

# SIZING THE CLEAN ECONOMY

## 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**

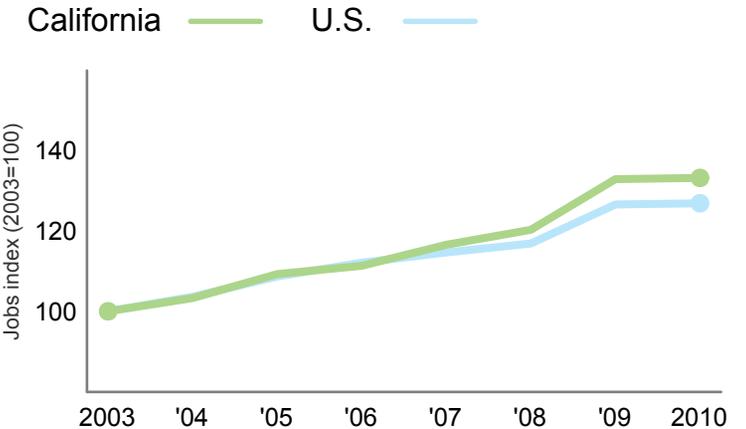
On average each clean economy job in California produces \$16,314 in exports, which ranks it 26th on this measure

#### ANNUAL WAGE

**\$46,400**

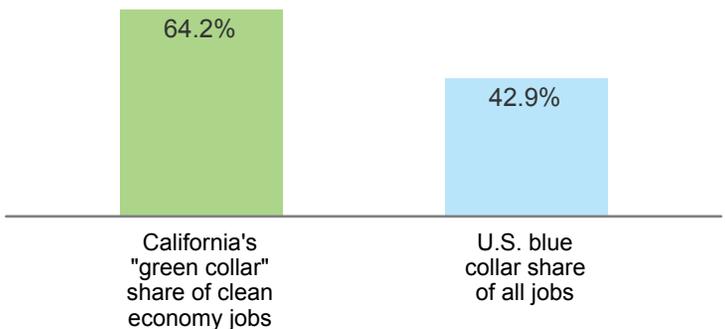
The estimated median wage in California's clean economy is \$46,400. This compares to \$43,815 for all jobs in California

### 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



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](http://www.brookings.edu/metro/clean_economy.aspx)

INTERACTIVE MAPPING TOOL:  
[www.brookings.edu/metro/clean\\_economy/map.aspx](http://www.brookings.edu/metro/clean_economy/map.aspx)

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Mark Muro Senior Fellow and Policy Director 202.797.6315 mmuro@brookings.edu	Jonathan Rothwell Senior Research Analyst 202.797.6314 jrothwell@brookings.edu
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## The Clean Economy in the Los Angeles, CA Metropolitan Area

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### Los Angeles' Clean Economy Profile

#### CLEAN JOBS

**89,592**

In terms of its overall size the clean economy in the Los Angeles metropolitan area ranks 2nd among the 100 largest metro areas

#### INTENSITY

**1.7%**

Los Angeles' 89,592 clean economy jobs make up 1.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 58th

#### GROWTH

**+26,785**

Between 2003 and 2010 Los Angeles added 26,785 clean jobs to see the sector grow by 5.2 percent annually. Those readings placed the region 2nd and 34th

#### EXPORTS PER JOB

**\$18,449**

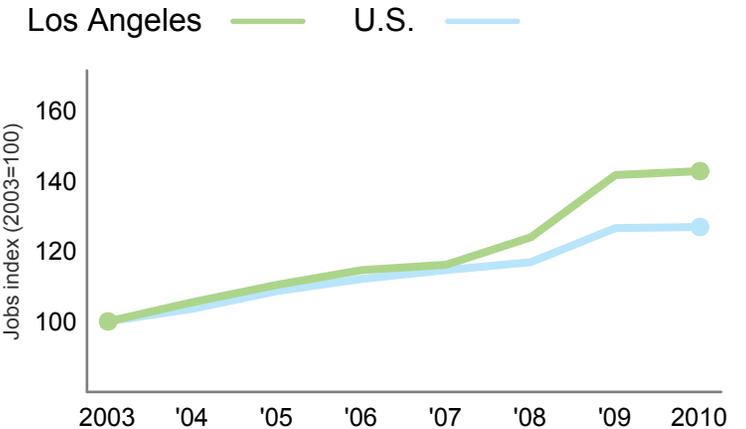
On average each clean economy job in Los Angeles produces \$18,449 in exports, which ranks it 35th on this measure

