



# Options for Structuring Community Wind Projects

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# AGENDA

- Status of Community Wind in the U.S.
- Private Ownership and Financing Options
- Public Ownership Options
- Comparing Commercial and Community Wind



# What Is Community Wind?

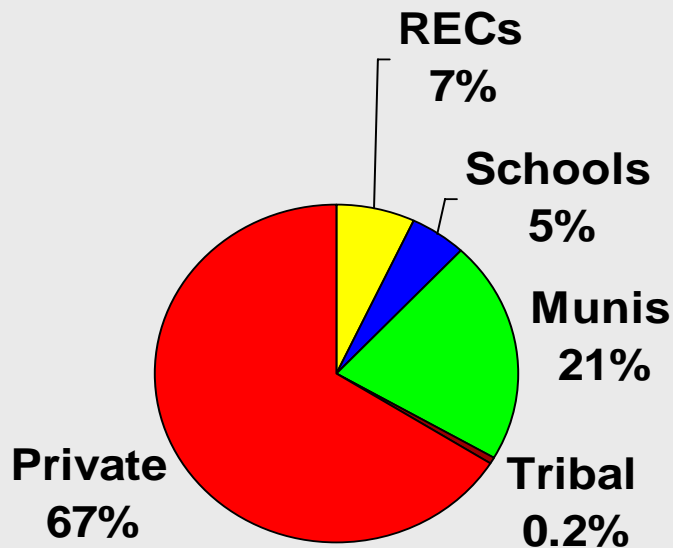
For the purposes of this discussion, community wind is...

- Utility-scale turbines
- Smaller projects (up to 10 MW)
- Private or Public Ownership
- Developed and/or owned by local persons or entities



