



# MINNESOTA

## CLEAN ENERGY ECONOMY PROFILE

How Industry Sectors are Advancing Economic Growth

OCTOBER 2014

# Clean Energy Economy Profile



## State Policy Environment



## Trends in Employment & Wages



## R&D & Early Stage Investment



BIOFUEL CAPACITY



ENERGY SAVINGS



**1.7 MILLION**

BIOFUEL PRODUCTION  
CAPACITY IN MINNESOTA  
IS ENOUGH TO REPLACE  
TRADITIONAL FUEL  
FOR 1.7 MILLION  
VEHICLES FOR  
ONE YEAR (2012)



**1.4 MILLION**

EFFICIENCY SAVINGS AND  
RENEWABLE ELECTRICITY  
GENERATION IN MINNESOTA  
IS EQUAL TO ENOUGH ENERGY  
TO POWER OVER 1.4 MILLION  
HOMES IN THE STATE  
FOR ONE YEAR (2012)

# Clean Energy Economy Profile



State Policy Environment

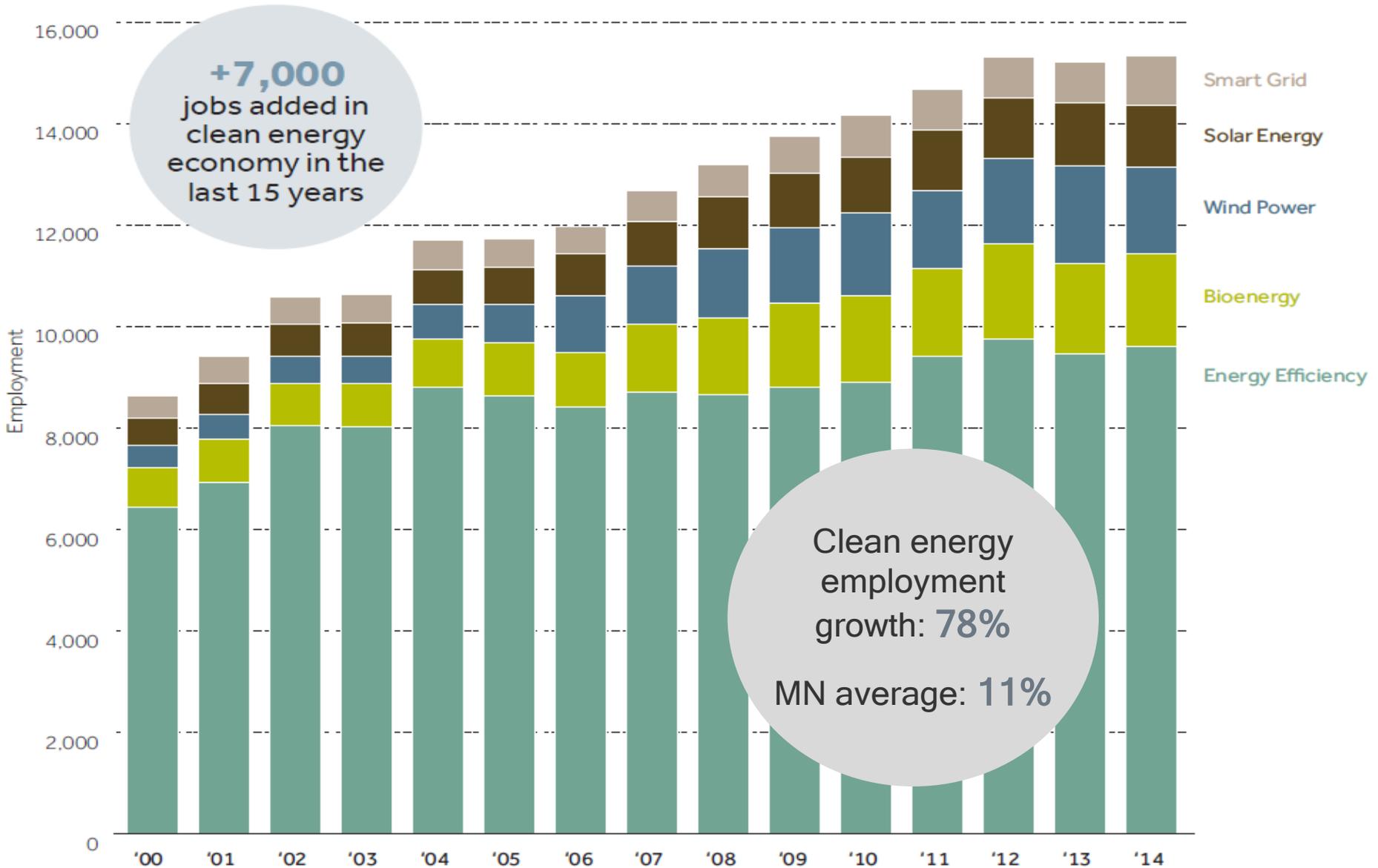


**Trends in Employment & Wages**



R&D & Early Stage Investment

Figure 8  
**CLEAN ENERGY EMPLOYMENT BY SECTOR**  
 Minnesota, 2000-2014

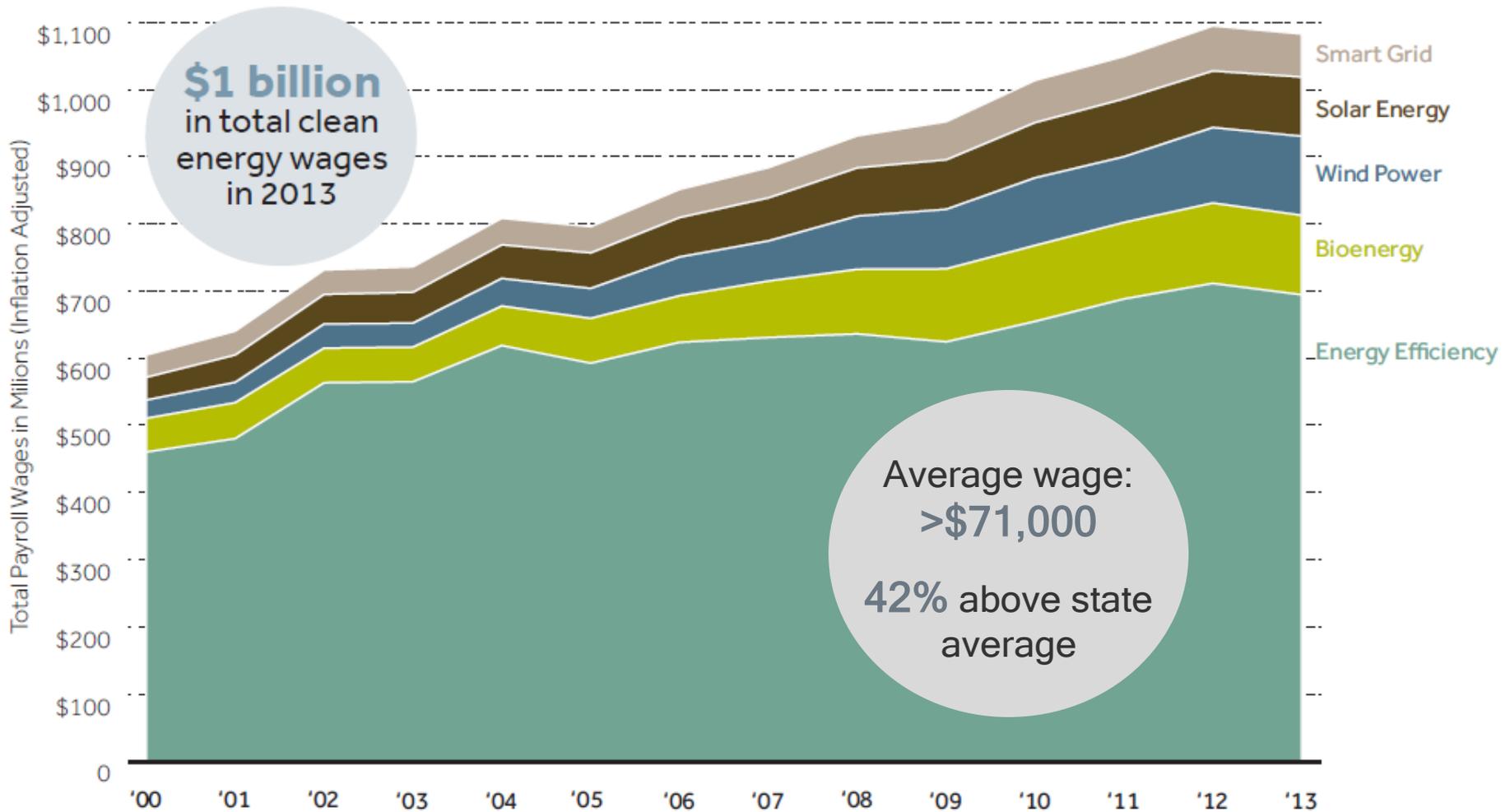


Data Source: National Establishment Time Series Database (NETS), IEGC, MN DEED Economic Analysis Unit Survey-July 2014  
 Analysis: Collaborative Economics

