

Report Summary Matrix

Author	Title	Definition	State Data Available
PERI	Job Opportunities For The Green Economy: A State-By-State Picture Of Occupations That Gain From Green Investments	<p>Identified 6 green categories, with 10 "representative" jobs per category. Occupations may be listed in multiple categories. Categories and occupations:</p> <p>Building Retrofitting – Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors</p> <p>Wind Power – Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors</p> <p>Solar Power – Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers</p> <p>Cellulosic Biofuels – Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors</p> <p>Mass Transit – Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Production Helpers, Bus Drivers, First-Line Transportation Supervisors, Dispatchers</p>	IN, MN, MO, NB, OH, WI
US Conference of Mayors	U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy	To construct a count of Green Jobs in the United States we have identified to the finest precision possible the number of workers employed in green activities. We define these as: 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-efficiency products, construction and installation of energy and pollution management systems, government administration of environmental programs, and supporting jobs in the engineering, legal, research and consulting fields.	All
Renewable Energy Policy Project	Component Manufacturing State Series	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	All except ND
Other	State specific reports	Various - see state spreadsheets for detail	MI, MN, NB, OH, SD

Illinois

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U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To construct a count of Green Jobs in the United States we have identified to the finest precision possible the number of workers employed in green activities. We define these as: 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-efficiency products, construction and installation of energy and pollution management systems, government administration of environmental programs, and supporting jobs in the engineering, legal, research and consulting fields.	Existing (2006): 28,195, New through 2038: 223,091	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf
Component Manufacturing: Ohio's Future in the Renewable Energy Industry (contains IL data as well) [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 74,000 MW of renewable energy development nationally, Illinois could see up to 22,946 new manufacturing jobs - 11,303 in wind, 8,472 in solar, 1,455 in geothermal, and 1,715 in biomass. Numbers from alternate fact sheet report for 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years): 56,579 new manufacturing jobs - 30,010 in wind, 19,298 in solar, 3,396 in geothermal, and 3,875 in biomass.	http://www.repp.org/articles/static/1/binaries/OH_BG_Report.pdf http://www.repp.org/articles/static/1/binaries/IL_BG_Report.pdf

Indiana

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<p>Job Opportunities For The Green Economy: A State-By-State Picture Of Occupations That Gain From Green Investments [PERI]</p>	<p>Identified 6 green categories, with 10 "representative" jobs per category. Occupations may be listed in multiple categories. 4 categories are consistent with MGA platform, 2 are not (mass transit, energy efficient automobiles). Categories and occupations:</p> <p>Building Retrofitting – Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors</p> <p>Wind Power – Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors</p> <p>Solar Power – Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers</p> <p>Cellulosic Biofuels – Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors</p> <p>Mass Transit – Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Production Helpers, Bus Drivers, First-Line Transportation Supervisors, Dispatchers</p> <p>Energy-Efficient Automobiles – Computer Software Engineers, Electrical Engineers, Engineering Technicians, Welders, Transportation Equipment Painters, Metal Fabricators, Computer-Controlled Machine Operators, Engine Assemblers, Production Helpers, Operations Managers</p>	<p>Building Retrofitting: 86,370, Wind Power: 94,070, Solar Power: 136,160, Cellulosic Biofuels: 39,942 (May 2007 employment)</p>	<p>http://www.peri.umass.edu/fileadmin/pdf/other_publication_types/Green_Jobs_PERI.pdf</p>

Indiana

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U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	Existing (2006): 34,927, New through 2038: 276,354	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf
Component Manufacturing: Ohio’s Future in the Renewable Energy Industry (contains IN data as well) [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 74,000 MW of renewable energy development nationally, Indiana could see up to 17,954 new manufacturing jobs - 11,186 in wind, 3,834 in solar, 1,410 in geothermal, and 1,524 in biomass. Numbers from alternate fact sheet report for 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years): 39,221 new manufacturing jobs - 25,180 in wind, 7,485 in solar, 3,191 in geothermal, and 3,365 in biomass.	http://www.repp.org/articles/static/1/binaries/OH_BG_Report.pdf http://www.repp.org/articles/static/1/binaries/IN_BG_report.pdf

