

## Comparison of Green Occupation Listings - U.S. Department of Labor - O\*Net Online

Green Increased Demand Occupations			NorthCorp & PBG Labs Yes or Potential = Relevant to O*Net-SOC Job Classification		Green New and Emerging Occupations			
O*NET-SOC 2009 Code	O*NET-SOC 2009 Title	O*NET-SOC 2009 Description	← →		O*NET-SOC 2009 Code	O*NET-SOC 2009 Title	O*NET-SOC 2009 Description	
45-2011.00	Agricultural Inspectors	Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.	Potential	Yes	n/a	Air Quality Control Specialists	Perform a wide range of air quality compliance duties including equipment and facility permitting, compliance auditing, emissions control research, recordkeeping and reporting, participation in planning processes.	
51-9011.00	Chemical Equipment Operators and Tenders	Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels.		Yes		51-8099.01	Biofuels Processing Technicians	Calculate, measure, load, mix, and process refined feedstock with additives in fermentation or reaction process vessels and monitor production process. Perform, and keep records of, plant maintenance, repairs, and safety inspections.
51-8091.00	Chemical Plant and System Operators	Control or operate an entire chemical process or system of machines.	Yes	Yes		11-3051.03	Biofuels Production Managers	Manage operations at biofuels power generation facilities. Collect and process information on plant performance, diagnose problems, and design corrective procedures.
19-4031.00	Chemical Technicians	Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for purposes, such as research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences.	Yes	Yes		11-9041.01	Biofuels/Biodiesel Technology and Product Development Managers	Define, plan, or execute biofuels/biodiesel research programs that evaluate alternative feedstock and process technologies with near-term commercial potential.
19-2031.00	Chemists	Conduct qualitative and quantitative chemical analyses or chemical experiments in laboratories for quality or process control or to develop new products or knowledge.	Yes	Potential		n/a	Biomass Plant Engineers	Design plants that generate electricity from the combustion of biomass.
15-1032.00	Computer Software Engineers, Systems Software	Research, design, develop, and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computing applications. Set operational specifications and formulate and analyze software requirements. Apply principles and techniques of computer science, engineering, and mathematical analysis.		Potential		51-8099.03	Biomass Plant Technicians	Control and monitor biomass plant activities and perform maintenance as needed.
51-4011.00	Computer-Controlled Machine Tool Operators, Metal and Plastic	Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.		Potential		11-3051.04	Biomass Production Managers	Manage operations at biomass power generation facilities. Direct work activities at plant, including supervision of operations and maintenance staff.
51-2022.00	Electrical and Electronic Equipment Assemblers	Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries.		Potential		11-9199.11	Brownfield Redevelopment Specialists and Site Managers	Participate in planning and directing cleanup and redevelopment of contaminated properties for reuse. Does not include properties sufficiently contaminated to qualify as Superfund sites.
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	Repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas.	Yes	Potential		n/a	Carbon Capture and Sequestration Systems Installers	Install and maintain carbon energy capture or carbon sequestration facilities.
49-9051.00	Electrical Power-Line Installers and Repairers	Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers.		Potential		n/a	Carbon Credit Traders	Represent companies in the sale and purchase of carbon emissions permits.
47-2111.00	Electricians	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.	Potential	Potential		n/a	Carbon Trading Analysts	Analyze pricing and risks of carbon trading products; develop solutions to help clients hedge carbon exposure and risk.

17-3023.01	Electronics Engineering Technicians	Lay out, build, test, troubleshoot, repair, and modify developmental and production electronic components, parts, equipment, and systems, such as computer equipment, missile control instrumentation, electron tubes, test equipment, and machine tool numerical controls, applying principles and theories of electronics, electrical circuitry, engineering mathematics, electronic and electrical testing, and physics. Usually work under direction of engineering staff.	Potential	Yes	11-1011.03	Chief Sustainability Officers	Communicate and coordinate with management, shareholders, customers, and employees to address sustainability issues. Enact or oversee a corporate sustainability strategy.
19-2041.00	Environmental Scientists and Specialists, Including Health	Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population. Utilizing knowledge of various scientific disciplines may collect, synthesize, study, report, and take action based on data derived from measurements or observations of air, food, soil, water, and other sources.	Yes	Yes	19-2041.01	Climate Change Analysts	Research and analyze policy developments related to climate change. Make climate-related recommendations for actions such as legislation, awareness campaigns, or fundraising approaches.
