

Growing the Green Economy



Green Collar Jobs Summit
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Delta Institute



Delta Institute's 2020 Goals

Achieve green ratings for 100 buildings & develop 200 sustainability programs



Create 50 cutting-edge sustainable models for community economic development



Generate \$250 million in investments for pollution prevention, remediation and reuse



Reduce carbon emissions by 12 million tons



Make green choices a part of mainstream thinking

Presentation Overview

- Economic opportunity in **targeted sectors**
- **Focus on employers** – existing base of businesses in targeted sectors
- What **support needs for employers** in targeted sectors?

Review Three Target Sectors Today

Green Buildings



Energy Efficiency/
Alternative Energy



Green Products &
Services



Green Building



Green Building: Examples of Jobs

- Green Tech Jobs: architects, energy auditors
- Green Collar Jobs:
 - Construction
 - Landscaping laborers
 - Semi-skilled trades (electrical equipment installers)

Green Building: Sample Employers

- Construction/landscaping materials:
 - Lake Street Landscaping
<http://lakestreetsupply.com> (green roof material)
- Green Building Product Manufacturing:
 - Serious Materials www.seriousmaterials.com
(window manufacturer)
- Green Building Product Sales:
 - Shaw Carpets www.shawfloors.com (green carpeting)

Green Building: What's driving growth?

- Recognition programs like LEED

City	Certified	Silver	Gold	Platinum	TOTAL	TOTAL Pending
Chicago	25	17	28	6	76	327
Cleveland	5	2	1	0	17	60
St. Louis	7	5	3	2	13	56
Minneapolis-St. Paul	3, 2	4, 0	1, 1	0, 0	10	54, 12
Indianapolis	0	2	3	0	8, 3	47
Madison	3	7	3	0	8	42
Milwaukee	2	4	4	0	5	29
Lansing	0	0	1	2	3	17

Source: USGBC, <http://www.usgbc.org/LEED/Project/CertifiedProjectList.aspx?CMSPageID=247>



Green Building: Policies & Incentives

- “Greenest City in America”; Chicago Green Building Standards
- Chicago Green Roof Grants & TIF SBIF



Green Building: Policies & Incentives

- Building retrofit and remediation grants
 - EECBG (\$25 M awarded to CMAP)
 - Low-income housing improvements grants
 - weatherization grants
 - lead abatement grants



Green Building: Support for Employers – Create Demand for Products & Svcs

Identify and help market local products that meet green building (LEED) standards



Leadership in Energy & Environmental Design



Green Building: Support Employers

- Marketing support through “Made in Chicago”
- Delta’s www.buyingbetter.org includes green building and green office supply products



Green Building: Support for Employers

- Provide R & D support for new product development
 - Pittsburgh Green Building Alliance
 - grants to companies and universities for new product dev't
- Entrepreneurship centers



Green Building: Support for Employers

- Green building contract specifications – specify you want solar not just LEED
- L.A. Community College District example



Green Building: Support Employers

- Small business development support
- Contractor training
- Help accessing financing and incentives



Green Building: Creating A Resource Network

- Local Resources & Support Organizations
 - USGBC
 - Made in Chicago campaign
 - Industrial retention organizations
 - Entrepreneurship centers
 - Green Business Development Center
 - Unions – building trades



Energy Efficiency & Alternative Energy



Energy-Related Jobs

- Green Tech Jobs
 - Energy consultants
 - Operating engineers
 - Wind data specialists

- Green Collar Jobs
 - Construction trades - equipment installers
 - Environmental services – geothermal drilling technicians
 - Advanced manufacturing – renewable energy equipment components

Energy: Sample Employers

Renewable energy systems installation:

- SoCore Energy www.socoreenergy.com
rooftop solar energy developer
- Gabriel Labs www.gabrielenvironmental.com
geothermal drilling services
- Recycled Energy www.recycled-energy.com
combined heat & power systems

Renewable energy component manufacturers:

- Winergy www.winergy-ag.com/index.php
wind turbine gearbox manufacturer

Energy: Local Competitive Advantages

- Location – close to “big wind”
- Existing business base
 - 10 International Wind North American HQ