Iowa

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U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To construct a count of Green Jobs in the United States we have identified to the finest precision possible the number of workers employed in green activities. We define these as: 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-efficiency products, construction and installation of energy and pollution management systems, government administration of environmental programs, and supporting jobs in the engineering, legal, research and consulting fields.	Existing (2006): 5,616, New through 2038: 44,442	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf
Iowa's Road to Energy Independence: Building on Job Growth in Renewable Energy Component Manufacturing [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years) Iowa could see up to 9,230 new manufacturing jobs - 4,914 in wind, 2,889 in solar, 648 in geothermal, and 779 in biomass.	http://www.repp.org/articles/static/1/binaries/lowa_USW.pdf

Kansas

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U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To construct a count of Green Jobs in the United States we have identified to the finest precision possible the number of workers employed in green activities. We define these as: 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-efficiency products, construction and installation of energy and pollution management systems, government administration of environmental programs, and supporting jobs in the engineering, legal, research and consulting fields.	Existing (2006): 3,968, New through 2038: 31,399	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf
Component Manufacturing: Kansas's Future in the Renewable Energy Industry [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years), Kansas could see up to 11,491 new manufacturing jobs - 3,934 in wind, 5,430 in solar, 719 in geothermal, and 1,408 in biomass.	http://www.repp.org/Domestic_Manufac_State_KS.htm

Michigan

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U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To construct a count of Green Jobs in the United States we have identified to the finest precision possible the number of workers employed in green activities. We define these as: 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-efficiency products, construction and installation of energy and pollution management systems, government administration of environmental programs, and supporting jobs in the engineering, legal, research and consulting fields.	Existing (2006): 12,614, New through 2038: 99,819	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf
Component Manufacturing: Michigan's Future in the Renewable Energy Industry [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 74,000 MW of renewable energy development nationally, Michigan could see up to 14,435 new manufacturing jobs - 10,369 in wind, 2,457 in solar, 587 in geothermal, and 1,021 in biomass. Numbers from alternate fact sheet report for 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years): 34,777 new manufacturing jobs - 24,350 in wind, 6,644 in solar, 1,502 in geothermal, and 2,281 in biomass.	http://www.repp.org/articles/static/1/binaries/Final_Michigan_Manufacturing_Report_Long.pdf http://www.repp.org/articles/static/1/binaries/MI_BG_Report.pdf

Michigan

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Michigan Green Jobs Report	<p>Report used multiple methodologies to assess green jobs in Michigan. One major effort was a survey of employers who indicated which of their current and future jobs were green, according to specific definitions used in the study. The green economy is comprised of businesses that offer products or services related to five core areas of renewable energy, increased energy efficiency, clean transportation and fuels, agriculture and natural resource conservation, and pollution prevention or environmental cleanup.</p> <p>Green jobs include primary occupations engaged in the production of green-related products or services, and support jobs created by green-related revenue. The report then analyzed green jobs by core areas of the green economy as defined by the study.</p>	<p>From the employer methodology, there are 109,067 green jobs currently: 97,767 direct green jobs and 12,300 support green jobs.</p> <p>Direct green jobs break down:</p> <p>Clean Transportation and Fuels: 39,317 (40.6%)</p> <p>Increasing Energy Efficiency: 22,236 (23.0%)</p> <p>Pollution Prevention and Environmental Cleanup: 12,345 (12.8%)</p> <p>Agriculture and Natural Resource Conservation: 11,986 (12.4%)</p> <p>Renewable Energy Production: 8,843 (9.1%)</p> <p>Green Jobs Not Assigned to a Core Area: 2,040 (2.1%)</p>	<p>www.michigan.gov/documents/nwlb/GJC_GreenReport_Print_277833_7.pdf</p>

