



U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy



# Spurring Local Economic Development with Clean Energy Investments

November 7<sup>th</sup>, 2013

Molly Lunn  
DOE's State and Local  
Policy & Technical  
Assistance Team

# Agenda

- Welcome & Introduction to DOE Resources for Local & State Governments – Molly Lunn, U.S. DOE
- Overview of Economic Benefits from Clean Energy Initiatives – Peter Meyer, President & Chief Economist, E.P. Systems Group/Center for Climate Strategies
- Clean Energy Programs & Economic Development in Action:
  - ✓ Bryan Friedman, Director of Finance and Economic Development, Newton, IA
  - ✓ Sammy Chu, Director of Operations, Suffolk County (Former Director, Long Island Green Homes)
- Q&A

# DOE's State & Local Technical Assistance

## Priority Areas

- Strategic Energy Planning
- Program & Policy Design and Implementation
- Financing Strategies
- Data Management and EM&V
- EE & RE Technologies

## Resources

- General Education (e.g., fact sheets, 101s)
- **Case Studies**
- Tools for Decision-Making
- Protocols (e.g., how-to guides, model documents)

## Peer Exchange & Trainings

- **Webinars**
- Conferences & in-person trainings
- Better Buildings Project Teams

## One-on-One

- Level of effort will vary
- In-depth efforts will be focused on:
  - *High impact efforts*
  - *Opportunities for replicability*
  - *Filling gaps in the technical assistance marketplace*

# Priority Area: Planning (including Economic Development)

- **Resources**

- *Spurring Local Economic Development with Clean Energy Investments: Lessons from the Field*  
[www.eere.energy.gov/wip/solutioncenter/](http://www.eere.energy.gov/wip/solutioncenter/)
- *Guide to Community Energy Strategic Planning*  
[www.eere.energy.gov/wip/solutioncenter/strategic\\_energy\\_planning\\_guide.html](http://www.eere.energy.gov/wip/solutioncenter/strategic_energy_planning_guide.html)
- *CCS' Climate and Economic Development Recommended Readings*  
[www.climatestrategies.us/articles/articles/view/78](http://www.climatestrategies.us/articles/articles/view/78)
- *NREL's Jobs & Economic Development Impact (JEDI) models*  
[www.nrel.gov/analysis/jedi/](http://www.nrel.gov/analysis/jedi/)
- *EPA's Quantifying Economic Benefits*  
[www.epa.gov/statelocalclimate/state/activities/quantifying-econ.html](http://www.epa.gov/statelocalclimate/state/activities/quantifying-econ.html)
- *ACEEE's Toolkit for Distressed Communities (coming in 2014)*

- **Peer Exchange, Training & Incubating Innovation**

- *Webinars, including: Using Cluster Road Mapping to Determine Strategic Clean Energy Direction*  
[www.eere.energy.gov/wip/solutioncenter/webinar\\_archives.html](http://www.eere.energy.gov/wip/solutioncenter/webinar_archives.html)
- *DOE's State Energy Program Competitive Awards & the National Governors' Association's Policy Academy*

# How to Tap into These Offerings

- Visit the ***Solution Center***  
[www.eere.energy.gov/wip/solutioncenter/](http://www.eere.energy.gov/wip/solutioncenter/)
- Submit an ***application*** for assistance  
[www.eere.energy.gov/wip/solutioncenter/technical\\_assistance.html](http://www.eere.energy.gov/wip/solutioncenter/technical_assistance.html)
- Sign up for ***TAP Alerts***, the TAP mailing list, for updates on our latest and greatest  
[TechnicalAssistanceProgram@ee.doe.gov](mailto:TechnicalAssistanceProgram@ee.doe.gov)

# Economic Development Benefits from Clean Energy Initiatives

Peter B. Meyer, PhD  
President and Chief Economist  
The E.P. Systems Group, Inc.