25-9021.00	Farm and Home Management Advisors	Advise, instruct, and assist individuals and families engaged in agriculture, agricultural-related processes, or home economics activities. Demonstrate procedures and apply research findings to solve problems; instruct and train in product development, sales, and the utilization of machinery and equipment to promote general welfare. Includes county agricultural agents, feed and farm management advisers, home economists, and extension service advisers.	Potential	Potential	11-9199.02	Compliance Managers	Plan, direct, or coordinate activities of an organization to ensure compliance with ethical or regulatory standards.
45-1011.07	First-Line Supervisors/Managers of Agricultural Crop and Horticultural Workers	Directly supervise and coordinate activities of agricultural crop or horticultural workers.	Potential	Yes	17-3029.02	Electrical Engineering Technologists	Apply engineering theory and technical skills to support electrical engineering activities such as process control, electrical power distribution, and instrumentation design. Prepare layouts of machinery and equipment, plan the flow of work, conduct statistical studies and analyze production costs.
49-1011.00	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Supervise and coordinate the activities of mechanics, installers, and repairers.	Potential	Potential	17-3029.03	Electromechanical Engineering Technologists	Apply engineering theory and technical skills to support electromechanical engineering activities such as computer-based process control, instrumentation, and machine design. Prepare layouts of machinery and equipment, plan the flow of work, conduct statistical studies and analyze production costs.
51-1011.00	First-Line Supervisors/Managers of Production and Operating Workers	Supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.	Potential	Potential	17-3029.04	Electronics Engineering Technologists	Apply engineering theory and technical skills to support electronics engineering activities such as electronics systems and instrumentation design and digital signal processing.
33-3031.00	Fish and Game Wardens	Patrol assigned area to prevent fish and game law violations. Investigate reports of damage to crops or property by wildlife. Compile biological data.	Potential	Yes	13-1199.01	Energy Auditors	Conduct energy audits of buildings, building systems and process systems. May also conduct investment grade audits of buildings or systems.
19-4093.00	Forest and Conservation Technicians	Compile data pertaining to size, content, condition, and other characteristics of forest tracts, under direction of foresters; train and lead forest workers in forest propagation, fire prevention and suppression. May assist conservation scientists in managing, improving, and protecting rangelands and wildlife habitats, and help provide technical assistance regarding the conservation of soil, water, and related natural resources.		Potential	41-3099.01	Energy Brokers	Purchase or sell energy for customers.
45-4011.00	Forest and Conservation Workers	Under supervision, perform manual labor necessary to develop, maintain, or protect forest, forested areas, and woodlands through such activities as raising and transporting tree seedlings; combating insects, pests, and diseases harmful to trees; and building erosion and water control structures and leaching of forest soil. Includes forester aides, seedling pullers, and tree planters.		Potential	17-2199.03	Energy Engineers	Design, develop, and evaluate energy-related projects and programs to reduce energy costs or improve energy efficiency during the designing, building, or remodeling stages of construction. May specialize in electrical systems; heating, ventilation, and air-conditioning (HVAC) systems; green buildings; lighting; air quality; or energy procurement.

49-9098.00	Helpers--Installation, Maintenance, and Repair Workers	Help installation, maintenance, and repair workers in maintenance, parts replacement, and repair of vehicles, industrial machinery, and electrical and electronic equipment. Perform duties, such as furnishing tools, materials, and supplies to other workers; cleaning work area, machines, and tools; and holding materials or tools for other workers.	Yes	Yes	n/a	Environmental Certification Specialists	Guide clients such as manufacturers, organic farms, and timber companies through the process of being certified as green.
19-2043.00	Hydrologists	Research the distribution, circulation, and physical properties of underground and surface waters; study the form and intensity of precipitation, its rate of infiltration into the soil, movement through the earth, and its return to the ocean and atmosphere.	Potential	Yes	19-3011.01	Environmental Economists	Assess and quantify the benefits of environmental alternatives, such as use of renewable energy resources.
17-2112.00	Industrial Engineers	Design, develop, test, and evaluate integrated systems for managing industrial production processes including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.	Potential	Potential	19-2041.02	Environmental Restoration Planners	Collaborate with field and biology staff to oversee the implementation of restoration projects and to develop new products. Process and synthesize complex scientific data into practical strategies for restoration, monitoring or management.
49-9041.00	Industrial Machinery Mechanics	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.	Potential	Yes	17-2141.01	Fuel Cell Engineers	Design, evaluate, modify, and construct fuel cell components and systems for transportation, stationary, or portable applications.
