### 2015 SURVEY RESULTS

# CLEA S NO

EXECUTIVE SUMMARY

#### INTRODUCTION



#### 2015 Survey

Clean energy is helping expand the Illinois economy. The state, long a center of economic activity thanks to its position at the junction of trade, agriculture, and transportation markets, is increasingly benefiting from its growing renewable energy, energy efficiency, and clean transportation industries.

Clean energy industries in Illinois are becoming important and dynamic drivers of new economic opportunities. Clean energy now employs 104,449 workers in Illinois, an increase of more than 7,574 jobs in just 15 months.

Clean energy jobs range across energy technologies, job categories, and education level, from installers of energy efficiency upgrades to engineers developing renewable energy projects to high-tech manufacturers and supply-chain businesses.

While the sector grew significantly, policy uncertainty is still holding back clean energy's true potential, particularly in the renewable energy sector. By implementing policies that promote job creation, innovation, and competition, Illinois' clean energy sector can realize its potential and fuel the kind of economic activity that creates jobs.

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#### INTRODUCTION

#### Background

In 2013, Clean Energy Trusty (CET) and partners Environmental Entrepreneurs (E2), ELPC, and NRDC commissioned a survey of clean energy jobs in Illinois to provide an in-depth look at the sector. The results were impressive – nearly 97,000 workers supporting clean energy – a significant part of the Illinois economy.

This year, this study was conducted once again to measure the progress of the sector. The results are in: **Illinois is now home to 104,449 clean energy jobs** - that's more than the accounting and real estate industries combined. This represents a growth of 7.8% – 7,574 jobs – in just 15 months. This study affirms that the state's clean energy industry is a significant employer and an economic engine with tremendous potential for continued growth. Indeed, this survey projects growth in the industry to be 7.5% over the next year – this represents another 7,860 new jobs.



trust

in collaboration with:











**The Joyce Foundation** 

#### **KEY FINDINGS**



#### **Energy Efficiency**

Energy Efficiency makes up the largest portion of Illinois' clean energy sector and is growing rapidly. Two-thirds (66.0%) of Illinois clean energy workers are focused on energy efficiency (up from 62.4% in the previous survey). Building efficiency (in particular, heating, ventilation and air conditioning, or HVAC) is the primary driver of the energy efficiency economy in Illinois. Efficiency upgrades and retrofits to buildings, including lighting, building envelope and energy efficient appliances, and machinery make up nearly 30,000 jobs and HVAC adds nearly 25,000 more.

Overall, energy efficiency grew 14% since 2013. Energy efficiency is an important economic driver for the state; not only does energy efficiency save consumers money on power bills, but it is also a labor intensive sector that creates local jobs. Illinois' Energy Efficiency Resource Standard<sup>1</sup> has propelled the growth of this sector by ensuring continued investments in this area.

#### **Renewable Energy**

Renewable Energy companies are also a significant employer in the state, representing more than 20% of clean energy jobs statewide. Renewable energy includes bioenergy and biofuels (31%), solar power (20.6%), wind power (18.5%), and other industries. Renewable energy jobs grew 6.8%, but that lags energy efficiency's growth rate significantly. This difference is likely due to policy uncertainty. When asked what policy would have the greatest impact on accelerating adoption of clean energy goods and services, renewable energy companies pointed to the Renewable Portfolio Standard (RPS) more than any other policy. Illinois' RPS currently requires Illinois to be powered by 25% renewable energy by 2025, but this policy mechanism is not resulting in the investment in renewable energy that was intended. Modernizing Illinois' RPS is an important and straightforward way to ensure continued growth in this sector.

<sup>1</sup> Illinois' Energy Efficiency Resource Standard currently requires 2.0% overall energy consumption reductions per year, subject to limitations.

#### **KEY FINDINGS**

#### **Key Transition**

The transition from traditional sectors to clean energy is underway: clean energy not only grew, but its growth was largely driven by an increasing amount of clean energy activities in the traditional economy. These are employees at mechanical services companies learning new skills and starting to commission high efficiency HVAC systems, and these are engineers and architects designing high efficiency, Energy Star-rated buildings. Some of these types of companies existed previously, but the clean energy economy has led to new revenues and growth opportunities as they focus more of their work on energy efficiency. While larger, clean-energy-specific firms also grew, energy efficiency related work in traditional trades, sales and manufacturing added many more jobs over the period. This represents a transition of companies moving into the clean energy sector simply because it's good for business.

#### **Other Findings**

- Small business is driving clean energy in the state – nearly 60% of firms reported 10 or fewer total permanent employees, and more than 70% have 10 or fewer clean energy workers.
- Installation jobs make up the largest component of the clean energy value chain (57,676 jobs, or 55.2%). Engineering & research (17%) and manufacturing (10%) also make up significant portions of the value chain.
- Advantages to operating in Illinois included being home to business owners, access to a qualified workforce and the central location of the state.
- Illinois' clean energy workforce is a mix of highly skilled and less technical positions and is also growing more diverse. While most recent hires had at least an associate's degree (63.4%), more than a third had only a high school level education.

