Ownership & Scale of Renewable Energy

John Farrell  www.newrules.org
New Rules Project @ Institute for Local Self-Reliance
Overview

- Why Scale Matters
- Why Ownership Matters
- The New Rules for Ownership
Growing Renewable Energy

OVERVIEW

ETHANOL & WIND PRODUCTION IN MINNESOTA

MILLION GALLONS OR MEGAWATTS

2002 2004 2006

300 355 400 615 550 900

Ethanol Production
Wind Capacity

JOHN FARRELL - NEW RULES PROJECT OF ILSR
Average Size Increasing

- Wind: 20 MW in 2002; 80 MW now
- Ethanol: 33 MGY in 2002; 100 MGY now
Economies of Scale

- Wind power: 10 MW → 200 MW
  - Cost per kWh = -25%

- Ethanol: 33 million gallon → 100 million gallon
  - Cost per gallon = -6 to 8 cents (3%)
DisEconomies of Scale

- Wind power: 10 MW → 200 MW
  - Cost per kWh = -25%
  - Long distance transmission = +30% per kWh
- Ethanol: 33 million gallon → 100 million gallon
  - Cost per gallon = - 6 to 8 cents (3%)
  - Long distance shipping = +5 to 6 cents/gallon
This is why community-based, smaller scale energy works.
Significant local ownership

PERCENT LOCALLY-OWNED

OVERVIEW

Ethanol

Wind

Minnesota United States

90%

81%

34%

27%

1%

0%
OWNERSHIP MATTERS

Economic benefits

- Locally-Owned Wind
  - 25-300% greater economic impact than absentee owned

- Locally-Owned Ethanol
  - 5-30% greater economic impact than absentee owned
Owner benefits

- Wind: owner’s net income
- 20-year land lease: $100,000
- 20-year ownership: $1.2 million
- Ethanol: owner’s benefits
- 30-40 cents/bushel dividend = $10,000 per year
OWNERSHIP MATTERS

An economy of policy

- Local ownership =
- Economic impact + owner benefit =
- Rural energy policy + rural development policy
Ownership requires new rules

- We have C-BED - a great start
- Production Tax Credit: allow ordinary income (Rep. Walz)
- High voltage transmission: makes small scale marginal
Summary

- Scale matters: bigger isn’t always better
- Ownership matters: economy of policy
- Roadblocks exist: community-based energy needs community-based policy
Questions?