CLEAN JOBS MIDWEST: Overview

Comprehensive look at clean energy + energy efficiency jobs in the MW for 2015

12 state region
Dakotas, Nebraska, Kansas
Minnesota, Iowa, Missouri
Wisconsin, Illinois
Michigan, Indiana, and Ohio

Good for the Economy.
Good for the Environment.
CLEAN JOBS MIDWEST: Partnerships

- Partnership with BW Research and Clean Energy Trust
- Data comes from BW’s Energy Employment Index and the Bureau of Labor Statistics
- 20,000 business establishments participated
- 8,500 provided full responses
- In-state partners for specific state releases
CLEAN JOBS MIDWEST: Methodology

Industry Sectors

- **Renewable energy generation** – wind, solar, geothermal, biomass, low-impact hydropower
- **Energy efficiency** – HVAC efficiency, advanced building materials, lighting; includes installation and maintenance
- **Advanced grid** – smart grid technology, advanced energy storage
- **Clean fuels** – woody & non-woody biofuels (incl. non-corn ethanol), biodiesel, wood energy
- **Advanced transportation** – vehicles using advance & alt. fuel sources incl. hybrid-electric, electric, natural gas, fuel cell, and hydrogen
Good for the Economy. Good for the Environment.

CLEAN JOBS MIDWEST: THE NUMBERS

Clean jobs are a significant part of the MW economy

568,979 jobs in clean energy jobs sector

And the sector is growing

Clean energy jobs in the Midwest are projected to grow 4.4% in 2016

568,979 Jobs
The Midwest is home to a diverse clean energy jobs sector, and the number is growing steadily

4.4% Projected Growth
Projected growth in the region over the next 12 months

Learn More at: CleanJobsMidwest.com
Clean jobs by sector

- Energy efficiency – 74%; 423,548 jobs
- Renewable energy – 12.3%; 69,873 jobs
- Advanced transportation – 11.3%; 64,394 jobs
- Clean fuels – 1.25%; 7,098 jobs
- Advanced grid – 0.71%; 4,067 jobs

Learn More at: CleanJobsMidwest.com
CLEAN JOBS MIDWEST: Illinois

- Ranked #1 with 113,918 clean jobs in 2015
- Projected to grow 5.3% this year
- Majority of these jobs in energy efficiency (78%)
- Lost renewable jobs over the past year
- Small business is big: Over 70% of clean businesses employ fewer than 25 individuals
CLEAN JOBS MIDWEST: INDUSTRY SECTORS

Energy efficiency
• 423,548 jobs
• 74% of clean energy jobs
• Focused on how efficiently energy is used
• HVAC efficiency -- 42%
• Advanced building materials – 16%
• Efficient lighting – 16%

Good for the Economy.
Good for the Environment.
CLEAN JOBS MIDWEST: INDUSTRY SECTORS

Renewable Energy
• 69,873 jobs
• 12.3% of total
• Wind, solar, geothermal, biomass, low-impact hydro
• Generation of renewables
• Solar generation -- 51%
• Wind – 34%
CLEAN JOBS MIDWEST: INDUSTRY SECTORS

Advanced Transportation

- 64,394 jobs
- 11.3% of total
- Hybrid, electric, natural gas, fuel cell, and hydrogen vehicles
- Includes production, maintenance, sales and professional services, but not car dealerships or fueling stations
- Electric vehicle technologies – 40%
- Natural gas – 30%
- Hybrids – 29%
CLEAN JOBS MIDWEST: INDUSTRY SECTORS

Clean Fuels
• 7,098 jobs
• 1.25% of total
• Work with woody and non-woody biofuels
• Non-corn ethanol, biodiesel, wood energy
• Vast majority in non-woody biofuels – 95%
• Woody biofuels – 5%
CLEAN JOBS MIDWEST: INDUSTRY SECTORS

Advanced Grid
• Over 4,000 jobs
• <1% of total
• Workers employed in smart grid technology or advanced energy storage
• Storage accounts for 72% of these jobs
• Smart grid accounts for 28%

Good for the Economy.
Good for the Environment.
**CLEAN JOBS MIDWEST: REGIONAL RANKINGS**

**Projected Growth:**
- 4.4% projected growth in the region in 2016
- 25,035 jobs to be added
- Missouri leads projected growth rate at 8.3%
- Illinois leads projected new jobs with 6,022

<table>
<thead>
<tr>
<th>State</th>
<th>Projected Growth</th>
<th>Jobs to be Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>MO</td>
<td>8.3%</td>
<td>4,331</td>
</tr>
<tr>
<td>IL</td>
<td>5.3%</td>
<td>6,022</td>
</tr>
<tr>
<td>SD</td>
<td>5.0%</td>
<td>358</td>
</tr>
<tr>
<td>NE</td>
<td>5.0%</td>
<td>822</td>
</tr>
<tr>
<td>OH</td>
<td>4.9%</td>
<td>4,912</td>
</tr>
<tr>
<td>WI</td>
<td>4.8%</td>
<td>1,177</td>
</tr>
<tr>
<td>MN</td>
<td>4.4%</td>
<td>2,423</td>
</tr>
<tr>
<td>ND</td>
<td>4.1%</td>
<td>492</td>
</tr>
<tr>
<td>IA</td>
<td>3.0%</td>
<td>867</td>
</tr>
<tr>
<td>MI</td>
<td>2.6%</td>
<td>2,262</td>
</tr>
<tr>
<td>KS</td>
<td>2.3%</td>
<td>624</td>
</tr>
<tr>
<td>IN</td>
<td>1.3%</td>
<td>586</td>
</tr>
<tr>
<td>Midwest</td>
<td>4.4%</td>
<td>25,035</td>
</tr>
</tbody>
</table>
CLEAN JOBS MIDWEST: REGIONAL RANKINGS

Total Jobs, by State:

- Illinois – 113,918
- Ohio – 100,782
- Michigan – 87,616
- Minnesota – 54,458
- Missouri – 52,479
- Indiana – 44,133
- Iowa – 28,451
- Kansas – 27,005
- Wisconsin – 24,714
- Nebraska – 16,422
- North Dakota – 11,882
- South Dakota – 7,118

Good for the Economy.
Good for the Environment.
CLEAN JOBS MIDWEST: ONLINE TOOLS

www.CleanJobsMidwest.com

State specific data for all 12 states

Compare states

Data sortable by:
• County
• State House
• State Senate
• Congressional District
• MSA

Good for the Economy.
Good for the Environment.
Thank You!

Gail Parson
Midwest Advocate
gail@e2.org | 312-651-7912