#### ANNUAL WAGE

**\$40,910**

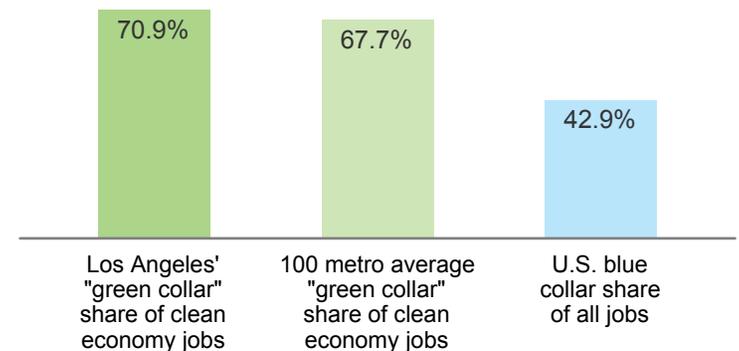
The estimated median wage in Los Angeles' clean economy is \$40,910. This compares to \$42,511 for all jobs in Los Angeles

### 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 Los Angeles' clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	18,426	+5,951	+5.7%
Public Mass Transit	12,661	+4,410	+6.3%
Organic Food and Farming	9,444	+2,398	+4.3%
Professional Environmental Services	6,494	+2,766	+8.3%
Green Building Materials	5,760	+3,924	+17.7%

# Fastest Growing Segments

of Los Angeles' clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	45	+40	+36.9%
Solar Thermal	200	+163	+27.3%
Fuel Cells	85	+61	+19.8%
Green Building Materials	5,760	+3,924	+17.7%
Geothermal	80	+50	+15.0%

## Sample Clean Economy Employers

**Alcoa Inc**  
(Recycled-Content Products)

**Amonix Inc**  
(Solar Photovoltaic)

**eSolar Inc**  
(Solar Thermal)

**Fisker Automotive**  
(Electric Vehicle Technologies)

**NanoH2O**  
(Air and Water Purification Technologies)

## For More Information

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## The Clean Economy in the San Francisco, CA Metropolitan Area

### Why the Clean Economy Matters

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### 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**

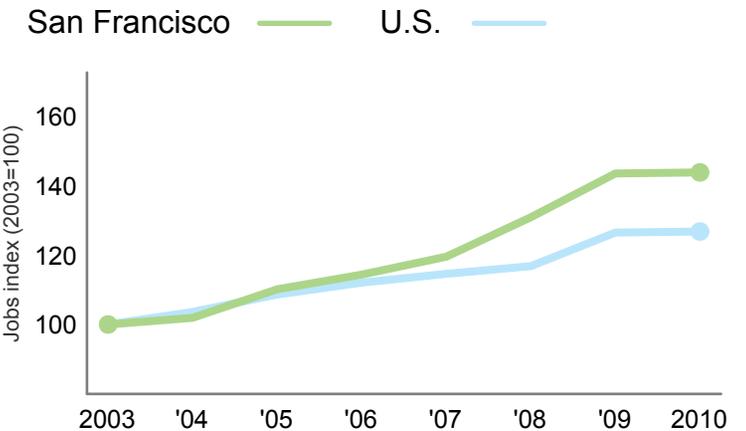
On average each clean economy job in San Francisco produces \$20,705 in exports, which ranks it 29th on this measure

#### ANNUAL WAGE

**\$59,856**

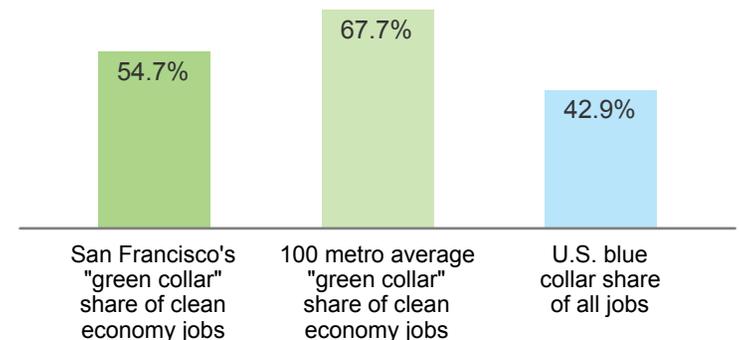
The estimated median wage in San Francisco's clean economy is \$59,856. This compares to \$55,431 for all jobs in San Francisco

### Clean Economy Job Growth, 2003–2010



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 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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## The Clean Economy in the Sacramento, CA Metropolitan Area

### Why the Clean Economy Matters

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### Sacramento's Clean Economy Profile

#### CLEAN JOBS

**37,319**

In terms of its overall size the clean economy in the Sacramento metropolitan area ranks 12th among the 100 largest metro areas

#### INTENSITY

**4.5%**

Sacramento's 37,319 clean economy jobs make up 4.5 percent of all jobs in the region. On this measure of concentration its clean economy ranks 3rd

#### GROWTH

**+13,857**

Between 2003 and 2010 Sacramento added 13,857 clean jobs to see the sector grow by 6.9 percent annually. Those readings placed the region 7th and 13th