Minnesota

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<p>Job Opportunities For The Green Economy: A State-By-State Picture Of Occupations That Gain From Green Investments [PERI]</p>	<p>Identified 6 green categories, with 10 "representative" jobs per category. Occupations may be listed in multiple categories. 4 categories are consistent with MGA platform, 2 are not (mass transit, energy efficient automobiles). Categories and occupations:</p> <p>Building Retrofitting – Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors</p> <p>Wind Power – Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors</p> <p>Solar Power – Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers</p> <p>Cellulosic Biofuels – Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors</p> <p>Mass Transit – Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Production Helpers, Bus Drivers, First-Line Transportation Supervisors, Dispatchers</p> <p>Energy-Efficient Automobiles – Computer Software Engineers, Electrical Engineers, Engineering Technicians, Welders, Transportation Equipment Painters, Metal Fabricators, Computer-Controlled Machine Operators, Engine Assemblers, Production Helpers, Operations Managers</p>	<p>Building Retrofitting: 60,280, Wind Power: 59,970, Solar Power: 86,940, Cellulosic Biofuels: 30,240 (May 2007 employment)</p>	<p>http://www.peri.umass.edu/fileadmin/pdf/other_publication_types/Green_Jobs_PERI.pdf</p>

Minnesota

Report Name	Definition	Count	Source
<p>Green Jobs in Minnesota: Market Analysis [Minnesota Green Jobs Task Force]</p>	<p>Defined four green "industries:" Renewable Energy includes industries related to the production of energy from natural resources such as sunlight, wind, rain, geothermal, and biofuels such as corn, soybean, and wood products. The Renewable Energy category also includes industries related to all forms of waste heat recovery and industries that utilize biomass (animal waste, crop waste etc) for energy including cogeneration. Green Products are industries related to the manufacture of products that reduce environmental impact and improve the use of resources such as energy efficiency, water conservation and materials use and re-use. 4 sub-categories: Building, consumer, industrial, transportation. Environmental Conservation includes industries related to conservation of air, water and land, including air emissions control, monitoring and compliance, water treatment, water conservation, wastewater treatment, land management (including prairie), natural pesticides, natural fertilizer and aquaculture. Green Services are industries and occupations that are providing a range of services that are helping to build the green economy, utilizing green products and technologies, building energy infrastructure, farming, and recycling and waste management.</p> <p>Report did not include a complete list of green occupations, but sample lists are available in two groups, those that were generally acknowledged as green occupations which improve the environment, such as Conservation Scientists or Foresters and those which may have more negative impacts that can be reduced based on how the work is done, such as Chemical Engineers, Power Plant Operators or Hazardous Material Removal Workers. A third group was developed for occupations that were not generally in industries dealing directly with the environment but that could have a positive environmental impact depending upon both the focus and action of the job.</p>	<p>Renewable Energy: 9,477 (2007), 12,238-18,458 (2020)</p> <p>Green Products: <i>Buildings</i> - 3,700 (2007), 4,309-4,880 (2020), <i>Consumer</i> - 3,093 (2007), 3,217-3,588 (2020), <i>Industrial</i> - 1,734 (2007), 1,851-2,689 (2020), <i>Transportation</i> - 1,014 (2007), 963-1,483 (2020)</p> <p>Green Services: 22,441 (2007), 24,844-29,337 (2020)</p> <p>Environmental Conservation: 11,367 (2007), 11,514-12,032 (2020)</p>	<p>http://www.mngreenjobs.com/sites/default/files/downloads/market%20analysis.pdf</p>

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Minnesota's Road to Energy Independence: Building on Job Growth in Renewable Energy Component Manufacturing [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years) Minnesota could see up to 18,405 new manufacturing jobs - 9,246 in wind, 5,238 in solar, 1,477 in geothermal, and 2,444 in biomass.	http://www.repp.org/articles/static/1/binaries/MN_BG_Report.pdf

