

Clean Energy Jobs in Massachusetts

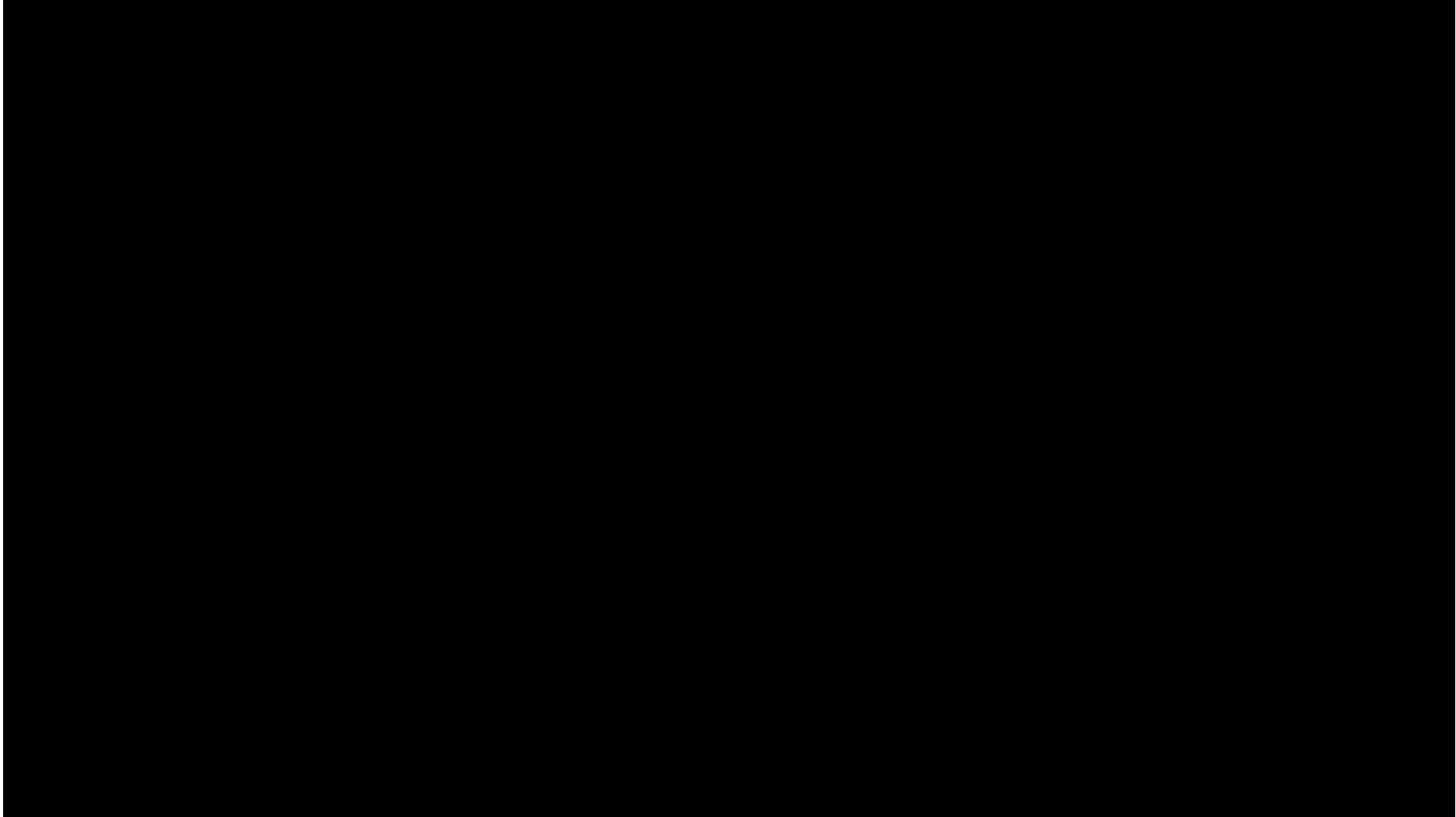
A Growing Industry



JOIN THE INNOVATION REVOLUTION



Next Step Living



Agenda

- **Why a Study?**
- **Methodology**
- **Execution**
- **Results**
- **Conclusion**



Why Study Clean Energy Employment?

Why Study Clean Energy Employment?

- **To Learn What We Don't Know About the Clean Energy Industry**
- **Legislative Mandate**
- **To Create a Replicable Model to Analyze the Role of Clean Energy in a State's Economy**

Massachusetts Clean Energy Industry Report Goals

- **Quantify the Number of Companies and Workers in the State's Clean Energy Industry**
- **Calculate past employment growth and project future employment growth in the state's clean energy industry**
- **Understand Clean Energy's Share of Total Workforce**
- **Understand employer needs and preferences for the clean energy workforce**



METHODOLOGY

Research Methodology

■ Very Conservative

■ Definition of Clean Energy Firm:

- An employer engaged in whole or in part in providing goods and services related to renewable energy, energy efficiency, alternative transportation, and carbon management.