#### EXPORTS PER JOB

**\$4,975**

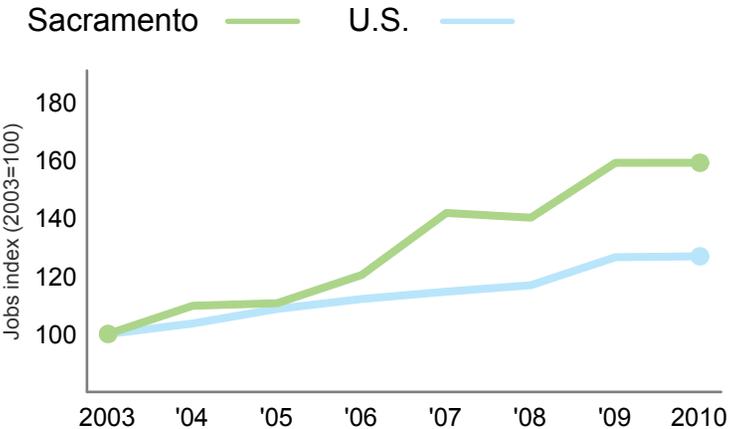
On average each clean economy job in Sacramento produces \$4,975 in exports, which ranks it 95th on this measure

#### ANNUAL WAGE

**\$49,589**

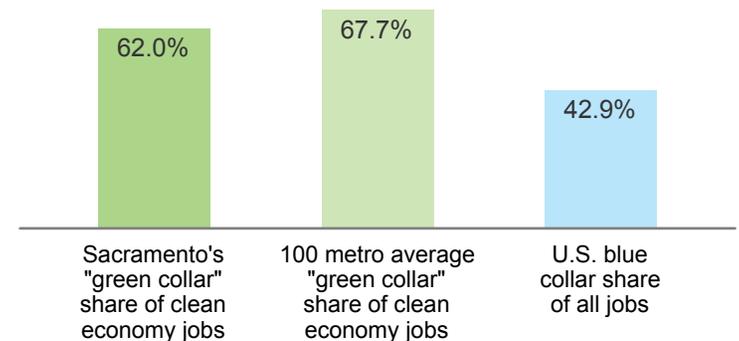
The estimated median wage in Sacramento's clean economy is \$49,589. This compares to \$44,507 for all jobs in Sacramento

### 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 Sacramento's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	15,914	+6,798	+8.3%
Waste Management and Treatment	5,920	+1,730	+5.1%
Regulation and Compliance	4,956	+1,837	+6.8%
Professional Environmental Services	2,268	+701	+5.4%
Public Mass Transit	1,573	+528	+6.0%

# Fastest Growing Segments

of Sacramento's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Solar Photovoltaic	132	+126	+55.5%
Solar Thermal	77	+71	+44.0%
Biofuels/Biomass	42	+37	+35.5%
Fuel Cells	41	+34	+28.7%
Air and Water Purification Technologies	36	+26	+20.1%

## Sample Clean Economy Employers

PABCO Building Products LLC  
(Green Building Materials)

Rodgers Wood Inc  
(Professional Environmental Services)

Siemens Industry Inc  
(Electric Vehicle Technologies)

Sierra Pacific Industries  
(Sustainable Forestry Products)

System 3 Inc  
(Renewable Energy Services)

## For More Information

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### 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**

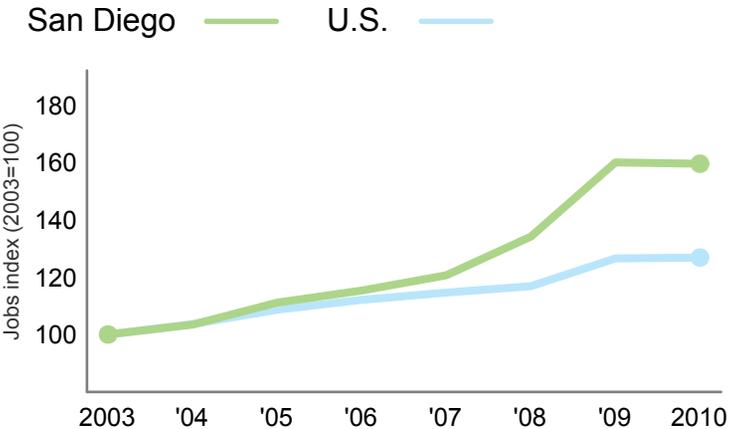
On average each clean economy job in San Diego produces \$17,114 in exports, which ranks it 40th on this measure

#### ANNUAL WAGE

**\$45,016**

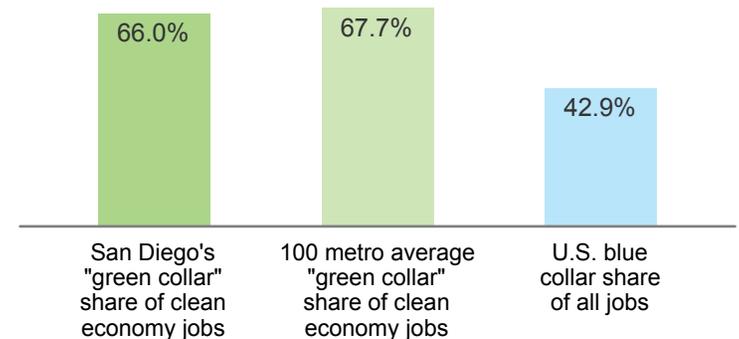
The estimated median wage in San Diego's clean economy is \$45,016. This compares to \$43,504 for all jobs in San Diego

