

WORKFORCE NEEDS FOR DISTRIBUTED SOLAR PROJECTS



Center for Energy Efficiency & Renewable Technologies

Research by Rhonda S. Mills and Alexandra Kravetz

Presented to InterSolar-North America

July 12, 2011

THE SOLAR MECCA

CALIFORNIA AND THE US SOUTHWEST



Solar Fuel Offers Huge Potential
for the Regional Energy Economy.



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The largest rooftop PV system in the US was built in 2010 in Mira Loma, California by PermaCity Solar. 3.4 MW PV System.



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150kW Solar Carport Built in 2011 in El Monte, California. Cathay Bank headquarters.



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**11kW Building-Integrated PV in Santa Monica,
California. Energy powers common areas in
the multi-use residential complex.**



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California Unemployment Statistics by County

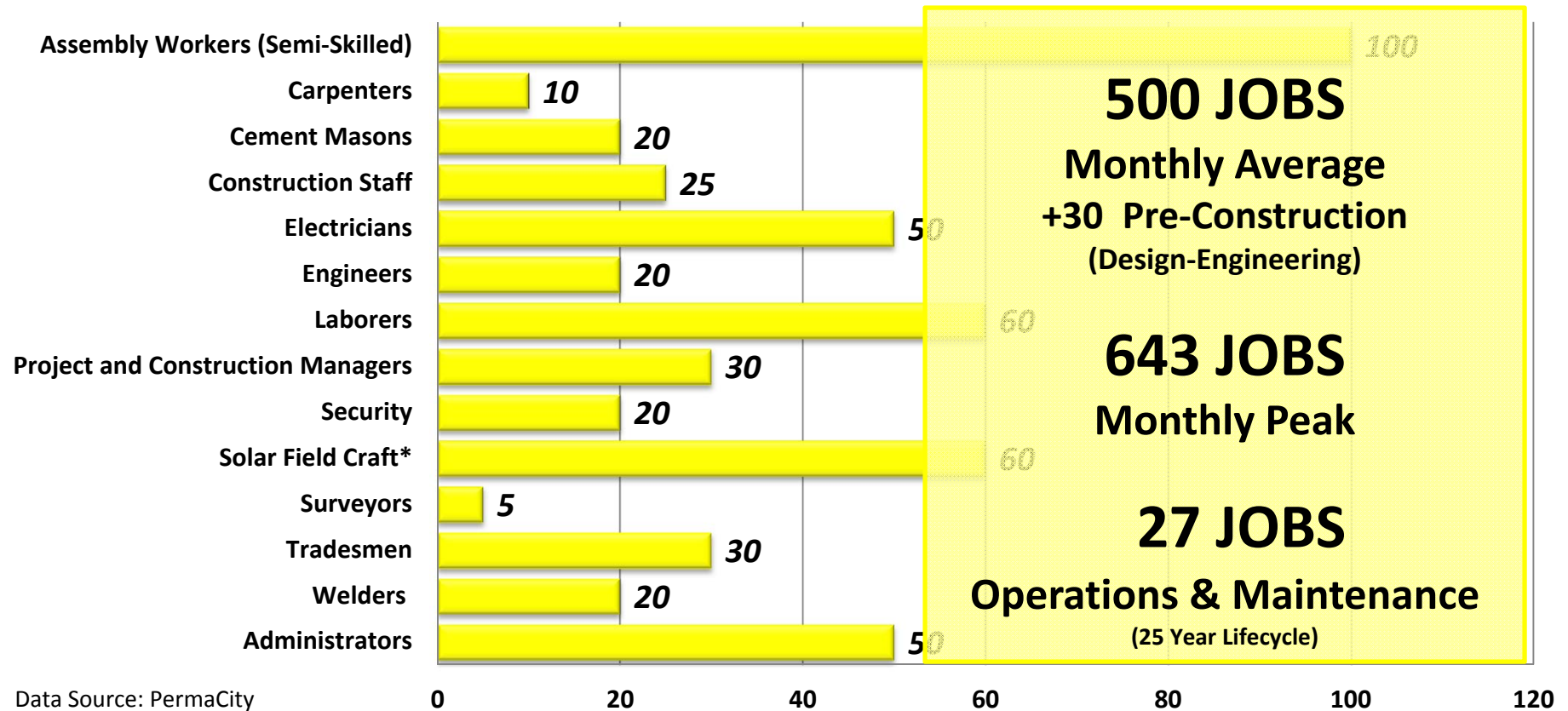
July 2010

Imperial	31.30%
Kern	14.40%
Los Angeles	12.50%
Riverside	15.30%
San Bernardino	14.80%
San Luis Obispo	9.70%
Source: July 2010 Statistics CA EDD, Labor Market Information Division	



Monthly Construction Jobs Estimates

In Full-Time Equivalent Jobs (FTEs)
10 PV Projects - 30 MW Total
Rooftops/Carports
Length of Construction: 6 Months



Data Source: PermaCity



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*The Solar Field Craft is a CEC job category. These crews may include Foremen, Equipment Operators, Ironworkers, Carpenters, Masons, and Pipefitters and Welders.