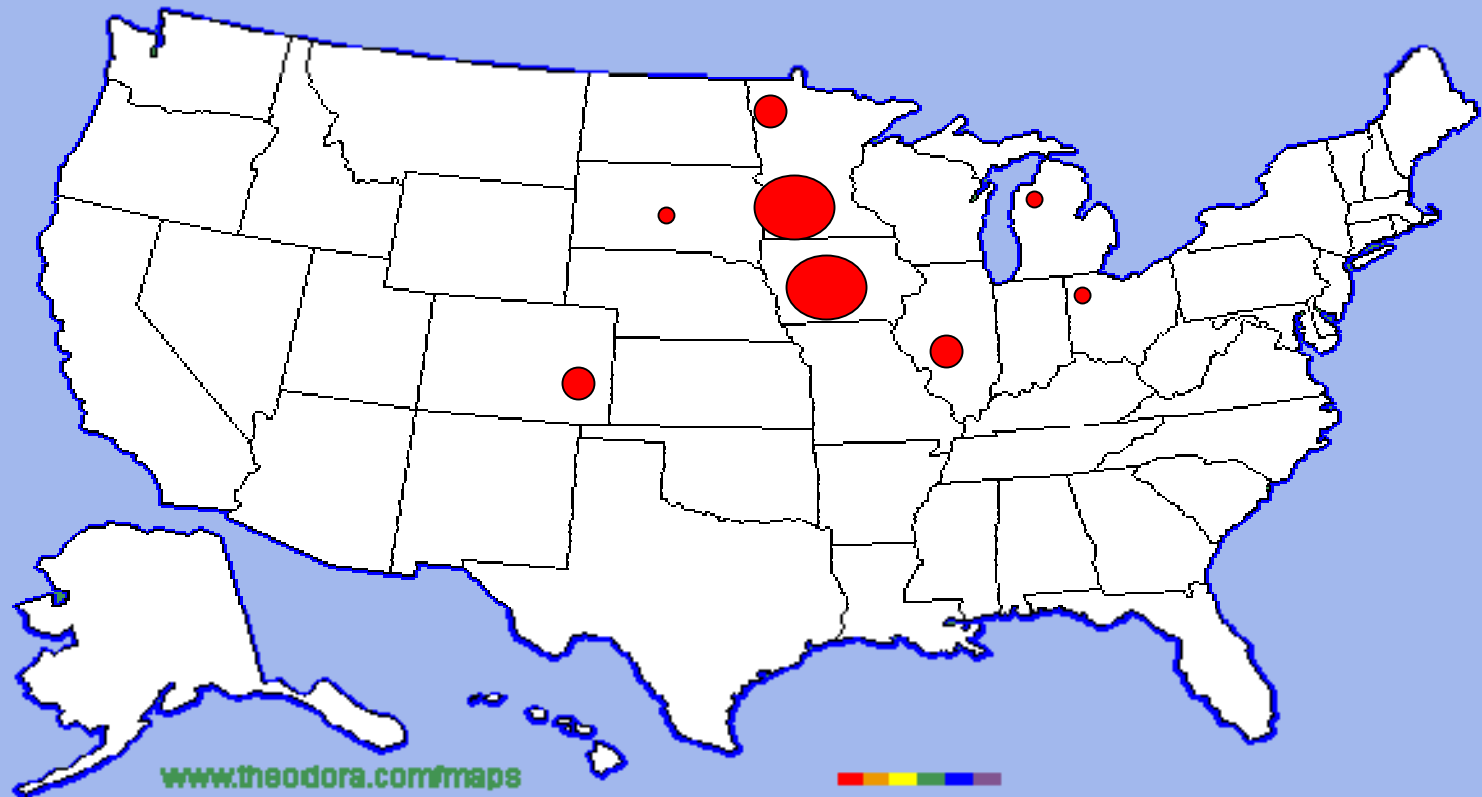
# U.S. Community Wind Projects

Approximately 200 MW of installed community wind capacity in the U.S.



Excludes 93 projects (200MW+) with USDA 9006 grants under development

# Location of Community Wind Development



# Why is Private Community-Owned Wind Succeeding in Minnesota?

**Great Wind**

**State  
Incentives**

**Purchase  
Mandate**

**Standard  
Agreements**

**Replicable  
Models**

**USDA  
Grants**

**Eager  
Investors**

**Willing  
Lenders**

**Political  
Support**



# Private Community Wind Ownership Models

<u>Model</u>	<u>Example</u>
Sole Ownership	McNeilus
Co-op Ownership	MinWind
“Minnesota Flip”	Many under development
“Wisconsin Flip”	None yet
“Sweat Equity”	Trimont Wind Farm



# “Co-op” Ownership

## Advantages

Many Local Investors

Low Minimum Investment

Distributed Risk/Benefits

True Community Project

## Challenges/Risks

May be difficult to attract sufficient investors

Potential securities registration issues

Utilization of tax benefits

Administrative hassles

Too many cooks



# “Co-op” Ownership: MinWind I-IX

Project Description: 9 identical 1.9MW (2 turbine) projects in Buffalo Ridge area of SW Minnesota

Ownership Structure: Organized as LLC's, 33 investors per project, 85% of shares reserved for farmers

Minimum Investment: \$5,000. Done as a private placement.

Financial Incentives: USDA Farm Bill grants (MinWind III-IX), Minnesota small wind production incentive, federal PTC (?)



# “Minnesota Flip”

## Advantages

Don't need multiple local investors

Efficient utilization of tax benefits

Potentially easier access to debt financing

Eventual local ownership (after Year 10)

## Challenges/Risks

Project Economics (diseconomies of scale)

Finding the equity partner

Legal Costs, Clean IRS Opinion

Loss of local ownership



# Flip Models: Finding Equity Partners

- Institutional Investors: Banks, insurance companies

JPMorganChase 



- Strategic Investors: John Deere



- Socially-responsible/Green Investors: Pension Funds (?)



# You Want to Borrow \$1.5 Million for What?

Finding a lender may be harder than finding investors:

- Unfamiliar Technology
- Huge Loans—Concentrations of Credit
- Single Customer
- Useless Collateral

But also...