### 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)

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### Riverside's Clean Economy Profile

#### CLEAN JOBS

**22,532**

In terms of its overall size the clean economy in the Riverside metropolitan area ranks 23rd among the 100 largest metro areas

#### INTENSITY

**1.9%**

Riverside's 22,532 clean economy jobs make up 1.9 percent of all jobs in the region. On this measure of concentration its clean economy ranks 36th

#### GROWTH

**+5,360**

Between 2003 and 2010 Riverside added 5,360 clean jobs to see the sector grow by 4.0 percent annually. Those readings placed the region 24th and 57th

#### EXPORTS PER JOB

**\$14,924**

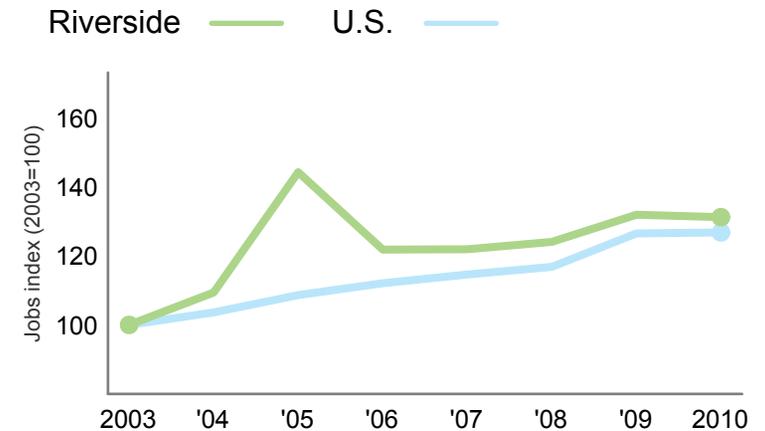
On average each clean economy job in Riverside produces \$14,924 in exports, which ranks it 51st on this measure

#### ANNUAL WAGE

**\$41,248**

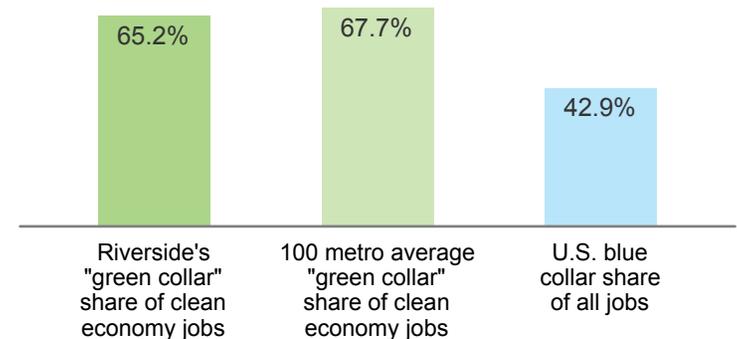
The estimated median wage in Riverside's clean economy is \$41,248. This compares to \$37,430 for all jobs in Riverside

### 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 Riverside's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	4,344	+1,331	+5.4%
Public Mass Transit	2,854	-8	0.0%
Conservation	2,792	+921	+5.9%
Organic Food and Farming	2,730	+749	+4.7%
Recycling and Reuse	2,426	+788	+5.8%

# Fastest Growing Segments

of Riverside's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	117	+108	+44.3%
Geothermal	7	+6	+32.0%
Solar Photovoltaic	177	+121	+17.9%
Solar Thermal	70	+47	+17.2%
Recycled-Content Products	171	+94	+12.1%

## Sample Clean Economy Employers

Cardinal Glass Industries Inc  
(Energy-saving Building Materials)

Clement Pappas & Co  
(Organic Food and Farming)

Drake Larsen Farms  
(Organic Food and Farming)

Eldorado National Inc  
(Electric Vehicle Technologies)

Enxco Inc  
(Wind)

## For More Information

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# SIZING THE CLEAN ECONOMY

## The Clean Economy in the San Jose, 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 Jose's Clean Economy Profile

#### CLEAN JOBS

**18,868**

In terms of its overall size the clean economy in the San Jose metropolitan area ranks 26th among the 100 largest metro areas

#### INTENSITY

**2.2%**

San Jose's 18,868 clean economy jobs make up 2.2 percent of all jobs in the region. On this measure of concentration its clean economy ranks 31st

#### GROWTH

**-492**

Between 2003 and 2010 San Jose lost 492 clean jobs to see the sector decline by 0.4 percent annually. Those readings placed the region 96th and 95th

