INFORMATION ON GREEN INITIATIVES FOR OVERSIGHT COMMITTEE MEMBERS, BY REGION AND STATE

Democratic Staff
Committee on Oversight and Government Reform
U.S. House of Representatives

Prepared for Ranking Member Elijah E. Cummings

September 22, 2011

http://democrats.oversight.house.gov/

OVERVIEW

This report was prepared at the request of Ranking Member Elijah E. Cummings to provide Members of the Committee on Oversight and Government Reform with specific information about the status of "green" projects, businesses, job training programs, and jobs in their districts, metropolitan areas, and states.

On July 13, 2011, the Brookings Institution issued a major study providing the first comprehensive analysis of the U.S. green economy.[1] Among its multiple findings, the Brookings report concluded that the "clean" economy:

(1) employs 2.7 million Americans—more than the fossil fuel industry and twice the size of the bioscience sector;

(2) grew more slowly than the national economy since 2003, but produced "explosive" jobs gains in newer segments and outperformed the nation during the recession; and

(3) is manufacturing and export intensive, and offers more opportunities and better pay for low- and middle-skilled workers than the national economy.

The Brookings report also concluded that promoting green technologies is fundamentally important to the ability of the United States to compete in the modern global economy, to use resources more efficiently, and to protect the environment. The Brookings report recommended increasing involvement in this sector to remain competitive with other countries such as China, Japan, and Germany, which make more aggressive investments in these technologies.

On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act.[2] The Recovery Act provided $41.7 billion for green initiatives supported by the Department of Energy (DOE), including $2.5 billion for loan guarantees to attract private investments for innovative new technologies, including biomass and hydrogen energy development; solar, wind, and hydropower; advanced fossil energy; technology related to carbon sequestration; and technologies related to electric or hybrid vehicle technology.[3] The Recovery Act also included $500 million for the Department of Labor (DOL) to finance training programs that help workers find jobs in expanding green industries and related fields.[4]

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[1] Brookings Institution, *Sizing the Green Economy: A National and Regional Green Jobs Assessment* (July 13, 2011) (online at www.brookings.edu/~/media/Files/Programs/Metro/clean_economy/0713_clean_economy.pdf).

[2] Pub. L. No. 111-05 (2009).

[3] Government Accountability Office, *Recovery Act: Status of Department of Energy's Obligations and Spending*, Testimony before the Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce (Mar. 17, 2011).

[4] Department of Labor, *Press Release: U.S. Department of Labor Announces Nearly $55 Million in Green Jobs Training Grants through Recovery Act* (Nov. 18, 2009).

On September 8, 2011, Chairman Darrell E. Issa issued a staff report concluding that the Recovery Act was a "failure" because it "destroyed/forestalled one million private sector jobs."[5] To support this conclusion, the staff report cited only a single study issued in May 2011 that has been discredited by noted economists because of its flawed methodology.[6] For example, economist and Nobel Laureate Paul Krugman wrote:

> So there's another the-stimulus-didn't-work paper making the rounds, and as usual being seized on by people who have no idea what the issues are with this kind of estimation. ... It makes no effort to control for the differential effects of bubble and bust. It uses odd variables on both the left and the right side of its equations. The instruments—variables used to correct for possible two-way causation—are weak and dubious. Dean Baker suspects data-mining, with reason; the best interpretation is that the authors tried something that happened to give the results they wanted, then stopped looking. Really, this isn't the sort of thing worth wasting time over.[7]

Similarly, economist Dean Baker wrote:

> With an exercise like this, you always have to worry about the problem of cherry picking. It is very easy to run 1000 regressions in an hour. Inevitably, you find 4 or 5 of these 1000 that show you almost anything. … For this reason, you usually want to run your regressions a variety of different ways to show that the results do not depend on some arbitrary specification. It doesn't look like they have done this, or at least they did not show much evidence of such robustness tests in their paper. … There are many other peculiar items here.[8]

In contrast to Chairman Issa's staff report, the nonpartisan Congressional Budget Office (CBO) estimates in its most recent report that the Recovery Act "[i]ncreased the number of people employed by between 1.0 million and 2.9 million" and [i]ncreased the number of full-time-equivalent jobs by 1.4 million to 4.0 million."[9]

Economists Alan Blinder and Mark Zandi issued a report in July agreeing with CBO's estimates. They wrote:

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[5] *Doubling Down on Failure: Before Asking for a New Stimulus Package, Will the Obama Administration Admit that the First One Failed,* Republican Staff, House Committee on Oversight and Government Reform (Sept. 8, 2011).

[6] *The American Recovery and Reinvestment Act: Public Sector Jobs Saved, Private Sector Jobs Forestalled,* Timothy Conley, University of Western Ontario, Canada, and Bill Dupor, Ohio State University (May 17, 2011).

[7] Paul Krugman, *Stupid Stimulus Tricks*, New York Times (May 18, 2011).

[8] Dean Baker, *The Stimulus Did Not Create Jobs: The 35,496th Try*, Center for Economic Policy Research (May 17, 2011).

[9] Congressional Budget Office, *Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output from April 2011 through June 2011* (Aug. 2011).

> [T]he effects of the fiscal stimulus alone appear very substantial, raising 2010 real GDP by about 3.4%, holding the unemployment rate about 1½ percentage points lower, and adding almost 2.7 million jobs to U.S. payrolls. These estimates of the fiscal impact are broadly consistent with those made by the CBO and the Obama administration.[10]

Similarly, the Economic Policy Institute (EPI) issued a report in February concluding:

> EPI analysis shows that by the end of 2010 the Recovery Act had created or saved 3-4 million jobs, and up to 5 million full-time equivalent jobs. It had also boosted gross domestic product by up to $560 billion and reduced the unemployment rate up to 1.8 percentage points. (This finding is consistent with analyses by the Congressional Budget Office, the Council of Economic Advisors, and private-sector forecasters.)[11]

Today, Chairman Issa is holding a hearing entitled, "How Obama's Green Energy Agenda is Killing Jobs." Despite the inflammatory hearing title, the Republican staff memo prepared for the hearing provides no evidence that the Obama Administration's green energy policies or the implementation of the Recovery Act caused the loss of jobs.[12]

This report was requested by Ranking Member Cummings to provide Committee Members with information about green initiatives that may affect their districts.[13] The report first compiles information from the Brookings Institution report relating to each Member's state, as well as regional or metro area information, when available. The report also includes information about specific projects supported by DOE or DOL, when available. This report is not intended to be comprehensive, but instead provides illustrative examples of green initiatives currently underway and their impact to date.

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[10] Alan S. Blinder and Mark Zandi, *How the Great Recession was Brought to an End* (July 27, 2010).

[11] *An Investment That Worked: The Recovery Act Two Years Later*, Economic Policy Institute (Feb. 16, 2011).

[12] Republican Staff Memo, *How Obama's Green Energy Agenda is Killing Jobs*, House Committee on Oversight and Government Reform (Sept. 19, 2011).

[13] Department of Labor, Bureau of Labor Statistics, *Measuring Green Jobs* (online at bls.gov/green) (accessed on Sept. 16, 2011) (referring to "green" initiatives as those that "produce goods or provide services that benefit the environment or conserve natural resources" or that "involve making their establishment's production processes more environmentally friendly or use fewer natural resources").

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The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

San Diego's Clean Economy Profile

CLEAN JOBS

22,862

In terms of its overall size the clean economy in the San Diego metropolitan area ranks 21st among the 100 largest metro areas

INTENSITY

1.7%

San Diego's 22,862 clean economy jobs make up 1.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 60th

GROWTH

+8,525

Between 2003 and 2010 San Diego added 8,525 clean jobs to see the sector grow by 6.9 percent annually. Those readings placed the region 14th and 12th

EXPORTS PER JOB

$17,114

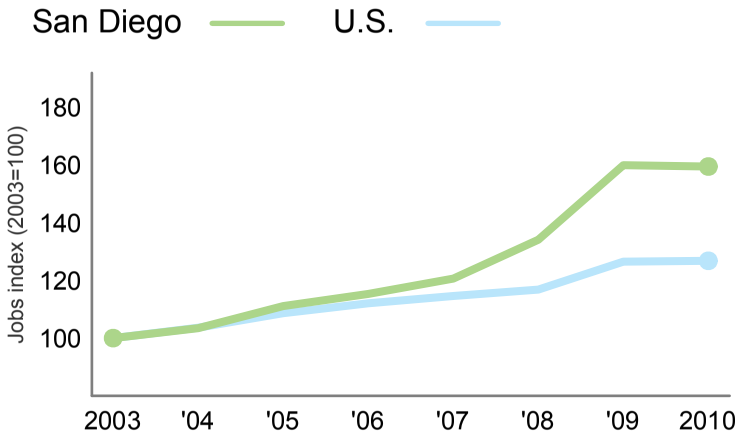
On average each clean economy job in San Diego produces $17,114 in exports, which ranks it 40th on this measure

ANNUAL WAGE

$45,016

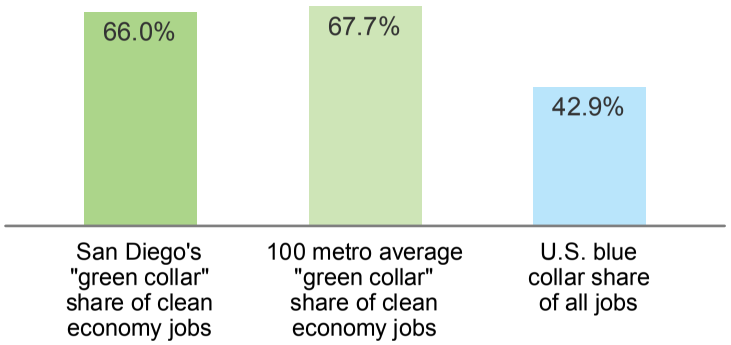
The estimated median wage in San Diego's clean economy is $45,016. This compares to $43,504 for all jobs in San Diego

Clean Economy Job Growth, 2003–2010



Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of San Diego's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	4,189	+1,808	+8.4%
Waste Management and Treatment	3,249	+1,511	+9.3%
Nuclear Energy	3,049	+661	+3.6%
Conservation	1,729	+780	+8.9%
Organic Food and Farming	1,709	+187	+1.7%

Fastest Growing Segments

of San Diego's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Green Consumer Products	346	+321	+45.6%
Renewable Energy Services	60	+53	+35.9%
Smart Grid	40	+35	+34.6%
Air and Water Purification Technologies	865	+701	+26.8%
Solar Photovoltaic	237	+183	+23.5%

Sample Clean Economy Employers

Sapphire Energy
(Biofuels/Biomass)

General Atomics
(Nuclear Energy)

Borrego Solar Systems Inc
(Solar Photovoltaic)

GE Betz
(Air and Water Purification Technologies)

Synthetic Genomics
(Biofuels/Biomass)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
www.brookings.edu/metro/clean_economy/map.aspx

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DATA NOTES:

This profile presents data developed for the Brookings-Battelle Clean Economy Database and the report "Sizing the Clean Economy." Methodological details of this database are described in an accompanying appendix document (see the report website listed above).

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of California**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

California's Clean Economy Profile

CLEAN JOBS

318,156

In terms of its overall size the clean economy in California ranks 1st among the 50 states and the District of Columbia

INTENSITY

2.1%

California's 318,156 clean economy jobs make up 2.1 percent of all jobs in the state. On this measure of concentration its clean economy ranks 14th

GROWTH

+79,092

Between 2003 and 2010 California added 79,092 clean jobs to see the sector grow by 4.2 percent annually. Those readings placed the state 1st and 19th

EXPORTS PER JOB

$16,314

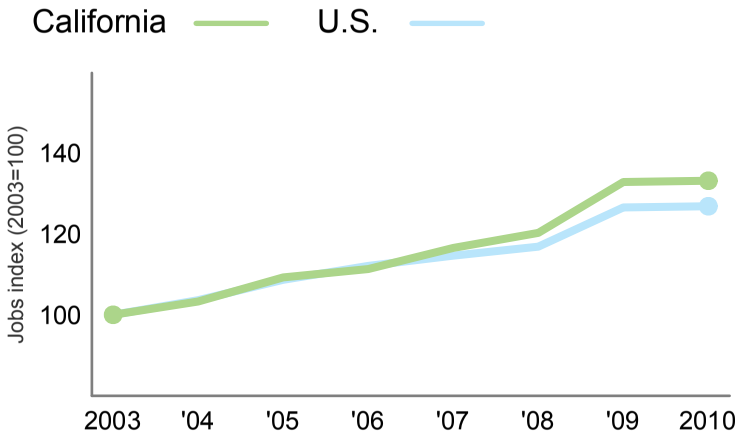
On average each clean economy job in California produces $16,314 in exports, which ranks it 26th on this measure

ANNUAL WAGE

$46,400

The estimated median wage in California's clean economy is $46,400. This compares to $43,815 for all jobs in California

Clean Economy Job Growth, 2003–2010



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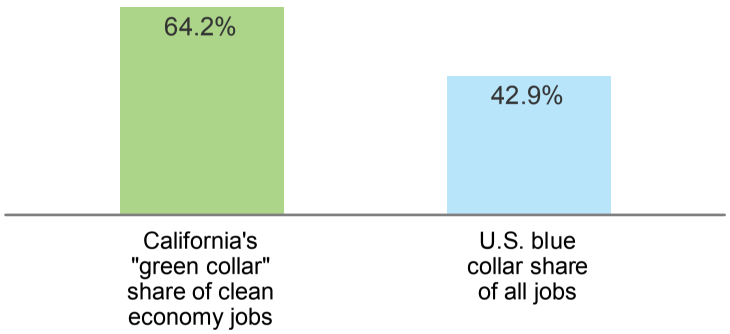
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of California's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	52,225	+15,247	+5.1%
Conservation	44,443	+12,861	+5.0%
Organic Food and Farming	34,468	+2,994	+1.3%
Public Mass Transit	32,487	+8,245	+4.3%
Professional Environmental Services	19,259	+5,886	+5.3%

Fastest Growing Segments

of California's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Smart Grid	3,031	+2,849	+49.5%
Renewable Energy Services	283	+266	+49.4%
Fuel Cells	528	+438	+28.8%
Solar Thermal	708	+526	+21.4%
Wind	4,100	+2,846	+18.4%

Sample Clean Economy Employers

Amyris Biotechnologies Inc
(Biofuels/Biomass)

Bloom Energy Corp
(Fuel Cells)

Miasole
(Solar Photovoltaic)

Spring Silver Networks Inc
(Smart Grid)

Trilliant Newtorks Inc
(Smart Grid)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
www.brookings.edu/metro/clean_economy/map.aspx

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Abengoa Solar, Inc. (Mojave Solar)

$1.2 billion loan guarantee will annually produce 250 MW of power and will be the first U.S. utility-scale deployment of Abengoa's latest Solar Collector Assembly (SCA). Project will create more than 830 construction jobs and 70 operating jobs.

ABENGOA

Project	Abengoa Solar, Inc. (Mojave Solar)
Technology	Solar Generation
Location	San Bernardino County, CA
Loan Amount	$1.2 billion
Eligibility	1705
Status	Closed
Date of agreement	Sept 2011
Jobs Construction	830
Perm Jobs Created or Saved	70

Generation Capacity (MW)	250
Annual Generation Output (MWh)	617,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	355,000
Annual Cars off the Road*	68,000
Households Equivalent (annual)**	54,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

BrightSource Energy, Inc.

The Department of Energy closed on a $1.6 billion loan guarantee for BrightSource Energy, Inc. that will nearly double the generation capacity of concentrated solar in the U.S. and will create approximately 1,000 construction jobs and 86 operations and maintenance jobs.

Project	BrightSource Energy, Inc.
Technology	Solar Generation
Location	Baker, CA
Loan Amount	$1.6 billion
Eligibility	1705
Status	Closed
Date of agreement	Apr 2011
Jobs Construction	1,000
Perm Jobs Created or Saved	86

Generation Capacity (MW)	383
Annual Generation Output (MWh)	998,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	574,000
Annual Cars off the Road*	110,000
Households Equivalent (annual)**	87,000
Equivalent Annual Average Generation of X Coal Plants ***	0.3

First Solar, Inc. (Antelope)

$680 million offer for a partial loan guarantee will create more than 350 construction jobs and will feature a utility-scale deployment of innovative inverters with voltage regulation and monitoring technologies that are new to the U.S. market.

Project	First Solar, Inc. (Antelope)
Technology	Solar Generation
Location	Lancanster, CA
Loan Amount	$680 million
Eligibility	1705
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	350
Perm Jobs Created or Saved	15

Generation Capacity (MW)	230
Annual Generation Output (MWh)	623,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	358,000
Annual Cars off the Road*	69,000
Households Equivalent (annual)**	54,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

First Solar, Inc. (Desert Sunlight)

$1.8 billion offer for a partial loan guarantee will generate 550 jobs during construction. It is expected to generate enough electricity to power over 110,000 homes and will avoid over 735,000 metric tons of carbon dioxide annually.

Project	First Solar, Inc. (Desert Sunlight)
Technology	Solar Generation
Location	Riverside County, CA
Loan Amount	$1.8 billion
Eligibility	1705
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	500
Perm Jobs Created or Saved	15

Generation Capacity (MW)	550
Annual Generation Output (MWh)	1,280,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	735,000
Annual Cars off the Road*	141,000
Households Equivalent (annual)**	111,000
Equivalent Annual Average Generation of X Coal Plants ***	0.4

First Solar, Inc. (Topaz)

$1.9 billion offer for a partial loan guarantee will generate enough electricity to power approximately 110,000 homes and avoid nearly 725,000 metric tons of carbon dioxide emissions annually.

Project	First Solar, Inc. (Topaz)
Technology	Solar Generation
Location	San Luis Obispo County, CA
Loan Amount	$1.9 billion
Eligibility	1705
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	500
Perm Jobs Created or Saved	13

Generation Capacity (MW)	550
Annual Generation Output (MWh)	1,262,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	725,000
Annual Cars off the Road*	139,000
Households Equivalent (annual)**	110,000
Equivalent Annual Average Generation of X Coal Plants ***	139,000

NextEra Energy Resources, LLC (Genesis Solar)

$852 million loan guarantee will produce a 250 MW in Riverside Valley, California. Project is expected to produce enough electricity to power over 48,000 homes and create approximately 800 construction jobs and 47 operating jobs.

Project	NextEra Energy Resources, LLC (Genesis Solar)
Technology	Solar Generation
Location	Riverside County, CA
Loan Amount	$852 million
Eligibility	1705 (FIPP)
Status	Closed
Date of agreement	Aug 2011
Jobs Construction	800
Perm Jobs Created or Saved	47

Generation Capacity (MW)	250
Annual Generation Output (MWh)	560,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	322,000
Annual Cars off the Road*	62,000
Households Equivalent (annual)**	49,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

Solyndra Inc.

The Department of Energy finalized a $535 million loan guarantee for Solyndra, Inc. to finance construction of the first phase of the company's new solar manufacturing facility in Fremont, California. The project, eligible under Section 1703 and Section 1705 of Title XVII of the Energy Policy Act of 2005, will create 3,000 construction jobs.

Project	Solyndra Inc.
Technology	Solar Manufacturing
Location	Fremont, CA
Loan Amount	$535 million
Eligibility	1705
Status	Closed
Date of agreement	Sep 2009
Jobs Construction	3,000
Perm Jobs Created or Saved	N/A

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	681,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	391,000
Annual Cars off the Road*	75,000
Households Equivalent (annual)**	59,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

SunPower Corporation, Systems (California Valley Solar Ranch)

The $1.2 billion conditional commitment for a loan guarantee to SunPower Corporation, Systems will support construction of a 250 MW alternating current PV solar generating facility and create over 350 jobs.

Project	SunPower Corporation, Systems (California Valley Solar Ranch)
Technology	Solar Generation
Location	San Luis Obispo, CA
Loan Amount	$1.187 billion
Eligibility	1705
Status	Conditional Commitment
Date of agreement	Apr 2011
Jobs Construction	350
Perm Jobs Created or Saved	15

Generation Capacity (MW)	250
Annual Generation Output (MWh)	680,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	391,000
Annual Cars off the Road*	68,000
Households Equivalent (annual)**	59,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

Tesla Motors

Tesla Motors, Inc. closed a $465 million loan arrangement under the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program to (1) reopen an auto manufacturing plant in Fremont, California to produce specially-designed, all-electric, plug-in vehicles, and (2) to develop a manufacturing facility to produce battery packs, electric motors and other powertrain components that will power all-electric plug-in vehicles manufactured by Tesla and other original equipment manufacturers including Daimler and Toyota. The projects are expected to create up to 1,500 jobs.

Project	Tesla Motors
Technology	OEM
Location	Fremont, CA
Loan Amount	$465 million
Eligibility	ATVM
Status	Closed
Date of agreement	Jan 2010
Jobs Construction	N/A
Perm Jobs Created or Saved	1,500

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Gasoline Displaced (Gallons)	2,900,000
Annual Avoided CO2 (tons)	26,000
Annual Cars off the Road*	5,000
Households Equivalent (annual)**	N/A

Department of Labor Investments in Green Skills and Training

District: CA-49, Representative Darrell E. Issa

- State Energy Sector Partnership Grant to State Workforce Agency for $6,000,000 (Statewide).
- Energy Training Partnership Grant to California State Labor Management Cooperation Committee for $5,000,000 (Statewide).
- Energy Training Partnership Grant to Utility Workers Union of America, AFL-CIO for $4,993,922 (District and other communities).
- Energy Training Partnership Grant to International Training Institute for the Sheet Metal and Air Conditioning Industry for $4,995,192 (District and other communities).
- Energy Training Partnership Grantee to H-CAP Inc. for $4,637,551 (District and other communities).
- San Diego Jobs Corps Center near District has incorporated green training elements into ten of its training programs.

Rep. Dan Burton (IN-05)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Indianapolis, IN Metropolitan Area**

Why the Clean Economy Matters

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Indianapolis' Clean Economy Profile

17

CLEAN JOBS

15,183

In terms of its overall size the clean economy in the Indianapolis metropolitan area ranks 35th among the 100 largest metro areas

INTENSITY

1.7%

Indianapolis' 15,183 clean economy jobs make up 1.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 53rd

GROWTH

+1,609

Between 2003 and 2010 Indianapolis added 1,609 clean jobs to see the sector grow by 1.6 percent annually. Those readings placed the region 61st and 88th

EXPORTS PER JOB

$9,362

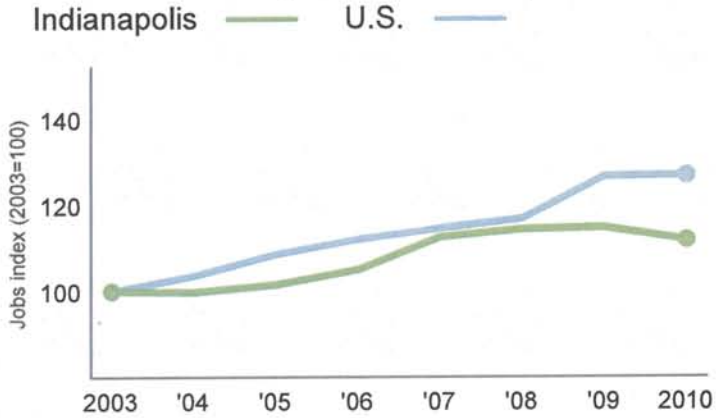
On average each clean economy job in Indianapolis produces $9,362 in exports, which ranks it 76th on this measure

ANNUAL WAGE

$41,245

The estimated median wage in Indianapolis' clean economy is $41,245. This compares to $36,526 for all jobs in Indianapolis

Clean Economy Job Growth, 2003–2010



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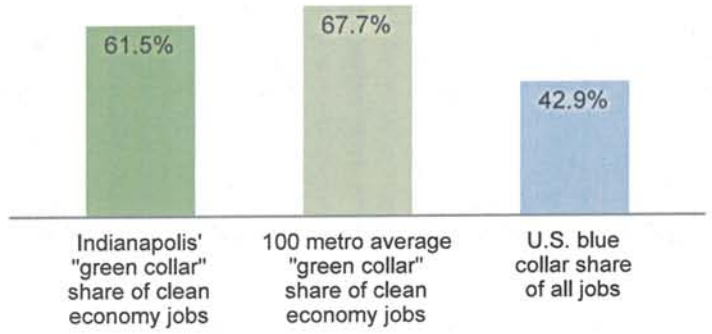
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Indianapolis' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Regulation and Compliance	2,804	+862	+5.4%
Conservation	2,390	+800	+6.0%
Waste Management and Treatment	1,987	+676	+6.1%
Public Mass Transit	1,742	+183	+1.6%
Recycling and Reuse	1,226	+308	+4.2%

Fastest Growing Segments

of Indianapolis' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Remediation	519	+237	+9.1%
Pollution Reduction	51	+20	+7.4%
Battery Technologies	24	+9	+6.9%
Waste Management and Treatment	1,987	+676	+6.1%
Conservation	2,390	+800	+6.0%

Sample Clean Economy Employers

Carrier Corp
(HVAC and Building Control Systems)

IFCO Systems North America Inc
(Recycled-Content Products)

Johnson Controls Inc
(HVAC and Building Control Systems)

Knauf Insulation
(Energy-saving Building Materials)

MeadWestvaco Corp
(Sustainable Forestry Products)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
www.brookings.edu/metro/clean_economy/map.aspx

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Indiana**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Indiana's Clean Economy Profile

CLEAN JOBS

53,684

In terms of its overall size the clean economy in Indiana ranks 19th among the 50 states and the District of Columbia

INTENSITY

1.9%

Indiana's 53,684 clean economy jobs make up 1.9 percent of all jobs in the state. On this measure of concentration its clean economy ranks 32nd

GROWTH

+5,332

Between 2003 and 2010 Indiana added 5,332 clean jobs to see the sector grow by 1.5 percent annually. Those readings placed the state 28th and 45th

EXPORTS PER JOB

$29,777

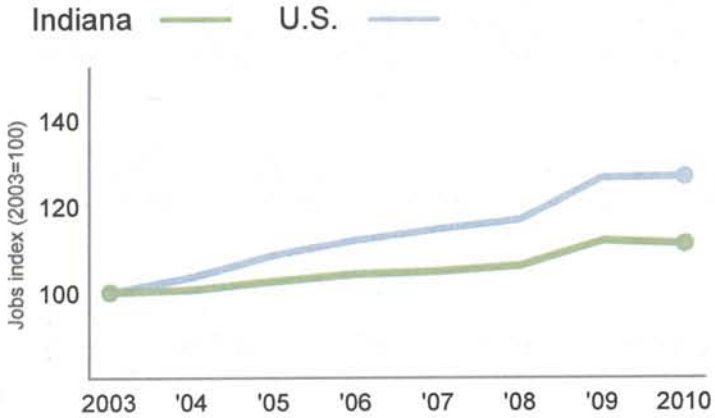
On average each clean economy job in Indiana produces $29,777 in exports, which ranks it 9th on this measure

ANNUAL WAGE

$37,162

The estimated median wage in Indiana's clean economy is $37,162. This compares to $33,580 for all jobs in Indiana

Clean Economy Job Growth, 2003–2010



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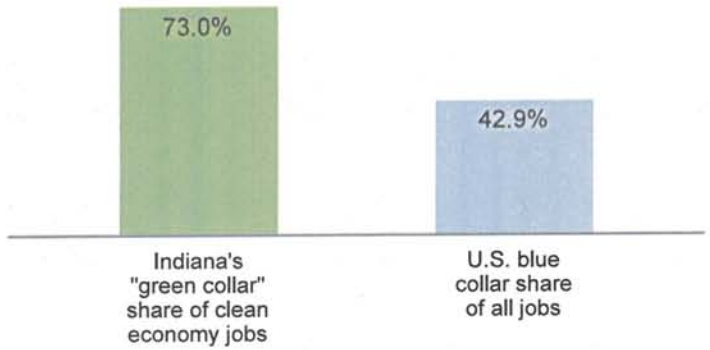
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Indiana's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	7,719	+1,547	+3.2%
Green Consumer Products	5,127	+727	+2.2%
Recycled-Content Products	4,566	-588	-1.7%
Recycling and Reuse	4,381	+1,482	+6.1%
Public Mass Transit	4,006	+560	+2.2%

Fastest Growing Segments

of Indiana's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Electric Vehicle Technologies	2,716	+2,710	+139.6%
Geothermal	225	+223	+96.3%
Solar Photovoltaic	22	+17	+23.6%
Battery Technologies	336	+166	+10.2%
Biofuels/Biomass	565	+265	+9.5%

Sample Clean Economy Employers

Alcoa Inc
(Recycled-Content Products)

Delphi Automotive Systems LLC
(Electric Vehicle Technologies)

Forest River Inc
(Electric Vehicle Technologies)

Kinro Manufacturing Inc
(Energy-saving Building Materials)

Waterfurnace Renewable Energy
(Geothermal)

For More Information

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www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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Department of Labor Investments in Green Skills and Training

District: IN-05, Representative Dan Burton

- State Energy Sector Partnership Grant to State Workforce Agency for $6 million (Statewide).

- Atterbury Job Corps Center has green training programs in the brick masonry, carpentry, cement masonry, electrical, facilities maintenance, painting, and welding programs.

Abound Solar

The Department of Energy offered Abound Solar Manufacturing, LLC issued a $400 million loan guarantee to manufacture state-of-the-art thin-film solar panels. The project, which is eligible under both Sections 1703 and 1705 of Title XVII of the Energy Policy Act of 2005, includes two facilities, one in Longmont, Colorado and the other in Tipton, Indiana. The company anticipates that the project will create approximately 400 jobs during construction and 1,200 permanent jobs.

Project	Abound Solar
Technology	Solar Manufacturing
Location	Longmont, CO and Tipton, IN
Loan Amount	$400 million
Eligibility	1705
Status	Closed
Date of agreement	Dec 2010
Jobs Construction	400
Perm Jobs Created or Saved	1,200

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	1,906,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	1,095,000
Annual Cars off the Road*	210,000
Households Equivalent (annual)**	166,000
Equivalent Annual Average Generation of X Coal Plants ***	0.7

Department of Labor Investments in Green Skills and Training

District: IN-05, Representative Dan Burton

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Rep. John L. Mica (FL-07)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Orlando, FL Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Orlando's Clean Economy Profile

CLEAN JOBS

11,033

In terms of its overall size the clean economy in the Orlando metropolitan area ranks 47th among the 100 largest metro areas

INTENSITY

1.1%

Orlando's 11,033 clean economy jobs make up 1.1 percent of all jobs in the region. On this measure of concentration its clean economy ranks 94th

GROWTH

+3,901

Between 2003 and 2010 Orlando added 3,901 clean jobs to see the sector grow by 6.4 percent annually. Those readings placed the region 37th and 16th

EXPORTS PER JOB

$11,654

On average each clean economy job in Orlando produces $11,654 in exports, which ranks it 66th on this measure

ANNUAL WAGE

$36,408

The estimated median wage in Orlando's clean economy is $36,408. This compares to $33,338 for all jobs in Orlando

Clean Economy Job Growth, 2003–2010

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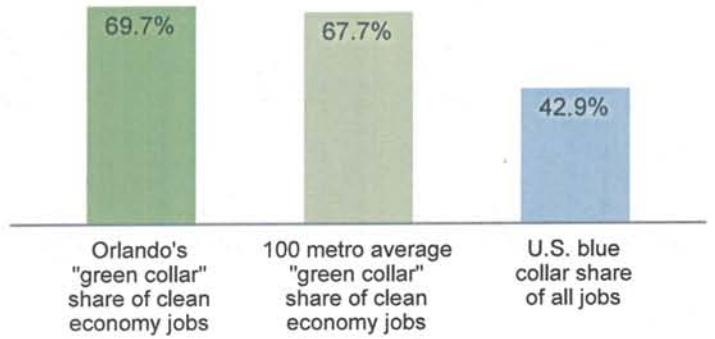
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Orlando's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	2,731	+1,932	+19.2%
Waste Management and Treatment	1,451	+113	+1.2%
Professional Environmental Services	1,350	+484	+6.5%
Energy-saving Building Materials	1,301	+131	+1.5%
Conservation	672	+227	+6.1%

Fastest Growing Segments

of Orlando's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Thermal	21	+16	+22.8%
Solar Photovoltaic	138	+101	+20.7%
Air and Water Purification Technologies	185	+134	+20.2%
Public Mass Transit	2,731	+1,932	+19.2%
Green Architecture and Construction Services	442	+231	+11.1%

Sample Clean Economy Employers

AllSolar Service Company Inc
(Solar Photovoltaic)

Florida Food Products Inc
(Organic Food and Farming)

Planar Energy Devices Inc
(Battery Technologies)

Windoor Inc
(Energy-saving Building Materials)

X-Nth Inc
(Green Architecture and Construction Services)

For More Information

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www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Florida**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Florida's Clean Economy Profile

CLEAN JOBS

102,967

In terms of its overall size the clean economy in Florida ranks 7th among the 50 states and the District of Columbia

INTENSITY

1.4%

Florida's 102,967 clean economy jobs make up 1.4 percent of all jobs in the state. On this measure of concentration its clean economy ranks 49th

GROWTH

+28,298

Between 2003 and 2010 Florida added 28,298 clean jobs to see the sector grow by 4.7 percent annually. Those readings placed the state 4th and 16th

EXPORTS PER JOB

$9,386

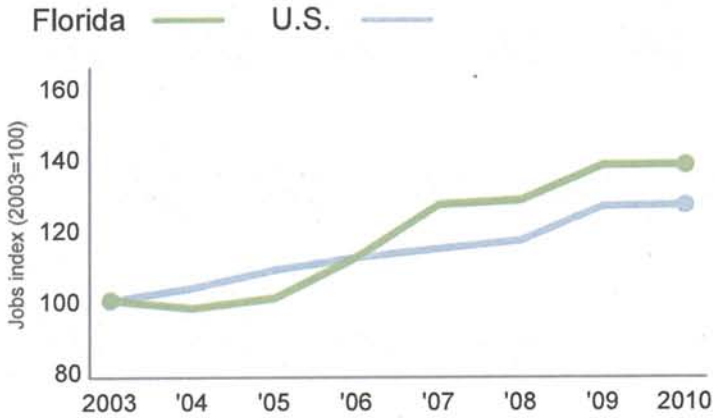
On average each clean economy job in Florida produces $9,386 in exports, which ranks it 44th on this measure

ANNUAL WAGE

$38,085

The estimated median wage in Florida's clean economy is $38,085. This compares to $34,132 for all jobs in Florida

