



Ownership & Scale of Renewable Energy

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New Rules Project @ Institute for Local Self-Reliance

Overview

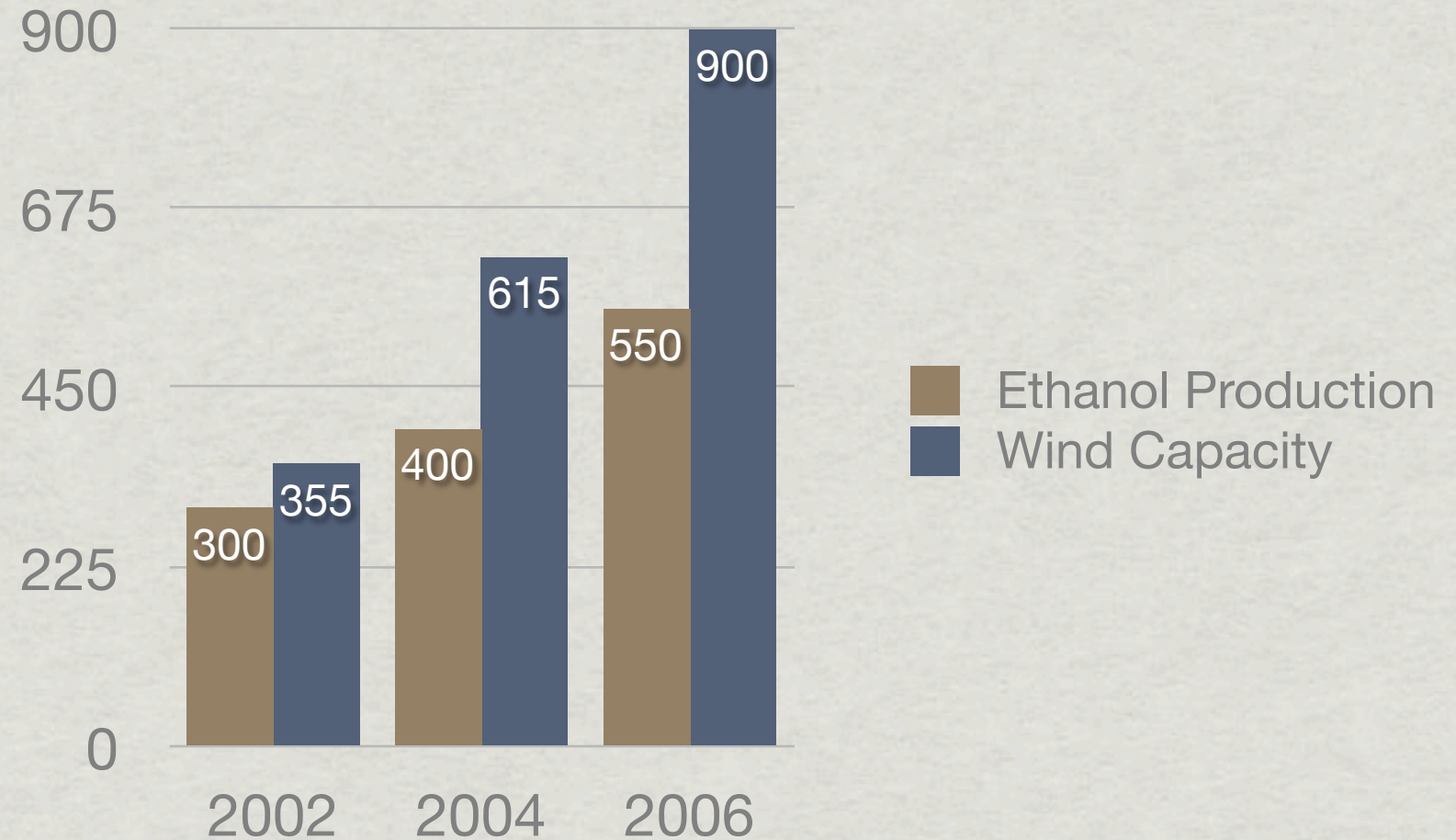
- * Why Scale Matters
- * Why Ownership Matters
- * The New Rules for Ownership