#### EXPORTS PER JOB

**\$38,521**

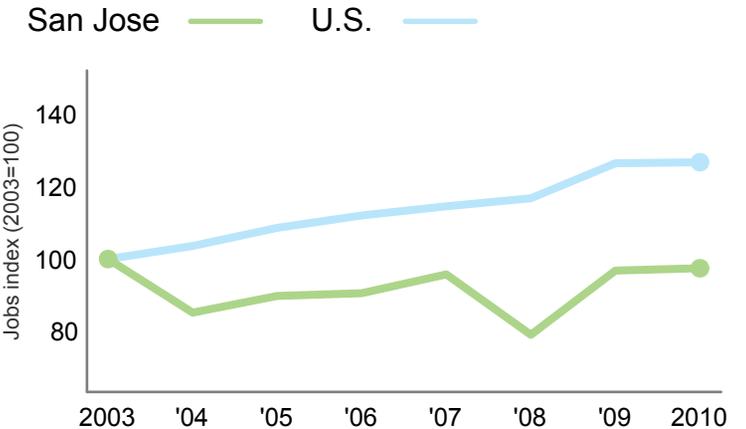
On average each clean economy job in San Jose produces \$38,521 in exports, which ranks it 6th on this measure

#### ANNUAL WAGE

**\$55,827**

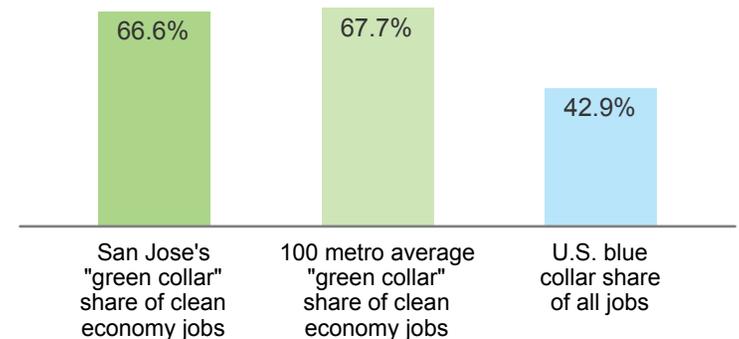
The estimated median wage in San Jose's clean economy is \$55,827. This compares to \$61,464 for all jobs in San Jose

### 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 Jose's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Wind	3,000	+2,000	+17.0%
Waste Management and Treatment	2,947	+554	+3.0%
Energy-saving Consumer Products	2,347	-3,432	-12.1%
Solar Photovoltaic	1,988	+1,005	+10.6%
Public Mass Transit	1,637	+217	+2.1%

# Fastest Growing Segments

of San Jose's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Fuel Cells	272	+214	+24.7%
Wind	3,000	+2,000	+17.0%
Remediation	100	+66	+16.7%
Green Consumer Products	131	+83	+15.4%
Green Building Materials	75	+43	+12.9%

## Sample Clean Economy Employers

Bridgelux Inc  
(Lighting)

Calera Corp  
(Carbon Storage and Management)

Nanosolar Inc  
(Solar Photovoltaic)

Rosendin Electric Inc  
(Wind)

Serious Materials Inc  
(Energy-saving Building Materials)

## For More Information

VIEW THE FULL REPORT:  
[www.brookings.edu/metro/clean\\_economy.aspx](http://www.brookings.edu/metro/clean_economy.aspx)

INTERACTIVE MAPPING TOOL:  
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Mark Muro  
Senior Fellow and Policy Director  
202.797.6315  
mmuro@brookings.edu

Jonathan Rothwell  
Senior Research Analyst  
202.797.6314  
jrothwell@brookings.edu

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# SIZING THE CLEAN ECONOMY

## The Clean Economy in the Fresno, 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.

### Fresno's Clean Economy Profile

#### CLEAN JOBS

**9,301**

In terms of its overall size the clean economy in the Fresno metropolitan area ranks 57th among the 100 largest metro areas

#### INTENSITY

**2.8%**

Fresno's 9,301 clean economy jobs make up 2.8 percent of all jobs in the region. On this measure of concentration its clean economy ranks 14th

#### GROWTH

**+993**

Between 2003 and 2010 Fresno added 993 clean jobs to see the sector grow by 1.6 percent annually. Those readings placed the region 74th and 87th

#### EXPORTS PER JOB

**\$12,041**

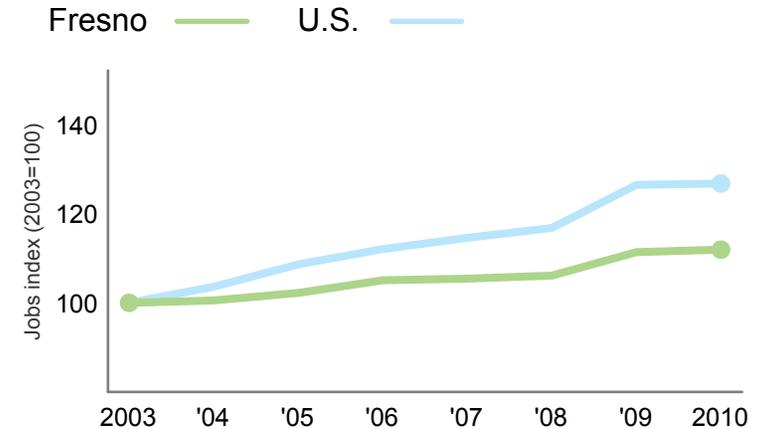
On average each clean economy job in Fresno produces \$12,041 in exports, which ranks it 62nd on this measure