Clean Economy Job Growth, 2003–2010



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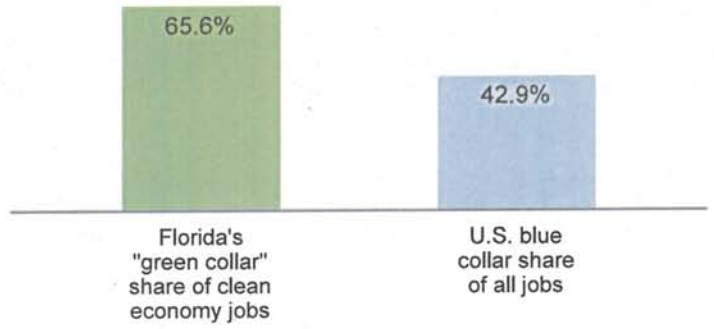
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Florida's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	23,862	+4,038	+2.7%
Conservation	20,854	+11,832	+12.7%
Public Mass Transit	12,332	+3,997	+5.8%
Professional Environmental Services	7,759	+3,761	+9.9%
Energy-saving Building Materials	6,318	+1,579	+4.2%

Fastest Growing Segments

of Florida's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Photovoltaic	597	+426	+19.6%
HVAC and Building Control Systems	2,216	+1,397	+15.3%
Sustainable Forestry Products	614	+366	+13.8%
Wind	134	+77	+13.0%
Conservation	20,854	+11,832	+12.7%

Sample Clean Economy Employers

Algenol Biofuels Inc
(Biofuels/Biomass)

FHP Manufacturing Co
(Geothermal)

Smith Reynolds & Hills Inc
(Professional Environmental Services)

Sun-Tek Manufacturing Inc
(Energy-saving Building Materials)

Sun Orchard Of Florida Inc
(Organic Food and Farming)

For More Information

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www.brookings.edu/metro/clean_economy.aspx

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Rep. Todd Platts (PA-19)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Harrisburg, PA Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Harrisburg's Clean Economy Profile

CLEAN JOBS

13,025

In terms of its overall size the clean economy in the Harrisburg metropolitan area ranks 41st among the 100 largest metro areas

INTENSITY

4.0%

Harrisburg's 13,025 clean economy jobs make up 4.0 percent of all jobs in the region. On this measure of concentration its clean economy ranks 4th

GROWTH

+3,934

Between 2003 and 2010 Harrisburg added 3,934 clean jobs to see the sector grow by 5.3 percent annually. Those readings placed the region 36th and 32nd

EXPORTS PER JOB

$19,621

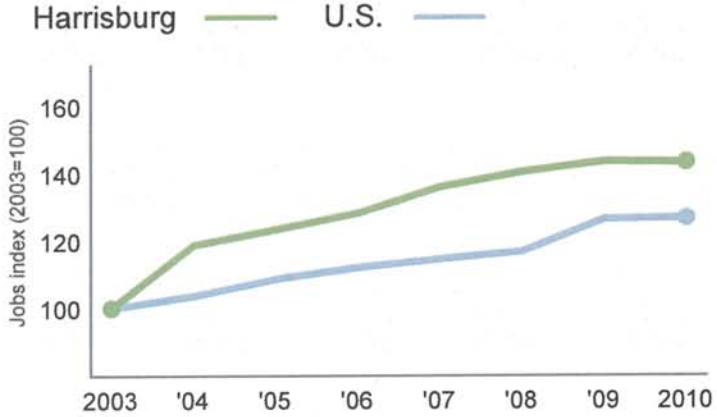
On average each clean economy job in Harrisburg produces $19,621 in exports, which ranks it 32nd on this measure

ANNUAL WAGE

$43,224

The estimated median wage in Harrisburg's clean economy is $43,224. This compares to $38,406 for all jobs in Harrisburg

Clean Economy Job Growth, 2003–2010



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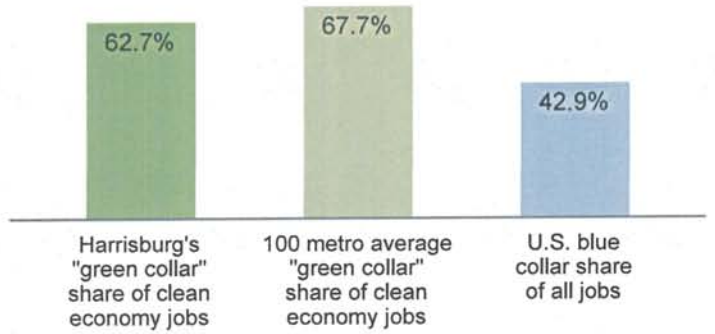
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Harrisburg's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	5,564	+1,833	+5.9%
Regulation and Compliance	2,899	+1,193	+7.9%
Energy-saving Building Materials	1,153	+131	+1.7%
Public Mass Transit	998	+108	+1.6%
Waste Management and Treatment	583	+85	+2.3%

Fastest Growing Segments

of Harrisburg's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Green Architecture and Construction Services	138	+113	+27.6%
Remediation	247	+142	+13.0%
HVAC and Building Control Systems	110	+60	+11.9%
Air and Water Purification Technologies	61	+33	+11.8%
Professional Environmental Services	201	+91	+9.0%

Sample Clean Economy Employers

Appalachian Brewing Company
(Organic Food and Farming)

Carlisle SynTec Inc
(Energy-saving Building Materials)

Crabtree, Rohrbaugh & Associates
(Green Architecture and Construction Services)

Enginuity LLC
(HVAC and Building Control Systems)

PPG Industries Inc
(Energy-saving Building Materials)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Pennsylvania**

Why the Clean Economy Matters

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Pennsylvania's Clean Economy Profile

CLEAN JOBS

118,686

In terms of its overall size the clean economy in Pennsylvania ranks 4th among the 50 states and the District of Columbia

INTENSITY

2.1%

Pennsylvania's 118,686 clean economy jobs make up 2.1 percent of all jobs in the state. On this measure of concentration its clean economy ranks 20th

GROWTH

+19,352

Between 2003 and 2010 Pennsylvania added 19,352 clean jobs to see the sector grow by 2.6 percent annually. Those readings placed the state 8th and 37th

EXPORTS PER JOB

$15,709

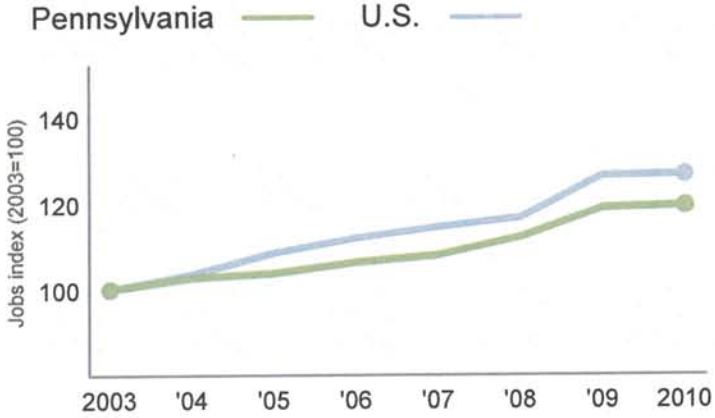
On average each clean economy job in Pennsylvania produces $15,709 in exports, which ranks it 28th on this measure

ANNUAL WAGE

$39,266

The estimated median wage in Pennsylvania's clean economy is $39,266. This compares to $36,939 for all jobs in Pennsylvania

Clean Economy Job Growth, 2003–2010



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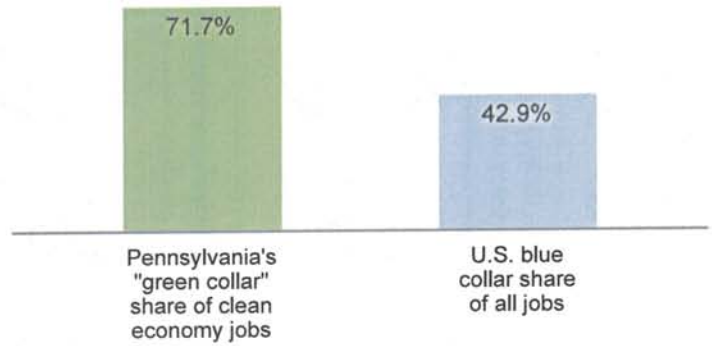
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Pennsylvania's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	24,770	+2,823	+1.7%
Waste Management and Treatment	16,407	-678	-0.6%
Conservation	9,999	+3,471	+6.3%
Energy-saving Building Materials	7,489	+779	+1.6%
Recycling and Reuse	6,381	+1,630	+4.3%

Fastest Growing Segments

of Pennsylvania's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Lighting	1,328	+1,293	+68.1%
Solar Photovoltaic	422	+393	+46.6%
Wind	935	+862	+44.0%
Professional Energy Services	1,867	+1,147	+14.6%
Biofuels/Biomass	130	+73	+12.5%

Sample Clean Economy Employers

Lutron Electronics Co Inc
(Energy-saving Consumer Products)

Mechanical Operations Co Inc
(Professional Energy Services)

Plextronics Inc
(Solar Photovoltaic)

Westinghouse Lighting Corp
(Lighting)

Windurance
(Wind)

For More Information

VIEW THE FULL REPORT:
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Department of Labor Investments in Green Skills and Training

District: PA-19, Representative Todd Russell Platts

- State Energy Sector Partnership Grant to State Workforce Agency for $6 million (Statewide).

Rep. Michael R. Turner (OH-03)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Dayton, OH Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Dayton's Clean Economy Profile

CLEAN JOBS

6,232

In terms of its overall size the clean economy in the Dayton metropolitan area ranks 74th among the 100 largest metro areas

INTENSITY

1.6%

Dayton's 6,232 clean economy jobs make up 1.6 percent of all jobs in the region. On this measure of concentration its clean economy ranks 67th

GROWTH

+1,969

Between 2003 and 2010 Dayton added 1,969 clean jobs to see the sector grow by 5.6 percent annually. Those readings placed the region 55th and 24th

EXPORTS PER JOB

$20,193

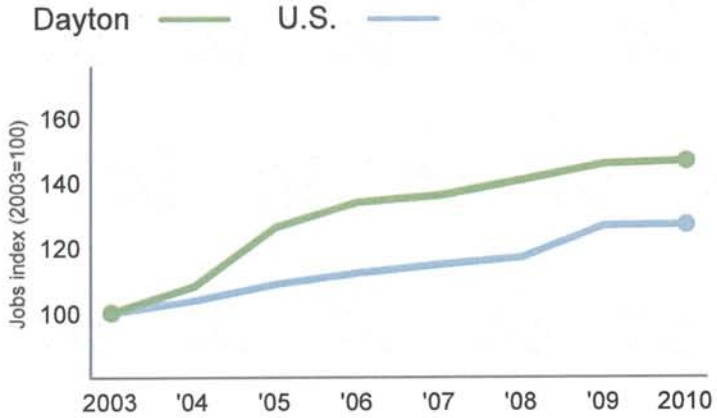
On average each clean economy job in Dayton produces $20,193 in exports, which ranks it 30th on this measure

ANNUAL WAGE

$37,574

The estimated median wage in Dayton's clean economy is $37,574. This compares to $37,378 for all jobs in Dayton

Clean Economy Job Growth, 2003–2010



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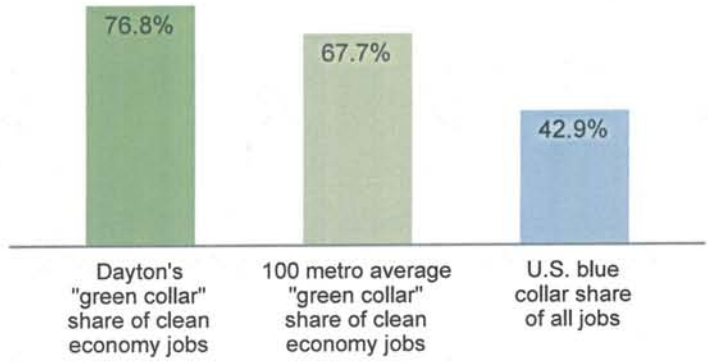
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Dayton's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	1,429	+731	+10.8%
Waste Management and Treatment	1,414	+256	+2.9%
Sustainable Forestry Products	980	+380	+7.3%
Recycling and Reuse	443	+63	+2.2%
Regulation and Compliance	282	+109	+7.2%

Fastest Growing Segments

of Dayton's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Appliances	220	+198	+38.9%
Public Mass Transit	1,429	+731	+10.8%
Sustainable Forestry Products	980	+380	+7.3%
Regulation and Compliance	282	+109	+7.2%
Air and Water Purification Technologies	48	+17	+6.4%

Sample Clean Economy Employers

Hobart Corp
(Appliances)

Masonite International Corp
(Green Building Materials)

Newpage Corp
(Sustainable Forestry Products)

Peak Foods LLC
(Organic Food and Farming)

Weyerhaeuser Co
(Green Consumer Products)

For More Information

VIEW THE FULL REPORT:
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INTERACTIVE MAPPING TOOL:
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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Ohio**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Ohio's Clean Economy Profile

CLEAN JOBS

105,306

In terms of its overall size the clean economy in Ohio ranks 6th among the 50 states and the District of Columbia

INTENSITY

2.0%

Ohio's 105,306 clean economy jobs make up 2.0 percent of all jobs in the state. On this measure of concentration its clean economy ranks 21st

GROWTH

+16,793

Between 2003 and 2010 Ohio added 16,793 clean jobs to see the sector grow by 2.5 percent annually. Those readings placed the state 12th and 38th

EXPORTS PER JOB

$25,067

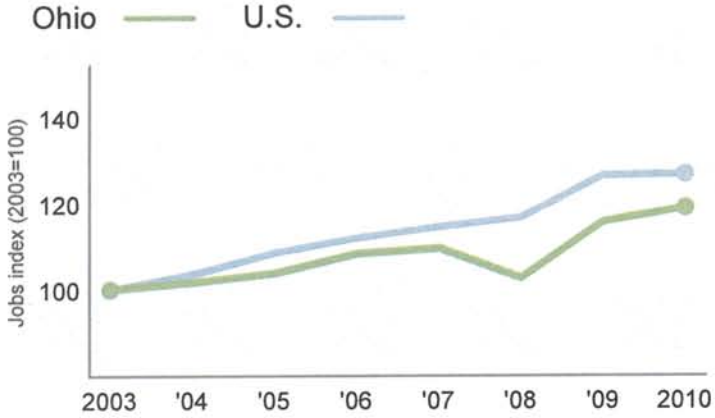
On average each clean economy job in Ohio produces $25,067 in exports, which ranks it 16th on this measure

ANNUAL WAGE

$39,275

The estimated median wage in Ohio's clean economy is $39,275. This compares to $35,709 for all jobs in Ohio

Clean Economy Job Growth, 2003–2010



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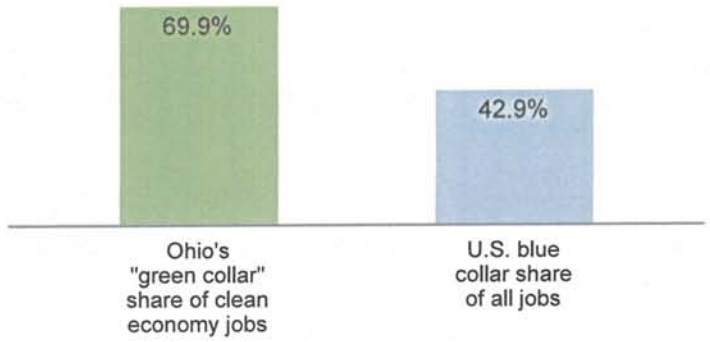
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Ohio's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	20,066	+5,288	+4.5%
Public Mass Transit	14,251	+5,850	+7.8%
Regulation and Compliance	7,464	+5,147	+18.2%
Recycling and Reuse	7,200	+2,207	+5.4%
Energy-saving Building Materials	6,958	+549	+1.2%

Fastest Growing Segments

of Ohio's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Smart Grid	1,365	+1,326	+66.2%
Waste-to-Energy	12	+11	+42.6%
Solar Photovoltaic	1,348	+935	+18.4%
Regulation and Compliance	7,464	+5,147	+18.2%
Professional Energy Services	872	+572	+16.5%

Sample Clean Economy Employers

ABB Inc
(Smart Grid)

LSI Industries Inc
(Lighting)

Momentive Performance Mtls
(Wind)

Newpage Corp
(Sustainable Forestry Products)

Sherwin-Williams Co
(Green Chemical Products)

For More Information

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Department of Labor Investments in Green Skills and Training

District: OH-03, Representative Michael R. Turner

- State Energy Sector Partnership Grant to State Workforce Agency for $6 million (Statewide).
- Energy Training Partnership Grant to Communications Workers of America National Education and Training Trust for $3,969,056 (Montgomery County).
- Energy Training Partnership Grant to the Ohio Electrical Labor Management Cooperative Committee for $4,826,073, serving auto communities (Statewide).
- Green Capacity Building Grant to Improved Solutions for Urban Systems Inc. for $100,000 (Dayton).
- Pathways out of Poverty Grant to the National Association of Regional Councils for $7,995,000 (Dayton and other areas).
- Dayton Job Corps Center has green training programs in its facilities maintenance and plaster training programs.

Rep. Patrick McHenry (NC-10)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of North Carolina**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

North Carolina's Clean Economy Profile

CLEAN JOBS

78,881

In terms of its overall size the clean economy in North Carolina ranks 11th among the 50 states and the District of Columbia

INTENSITY

1.9%

North Carolina's 78,881 clean economy jobs make up 1.9 percent of all jobs in the state. On this measure of concentration its clean economy ranks 29th

GROWTH

+26,101

Between 2003 and 2010 North Carolina added 26,101 clean jobs to see the sector grow by 5.9 percent annually. Those readings placed the state 6th and 6th

EXPORTS PER JOB

$25,774

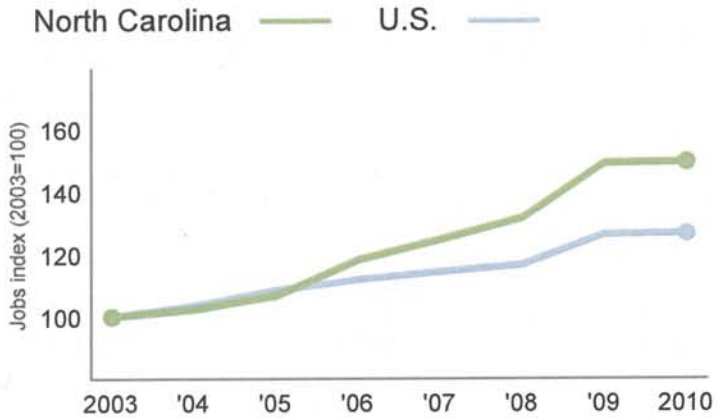
On average each clean economy job in North Carolina produces $25,774 in exports, which ranks it 15th on this measure

ANNUAL WAGE

$37,348

The estimated median wage in North Carolina's clean economy is $37,348. This compares to $34,823 for all jobs in North Carolina

Clean Economy Job Growth, 2003–2010



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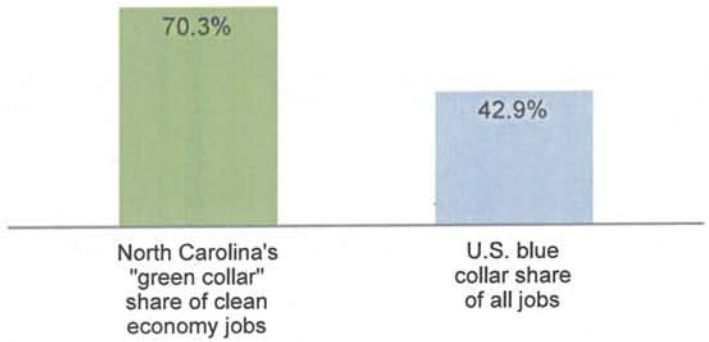
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of North Carolina's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	10,082	+1,965	+3.1%
Conservation	8,110	+3,960	+10.0%
Regulation and Compliance	7,144	+3,428	+9.8%
Green Consumer Products	5,862	+2,005	+6.2%
Energy-saving Building Materials	5,702	+612	+1.6%

Fastest Growing Segments

of North Carolina's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Electric Vehicle Technologies	1,162	+1,121	+61.2%
Smart Grid	652	+619	+53.1%
Appliances	908	+808	+37.0%
Solar Photovoltaic	129	+112	+33.6%
Professional Energy Services	936	+731	+24.2%

Sample Clean Economy Employers

Daimler Trucks North America
(Electric Vehicle Technologies)

Designline USA LLC
(Electric Vehicle Technologies)

Mother Murphys Laboratories
(Organic Food and Farming)

Sencera International Corp
(Solar Photovoltaic)

Steam Generating Team LLC
(Nuclear Energy)

For More Information

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Department of Labor Investments in Green Skills and Training

District: NC-10, Representative Patrick McHenry

- State Energy Sector Partnership Grant to State Workforce Agency for $5,976,512 (Statewide).

- Schenck Job Corps Center has green training programs in its carpentry, painting, and welding programs.

Rep. Jim Jordan (OH-04)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Columbus, OH Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Columbus' Clean Economy Profile

CLEAN JOBS

15,498

In terms of its overall size the clean economy in the Columbus metropolitan area ranks 32nd among the 100 largest metro areas

INTENSITY

1.7%

Columbus' 15,498 clean economy jobs make up 1.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 59th

GROWTH

+4,267

Between 2003 and 2010 Columbus added 4,267 clean jobs to see the sector grow by 4.7 percent annually. Those readings placed the region 33rd and 43rd

EXPORTS PER JOB

$22,935

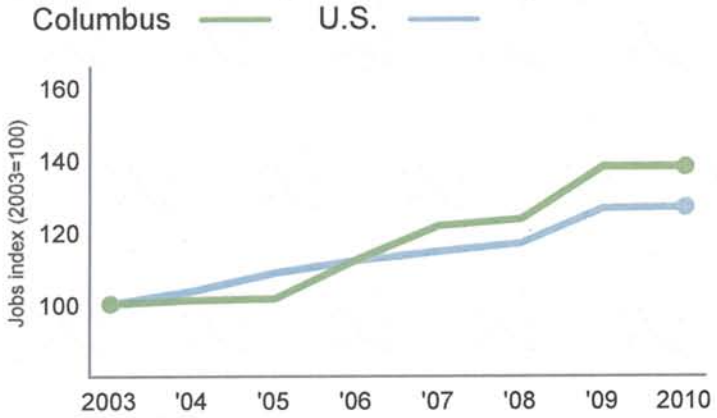
On average each clean economy job in Columbus produces $22,935 in exports, which ranks it 23rd on this measure

ANNUAL WAGE

$42,340

The estimated median wage in Columbus' clean economy is $42,340. This compares to $38,498 for all jobs in Columbus

Clean Economy Job Growth, 2003–2010



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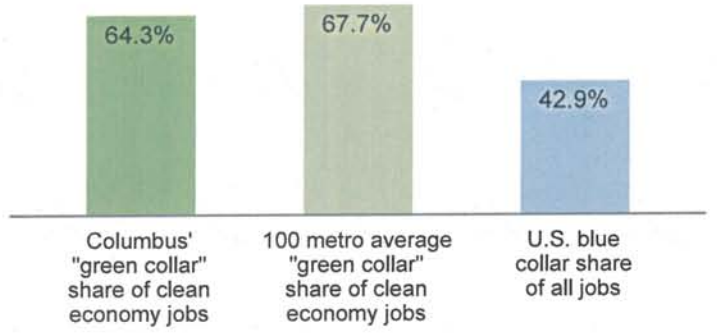
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Columbus' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	2,500	+573	+3.8%
Regulation and Compliance	2,274	+1,304	+12.9%
HVAC and Building Control Systems	1,601	+72	+0.7%
Waste Management and Treatment	1,583	+490	+5.4%
Professional Environmental Services	1,521	+407	+4.5%

Fastest Growing Segments

of Columbus' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste-to-Energy	7	+6	+32.0%
Professional Energy Services	35	+25	+19.6%
Regulation and Compliance	2,274	+1,304	+12.9%
Air and Water Purification Technologies	65	+33	+10.7%
Green Architecture and Construction Services	603	+302	+10.4%

Sample Clean Economy Employers

Atlas Capital Services Inc
(HVAC and Building Control Systems)

Evans, Mechwart, Hambleton & Tilton Inc
(Professional Environmental Services)

Momentive Performance Materials
(Wind)

Moody-Nolan Inc
(Green Architecture and Construction Services)

Nexergy Inc
(Battery Technologies)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Ohio**

Why the Clean Economy Matters

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Ohio's Clean Economy Profile

CLEAN JOBS

105,306

In terms of its overall size the clean economy in Ohio ranks 6th among the 50 states and the District of Columbia

INTENSITY

2.0%

Ohio's 105,306 clean economy jobs make up 2.0 percent of all jobs in the state. On this measure of concentration its clean economy ranks 21st

GROWTH

+16,793

Between 2003 and 2010 Ohio added 16,793 clean jobs to see the sector grow by 2.5 percent annually. Those readings placed the state 12th and 38th

EXPORTS PER JOB

$25,067

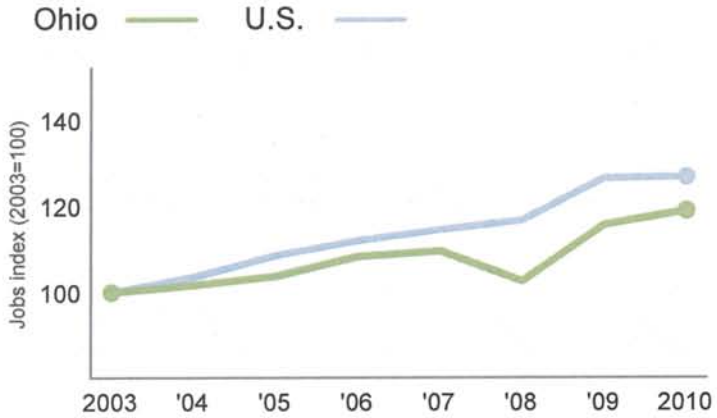
On average each clean economy job in Ohio produces $25,067 in exports, which ranks it 16th on this measure

ANNUAL WAGE

$39,275

The estimated median wage in Ohio's clean economy is $39,275. This compares to $35,709 for all jobs in Ohio

Clean Economy Job Growth, 2003–2010



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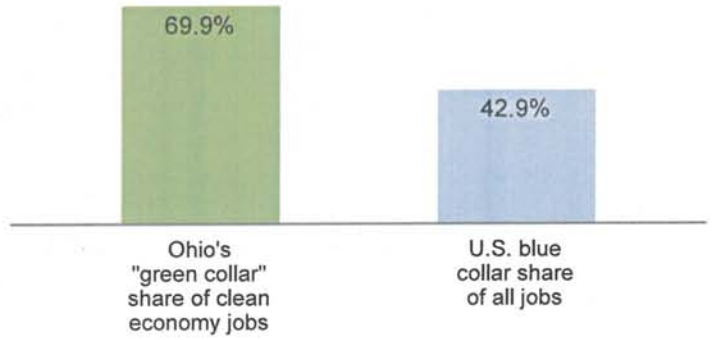
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Ohio's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	20,066	+5,288	+4.5%
Public Mass Transit	14,251	+5,850	+7.8%
Regulation and Compliance	7,464	+5,147	+18.2%
Recycling and Reuse	7,200	+2,207	+5.4%
Energy-saving Building Materials	6,958	+549	+1.2%

Fastest Growing Segments

of Ohio's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Smart Grid	1,365	+1,326	+66.2%
Waste-to-Energy	12	+11	+42.6%
Solar Photovoltaic	1,348	+935	+18.4%
Regulation and Compliance	7,464	+5,147	+18.2%
Professional Energy Services	872	+572	+16.5%

Sample Clean Economy Employers

ABB Inc
(Smart Grid)

LSI Industries Inc
(Lighting)

Momentive Performance Mtls
(Wind)

Newpage Corp
(Sustainable Forestry Products)

Sherwin-Williams Co
(Green Chemical Products)

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Department of Labor Investments in Green Skills and Training

District: OH-04, Representative Jim Jordan

- State Energy Sector Partnership Grant to State Workforce Agency for $6 million (Statewide).

- Energy Training Partnership Grant to Communications Workers of America (CWA) National Education and Training Trust for $3,969,056 (Allen County).

- Energy Training Partnership Grant to the Ohio Electrical Labor Management Cooperative Committee for $4,826,073, serving auto communities (Statewide).

- Dayton Job Corps Center has green training programs in its facilities maintenance and plaster training programs.

Rep. Jason Chaffetz (UT-03)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Provo, UT Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Provo's Clean Economy Profile

CLEAN JOBS

1,587

In terms of its overall size the clean economy in the Provo metropolitan area ranks 100th among the 100 largest metro areas

INTENSITY

0.8%

Provo's 1,587 clean economy jobs make up 0.8 percent of all jobs in the region. On this measure of concentration its clean economy ranks 99th

GROWTH

+181

Between 2003 and 2010 Provo added 181 clean jobs to see the sector grow by 1.7 percent annually. Those readings placed the region 92nd and 85th

EXPORTS PER JOB

$18,767

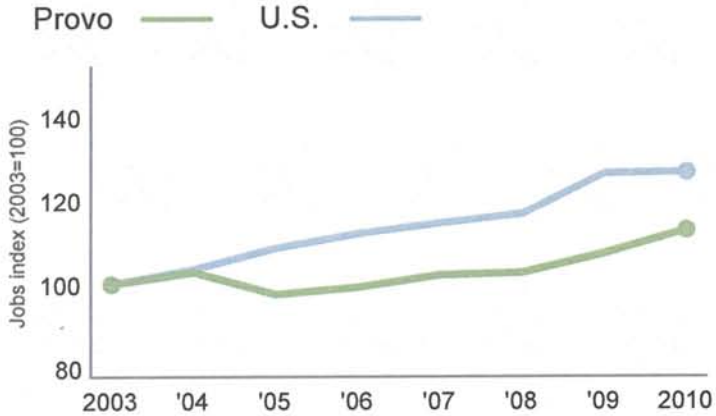
On average each clean economy job in Provo produces $18,767 in exports, which ranks it 34th on this measure

ANNUAL WAGE

$33,374

The estimated median wage in Provo's clean economy is $33,374. This compares to $33,557 for all jobs in Provo

Clean Economy Job Growth, 2003–2010



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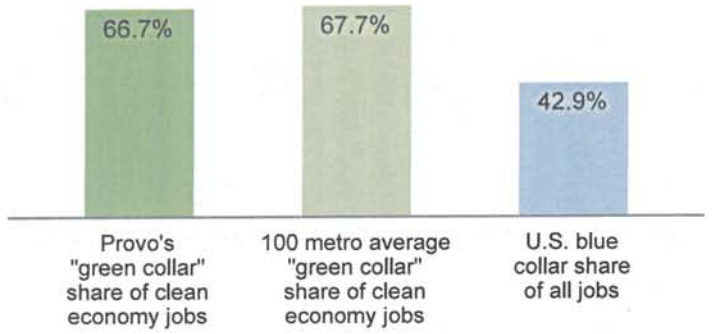
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Provo's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	406	-11	-0.4%
Public Mass Transit	320	+50	+2.5%
Conservation	196	-8	-0.6%
Energy-saving Building Materials	155	+5	+0.5%
Organic Food and Farming	134	+4	+0.4%

Fastest Growing Segments

of Provo's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Remediation	20	+19	+53.4%
Geothermal	13	+7	+11.7%
Professional Environmental Services	11	+5	+9.0%
Green Building Materials	41	+15	+6.7%
Regulation and Compliance	15	+5	+6.0%

Sample Clean Economy Employers

Curecrete Distribution Inc
(Green Building Materials)

Lehi Roller Mills
(Organic Food and Farming)

National Park Service
(Conservation)

Olsen-Beal Associates
(Wind)

Tra-Mage Inc
(Energy-saving Consumer Products)

For More Information

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DATA NOTES:

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Utah**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Utah's Clean Economy Profile

54

CLEAN JOBS

18,261

In terms of its overall size the clean economy in Utah ranks 35th among the 50 states and the District of Columbia

INTENSITY

1.5%

Utah's 18,261 clean economy jobs make up 1.5 percent of all jobs in the state. On this measure of concentration its clean economy ranks 46th

GROWTH

+3,949

Between 2003 and 2010 Utah added 3,949 clean jobs to see the sector grow by 3.5 percent annually. Those readings placed the state 35th and 24th

EXPORTS PER JOB

$10,699

On average each clean economy job in Utah produces $10,699 in exports, which ranks it 40th on this measure

ANNUAL WAGE

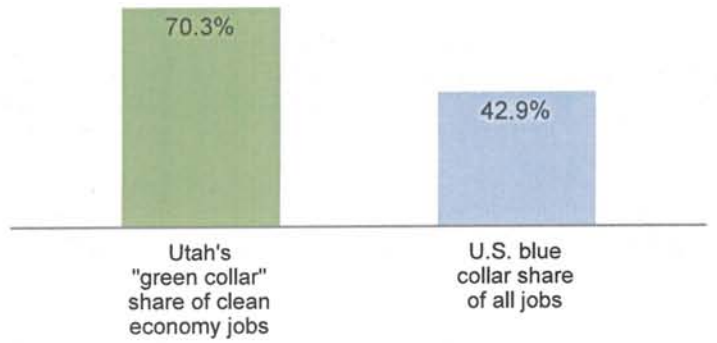
$36,637

The estimated median wage in Utah's clean economy is $36,637. This compares to $34,695 for all jobs in Utah

Clean Economy Job Growth, 2003–2010

Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Utah's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	3,503	+604	+2.7%
Public Mass Transit	3,261	+1,321	+7.7%
Waste Management and Treatment	3,201	+563	+2.8%
Energy-saving Building Materials	1,923	+399	+3.4%
Recycling and Reuse	1,250	+740	+13.7%

Fastest Growing Segments

of Utah's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Green Chemical Products	45	+41	+41.3%
Solar Photovoltaic	118	+80	+17.6%
Recycling and Reuse	1,250	+740	+13.7%
Solar Thermal	29	+17	+13.4%
Recycled-Content Products	58	+33	+12.8%

Sample Clean Economy Employers

American Specialty Glass Inc
(Recycled-Content Products)

Ceramatec Inc
(Fuel Cells)

Olsen-Beal Associates
(Wind)

Raser Technologies Inc
(Geothermal)

Tra-Mage Inc
(Energy-saving Consumer Products)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
www.brookings.edu/metro/clean_economy/map.aspx

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Department of Labor Investments in Green Skills and Training

District: UT-03, Representative Jason Chaffetz

- State Energy Sector Partnership Grant to State Workforce Agency for $4,600,000 (Statewide).

- Energy Training Partnership Grant to International Transportation Learning Center for $5 million. (Utah, Ohio, New Jersey, and New York).

- Green Capacity Building Grant to Salt Lake Community College for $96,211.