OVERVIEW

Growing Renewable Energy

ETHANOL & WIND PRODUCTION IN MINNESOTA

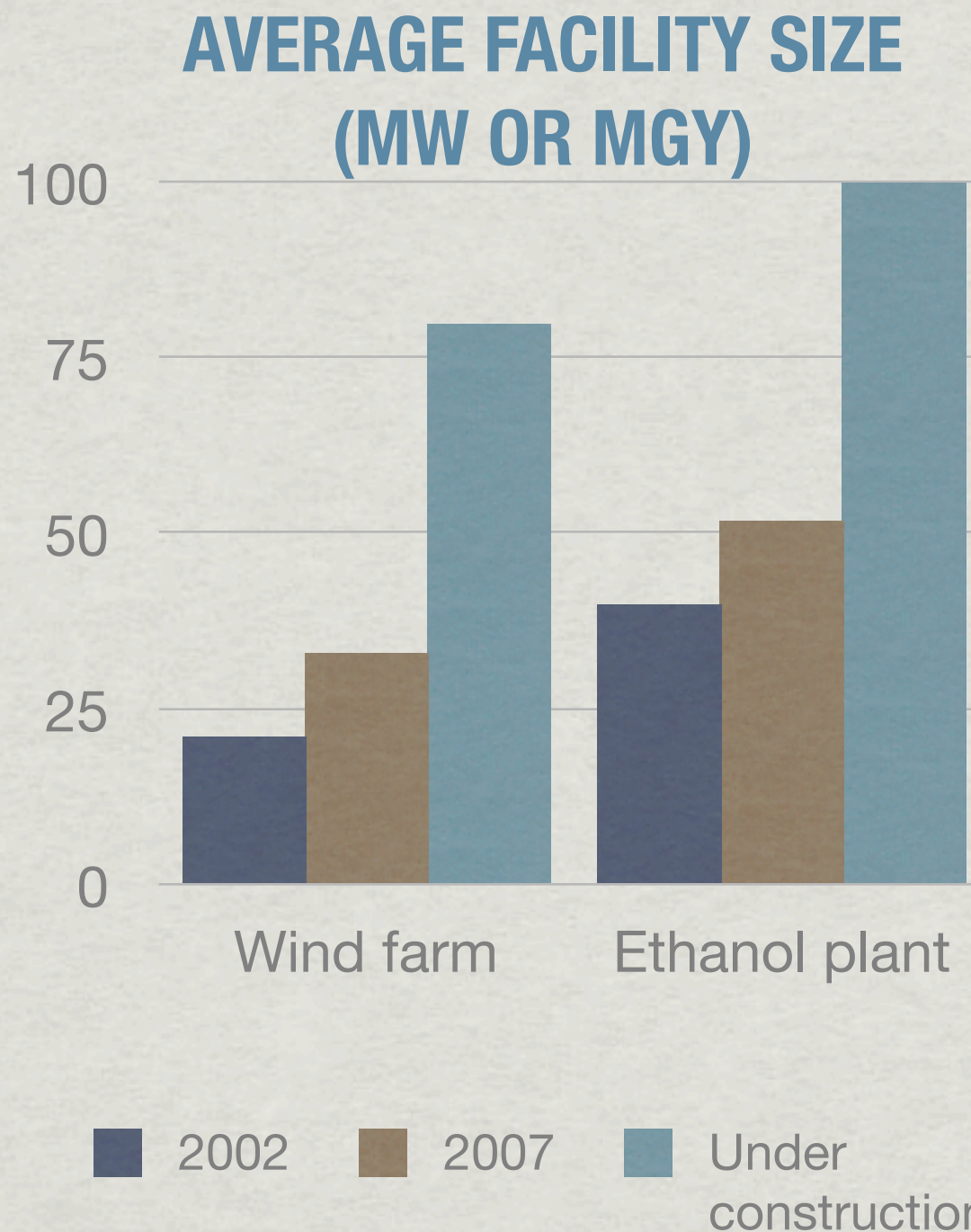
MILLION GALLONS
OR MEGAWATTS



SCALE MATTERS

Average Size Increasing

- * Wind: 20 MW in 2002; 80 MW now