Energy: Local Competitive Advantages

Wind Farm Economic Impact Model

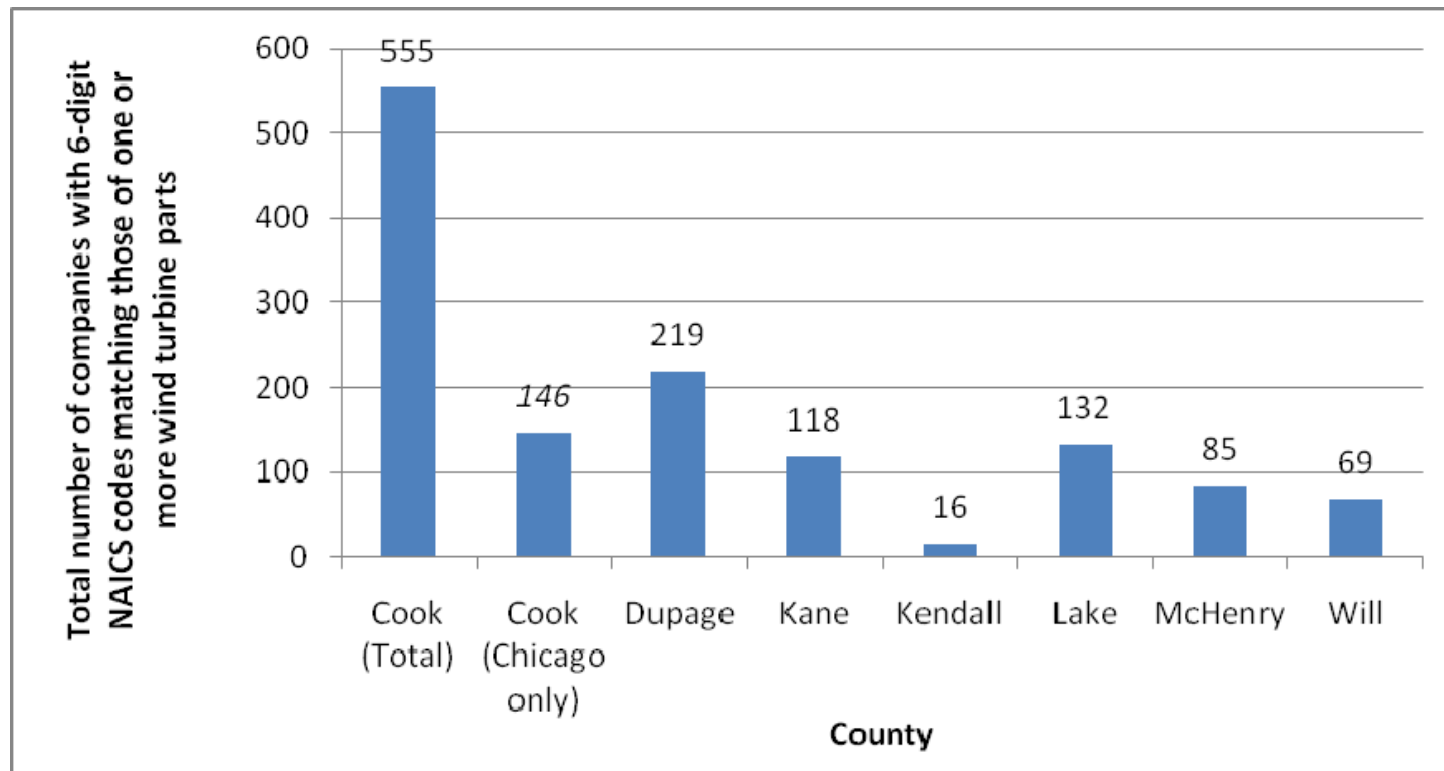
	Jobs	Earnings	Outputs
During Construction Period			
Project Development – Labor and Services	67	\$ 4.2	\$4.9
Turbine Supply Chain Impact	306	\$12.0	
Induced Impacts	122	\$ 4.3	\$41.5
Total	495	\$20.5	\$61.0
During Operating Years (annual)			
Onsite Labor	6	\$ 0.4	\$0.4
Local Revenue and Supply Chain	8	\$ 0.3	\$1.7
Induced Impacts	7	\$ 0.2	\$0.8
Total	20	\$ 1.0	\$2.9