Rep. Connie Mack (FL-14)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Cape Coral, FL Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Cape Coral's Clean Economy Profile

CLEAN JOBS

2,235

In terms of its overall size the clean economy in the Cape Coral metropolitan area ranks 96th among the 100 largest metro areas

INTENSITY

1.1%

Cape Coral's 2,235 clean economy jobs make up 1.1 percent of all jobs in the region. On this measure of concentration its clean economy ranks 92nd

GROWTH

+739

Between 2003 and 2010 Cape Coral added 739 clean jobs to see the sector grow by 5.9 percent annually. Those readings placed the region 84th and 20th

EXPORTS PER JOB

$23,291

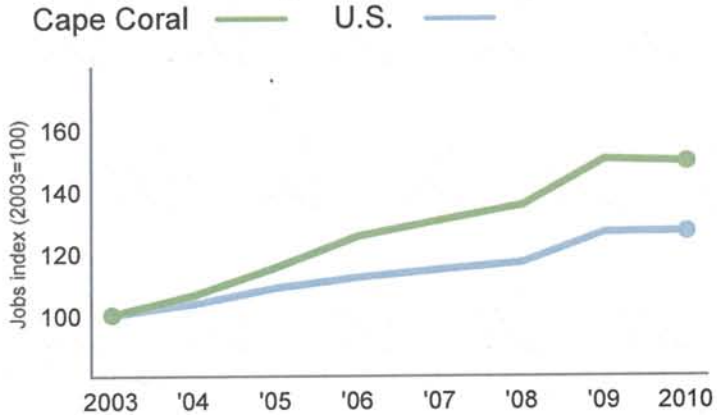
On average each clean economy job in Cape Coral produces $23,291 in exports, which ranks it 22nd on this measure

ANNUAL WAGE

$37,131

The estimated median wage in Cape Coral's clean economy is $37,131. This compares to $31,477 for all jobs in Cape Coral

Clean Economy Job Growth, 2003–2010



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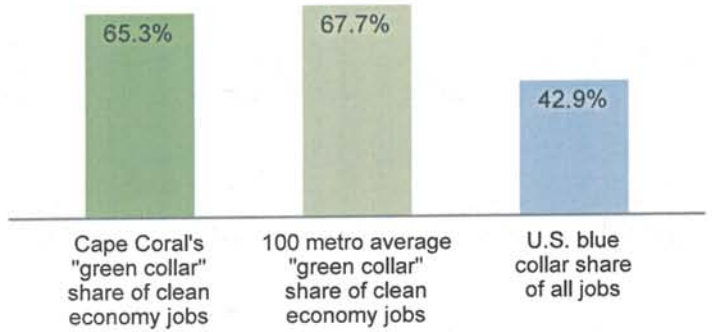
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Cape Coral's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	478	+180	+7.0%
Public Mass Transit	301	+71	+3.9%
Battery Technologies	254	0	0.0%
Professional Environmental Services	211	+129	+14.5%
Recycling and Reuse	196	+47	+4.0%

Fastest Growing Segments

of Cape Coral's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Environmental Services	211	+129	+14.5%
Remediation	40	+22	+12.1%
Air and Water Purification Technologies	57	+30	+11.3%
Energy-saving Building Materials	99	+41	+7.9%
Conservation	173	+71	+7.8%

Sample Clean Economy Employers

Advanced Air & Refrigeration Inc
(HVAC and Building Control Systems)

Algenol Biofuels Inc
(Biofuels/Biomass)

American Power Conversion Corp
(Battery Technologies)

Morris Depew Associates Inc
(Professional Environmental Services)

Munters Corp
(HVAC and Building Control Systems)

For More Information

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www.brookings.edu/metro/clean_economy.aspx

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Florida**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Florida's Clean Economy Profile

CLEAN JOBS

102,967

In terms of its overall size the clean economy in Florida ranks 7th among the 50 states and the District of Columbia

INTENSITY

1.4%

Florida's 102,967 clean economy jobs make up 1.4 percent of all jobs in the state. On this measure of concentration its clean economy ranks 49th

GROWTH

+28,298

Between 2003 and 2010 Florida added 28,298 clean jobs to see the sector grow by 4.7 percent annually. Those readings placed the state 4th and 16th

EXPORTS PER JOB

$9,386

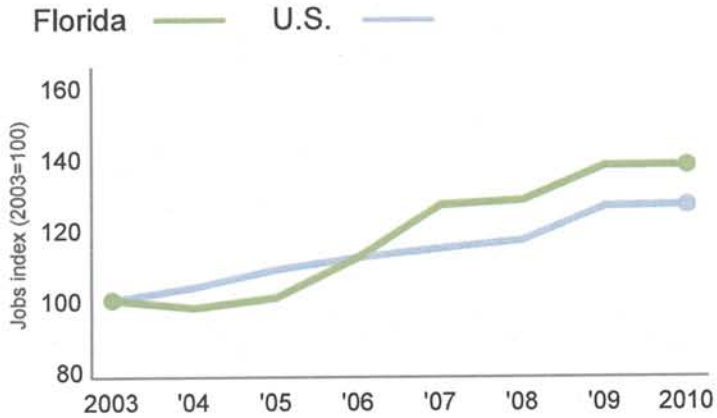
On average each clean economy job in Florida produces $9,386 in exports, which ranks it 44th on this measure

ANNUAL WAGE

$38,085

The estimated median wage in Florida's clean economy is $38,085. This compares to $34,132 for all jobs in Florida

Clean Economy Job Growth, 2003–2010



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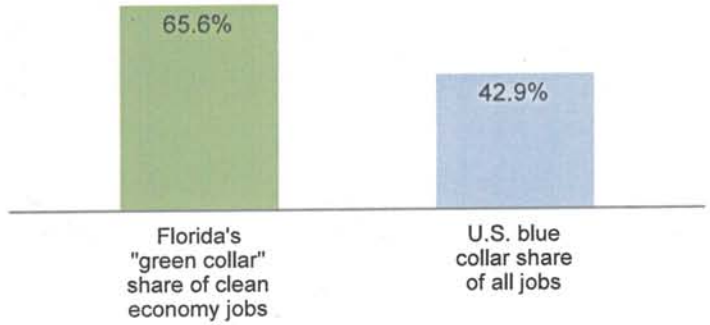
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Florida's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	23,862	+4,038	+2.7%
Conservation	20,854	+11,832	+12.7%
Public Mass Transit	12,332	+3,997	+5.8%
Professional Environmental Services	7,759	+3,761	+9.9%
Energy-saving Building Materials	6,318	+1,579	+4.2%

Fastest Growing Segments

of Florida's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Photovoltaic	597	+426	+19.6%
HVAC and Building Control Systems	2,216	+1,397	+15.3%
Sustainable Forestry Products	614	+366	+13.8%
Wind	134	+77	+13.0%
Conservation	20,854	+11,832	+12.7%

Sample Clean Economy Employers

Algenol Biofuels Inc
(Biofuels/Biomass)

FHP Manufacturing Co
(Geothermal)

Smith Reynolds & Hills Inc
(Professional Environmental Services)

Sun-Tek Manufacturing Inc
(Energy-saving Building Materials)

Sun Orchard Of Florida Inc
(Organic Food and Farming)

For More Information

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www.brookings.edu/metro/clean_economy.aspx

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Rep. Tim Walberg (MI-07)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Michigan**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Michigan's Clean Economy Profile

CLEAN JOBS

76,941

In terms of its overall size the clean economy in Michigan ranks 12th among the 50 states and the District of Columbia

INTENSITY

1.9%

Michigan's 76,941 clean economy jobs make up 1.9 percent of all jobs in the state. On this measure of concentration its clean economy ranks 27th

GROWTH

-1,596

Between 2003 and 2010 Michigan lost 1,596 clean jobs to see the sector decline by 0.3 percent annually. Those readings placed the state 51st and 51st

EXPORTS PER JOB

$26,589

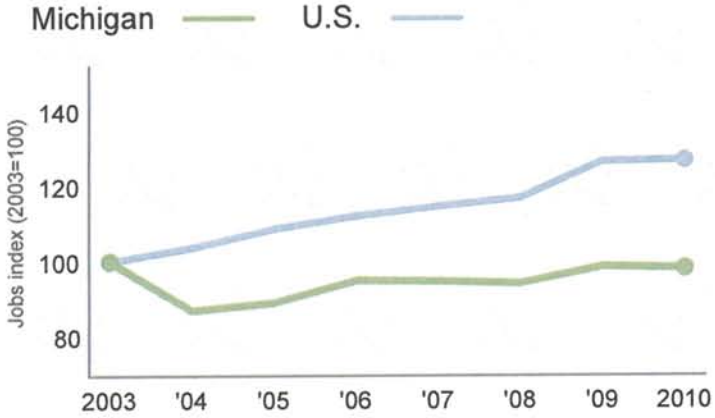
On average each clean economy job in Michigan produces $26,589 in exports, which ranks it 13th on this measure

ANNUAL WAGE

$40,558

The estimated median wage in Michigan's clean economy is $40,558. This compares to $38,024 for all jobs in Michigan

Clean Economy Job Growth, 2003–2010



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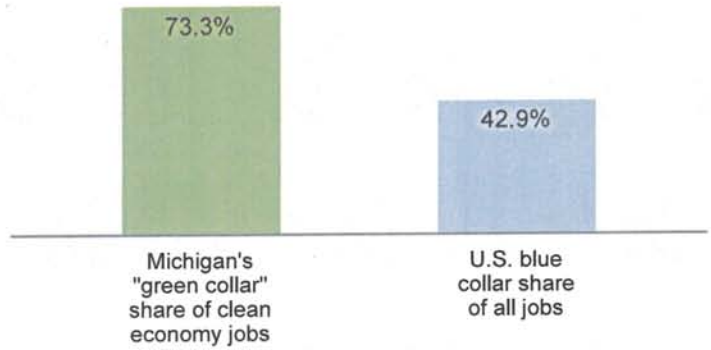
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Michigan's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Green Consumer Products	12,946	-10,869	-8.3%
Waste Management and Treatment	10,864	+2,652	+4.1%
Public Mass Transit	5,901	+643	+1.7%
Energy-saving Building Materials	5,000	+443	+1.3%
Organic Food and Farming	3,980	-3,939	-9.4%

Fastest Growing Segments

of Michigan's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Fuel Cells	98	+86	+35.0%
Lighting	53	+41	+23.6%
Solar Photovoltaic	2,370	+1,523	+15.8%
Battery Technologies	483	+269	+12.3%
Regulation and Compliance	2,444	+1,282	+11.2%

Sample Clean Economy Employers

Continental Automotive
(Electric Vehicle Technologies)

Duro-Last Inc
(Energy-saving Building Materials)

Ford Motor Co
(Electric Vehicle Technologies)

Guardian Industries Corp
(Energy-saving Building Materials)

True Textiles Inc
(Green Consumer Products)

For More Information

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www.brookings.edu/metro/clean_economy.aspx

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Ford Motor Company

Ford Motor Company closed a $5.9 billion loan arrangement under the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program to upgrade factories across Illinois, Kentucky, Michigan, Missouri, and Ohio and to introduce new technologies that will raise the fuel efficiency of more than a dozen popular vehicles. The project will convert nearly 33,000 employees to green manufacturing jobs.

Project	Ford Motor Company
Technology	Motor Vehicle Manufacturing
Location	Michigan
Loan Amount	$5.907 billion
Eligibility	ATVM
Status	Closed
Date of agreement	Sep 2009
Jobs Construction	N/A
Perm Jobs Created or Saved	33,000

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Gasoline Displaced (Gallons)	227,700,000
Annual Avoided CO2 (tons)	2,018,000
Annual Cars off the Road*	388,000
Households Equivalent (annual)**	N/A

Severstal Dearborn, LLC

$730 million conditional commitment for a loan will support the modernization of existing facilities in Dearborn, Michigan, in addition to the design, manufacture, and construction of new facilities to produce the next generation of automotive advanced high strength steel (AHSS). The project will generate over 2,500 construction jobs and over 260 permanent manufacturing jobs.

Project	Severstal Dearborn, LLC
Technology	OEM
Location	Dearborn, MI
Loan Amount	$730 million
Eligibility	N/A
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	2,500
Perm Jobs Created or Saved	260

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Gasoline Displaced (Gallons)	29,700,000
Annual Avoided CO2 (tons)	263,000
Annual Cars off the Road*	51,000
Households Equivalent (annual)**	N/A

Department of Labor Investments in Green Skills and Training

District: MI-07, Representative Tim Walberg

- State Energy Sector Partnership Grant to State Workforce Agency for $5,819,999 (Statewide).

Rep. James Lankford (OK-05)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Oklahoma City, OK Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Oklahoma City's Clean Economy Profile

CLEAN JOBS

6,854

In terms of its overall size the clean economy in the Oklahoma City metropolitan area ranks 69th among the 100 largest metro areas

INTENSITY

1.2%

Oklahoma City's 6,854 clean economy jobs make up 1.2 percent of all jobs in the region. On this measure of concentration its clean economy ranks 86th

GROWTH

+2,019

Between 2003 and 2010 Oklahoma City added 2,019 clean jobs to see the sector grow by 5.1 percent annually. Those readings placed the region 54th and 37th

EXPORTS PER JOB

$6,716

On average each clean economy job in Oklahoma City produces $6,716 in exports, which ranks it 83rd on this measure

ANNUAL WAGE

$35,559

The estimated median wage in Oklahoma City's clean economy is $35,559. This compares to $32,808 for all jobs in Oklahoma City

Clean Economy Job Growth, 2003–2010

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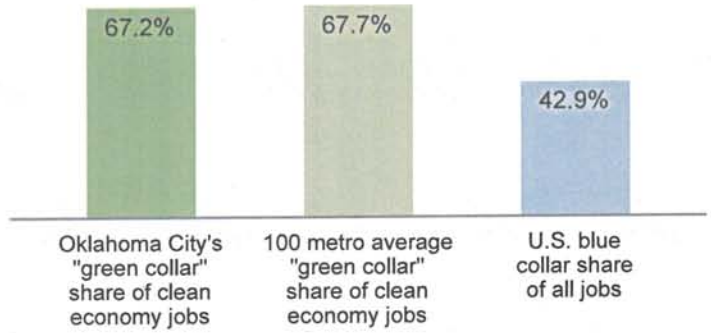
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Oklahoma City's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	2,388	+1,106	+9.3%
Conservation	1,156	+63	+0.8%
Energy-saving Building Materials	687	+225	+5.8%
Public Mass Transit	657	+101	+2.4%
Professional Environmental Services	585	+151	+4.4%

Fastest Growing Segments

of Oklahoma City's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Green Consumer Products	39	+30	+23.3%
Solar Photovoltaic	14	+9	+15.8%
Remediation	337	+211	+15.1%
Waste Management and Treatment	2,388	+1,106	+9.3%
Wind	45	+20	+8.8%

Sample Clean Economy Employers

C. H. Guernsey & Co
(Professional Environmental Services)

Chermac Energy Corp
(Wind)

Climate Master Inc
(HVAC and Building Control Systems)

IFCO Systems North America Inc
(Recycled-Content Products)

Weyerhaeuser Co
(Green Building Materials)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Oklahoma**

Why the Clean Economy Matters

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Oklahoma's Clean Economy Profile

CLEAN JOBS

19,297

In terms of its overall size the clean economy in Oklahoma ranks 34th among the 50 states and the District of Columbia

INTENSITY

1.2%

Oklahoma's 19,297 clean economy jobs make up 1.2 percent of all jobs in the state. On this measure of concentration its clean economy ranks 51st

GROWTH

+5,394

Between 2003 and 2010 Oklahoma added 5,394 clean jobs to see the sector grow by 4.8 percent annually. Those readings placed the state 27th and 14th

EXPORTS PER JOB

$10,491

On average each clean economy job in Oklahoma produces $10,491 in exports, which ranks it 42nd on this measure

ANNUAL WAGE

$33,673

The estimated median wage in Oklahoma's clean economy is $33,673. This compares to $31,197 for all jobs in Oklahoma

Clean Economy Job Growth, 2003–2010

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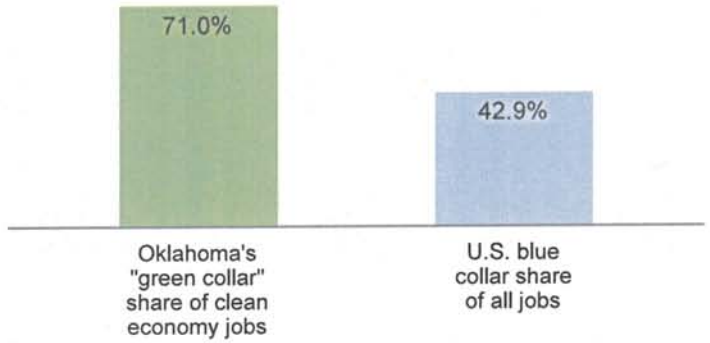
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Oklahoma's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	7,276	+3,294	+9.0%
Conservation	1,901	+358	+3.0%
Public Mass Transit	1,683	+161	+1.4%
Energy-saving Building Materials	1,668	+532	+5.6%
Professional Environmental Services	1,043	+337	+5.7%

Fastest Growing Segments

of Oklahoma's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Appliances	300	+280	+47.2%
Wind	284	+259	+41.5%
Waste-to-Energy	60	+41	+17.9%
Professional Energy Services	77	+48	+15.0%
Solar Photovoltaic	28	+17	+14.3%

Sample Clean Economy Employers

Applied Energy Solutions Inc
(Professional Energy Services)

Chermac Energy Corp
(Wind)

Climate Master Inc
(HVAC and Building Control Systems)

Ifco Systems
(Recycled-Content Products)

Whirlpool Corp
(Appliances)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
www.brookings.edu/metro/clean_economy/map.aspx

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Department of Labor Investments in Green Skills and Training

District: OK-05, Representative James Lankford

- State Energy Sector Partnership Grant to State Workforce Agency for $6,000,000 (Statewide).

- Energy Training Partnership Grant to Austin Electrical Joint Apprenticeship Training Committee for $4,842,425 (Oklahoma and Texas).

- Pathways out of Poverty Grant to It's My Community Initiative for $4,000,000 (Oklahoma City).

- The Gurthrie Job Corps Center has incorporated green training elements into its facilities maintenance, plumbing, and welding programs.

Rep. Justin Amash (MI-03)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Grand Rapids, MI Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Grand Rapids' Clean Economy Profile

CLEAN JOBS

8,812

In terms of its overall size the clean economy in the Grand Rapids metropolitan area ranks 59th among the 100 largest metro areas

INTENSITY

2.4%

Grand Rapids' 8,812 clean economy jobs make up 2.4 percent of all jobs in the region. On this measure of concentration its clean economy ranks 22nd

GROWTH

-8,420

Between 2003 and 2010 Grand Rapids lost 8,420 clean jobs to see the sector decline by 9.1 percent annually. Those readings placed the region 100th and 100th

EXPORTS PER JOB

$39,631

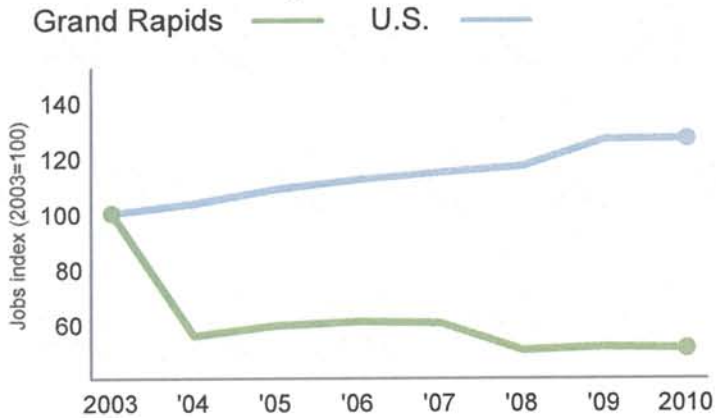
On average each clean economy job in Grand Rapids produces $39,631 in exports, which ranks it 5th on this measure

ANNUAL WAGE

$38,203

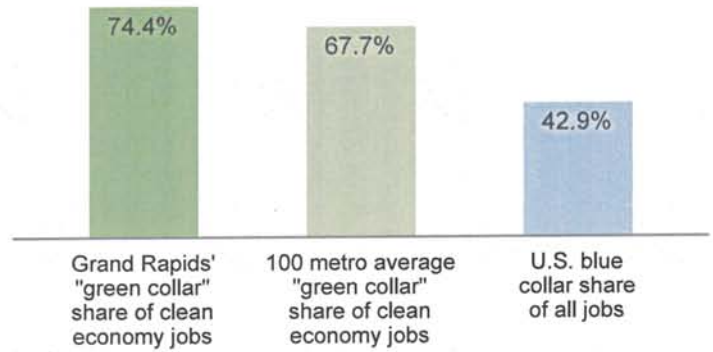
The estimated median wage in Grand Rapids' clean economy is $38,203. This compares to $36,243 for all jobs in Grand Rapids

Clean Economy Job Growth, 2003–2010



Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Grand Rapids' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Green Consumer Products	2,514	-9,238	-19.8%
Organic Food and Farming	977	+213	+3.6%
Appliances	900	0	0.0%
Wind	719	-181	-3.2%
HVAC and Building Control Systems	690	+378	+12.0%

Fastest Growing Segments

of Grand Rapids' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	146	+110	+22.1%
HVAC and Building Control Systems	690	+378	+12.0%
Green Building Materials	140	+70	+10.4%
Air and Water Purification Technologies	61	+20	+5.8%
Recycling and Reuse	412	+127	+5.4%

Sample Clean Economy Employers

Andy J Egan Co
(HVAC and Building Control Systems)

Cascade Engineering Inc
(Wind)

Eaton Corp
(Energy-saving Building Materials)

Steelcase Inc
(Green Consumer Products)

True Textiles Inc
(Green Consumer Products)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Michigan**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Michigan's Clean Economy Profile

CLEAN JOBS

76,941

In terms of its overall size the clean economy in Michigan ranks 12th among the 50 states and the District of Columbia

INTENSITY

1.9%

Michigan's 76,941 clean economy jobs make up 1.9 percent of all jobs in the state. On this measure of concentration its clean economy ranks 27th

GROWTH

-1,596

Between 2003 and 2010 Michigan lost 1,596 clean jobs to see the sector decline by 0.3 percent annually. Those readings placed the state 51st and 51st

EXPORTS PER JOB

$26,589

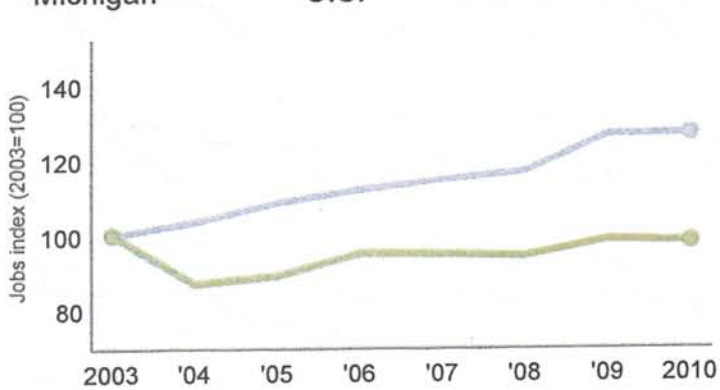
On average each clean economy job in Michigan produces $26,589 in exports, which ranks it 13th on this measure

ANNUAL WAGE

$40,558

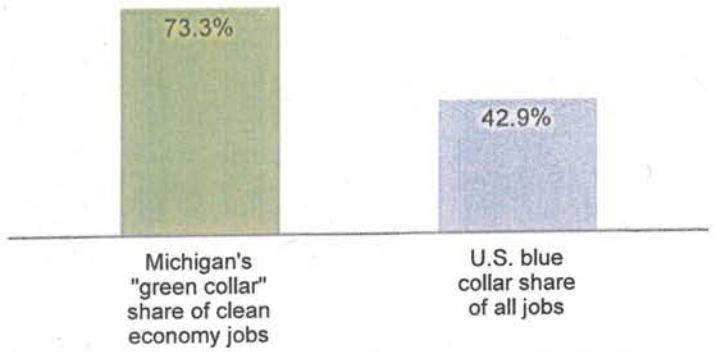
The estimated median wage in Michigan's clean economy is $40,558. This compares to $38,024 for all jobs in Michigan

Clean Economy Job Growth, 2003–2010



Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Michigan's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Green Consumer Products	12,946	-10,869	-8.3%
Waste Management and Treatment	10,864	+2,652	+4.1%
Public Mass Transit	5,901	+643	+1.7%
Energy-saving Building Materials	5,000	+443	+1.3%
Organic Food and Farming	3,980	-3,939	-9.4%

Fastest Growing Segments

of Michigan's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Fuel Cells	98	+86	+35.0%
Lighting	53	+41	+23.6%
Solar Photovoltaic	2,370	+1,523	+15.8%
Battery Technologies	483	+269	+12.3%
Regulation and Compliance	2,444	+1,282	+11.2%

Sample Clean Economy Employers

Continental Automotive
(Electric Vehicle Technologies)

Duro-Last Inc
(Energy-saving Building Materials)

Ford Motor Co
(Electric Vehicle Technologies)

Guardian Industries Corp
(Energy-saving Building Materials)

True Textiles Inc
(Green Consumer Products)

For More Information

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www.brookings.edu/metro/clean_economy.aspx

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Ford Motor Company

Ford Motor Company closed a $5.9 billion loan arrangement under the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program to upgrade factories across Illinois, Kentucky, Michigan, Missouri, and Ohio and to introduce new technologies that will raise the fuel efficiency of more than a dozen popular vehicles. The project will convert nearly 33,000 employees to green manufacturing jobs.

Project	Ford Motor Company
Technology	Motor Vehicle Manufacturing
Location	Michigan
Loan Amount	$5.907 billion
Eligibility	ATVM
Status	Closed
Date of agreement	Sep 2009
Jobs Construction	N/A
Perm Jobs Created or Saved	33,000

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Gasoline Displaced (Gallons)	227,700,000
Annual Avoided CO2 (tons)	2,018,000
Annual Cars off the Road*	388,000
Households Equivalent (annual)**	N/A

Severstal Dearborn, LLC

$730 million conditional commitment for a loan will support the modernization of existing facilities in Dearborn, Michigan, in addition to the design, manufacture, and construction of new facilities to produce the next generation of automotive advanced high strength steel (AHSS). The project will generate over 2,500 construction jobs and over 260 permanent manufacturing jobs.

Project	Severstal Dearborn, LLC
Technology	OEM
Location	Dearborn, MI
Loan Amount	$730 million
Eligibility	N/A
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	2,500
Perm Jobs Created or Saved	260

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Gasoline Displaced (Gallons)	29,700,000
Annual Avoided CO2 (tons)	263,000
Annual Cars off the Road*	51,000
Households Equivalent (annual)**	N/A

Department of Labor Investments in Green Skills and Training

District: MI-03, Representative Justin Amash

- State Energy Sector Partnership Grant to State Workforce Agency for $5,819,999.
- Pathways out of Poverty Grant to Grand Rapids Community College for $4,000,000.
- Pathways out of Poverty Grant to Goodwill Industries International for $7,303,637.
- The Gerald R. Ford Job Corps Center has incorporated green training elements into its facilities maintenance and carpentry training.

Rep. Ann Marie Buerkle (NY-25)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Syracuse, NY Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Syracuse's Clean Economy Profile

CLEAN JOBS

9,648

In terms of its overall size the clean economy in the Syracuse metropolitan area ranks 55th among the 100 largest metro areas

INTENSITY

3.0%

Syracuse's 9,648 clean economy jobs make up 3.0 percent of all jobs in the region. On this measure of concentration its clean economy ranks 11th

GROWTH

+1,376

Between 2003 and 2010 Syracuse added 1,376 clean jobs to see the sector grow by 2.2 percent annually. Those readings placed the region 64th and 80th

EXPORTS PER JOB

$10,317

On average each clean economy job in Syracuse produces $10,317 in exports, which ranks it 70th on this measure

ANNUAL WAGE

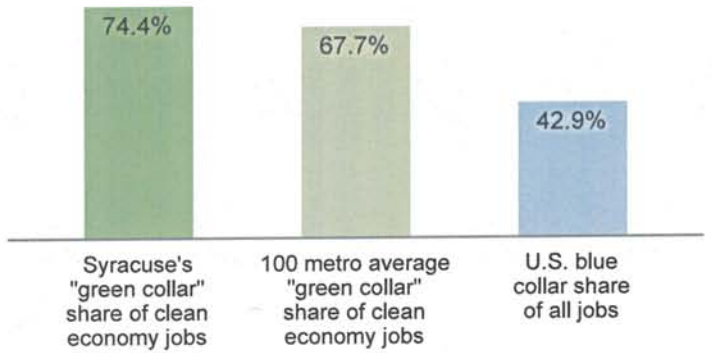
$39,254

The estimated median wage in Syracuse's clean economy is $39,254. This compares to $37,343 for all jobs in Syracuse

Clean Economy Job Growth, 2003–2010

Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Syracuse's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Nuclear Energy	1,707	+134	+1.2%
Public Mass Transit	1,486	+207	+2.2%
HVAC and Building Control Systems	1,338	+1,305	+69.7%
Conservation	1,157	+268	+3.8%
Waste Management and Treatment	851	-1,267	-12.2%

Fastest Growing Segments

of Syracuse's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
HVAC and Building Control Systems	1,338	+1,305	+69.7%
Air and Water Purification Technologies	103	+86	+29.4%
Remediation	349	+207	+13.7%
Professional Environmental Services	725	+404	+12.3%
Green Building Materials	6	+2	+6.0%

Sample Clean Economy Employers

Byrne Dairy Inc
(Organic Food and Farming)

Carrier Corp
(HVAC and Building Control Systems)

Healthway Home Products Inc
(Air and Water Purification Technologies)

Nine Mile Point Nuclear Station, LLC
(Nuclear Energy)

O'Brien & Gere Inc
(Professional Environmental Services)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of New York**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

New York's Clean Economy Profile

CLEAN JOBS

185,038

In terms of its overall size the clean economy in New York ranks 2nd among the 50 states and the District of Columbia

INTENSITY

2.1%

New York's 185,038 clean economy jobs make up 2.1 percent of all jobs in the state. On this measure of concentration its clean economy ranks 15th

GROWTH

+60,190

Between 2003 and 2010 New York added 60,190 clean jobs to see the sector grow by 5.8 percent annually. Those readings placed the state 2nd and 9th

EXPORTS PER JOB

$13,149

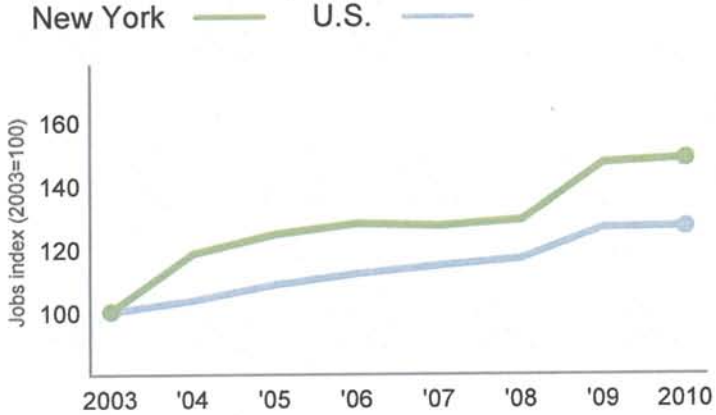
On average each clean economy job in New York produces $13,149 in exports, which ranks it 36th on this measure

ANNUAL WAGE

$44,056

The estimated median wage in New York's clean economy is $44,056. This compares to $43,801 for all jobs in New York

Clean Economy Job Growth, 2003–2010



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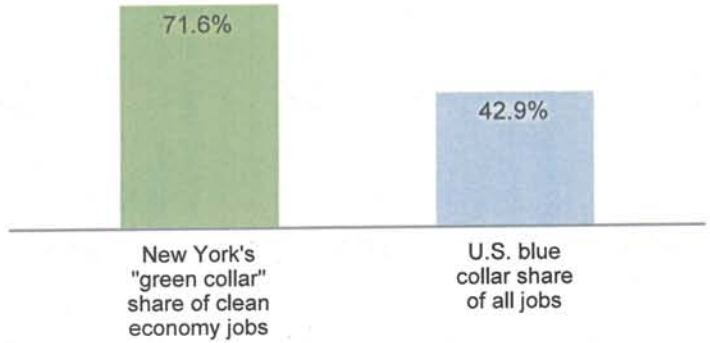
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of New York's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	56,504	+16,202	+4.9%
Waste Management and Treatment	20,633	+2,076	+1.5%
Conservation	18,144	+9,519	+11.2%
Regulation and Compliance	15,073	+11,966	+25.3%
Professional Environmental Services	9,371	+3,339	+6.5%

Fastest Growing Segments

of New York's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	5,147	+5,102	+96.8%
Solar Thermal	2,013	+1,885	+48.2%
Regulation and Compliance	15,073	+11,966	+25.3%
Solar Photovoltaic	556	+340	+14.5%
HVAC and Building Control Systems	4,046	+2,360	+13.3%

Sample Clean Economy Employers

Cpower Inc
(Energy-saving Building Materials)

MTI Microfuel Cells Inc
(Fuel Cells)

Novomer Inc
(Green Chemical Products)

Recyclebank LLC
(Recycling and Reuse)

Tectonic Engineering
(Professional Environmental Services)

For More Information

VIEW THE FULL REPORT:
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AES Corporation

The Department of Energy issued AES Energy Storage, LLC a $17.1 million loan guarantee to build a 20 megawatt energy storage system in Johnson City, New York. The project is eligible under both Section 1703 and 1705 of Title XVII of the Energy Policy Act of 2005. The energy storage system provides a savings of approximately 70 percent in carbon dioxide emissions relative to frequency regulation by traditional fossil fuel power plants.

Project	AES Corporation
Technology	Battery Storage
Location	Johnson City, NY
Loan Amount	$17.1 million
Eligibility	1705
Status	Closed
Date of agreement	Aug 2010
Jobs Construction	30
Perm Jobs Created or Saved	5

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	N/A
Annual Cars off the Road*	N/A
Households Equivalent (annual)**	N/A
Equivalent Annual Average Generation of X Coal Plants ***	N/A

Beacon Power Corporation

The Department of Energy finalized a $43 million loan guarantee for Beacon Power Corporation to support the construction of its 20 megawatt innovative flywheel energy storage plant in Stephentown, New York.

Project	Beacon Power Corporation
Technology	Energy Storage
Location	Stephentown, NY
Loan Amount	$43 million
Eligibility	1705
Status	Closed
Date of agreement	Aug 2010
Jobs Construction	20
Perm Jobs Created or Saved	40

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	N/A
Annual Cars off the Road*	N/A
Households Equivalent (annual)**	N/A
Equivalent Annual Average Generation of X Coal Plants ***	N/A

Department of Labor Investments in Green Skills and Training

District: NY-25, Representative Ann Marie Buerkle

- Energy Training Partnership Grant to National Ironworkers and Employers Apprenticeship Training and Journeyman Upgrading Fund for $1,943,931.
- Pathways out of Poverty Grant to CNY Works, Inc. for $3,715,931.
- The Oneonta Job Corps Center offers Overhead Line Construction and Smart Meter green training programs.

