

2010

Green Jobs: Survey of the Energy Industry



Relevant Trends, Opportunities, Projections & Resources

Presented by the Association of Energy Engineers

Profile of Respondents

Survey Results

Policy & Trends

Salary & Experience Levels

Job Titles & Resources

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Green Jobs: Survey of the Energy Industry

The Association of Energy Engineers (AEE), a nonprofit professional society of over 12,500 members, issued a survey to its members to determine the need for Green Jobs, Energy Industry Potential, Stimulus Results and Salary Data. The results represented are based on 1,534 responses and are outlined in this report. AEE was founded in 1977 and its mission is “to promote the scientific and educational interests of those engaged in the energy industry and to foster action for sustainable development.”

Profile of Respondents

- Eighty-three percent (83%) have graduated from a four-year accredited college.
- Thirty-six percent (36%) have a post-graduate degree from an accredited college.
- Thirty-three percent (33%) are registered Professional Engineers (P.E.s) or Architects.
- Seventy-nine percent (77%) are Certified in one or more of the following categories:

1. **Certified Energy Manager (CEM®)**
2. **Energy Manager in Training (EMIT®)**
3. **Certified Energy Auditor (CEA®)**
4. **Certified Sustainable Development Professional (CSDP®)**
5. **Certified Green Building Engineer (GBE®)**
6. **Business Energy Professional (BEP®)**
7. **Certified Lighting Efficiency Professional (CLEP®)**
8. **Certified Power Quality Professional (CPQ®)**
9. **Certified Building Commissioning Professional (CBCP®)**
10. **Distributed Generation Certified Professional (DGCP®)**
11. **Certified Measurement and Verification Professional (CMVP)**
12. **Certified Demand-Side Measurement Professional (CDSM®)**
13. **Certified Cogeneration Professional (CCP®)**
14. **Certified Energy Procurement Professional (CEP®)**
15. **Certified Indoor Air Quality Professional (CIAQP®)**
16. **Certified Indoor Air Quality Professional in Training (CIAQT®)**
17. **Certified Testing, Adjusting Balancing Professional (CTAB®)**
18. **Certified Geo-Exchange Designer (CGD®)**
19. **Certified Carbon Reduction Manager (CRM®)**

Section One: Green Jobs

There is a growing demand for energy efficiency, green collar and renewable energy professionals in light of the following trends:

1. Survey Results

- Thirty-seven percent (37%) of the energy professionals who were surveyed plan to retire in the next ten years.
- Sixty-one percent (61%) of energy professionals indicate a heightened shortage of qualified professionals in the energy efficiency and renewable energy fields in the next five years.
- Sixty-one percent (61%) of energy professionals indicate a need for national and state training for "Green Jobs" to address job shortages that are impairing growth in green industries, such as energy efficient buildings and construction, renewables, electric power, smart grid, energy efficient vehicles and biofuels development.

AEE in its survey determined even though the stimulus funds have been made available to the states, they have not been deployed within the states, as noted that 65% of respondents indicated that the availability of federal stimulus funding has not yet created green jobs in their company or government entity.

2. Green Job Growth - Trends and Opportunities

- According to the Center for American Progress ([March 2010 report](#)): By 2020, clean energy will be one of the world's biggest industries, totaling as much as \$2.3 trillion.
- According to the HSBC Global Research Report (September 2009): Global revenues from climate-related businesses rose by 75% in 2008 to \$530 billion, and climate-related business revenue could exceed \$2 trillion by 2020. Of the climate-related business activities evaluated, energy efficiency recorded the highest return on investment at 30%. Furthermore, the report estimated that energy efficiency will receive more than half (\$184 billion, or 53%) of the \$350 billion global green stimulus funds).
- McKinsey reports (January 2008) that a \$170 billion global investment in energy efficiency would yield energy savings of up to \$900 billion annually by 2020
- A [September 2008 analysis from the Center for American Progress](#) reports that in the U.S. alone, a \$100 billion investment over two years in clean energy – with a strong focus on building retrofits, mass transit, fuel-efficient transport and the smart grid – would create 2 million new jobs
- [ACEEE recently reported](#) that proposed federal energy efficiency jobs provisions would create about 333,000 jobs in 2010 and 184,000 jobs in 2011