Source: PermaCity Solar Response, CEERT Jobs Survey

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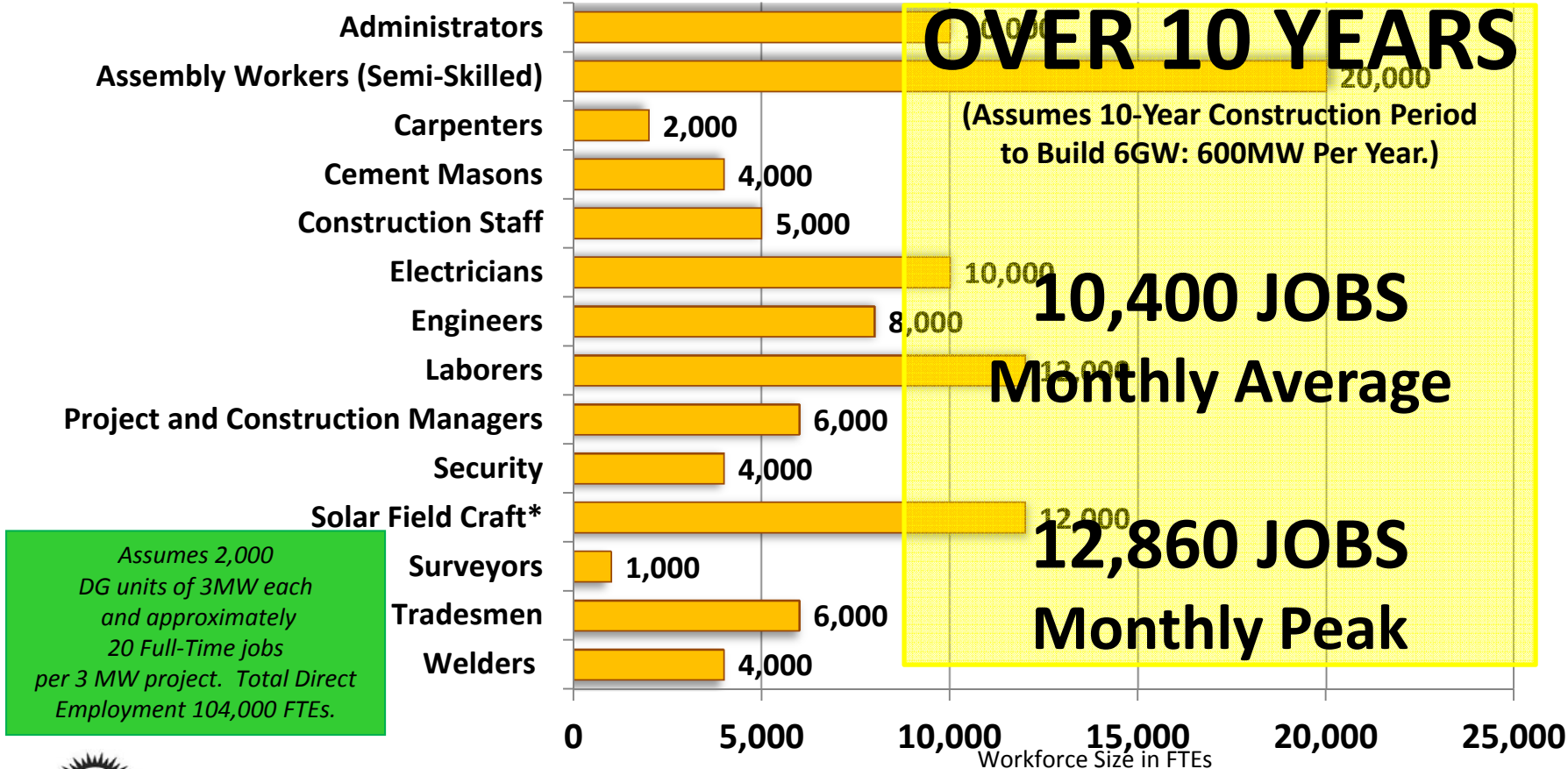
ESTIMATED ANNUAL EMPLOYEE EARNINGS & TAX RECEIPTS OVER 20 YEARS ON 30MW DISTRIBUTED PV GENERATION

CONSTRUCTION-RELATED EARNINGS <i>Year 1</i>	\$ 20.9 Million	
LIFECYCLE O&M EARNINGS <i>\$1.2M Annually Over 20 Years</i>	\$ 24 Million	
ANNUAL INDIVIDUAL INCOME TAXES <i>Paid by Employees</i>	State	\$ 2 Million
	Federal	\$ 7.2 Million
ANNUAL EMPLOYMENT TAXES <i>Paid by Developer/Operator</i>	State (Unemployment, Other)	\$ 600,000
	Federal (SSI, Medicare, Fed. Income Tax)	\$ 4.3 Million
ANNUAL CORPORATE INCOME TAXES <i>Paid by Owner/Operator</i>	State	\$ 180,000
	Federal	\$ 690,000
PROPERTY TAXES <i>Annually Over 20 Years</i>	County, State	\$ 37,500



SUBSTANTIAL DIRECT EMPLOYMENT POTENTIAL

CONSTRUCTION JOBS TO BUILD 2,000 PV PROJECTS (6GW TOTAL DG)



Estimated Payroll Earnings On 6GW of PV Installations

\$4.2 BILLION

Total Construction Payroll

Estimate Based on \$2.1 Million Payroll per 3MW.
($\$2.1 \text{ Million} \times 2,000 \text{ 3MW Systems}$)

\$42 MILLION

Annual Construction Payroll

\$240 MILLION

Total O&M Earnings

Rhonda S. Mills

Center for Energy Efficiency & Renewable Technologies

1100 Eleventh Street, Suite 311

Sacramento, CA 95814

916.442.7785

www.ceert.org

