

Digest of Green Reports and Studies

Title	<i>Northern California Regional Competitiveness Network Renewable Energy and Energy Efficiency Report</i>
Author	None listed
Organization	Labor Market Information Division (LMID), Northern California Regional Competitiveness – Northern CA WIRED
Author Contact	None
Publication Type	Report – Results from Case Study
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Summary	This report was prepared by the California Labor Market Information Division (LMID) for the Northern California Regional Competitiveness Network (NCRCN) in January 2009. The report presents information on the relationship between renewable energy and the utilities industry, and between the energy efficiency and the construction industry. It also shows where specific kinds of energy are available and where they are prominently used within California. The report expresses that Northern California has vast opportunities to expand in the green sector.
Key Findings	<ul style="list-style-type: none"> • Northern California has an abundance of the resources necessary for obtaining and sustaining renewable energy; “waste from agriculture and forest products for biomass plants, sustained sunshine for solar panels, sufficient wind speed for wind turbines, water flow in rivers and streams for hydroelectric power, and geothermal resources” all can be used as a green alternative. • The highest power being created by renewable energy in the region is “coming from large hydroelectric facilities with an online capacity of nearly 1,600 MW and an additional 381 MW from small hydroelectric plants. • “Biomass power generation facilities within the region (Northern California) produce 334MW of power. Geothermal power generation facilities in the region produce 293.6 MW of electricity.” • The Northern California region has solar power available for powering facilities within the area. Direct-use geothermal and biogas projects also help to “reduce dependency on fossil fuel-based energy.” • The amount of jobs in the renewable energy sector that will be created in Northern California is dependent “capital investments to build new or expand existing power generation sites and on the ability of consumers (commercial and residential) to purchase smaller scale renewable energy systems.”
Recommendations	<ul style="list-style-type: none"> • “The focus on energy efficiency, including retrofit of existing buildings, could help to revitalize the slumping Construction industry.”
Definition of “Green”	“Green or clean is any activity that performs at least one of the following:1)generating or storing renewable energy, 2)recycling existing materials, 3)energy-efficient product manufacturing, distribution, construction, and maintenance, 4)education, compliance, and awareness, 5)natural and sustainable product manufacturing.”
Methodology	Literature Research, Survey
Data Sources Cited	California Economic Strategy Panel by Collaborative Economics, California Employment Development Department, US bureau of Reclamation, California Department of Water Resources, U.S. Department of Labor Employment and Training Administration (ETA), US Bureau of Labor Statistics
Report Geography	Northern California
Green Occupations Cited	<ul style="list-style-type: none"> • Agricultural and Forestry Supervisors • Agricultural Inspectors • Agricultural Workers • Air Quality Specialist • Air resources engineers • Air-quality auditors • Architects • Architectural & Civil Drafters • Attorneys • Attorneys for green regulations • Battery Engineer • Bicycle repair • Biofuel engineer

- Biologist
- Biomass collector
- Boilermakers
- Builders (Solar)
- Building Inspectors
- Building Operator/Building Technician
- Business Operations Specialists, All Other
- Carbon emission specialist
- Carbon sequestration geologist
- Carpenter Helpers
- Carpenters
- Cement masons & concrete finishers
- Certified installers, maintenance and operations of large-scale renewable and additional small scale renewable technologies such as small wind, solar thermal, biomass and anaerobic digestion systems
- Chemical Engineers
- Chemical Equipment Operators
- Chemical equipment operators & tenders
- Chemical plant & system operators
- Chemical Technicians
- Chemists
- Civil Engineers
- Climatologist
- Computer Software Engineers, Applications
- Computer Software Engineers, Systems Software
- Computer-Controlled Machine Tool Operators; metal & plastic
- Concrete Machine Operators
- Construction Equipment Operators
- Construction Laborers
- Construction Managers (Large and Small Operations)
- Construction Workers in large-scale, gridconnected wind energy projects
- Crane operators
- Customer service representatives
- Cutting, punching, & press machine setters, operators & tenders; metals & plastic
- Diesel retrofit installer
- Dispatchers
- Electric Power Utility Workers
- Electrical & Electronics Repairers
- Electrical Engineers
- Electrical Equipment Assemblers
- Electricians
- Electronics Engineers
- Energy Analyst
- Energy Auditors
- Engine Assemblers
- Engineering Managers
- Entrepreneurs
- Environmental Auditor/Regulators
- Environmental Consultant
- Environmental Engineers
- Environmental Planner
- Equipment Assemblers
- Executive Secretaries
- Fabricators
- Farm Product Purchasers
- Farm worker
- First-Line Production Supervisors
- First-Line Sup/Mgrs of Construction Trades and Extraction Workers
- First-Line Supervisors/Managers of Mechanics, Installers, and Repairers
- First-Line Supervisors/Managers of Production and Operating Worker
- Food production using organic and/or sustainably-grown agricultural products
- Forester

