and, opportunity
 - To participate as a landowner
 - To develop projects

Key wind project requirements

- Purchaser for the power
- Means to transmit the power to the purchaser
- Equipment to produce the power
- Location for producing power
 - Proximate to transmission
 - With a good wind resource
- Minimum investor (owner) return (IRR)

General project revenue

- Electricity and REC sales
 - Typically, bundled and sold per a power purchase agreement (but may be separately sold, even pre-sold)
- Federal tax benefits
 - May = +/- one-half of project economics
 - Can only be taken by owner with requisite tax liability

Project costs

- Development cost of +/- \$2 million per installed MW
- Operations cost of +/- \$45,000 per installed MW
- NB -- Larger projects realize greater economies of scale, making it more difficult (i.e. expensive) to advance smaller projects

Enhance project economics

- Identify the strongest, possible wind resource
- Identify other credits (e.g. New Markets Tax Credits)
- Lower debt costs (e.g. bond finance or loan guarantees)
- Develop for “behind the meter” applications (and realize greater power sales and separately sell RECs)
- Explore “piggy-back” or project aggregation options

Conclusion

- Be prepared to commit time
- Think creatively

Endnotes

- (1) This presentation very generally addresses tax-credit finance of wind projects. Different finance options exist but are not addressed in this presentation. No part of this presentation may be considered or substituted for professional advice, such as accounting, legal, and tax advice. Before considering any project opportunity, engage professional advisors.
- (2) Brad Haight practices renewable energy law. Primarily, he represents developers and landowners (both individuals and groups) in wind and solar projects in California, Colorado, Nebraska, New Mexico, Texas, and Wyoming. He also represents designers and manufacturers of renewable energy equipment.
- (3) http://www.awea.org/pubs/factsheets/WindPowerToday_2007.pdf
- (4) *id.*
- (5) http://en.wikipedia.org/wiki/Wind_power
- (6) <http://www.awea.org/projects/>
- (7) http://www1.eere.energy.gov/windandhydro/wind_research.html
- (8) *See e.g.*
<http://www.nytimes.com/2007/11/07/business/businessspecial3/07blow.html>