■ Definition of Clean Energy Worker

- Employees which spend at least a portion of their time supporting the clean energy aspects of their businesses.

Research Methodology

- **Survey Based**
- **Known Universe**
 - Known clean energy employers
- **Unknown Universe**
 - Random sample of employers in industries likely to be working in clean energy (Bureau of Labor Statistics)



Execution

Execution

■ Census of Clean Energy Employers

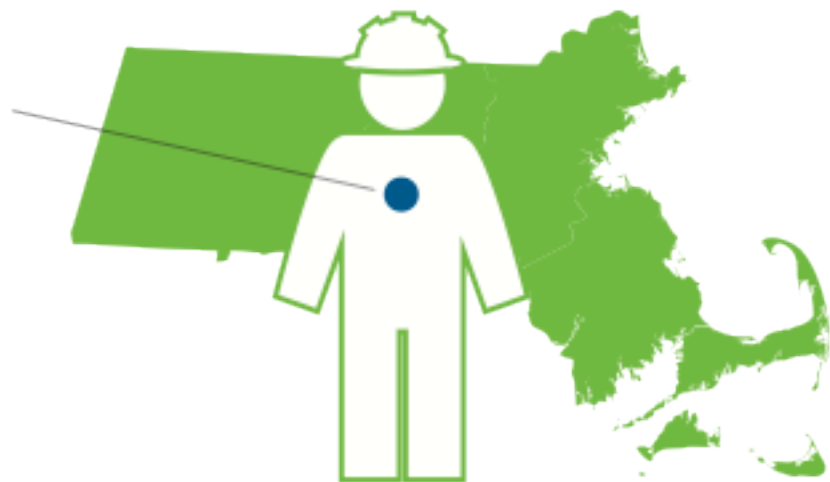
- Partners: MassCEC, BW Research Partnerships, New England Clean Energy Council, Industry Advisory Report
- 31,000 phone calls and 4,500 emails
- 1,401 responses
- Margin of Error = $\pm 2.5\%$ at 95% confidence



Results

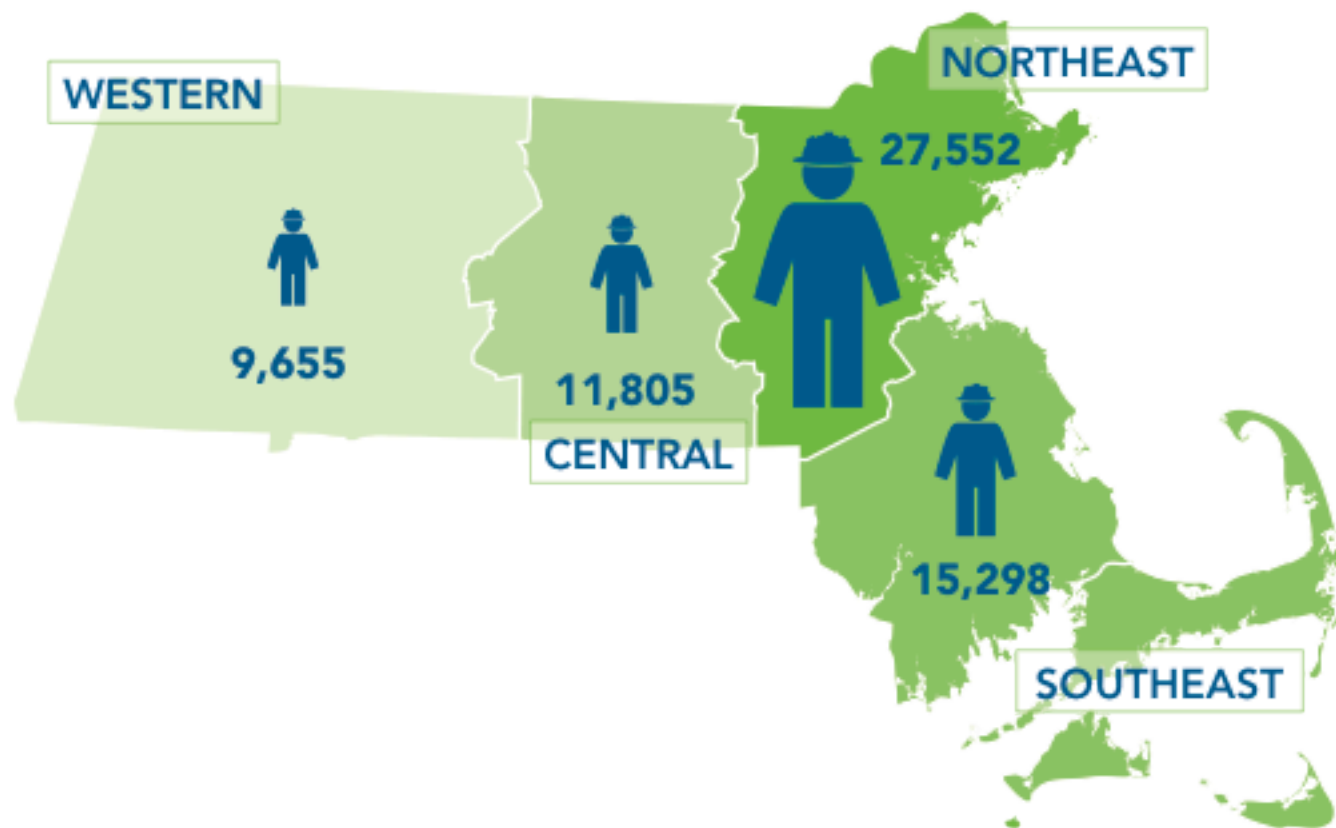
Massachusetts' Clean Energy Sector is Large, Diverse and Growing