Source: Wind Power America – JEDI Wind Model
www.windpoweringamerica.gov



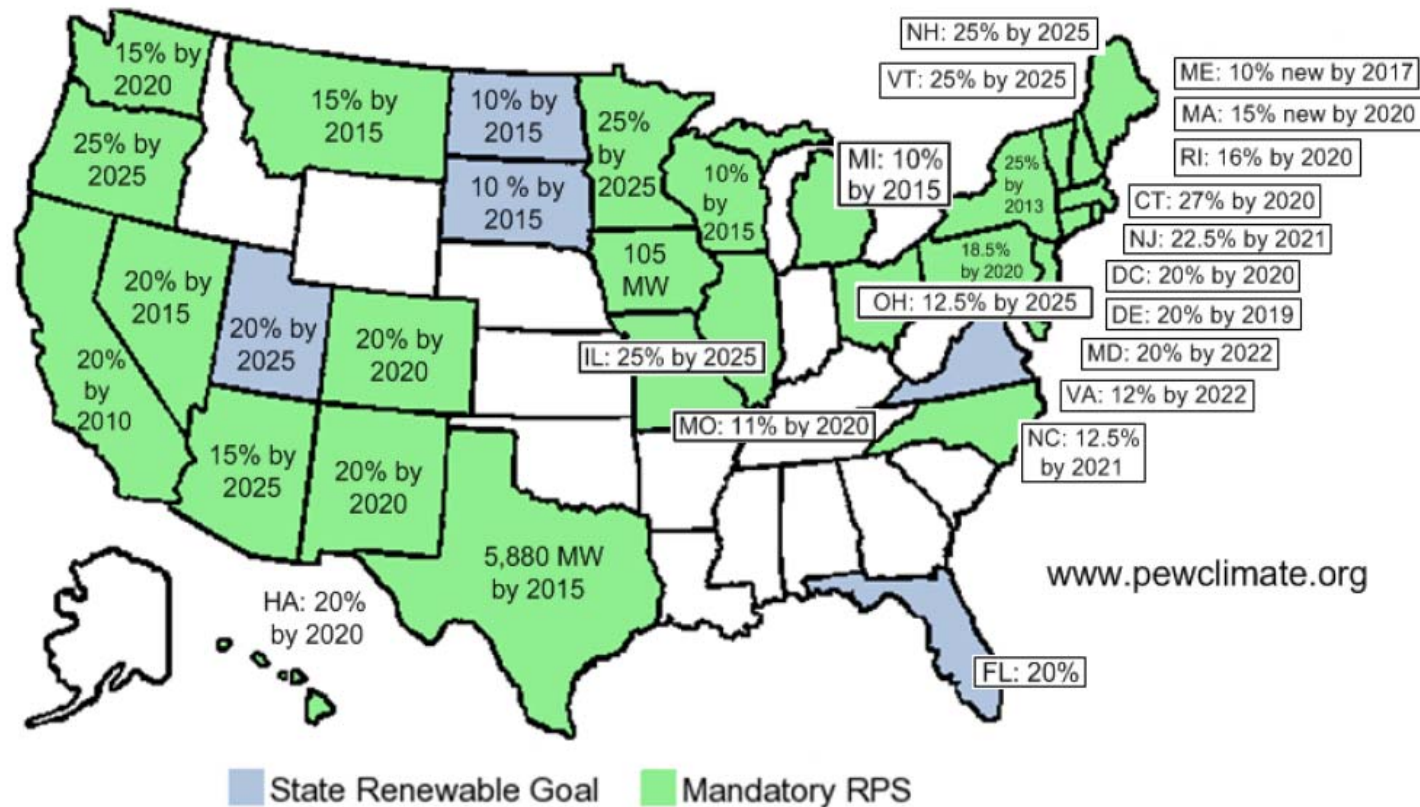
Energy: Local Competitive Advantages

- Roughly 2,000 potential renewable energy component manufacturers



Energy: Local Competitive Advantages

- Renewable portfolio standard



Energy: Policy Barriers for Small Wind and Solar Generation



Energy Incentives – a complex web...