Figure 14

## CLEAN ENERGY WAGES

Minnesota, 2000-2013\*



\*In 2013 dollars

Data Source: MN Unemployment Insurance Database

Analysis: MN DEED Economic Analysis Unit

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State Policy Environment



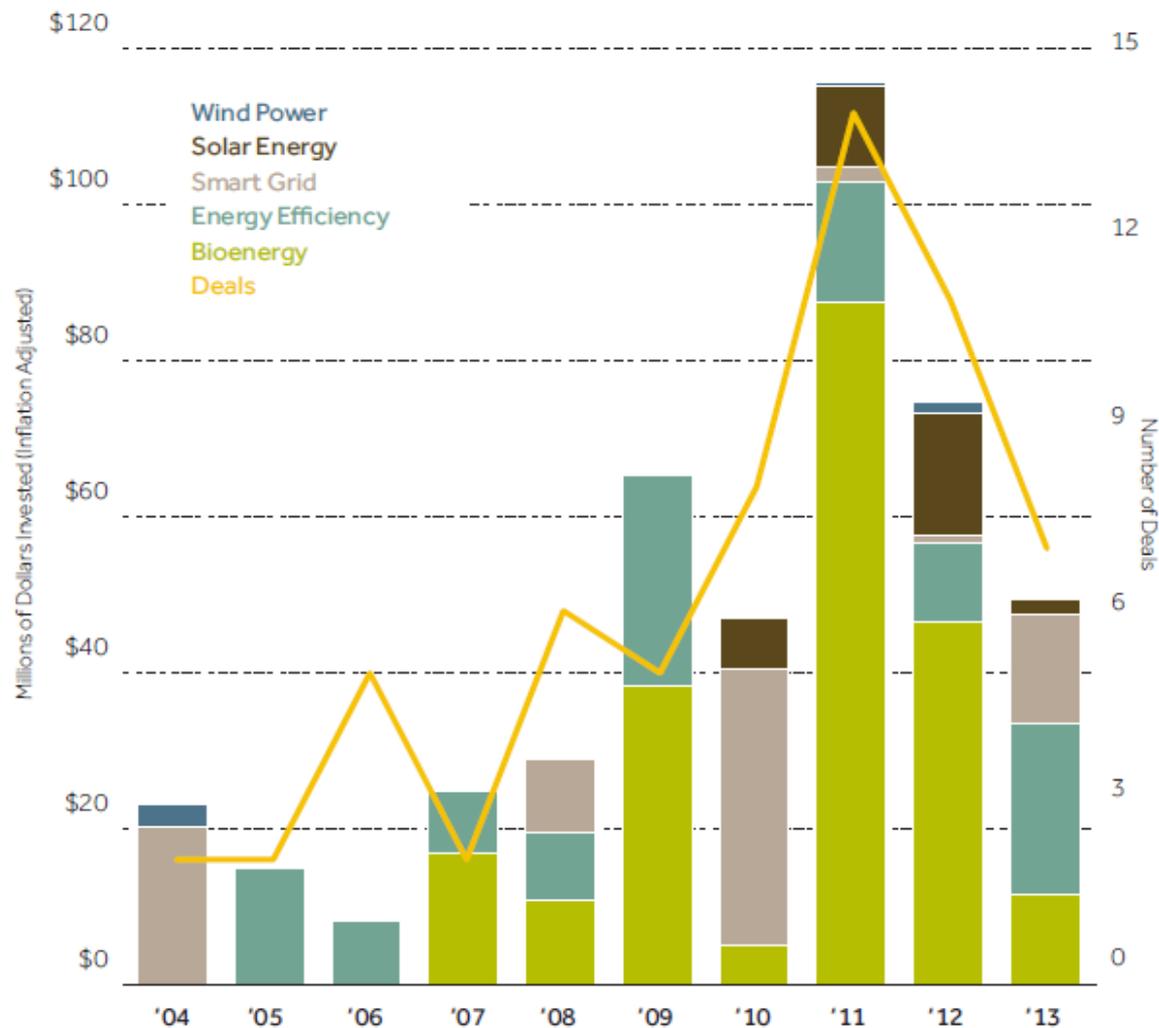
Trends in Employment & Wages



**R&D & Early Stage Investment**

Figure 19

## EARLY STAGE INVESTMENT IN CLEAN ENERGY COMPANIES Minnesota, 2004-2013



Note: Early stage includes venture capital, angel, grants and debt/loans for private companies. Does not include corporate research.