- 4,909 Clean Energy Firms
- 64,310 Clean Energy Workers
- Clean Energy workers in Massachusetts = 1.5% of all workers in the state



Clean Energy Workers are Distributed Throughout the Commonwealth

Total Clean Energy Workers by Region



Job Growth in the Massachusetts Clean Energy Industry

- 6.7% job growth from July 2010 to July 2011
 - Compared to 1% Overall in MA
- Projected 15.2% growth 2011-2012
 - Compared to <2% Projected Overall in MA

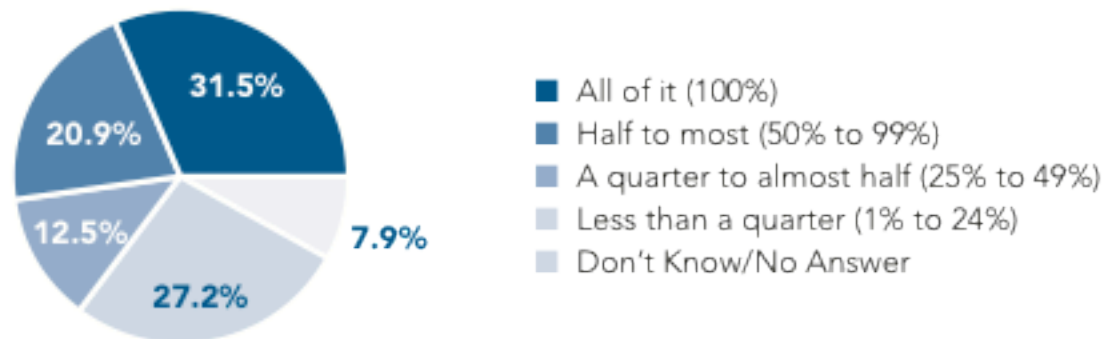


■ Clean Energy Industry Growth ■ Overall Growth in MA

Clean Energy provides an important revenue stream to many businesses

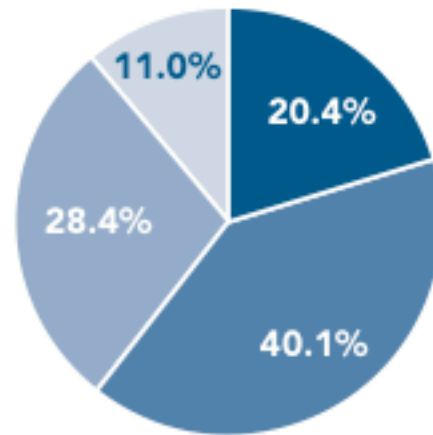
- The largest segment of surveyed employers attribute 100 percent of their revenues to clean energy activities
- More than half of employers report that 50 percent or more of their revenues are related to their business activities in the clean energy industry

Revenue related to clean energy products or services

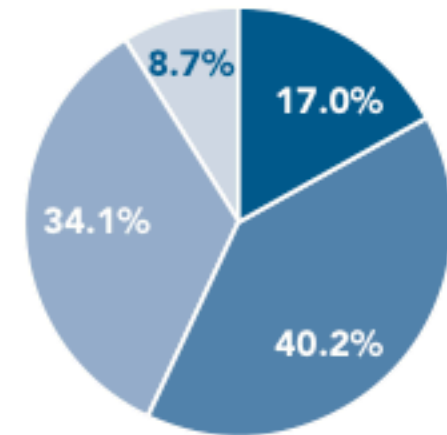


Talent is Critical

Finding qualified applicants with adequate experience in the clean energy industry



Recruiting employees with the technical skills required for their position



■ Great Difficulty ■ Some Difficulty
■ No Difficulty ■ Don't Know/No Answer

Conclusions



Massachusetts Clean Energy Industry

- Large, Diverse and Growing
- Clean Energy is a Key Revenue Stream
- Small Businesses are prevalent
- Clean Energy Sector
 - Touches the entire Commonwealth
 - Supports Numerous Industries
 - Strong in Multiple Technology Areas
 - Employers Compete for Talent



- The clean energy industry is among Massachusetts' marquee industries
- State should Continue
 - Support for industry with strong policy
 - Commitment to education
 - Support for initiatives that develop all parts of the value chain

Questions



MassCEC Clean Energy Group



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