#### ANNUAL WAGE

**\$38,031**

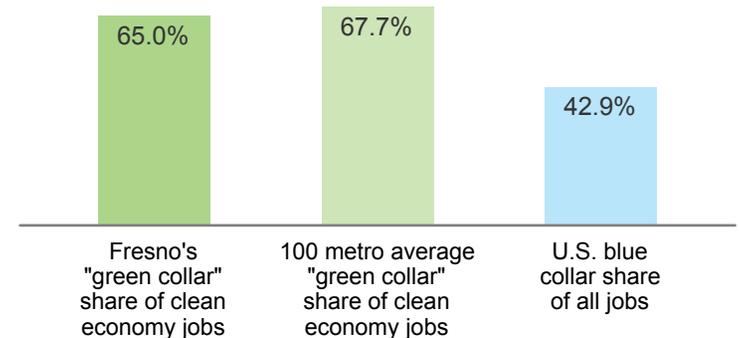
The estimated median wage in Fresno's clean economy is \$38,031. This compares to \$35,917 for all jobs in Fresno

### 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 Fresno's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Organic Food and Farming	2,462	+419	+2.7%
Hydropower	1,445	-417	-3.6%
Conservation	1,373	+320	+3.9%
Energy-saving Building Materials	1,302	+174	+2.1%
Waste Management and Treatment	784	+173	+3.6%

# Fastest Growing Segments

of Fresno's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Biofuels/Biomass	35	+30	+32.0%
Air and Water Purification Technologies	55	+41	+21.6%
Solar Photovoltaic	29	+21	+20.2%
Public Mass Transit	368	+153	+8.0%
Green Chemical Products	28	+8	+4.9%

## Sample Clean Economy Employers

Guardian Industries Corp  
(Energy-saving Building Materials)

Imperial Western Products Inc  
(Biofuels/Biomass)

J. P. Lamborn Co  
(Green Building Materials)

PPG Industries Inc  
(Energy-saving Building Materials)

Stellar Distributing Inc  
(Organic Food and Farming)

## For More Information

VIEW THE FULL REPORT:  
[www.brookings.edu/metro/clean\\_economy.aspx](http://www.brookings.edu/metro/clean_economy.aspx)

INTERACTIVE MAPPING TOOL:  
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Mark Muro Senior Fellow and Policy Director 202.797.6315 mmuro@brookings.edu	Jonathan Rothwell Senior Research Analyst 202.797.6314 jrothwell@brookings.edu
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# SIZING THE CLEAN ECONOMY

## The Clean Economy in the Stockton, 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.

### Stockton's Clean Economy Profile

#### CLEAN JOBS

**4,642**

In terms of its overall size the clean economy in the Stockton metropolitan area ranks 82nd among the 100 largest metro areas

#### INTENSITY

**2.2%**

Stockton's 4,642 clean economy jobs make up 2.2 percent of all jobs in the region. On this measure of concentration its clean economy ranks 30th

#### GROWTH

**+1,252**

Between 2003 and 2010 Stockton added 1,252 clean jobs to see the sector grow by 4.6 percent annually. Those readings placed the region 68th and 48th

#### EXPORTS PER JOB

**\$17,374**

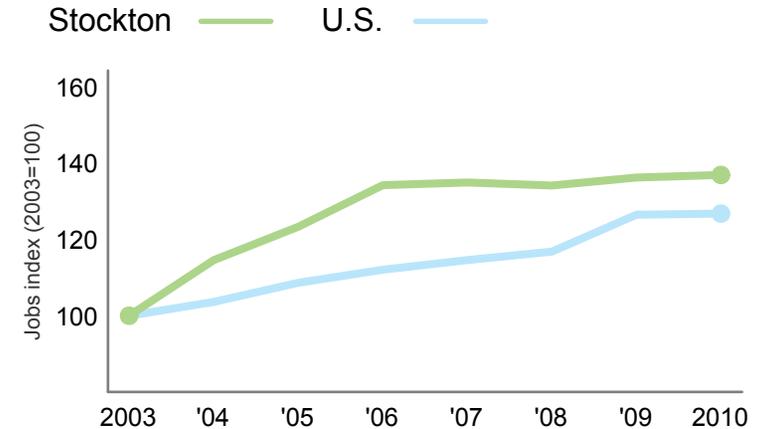
On average each clean economy job in Stockton produces \$17,374 in exports, which ranks it 37th on this measure

