



Green Jobs Forecast

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Current and Potential Green Jobs¹

Local Current and Potential Green Jobs

Metro Area	Existing in 2006	New through 2038
Minneapolis-St. Paul, Bloomington , MN*	4,811	38,063

*Ranked 27th in top 100 Metropolitan Areas.

Definition of green job

- Any activity that generates electricity using renewable or nuclear fuels
- Agriculture jobs supplying corn or soy for transportation fuel
- Manufacturing jobs producing goods used in renewable power generation
- Equipment dealers and wholesalers specializing in renewable energy or energy-efficient products
- Construction and installation of energy and pollution management systems
- Government administration of environmental programs
- Supporting jobs in the engineering, legal and consulting fields

Green Jobs by Major Category – U.S. Total	
Renewable power generation	127,246
Agriculture and forestry	57,546
Construction and Systems Installation	8,741
Manufacturing	60,699
Equipment dealers and wholesalers	6,205
Engineering, legal, research and construction	418,715
Government administration	71,900
TOTAL	751,051

U.S Conference of Mayors – Global Insight Green Jobs Index (2006)

- 85% located in metropolitan areas
- 15% in non-metropolitan counties
- Highest ranking areas are largest metropolitan economies in country (nearly half of country's green jobs are in engineering, legal, research and consulting categories)

Green Job Potential Growth¹

Renewable Power Generation (*wind, solar, hydropower, geothermal, and biomass power*)

Green jobs created

- Bulk of jobs related to WIND infrastructure will come in manufacturing of equipment
- Many potential manufacturing jobs in SOLAR are in high tech jobs in semiconductor and related devices subsector
- Investment in HYDROPOWER will generate jobs – not just infrastructure but also in cities and towns that are best able to attract manufacturing firms to build the necessary generators, turbines, rotors, blades, and other associated parts
- BIOMASS sector in waste management, to recover usable woods and waste products, harvesting and manufacturing of raw fuels (agriculture byproducts as fuels)

Residential and Commercial Retrofitting

Green jobs created

- Specialty trade contractor in construction sector will ultimately benefit the most from new employment opportunities
- Renovation work and installation of efficiency upgrades
- New opportunities for electricians, HVAC technicians, carpenters, plumbers, roofers, laborers, and insulation workers
- Increased demand for green building materials
- Regional Economic Development Institute in Los Angeles Trade-Technical College identified the emerging middle skill occupations among green construction jobs with highest employment potential²:
 - Energy and indoor air quality auditor
 - Deconstruction worker
 - HVAC operations and maintenance technician
 - Systems technician
 - Solar installer and technician

Renewable and Transportation Fuels

Green jobs created

- Production of crops that serve as feed stock for fuels

Indirect Green jobs

- Engineering, legal, research and consulting positions play major role in Green Economy

Forecast Results

Renewable power generation would lead to the generation of more than 1.2 million jobs. The trajectory of job growth is similar to the assumed path of electricity generation. There is relatively smooth growth as the manufacturing sector expands to install new equipment, and more jobs are created to operate and maintain the new infrastructure.

The potential growth in green jobs is significant in that it could be the fastest growing segment in the US economy over the next several decades and dramatically increase its share of total employment.

Policy Implications²

Green policy development and implementation will provide the impetus for green jobs creation. Businesses most capable of adapting to new clean energy standards will secure the lion's share of the new green initiative.

Policy principles for Green Jobs Initiatives:

1. Get smarter about green jobs: build solid foundation of labor market data and analysis; measure and evaluate green programs
2. Sustain good jobs through green partnerships: economic development linked with workforce training; employ energy standards as job creation tools; promote green industry clusters; design initiatives to both save existing jobs and create new ones.
3. Make sure green jobs pay off for workers and communities: maximize community benefits by requiring them, build career pathways, and especially, ladders out of poverty.

¹Diaz, M., Nickels, G., Kautz, E., and Cochran, T. October 2008. *U.S. Metro Economies: Current and Potential Green Jobs in the U.S. Economy*. Global Insight, Inc (prepared for the United States Conference of Mayors and the Mayors Climate Protection Center). Lexington, MA.

²White, Sarah and Walsh, Jason. 2008. *Greener Pathways: Jobs and Workforce Development in the Clean Energy Economy*. Center on Wisconsin Strategy, The Workforce Alliance, The Apollo Alliance.