- * Ethanol: 33 MGY in 2002; 100 MGY now



Economies of Scale

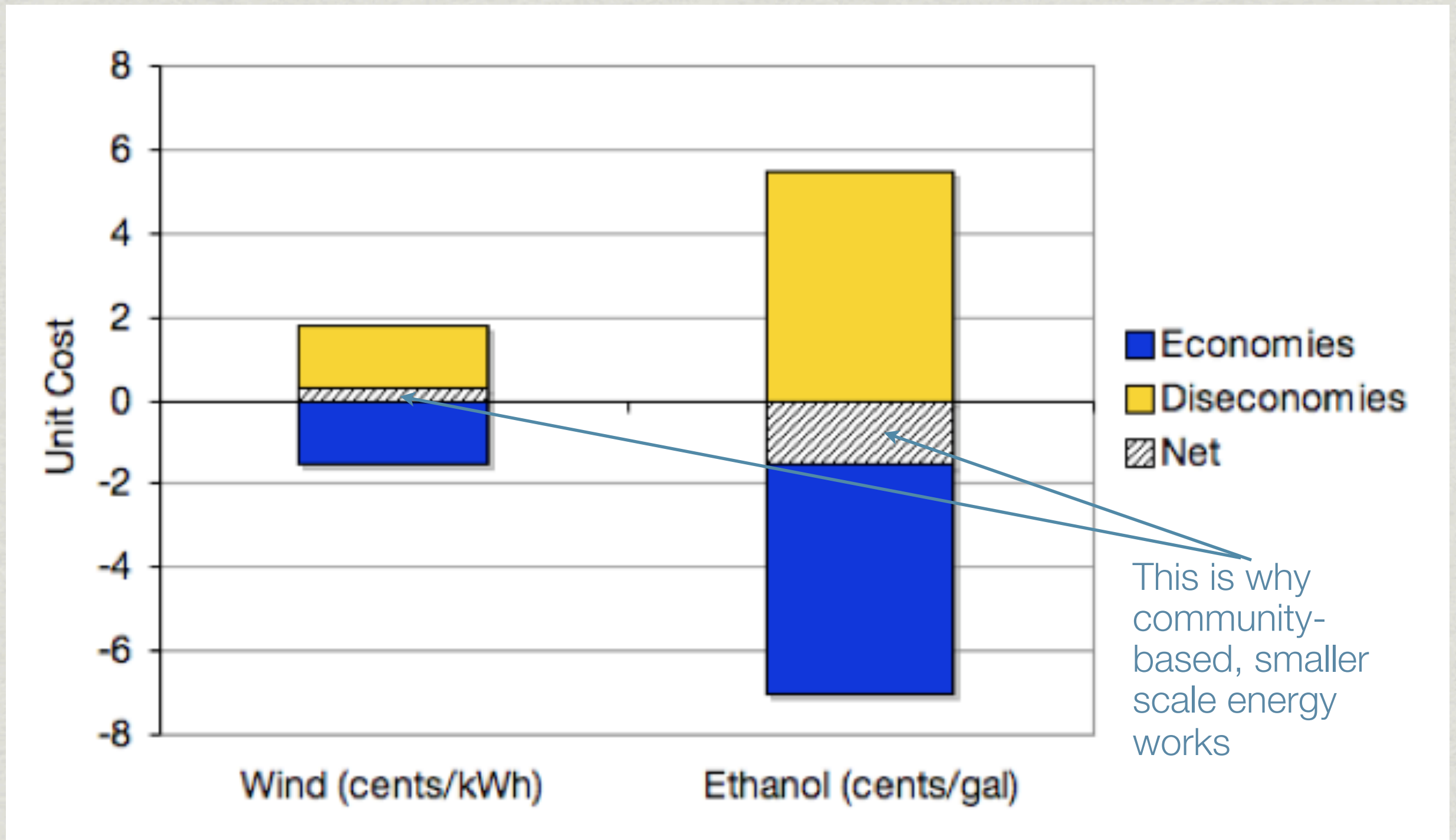
- * Wind power: 10 MW → 200 MW
 - * Cost per kWh = -25%
- * Ethanol: 33 million gallon → 100 million gallon
 - * Cost per gallon = - 6 to 8 cents (3%)