Rep. Paul A. Gosar (AZ-01)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Arizona**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Arizona's Clean Economy Profile

CLEAN JOBS

37,257

In terms of its overall size the clean economy in Arizona ranks 25th among the 50 states and the District of Columbia

INTENSITY

1.5%

Arizona's 37,257 clean economy jobs make up 1.5 percent of all jobs in the state. On this measure of concentration its clean economy ranks 44th

GROWTH

+7,361

Between 2003 and 2010 Arizona added 7,361 clean jobs to see the sector grow by 3.2 percent annually. Those readings placed the state 20th and 28th

EXPORTS PER JOB

$13,504

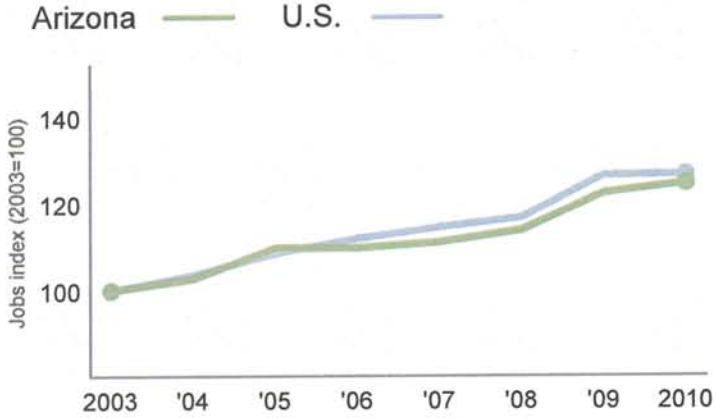
On average each clean economy job in Arizona produces $13,504 in exports, which ranks it 34th on this measure

ANNUAL WAGE

$38,831

The estimated median wage in Arizona's clean economy is $38,831. This compares to $35,902 for all jobs in Arizona

Clean Economy Job Growth, 2003–2010



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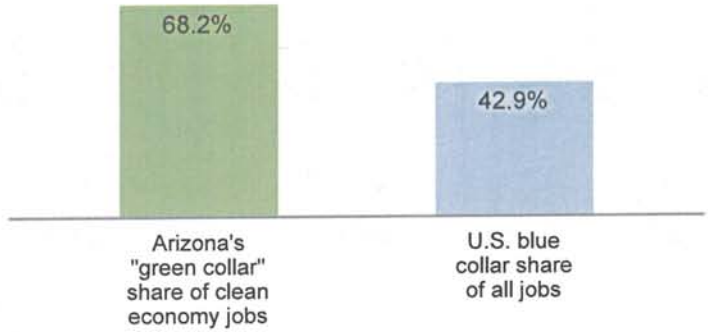
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Arizona's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	8,453	+1,931	+3.8%
Conservation	4,628	+948	+3.3%
Public Mass Transit	3,756	+325	+1.3%
Nuclear Energy	2,527	+202	+1.2%
Recycling and Reuse	2,446	+820	+6.0%

Fastest Growing Segments

of Arizona's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Biofuels/Biomass	135	+110	+27.2%
Electric Vehicle Technologies	5	+4	+25.8%
Professional Energy Services	403	+300	+21.5%
Solar Photovoltaic	824	+491	+13.8%
HVAC and Building Control Systems	809	+447	+12.2%

Sample Clean Economy Employers

Diversified Energy Corp
(Carbon Storage and Management)

Harmon Electric Inc
(Solar Photovoltaic)

Hydro Aluminum North America
(Solar Thermal)

Phoenix Manufacturing Inc
(HVAC and Building Control Systems)

WR Meadows of Arizona Inc
(Green Building Materials)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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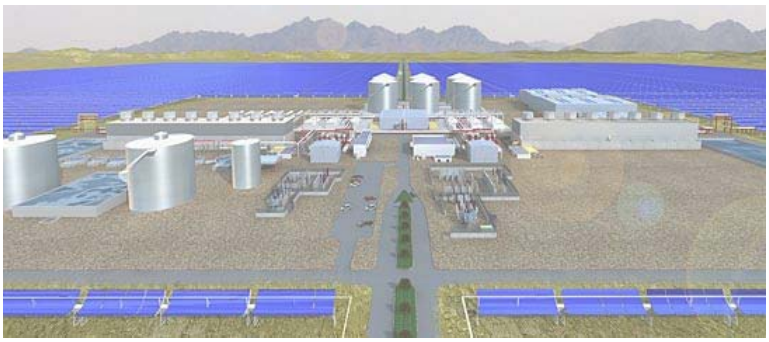


ABENGOA SOLAR

Abengoa Solar, Inc. (Solana)

The Department of Energy offered Abengoa Solar, Inc. a conditional commitment for a $1.45 billion loan guarantee for the Solana Project, which has a net capacity of 250 megawatts and will deliver enough electricity to meet the annual needs of approximately 80,000 Arizona households. The project is located in Maricopa County, near Gila Bend, Arizona (about 70 miles west of Phoenix). The Solana project will create approximately 1,600 construction jobs and, when completed, will create over 60 permanent jobs.

Project	Abengoa Solar, Inc. (Solana)
Technology	Solar Generation
Location	Gila Bend, AZ
Loan Amount	$1.446 billion
Eligibility	1705
Status	Closed
Date of agreement	Dec 2010
Jobs Construction	1,700
Perm Jobs Created or Saved	60
Generation Capacity (MW)	250
Annual Generation Output (MWh)	944,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	544,000
Annual Cars off the Road*	105,000
Households Equivalent (annual)**	82,000
Equivalent Annual Average Generation of X Coal Plants ***	0.3

Agua Caliente

$967 million loan guarantee issued to Agua Caliente Solar will support the construction of a 290 MW solar generation facility and create up to 400 jobs.

Project	Agua Caliente
Technology	Solar Generation
Location	Yuma County, AZ
Loan Amount	$967 million
Eligibility	1705
Status	Closed
Date of agreement	Aug 2011
Jobs Construction	400
Perm Jobs Created or Saved	10

Generation Capacity (MW)	290
Annual Generation Output (MWh)	648,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	372,000
Annual Cars off the Road*	72,000
Households Equivalent (annual)**	56,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

Mesquite Solar 1, LLC (Sempra Mesquite)

$398 million offer for a loan guarantee will annually produce 170 MW of power and will be one of the first large-scale photovoltaic power plants in the U.S. Project will create more than 300 construction jobs and 7 operating jobs.

Project	Mesquite Solar 1, LLC (Sempra Mesquite)
Technology	Solar Generation
Location	Maricopa County, AZ
Loan Amount	$398 million
Eligibility	1705
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	300
Perm Jobs Created or Saved	7

Generation Capacity (MW)	170
Annual Generation Output (MWh)	350,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	201,000
Annual Cars off the Road*	39,000
Households Equivalent (annual)**	30,000
Equivalent Annual Average Generation of X Coal Plants ***	0.1

Department of Labor Investments in Green Skills and Training

District: AZ-01, Representative Paul A.Gosar

- State Energy Sector Partnership Grant to State Workforce Agency for $5,000,000.

Rep. Raul R. Labrador (ID-01)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Boise City, ID Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Boise City's Clean Economy Profile

CLEAN JOBS

7,456

In terms of its overall size the clean economy in the Boise City metropolitan area ranks 65th among the 100 largest metro areas

INTENSITY

2.8%

Boise City's 7,456 clean economy jobs make up 2.8 percent of all jobs in the region. On this measure of concentration its clean economy ranks 13th

GROWTH

+2,023

Between 2003 and 2010 Boise City added 2,023 clean jobs to see the sector grow by 4.6 percent annually. Those readings placed the region 53rd and 47th

EXPORTS PER JOB

$16,815

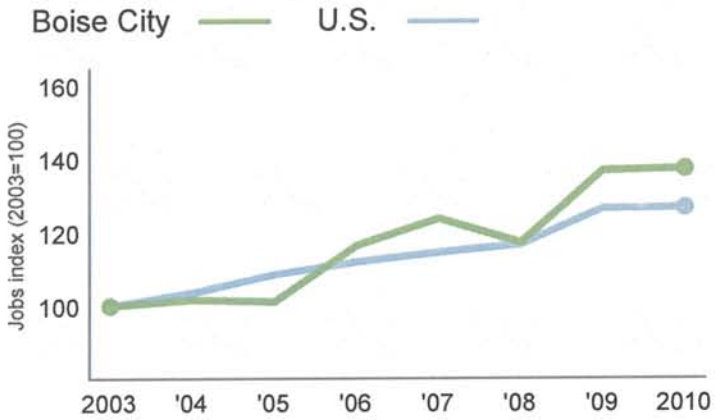
On average each clean economy job in Boise City produces $16,815 in exports, which ranks it 43rd on this measure

ANNUAL WAGE

$36,139

The estimated median wage in Boise City's clean economy is $36,139. This compares to $35,579 for all jobs in Boise City

Clean Economy Job Growth, 2003–2010



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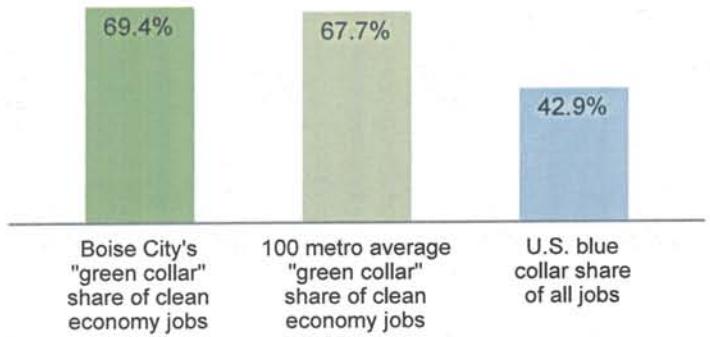
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Boise City's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	2,099	+141	+1.0%
Remediation	1,065	+1,043	+74.1%
Green Building Materials	871	+254	+5.0%
Green Consumer Products	717	+545	+22.6%
Waste Management and Treatment	506	-125	-3.1%

Fastest Growing Segments

of Boise City's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Remediation	1,065	+1,043	+74.1%
Geothermal	30	+29	+62.6%
Green Consumer Products	717	+545	+22.6%
HVAC and Building Control Systems	35	+23	+16.5%
Public Mass Transit	388	+224	+13.1%

Sample Clean Economy Employers

Boise Cascade LLC
(Green Building Materials)

Boise White Paper L L C
(Green Consumer Products)

J-U-B Engineers Inc
(Professional Environmental Services)

Nunhems USA Inc
(Organic Food and Farming)

Weyerhaeuser Co
(Green Building Materials)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Idaho**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Idaho's Clean Economy Profile

CLEAN JOBS

17,543

In terms of its overall size the clean economy in Idaho ranks 37th among the 50 states and the District of Columbia

INTENSITY

2.7%

Idaho's 17,543 clean economy jobs make up 2.7 percent of all jobs in the state. On this measure of concentration its clean economy ranks 9th

GROWTH

+4,551

Between 2003 and 2010 Idaho added 4,551 clean jobs to see the sector grow by 4.4 percent annually. Those readings placed the state 32nd and 18th

EXPORTS PER JOB

$10,514

On average each clean economy job in Idaho produces $10,514 in exports, which ranks it 41st on this measure

ANNUAL WAGE

$36,359

The estimated median wage in Idaho's clean economy is $36,359. This compares to $33,767 for all jobs in Idaho

Clean Economy Job Growth, 2003–2010

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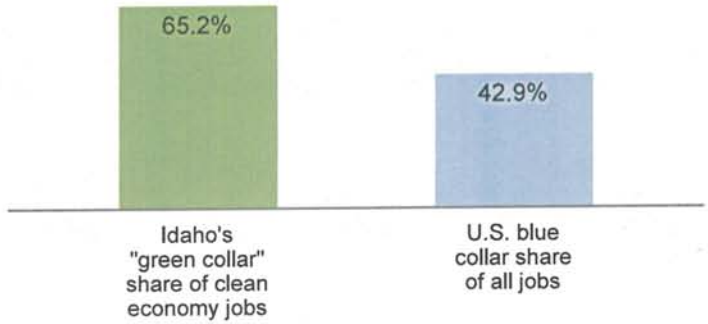
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Idaho's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	5,668	+1,089	+3.1%
Energy-saving Building Materials	1,454	+1,129	+23.9%
Hydropower	1,448	-425	-3.6%
Waste Management and Treatment	1,308	+110	+1.3%
Remediation	1,167	+1,078	+44.4%

Fastest Growing Segments

of Idaho's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Remediation	1,167	+1,078	+44.4%
Energy-saving Building Materials	1,454	+1,129	+23.9%
Public Mass Transit	1,144	+738	+16.0%
Green Chemical Products	14	+8	+12.9%
HVAC and Building Control Systems	50	+26	+11.1%

Sample Clean Economy Employers

Boise Cascade LLC
(Green Building Materials)

Boise White Paper L L C
(Green Consumer Products)

Power Engineers Inc
(Geothermal)

Rc Bigelow Inc
(Organic Food and Farming)

Windsor Window Co
(Energy-saving Building Materials)

For More Information

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AREVA

The Department of Energy offered AREVA Enrichment Services, LLC a conditional commitment for a $2 billion loan guarantee to support the Eagle Rock Enrichment Facility in Idaho Falls, Idaho. The project will supply uranium enrichment services. The project will create 1,300 jobs.

Project	AREVA
Technology	Front-end Nuclear
Location	Idaho Falls, ID
Loan Amount	$2 billion
Eligibility	1703
Status	Conditional Commitment
Date of agreement	May 2010
Jobs Construction	1,000
Perm Jobs Created or Saved	310

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	N/A
Annual Cars off the Road*	N/A
Households Equivalent (annual)**	N/A
Equivalent Annual Average Generation of X Coal Plants ***	N/A

Nordic Windpower USA, Inc.

The Department of Energy offered Nordic Windpower USA, Inc. a conditional commitment for a $16 million loan guarantee to support the expansion of its assembly plant in Pocatello, Idaho to produce one megawatt wind turbines. The project will create 75 jobs.

Project	Nordic Windpower USA, Inc.
Technology	Wind Manufacturing
Location	Pocatello, ID
Loan Amount	$16 million
Eligibility	1705
Status	Conditional Commitment
Date of agreement	July, 2009
Jobs Construction	N/A
Perm Jobs Created or Saved	75

Generation Capacity (MW)	180
Annual Generation Output (MWh)	329,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	189,000
Annual Cars off the Road*	36,000
Households Equivalent (annual)**	29,000
Equivalent Annual Average Generation of X Coal Plants ***	N/A

Department of Labor Investments in Green Skills and Training

District: ID-01, Representative Raul R. Labrador

- State Energy Sector Partnership grant for $5,991,184 (Statewide).
- The Centennial Job Corps Center has implemented green training elements in five of its training programs: electrical, construction, plaster, painting and welding.

Rep. Pat Meehan (PA-07)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Philadelphia, PA-NJ-DE-MD Metropolitan Area**

Why the Clean Economy Matters

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Philadelphia's Clean Economy Profile

CLEAN JOBS

54,325

In terms of its overall size the clean economy in the Philadelphia metropolitan area ranks 5th among the 100 largest metro areas

INTENSITY

2.0%

Philadelphia's 54,325 clean economy jobs make up 2.0 percent of all jobs in the region. On this measure of concentration its clean economy ranks 35th

GROWTH

+6,573

Between 2003 and 2010 Philadelphia added 6,573 clean jobs to see the sector grow by 1.9 percent annually. Those readings placed the region 20th and 83rd

EXPORTS PER JOB

$15,693

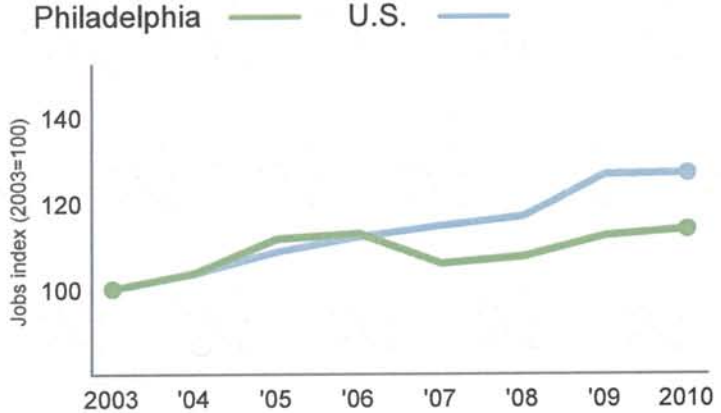
On average each clean economy job in Philadelphia produces $15,693 in exports, which ranks it 48th on this measure

ANNUAL WAGE

$43,913

The estimated median wage in Philadelphia's clean economy is $43,913. This compares to $42,722 for all jobs in Philadelphia

Clean Economy Job Growth, 2003–2010



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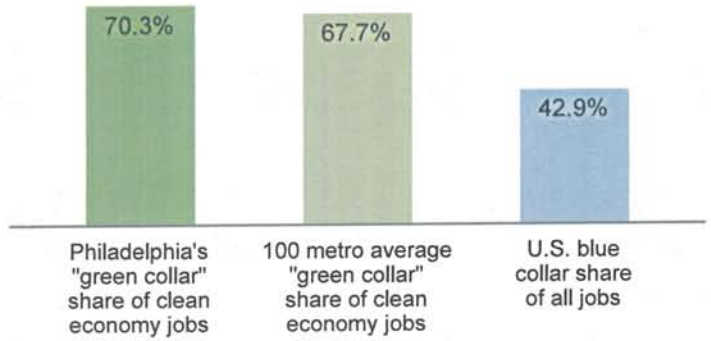
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Philadelphia's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	14,556	+1,726	+1.8%
Waste Management and Treatment	6,353	-2,536	-4.7%
Nuclear Energy	3,894	+472	+1.9%
Energy-saving Building Materials	3,013	+476	+2.5%
Organic Food and Farming	2,739	+822	+5.2%

Fastest Growing Segments

of Philadelphia's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	473	+462	+71.1%
Solar Thermal	235	+229	+68.9%
Solar Photovoltaic	459	+442	+60.1%
Fuel Cells	107	+103	+59.9%
Lighting	908	+873	+59.2%

Sample Clean Economy Employers

Gamesa Energy USA
(Wind)

General Electric Co
(Air and Water Purification Technologies)

Hubbell Lighting Inc
(Lighting)

Veolia ES Technical Solutions
(Remediation)

Westinghouse Lighting Corp
(Lighting)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Pennsylvania**

Why the Clean Economy Matters

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Pennsylvania's Clean Economy Profile

CLEAN JOBS

118,686

In terms of its overall size the clean economy in Pennsylvania ranks 4th among the 50 states and the District of Columbia

INTENSITY

2.1%

Pennsylvania's 118,686 clean economy jobs make up 2.1 percent of all jobs in the state. On this measure of concentration its clean economy ranks 20th

GROWTH

+19,352

Between 2003 and 2010 Pennsylvania added 19,352 clean jobs to see the sector grow by 2.6 percent annually. Those readings placed the state 8th and 37th

EXPORTS PER JOB

$15,709

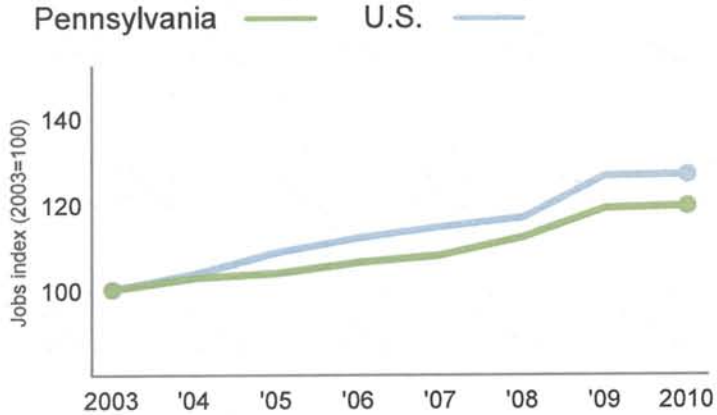
On average each clean economy job in Pennsylvania produces $15,709 in exports, which ranks it 28th on this measure

ANNUAL WAGE

$39,266

The estimated median wage in Pennsylvania's clean economy is $39,266. This compares to $36,939 for all jobs in Pennsylvania

Clean Economy Job Growth, 2003–2010



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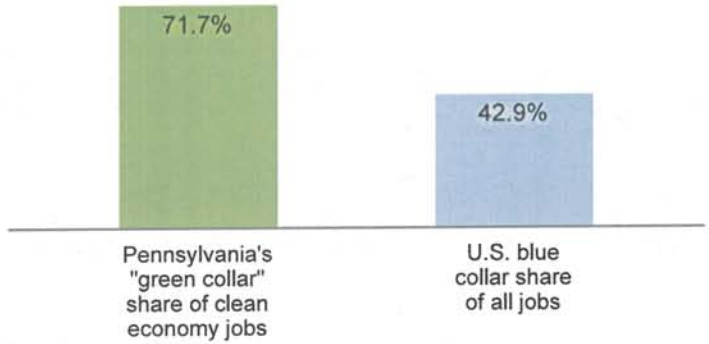
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Pennsylvania's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	24,770	+2,823	+1.7%
Waste Management and Treatment	16,407	-678	-0.6%
Conservation	9,999	+3,471	+6.3%
Energy-saving Building Materials	7,489	+779	+1.6%
Recycling and Reuse	6,381	+1,630	+4.3%

Fastest Growing Segments

of Pennsylvania's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Lighting	1,328	+1,293	+68.1%
Solar Photovoltaic	422	+393	+46.6%
Wind	935	+862	+44.0%
Professional Energy Services	1,867	+1,147	+14.6%
Biofuels/Biomass	130	+73	+12.5%

Sample Clean Economy Employers

Lutron Electronics Co Inc
(Energy-saving Consumer Products)

Mechanical Operations Co Inc
(Professional Energy Services)

Plextronics Inc
(Solar Photovoltaic)

Westinghouse Lighting Corp
(Lighting)

Windurance
(Wind)

For More Information

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Department of Labor Investments in Green Skills and Training

District: PA-07, Representative Patrick Meehan

- State Energy Sector Partnership Grant to State Workforce Agency for $6 million (Statewide).

- Energy Training Partnership Grant to the Institute for Career Development Inc. for $4,658,986 (District and other communities).

Rep. Scott DesJarlais (TN-04)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Tennessee**

Why the Clean Economy Matters

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Tennessee's Clean Economy Profile

CLEAN JOBS

76,031

In terms of its overall size the clean economy in Tennessee ranks 14th among the 50 states and the District of Columbia

INTENSITY

2.8%

Tennessee's 76,031 clean economy jobs make up 2.8 percent of all jobs in the state. On this measure of concentration its clean economy ranks 6th

GROWTH

+17,575

Between 2003 and 2010 Tennessee added 17,575 clean jobs to see the sector grow by 3.8 percent annually. Those readings placed the state 11th and 22nd

EXPORTS PER JOB

$50,939

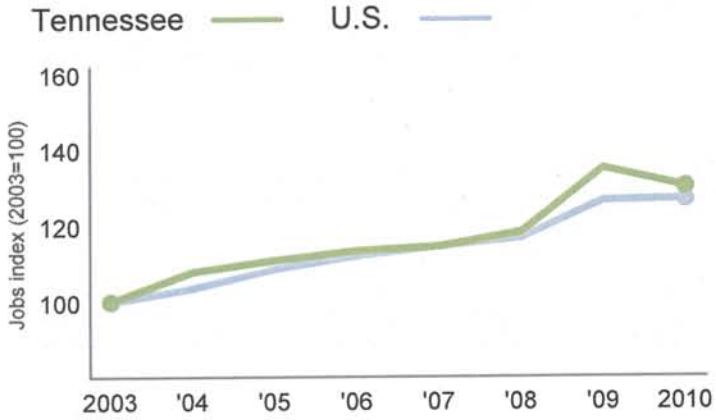
On average each clean economy job in Tennessee produces $50,939 in exports, which ranks it 2nd on this measure

ANNUAL WAGE

$37,347

The estimated median wage in Tennessee's clean economy is $37,347. This compares to $32,691 for all jobs in Tennessee

Clean Economy Job Growth, 2003–2010



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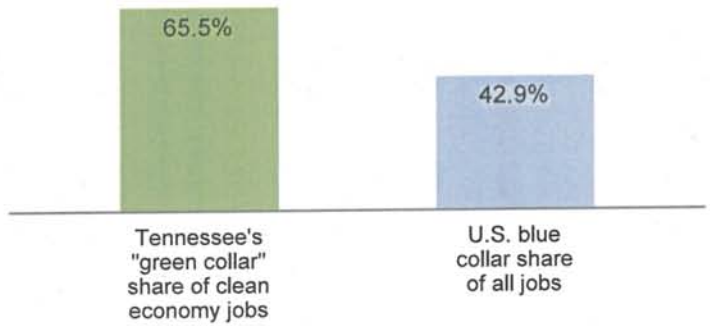
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Tennessee's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Energy Services	8,415	+8,123	+61.6%
Regulation and Compliance	7,699	+5,277	+18.0%
Waste Management and Treatment	7,146	+1,411	+3.2%
Green Chemical Products	7,124	-3,041	-5.0%
HVAC and Building Control Systems	6,803	+768	+1.7%

Fastest Growing Segments

of Tennessee's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Energy Services	8,415	+8,123	+61.6%
Biofuels/Biomass	70	+55	+24.6%
Green Architecture and Construction Services	416	+312	+21.9%
Regulation and Compliance	7,699	+5,277	+18.0%
Air and Water Purification Technologies	216	+145	+17.2%

Sample Clean Economy Employers

Aerisyn LLC
(Wind)

Lochinvar Corp
(Appliances)

Nissan North America Inc
(Electric Vehicle Technologies)

Sharp Electronics Corp
(Solar Photovoltaic)

Tennessee Valley Authority - Sequoyah
(Nuclear Energy)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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Nissan North America, Inc.

Nissan North America, Inc. closed a $1.4 billion loan arrangement under the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program to retool its Smyrna, Tennessee assembly plant to manufacture all-electric automobiles in addition to existing Nissan vehicles, and to construct an advanced battery manufacturing facility. The project is expected to create up to 1,300 jobs.

Project	Nissan North America, Inc.
Technology	OEM
Location	Smyrna, TN
Loan Amount	$1.448 billion
Eligibility	ATVM
Status	Closed
Date of agreement	Jan 2010
Jobs Construction	N/A
Perm Jobs Created or Saved	1,300

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Gasoline Displaced (Gallons)	23,000,000
Annual Avoided CO2 (tons)	204,000
Annual Cars off the Road*	39,000
Households Equivalent (annual)**	N/A

Rep. Joe Walsh (IL-08)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Chicago, IL-IN-WI Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Chicago's Clean Economy Profile

CLEAN JOBS

79,388

In terms of its overall size the clean economy in the Chicago metropolitan area ranks 3rd among the 100 largest metro areas

INTENSITY

1.8%

Chicago's 79,388 clean economy jobs make up 1.8 percent of all jobs in the region. On this measure of concentration its clean economy ranks 45th

GROWTH

+17,729

Between 2003 and 2010 Chicago added 17,729 clean jobs to see the sector grow by 3.7 percent annually. Those readings placed the region 4th and 60th

EXPORTS PER JOB

$25,002

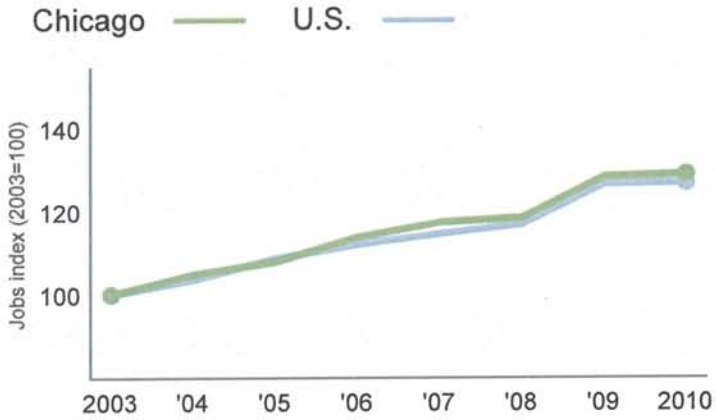
On average each clean economy job in Chicago produces $25,002 in exports, which ranks it 17th on this measure

ANNUAL WAGE

$42,816

The estimated median wage in Chicago's clean economy is $42,816. This compares to $42,557 for all jobs in Chicago

Clean Economy Job Growth, 2003–2010



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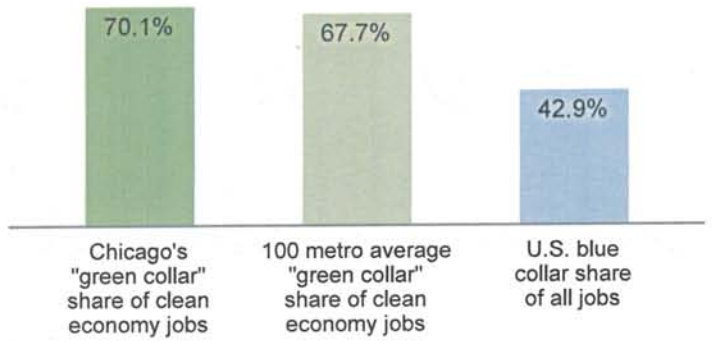
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Chicago's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	20,664	+7,594	+6.8%
Waste Management and Treatment	13,567	+2,631	+3.1%
Professional Energy Services	5,353	+186	+0.5%
Recycling and Reuse	5,123	+2,410	+9.5%
Green Architecture and Construction Services	3,332	+106	+0.5%

Fastest Growing Segments

of Chicago's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Thermal	32	+30	+48.6%
Wind	540	+487	+39.3%
Solar Photovoltaic	101	+89	+35.6%
Appliances	233	+156	+17.1%
Air and Water Purification Technologies	2,031	+999	+10.2%

Sample Clean Economy Employers

Elevance Renewable Sciences
(Biofuels/Biomass)

Invenergy
(Wind)

Nalco Co
(Professional Energy Services)

Siemens Industry Inc
(HVAC and Building Control Systems)

United States Gypsum Co
(Green Building Materials)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Illinois**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Illinois' Clean Economy Profile

CLEAN JOBS

106,375

In terms of its overall size the clean economy in Illinois ranks 5th among the 50 states and the District of Columbia

INTENSITY

1.8%

Illinois' 106,375 clean economy jobs make up 1.8 percent of all jobs in the state. On this measure of concentration its clean economy ranks 33rd

GROWTH

+20,291

Between 2003 and 2010 Illinois added 20,291 clean jobs to see the sector grow by 3.1 percent annually. Those readings placed the state 7th and 30th

EXPORTS PER JOB

$25,917

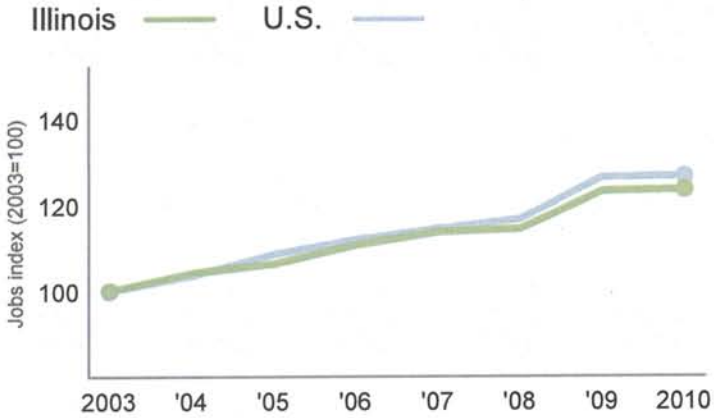
On average each clean economy job in Illinois produces $25,917 in exports, which ranks it 14th on this measure

ANNUAL WAGE

$41,357

The estimated median wage in Illinois' clean economy is $41,357. This compares to $40,057 for all jobs in Illinois

Clean Economy Job Growth, 2003–2010



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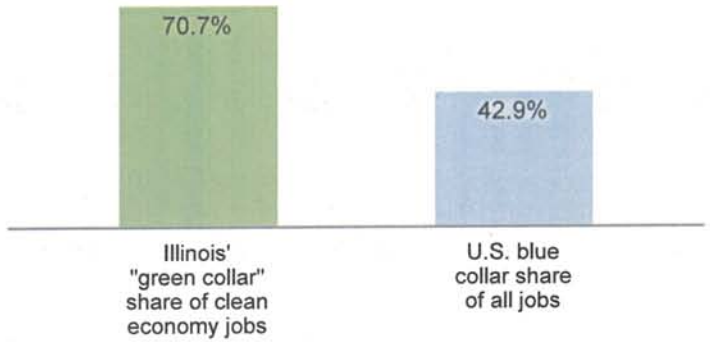
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Illinois' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	24,396	+6,826	+4.8%
Waste Management and Treatment	17,003	+3,634	+3.5%
Nuclear Energy	7,381	+590	+1.2%
Recycling and Reuse	6,338	+2,465	+7.3%
Professional Energy Services	5,347	+200	+0.5%

Fastest Growing Segments

of Illinois' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Thermal	32	+30	+48.6%
Wind	553	+500	+39.8%
Appliances	364	+195	+11.6%
Air and Water Purification Technologies	2,100	+1,001	+9.7%
Pollution Reduction	354	+151	+8.3%

Sample Clean Economy Employers

Coskata Inc
(Biofuels/Biomass)

Elevance Renewable Sciences
(Biofuels/Biomass)

Nalco Co
(Professional Energy Services)

Siemens Industry Inc
(HVAC and Building Control Systems)

Suzlon Wind Energy Corp
(Wind)

For More Information

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Department of Labor Investments in Green Skills and Training

District: IL-08, Representative Joe Walsh

- State Energy Sector Partnership Grant to State Workforce Agency for $6 million (Statewide).

- Energy Training Partnership Grant to the National Ironworkers and Employers Apprenticeship Training and Journeyman Upgrading Fund for $1,943,931 (Cook County and other communities).

- Green Jobs Innovation Fund Grant to Jobs for the Future, Inc. for $8 million (Illinois and three states).

- The Paul Simon Job Corps Center has green training programs in its painting, carpentry, manufacturing, and bricklaying training programs.