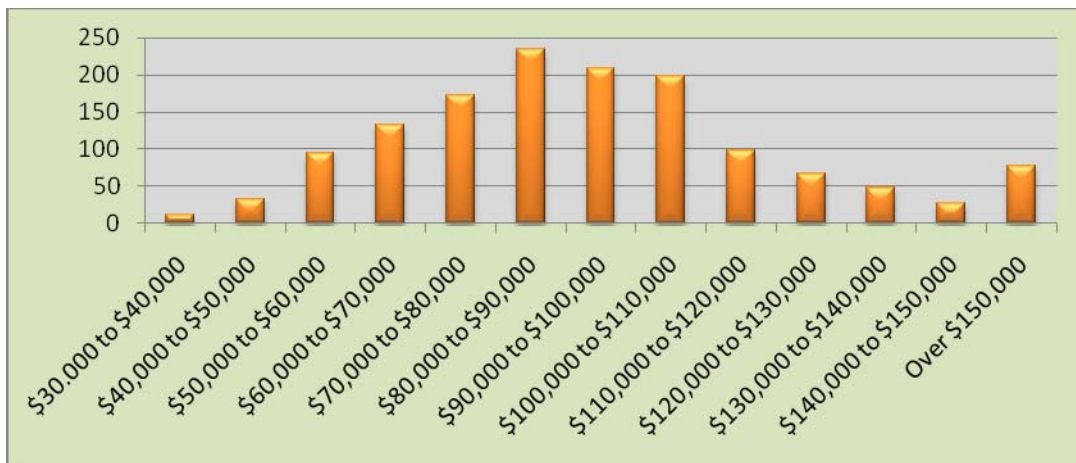
- The UN estimated that the development of alternative, renewable and efficient energy technologies, services and practices will create more than 20 million jobs around the world by 2030 as governments adopt policies to reduce GHG emissions

Section Two: Salary Survey

The information in this section is based on the salary survey conducted by the Association of Energy Engineers.

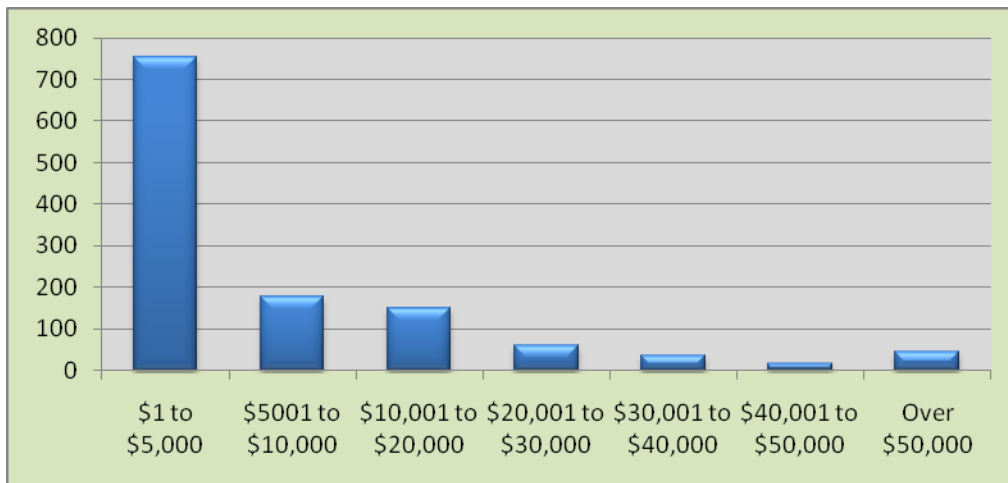
1. Salary

The salary is the base salary and excludes bonus, overtime and fees from secondary employment. Salaries are effective as of January 1, 2010:



Average salary was approximately: \$96,001 USD

2. Bonus- Bonuses received in by respondents:



Average additional income – bonus was approximately: \$10,151 (USD)