11-3051.00	Industrial Production Managers	Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.	Potential	Yes	17-3029.10	Fuel Cell Technicians	Install, operate, and maintain integrated fuel cell systems in transportation, stationary, or portable applications.
17-2111.01	Industrial Safety and Health Engineers	Plan, implement, and coordinate safety programs, requiring application of engineering principles and technology, to prevent or correct unsafe environmental working conditions.	Yes	Yes	15-1099.07	Geographic Information Systems Technicians	Assist scientists, technologists, and related professionals in building, maintaining, modifying, and using geographic information systems (GIS) databases. May also perform some custom application development and provide user support.
11-9121.00	Natural Sciences Managers	Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields.	Potential	Yes	15-1099.06	Geospatial Information Scientists and Technologists	Research and develop geospatial technologies. May produce databases, perform applications programming or coordinate projects. May specialize in areas such as agriculture, mining, health care, retail trade, urban planning or military intelligence.
51-8012.00	Power Distributors and Dispatchers	Coordinate, regulate, or distribute electricity or steam.	Yes	Potential	11-2011.01	Green Marketers	Create and implement methods to market green products and services.
13-1021.00	Purchasing Agents and Buyers, Farm Products	Purchase farm products either for further processing or resale.	Potential	Potential	n/a	Greenhouse Gas Emissions Permitting Consultants	Conduct data gathering, data analysis, calculation, inventories and reduction planning, and be familiar with emerging regulations on greenhouse gas management.
51-4121.07	Solderers and Brazers	Braze or solder together components to assemble fabricated metal parts, using soldering iron, torch, or welding machine and flux.	Potential	Potential	n/a	Greenhouse Gas Emissions Report Verifiers	Conduct data audits of reported greenhouse gas emissions inventories.
51-8021.00	Stationary Engineers and Boiler Operators	Operate or maintain stationary engines, boilers, or other mechanical equipment to provide utilities for buildings or industrial processes. Operate equipment, such as steam engines, generators, motors, turbines, and steam boilers.	Yes	Yes	51-8099.04	Hydroelectric Plant Technicians	Monitor and control activities associated with hydropower generation. Operate plant equipment, such as turbines, pumps, valves, gates, fans, electric control boards, and battery banks. Monitor equipment operation and performance and make necessary adjustments to ensure optimal performance. Perform equipment maintenance and repair as necessary.
51-2092.00	Team Assemblers	Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Team leaders who work as part of the team should be included.	Yes	Potential	11-3051.06	Hydroelectric Production Managers	Manage operations at hydroelectric power generation facilities. Maintain and monitor hydroelectric plant equipment for efficient and safe plant operations.

51-4121.06	Welders, Cutters, and Welder Fitters	Use hand-welding or flame-cutting equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.		Yes	19-2041.03	Industrial Ecologists	Study or investigate industrial production and natural ecosystems to achieve high production, sustainable resources, and environmental safety or protection. May apply principles and activities of natural ecosystems to develop models for industrial systems.
19-1023.00	Zoologists and Wildlife Biologists	Study the origins, behavior, diseases, genetics, and life processes of animals and wildlife. May specialize in wildlife research and management, including the collection and analysis of biological data to determine the environmental effects of present and potential use of land and water areas.		Potential	17-3029.05	Industrial Engineering Technologists	Apply engineering theory and technical skills to support industrial engineering activities such as quality control, inventory control and material flow methods. May conduct statistical studies and analyze production costs.
				Potential	n/a	Methane Capturing System Engineers/Installers/Project Managers	Design gas recovery systems and oversee installation and development process, including recovery modeling, permitting, specifications preparation and project oversight. Develop client relationships and arrange for sales of energy.
			Yes	Potential	11-3051.05	Methane/Landfill Gas Collection System Operators	Direct daily operations, maintenance, or repair of landfill gas projects, including maintenance of daily logs, determination of service priorities, and compliance with reporting requirements.
				Potential	51-8099.02	Methane/Landfill Gas Generation System Technicians	Monitor, operate, and maintain landfill gas collection system components and environmental monitoring and control systems.
				Yes	19-4099.02	Precision Agriculture Technicians	Apply geospatial technologies, including geographic information systems (GIS) and Global Positioning System (GPS), to agricultural production and management activities, such as pest scouting, site-specific pesticide application, yield mapping, and variable-rate irrigation. May use computers to develop and analyze maps and remote sensing images to compare physical topography with data on soils, fertilizer, pests or weather.
