

Green Manufacturing in Florida

A Workforce Perspective

Green Manufacturing Jobs

Job Categories

- Making Florida Manufacturing Green
- Manufacturing “Green” or Sustainable” Products
- Enabling Sustainable Manufacturing

As defined by National Council for Advanced Manufacturing (NACFAM), December 23, 2008- Derived from the United Nations Environment Programme (UNEP) Report

Jobs that Make Florida Manufacturing Green

- a. Improving energy efficiency and renewable energy
 - b. Improving resource efficiency
 - c. Decreasing Waste
 - d. Decreasing water usage
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Jobs Manufacturing “Green” or Sustainable” Products

- a. Renewable energy products - photovoltaic panels, Wind turbines
 - c. Energy efficient products
 - d. Products containing recycled or remanufactured components
 - e. Products to facilitate more efficient means of transportation
 - f. Many more products and product categories
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Jobs that Enable Sustainable Manufacturing

- a. At collection centers & materials recovery
 - b. In material reuse
 - c. Recycling
 - d. Remanufacturing
 - e. Providing efficient transportation between points
 - f. Entrepreneurial opportunities – Cleantech
(high growth green technology business opportunities)
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“green jobs”: a workforce system framework for action

FOUNDATIONAL	Policy Drivers/ Interests	Economic Recovery & Job Creation	Legislation/ Funding	Economic Competitiveness	Energy Independence, Efficiency & Security	Save the Planet	Eco-Equity					
	Transforming Industrial Sectors & Occupations	Energy Generation/Efficiency/Security				Environmental Protection						
		Renewable/ Green Energy (wind, solar, geo, biomass)	Sustainable Manufacturing	Construction/ Skilled Trades	Transportation	Government Oversight	Water Management	Materials & Waste Management				
Skill Changers	New Technologies			New Processes		New Materials						
OPERATIONAL	ROLES	Align Policies & Programs/ Inclusive Investments/ Service Delivery Strategies	Education & Training Models			Strategic Partnerships for Workforce Solutions			Workforce Information		Knowledge Sharing/ Networking/ Communications	Research/ Accountability
			Apprenticeship	Youth Pipeline	Community Colleges	Industry	Labor	Education at all Levels	Federal Partners	CBO/FBO		
	ACTIONS	<ol style="list-style-type: none"> 1. Program resources focused on re-skilling/ re-employing in green jobs 2. Program participants have access to “green skills” & “green jobs” 3. Build on & leverage existing sector initiatives & green workforce solutions 4. Program policy & direction & strategic investments reflect focus on “green” 5. One-Stop staff have knowledge about “green jobs” & service delivery strategies have “green” focus 	<ol style="list-style-type: none"> 1. Map “green” education pathways leading to portable and industry recognized credentials – short term/ long term 2. Identify and leverage existing education & training resources/ investments 3. Educate & train to industry standards/ credentials 4. Build capacity of community colleges 5. Refine/develop “green” apprenticeship models 6. Prepare workers for emerging industry occupations 	<ol style="list-style-type: none"> 1. Engage/convene strategic partners 2. Align “green” strategies with regional economic recovery and growth strategies 3. Define workforce challenges 4. Develop innovative workforce solutions 5. Asset map to share/ leverage knowledge, products, and resources 6. Collaborate! Collaborate! Collaborate! 	<ol style="list-style-type: none"> 1. Collaborate to develop & leverage new and existing data/information sources 2. Project new jobs, changing jobs, occupational definitions & new skill needs 3. Refine/develop competency models, assessment tools, & career ladders/ lattices 4. Adapt and refine career guidance tools 5. Collaborate to disseminate 	<ol style="list-style-type: none"> 1. Develop new “green” learning opportunities for workforce system staff at all levels 2. Fully leverage the communication, knowledge sharing, & e-learning capacity of Workforce3 One 3. Build & nurture a “green jobs” community of practice 4. Leverage conferences & other communication forums to network & share knowledge 5. Promote peer to peer & mentorship learning opportunities and professional development 	<ol style="list-style-type: none"> 1. Research & evaluation 2. Performance reporting/ benchmarking 3. Comprehensive system for training grantees/sub-grantees and monitoring compliance at all levels 4. Competitive procurement for contracts & grants 5. Transparency of grant and contract making to public. 					

Green Jobs Workforce System Framework

- For manufacturing the Framework aligns with the NACFAM definition
 - All sections of the framework apply to manufacturing
 - Policy drivers
 - Sector transformation
 - Drivers of skill change requirements
 - Alignment of programs and strategies
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Workforce System Framework & Manufacturing

- Some of the policy drivers — Economic recovery, Legislation & funding, Economic competitiveness, Energy independence, Save the planet, Eco-Equity
 - Sector transformation— Producing renewable energy/green energy products, Practicing sustainable manufacturing, Producing products for construction & transportation, Managing water & materials usage & waste
 - Skill Changers — New technologies, New processes & New materials
 - Alignment – Education & training, Partnerships, Workforce information, Knowledge sharing, Research
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Making Florida Competitive in a Green Economy

Act Now

- ❑ Support the Growth - Capitalize on growth of the green economy to put people to work immediately
 - ❑ Prepare for the Future - Then develop long term career progression through education
 - ❑ Ensure Inclusion - Don't leave any Floridians behind by developing placement and training programs for all our residents
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