# A Taxonomy of Benefits

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- Job Creation
- Energy Cost Savings
- Higher Energy Cost Certainty
- Higher Electricity Supply Certainty
- Improved Local Business Competitiveness
- Improved Property Values and Higher Real Estate Tax Bases
- Sectoral Clustering
- Marketing and Reputation

# Job Creation

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- Direct Jobs
  - Construction jobs
  - Permanent jobs
- Indirect jobs
  - Payroll spending
  - Business purchases locally
  
- The Multiplier Effect is often overlooked

# Energy Cost Savings

- Any savings can help to pay the cost of borrowing for Clean Energy investments
- If current savings are more than investment costs, that increases “disposable income”
- The Multiplier Effect comes into play again
  - Multipliers grow with the ability of an economy to provide for itself, rising with population size
  - They range upwards from 1.5 to as much as 5 for major metropolitan areas
  - They can vary with the sector providing the initial shot of economic expansion

# Higher Energy Cost Certainty

The cost of electricity to consumers depends in part on the cost of the fuel used to generate the power.

- Clean Energy “fuel” is free -- There is no risk of rising bills
- Most Clean Energy development still will involve use of power from both local and non-local sources, so there remains some risk of rising bills
- Increased certainty about price means:
  - Households can be more certain about their costs and their ability to pay their bills on a month- to- month basis
  - Businesses can be more certain about energy bills and can take other risks to expand their operations

## Higher Electricity Supply Certainty

- The availability of power when there is an electrical system outage depends on how the distributed energy is linked to the grid
- The benefits associated with having power when the grid is down depends on whether the system owner – and power user – is local government, a business or a household
  - Dependability removes need for backup power supply
  - Continued operations mean uninterrupted profits
  - Dependability reduces likelihood of emergencies

# Improved Business Competitiveness

- With lower and more certain power costs, businesses can:
  - out-perform other firms in their markets
  - expand the range of goods and services they offer
  - broaden the markets they serve
- Their expansion produces more jobs and payroll
- The savings associated with their lower energy consumption thus may help to further expand the local economy

# Higher Property Values and Tax Bases

- Lower utility bills make higher cost mortgages or rents more affordable.
- Greater power reliability for net metered buildings makes them more valuable.
- Mortgage funds are increasingly available at lower costs for energy efficient buildings.
  - FHA- and VA-insured Energy Efficient Mortgages and rehabilitation loans
  - Reliance on Home Energy Rating System (HERS) standard
  - Default risk is 32 % lower for owners of Energy Star homes
- All these factors expand the real estate tax base

# Sectoral Clustering

Businesses in the same sectors cluster near to each other due to the availability of markets, suppliers of resources that are hard to move, or specialized technological knowledge and worker skills

- Wind power involves turbine elements that are large & hard to move, benefitting local suppliers
- Clean Energy requires a technically skilled work force that, when it is available, can attract more businesses in the sector to an area
- Large scale new building and retrofit activity can draw in warehousing and component distribution facilities serving the sector

# Marketing and Reputation

## Success breeds success, especially if advertised!!

- Showing off Clean Energy accomplishments showcases a community as an economic development innovator
- Places are pursuing developments that qualify as “zero net carbon” for their reputational value
- Since Clean Energy is increasingly an immediate money saver, local governments can claim they are more efficient with their tax dollars

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**... NO,**

**You are NOT going to get  
*all* those benefits if you  
pursue Clean Energy**

**But expect the great success  
others have experienced!!!**

# Thank you!!

**Peter B. Meyer, PhD**

[PBM@TheEPSystemsGroup.com](mailto:PBM@TheEPSystemsGroup.com)

502-435-3240



**The E.P. Systems Group, Inc.**

New Hope, PA

# Powering Economic Recovery with Wind

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City of Newton, Iowa



# Presenter

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- Bryan Friedman, AICP  
Director of Finance and Development,  
City of Newton, Iowa

# Overview

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- Newton Background and History
- Loss of Maytag and Immediate Response
- Wind Industry Successes

# Newton Basics

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- Central Iowa: a growing region
- Population: About 15,250
- County Seat, 30 minutes east of Des Moines
- Transportation: Interstate, Rail, Airport
- Distinct Identity



# Newton Amenities

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- Regional Hospital
- Community College
- Arboretum
- YMCA Community Center
- Parks and Trails
- 100 Pieces of Public Art



# Newton History

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- Incorporated in 1857
- Grew around Mining and Manufacturing



# Newton History

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- Thrived on Innovation
- “Washing Machine Capital of the World”

– First corporate aircraft



# Maytag: Heritage

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- Started in 1873
- Began producing washing machines in early 1900s
- Rapid growth