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

SCALE MATTERS

Net economies

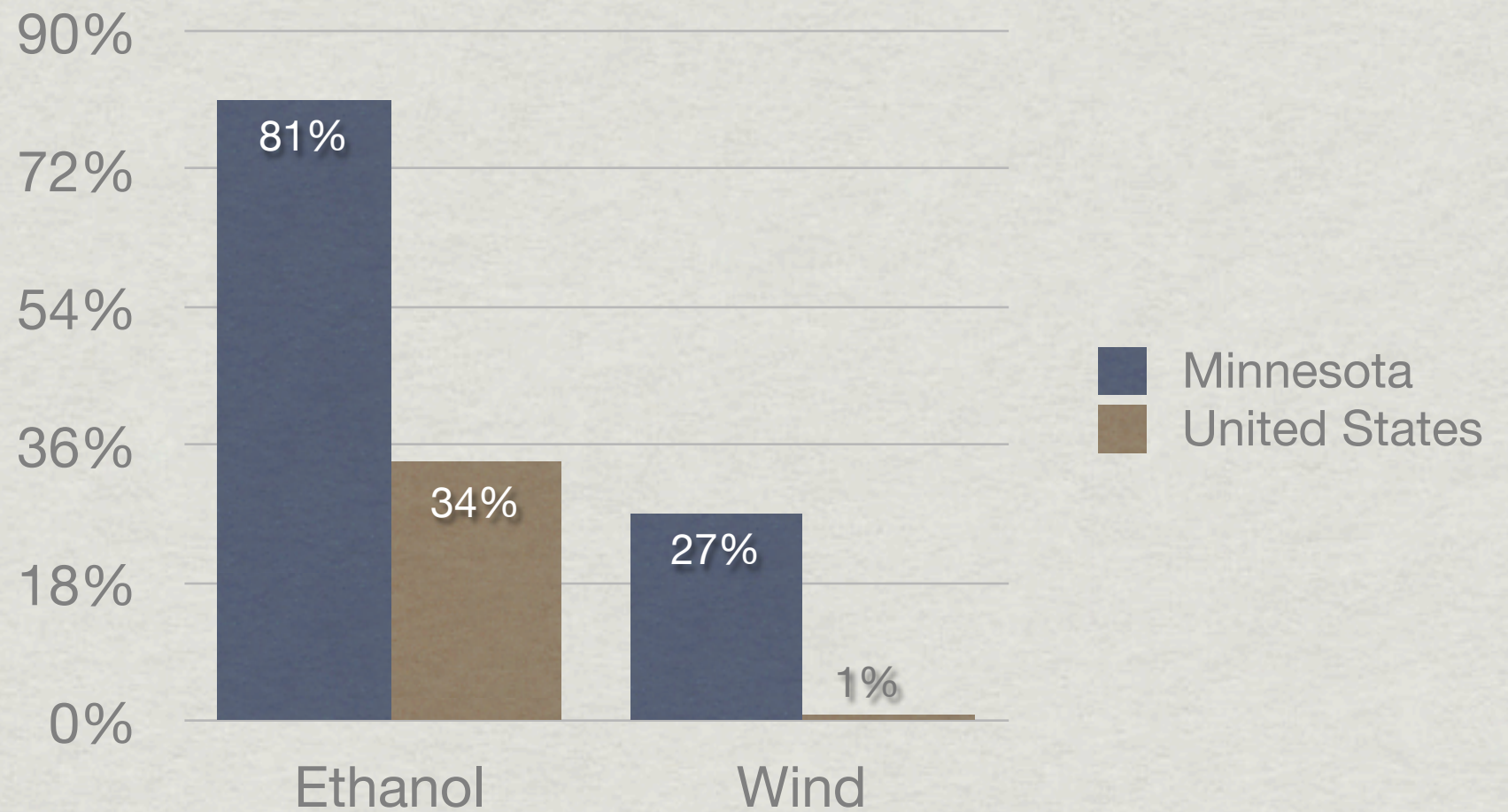


This is why community-based, smaller scale energy works

OVERVIEW

Significant local ownership

**PERCENT
LOCALLY-OWNED**



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

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?