Missouri

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<p>Job Opportunities For The Green Economy: A State-By-State Picture Of Occupations That Gain From Green Investments [PERI]</p>	<p>Identified 6 green categories, with 10 "representative" jobs per category. Occupations may be listed in multiple categories. 4 categories are consistent with MGA platform, 2 are not (mass transit, energy efficient automobiles). Categories and occupations:</p> <p>Building Retrofitting – Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors</p> <p>Wind Power – Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors</p> <p>Solar Power – Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers</p> <p>Cellulosic Biofuels – Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors</p> <p>Mass Transit – Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Production Helpers, Bus Drivers, First-Line Transportation Supervisors, Dispatchers</p> <p>Energy-Efficient Automobiles – Computer Software Engineers, Electrical Engineers, Engineering Technicians, Welders, Transportation Equipment Painters, Metal Fabricators, Computer-Controlled Machine Operators, Engine Assemblers, Production Helpers, Operations Managers</p>	<p>Building Retrofitting: 78,540, Wind Power: 63,130, Solar Power: 95,490, Cellulosic Biofuels: 33,565 (May 2007 employment)</p>	<p>http://www.peri.umass.edu/fileadmin/pdf/other_publication_types/Green_Jobs_PERI.pdf</p>

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Component Manufacturing: Missouri's Future in the Renewable Energy Industry [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years) Missouri could see up to 22,796 new manufacturing jobs - 10,260 in wind, 7,532 in solar, 2,907 in geothermal, and 2,097 in biomass.	http://www.repp.org/articles/static/1/binaries/Missouri_Final.pdf

Nebraska

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<p>Economic Development Benefits from Wind Power in Nebraska: A Report for the Nebraska Energy Office [National Renewable Energy Laboratory]</p>	<p>Jobs values are defined as construction-period jobs, operations-period jobs, and average employment impacts. All jobs totals include direct, indirect, and induced jobs. Construction-period jobs are defined as short-term, 1-year jobs, and include those jobs resulting from Nebraska-based construction and manufacturing. Operations-period jobs are full-time jobs that exist for the operating lifetime of the wind power facility; typically this is 20 years.</p>	<p>construction of wind farms could create 20,600 to 36,500 short-term construction-period jobs between 2011 and 2020, and up to another 4,000 long-term operations and maintenance jobs.</p>	<p>http://www.nrel.gov/docs/fy09osti/44344.pdf</p>

Nebraska

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U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	Existing (2006): 2,594, New through 2038: 20,526	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf
Green Jobs in Nebraska's Green Industries [Nebraska Workforce Development]	Most common occupations in conservation and renewable energy: Supervisors/Managers of Construction Trades and Extraction Workers, Plumbers, Pipefitters & Steamfitters, Sales Reps, Wholesale, Mfg, Technical & Scientific Products, Industrial Machinery Mechanics, Electrical Engineers, Electrical Power Line Installers & Repairers, Environmental Scientists & Specialists, Including Health, Electrical & Electronics Repairers, Commercial & Industrial Equipment, Helpers – Pipelayers, Plumbers, Pipefitters & Steamfitters, Surveying & Mapping Technicians, Pipelayers, Excavating & Loading Machine & Dragline Operators, Power Plant Operators, Electrical & Electronics Drafters	520 annual openings in occupations key to renewable energy and conservation	http://www.dol.state.ne.us/nwd/workserv/jobcareer/es/trends/trends/May09/Feature%20Story%201.pdf
Wisconsin's Road to Energy Independence: Building on Job Growth in Renewable Energy Component Manufacturing (also includes data on NE) [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years) Nebraska could see up to 6,210 new manufacturing jobs - 2,817 in wind, 2,368 in solar, 294 in geothermal, and 731 in biomass.	http://www.repp.org/articles/static/1/binaries/WI_BG_Report.pdf

North Dakota

Report Name [Author]	Definition	Count	Source
U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To construct a count of Green Jobs in the United States we have identified to the finest precision possible the number of workers employed in green activities. We define these as: 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-efficiency products, construction and installation of energy and pollution management systems, government administration of environmental programs, and supporting jobs in the engineering, legal, research and consulting fields.	Existing (2006): 1,061, New through 2038: 8,398	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf

Ohio

Report Name [Author]	Definition	Count	Source
<p>Job Opportunities For The Green Economy: A State-By-State Picture Of Occupations That Gain From Green Investments [PERI]</p>	<p>Identified 6 green categories, with 10 "representative" jobs per category. Occupations may be listed in multiple categories. 4 categories are consistent with MGA platform, 2 are not (mass transit, energy efficient automobiles). Categories and occupations:</p> <p>Building Retrofitting – Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors</p> <p>Wind Power – Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors</p> <p>Solar Power – Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers</p> <p>Cellulosic Biofuels – Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors</p> <p>Mass Transit – Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Production Helpers, Bus Drivers, First-Line Transportation Supervisors, Dispatchers</p> <p>Energy-Efficient Automobiles – Computer Software Engineers, Electrical Engineers, Engineering Technicians, Welders, Transportation Equipment Painters, Metal Fabricators, Computer-Controlled Machine Operators, Engine Assemblers, Production Helpers, Operations Managers</p>	<p>Building Retrofitting: 127,380, Wind Power: 140,790, Solar Power: 211,830, Cellulosic Biofuels: 61,907 (May 2007 employment)</p>	<p>http://www.peri.umass.edu/fileadmin/pdf/other_publication_types/Green_Jobs_PERI.pdf</p>

Ohio

Report Name [Author]	Definition	Count	Source
U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	Existing (2006): 16,884, New through 2038: 133,594	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf
Growing Ohio's Green Energy Economy	The green energy industry includes workers to research and develop these technologies; manufacture the component parts; construct, install, monitor, operate and maintain the completed equipment; and much more. The report considers green energy jobs in two general categories: 1. Direct renewable energy development including, but not limited to, firms involved in research and development, manufacturing, marketing and selling, installing, supplying and distributing, operating and maintaining, and commercializing renewable energy systems. 2. Auxiliary services: This includes legal services, consulting, business trade associations, educational and non-profit organizations.	Ohio's Department of Development estimates that there are already over 60,000 specialized workers supporting the state's advanced energy industries. Another industry report shows that gross revenues in Ohio's renewable energy industry totaled nearly \$800 million, and created more than 6,600 jobs in 2006. These jobs were largely in the wind sector, followed by the biomass and the geothermal sectors.	http://www.environmentohio.org/uploads/14/7i/147iBBvB0rEmX2Llle-q5g/Growing-Ohios-Green-Energy-Economy.pdf
Component Manufacturing: Ohio's Future in the Renewable Energy Industry [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 74,000 MW of renewable energy development nationally, Ohio could see up to 22,922 new manufacturing jobs - 13,215 in wind, 5,975 in solar, 1,896 in geothermal, and 1,854 in biomass.	http://www.repp.org/articles/static/1/binaries/OH_BG_Report.pdf

Ohio

Report Name [Author]	Definition	Count	Source
Shaping Ohio's Energy Future: Energy Efficiency Works [American Council for an Energy-Efficient Economy]	Report does not define jobs - projected job counts are based on IMPLAN input-output analysis based on expenditures made and saved.	Ohio could also create more than 32,000 net new jobs by 2025, including well-paying trade and professional jobs needed to design, install, and operate energy efficiency measures. In total, the direct and indirect jobs created would be equivalent to nearly 250 new manufacturing plants relocating to Ohio, but without the demand for infrastructure and other energy needs, the study says.	http://aceee.org/pubs/e092.pdf?CFID=3695340&CF_TOKEN=27094808