IL Energy Incentives	DCEO	Utility Programs (ComEd, Peoples Gas, Ameren)	IL Clean Energy Community Foundation
Biogas/biomass grants	X		
EE Affordable Housing Construction	X		
Public Sector New Construction & Retrofits	X		X
Large Customer Energy assessments	X		X
Public Sector EE grants	X		
Public & Nonprofit RE grants			X
Solar & small wind rebates	closed		X
Residential appliance rebates		X (separate gas & electric)	
Business energy efficiency equipment upgrades		X (separate gas & electric)	
Business new construction		X (electric only)	
Large scale renewables			

Energy Incentives

- **Residential Retrofits**

- Illinois Energy Efficiency Portfolio Standard (EEPS)

<http://smartenergy.arch.uiuc.edu/html/EEPS.html>

- DCEO Urban Assistance Program

http://www.commerce.state.il.us/dceo/Bureaus/Community_Development/Urban+Assistance/

Energy Incentives and Financing Options Could be Stronger

- Market-rate housing
- Limited incentives in IL
- MI on-bill financing



Energy Incentives

- **Business Retrofit Incentives & Financing**

- ComEd Smart Ideas
- Federal tax credits
- Small business loans - 504



- **Public and Nonprofit Building Retrofits**

- IL Clean Energy & Community Foundation grants



Energy: Invest in Manufacturing

- Investing in manufacturing
 - R & D – Toledo thin-film solar success story
 - Small Business Development Centers
 - Grants for retooling
- Building supply chains:
 - Manufacturing support groups
 - CMC/Jane Addams Resource Center – wind supply chain work
 - CMRC – wind supply chain
 - SSMMA – business retention outreach and trade show support
 - Trade shows

Support for Component Manufacturers

- Toledo, OH, Success Story: 6,000 jobs in solar manufacturing. Key elements of success:
 - R& D support from University of Toledo center for PV innovation & commercialization
 - Business assistance from nonprofit economic development corporation
 - Advanced Energy Development Fund (\$150M)

Green Products and Services



Green Products & Services: Jobs

- Green Tech Jobs:
 - Engineering – new product development
 - Chemists, biochemists
 - Agronomists
- Green Collar Jobs:
 - Product assembly, packaging, delivery
 - Farm laborers

Green Products & Services: Employers

- Examples:
 - Product manufacturers
 - Gilasi – recycled-content glass countertops
 - Anco Products – recycled-content insulation
 - Portion Pac – less toxic cleaning products
 - Services
 - Green Choice Bank
 - Green restaurants and hotels

Green Products & Services: Local Competitive Advantages ?

- More Research Needed on Existing Business Base
- Existing Support Groups:
 - Chicago Sustainable Business Alliance
 - Chicagoland Chamber of Commerce Green Business Forum
 - Delta Green Business Development Center
 - Local First

Green Products & Services: Local Competitive Advantage

- Policies & Incentives that support green businesses and institutions
 - Green Cleaning requirement for Illinois Schools
 - Healthy Hospitals
 - Clean Air Counts

Green Products: Strategies to Support Employers

- Technical Assistance
 - Green Product or Business Certifications
- Green Business centers
- Marketing Support
 - Made in Chicago



Green Products & Services: Support for Employers

- Entrepreneurship Centers
 - Chicagoland Entrepreneurial Center
- Small Business Development Centers
 - Loan guarantees
 - Micro loans
- “Green Exchange” –



Conclusion

- Supporting green businesses creates green jobs.
- Businesses need support that goes beyond job training.
- More funding and partnerships are needed to support employers in targeted sectors.

Key Green Job Partnership Activities

- Research and outreach to understand the existing employer base for each sector (ideally on a sub-regional level)
- Identify business support groups and formalize a resource network for each sector
- Develop new resources to support each sector

Windy City Power

- Small wind turbines on urban sites with flexibility to move from site to site
- Job creation through local suppliers
- Need for help with regulatory issues



Fos Biofuels

- Creates biofuel from used cooking grease
- Recently received \$218k from DCEO
- 12 FT employees in 1 year



Architectural Services Group

- New MBE weatherization contractor
- Working with Delta and CEDA on executing contracts
- 5 new FT hires



Photo credit: D&R International

Delta Resources



- Sign up for *Growing the Green Economy* newsletter at:
www.delta-institute.org/greeneconomy
- GO Biz – Green Opportunities for Business at
www.delta-institute.org/greenbusiness