Rep. Trey Gowdy (SC-04)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Greenville, SC Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Greenville's Clean Economy Profile

CLEAN JOBS

10,127

In terms of its overall size the clean economy in the Greenville metropolitan area ranks 52nd among the 100 largest metro areas

INTENSITY

3.4%

Greenville's 10,127 clean economy jobs make up 3.4 percent of all jobs in the region. On this measure of concentration its clean economy ranks 9th

GROWTH

+2,880

Between 2003 and 2010 Greenville added 2,880 clean jobs to see the sector grow by 4.9 percent annually. Those readings placed the region 48th and 39th

EXPORTS PER JOB

$86,143

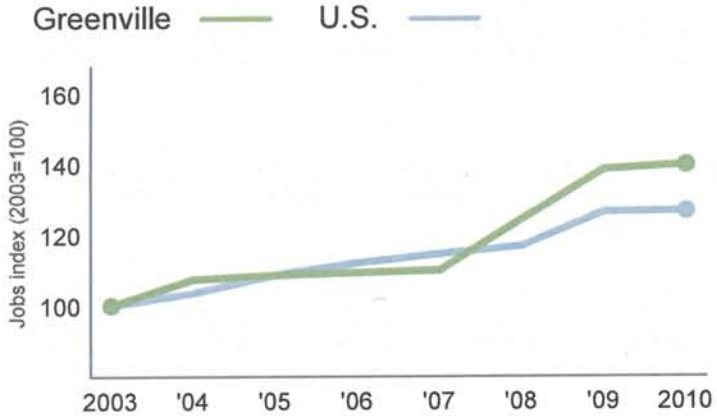
On average each clean economy job in Greenville produces $86,143 in exports, which ranks it 1st on this measure

ANNUAL WAGE

$38,193

The estimated median wage in Greenville's clean economy is $38,193. This compares to $33,731 for all jobs in Greenville

Clean Economy Job Growth, 2003–2010



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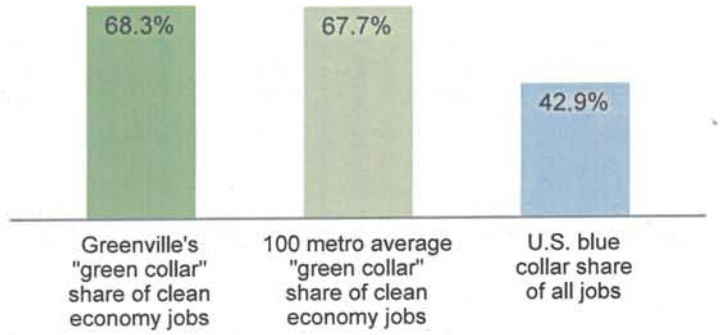
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Greenville's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	2,800	0	0.0%
Professional Environmental Services	1,459	+1,097	+22.0%
Waste Management and Treatment	1,042	+392	+7.0%
Electric Vehicle Technologies	900	+900	N/A
Green Building Materials	855	+300	+6.4%

Fastest Growing Segments

of Greenville's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Environmental Services	1,459	+1,097	+22.0%
Conservation	57	+40	+18.9%
Green Architecture and Construction Services	26	+16	+14.6%
Recycling and Reuse	243	+140	+13.0%
Solar Thermal	13	+7	+11.7%

Sample Clean Economy Employers

General Electric Co
(Wind)

Hubbell Lighting Inc
(Lighting)

Kemet Corp
(Electric Vehicle Technologies)

Milliken & Co
(Green Building Materials)

T&S Brass & Bronze Works Inc
(Water Efficient Products)

For More Information

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www.brookings.edu/metro/clean_economy.aspx

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of South Carolina**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

South Carolina's Clean Economy Profile

CLEAN JOBS

50,424

In terms of its overall size the clean economy in South Carolina ranks 21st among the 50 states and the District of Columbia

INTENSITY

2.7%

South Carolina's 50,424 clean economy jobs make up 2.7 percent of all jobs in the state. On this measure of concentration its clean economy ranks 10th

GROWTH

+3,765

Between 2003 and 2010 South Carolina added 3,765 clean jobs to see the sector grow by 1.1 percent annually. Those readings placed the state 37th and 47th

EXPORTS PER JOB

$38,172

On average each clean economy job in South Carolina produces $38,172 in exports, which ranks it 7th on this measure

ANNUAL WAGE

$36,373

The estimated median wage in South Carolina's clean economy is $36,373. This compares to $32,936 for all jobs in South Carolina

Clean Economy Job Growth, 2003–2010

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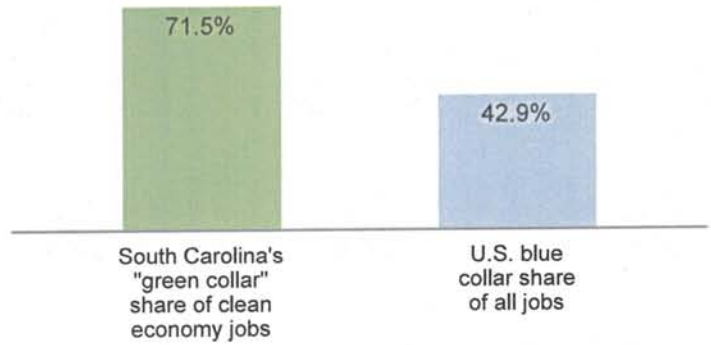
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of South Carolina's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	5,739	+1,804	+5.5%
Green Building Materials	4,819	+688	+2.2%
Nuclear Energy	4,196	+334	+1.2%
Recycled-Content Products	4,179	+696	+2.6%
Energy-saving Building Materials	3,785	+381	+1.5%

Fastest Growing Segments

of South Carolina's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Energy Services	178	+160	+38.7%
Energy-saving Consumer Products	25	+20	+25.8%
Battery Technologies	260	+200	+23.3%
Solar Thermal	13	+7	+11.7%
Professional Environmental Services	2,508	+1,313	+11.2%

Sample Clean Economy Employers

Environmental Fabrics Inc
(Biofuels/Biomass)

Gel Engineering LLC
(Professional Environmental Services)

Hubbell Lighting Inc
(Lighting)

Kemet Corp
(Electric Vehicle Technologies)

T & S Brass & Bronze Works Inc
(Water Efficient Products)

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Rep. Dennis A. Ross (FL-12)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Lakeland, FL Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Lakeland's Clean Economy Profile

CLEAN JOBS

2,290

In terms of its overall size the clean economy in the Lakeland metropolitan area ranks 95th among the 100 largest metro areas

INTENSITY

1.1%

Lakeland's 2,290 clean economy jobs make up 1.1 percent of all jobs in the region. On this measure of concentration its clean economy ranks 91st

GROWTH

+305

Between 2003 and 2010 Lakeland added 305 clean jobs to see the sector grow by 2.1 percent annually. Those readings placed the region 91st and 81st

EXPORTS PER JOB

$25,218

On average each clean economy job in Lakeland produces $25,218 in exports, which ranks it 16th on this measure

ANNUAL WAGE

$34,981

The estimated median wage in Lakeland's clean economy is $34,981. This compares to $32,848 for all jobs in Lakeland

Clean Economy Job Growth, 2003–2010

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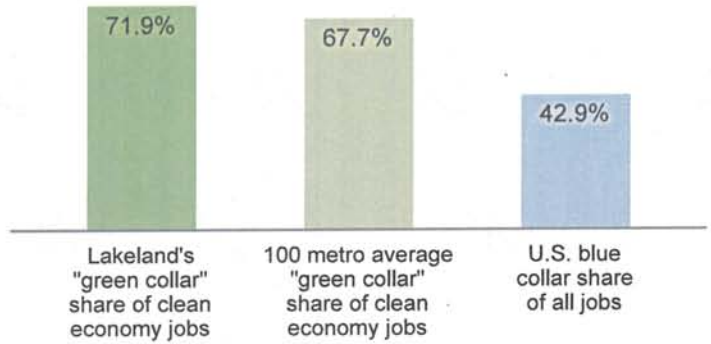
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Lakeland's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Organic Food and Farming	429	+160	+6.9%
Waste Management and Treatment	427	-393	-8.9%
Public Mass Transit	187	+127	+17.6%
Sustainable Forestry Products	177	+171	+62.2%
Energy-saving Building Materials	165	+113	+17.9%

Fastest Growing Segments

of Lakeland's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Sustainable Forestry Products	177	+171	+62.2%
Energy-saving Building Materials	165	+113	+17.9%
Public Mass Transit	187	+127	+17.6%
HVAC and Building Control Systems	51	+24	+9.5%
Air and Water Purification Technologies	62	+25	+7.7%

Sample Clean Economy Employers

Earthlinked Technologies
(HVAC and Building Control Systems)

Envisors LLC
(Professional Environmental Services)

Fi-Foil Co Inc
(Energy-saving Consumer Products)

Packaging Corp of America
(Sustainable Forestry Products)

Wheelabrator Ridge Energy Inc
(Waste-to-Energy)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Florida**

Why the Clean Economy Matters

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Florida's Clean Economy Profile

CLEAN JOBS

102,967

In terms of its overall size the clean economy in Florida ranks 7th among the 50 states and the District of Columbia

INTENSITY

1.4%

Florida's 102,967 clean economy jobs make up 1.4 percent of all jobs in the state. On this measure of concentration its clean economy ranks 49th

GROWTH

+28,298

Between 2003 and 2010 Florida added 28,298 clean jobs to see the sector grow by 4.7 percent annually. Those readings placed the state 4th and 16th

EXPORTS PER JOB

$9,386

On average each clean economy job in Florida produces $9,386 in exports, which ranks it 44th on this measure

ANNUAL WAGE

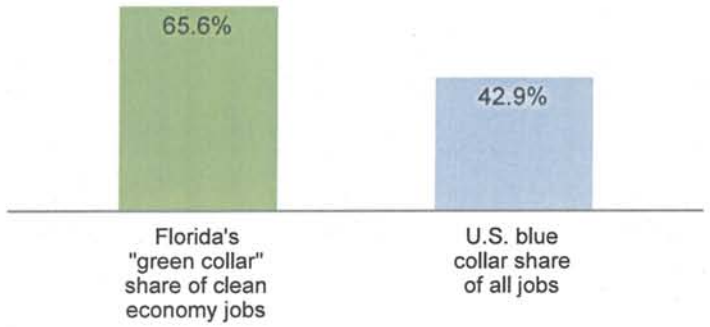
$38,085

The estimated median wage in Florida's clean economy is $38,085. This compares to $34,132 for all jobs in Florida

Clean Economy Job Growth, 2003–2010

Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Florida's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	23,862	+4,038	+2.7%
Conservation	20,854	+11,832	+12.7%
Public Mass Transit	12,332	+3,997	+5.8%
Professional Environmental Services	7,759	+3,761	+9.9%
Energy-saving Building Materials	6,318	+1,579	+4.2%

Fastest Growing Segments

of Florida's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Photovoltaic	597	+426	+19.6%
HVAC and Building Control Systems	2,216	+1,397	+15.3%
Sustainable Forestry Products	614	+366	+13.8%
Wind	134	+77	+13.0%
Conservation	20,854	+11,832	+12.7%

Sample Clean Economy Employers

Algenol Biofuels Inc
(Biofuels/Biomass)

FHP Manufacturing Co
(Geothermal)

Smith Reynolds & Hills Inc
(Professional Environmental Services)

Sun-Tek Manufacturing Inc
(Energy-saving Building Materials)

Sun Orchard Of Florida Inc
(Organic Food and Farming)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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Rep. Frank C. Guinta (NH-01)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of New Hampshire**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

New Hampshire's Clean Economy Profile

CLEAN JOBS

12,886

In terms of its overall size the clean economy in New Hampshire ranks 42nd among the 50 states and the District of Columbia

INTENSITY

2.0%

New Hampshire's 12,886 clean economy jobs make up 2.0 percent of all jobs in the state. On this measure of concentration its clean economy ranks 23rd

GROWTH

+3,915

Between 2003 and 2010 New Hampshire added 3,915 clean jobs to see the sector grow by 5.3 percent annually. Those readings placed the state 36th and 11th

EXPORTS PER JOB

$14,449

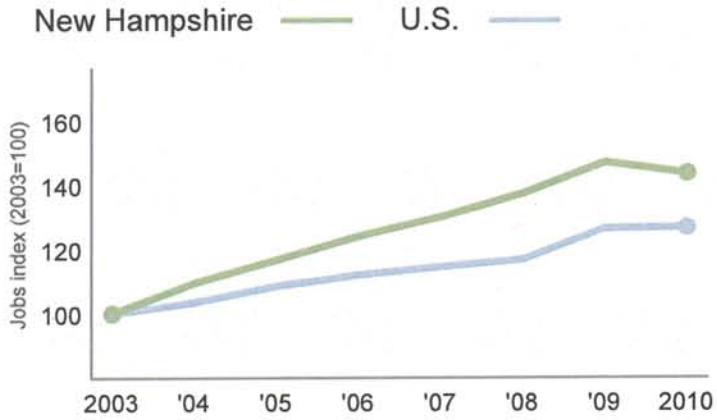
On average each clean economy job in New Hampshire produces $14,449 in exports, which ranks it 29th on this measure

ANNUAL WAGE

$40,773

The estimated median wage in New Hampshire's clean economy is $40,773. This compares to $38,657 for all jobs in New Hampshire

Clean Economy Job Growth, 2003–2010



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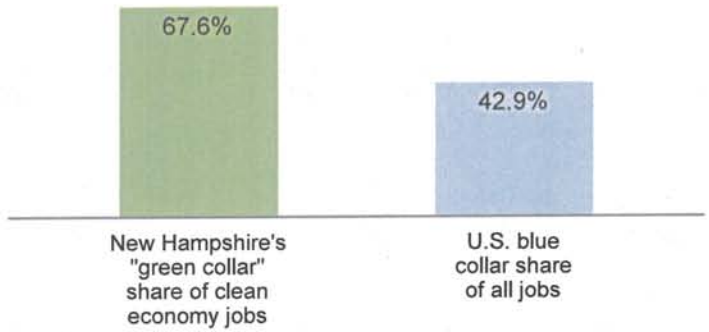
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of New Hampshire's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	1,907	+867	+9.0%
Public Mass Transit	1,876	+645	+6.2%
Waste Management and Treatment	1,360	+277	+3.3%
Professional Environmental Services	1,174	+662	+12.6%
Energy-saving Building Materials	1,042	+177	+2.7%

Fastest Growing Segments

of New Hampshire's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Biofuels/Biomass	160	+118	+21.1%
Battery Technologies	30	+20	+17.0%
Regulation and Compliance	695	+447	+15.9%
Recycled-Content Products	30	+18	+14.0%
Solar Photovoltaic	217	+127	+13.4%

Sample Clean Economy Employers

Bosch Thermotechnology Corp
(Appliances)

Gt Solar Inc
(Solar Photovoltaic)

Pitco Frialator Inc
(Appliances)

Powerspan Corp
(Carbon Storage and Management)

Sustainx Inc
(Wind)

For More Information

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INTERACTIVE MAPPING TOOL:
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Granite Reliable

$135.8 million offer for a loan guarantee will annually produce 99 MW of power and create more than 198 construction jobs. The project will avoid over 120,000 tons of carbon pollution annually.

Brookfield

Project	Granite Reliable
Technology	Wind Generation
Location	Coos, NH
Loan Amount	$135.8 million
Eligibility	1705
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	198
Perm Jobs Created or Saved	6

Generation Capacity (MW)	99
Annual Generation Output (MWh)	224,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	124,000
Annual Cars off the Road*	23,000
Households Equivalent (annual)**	19,000
Equivalent Annual Average Generation of X Coal Plants ***	0.1

Rep. Blake Farenthold (TX-27)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Texas**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Texas' Clean Economy Profile

CLEAN JOBS

144,081

In terms of its overall size the clean economy in Texas ranks 3rd among the 50 states and the District of Columbia

INTENSITY

1.3%

Texas' 144,081 clean economy jobs make up 1.3 percent of all jobs in the state. On this measure of concentration its clean economy ranks 50th

GROWTH

+28,887

Between 2003 and 2010 Texas added 28,887 clean jobs to see the sector grow by 3.2 percent annually. Those readings placed the state 3rd and 27th

EXPORTS PER JOB

$16,703

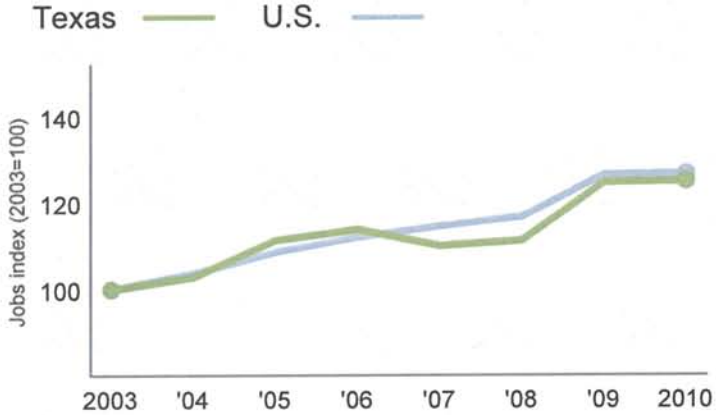
On average each clean economy job in Texas produces $16,703 in exports, which ranks it 25th on this measure

ANNUAL WAGE

$37,926

The estimated median wage in Texas' clean economy is $37,926. This compares to $35,613 for all jobs in Texas

Clean Economy Job Growth, 2003–2010



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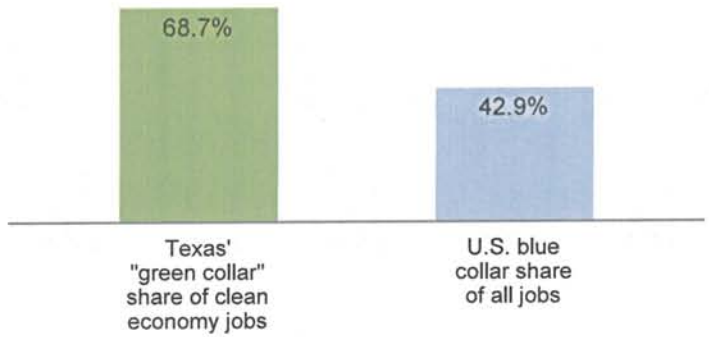
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Texas' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	26,852	+2,571	+1.4%
Public Mass Transit	18,614	+5,378	+5.0%
Energy-saving Building Materials	16,021	+4,593	+4.9%
Professional Environmental Services	14,756	+7,868	+11.5%
Recycling and Reuse	9,339	+3,626	+7.3%

Fastest Growing Segments

of Texas' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Thermal	83	+70	+30.3%
Solar Photovoltaic	256	+210	+27.8%
Biofuels/Biomass	464	+269	+13.2%
Wind	1,466	+837	+12.8%
Professional Environmental Services	14,756	+7,868	+11.5%

Sample Clean Economy Employers

Atrium Corp
(Energy-saving Building Materials)

Austin Energy
(Wind)

Heliovolt Corp
(Battery Technologies)

N C I Building Systems Inc
(Energy-saving Building Materials)

Xtreme Power Inc
(Smart Grid)

For More Information

VIEW THE FULL REPORT:
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INTERACTIVE MAPPING TOOL:
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Department of Labor Investments in Green Skills and Training

District: TX-27, Representative Blake Farenthold

- DOL awarded an Energy Training Partnership grant to the Austin Electrical Joint Apprenticeship Training Committee for $4,842,428.

Rep. Mike Kelly (PA-03)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Pennsylvania**

Why the Clean Economy Matters

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Pennsylvania's Clean Economy Profile

CLEAN JOBS

118,686

In terms of its overall size the clean economy in Pennsylvania ranks 4th among the 50 states and the District of Columbia

INTENSITY

2.1%

Pennsylvania's 118,686 clean economy jobs make up 2.1 percent of all jobs in the state. On this measure of concentration its clean economy ranks 20th

GROWTH

+19,352

Between 2003 and 2010 Pennsylvania added 19,352 clean jobs to see the sector grow by 2.6 percent annually. Those readings placed the state 8th and 37th

EXPORTS PER JOB

$15,709

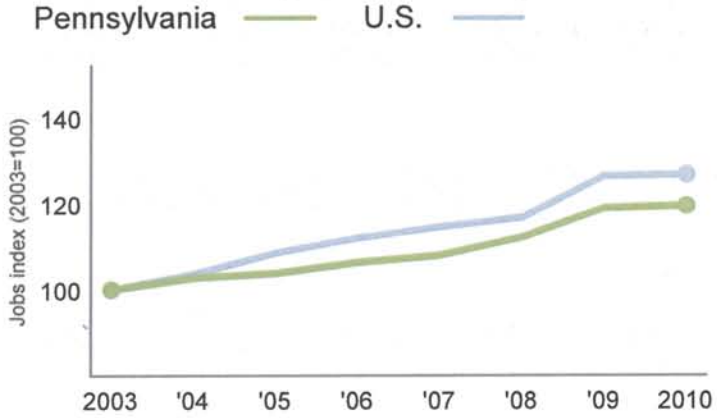
On average each clean economy job in Pennsylvania produces $15,709 in exports, which ranks it 28th on this measure

ANNUAL WAGE

$39,266

The estimated median wage in Pennsylvania's clean economy is $39,266. This compares to $36,939 for all jobs in Pennsylvania

Clean Economy Job Growth, 2003–2010



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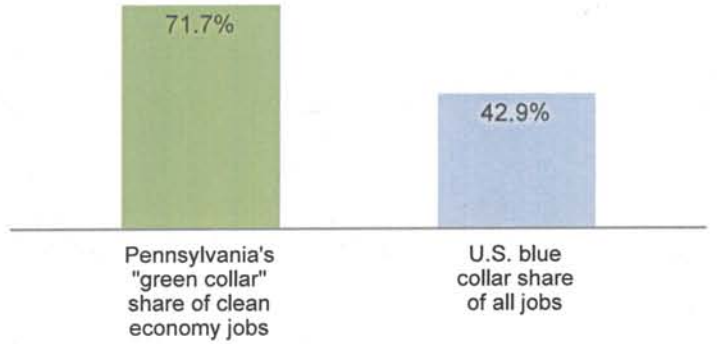
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Pennsylvania's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	24,770	+2,823	+1.7%
Waste Management and Treatment	16,407	-678	-0.6%
Conservation	9,999	+3,471	+6.3%
Energy-saving Building Materials	7,489	+779	+1.6%
Recycling and Reuse	6,381	+1,630	+4.3%

Fastest Growing Segments

of Pennsylvania's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Lighting	1,328	+1,293	+68.1%
Solar Photovoltaic	422	+393	+46.6%
Wind	935	+862	+44.0%
Professional Energy Services	1,867	+1,147	+14.6%
Biofuels/Biomass	130	+73	+12.5%

Sample Clean Economy Employers

Lutron Electronics Co Inc
(Energy-saving Consumer Products)

Mechanical Operations Co Inc
(Professional Energy Services)

Plextronics Inc
(Solar Photovoltaic)

Westinghouse Lighting Corp
(Lighting)

Windurance
(Wind)

For More Information

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Department of Labor Investments in Green Skills and Training

District: PA-03, Representative Mike Kelly

- State Energy Sector Partnership Grant for $6,000,000 (Statewide).

- Green Jobs Innovation Fund Grant to Finishing Trades Institute of the Mid-Atlantic Region for $5,573,925 (Statewide).

Rep. Elijah E. Cummings (MD-07)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Baltimore, MD Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Baltimore's Clean Economy Profile

CLEAN JOBS

22,619

In terms of its overall size the clean economy in the Baltimore metropolitan area ranks 22nd among the 100 largest metro areas

INTENSITY

1.7%

Baltimore's 22,619 clean economy jobs make up 1.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 51st

GROWTH

+3,692

Between 2003 and 2010 Baltimore added 3,692 clean jobs to see the sector grow by 2.6 percent annually. Those readings placed the region 39th and 76th

EXPORTS PER JOB

$6,869

On average each clean economy job in Baltimore produces $6,869 in exports, which ranks it 81st on this measure

ANNUAL WAGE

$44,569

The estimated median wage in Baltimore's clean economy is $44,569. This compares to $43,548 for all jobs in Baltimore

Clean Economy Job Growth, 2003–2010

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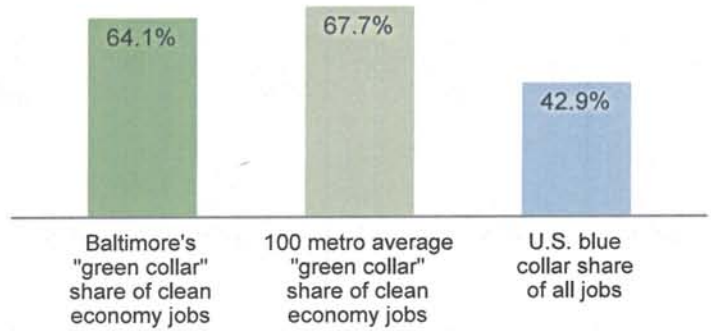
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Baltimore's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	4,606	-390	-1.2%
Public Mass Transit	2,898	+706	+4.1%
Conservation	2,834	+1,361	+9.8%
Professional Environmental Services	2,360	+905	+7.2%
Regulation and Compliance	1,994	+113	+0.8%

Fastest Growing Segments

of Baltimore's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Energy-saving Consumer Products	75	+70	+47.2%
Solar Photovoltaic	44	+39	+36.4%
Nuclear Energy	27	+16	+13.7%
Conservation	2,834	+1,361	+9.8%
Professional Environmental Services	2,360	+905	+7.2%

Sample Clean Economy Employers

Allied Environmental Solutions Inc
(Pollution Reduction)

EA Engineering, Science, and Technology, Inc
(Professional Environmental Services)

Energetics Inc
(Energy-saving Building Materials)

SAFT America Inc
(Battery Technologies)

Wheelabrator Technologies, Inc
(Waste-to-Energy)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Maryland**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Maryland's Clean Economy Profile

CLEAN JOBS

43,207

In terms of its overall size the clean economy in Maryland ranks 23rd among the 50 states and the District of Columbia

INTENSITY

1.7%

Maryland's 43,207 clean economy jobs make up 1.7 percent of all jobs in the state. On this measure of concentration its clean economy ranks 39th

GROWTH

+8,370

Between 2003 and 2010 Maryland added 8,370 clean jobs to see the sector grow by 3.1 percent annually. Those readings placed the state 17th and 29th

EXPORTS PER JOB

$9,143

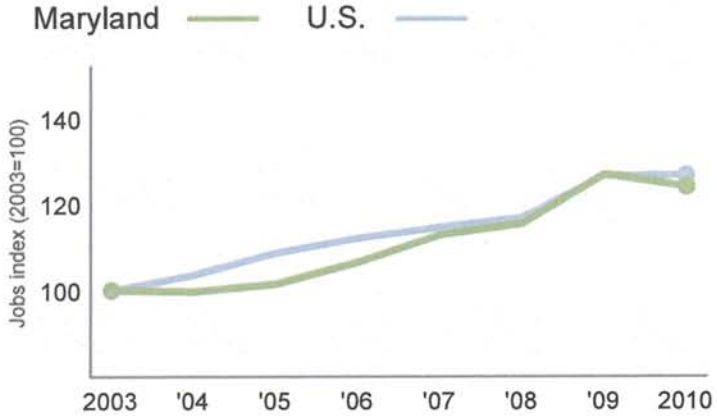
On average each clean economy job in Maryland produces $9,143 in exports, which ranks it 45th on this measure

ANNUAL WAGE

$44,790

The estimated median wage in Maryland's clean economy is $44,790. This compares to $43,945 for all jobs in Maryland

Clean Economy Job Growth, 2003–2010



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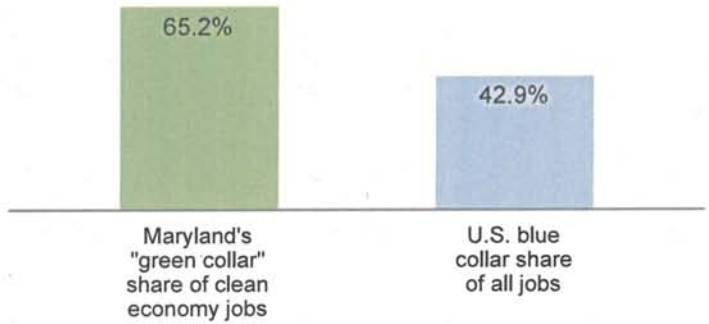
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Maryland's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	8,473	+516	+0.9%
Conservation	5,156	+1,967	+7.1%
Public Mass Transit	5,013	+1,433	+4.9%
Regulation and Compliance	4,660	+195	+0.6%
Professional Environmental Services	3,776	+1,135	+5.2%

Fastest Growing Segments

of Maryland's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Photovoltaic	787	+762	+63.7%
Smart Grid	210	+157	+21.7%
Energy-saving Consumer Products	103	+76	+21.1%
HVAC and Building Control Systems	1,445	+653	+9.0%
Waste-to-Energy	156	+60	+7.2%

Sample Clean Economy Employers

Century Engineering Inc
(Professional Environmental Services)

Century Engineering Inc
(Professional Environmental Services)

Johnson, Mirmiran & Thompson
(Professional Environmental Services)

Kci Holdings Inc
(Professional Environmental Services)

SAFT America Inc
(Battery Technologies)

For More Information

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Department of Labor Investments in Green Skills and Training

District: MD-07, Representative Elijah E. Cummings

- State Energy Sector Partnership Grant to State Workforce Agency for $5,793,183.
- Energy Training Partnership to H-CAP Inc. for $4,637,553.
- Pathways out of Poverty Grant to East Harlem Employment Services, Inc. dba STRIVE for $4,728,419.

Rep. Edolphus Towns (NY-10)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **New York, NY-NJ-PA Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

New York's Clean Economy Profile

150

CLEAN JOBS

152,034

In terms of its overall size the clean economy in the New York metropolitan area ranks 1st among the 100 largest metro areas

INTENSITY

1.8%

New York's 152,034 clean economy jobs make up 1.8 percent of all jobs in the region. On this measure of concentration its clean economy ranks 47th

GROWTH

+47,849

Between 2003 and 2010 New York added 47,849 clean jobs to see the sector grow by 5.5 percent annually. Those readings placed the region 1st and 25th

EXPORTS PER JOB

$10,251

On average each clean economy job in New York produces $10,251 in exports, which ranks it 71st on this measure

ANNUAL WAGE

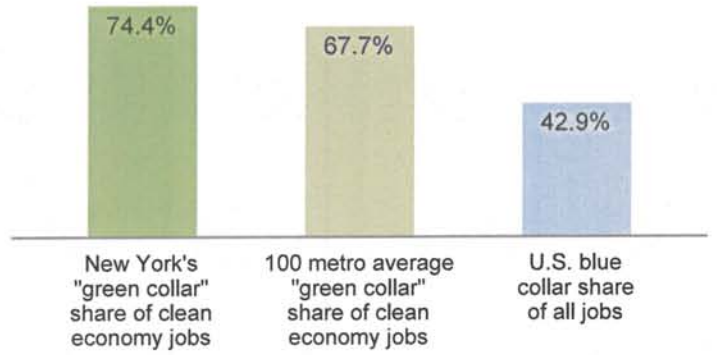
$45,578

The estimated median wage in New York's clean economy is $45,578. This compares to $48,899 for all jobs in New York

Clean Economy Job Growth, 2003–2010

Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of New York's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	57,487	+19,837	+6.2%
Waste Management and Treatment	19,316	+3,688	+3.1%
Conservation	10,733	+6,465	+14.1%
Professional Environmental Services	10,312	+3,176	+5.4%
Recycling and Reuse	9,131	+2,423	+4.5%

Fastest Growing Segments

of New York's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	131	+127	+64.6%
Waste-to-Energy	785	+595	+22.5%
Solar Photovoltaic	786	+534	+17.6%
Recycled-Content Products	4,042	+2,647	+16.4%
Water Efficient Products	343	+209	+14.4%

Sample Clean Economy Employers

Aecom USA Inc
(Professional Environmental Services)

L'Oreal USA Inc
(Green Consumer Products)

Parsons Brinckerhoff Inc
(Professional Environmental Services)

Petra Solar Inc
(Solar Photovoltaic)

Recyclebank LLC
(Recycling and Reuse)

For More Information

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SIZING THE CLEAN ECONOMY

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The Clean Economy in the **State of New York**

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New York's Clean Economy Profile

152

CLEAN JOBS

185,038

In terms of its overall size the clean economy in New York ranks 2nd among the 50 states and the District of Columbia

INTENSITY

2.1%

New York's 185,038 clean economy jobs make up 2.1 percent of all jobs in the state. On this measure of concentration its clean economy ranks 15th

GROWTH

+60,190

Between 2003 and 2010 New York added 60,190 clean jobs to see the sector grow by 5.8 percent annually. Those readings placed the state 2nd and 9th

EXPORTS PER JOB

$13,149

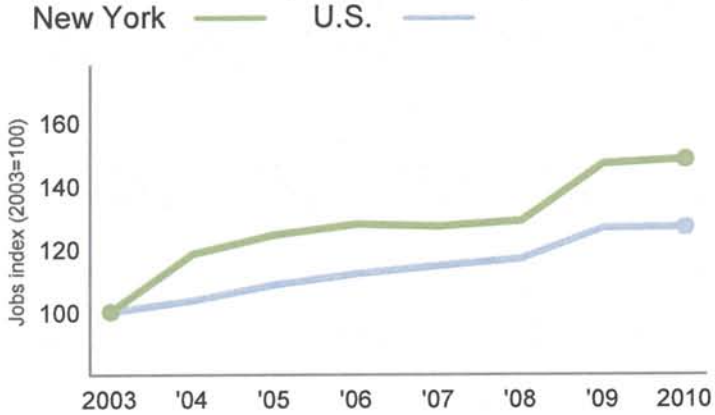
On average each clean economy job in New York produces $13,149 in exports, which ranks it 36th on this measure

ANNUAL WAGE

$44,056

The estimated median wage in New York's clean economy is $44,056. This compares to $43,801 for all jobs in New York

Clean Economy Job Growth, 2003–2010



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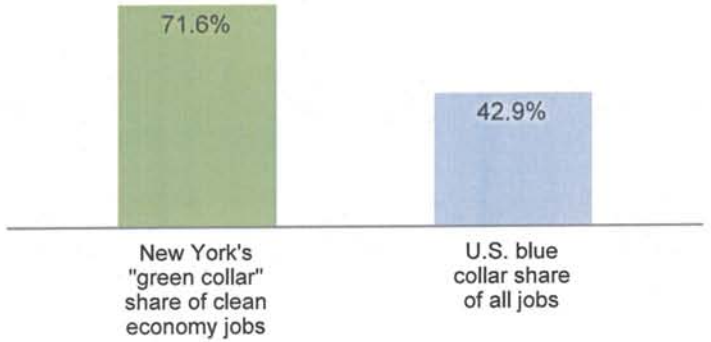
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of New York's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	56,504	+16,202	+4.9%
Waste Management and Treatment	20,633	+2,076	+1.5%
Conservation	18,144	+9,519	+11.2%
Regulation and Compliance	15,073	+11,966	+25.3%
Professional Environmental Services	9,371	+3,339	+6.5%

Fastest Growing Segments

of New York's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	5,147	+5,102	+96.8%
Solar Thermal	2,013	+1,885	+48.2%
Regulation and Compliance	15,073	+11,966	+25.3%
Solar Photovoltaic	556	+340	+14.5%
HVAC and Building Control Systems	4,046	+2,360	+13.3%

Sample Clean Economy Employers

Cpower Inc
(Energy-saving Building Materials)

MTI Microfuel Cells Inc
(Fuel Cells)

Novomer Inc
(Green Chemical Products)

Recyclebank LLC
(Recycling and Reuse)

Tectonic Engineering
(Professional Environmental Services)

For More Information

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AES Corporation

The Department of Energy issued AES Energy Storage, LLC a $17.1 million loan guarantee to build a 20 megawatt energy storage system in Johnson City, New York. The project is eligible under both Section 1703 and 1705 of Title XVII of the Energy Policy Act of 2005. The energy storage system provides a savings of approximately 70 percent in carbon dioxide emissions relative to frequency regulation by traditional fossil fuel power plants.