# Maytag: Growth

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- Growth continued for decades, with interruptions for Wars
- Became one of the world's largest companies
- Built on foundation of dependability
- Newton grew along with Maytag



# Maytag: Decline and Fall

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- Early 2000s, over 4,000 people were employed by Maytag in Newton
  - Job cuts for more than five years
  - 2005: Proposed sale of Maytag
  - 2006: Whirlpool approved as buyer and almost immediately announces all Maytag facilities in Newton to close by end of 2007
- 1900 local Maytag jobs lost

# Dire Prediction: This Was the End of Newton

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# Immediate Response

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- Need Diversification
- Aggressive tax incentives
- Several major projects and initiatives
  - Big push to enter the wind power industry

# Why Wind?

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- Growing Industry
  - Upper Midwest known as “Saudi Arabia of Wind”
- Manufacturing Skills of Workforce
- Tax Incentives
- Wanted to Be Part of a Sustainable Future



# TPI Composites

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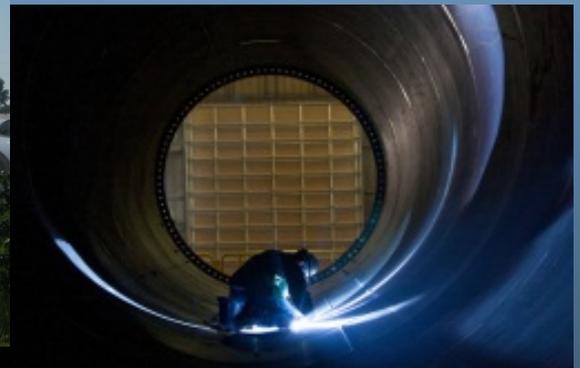
- Wind Blade Manufacturer
- Built New 300,000 sq. ft. Plant in 2008
- Now Employs Over 800 Workers



# Trinity Structural Towers

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- Wind Tower Manufacturer
- Remodeled 300,000 sq. ft. Section of Maytag Manufacturing Plant in 2008
- Now Employs 200 Workers



“This facility is alive again with new industry. . . Many of the same folks who had lost their jobs when Maytag shut its doors now are finding once again their ability to make great products.”

- President Obama  
at Trinity Structural  
Towers,  
Earth Day, 2009



# Other New Business & Industry

- Iowa Speedway
- Springboard/UL
- REG Bio-Diesel Plant



# Headquarters Campus

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- Selective Brownfield Demolition
- Community College Career Academy
- Call Center
- Medical Laboratory
- Brewery
- Street-level Storefronts



It used to be Newton was known for building washers and dryers, used to be Newton was known for Maytag. And obviously they were a big employer -- thousands of people working in the area. But back in 2007 when they closed down the operations here, that was a major blow. . . Your friends, your neighbors, . . . were forced to start all over again. . . . **You didn't give up. You kept pushing ahead.** Some of you had to retrain. Pretty soon after one industry had left, another showed up. Some of the facilities that Maytag closed were reopened. So a lot of folks who used to build washers and dryers, now they're part of the future, building an industry that's going to make America stronger. That's the story of Newton.

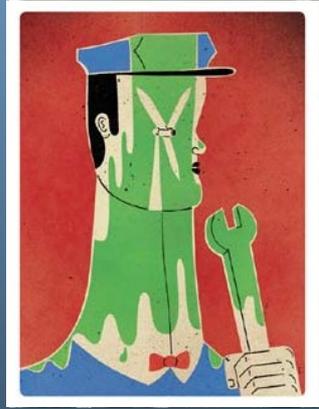
-President Obama,  
TPI Composites, May 2012



# Thank you!



Springboard  
ENGINEERING



# Powering Economic Development

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## Sammy Chu

Director of Operations, Suffolk County

Former Director, Long Island Green Homes

# Questions?

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Please join us for the next TAP webinar:

## **Tools for Designing and Implementing Better Clean Energy Finance Programs**

*Thursday, November 21, 2013; 3:30-4:45 p.m. EST*

Learn more at:

[www.eere.energy.gov/wip/solutioncenter/webinars.html](http://www.eere.energy.gov/wip/solutioncenter/webinars.html)