#### ANNUAL WAGE

**\$40,437**

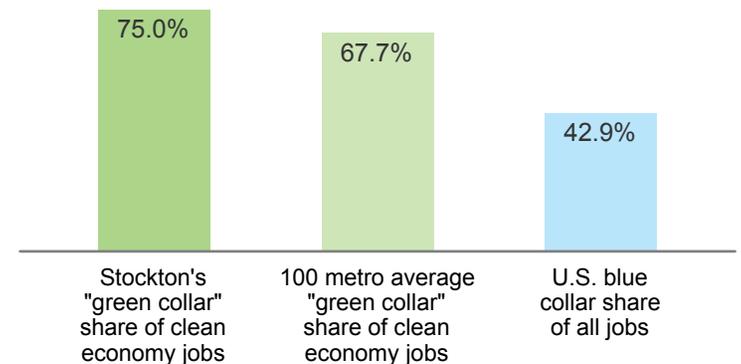
The estimated median wage in Stockton's clean economy is \$40,437. This compares to \$38,229 for all jobs in Stockton

### 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 Stockton's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Organic Food and Farming	1,055	+142	+2.1%
Public Mass Transit	926	+402	+8.5%
Waste Management and Treatment	849	+179	+3.4%
Conservation	596	+89	+2.3%
Energy-saving Building Materials	265	+190	+19.8%

# Fastest Growing Segments

of Stockton's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Energy-saving Building Materials	265	+190	+19.8%
Solar Photovoltaic	25	+17	+17.7%
Professional Environmental Services	47	+24	+10.7%
Public Mass Transit	926	+402	+8.5%
Recycled-Content Products	75	+17	+3.7%

## Sample Clean Economy Employers

California Natural Products  
(Organic Food and Farming)

Electric Vehicles International  
(Electric Vehicle Technologies)

Ferrari Farms Inc  
(Organic Food and Farming)

Mariah Resources Inc  
(Wind)

Pacific Ethanol Inc  
(Biofuels/Biomass)

## For More Information

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# SIZING THE CLEAN ECONOMY

## The Clean Economy in the Bakersfield, 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.

### Bakersfield's Clean Economy Profile

#### CLEAN JOBS

**3,097**

In terms of its overall size the clean economy in the Bakersfield metropolitan area ranks 89th among the 100 largest metro areas

#### INTENSITY

**1.1%**

Bakersfield's 3,097 clean economy jobs make up 1.1 percent of all jobs in the region. On this measure of concentration its clean economy ranks 90th

#### GROWTH

**+561**

Between 2003 and 2010 Bakersfield added 561 clean jobs to see the sector grow by 2.9 percent annually. Those readings placed the region 87th and 70th

#### EXPORTS PER JOB

**\$6,226**

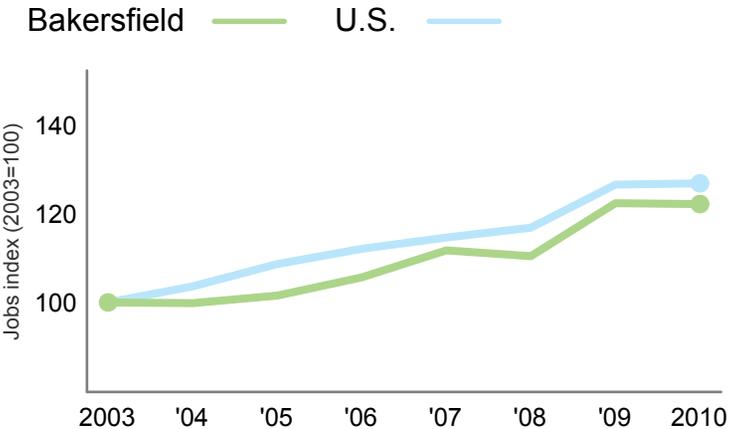
On average each clean economy job in Bakersfield produces \$6,226 in exports, which ranks it 84th on this measure

#### ANNUAL WAGE

**\$44,005**

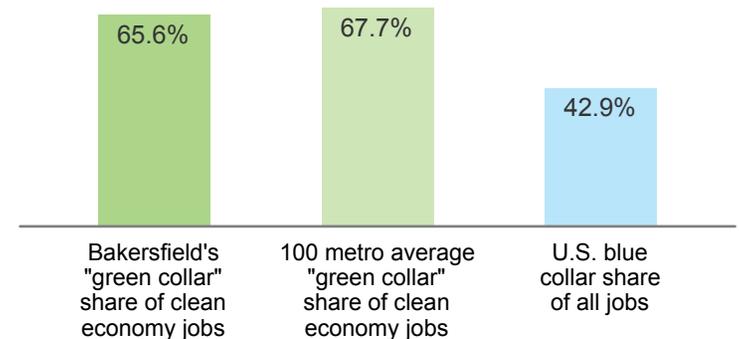
The estimated median wage in Bakersfield's clean economy is \$44,005. This compares to \$38,884 for all jobs in Bakersfield