Project	AES Corporation
Technology	Battery Storage
Location	Johnson City, NY
Loan Amount	$17.1 million
Eligibility	1705
Status	Closed
Date of agreement	Aug 2010
Jobs Construction	30
Perm Jobs Created or Saved	5

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	N/A
Annual Cars off the Road*	N/A
Households Equivalent (annual)**	N/A
Equivalent Annual Average Generation of X Coal Plants ***	N/A

Beacon Power Corporation

The Department of Energy finalized a $43 million loan guarantee for Beacon Power Corporation to support the construction of its 20 megawatt innovative flywheel energy storage plant in Stephentown, New York.

Project	Beacon Power Corporation
Technology	Energy Storage
Location	Stephentown, NY
Loan Amount	$43 million
Eligibility	1705
Status	Closed
Date of agreement	Aug 2010
Jobs Construction	20
Perm Jobs Created or Saved	40

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
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Department of Labor Investments in Green Skills and Training

District: NY-10, Representative Edolphus Towns

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New York's Clean Economy Profile

CLEAN JOBS

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INTENSITY

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GROWTH

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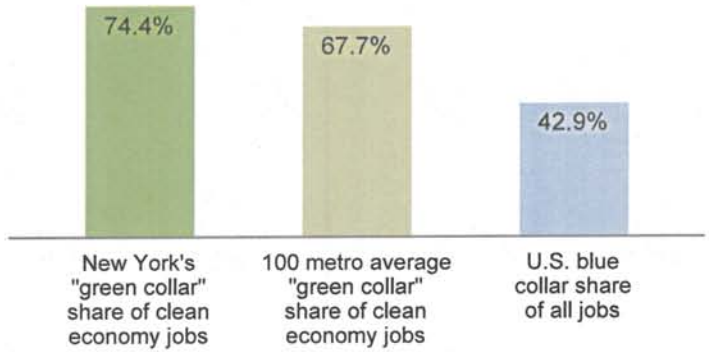
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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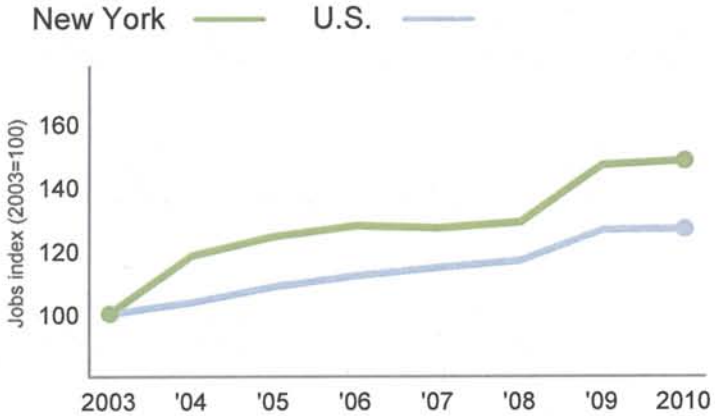

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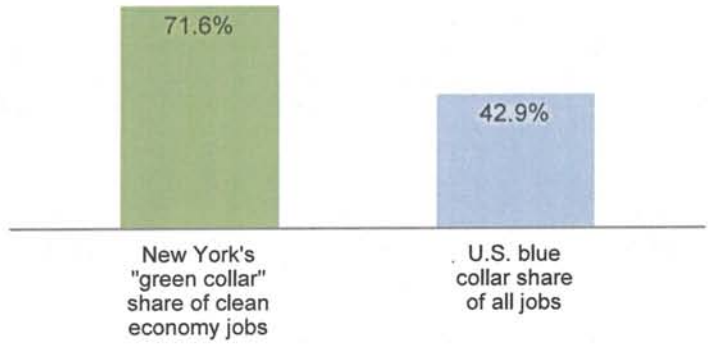

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Annual Generation Output (MWh)	N/A
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
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The District's Clean Economy Profile

CLEAN JOBS

22,462

In terms of its overall size the clean economy in the District of Columbia ranks 32nd among the 50 states and the District of Columbia

INTENSITY

3.1%

The District's 22,462 clean economy jobs make up 3.1 percent of all jobs in the state. On this measure of concentration its clean economy ranks 3rd

GROWTH

+2,160

Between 2003 and 2010 the District added 2,160 clean jobs to see the sector grow by 1.5 percent annually. Those readings placed the state 44th and 46th

EXPORTS PER JOB

$2,454

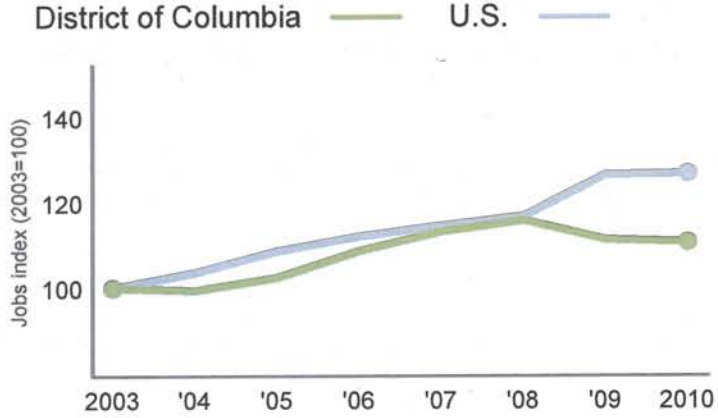
On average each clean economy job in the District of Columbia produces $2,454 in exports, which ranks it 50th on this measure

ANNUAL WAGE

$52,608

The estimated median wage in the District's clean economy is $52,608. This compares to $66,762 for all jobs in the District of Columbia

Clean Economy Job Growth, 2003–2010



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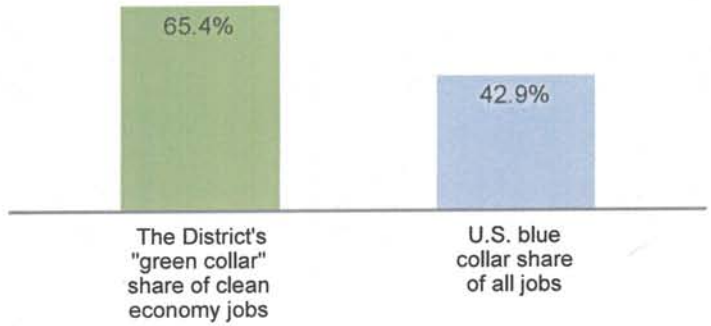
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of the District's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Regulation and Compliance	7,784	+1,001	+2.0%
Public Mass Transit	5,744	+116	+0.3%
Conservation	5,152	+850	+2.6%
Waste Management and Treatment	1,326	-660	-5.6%
Green Architecture and Construction Services	966	+207	+3.5%

Fastest Growing Segments

of the District's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Recycling and Reuse	70	+58	+28.7%
HVAC and Building Control Systems	26	+21	+26.6%
Professional Energy Services	606	+393	+16.1%
Remediation	39	+24	+14.6%
Nuclear Energy	45	+23	+10.8%

Sample Clean Economy Employers

Access Green LLC
(Professional Energy Services)

International Resources Group
(Professional Energy Services)

Parsons Brinckerhoff Intl
(Professional Environmental Services)

RTKL Associates Inc
(Green Architecture and Construction Services)

Sol Systems LLC
(Solar Photovoltaic)

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DATA NOTES:

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Washington, DC-VA-MD-WV Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Washington's Clean Economy Profile

CLEAN JOBS

70,828

In terms of its overall size the clean economy in the Washington metropolitan area ranks 4th among the 100 largest metro areas

INTENSITY

2.3%

Washington's 70,828 clean economy jobs make up 2.3 percent of all jobs in the region. On this measure of concentration its clean economy ranks 27th

GROWTH

+20,403

Between 2003 and 2010 Washington added 20,403 clean jobs to see the sector grow by 5.0 percent annually. Those readings placed the region 3rd and 38th

EXPORTS PER JOB

$6,183

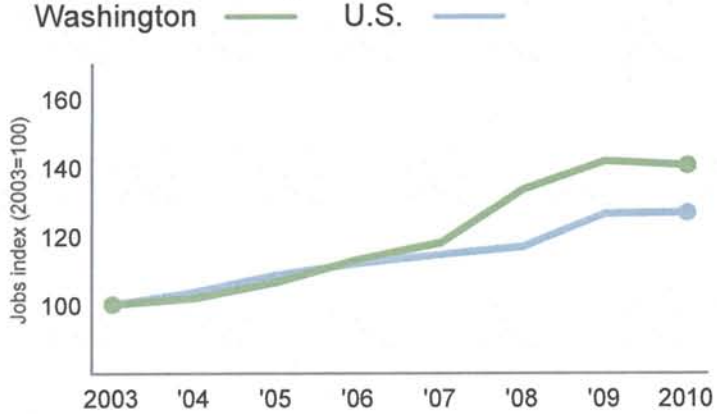
On average each clean economy job in Washington produces $6,183 in exports, which ranks it 85th on this measure

ANNUAL WAGE

$51,651

The estimated median wage in Washington's clean economy is $51,651. This compares to $55,134 for all jobs in Washington

Clean Economy Job Growth, 2003–2010



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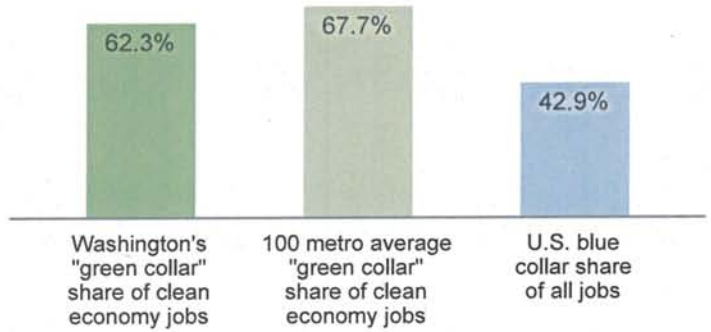
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Washington's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	18,194	+9,293	+10.8%
Regulation and Compliance	15,649	+1,666	+1.6%
Public Mass Transit	9,560	+1,461	+2.4%
Waste Management and Treatment	7,741	+1,290	+2.6%
Professional Environmental Services	5,196	+1,488	+4.9%

Fastest Growing Segments

of Washington's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Photovoltaic	790	+770	+69.1%
Biofuels/Biomass	91	+82	+39.2%
Smart Grid	337	+278	+28.3%
Wind	312	+242	+23.8%
Battery Technologies	35	+27	+23.5%

Sample Clean Economy Employers

AES Corp
(Wind)

Current Group LLC
(Smart Grid)

Dewberry & Davis LLC
(Professional Environmental Services)

ICF International Inc
(Professional Energy Services)

RTKL Associates Inc
(Green Architecture and Construction Services)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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Department of Labor Investments in Green Skills and Training

District: DC, Representative Eleanor Holmes Norton

- Energy Training Partnership grant to H-CAP Inc. for $4,637,553 (District).
- Green Capacity Building grant to ARCH Training Center Inc. for $94,255 (District).
- Green Capacity Building grant to Latin American Youth Center YouthBuild Public Charter School for $100,000 (District).
- Green Jobs Innovation Fund grant to Jobs for the Future, Inc. for $8 million (District and other cities).
- Pathways out of Poverty grant to Goodwill Industries International for $7,303,639 (District and other cities).
- The Potomac Job Corps has a new green Weatherization training program as well as having updated several training programs to include green training aspects – like electrical, carpentry, and cement masonry.

Rep. Dennis J. Kucinich (OH-10)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Cleveland, OH Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Cleveland's Clean Economy Profile

CLEAN JOBS

24,664

In terms of its overall size the clean economy in the Cleveland metropolitan area ranks 18th among the 100 largest metro areas

INTENSITY

2.5%

Cleveland's 24,664 clean economy jobs make up 2.5 percent of all jobs in the region. On this measure of concentration its clean economy ranks 21st

GROWTH

+6,440

Between 2003 and 2010 Cleveland added 6,440 clean jobs to see the sector grow by 4.4 percent annually. Those readings placed the region 21st and 50th

EXPORTS PER JOB

$33,682

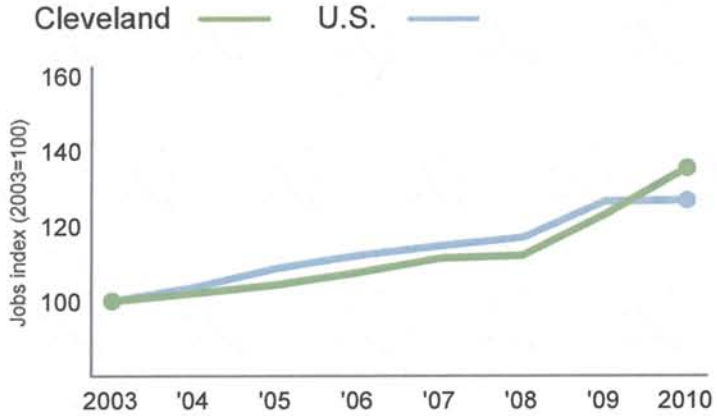
On average each clean economy job in Cleveland produces $33,682 in exports, which ranks it 9th on this measure

ANNUAL WAGE

$39,213

The estimated median wage in Cleveland's clean economy is $39,213. This compares to $37,115 for all jobs in Cleveland

Clean Economy Job Growth, 2003–2010



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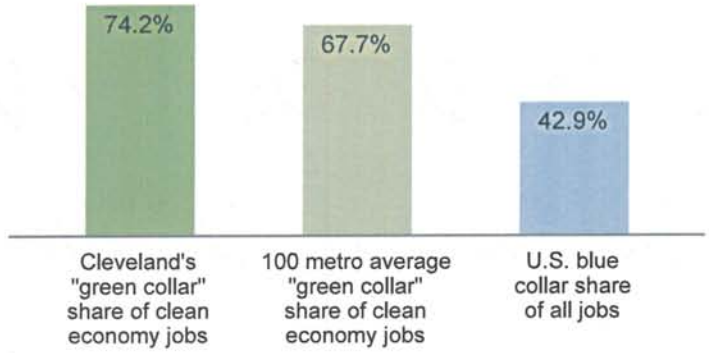
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Cleveland's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	4,694	+3,134	+17.0%
Waste Management and Treatment	3,444	+684	+3.2%
Green Chemical Products	1,740	+180	+1.6%
Recycled-Content Products	1,682	-1,458	-8.5%
Recycling and Reuse	1,577	+464	+5.1%

Fastest Growing Segments

of Cleveland's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Photovoltaic	22	+16	+20.4%
Wind	250	+175	+18.8%
Green Architecture and Construction Services	588	+401	+17.8%
Public Mass Transit	4,694	+3,134	+17.0%
Green Consumer Products	1,240	+588	+9.6%

Sample Clean Economy Employers

BASF Catalysts LLC
(Electric Vehicle Technologies)

General Electric Co
(Lighting)

Graftech International
(Fuel Cells)

Sherwin-Williams Co
(Green Chemical Products)

Tremco Inc
(Energy-saving Building Materials)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Ohio**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Ohio's Clean Economy Profile

1/4

CLEAN JOBS

105,306

In terms of its overall size the clean economy in Ohio ranks 6th among the 50 states and the District of Columbia

INTENSITY

2.0%

Ohio's 105,306 clean economy jobs make up 2.0 percent of all jobs in the state. On this measure of concentration its clean economy ranks 21st

GROWTH

+16,793

Between 2003 and 2010 Ohio added 16,793 clean jobs to see the sector grow by 2.5 percent annually. Those readings placed the state 12th and 38th

EXPORTS PER JOB

$25,067

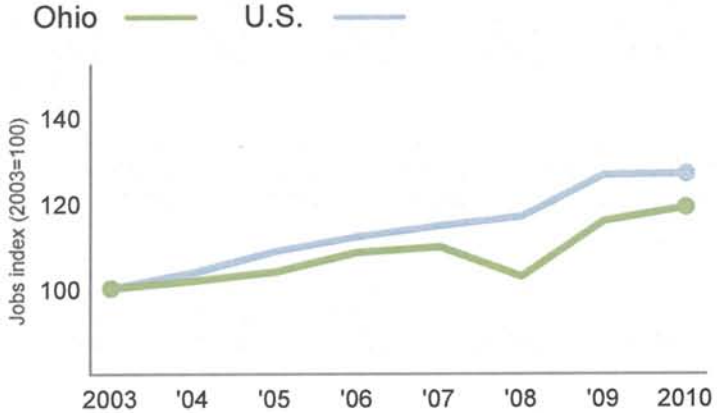
On average each clean economy job in Ohio produces $25,067 in exports, which ranks it 16th on this measure

ANNUAL WAGE

$39,275

The estimated median wage in Ohio's clean economy is $39,275. This compares to $35,709 for all jobs in Ohio

Clean Economy Job Growth, 2003–2010



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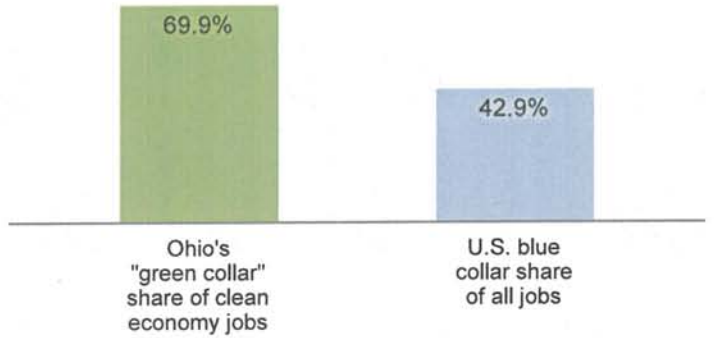
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Ohio's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	20,066	+5,288	+4.5%
Public Mass Transit	14,251	+5,850	+7.8%
Regulation and Compliance	7,464	+5,147	+18.2%
Recycling and Reuse	7,200	+2,207	+5.4%
Energy-saving Building Materials	6,958	+549	+1.2%

Fastest Growing Segments

of Ohio's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Smart Grid	1,365	+1,326	+66.2%
Waste-to-Energy	12	+11	+42.6%
Solar Photovoltaic	1,348	+935	+18.4%
Regulation and Compliance	7,464	+5,147	+18.2%
Professional Energy Services	872	+572	+16.5%

Sample Clean Economy Employers

ABB Inc
(Smart Grid)

LSI Industries Inc
(Lighting)

Momentive Performance Mtls
(Wind)

Newpage Corp
(Sustainable Forestry Products)

Sherwin-Williams Co
(Green Chemical Products)

For More Information

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Department of Labor Investments in Green Skills and Training

District: OH-10, Representative Dennis J. Kucinich

- State Energy Sector Partnership Grant to State of Ohio for $6 million (Statewide).
- Energy Training Partnership Grant to Communications Workers of America (CWA) National Education and Training Trust for $3,969,056 (Cuyahoga County).
- Energy Training Partnership Grant to Ohio Electrical Labor Management Cooperative Committee for $4,826,073, serving auto communities (Statewide).
- Energy Training Partnership Grant to Institute for Career Development (ICD) Inc. for $4,658,985, serving auto communities (Cuyahoga County, Indiana, New York).
- Energy Training Partnership Grant to International Training Institute for the Sheet Metal and Air Conditioning Industry for $4,995,189 (Cuyahoga County).
- The Cleveland Job Corps Center has a new Electronic Health Records program to train students in this growing industry.

Rep. John F. Tierney (MA-06)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Boston, MA-NH Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Boston's Clean Economy Profile

CLEAN JOBS

41,825

In terms of its overall size the clean economy in the Boston metropolitan area ranks 8th among the 100 largest metro areas

INTENSITY

1.7%

Boston's 41,825 clean economy jobs make up 1.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 52nd

GROWTH

+7,793

Between 2003 and 2010 Boston added 7,793 clean jobs to see the sector grow by 3.0 percent annually. Those readings placed the region 16th and 67th

EXPORTS PER JOB

$17,184

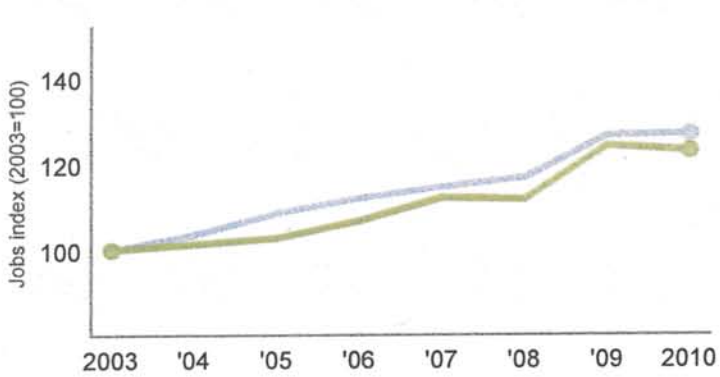
On average each clean economy job in Boston produces $17,184 in exports, which ranks it 39th on this measure

ANNUAL WAGE

$51,271

The estimated median wage in Boston's clean economy is $51,271. This compares to $51,570 for all jobs in Boston

Clean Economy Job Growth, 2003–2010



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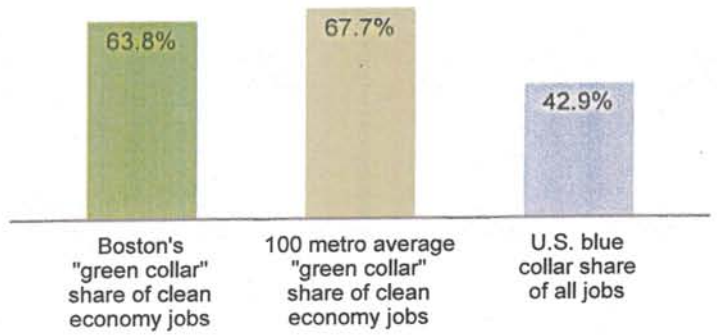
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Boston's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	6,497	+1,364	+3.4%
Waste Management and Treatment	5,292	+972	+2.9%
Professional Environmental Services	5,084	+1,351	+4.5%
HVAC and Building Control Systems	2,862	+402	+2.2%
Energy-saving Building Materials	2,020	+341	+2.7%

Fastest Growing Segments

of Boston's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Smart Grid	255	+180	+19.1%
Solar Thermal	38	+26	+17.9%
Wind	194	+106	+12.0%
Renewable Energy Services	25	+13	+11.1%
Biofuels/Biomass	381	+190	+10.4%

Sample Clean Economy Employers

Enernoc Inc
(Smart Grid)

General Compression Inc
(Wind)

Harvest Power Inc
(Recycling and Reuse)

Lilliputian Systems Inc
(Fuel Cells)

Powerspan Corp
(Carbon Storage and Management)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Massachusetts**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Massachusetts' Clean Economy Profile

CLEAN JOBS

63,523

In terms of its overall size the clean economy in Massachusetts ranks 16th among the 50 states and the District of Columbia

INTENSITY

2.0%

Massachusetts' 63,523 clean economy jobs make up 2.0 percent of all jobs in the state. On this measure of concentration its clean economy ranks 26th

GROWTH

+12,925

Between 2003 and 2010 Massachusetts added 12,925 clean jobs to see the sector grow by 3.3 percent annually. Those readings placed the state 16th and 25th

EXPORTS PER JOB

$16,166

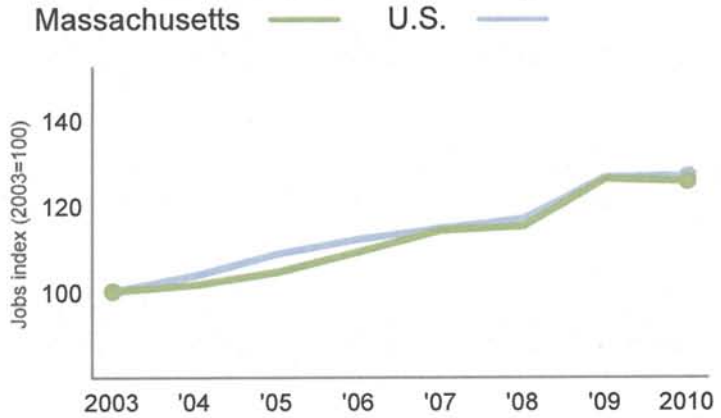
On average each clean economy job in Massachusetts produces $16,166 in exports, which ranks it 27th on this measure

ANNUAL WAGE

$47,815

The estimated median wage in Massachusetts' clean economy is $47,815. This compares to $46,712 for all jobs in Massachusetts

Clean Economy Job Growth, 2003–2010



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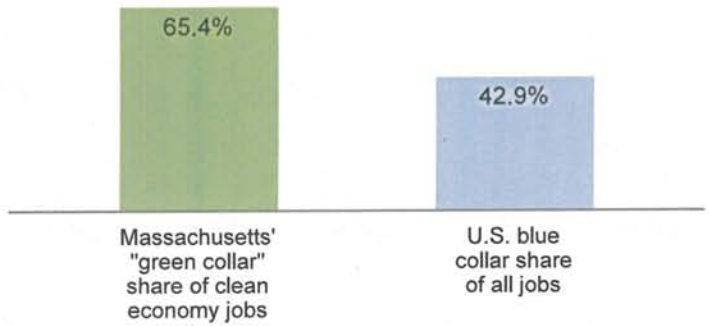
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Massachusetts' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	10,572	+1,781	+2.7%
Waste Management and Treatment	8,599	+2,129	+4.1%
Professional Environmental Services	6,561	+1,537	+3.9%
Conservation	5,733	+2,550	+8.8%
Regulation and Compliance	5,022	+164	+0.5%

Fastest Growing Segments

of Massachusetts' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Electric Vehicle Technologies	9	+8	+36.9%
Solar Thermal	38	+26	+17.9%
Smart Grid	375	+229	+14.4%
Wind	220	+132	+14.0%
Renewable Energy Services	25	+13	+11.1%

Sample Clean Economy Employers

Boston-Power Inc
(Battery Technologies)

Digital Lumens Inc
(Lighting)

Emcor Facilities Services of
(Green Architecture and Construction Services)

General Compression Inc
(Wind)

Harvest Power Inc
(Recycling and Reuse)

For More Information

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1366 Technologies, Inc.

$150 million loan guarantee will reduce silicon waste and dramatically cut the cost of solar power. Project will create more than 50 construction jobs and 70 operating jobs.

Project	1366 Technologies, Inc.
Technology	Solar Manufacturing
Location	Lexington, MA
Loan Amount	$150 million
Eligibility	1705
Status	Closed
Date of agreement	Sept 2011
Jobs Construction	50
Perm Jobs Created or Saved	70

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	647,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	372,000
Annual Cars off the Road*	71,000
Households Equivalent (annual)**	56,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

Department of Labor Investments in Green Skills and Training

District: MA-06, Representative John F. Tierney

- State Energy Sector Partnership Grant for $5,973,657 (Statewide).

Rep. Wm. Lacy Clay (MO-01)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **St. Louis, MO-IL Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

St. Louis' Clean Economy Profile

CLEAN JOBS

17,553

In terms of its overall size the clean economy in the St. Louis metropolitan area ranks 29th among the 100 largest metro areas

INTENSITY

1.3%

St. Louis' 17,553 clean economy jobs make up 1.3 percent of all jobs in the region. On this measure of concentration its clean economy ranks 80th

GROWTH

+1,717

Between 2003 and 2010 St. Louis added 1,717 clean jobs to see the sector grow by 1.5 percent annually. Those readings placed the region 58th and 89th

EXPORTS PER JOB

$29,792

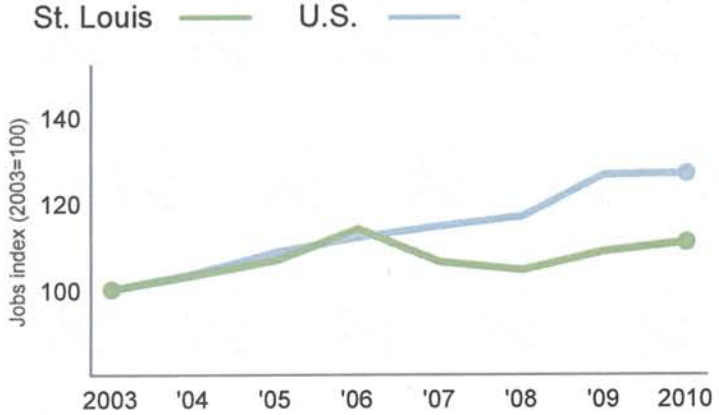
On average each clean economy job in St. Louis produces $29,792 in exports, which ranks it 12th on this measure

ANNUAL WAGE

$41,968

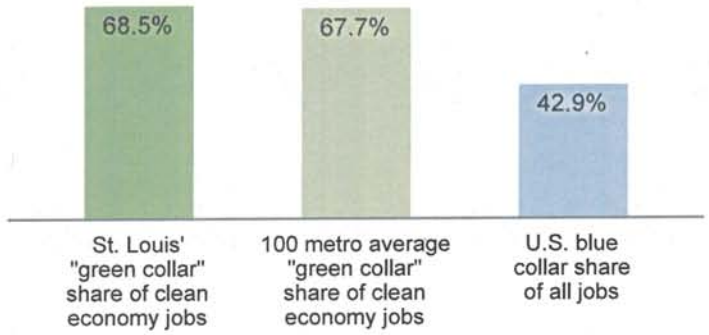
The estimated median wage in St. Louis' clean economy is $41,968. This compares to $38,028 for all jobs in St. Louis

Clean Economy Job Growth, 2003–2010



Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of St. Louis' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	3,229	+883	+4.7%
Public Mass Transit	2,515	-664	-3.3%
Air and Water Purification Technologies	1,882	+25	+0.2%
Solar Photovoltaic	1,800	-470	-3.3%
Recycling and Reuse	1,315	+316	+4.0%

Fastest Growing Segments

of St. Louis' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Sustainable Forestry Products	245	+240	+74.4%
Smart Grid	50	+43	+32.4%
Wind	239	+201	+30.0%
Biofuels/Biomass	129	+103	+25.7%
Energy-saving Consumer Products	30	+20	+17.0%

Sample Clean Economy Employers

Cooper B-Line Inc
(Solar Photovoltaic)

Esco Technologies Inc
(Air and Water Purification Technologies)

Graphic Packaging Intl
(Sustainable Forestry Products)

MEMC Electronic Materials Inc
(Solar Photovoltaic)

Zoltek Companies Inc
(Wind)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Missouri**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Missouri's Clean Economy Profile

CLEAN JOBS

43,736

In terms of its overall size the clean economy in Missouri ranks 22nd among the 50 states and the District of Columbia

INTENSITY

1.6%

Missouri's 43,736 clean economy jobs make up 1.6 percent of all jobs in the state. On this measure of concentration its clean economy ranks 42nd

GROWTH

+7,240

Between 2003 and 2010 Missouri added 7,240 clean jobs to see the sector grow by 2.6 percent annually. Those readings placed the state 21st and 35th

EXPORTS PER JOB

$27,868

On average each clean economy job in Missouri produces $27,868 in exports, which ranks it 10th on this measure

ANNUAL WAGE

$38,401

The estimated median wage in Missouri's clean economy is $38,401. This compares to $34,265 for all jobs in Missouri

Clean Economy Job Growth, 2003–2010

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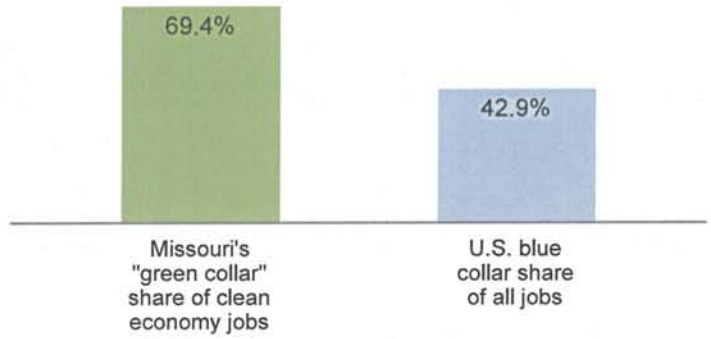
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Missouri's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	6,111	+1,254	+3.3%
Waste Management and Treatment	5,421	+1,566	+5.0%
Energy-saving Building Materials	4,382	-472	-1.5%
Conservation	3,627	+495	+2.1%
Regulation and Compliance	3,522	+1,119	+5.6%

Fastest Growing Segments

of Missouri's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Electric Vehicle Technologies	605	+602	+113.4%
Smart Grid	50	+43	+32.4%
Wind	244	+206	+30.4%
Solar Thermal	17	+12	+19.1%
Battery Technologies	406	+266	+16.4%

Sample Clean Economy Employers

Energizer Battery Mfg
(Battery Technologies)

Ford Assembly Kansas City
(Electric Vehicle Technologies)

HNTB Corp
(Green Architecture and Construction Services)

Watts Radiant Inc
(HVAC and Building Control Systems)

Zoltek Co's Inc
(Wind)

For More Information

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Department of Labor Investments in Green Skills and Training

District: MO-01, Representative Wm. Lacy Clay

- State Energy Sector Partnership Grant for $6 million (Statewide).
- Energy Training Partnership Grant to International Training Institute for the Sheet Metal and Air Conditioning Industry for nearly $5 million (St. Louis).
- Energy Training Partnership Grant to United Auto Workers (UAW)-Labor Employment and Training Corporation (UAW-LETC) for $3.2 million (St. Louis).
- Pathways out of Poverty Grant to Alternative Opportunities Inc. for $2,308,200 (St. Louis).
- Pathways out of Poverty Grant to Better Family Life, Inc. for $3,305,493 (St. Louis, HQ in MO-1).
- St. Louis Job Corps has incorporated green training into elements into their painting, masonry, welding, bricklaying, and facilities maintenance programs.