#### **KEY FINDINGS**



#### **Other Findings**

continued...

Clean energy is an important growth sector to the Illinois economy. It has the potential to create thousands of new, innovative jobs. Although the sector grew over the last year, it underperformed previous growth projections (7.8% actual vs. 9.0% projected). As we consider the future of our state's energy policy, we must reflect on whether it will result in a competitive environment that invites innovation and job creation through clean energy, or whether job growth will continue to be held back by policy uncertainty and broken policy mechanisms.

#### DEFINITION

# What is Clean Energy?

Clean energy refers to a wide variety of technologies that create or conserve energy and help us meet our 21st-century resource challenges. These technologies include wind, solar and geothermal power, alternative transportation fuels, energy storage, and energy efficiency.

#### ABOUT

#### Methodology

This study was conducted by BW Research Partnership, a national leader in workforce and economic development research. BW Research Partnership spoke with 1,314 business establishments throughout a wide spectrum of industries in Illinois to quantify clean energy activity in research and development, manufacturing, sales and distribution, installation and maintenance, and professional services. These responses, together with data collected by the Bureau of Labor Statistics and the Illinois Department of Employment Security, are used to determine the size and breadth of clean energy establishments across the state, with a margin of error of +/-2.65% at a 95% confidence interval (other employment-related questions have a margin of error in this study of +/-4.9%).

The methodology used for the Clean Energy Illinois Report has been peer reviewed by the Cornell School of Industrial and Labor Market Relations, the National Renewable Energy Laboratory, and numerous energy-related nonprofit organizations; its solar components have been verified by the Congressional Research Office as the most definitive available. It is currently in use in 12 states across the country. This study was commissioned by Clean Energy Trust in collaboration with Environmental Entrepreneurs (E2), ELPC, NRDC, the Energy Foundation, and the Joyce Foundation.

For more information, please visit: www.CleanJobsillinois.com

#### **Clean Energy Trust**

Clean Energy Trust (CET) fuels clean energy innovation in the Midwest. A Chicago-based non-profit, CET helps launch, fund, and grow Midwest clean energy companies to ensure a more prosperous, sustainable future for generations to come. It does this through direct investment, commercialization assistance, mentorship, access to its broad partner network, and the promotion of a supportive clean energy community and business climate.

To learn more about Clean Energy Trust, please visit: www.cleanenergytrust.org

#### A B O U T

#### **Energy Foundation**

For a quarter century the Energy Foundation has worked to accelerate the transition to a clean energy economy. We support policy solutions that build robust, competitive clean energy markets, which in turn create jobs, drive innovation and productivity, and improve health. Nonpartisan and pragmatic, we work with grantees across the political spectrum to promote education and analyses of the benefits of a strong, secure clean energy economy.

#### The Joyce Foundation

The Joyce Foundation invests in solutions to pressing economic and social challenges that affect the quality of our lives, the well-being of our communities and the fairness of our society. Its primary geographic focus is the Great Lakes region, but it has national reach and impact. Joyce moves ideas to action by supporting the development, testing and advancement of policies to better educate our children, expand economic opportunity, increase participation and responsiveness in our democracy, clean up and restore our natural environment, diversify arts and culture and protect communities from gun violence. It also supports programs to improve the performance of institutions and systems whose actions determine if policy solutions are effective. Founded in 1948 and based in Chicago, Joyce has assets of \$950 million and distributes approximately \$45 million annually.

For more information, please visit **www.joycefdn.org** or follow us at @**JoyceFdn**.

#### Natural Resources Defense Council

The Natural Resources Defense Council (NRDC) is an international nonprofit environmental organization with more than 1.4 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Bozeman, MT, and Beijing.

Visit us at **www.nrdc.org** and follow us on Twitter @**NRDC**.

#### A B O U T



## Environmental Law & Policy Center

The Environmental Law & Policy Center is among the nation's leading public interest environmental legal advocacy organizations. We develop strategic campaigns to protect natural resources and improve environmental quality. Our multidisciplinary staff employs teamwork approaches using legal, economic, and public policy tools to produce successes that improve our environment and economy.

Visit us at **www.elpc.org** and follow us on Twitter @**ELPCenter**.

#### Environmental Entrepreneurs

Environmental Entrepreneurs (E2) is a national, nonpartisan group of business leaders, investors and others who promote smart environmental policies that drive economic growth. Our members, active in nearly every state in the country, have built or financed more than 1,700 companies, created more than 570,000 jobs, and manage more than \$100 billion in venture and private equity capital.

For more information, see www.e2.org.

## EXECUTIVE SUMMARY