### 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 Bakersfield's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Waste Management and Treatment	926	+20	+0.3%
Recycling and Reuse	428	+155	+6.6%
Conservation	376	+82	+3.6%
Public Mass Transit	326	+4	+0.2%
Organic Food and Farming	313	+23	+1.1%

# Fastest Growing Segments

of Bakersfield's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Green Chemical Products	23	+17	+21.2%
Energy-saving Building Materials	75	+52	+18.4%
Solar Photovoltaic	15	+9	+14.0%
Air and Water Purification Technologies	43	+21	+10.0%
Regulation and Compliance	26	+12	+9.2%

## Sample Clean Economy Employers

Consolidated Fiberglass Prdts  
(Energy-saving Building Materials)

Enxco Inc  
(Wind)

Garlic Company  
(Organic Food and Farming)

Munger Farms  
(Organic Food and Farming)

Processes Unlimited International  
(Professional Energy Services)

## For More Information

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# SIZING THE CLEAN ECONOMY

## The Clean Economy in the Modesto, 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.

### Modesto's Clean Economy Profile

#### CLEAN JOBS

**2,688**

In terms of its overall size the clean economy in the Modesto metropolitan area ranks 93rd among the 100 largest metro areas

#### INTENSITY

**1.7%**

Modesto's 2,688 clean economy jobs make up 1.7 percent of all jobs in the region. On this measure of concentration its clean economy ranks 64th

#### GROWTH

**-286**

Between 2003 and 2010 Modesto lost 286 clean jobs to see the sector decline by 1.4 percent annually. Those readings placed the region 95th and 96th

#### EXPORTS PER JOB

**\$10,017**

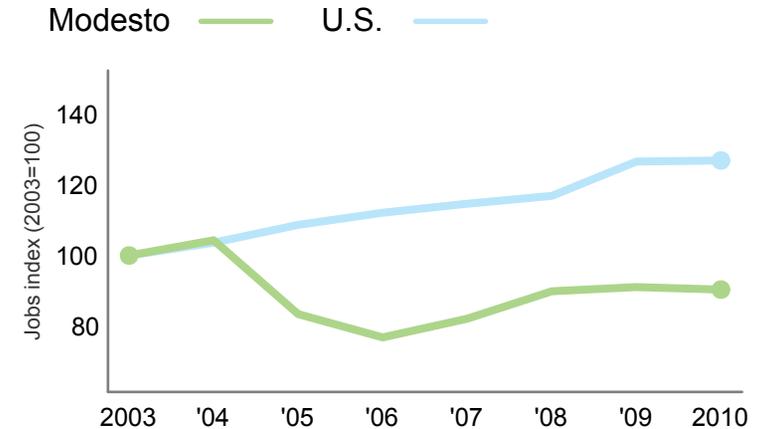
On average each clean economy job in Modesto produces \$10,017 in exports, which ranks it 73rd on this measure

#### ANNUAL WAGE

**\$39,279**

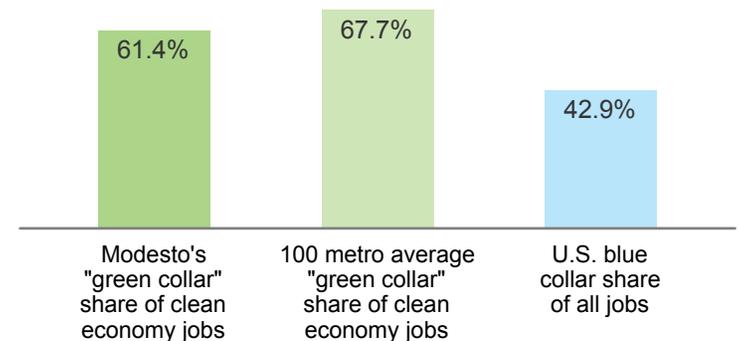
The estimated median wage in Modesto's clean economy is \$39,279. This compares to \$37,633 for all jobs in Modesto

### 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 Modesto's clean economy, 2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Organic Food and Farming	1,120	-598	-5.9%
Waste Management and Treatment	514	+132	+4.3%
Recycling and Reuse	184	-111	-6.5%
Public Mass Transit	175	+24	+2.1%
Sustainable Forestry Products	150	0	0.0%

# Fastest Growing Segments

of Modesto's clean economy, 2003–2010

Segment	Jobs, 2010	Job Change, 2003–2010	Annual Average Job Change, 2003–2010 (%)
Conservation	44	+35	+25.4%
Professional Environmental Services	39	+19	+10.0%
Energy-saving Building Materials	122	+35	+4.9%
Waste Management and Treatment	514	+132	+4.3%
Public Mass Transit	175	+24	+2.1%

## Sample Clean Economy Employers

Foster Dairy Farms  
(Organic Food and Farming)

Georgia-Pacific LLC  
(Sustainable Forestry Products)

Kingspan Insulated Panels Inc  
(Green Building Materials)

Valley Fresh Foods Inc  
(Organic Food and Farming)

VSP Products, Inc  
(Organic Food and Farming)

## For More Information

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