Rep. Stephen F. Lynch (MA-09)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Boston, MA-NH Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Boston's Clean Economy Profile

CLEAN JOBS

41,825

In terms of its overall size the clean economy in the Boston metropolitan area ranks 8th among the 100 largest metro areas

INTENSITY

1.7%

Boston's 41,825 clean economy jobs make up 1.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 52nd

GROWTH

+7,793

Between 2003 and 2010 Boston added 7,793 clean jobs to see the sector grow by 3.0 percent annually. Those readings placed the region 16th and 67th

EXPORTS PER JOB

$17,184

On average each clean economy job in Boston produces $17,184 in exports, which ranks it 39th on this measure

ANNUAL WAGE

$51,271

The estimated median wage in Boston's clean economy is $51,271. This compares to $51,570 for all jobs in Boston

Clean Economy Job Growth, 2003–2010

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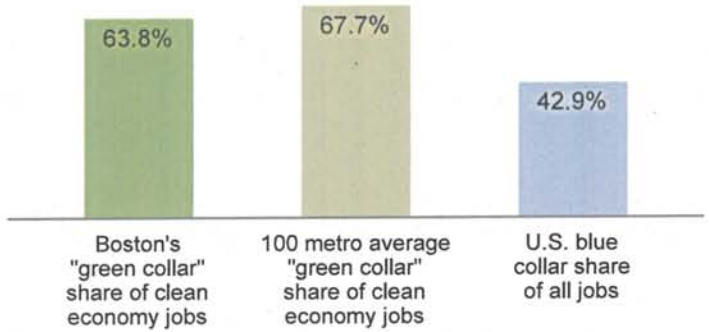
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Boston's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	6,497	+1,364	+3.4%
Waste Management and Treatment	5,292	+972	+2.9%
Professional Environmental Services	5,084	+1,351	+4.5%
HVAC and Building Control Systems	2,862	+402	+2.2%
Energy-saving Building Materials	2,020	+341	+2.7%

Fastest Growing Segments

of Boston's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Smart Grid	255	+180	+19.1%
Solar Thermal	38	+26	+17.9%
Wind	194	+106	+12.0%
Renewable Energy Services	25	+13	+11.1%
Biofuels/Biomass	381	+190	+10.4%

Sample Clean Economy Employers

Enernoc Inc
(Smart Grid)

General Compression Inc
(Wind)

Harvest Power Inc
(Recycling and Reuse)

Lilliputian Systems Inc
(Fuel Cells)

Powerspan Corp
(Carbon Storage and Management)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Massachusetts**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Massachusetts' Clean Economy Profile

193

CLEAN JOBS

63,523

In terms of its overall size the clean economy in Massachusetts ranks 16th among the 50 states and the District of Columbia

INTENSITY

2.0%

Massachusetts' 63,523 clean economy jobs make up 2.0 percent of all jobs in the state. On this measure of concentration its clean economy ranks 26th

GROWTH

+12,925

Between 2003 and 2010 Massachusetts added 12,925 clean jobs to see the sector grow by 3.3 percent annually. Those readings placed the state 16th and 25th

EXPORTS PER JOB

$16,166

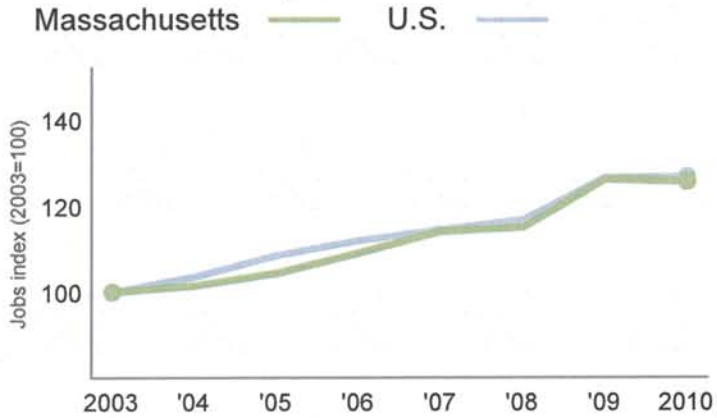
On average each clean economy job in Massachusetts produces $16,166 in exports, which ranks it 27th on this measure

ANNUAL WAGE

$47,815

The estimated median wage in Massachusetts' clean economy is $47,815. This compares to $46,712 for all jobs in Massachusetts

Clean Economy Job Growth, 2003–2010



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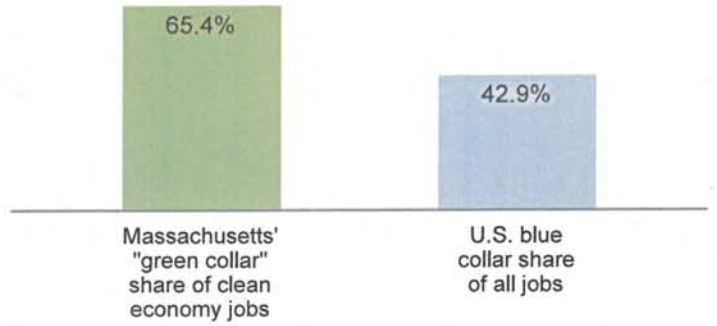
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Massachusetts' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	10,572	+1,781	+2.7%
Waste Management and Treatment	8,599	+2,129	+4.1%
Professional Environmental Services	6,561	+1,537	+3.9%
Conservation	5,733	+2,550	+8.8%
Regulation and Compliance	5,022	+164	+0.5%

Fastest Growing Segments

of Massachusetts' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Electric Vehicle Technologies	9	+8	+36.9%
Solar Thermal	38	+26	+17.9%
Smart Grid	375	+229	+14.4%
Wind	220	+132	+14.0%
Renewable Energy Services	25	+13	+11.1%

Sample Clean Economy Employers

Boston-Power Inc
(Battery Technologies)

Digital Lumens Inc
(Lighting)

Emcor Facilities Services of
(Green Architecture and Construction Services)

General Compression Inc
(Wind)

Harvest Power Inc
(Recycling and Reuse)

For More Information

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1366 Technologies, Inc.

$150 million loan guarantee will reduce silicon waste and dramatically cut the cost of solar power. Project will create more than 50 construction jobs and 70 operating jobs.

Project	1366 Technologies, Inc.
Technology	Solar Manufacturing
Location	Lexington, MA
Loan Amount	$150 million
Eligibility	1705
Status	Closed
Date of agreement	Sept 2011
Jobs Construction	50
Perm Jobs Created or Saved	70

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	647,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	372,000
Annual Cars off the Road*	71,000
Households Equivalent (annual)**	56,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

Department of Labor Investments in Green Skills and Training

District: MA-09, Representative Stephen F. Lynch

- Green Jobs Innovation Fund Grant for $8 million to Jobs for the Future, Inc.
- Pathways out of Poverty Grant to Roca, Inc. (Chelsea, Revere).
- Green Capacity Building Grant for $100,000 (Brockton).
- Energy Training Partnership Grant to Utility Workers Union of American, AFL-CIO for almost $5 million (Suffolk, Norfolk, and Plymouth Counties and other states).
- State Energy Sector Partnership Grant for $5,973,657 (Statewide).
- The Shriver Job Corps Center has incorporated green training into elements into their painting, cement masonry, and carpentry programs.

Rep. Jim Cooper (TN-05)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Nashville, TN Metropolitan Area**

Why the Clean Economy Matters

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Nashville's Clean Economy Profile

CLEAN JOBS

17,913

In terms of its overall size the clean economy in the Nashville metropolitan area ranks 28th among the 100 largest metro areas

INTENSITY

2.4%

Nashville's 17,913 clean economy jobs make up 2.4 percent of all jobs in the region. On this measure of concentration its clean economy ranks 24th

GROWTH

+6,702

Between 2003 and 2010 Nashville added 6,702 clean jobs to see the sector grow by 6.9 percent annually. Those readings placed the region 18th and 11th

EXPORTS PER JOB

$17,026

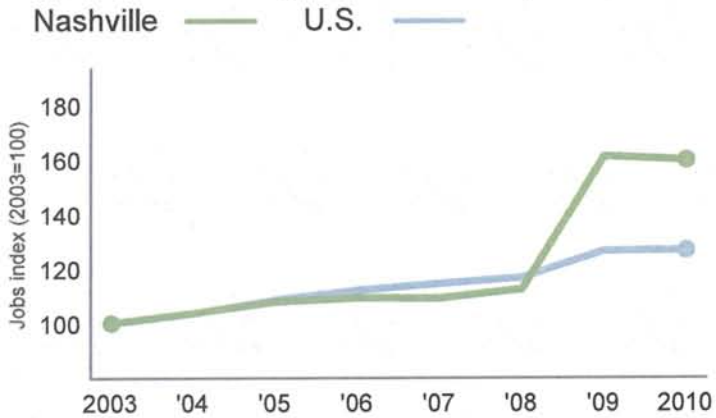
On average each clean economy job in Nashville produces $17,026 in exports, which ranks it 41st on this measure

ANNUAL WAGE

$37,705

The estimated median wage in Nashville's clean economy is $37,705. This compares to $34,793 for all jobs in Nashville

Clean Economy Job Growth, 2003–2010



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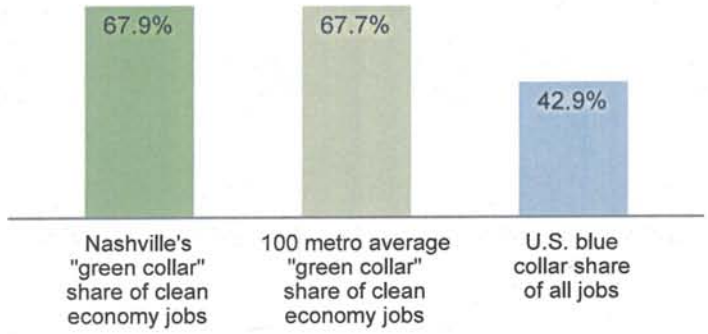
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Nashville's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Regulation and Compliance	6,501	+5,200	+25.8%
Appliances	2,390	-6	0.0%
Waste Management and Treatment	1,803	+287	+2.5%
Energy-saving Building Materials	1,383	+172	+1.9%
Conservation	962	+150	+2.5%

Fastest Growing Segments

of Nashville's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Regulation and Compliance	6,501	+5,200	+25.8%
Biofuels/Biomass	59	+44	+21.6%
Pollution Reduction	89	+50	+12.5%
Green Architecture and Construction Services	91	+44	+9.9%
Organic Food and Farming	200	+95	+9.6%

Sample Clean Economy Employers

Eco-Energy Inc
(Biofuels/Biomass)

Lochinvar Corp
(Appliances)

MI Windows and Doors Inc
(Energy-saving Building Materials)

Nissan North America Inc
(Electric Vehicle Technologies)

Sims Recycling Solutions
(Recycling and Reuse)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Tennessee**

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Tennessee's Clean Economy Profile

200

CLEAN JOBS

76,031

In terms of its overall size the clean economy in Tennessee ranks 14th among the 50 states and the District of Columbia

INTENSITY

2.8%

Tennessee's 76,031 clean economy jobs make up 2.8 percent of all jobs in the state. On this measure of concentration its clean economy ranks 6th

GROWTH

+17,575

Between 2003 and 2010 Tennessee added 17,575 clean jobs to see the sector grow by 3.8 percent annually. Those readings placed the state 11th and 22nd

EXPORTS PER JOB

$50,939

On average each clean economy job in Tennessee produces $50,939 in exports, which ranks it 2nd on this measure

ANNUAL WAGE

$37,347

The estimated median wage in Tennessee's clean economy is $37,347. This compares to $32,691 for all jobs in Tennessee

Clean Economy Job Growth, 2003–2010

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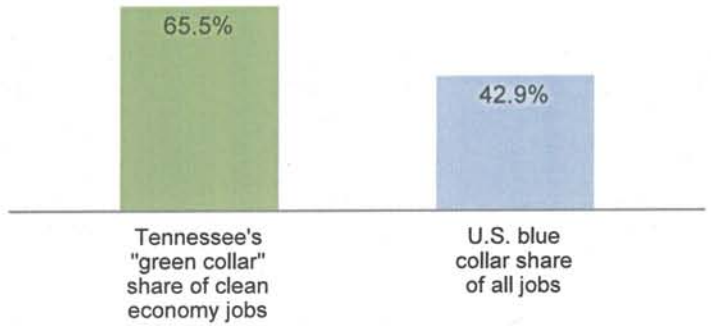
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Tennessee's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Energy Services	8,415	+8,123	+61.6%
Regulation and Compliance	7,699	+5,277	+18.0%
Waste Management and Treatment	7,146	+1,411	+3.2%
Green Chemical Products	7,124	-3,041	-5.0%
HVAC and Building Control Systems	6,803	+768	+1.7%

Fastest Growing Segments

of Tennessee's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Energy Services	8,415	+8,123	+61.6%
Biofuels/Biomass	70	+55	+24.6%
Green Architecture and Construction Services	416	+312	+21.9%
Regulation and Compliance	7,699	+5,277	+18.0%
Air and Water Purification Technologies	216	+145	+17.2%

Sample Clean Economy Employers

Aerisyn LLC
(Wind)

Lochinvar Corp
(Appliances)

Nissan North America Inc
(Electric Vehicle Technologies)

Sharp Electronics Corp
(Solar Photovoltaic)

Tennessee Valley Authority - Sequoyah
(Nuclear Energy)

For More Information

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Nissan North America, Inc.

Nissan North America, Inc. closed a $1.4 billion loan arrangement under the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program to retool its Smyrna, Tennessee assembly plant to manufacture all-electric automobiles in addition to existing Nissan vehicles, and to construct an advanced battery manufacturing facility. The project is expected to create up to 1,300 jobs.

Project	Nissan North America, Inc.
Technology	OEM
Location	Smyrna, TN
Loan Amount	$1.448 billion
Eligibility	ATVM
Status	Closed
Date of agreement	Jan 2010
Jobs Construction	N/A
Perm Jobs Created or Saved	1,300

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Gasoline Displaced (Gallons)	23,000,000
Annual Avoided CO2 (tons)	204,000
Annual Cars off the Road*	39,000
Households Equivalent (annual)**	N/A

Rep. Gerald E. Connolly (VA-11)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Washington, DC-VA-MD-WV Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Washington's Clean Economy Profile

CLEAN JOBS

70,828

In terms of its overall size the clean economy in the Washington metropolitan area ranks 4th among the 100 largest metro areas

INTENSITY

2.3%

Washington's 70,828 clean economy jobs make up 2.3 percent of all jobs in the region. On this measure of concentration its clean economy ranks 27th

GROWTH

+20,403

Between 2003 and 2010 Washington added 20,403 clean jobs to see the sector grow by 5.0 percent annually. Those readings placed the region 3rd and 38th

EXPORTS PER JOB

$6,183

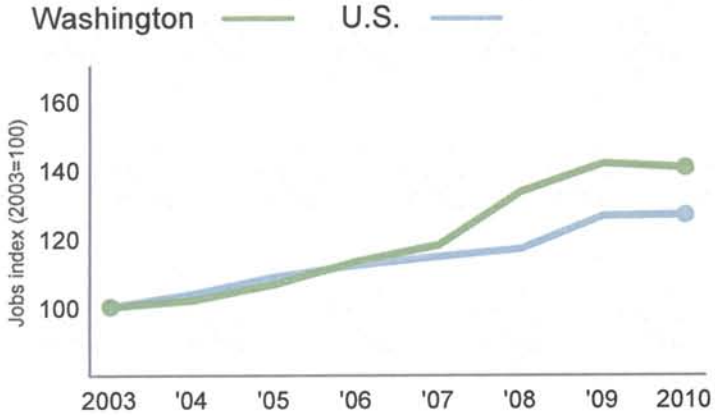
On average each clean economy job in Washington produces $6,183 in exports, which ranks it 85th on this measure

ANNUAL WAGE

$51,651

The estimated median wage in Washington's clean economy is $51,651. This compares to $55,134 for all jobs in Washington

Clean Economy Job Growth, 2003–2010



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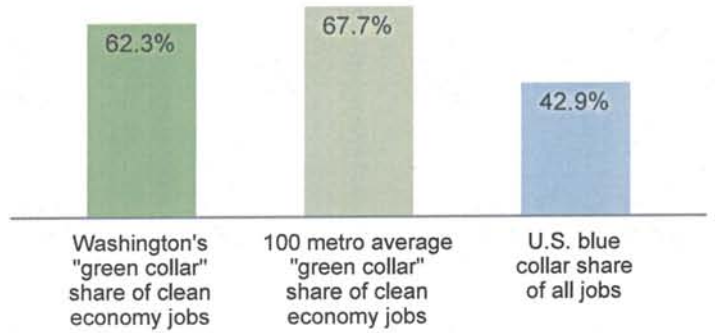
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Washington's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	18,194	+9,293	+10.8%
Regulation and Compliance	15,649	+1,666	+1.6%
Public Mass Transit	9,560	+1,461	+2.4%
Waste Management and Treatment	7,741	+1,290	+2.6%
Professional Environmental Services	5,196	+1,488	+4.9%

Fastest Growing Segments

of Washington's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Photovoltaic	790	+770	+69.1%
Biofuels/Biomass	91	+82	+39.2%
Smart Grid	337	+278	+28.3%
Wind	312	+242	+23.8%
Battery Technologies	35	+27	+23.5%

Sample Clean Economy Employers

AES Corp
(Wind)

Current Group LLC
(Smart Grid)

Dewberry & Davis LLC
(Professional Environmental Services)

ICF International Inc
(Professional Energy Services)

RTKL Associates Inc
(Green Architecture and Construction Services)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Virginia**

Why the Clean Economy Matters

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Virginia's Clean Economy Profile

CLEAN JOBS

66,772

In terms of its overall size the clean economy in Virginia ranks 15th among the 50 states and the District of Columbia

INTENSITY

1.7%

Virginia's 66,772 clean economy jobs make up 1.7 percent of all jobs in the state. On this measure of concentration its clean economy ranks 36th

GROWTH

+18,349

Between 2003 and 2010 Virginia added 18,349 clean jobs to see the sector grow by 4.7 percent annually. Those readings placed the state 10th and 17th

EXPORTS PER JOB

$11,034

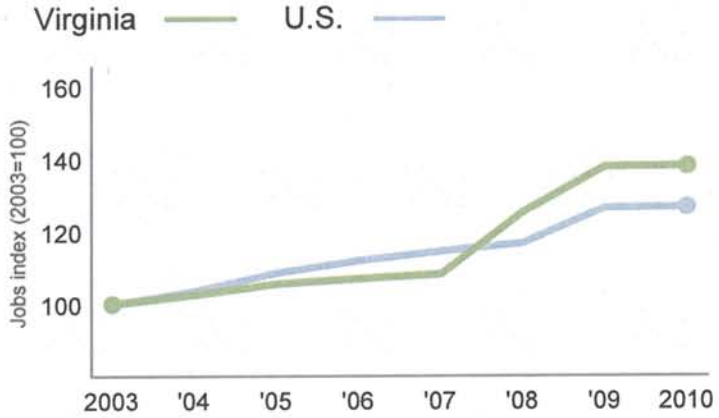
On average each clean economy job in Virginia produces $11,034 in exports, which ranks it 39th on this measure

ANNUAL WAGE

$43,400

The estimated median wage in Virginia's clean economy is $43,400. This compares to $40,970 for all jobs in Virginia

Clean Economy Job Growth, 2003–2010



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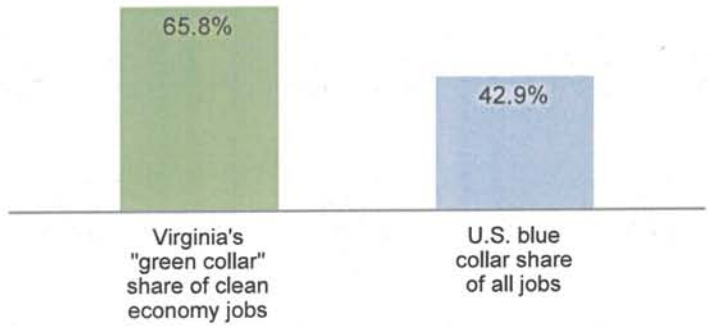
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Virginia's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	13,902	+8,736	+15.2%
Waste Management and Treatment	9,581	+2,423	+4.3%
Public Mass Transit	7,867	+1,582	+3.3%
Regulation and Compliance	6,055	+660	+1.7%
Professional Environmental Services	4,642	+1,590	+6.2%

Fastest Growing Segments

of Virginia's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Smart Grid	142	+136	+57.1%
Green Consumer Products	71	+62	+34.3%
Biofuels/Biomass	103	+86	+29.4%
Wind	410	+314	+23.0%
Professional Energy Services	1,311	+837	+15.6%

Sample Clean Economy Employers

AES Corp
(Wind)

ALSTOM Power Inc
(Energy-saving Building Materials)

Electrical Distribution Design
(Smart Grid)

Everbrite LLC
(Lighting)

Tri-Dim Filter Corp
(Air and Water Purification Technologies)

For More Information

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Rep. Mike Quigley (IL-05)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Chicago, IL-IN-WI Metropolitan Area**

Why the Clean Economy Matters

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Chicago's Clean Economy Profile

CLEAN JOBS

79,388

In terms of its overall size the clean economy in the Chicago metropolitan area ranks 3rd among the 100 largest metro areas

INTENSITY

1.8%

Chicago's 79,388 clean economy jobs make up 1.8 percent of all jobs in the region. On this measure of concentration its clean economy ranks 45th

GROWTH

+17,729

Between 2003 and 2010 Chicago added 17,729 clean jobs to see the sector grow by 3.7 percent annually. Those readings placed the region 4th and 60th

EXPORTS PER JOB

$25,002

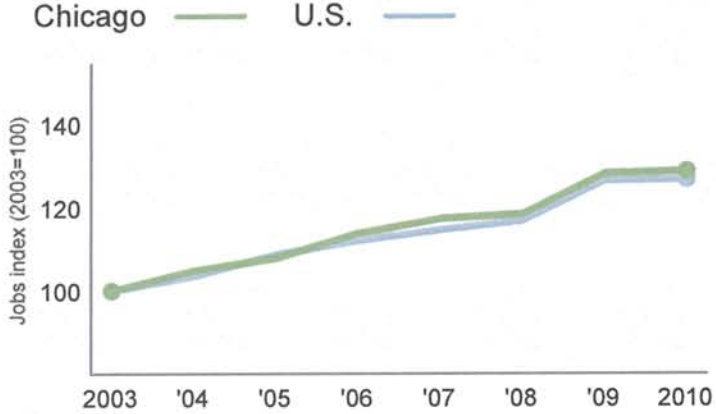
On average each clean economy job in Chicago produces $25,002 in exports, which ranks it 17th on this measure

ANNUAL WAGE

$42,816

The estimated median wage in Chicago's clean economy is $42,816. This compares to $42,557 for all jobs in Chicago

Clean Economy Job Growth, 2003–2010



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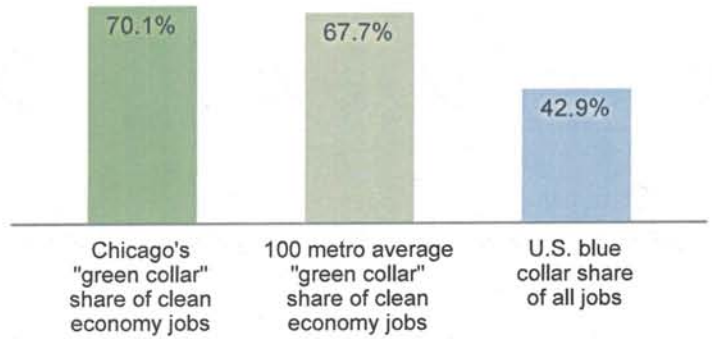
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Chicago's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	20,664	+7,594	+6.8%
Waste Management and Treatment	13,567	+2,631	+3.1%
Professional Energy Services	5,353	+186	+0.5%
Recycling and Reuse	5,123	+2,410	+9.5%
Green Architecture and Construction Services	3,332	+106	+0.5%

Fastest Growing Segments

of Chicago's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Thermal	32	+30	+48.6%
Wind	540	+487	+39.3%
Solar Photovoltaic	101	+89	+35.6%
Appliances	233	+156	+17.1%
Air and Water Purification Technologies	2,031	+999	+10.2%

Sample Clean Economy Employers

Elevance Renewable Sciences
(Biofuels/Biomass)

Invenergy
(Wind)

Nalco Co
(Professional Energy Services)

Siemens Industry Inc
(HVAC and Building Control Systems)

United States Gypsum Co
(Green Building Materials)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Illinois**

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Illinois' Clean Economy Profile

CLEAN JOBS

106,375

In terms of its overall size the clean economy in Illinois ranks 5th among the 50 states and the District of Columbia

INTENSITY

1.8%

Illinois' 106,375 clean economy jobs make up 1.8 percent of all jobs in the state. On this measure of concentration its clean economy ranks 33rd

GROWTH

+20,291

Between 2003 and 2010 Illinois added 20,291 clean jobs to see the sector grow by 3.1 percent annually. Those readings placed the state 7th and 30th

EXPORTS PER JOB

$25,917

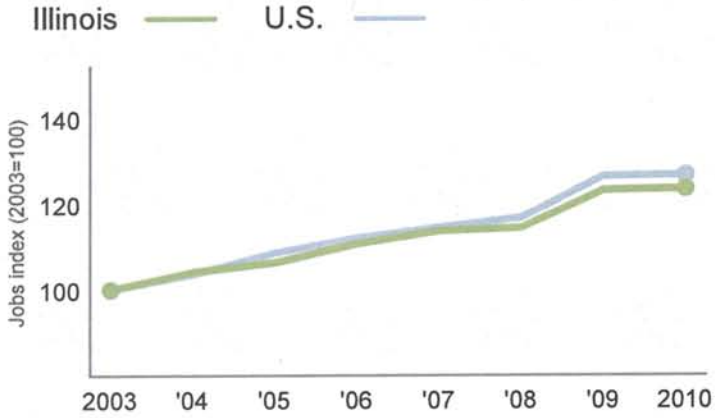
On average each clean economy job in Illinois produces $25,917 in exports, which ranks it 14th on this measure

ANNUAL WAGE

$41,357

The estimated median wage in Illinois' clean economy is $41,357. This compares to $40,057 for all jobs in Illinois

Clean Economy Job Growth, 2003–2010



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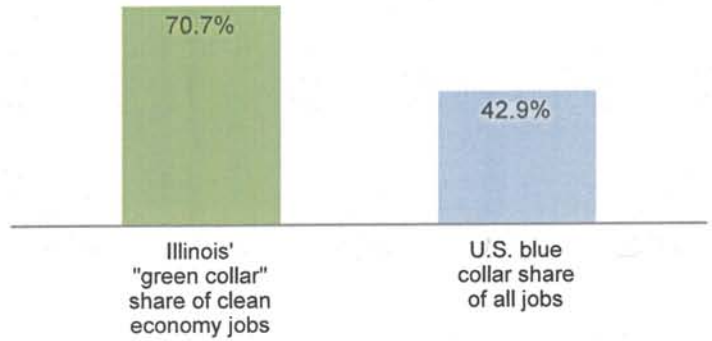
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Illinois' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	24,396	+6,826	+4.8%
Waste Management and Treatment	17,003	+3,634	+3.5%
Nuclear Energy	7,381	+590	+1.2%
Recycling and Reuse	6,338	+2,465	+7.3%
Professional Energy Services	5,347	+200	+0.5%

Fastest Growing Segments

of Illinois' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Thermal	32	+30	+48.6%
Wind	553	+500	+39.8%
Appliances	364	+195	+11.6%
Air and Water Purification Technologies	2,100	+1,001	+9.7%
Pollution Reduction	354	+151	+8.3%

Sample Clean Economy Employers

Coskata Inc
(Biofuels/Biomass)

Elevance Renewable Sciences
(Biofuels/Biomass)

Nalco Co
(Professional Energy Services)

Siemens Industry Inc
(HVAC and Building Control Systems)

Suzlon Wind Energy Corp
(Wind)

For More Information

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Department of Labor Investments in Green Skills and Training

District: IL-05, Representative Mike Quigley

- Green Jobs Training State Energy Sector Partnership grant to IL State Workforce Agency for $6,000,000 (Statewide).

- Green Jobs Training Energy Training Partnership grant to National Ironworkers and Employers Apprenticeship Training and Journeyman Upgrading Fund for $1,943,931 (Cook County and other auto communities).

- Green Jobs Training Pathways Out of Poverty grant to National Council of LaRaza for $3,063,840 (Chicago and other communities).

- Green Jobs Training Pathways out of Poverty grant to Jobs for the Future, Inc. for $7,997,936 (Chicago and other communities).

- Green Jobs Innovation Fund grant to Jobs for the Future, Inc. for $8,000,000 (Illinois and states).

- The Paul Simon Job Corps Center has implemented green training elements in 4 of its training programs: painting, carpentry, manufacturing, and bricklaying.

Rep. Danny K. Davis (IL-07)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

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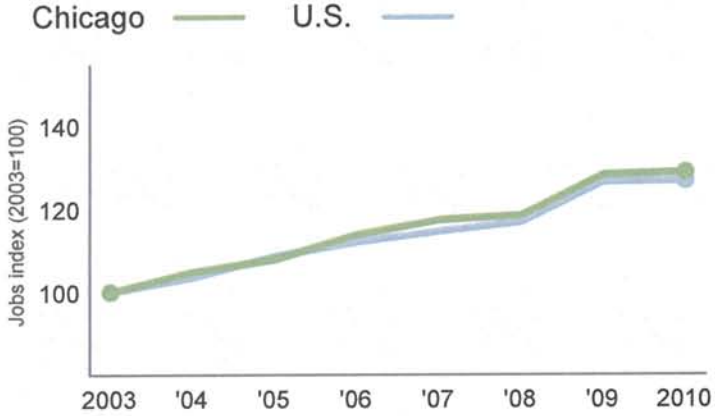

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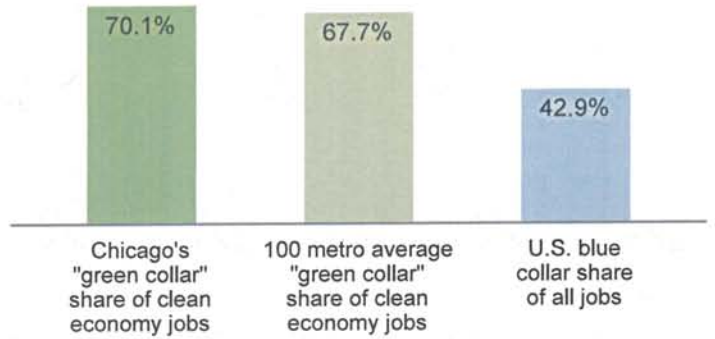

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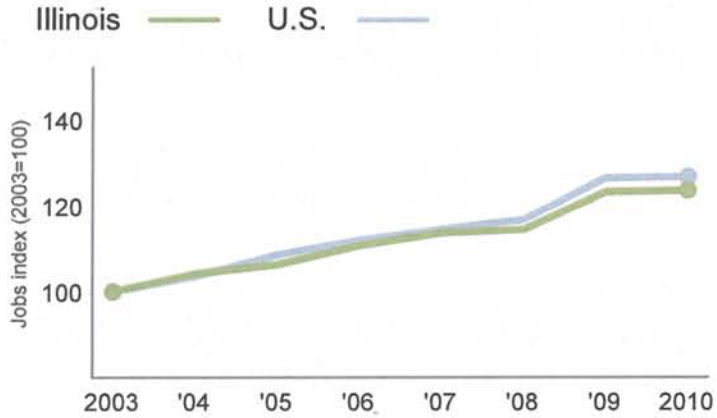

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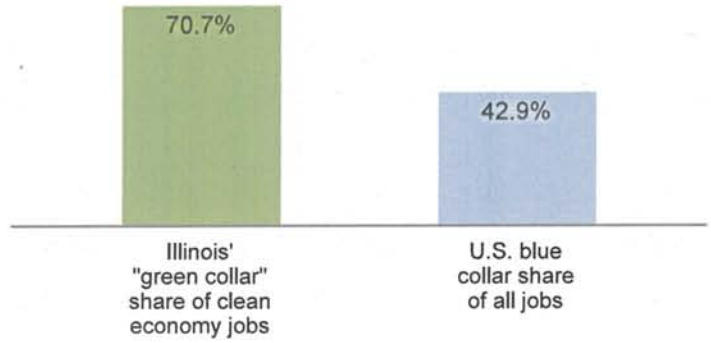
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of Illinois' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	24,396	+6,826	+4.8%
Waste Management and Treatment	17,003	+3,634	+3.5%
Nuclear Energy	7,381	+590	+1.2%
Recycling and Reuse	6,338	+2,465	+7.3%
Professional Energy Services	5,347	+200	+0.5%

Fastest Growing Segments

of Illinois' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Thermal	32	+30	+48.6%
Wind	553	+500	+39.8%
Appliances	364	+195	+11.6%
Air and Water Purification Technologies	2,100	+1,001	+9.7%
Pollution Reduction	354	+151	+8.3%

Sample Clean Economy Employers

Coskata Inc
(Biofuels/Biomass)

Elevance Renewable Sciences
(Biofuels/Biomass)

Nalco Co
(Professional Energy Services)

Siemens Industry Inc
(HVAC and Building Control Systems)

Suzlon Wind Energy Corp
(Wind)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
www.brookings.edu/metro/clean_economy/map.aspx

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Department of Labor Investments in Green Skills and Training

District: IL-07, Representative Danny K. Davis

- Green Jobs Training State Energy Sector Partnership grant to IL State Workforce Agency for $6,000,000 (Statewide).
- Green Jobs Training Energy Training Partnership grant to National Ironworkers and Employers Apprenticeship Training and Journeyman Upgrading Fund for $1,943,931 (Cook County and other auto communities).
- Green Jobs Innovation Fund grant to Jobs for the Future, Inc.: $8,000,000 (Illinois and three states).
- Green Jobs Training Pathways out of Poverty grant to National Council of LaRaza for $3,063,840 (Chicago and other communities).
- Green Jobs Training Pathways out of Poverty grant to Jobs for the Future, Inc. for $7,997,936 (Chicago and other communities).
- Green Jobs Training Green Capacity Building to Easter Seals, Inc. for $99,956.
- Green Jobs Training Green Capacity Building OAI, Inc. for $100,000.
- The Paul Simon Job Corps Center has implemented green training elements in 4 of its training programs: painting, carpentry, manufacturing, and bricklaying.