- Long term customer contract
- Predictable revenue stream
- Known operating costs



# What Scares Lenders (and investors) About Wind Power...

...and how to deal with it

<b>Source of Risk</b>		<b>Mitigating Factors</b>
Wind Speed	⇒	Credible site-specific data
Turbine Performance and Reliability	⇒	Performance data, warranties, O&M contract
Revenue	⇒	Long-term PPA
Transmission	⇒	Interconnection Agreement
Tax Benefit Utilization	⇒	Legal opinions, IRS Private Letter Rulings
Management	⇒	Experienced Project Mgr



# Sources of Public Support for Community Wind

## **Federal Support**

Production Tax Credit  
Accelerated Depreciation

Farm Bill Section 9006

Loan Programs

## **State Support**

Renewable Portfolio Standard  
(w/comm.wind set-aside)

Sales and Property Tax Relief

Small Wind Production Incentive

Small Wind Tariff

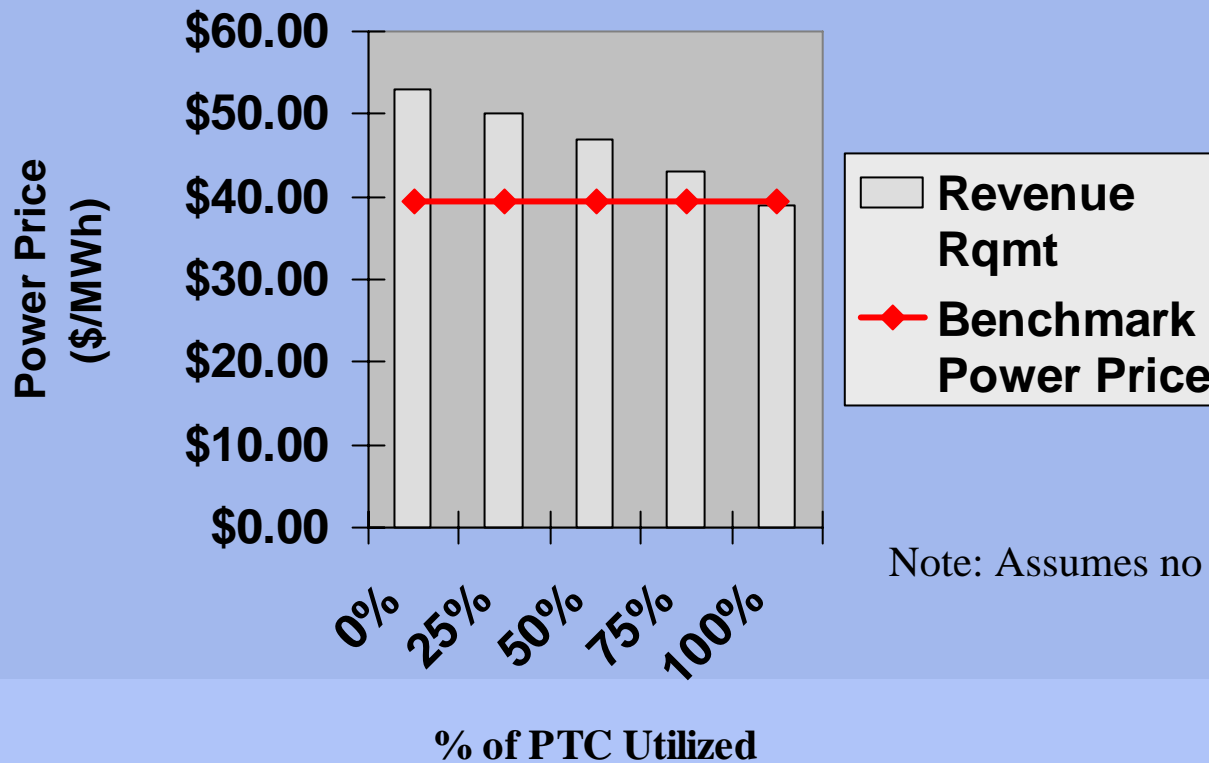
Standardized Interconnection Agreement

Anemometer Loan Programs



# Utilization of Tax Benefits Drives Project Economics

## Impact of PTC Utilization on Required Power Purchase Requirements for 1.5MW Project



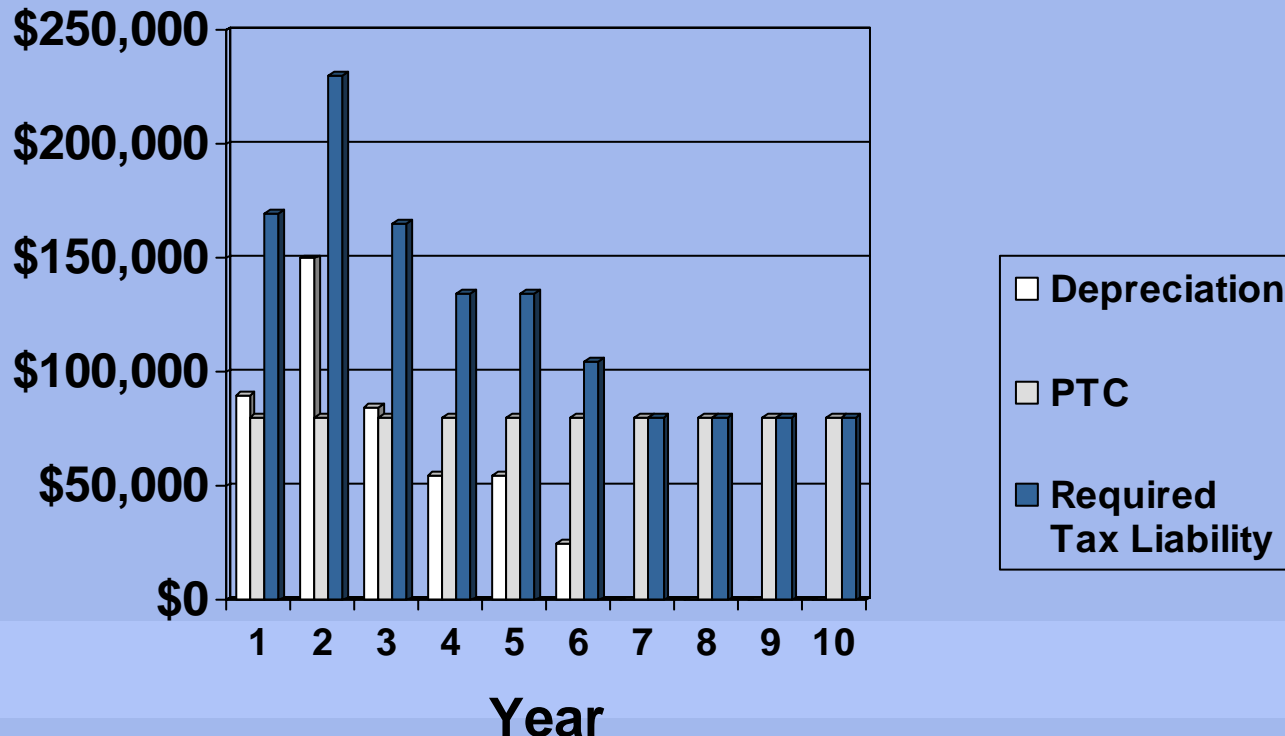
Note: Assumes no other subsidies



# Utilizing Federal Tax Benefits

Fully utilizing PTCs and depreciation benefits requires significant tax liability. For individuals, this must be “passive” liability unless active in the project.

## Required annual tax liability to utilize tax benefits for 1.5 MW Wind Project



# USDA Support for Community Wind

## Feasibility Studies:

- Value Added Producer Grants (Section 6401)

## Grants:

- Renewable Energy Grants (Section 9006): Up to \$500,000 or 25%
- Value Added Producer Grants (Section 6401): Feasibility studies