Data Source: CB Insights

Analysis: Collaborative Economics

Table 8

## TOTAL VC INVESTMENT IN CLEAN TECHNOLOGY COMPANIES By Midwest State, 2004-2013

	2004-2013 (in millions)
Illinois	\$788.66
Minnesota	\$422.38
Michigan	\$411.64
Wisconsin	\$128.10
Iowa	\$108.97

**Over \$400M**  
in venture capital  
dollars for Minnesota  
clean energy  
companies over the  
past decade

# MINNESOTA CLEAN ENERGY ECONOMY PROFILE

October 2014

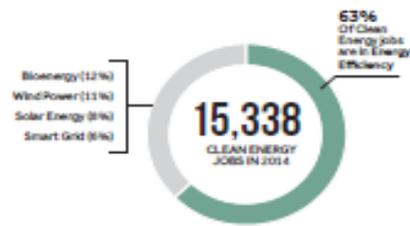
[mn.gov/deed/clean](http://mn.gov/deed/clean)

## MINNESOTA CLEAN ENERGY OVERVIEW

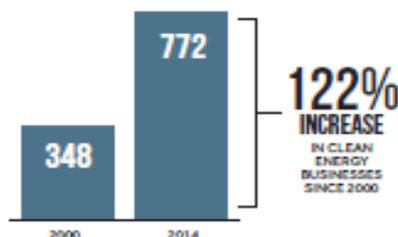
HIGHLIGHTS FROM  
MINNESOTA'S CLEAN  
ENERGY ECONOMY PROFILE

Clean energy businesses employ workers and generate revenue directly from products or services that use less energy to provide the same service, or produce heat, power or fuel from renewable sources of energy. The MN Clean Energy Economy Profile focuses on five clean energy sectors: Energy Efficiency, Bioenergy, Wind Power, Solar Energy, and Smart Grid.

### EMPLOYMENT



### BUSINESSES



### AVERAGE ANNUAL WAGE



CLEAN ENERGY WAGES ARE 42% HIGHER THAN THE STATEWIDE AVERAGE (2013)

OVER \$1 BILLION IN TOTAL WAGES IN THE CLEAN ENERGY ECONOMY IN 2013

### PATENTS



**8<sup>TH</sup>**

MINNESOTA RANKS EIGHTH IN THE NATION FOR REGISTERED CLEAN ENERGY PATENTS IN 2013, UP FROM TWENTIETH IN 2005

### INVESTMENTS



**\$11 BILLION**

NEARLY \$11 BILLION INVESTED IN MINNESOTA CLEAN ENERGY PROJECTS, \$452 MILLION IN EARLY STAGE INVESTMENT (2004-2013)

### BIOFUEL CAPACITY



**1.7 MILLION**

BIOFUEL PRODUCTION CAPACITY IN MINNESOTA IS ENOUGH TO REPLACE TRADITIONAL FUEL FOR 1.7 MILLION VEHICLES FOR ONE YEAR (2012)

### ENERGY SAVINGS



**1.4 MILLION**

EFFICIENCY SAVINGS AND RENEWABLE ELECTRICITY GENERATION IN MINNESOTA IS EQUAL TO ENOUGH ENERGY TO POWER OVER 1.4 MILLION HOMES IN THE STATE FOR ONE YEAR (2012)

To download the full report, please visit: [www.mn.gov/deed/clean](http://www.mn.gov/deed/clean).

Data Source: Minnesota Department of Commerce, National Establishment Time Series Database (NETS), Institute for Exceptional Growth Companies, MN DEED Economic Analysis Unit Survey-July 2014, MN Unemployment Database, ITRG Analytics, Patents by Technology: USPTO Patent File, CB Insights, Bloomberg New Energy Finance

Analysis and Design: Collaborative Economics