Rep. Bruce L. Braley (IA-01)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Iowa**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Iowa's Clean Economy Profile

CLEAN JOBS

30,835

In terms of its overall size the clean economy in Iowa ranks 28th among the 50 states and the District of Columbia

INTENSITY

2.0%

Iowa's 30,835 clean economy jobs make up 2.0 percent of all jobs in the state. On this measure of concentration its clean economy ranks 25th

GROWTH

+6,261

Between 2003 and 2010 Iowa added 6,261 clean jobs to see the sector grow by 3.3 percent annually. Those readings placed the state 23rd and 26th

EXPORTS PER JOB

$44,942

On average each clean economy job in Iowa produces $44,942 in exports, which ranks it 3rd on this measure

ANNUAL WAGE

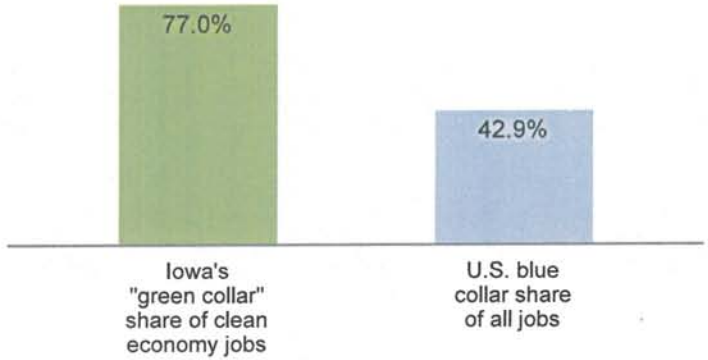
$35,237

The estimated median wage in Iowa's clean economy is $35,237. This compares to $32,838 for all jobs in Iowa

Clean Economy Job Growth, 2003–2010

Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Iowa's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Energy-saving Building Materials	8,681	+539	+0.9%
Conservation	3,657	+2,707	+21.2%
Waste Management and Treatment	3,230	+584	+2.9%
Biofuels/Biomass	2,964	+415	+2.2%
Organic Food and Farming	2,752	+422	+2.4%

Fastest Growing Segments

of Iowa's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	591	+576	+69.0%
Solar Photovoltaic	75	+57	+22.6%
Conservation	3,657	+2,707	+21.2%
Smart Grid	17	+12	+19.1%
Lighting	75	+48	+15.7%

Sample Clean Economy Employers

Archer-Daniels-Midland Co
(Biofuels/Biomass)

Cargill Inc
(Biofuels/Biomass)

Golden Grain Energy LLC
(Biofuels/Biomass)

Purfoods Llc
(Organic Food and Farming)

Sioux-Preme Packing Co
(Organic Food and Farming)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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POET, LLC.

$105 million conditional commitment for a Loan Guarantee to POET, LLC. to support the development of the nation's first commercial-scale cellulosic ethanol plant. The project will produce up to 25 million gallons of ethanol per year and will be located in Emmetsburg, Iowa.

Project	POET, LLC.
Technology	Biofuel
Location	Emmetsburg, IA
Loan Amount	$105 million
Eligibility	1705
Status	Conditional Commitment
Date of agreement	July 2011
Jobs Construction	200
Perm Jobs Created or Saved	40

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Fuel Production (Gallons)	21,021,000
Annual Gasoline Displaced (Gallons)	13,821,000
Annual Avoided CO2 (tons)	123,000
Annual Cars off the Road*	24,000
Households Equivalent (annual)**	N/A
Equivalent Annual Average Generation of X Coal Plants ***	N/A

Department of Labor Investments in Green Skills and Training

District: IA-01, Representative Bruce L. Braley

- Green Jobs Training State Energy Sector Partnership grant for $5,997,000 (Statewide).

- Green Jobs Training Energy Training Partnership grant to E.C.I.A Business Growth Inc. for $2,060,250 (District and other counties).

- The Ottumwa Job Corps Center has implemented green training elements in its heavy equipment mechanic and operations programs.

Rep. Peter Welch (VT-AL)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Vermont**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Vermont's Clean Economy Profile

CLEAN JOBS

9,425

In terms of its overall size the clean economy in Vermont ranks 47th among the 50 states and the District of Columbia

INTENSITY

3.0%

Vermont's 9,425 clean economy jobs make up 3.0 percent of all jobs in the state. On this measure of concentration its clean economy ranks 5th

GROWTH

+1,130

Between 2003 and 2010 Vermont added 1,130 clean jobs to see the sector grow by 1.8 percent annually. Those readings placed the state 48th and 44th

EXPORTS PER JOB

$22,377

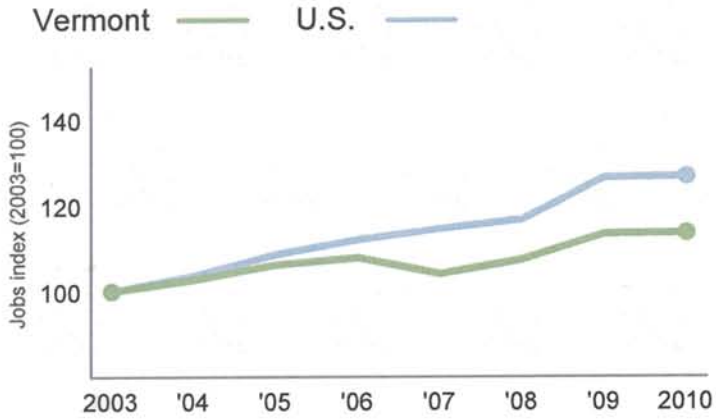
On average each clean economy job in Vermont produces $22,377 in exports, which ranks it 20th on this measure

ANNUAL WAGE

$37,681

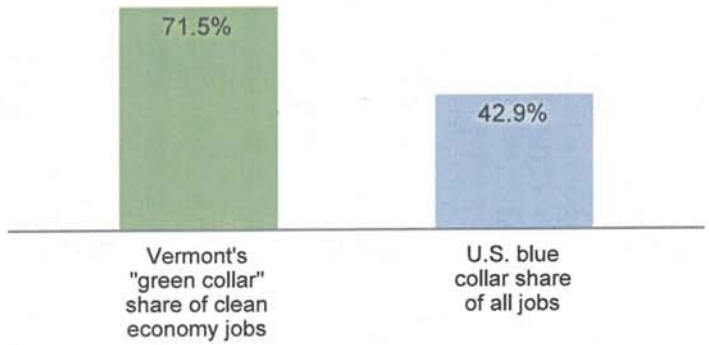
The estimated median wage in Vermont's clean economy is $37,681. This compares to $36,400 for all jobs in Vermont

Clean Economy Job Growth, 2003–2010



Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Vermont's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	1,232	+356	+5.0%
Organic Food and Farming	1,222	-3	0.0%
Conservation	1,210	+351	+5.0%
Waste Management and Treatment	1,080	-378	-4.2%
Green Building Materials	718	+277	+7.2%

Fastest Growing Segments

of Vermont's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Biofuels/Biomass	32	+28	+34.6%
Solar Photovoltaic	35	+29	+28.7%
Professional Energy Services	179	+89	+10.3%
Pollution Reduction	21	+9	+8.3%
Green Building Materials	718	+277	+7.2%

Sample Clean Economy Employers

Blue Seal Feeds Inc
(Organic Food and Farming)

Entergy Nuclear Vermont Yankee
(Nuclear Energy)

LEDdynamics Inc
(Lighting)

Northern Power Systems Inc
(Wind)

SBE Inc
(Electric Vehicle Technologies)

For More Information

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INTERACTIVE MAPPING TOOL:
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Department of Labor Investments in Green Skills and Training

District: VT-AL, Representative Peter Welch

- ARRA Green Jobs Training Energy Training Partnership grant to Central Vermont Community Action Council Inc. for $4,846,195.

- Northlands Job Corps has implemented green training elements in its carpentry, facilities maintenance, and welding programs.

Rep. John A. Yarmuth (KY-03)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Louisville, KY-IN Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Louisville's Clean Economy Profile

CLEAN JOBS

14,447

In terms of its overall size the clean economy in the Louisville metropolitan area ranks 38th among the 100 largest metro areas

INTENSITY

2.4%

Louisville's 14,447 clean economy jobs make up 2.4 percent of all jobs in the region. On this measure of concentration its clean economy ranks 23rd

GROWTH

+1,668

Between 2003 and 2010 Louisville added 1,668 clean jobs to see the sector grow by 1.8 percent annually. Those readings placed the region 59th and 84th

EXPORTS PER JOB

$36,817

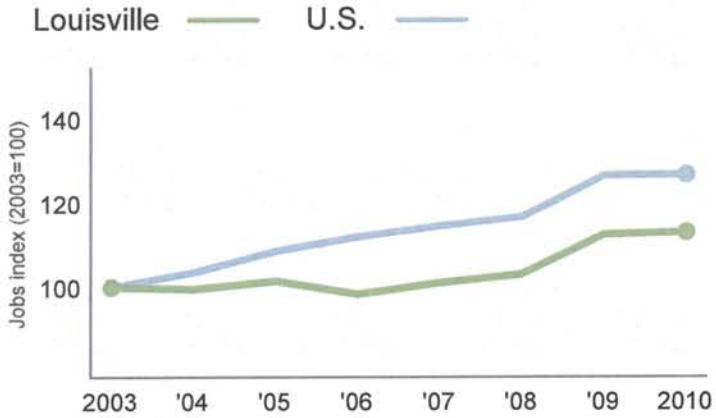
On average each clean economy job in Louisville produces $36,817 in exports, which ranks it 7th on this measure

ANNUAL WAGE

$37,317

The estimated median wage in Louisville's clean economy is $37,317. This compares to $35,007 for all jobs in Louisville

Clean Economy Job Growth, 2003–2010



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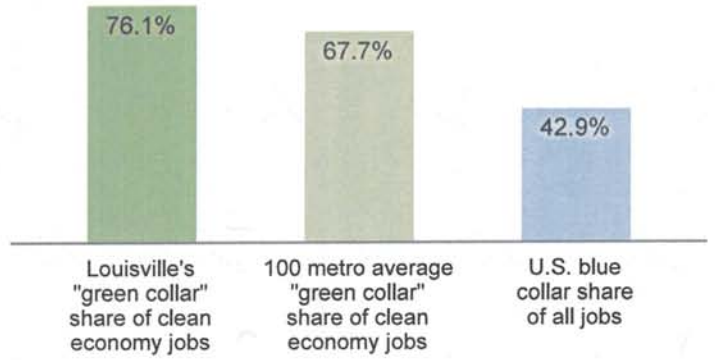
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Louisville's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Appliances	6,518	+1,092	+2.7%
Waste Management and Treatment	1,411	+117	+1.2%
Public Mass Transit	1,011	+121	+1.8%
Recycling and Reuse	875	+268	+5.4%
Professional Environmental Services	798	+311	+7.3%

Fastest Growing Segments

of Louisville's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Energy Services	247	+168	+17.7%
Smart Grid	105	+55	+11.2%
Sustainable Forestry Products	400	+200	+10.4%
Conservation	268	+121	+9.0%
Professional Environmental Services	798	+311	+7.3%

Sample Clean Economy Employers

Amatrol Inc
(Wind)

General Electric Co
(Appliances)

Graphic Packaging Intl
(Sustainable Forestry Products)

Summit Energy Services Inc
(Professional Energy Services)

Winston Industries Inc
(Appliances)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Kentucky**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Kentucky's Clean Economy Profile

CLEAN JOBS

36,963

In terms of its overall size the clean economy in Kentucky ranks 26th among the 50 states and the District of Columbia

INTENSITY

1.9%

Kentucky's 36,963 clean economy jobs make up 1.9 percent of all jobs in the state. On this measure of concentration its clean economy ranks 30th

GROWTH

+4,952

Between 2003 and 2010 Kentucky added 4,952 clean jobs to see the sector grow by 2.1 percent annually. Those readings placed the state 31st and 43rd

EXPORTS PER JOB

$39,948

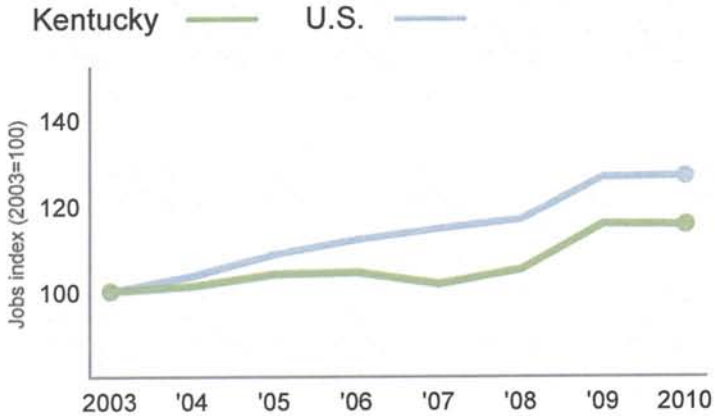
On average each clean economy job in Kentucky produces $39,948 in exports, which ranks it 6th on this measure

ANNUAL WAGE

$35,585

The estimated median wage in Kentucky's clean economy is $35,585. This compares to $32,979 for all jobs in Kentucky

Clean Economy Job Growth, 2003–2010



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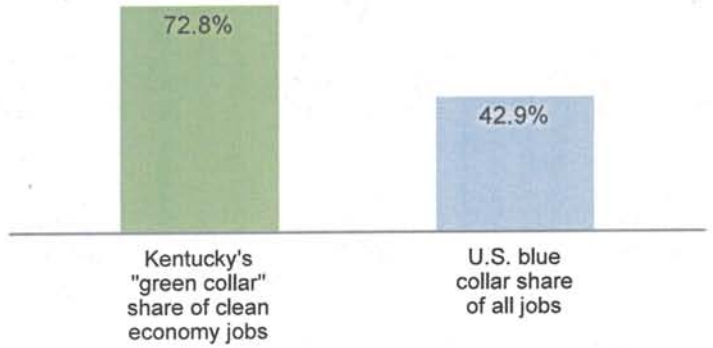
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Kentucky's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Appliances	6,412	+1,056	+2.6%
Waste Management and Treatment	3,755	+417	+1.7%
Public Mass Transit	3,061	+877	+4.9%
Energy-saving Consumer Products	3,045	+35	+0.2%
Conservation	2,883	+657	+3.8%

Fastest Growing Segments

of Kentucky's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Carbon Storage and Management	50	+42	+29.9%
Remediation	801	+543	+17.6%
Smart Grid	237	+157	+16.8%
Professional Energy Services	279	+164	+13.5%
Green Chemical Products	45	+22	+10.1%

Sample Clean Economy Employers

HMC Service Co Inc
(HVAC and Building Control Systems)

Lexmark International Inc
(Energy-saving Consumer Products)

Rotek Inc
(Wind)

Summit Energy Services Inc
(Professional Energy Services)

Winston Industries Inc
(Appliances)

For More Information

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Department of Labor Investments in Green Skills and Training

District: KY-03, Representative John A. Yarmuth

- ARRA Green Jobs Training State Energy Sector Partnership grant to KY state workforce agency: $4,740,457 (Statewide).

- ARRA Green Jobs Training Green Capacity Building grant to Young Adult Development in Action, Inc. for $100,000 (Louisville).

Rep. Christopher S. Murphy (CT-05)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **Hartford, CT Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Hartford's Clean Economy Profile

CLEAN JOBS

13,712

In terms of its overall size the clean economy in the Hartford metropolitan area ranks 39th among the 100 largest metro areas

INTENSITY

2.2%

Hartford's 13,712 clean economy jobs make up 2.2 percent of all jobs in the region. On this measure of concentration its clean economy ranks 32nd

GROWTH

+4,900

Between 2003 and 2010 Hartford added 4,900 clean jobs to see the sector grow by 6.5 percent annually. Those readings placed the region 28th and 15th

EXPORTS PER JOB

$8,016

On average each clean economy job in Hartford produces $8,016 in exports, which ranks it 79th on this measure

ANNUAL WAGE

$48,757

The estimated median wage in Hartford's clean economy is $48,757. This compares to $46,774 for all jobs in Hartford

Clean Economy Job Growth, 2003–2010

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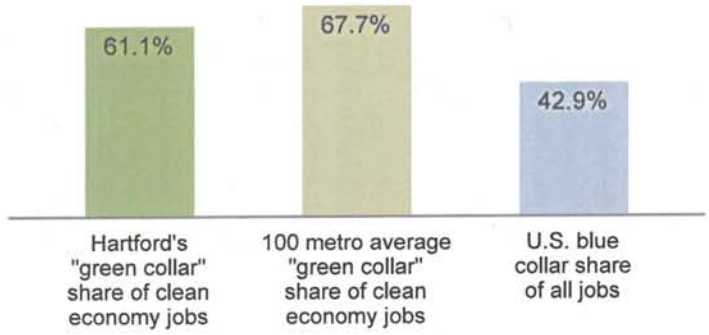
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Hartford's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Regulation and Compliance	3,750	+2,737	+20.6%
Public Mass Transit	2,305	+236	+1.6%
Waste Management and Treatment	1,835	+983	+11.6%
HVAC and Building Control Systems	1,097	+153	+2.2%
Professional Environmental Services	900	+213	+3.9%

Fastest Growing Segments

of Hartford's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Energy Services	205	+166	+26.8%
Regulation and Compliance	3,750	+2,737	+20.6%
Waste Management and Treatment	1,835	+983	+11.6%
Air and Water Purification Technologies	182	+95	+11.1%
Recycling and Reuse	598	+280	+9.4%

Sample Clean Economy Employers

Country Pure Foods Inc
(Organic Food and Farming)

Covanta Energy
(Waste-to-Energy)

JCJ Architecture
(Green Architecture and Construction Services)

Schueco USA LP
(Solar Photovoltaic)

UTC Power
(Fuel Cells)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of Connecticut**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

Connecticut's Clean Economy Profile

CLEAN JOBS

29,751

In terms of its overall size the clean economy in Connecticut ranks 29th among the 50 states and the District of Columbia

INTENSITY

1.8%

Connecticut's 29,751 clean economy jobs make up 1.8 percent of all jobs in the state. On this measure of concentration its clean economy ranks 34th

GROWTH

+7,210

Between 2003 and 2010 Connecticut added 7,210 clean jobs to see the sector grow by 4.0 percent annually. Those readings placed the state 22nd and 20th

EXPORTS PER JOB

$11,793

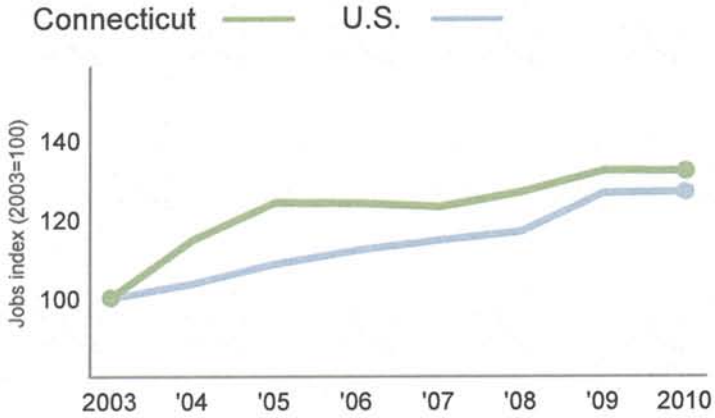
On average each clean economy job in Connecticut produces $11,793 in exports, which ranks it 38th on this measure

ANNUAL WAGE

$45,802

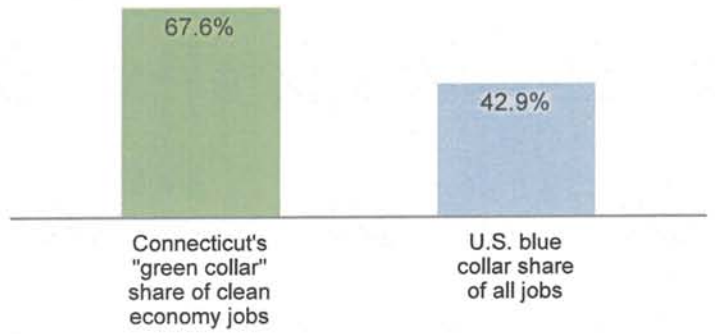
The estimated median wage in Connecticut's clean economy is $45,802. This compares to $45,224 for all jobs in Connecticut

Clean Economy Job Growth, 2003–2010



Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of Connecticut's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Public Mass Transit	6,236	+893	+2.2%
Regulation and Compliance	4,435	+2,771	+15.0%
Waste Management and Treatment	4,335	+1,279	+5.1%
Professional Environmental Services	1,704	+442	+4.4%
Organic Food and Farming	1,554	-159	-1.4%

Fastest Growing Segments

of Connecticut's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Thermal	15	+11	+20.8%
Regulation and Compliance	4,435	+2,771	+15.0%
Waste-to-Energy	275	+145	+11.3%
Professional Energy Services	524	+261	+10.3%
Pollution Reduction	32	+12	+6.9%

Sample Clean Economy Employers

Belimo Aircontrols Inc
(HVAC and Building Control Systems)

Duracell Inc
(Battery Technologies)

Guida-Seibert Dairy Company
(Organic Food and Farming)

H&T Waterbury
(Electric Vehicle Technologies)

Proton Energy Systems Inc
(Fuel Cells)

For More Information

VIEW THE FULL REPORT:
www.brookings.edu/metro/clean_economy.aspx

INTERACTIVE MAPPING TOOL:
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Department of Labor Investments in Green Skills and Training

District: CT-05, Representative Christopher S. Murphy

- ARRA Green Jobs Training State Energy Sector Partnership Grant to CT Employment and Training Commission for $3,360,000 (Statewide).

- Green Jobs Innovation Fund grant to Connecticut DOL for $5,800,000 (Statewide).

- Hartford's Job Corps Center has green manufacturing training programs and New Haven's center has green programs in carpentry and facilities maintenance.

Rep. Jackie Speier (CA-12)

SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **San Francisco, CA Metropolitan Area**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

San Francisco's Clean Economy Profile

CLEAN JOBS

51,811

In terms of its overall size the clean economy in the San Francisco metropolitan area ranks 6th among the 100 largest metro areas

INTENSITY

2.7%

San Francisco's 51,811 clean economy jobs make up 2.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 17th

GROWTH

+15,784

Between 2003 and 2010 San Francisco added 15,784 clean jobs to see the sector grow by 5.3 percent annually. Those readings placed the region 5th and 30th

EXPORTS PER JOB

$20,705

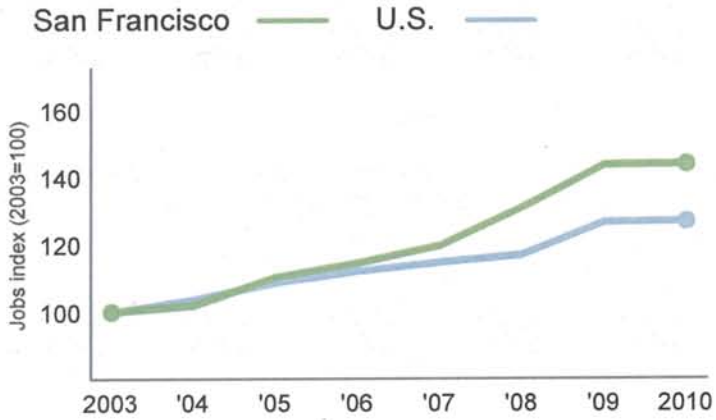
On average each clean economy job in San Francisco produces $20,705 in exports, which ranks it 29th on this measure

ANNUAL WAGE

$59,856

The estimated median wage in San Francisco's clean economy is $59,856. This compares to $55,431 for all jobs in San Francisco

Clean Economy Job Growth, 2003–2010



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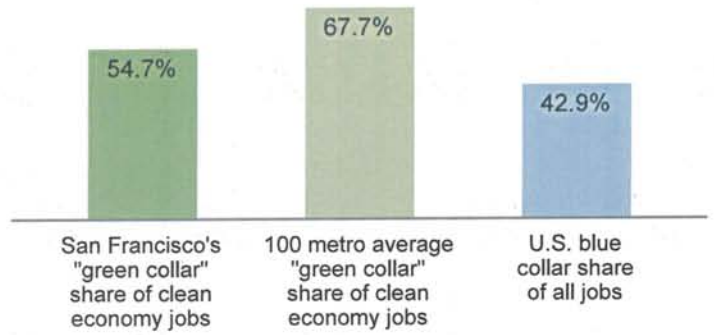
Share of Clean Jobs Offering Good Pay for Modest Education, 2010



Note: Within the clean economy, occupations paying mid-level wages are referred to as "green collar" occupations and include jobs in the following occupational categories: production, transportation, installation, construction, office administration and support, protective services, and social services. The green collar designation is specific to the clean economy; when looking at the overall economy (clean or otherwise), these occupations are typically referred to as "blue collar."

Largest Segments

of San Francisco's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Professional Energy Services	7,532	-1,081	-1.9%
Waste Management and Treatment	6,278	+627	+1.5%
Professional Environmental Services	5,319	+982	+3.0%
Public Mass Transit	4,791	+492	+1.6%
Conservation	4,417	+1,814	+7.8%

Fastest Growing Segments

of San Francisco's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	202	+201	+113.5%
Fuel Cells	130	+129	+100.4%
Smart Grid	2,861	+2,811	+78.3%
Solar Thermal	184	+178	+63.1%
Battery Technologies	178	+164	+43.8%

Sample Clean Economy Employers

Bechtel Group Inc
(Professional Environmental Services)

C. Overaa & Co
(Green Architecture and Construction Services)

Gensler
(Green Architecture and Construction Services)

Gillig LLC
(Electric Vehicle Technologies)

Spring Silver Networks Inc
(Smart Grid)

For More Information

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SIZING THE CLEAN ECONOMY

Metropolitan Policy Program at BROOKINGS

The Clean Economy in the **State of California**

Why the Clean Economy Matters

The "clean" or "green" economy is an important element of America's emerging next economy. It will define our nation's low carbon future while providing opportunity for workers at all levels of the income and skills distributions. In this report, the clean economy is divided into 39 distinct segments, reflecting the economic activity involved in producing a broad spectrum of clean products, from goods such as wind turbines and solar photovoltaics to services such as mass transit and regulation.

California's Clean Economy Profile

CLEAN JOBS

318,156

In terms of its overall size the clean economy in California ranks 1st among the 50 states and the District of Columbia

INTENSITY

2.1%

California's 318,156 clean economy jobs make up 2.1 percent of all jobs in the state. On this measure of concentration its clean economy ranks 14th

GROWTH

+79,092

Between 2003 and 2010 California added 79,092 clean jobs to see the sector grow by 4.2 percent annually. Those readings placed the state 1st and 19th

EXPORTS PER JOB

$16,314

On average each clean economy job in California produces $16,314 in exports, which ranks it 26th on this measure

ANNUAL WAGE

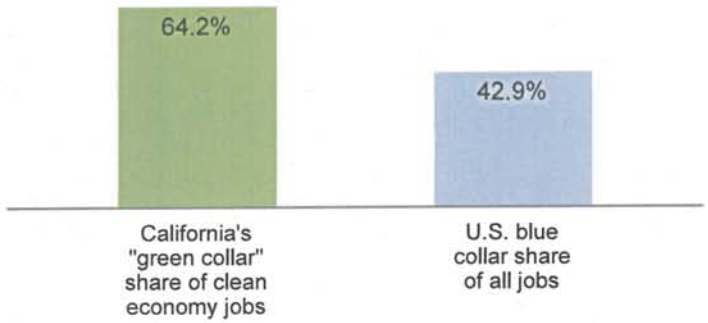
$46,400

The estimated median wage in California's clean economy is $46,400. This compares to $43,815 for all jobs in California

Clean Economy Job Growth, 2003–2010

Note: Changes in employment do not include jobs lost from establishment closings. Some establishments in the database exhibited extreme employment changes, possibly exaggerating a place's growth curve (see report website for a listing of these cases).

Share of Clean Jobs Offering Good Pay for Modest Education, 2010



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Largest Segments

of California's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	52,225	+15,247	+5.1%
Conservation	44,443	+12,861	+5.0%
Organic Food and Farming	34,468	+2,994	+1.3%
Public Mass Transit	32,487	+8,245	+4.3%
Professional Environmental Services	19,259	+5,886	+5.3%

Fastest Growing Segments

of California's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Smart Grid	3,031	+2,849	+49.5%
Renewable Energy Services	283	+266	+49.4%
Fuel Cells	528	+438	+28.8%
Solar Thermal	708	+526	+21.4%
Wind	4,100	+2,846	+18.4%

Sample Clean Economy Employers

Amyris Biotechnologies Inc
(Biofuels/Biomass)

Bloom Energy Corp
(Fuel Cells)

Miasole
(Solar Photovoltaic)

Spring Silver Networks Inc
(Smart Grid)

Trilliant Newtorks Inc
(Smart Grid)

For More Information

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Abengoa Solar, Inc. (Mojave Solar)

$1.2 billion loan guarantee will annually produce 250 MW of power and will be the first U.S. utility-scale deployment of Abengoa's latest Solar Collector Assembly (SCA). Project will create more than 830 construction jobs and 70 operating jobs.

ABENGOA

Project	Abengoa Solar, Inc. (Mojave Solar)
Technology	Solar Generation
Location	San Bernardino County, CA
Loan Amount	$1.2 billion
Eligibility	1705
Status	Closed
Date of agreement	Sept 2011
Jobs Construction	830
Perm Jobs Created or Saved	70

Generation Capacity (MW)	250
Annual Generation Output (MWh)	617,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	355,000
Annual Cars off the Road*	68,000
Households Equivalent (annual)**	54,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

BrightSource Energy, Inc.

The Department of Energy closed on a $1.6 billion loan guarantee for BrightSource Energy, Inc. that will nearly double the generation capacity of concentrated solar in the U.S. and will create approximately 1,000 construction jobs and 86 operations and maintenance jobs.

Project	BrightSource Energy, Inc.
Technology	Solar Generation
Location	Baker, CA
Loan Amount	$1.6 billion
Eligibility	1705
Status	Closed
Date of agreement	Apr 2011
Jobs Construction	1,000
Perm Jobs Created or Saved	86

Generation Capacity (MW)	383
Annual Generation Output (MWh)	998,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	574,000
Annual Cars off the Road*	110,000
Households Equivalent (annual)**	87,000
Equivalent Annual Average Generation of X Coal Plants ***	0.3

First Solar, Inc. (Antelope)

$680 million offer for a partial loan guarantee will create more than 350 construction jobs and will feature a utility-scale deployment of innovative inverters with voltage regulation and monitoring technologies that are new to the U.S. market.

Project	First Solar, Inc. (Antelope)
Technology	Solar Generation
Location	Lancanster, CA
Loan Amount	$680 million
Eligibility	1705
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	350
Perm Jobs Created or Saved	15

Generation Capacity (MW)	230
Annual Generation Output (MWh)	623,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	358,000
Annual Cars off the Road*	69,000
Households Equivalent (annual)**	54,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

First Solar, Inc. (Desert Sunlight)

$1.8 billion offer for a partial loan guarantee will generate 550 jobs during construction. It is expected to generate enough electricity to power over 110,000 homes and will avoid over 735,000 metric tons of carbon dioxide annually.

Project	First Solar, Inc. (Desert Sunlight)
Technology	Solar Generation
Location	Riverside County, CA
Loan Amount	$1.8 billion
Eligibility	1705
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	500
Perm Jobs Created or Saved	15

Generation Capacity (MW)	550
Annual Generation Output (MWh)	1,280,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	735,000
Annual Cars off the Road*	141,000
Households Equivalent (annual)**	111,000
Equivalent Annual Average Generation of X Coal Plants ***	0.4

First Solar, Inc. (Topaz)

$1.9 billion offer for a partial loan guarantee will generate enough electricity to power approximately 110,000 homes and avoid nearly 725,000 metric tons of carbon dioxide emissions annually.

Project	First Solar, Inc. (Topaz)
Technology	Solar Generation
Location	San Luis Obispo County, CA
Loan Amount	$1.9 billion
Eligibility	1705
Status	Conditional Commitment
Date of agreement	June 2011
Jobs Construction	500
Perm Jobs Created or Saved	13

Generation Capacity (MW)	550
Annual Generation Output (MWh)	1,262,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	725,000
Annual Cars off the Road*	139,000
Households Equivalent (annual)**	110,000
Equivalent Annual Average Generation of X Coal Plants ***	139,000

NextEra Energy Resources, LLC (Genesis Solar)

$852 million loan guarantee will produce a 250 MW in Riverside Valley, California. Project is expected to produce enough electricity to power over 48,000 homes and create approximately 800 construction jobs and 47 operating jobs.

Project	NextEra Energy Resources, LLC (Genesis Solar)
Technology	Solar Generation
Location	Riverside County, CA
Loan Amount	$852 million
Eligibility	1705 (FIPP)
Status	Closed
Date of agreement	Aug 2011
Jobs Construction	800
Perm Jobs Created or Saved	47

Generation Capacity (MW)	250
Annual Generation Output (MWh)	560,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	322,000
Annual Cars off the Road*	62,000
Households Equivalent (annual)**	49,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

Solyndra Inc.

The Department of Energy finalized a $535 million loan guarantee for Solyndra, Inc. to finance construction of the first phase of the company's new solar manufacturing facility in Fremont, California. The project, eligible under Section 1703 and Section 1705 of Title XVII of the Energy Policy Act of 2005, will create 3,000 construction jobs.

Project	Solyndra Inc.
Technology	Solar Manufacturing
Location	Fremont, CA
Loan Amount	$535 million
Eligibility	1705
Status	Closed
Date of agreement	Sep 2009
Jobs Construction	3,000
Perm Jobs Created or Saved	N/A

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	681,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	391,000
Annual Cars off the Road*	75,000
Households Equivalent (annual)**	59,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

SunPower Corporation, Systems (California Valley Solar Ranch)

The $1.2 billion conditional commitment for a loan guarantee to SunPower Corporation, Systems will support construction of a 250 MW alternating current PV solar generating facility and create over 350 jobs.

Project	SunPower Corporation, Systems (California Valley Solar Ranch)
Technology	Solar Generation
Location	San Luis Obispo, CA
Loan Amount	$1.187 billion
Eligibility	1705
Status	Conditional Commitment
Date of agreement	Apr 2011
Jobs Construction	350
Perm Jobs Created or Saved	15

Generation Capacity (MW)	250
Annual Generation Output (MWh)	680,000
Annual Fuel Production (Gallons)	N/A
Annual Gasoline Displaced (Gallons)	N/A
Annual Avoided CO2 (tons)	391,000
Annual Cars off the Road*	68,000
Households Equivalent (annual)**	59,000
Equivalent Annual Average Generation of X Coal Plants ***	0.2

Tesla Motors

Tesla Motors, Inc. closed a $465 million loan arrangement under the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program to (1) reopen an auto manufacturing plant in Fremont, California to produce specially-designed, all-electric, plug-in vehicles, and (2) to develop a manufacturing facility to produce battery packs, electric motors and other powertrain components that will power all-electric plug-in vehicles manufactured by Tesla and other original equipment manufacturers including Daimler and Toyota. The projects are expected to create up to 1,500 jobs.

Project	Tesla Motors
Technology	OEM
Location	Fremont, CA
Loan Amount	$465 million
Eligibility	ATVM
Status	Closed
Date of agreement	Jan 2010
Jobs Construction	N/A
Perm Jobs Created or Saved	1,500

Generation Capacity (MW)	N/A
Annual Generation Output (MWh)	N/A
Annual Gasoline Displaced (Gallons)	2,900,000
Annual Avoided CO2 (tons)	26,000
Annual Cars off the Road*	5,000
Households Equivalent (annual)**	N/A

Department of Labor Investments in Green Skills and Training

District: CA-12, Representative Jackie Speier

- ARRA Green Jobs Training State Energy Sector Partnership grant to CA state workforce agency for $6,000,000 (Statewide).

- ARRA Green Jobs Training Energy Training Partnership grant to California State Labor Management Cooperation Committee for the International Brotherhood of Electrical Workers and the National Electrical Contractors Association for $5,000,000 (Statewide).

- San Jose Job Corps Center has incorporated green training elements in 6 of its programs, including HVAC and automotive.