				Yes	51-9199.01	Recycling and Reclamation Workers	Prepare and sort materials or products for recycling. Identify and remove hazardous substances. Dismantle components of products such as appliances.
				Yes	53-1021.01	Recycling Coordinators	Supervise curbside and drop-off recycling programs for municipal governments or private firms.
				Yes	11-9199.01	Regulatory Affairs Managers	Plan, direct, or coordinate production activities of an organization to ensure compliance with regulations and standard operating procedures.
				Yes	13-1041.07	Regulatory Affairs Specialists	Coordinate and document internal regulatory processes, such as internal audits, inspections, license renewals or registrations. May compile and prepare materials for submission to regulatory agencies.
				Potential	19-2099.01	Remote Sensing Scientists and Technologists	Apply remote sensing principles and methods to analyze data and solve problems in areas such as natural resource management, urban planning, and homeland security. May develop new analytical techniques and sensor systems or develop new applications for existing systems.
				Potential	19-4099.03	Remote Sensing Technicians	Apply remote sensing technologies to assist scientists in areas such as natural resources, urban planning, and homeland security. May prepare flight plans and sensor configurations for flight trips.
				Yes	47-1011.03	Solar Energy Installation Managers	Direct work crews installing residential or commercial solar photovoltaic or thermal systems.
				Yes	17-2199.11	Solar Energy Systems Engineers	Perform site-specific engineering analysis or evaluation of energy efficiency and solar projects involving residential, commercial, or industrial customers. Design solar domestic hot water and space heating systems for new and existing structures, applying knowledge of structural energy requirements, local climates, solar technology, and thermodynamics.

	Yes	47-4099.01	Solar Photovoltaic Installers	Assemble, install, or maintain solar photovoltaic (PV) systems on roofs or other structures in compliance with site assessment and schematics. May include measuring, cutting, assembling, and bolting structural framing and solar modules. May perform minor electrical work such as current checks.
	Yes	n/a	Solar Power Plant Technicians	Monitor and repair the instrumentation, controls, and electrical systems in a utility-scale solar power generating facility.
	Yes	41-4011.07	Solar Sales Representatives and Assessors	Contact new or existing customers to determine their solar equipment needs, suggest systems or equipment, or estimate costs.
	Yes	47-4099.02	Solar Thermal Installers and Technicians	Install or repair solar energy systems designed to collect, store, and circulate solar-heated water for residential, commercial or industrial use.
	Yes	n/a	Solar Thermoelectric Plant/Concentrating Thermal Power (CSP) Plant Operators	Direct the operations of a commercial solar-generated power production plant.
	Yes	13-1199.05	Sustainability Specialists	Address organizational sustainability issues, such as waste stream management, green building practices, and green procurement plans.
	Yes	n/a	Sustainable Design Specialists	Design from the outset for recycling, reuse or remanufacturing.
	Yes	11-9121.02	Water Resource Specialists	Design or implement programs and strategies related to water resource issues such as supply, quality, and regulatory compliance issues.
	Potential	17-2051.02	Water/Wastewater Engineers	Design or oversee projects involving provision of fresh water, disposal of wastewater and sewage, or prevention of flood-related damage. Prepare environmental documentation for water resources, regulatory program compliance, data management and analysis, and field work. Perform hydraulic modeling and pipeline design.
	Yes	47-4099.03	Weatherization Installers and Technicians	Perform a variety of activities to weatherize homes and make them more energy efficient. Duties include repairing windows, insulating ducts, and performing heating, ventilating, and air-conditioning (HVAC) work. May perform energy audits and advise clients on energy conservation measures.
	Potential	17-2199.10	Wind Energy Engineers	Design underground or overhead wind farm collector systems and prepare and develop site specifications.
	Yes	11-9199.09	Wind Energy Operations Managers	Manage wind field operations, including personnel, maintenance activities, financial activities, and planning.
	Yes	11-9199.10	Wind Energy Project Managers	Lead or manage the development and evaluation of potential wind energy business opportunities, including environmental studies, permitting, and proposals. May also manage construction of projects.
	Yes	49-9099.02	Wind Turbine Service Technicians	Inspect, diagnose, adjust, or repair wind turbines. Perform maintenance on wind turbine equipment including resolving electrical, mechanical, and hydraulic malfunctions.