South Dakota

Report Name [Author]	Definition	Count	Source
<p>U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]</p>	<p>To construct a count of Green Jobs in the United States we have identified to the finest precision possible the number of workers employed in green activities. We define these as: 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-efficiency products, construction and installation of energy and pollution management systems, government administration of environmental programs, and supporting jobs in the engineering, legal, research and consulting fields.</p>	<p>Existing (2006): 870, New through 2038: 6,882</p>	<p>http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf</p>
<p>Wind Power Development In South Dakota [Environmental Law and Policy Center]</p>	<p>To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.</p>	<p>A single 250 MW project in South Dakota would create about 500 direct construction job-years and an additional 500 indirect and induced job-years. Indirect and induced job-years represent those in service and retail industries supporting the project and construction workers, everything from coffee shops and motels to ready-mix companies. During its operating years, a 250 MW project will employ as many as 23 wind technicians maintaining the turbines, 44 jobs with suppliers and an additional 55 indirect and induced jobs.</p>	<p>http://elpc.org/wp-content/uploads/2008/10/sd-wind-july.pdf</p>
<p>Wisconsin's Road to Energy Independence: Building on Job Growth in Renewable Energy Component Manufacturing (also includes data on SD) [Renewable Energy Policy Project]</p>	<p>To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.</p>	<p>For 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years) South Dakota could see up to 3,478 new manufacturing jobs - 2,253 in wind, 64 in solar, 944 in geothermal, and 217 in biomass.</p>	<p>http://www.repp.org/articles/static/1/binaries/WIBG_Report.pdf</p>

Wisconsin

Report Name [Author]	Definition	Count	Source
<p>Job Opportunities For The Green Economy: A State-By-State Picture Of Occupations That Gain From Green Investments [PERI]</p>	<p>Identified 6 green categories, with 10 "representative" jobs per category. Occupations may be listed in multiple categories. 4 categories are consistent with MGA platform, 2 are not (mass transit, energy efficient automobiles). Categories and occupations:</p> <p>Building Retrofitting – Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors</p> <p>Wind Power – Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors</p> <p>Solar Power – Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers</p> <p>Cellulosic Biofuels – Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors</p> <p>Mass Transit – Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Production Helpers, Bus Drivers, First-Line Transportation Supervisors, Dispatchers</p> <p>Energy-Efficient Automobiles – Computer Software Engineers, Electrical Engineers, Engineering Technicians, Welders, Transportation Equipment Painters, Metal Fabricators, Computer-Controlled Machine Operators, Engine Assemblers, Production Helpers, Operations Managers</p>	<p>Building Retrofitting: 71,260, Wind Power: 83,010, Solar Power: 112,380, Cellulosic Biofuels: 41,046 (May 2007 employment)</p>	<p>http://www.peri.umass.edu/fileadmin/pdf/other_publication_types/Green_Jobs_PERI.pdf</p>

Wisconsin

Report Name [Author]	Definition	Count	Source
U.S. Metro Economies - Current and Potential Green Jobs in the U.S. Economy [US Conference of Mayors]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	Existing (2006): 28,711, New through 2038: 227,164	http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf
Component Manufacturing: Wisconsin’s Future in the Renewable Energy Industry [Renewable Energy Policy Project]	To calculate job impacts, the study evaluated the dispersion of manufacturing of the components of renewable energy systems. For each system, it identified the component parts, identified relevant NAICS code for each component, and used census data to identify potential manufacturing activity. Job creation is calculated by assign a manufacturing job creation ratio to each of the component industry, in order to calculate the number of jobs created manufacturing in a certain industry per MW of new capacity. Job creation ratios are calculated by comparing number of employees to shipped value of components and are as follows: wind - 3.5 jobs/MW, Solar PV – 15.2, Geothermal – 4.8, Biomass-Dedicated Steam – 4.3.	For 74,000 MW of renewable energy development nationally, Wisconsin could see up to 17,954 new manufacturing jobs - 11,335 in wind, 2,193 in solar, 845 in geothermal, and 1,844 in biomass. Numbers from alternate fact sheet report for 185,000 MW of renewable energy development nationally (18,500 MW/year for 10 years): 35,133 new manufacturing jobs - 25,179 in wind, 4,943 in solar, 2,037 in geothermal, and 2,974 in biomass.	http://www.repp.org/articles/static/1/binaries/Wisconsin%20Report_Long.pdf http://www.repp.org/articles/static/1/binaries/WI_BG_Report.pdf