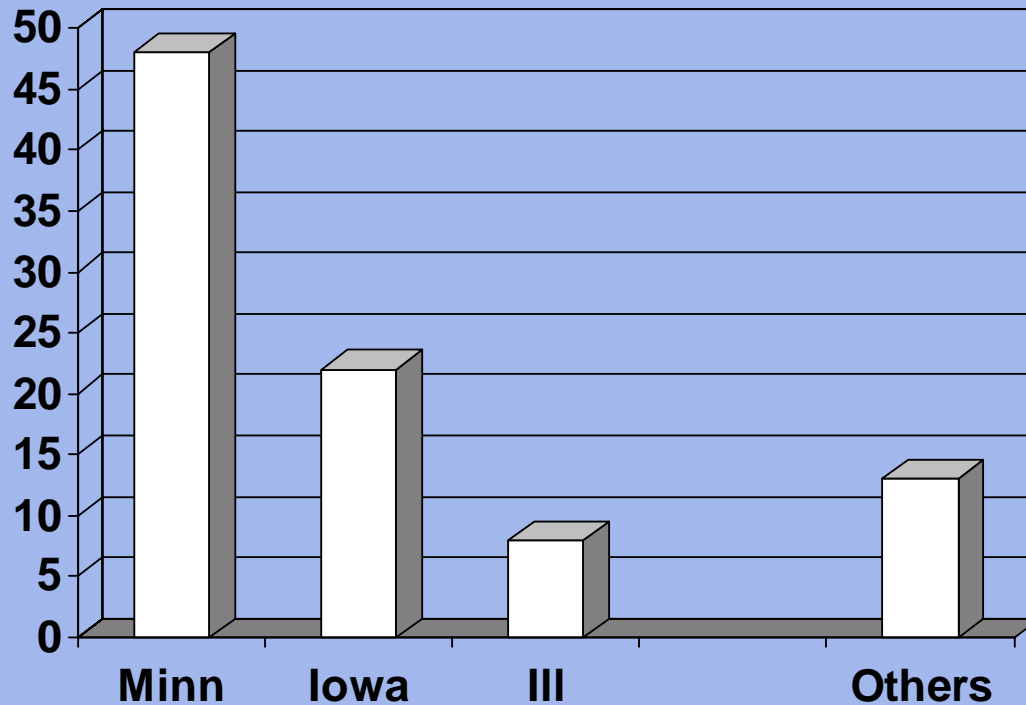
## Loans:

- Renewable Energy Guaranteed Loans (Section 9006): Up to \$10 million
- Rural Electric Service



# USDA Section 9006 Grants for Wind: 2003-05

USDA Section 9006 Wind Grants by State



# Role of Subsidies in Community Wind Economics: 1.65 MW Project

<u>Subsidy</u>	<u>Value/kwh</u>	<u>Cumulative Value</u>
Production Tax Credit	1.9c	\$823,878
Accelerated Depreciation	0.7c	\$294,567
Section 9006 Grant (max)	1.1c	\$500,000

All values based on 1.65MW turbine operating at 30% capacity factor and 1<sup>st</sup> 10 years of turbine operation  
Depreciation assumes depreciable capital costs of \$2 MM, 8% discount rate, MACRS vs. straight line 10 year  
Note: Project receiving Section 9006 grant would see a reduction in PTC equal to 50% of value of grant.



# Public Ownership Models (RECs, Munis, Local Government, School Districts)

## Unique Challenge

**Developing a project  
without utilizing tax  
incentives**

**Convincing customers or  
members to pay more  
for electricity**

## Unique Opportunity

**Tax-Exempt Financing  
Lower Financial Return  
Thresholds**



# Community Renewable Energy Bonds

- Incorporated in the new Federal Energy Bill
- Patterned after QZADs, used for school improvements
- Bondholders receive tax credit in lieu of interest payment
- \$800 million authorized over next five years



# Should Public Policy Favor Community Wind ?

<b>Public Benefit</b>	<b>Community Wind</b>	<b>Investor Owned</b>
Renewable Energy	Yes	Yes
Distributed Generation	Yes	Yes
Local Construction Spending	Yes	Yes
Local Maintenance Spending	Yes	Yes
Local/State Tax Revenue	Yes	Yes
Retained Earnings Spent Locally	Maybe	Only by in-state investors



# References

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