- Furniture making from environmentally certified and recycled wood
- General & Operations Managers
- Geologists/Hydrogeologists
- Glaziers
- Green (sustainable) landscaping
- Green building architect
- Green plumber
- Green waste composting on a large scale
- Green wedding planners
- Hauling and reuse of construction and demolition materials and debris (C&D)
- Hazardous materials clean up
- Hazardous materials removal workers
- Hazardous Waste Specialists
- Heating, air conditioning & refrigeration mechanics & installers
- Heating/Air Conditioning Installers
- Helpers-Electricians
- Human/Ecological Health Risk Assessors
- HVAC technician
- Hybrid powertrain technician
- Industrial Machinery Mechanics
- Industrial Production
- Industrial Truck Drivers
- Inspectors, Testers, Sorters, Samplers, and Weighers
- Installers, Service & Repair Technicians (Operations & Maintenance)
- Insulation workers; floor, ceiling and wall
- Iron and Steel Workers
- Laborers & freight, stock & material movers; hand
- Landfill gas system operator
- Lead Designers
- Lead Installer or Technician
- Line Installers and Repairers
- Local Sustainability Planners
- Locomotive Engineers
- Machinists
- Maintenance – 49-0000 Installation, Maintenance, and Repair Occupations
- Maintenance and Repair Workers, General
- Management Analysts
- Managers
- Material Movers, Hand
- Measurement and Verification Technician
- Metal Fabricators
- Metal Fabricators, Electrical
- Millwrights
- Mixing & blending machine setters, operators & tenders
- Non-toxic household cleaning in residential and commercial buildings
- Office Clerks, General
- Operating Engineers
- Operation and maintenance jobs at large scale, grid-connected wind energy projects
- Operations – 51-8000 Plant and System Operators
- Parks and open space maintenance and expansion
- Photovoltaic Installation
- Photovoltaic Specialists
- Pipefitters
- Plumbers
- Plumbers, Pipefitters, and Steamfitters
- Policy & Program Managers
- Policy Analyst
- Pollution Specialists
- Power Grid Engineer
- Printing with non-toxic inks and dyes and recycled papers
- Production, Planning & Expediting clerks
- Project Managers

	<ul style="list-style-type: none"> • Reclamation/Rehabilitation Specialists • Recycling Center Operators • Refuse & Recyclable Collectors • Remediation Technology Engineers • Resource Conservation/Efficiency Manager • Roofers • Sales Rep, Wholesale and Manufacturing, Technical and Scientific Products • Sales Representative or Estimator • Sales Representatives/Marketers/Estimators • Secretaries, General • Separating, filtering, clarifying, precipitating & still machine setters, operators & tenders • Sheet Metal workers • Shipping, receiving & traffic clerks • Site Assessment Technicians • Site Surveyors/Assessors • Software Engineers • Soil scientist • Solar Design & Installation • Solar Energy Engineer/Designers • Solar Energy Foreman • Solar Energy System Installer • Solar Installation and maintenance • Solar Installation Manager or Project Foreman • Solar Installation Operation Managers • Solar Installation Workers • Solar Panel Installers • Solar Photovoltaic Installer or Technician • Solar System Installation • Solar Thermal Installer or Technician • Solderers & Brazers • Sustainability Directors • Team Assemblers • Technology developers • Tree cutting and pruning; Peri-urban and urban agriculture • Waste Treatment Operators • Wastewater Technician • Water resource engineer • Water retrofits to increase water efficiency and conservation • Welders • Welders, Cutters, solderers & brazers • Whole home performance (i.e.: HVAC, attic insulation, weatherization, etc.) • Wind turbine engineer • Wind turbine installers
Green Industries Cited	Utility, construction, solar, wind energy, renewable energy
Keywords	Renewable energy; energy efficiency.
Legislation Cited	None
Bibliography (Y/N)	N
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