3. Years of Experience of Energy Professionals

0-5 Years: 8%
6-10 Years: 10%
11-15 Years: 11%
16-20 Years: 13%
21-25 Years: 19%
26-30 Years: 17%
31-35 Years: 14%
Over 36 Years: 8%

4. Locations of Employment

Northeast: 23%
Mid-Atlantic and Southeast: 21%
Northern Mid-West: 17%
Southern Mid-West: 16%
West and Pacific Northwest: 15%
Outside US: 8%

Section Three: Employment Opportunities & Papers

The Association of Energy Engineers maintains a career web site detailing energy, green, sustainable and power positions and jobs available as well as a resume databank with individuals seeking employment. Details are indicated at <http://www.aeecenter.org/jobs>

There is also access to an energy industry dictionary of terms, free access to energy – green white papers, industry news portal, as well as professional reference books. www.energyvortex.com

[CLICK HERE TO VIEW CURRENT JOBS IN THE AEE CAREER CENTER](#)
[CLICK HERE TO VIEW CURRENT JOBS IN THE AEE LINKEDIN JOBS GROUP](#)

Section Four: Training Opportunities

The Association of Energy Engineers offers a variety of professional training and re-training programs including:

- Training Seminars, Conferences & Industry Networking (Energy, Sustainability, Energy Auditing, Power, Green Facilities, Certification Programs)
 - www.aeecenter.org/realtime (Online training seminars)
 - <https://www.aeecenter.org/seminars/calendar.htm> (Live seminar training)
 - www.aeecenter.org/shows (Energy Industry Conferences & Networking Events)

Training Partnerships:

The Association of Energy Engineers is currently working with a cross-section of accredited institutions, organizations and Universities to offer additional energy management, green, sustainable, renewables and industry training programs. Featured programs include:



The *American Recovery and Reinvestment Act of 2009* (“The Stimulus Bill”) includes funding for “job training projects that prepare workers for careers in energy efficiency and renewable energy”. The U.S. Department of Labor, through the existing Workforce Information Act (WIA) will be responsible for administration of all training under this Act.

The State Dept. of Labors and WIA Groups have listed AEE as an Eligible Training Provider for specific energy training in several states so far. Although targeted for the unemployed, funding for this training may be available to anyone looking to increase their occupational skills. AEE is currently approved to provide training through the WIA

in the following states:

[California](#), [Colorado](#), Georgia, Idaho, Kentucky, [Maine](#), [Massachusetts](#), Minnesota, [Montana](#), [New York](#), [Nevada](#), [North Carolina](#), [Oklahoma](#), Oregon, [Vermont](#), [Virginia](#), [Washington](#),
(more states pending)



The Association of Energy Engineers is now an approved training provider within the American Institute of Architects (AIA) Continuing Education Systems (CES) Registered Provider program. The AIA requires that its registered architect members earn 18 Learning Unit (LU) hours of continuing education credit annually (eight hours of which must be related to Health, Safety, and Welfare topics and four of those eight in Sustainable Design) to remain in good standing. Architectural boards in 40 states, 10 Canadian Provinces, and 19 countries have implemented mandatory continuing education (MCE) for re-licensure. Statistically, architects hold multiple state licenses. Most states with MCE requirements recognize the AIA/CES as the primary source of professional development for their licensed architects. This allows AIA members to present their AIA/CES transcripts (and non-members AIA/CES Certificates of Completion) to licensing boards to satisfy state requirements. In becoming an AIA/CES Registered Provider, AEE is committed to a system-wide, top-down commitment to quality professional continuing education and sound administration. The AIA/CES offers providers of professional continuing education myriad opportunities to award CES Learning Units (LUs) and provide valuable information and guidance, while bypassing the time-consuming process of registering their courses with individual states.

Pepco & Delmarva Power Operations & Maintenance Training Incentive

Pepco & Delmarva Power Commercial & Industrial Operations & Maintenance Training Initiative: The Association of Energy Engineers is pleased to announce that many of its professional seminars now qualify for partial reimbursement of seminar fees for pre-qualified professionals based on eligibility for the Pepco & Delmarva Power Commercial & Industrial Training Initiative.

About the Program: Financial incentives are available for training that will promote, either directly or indirectly, the enhanced energy performance of buildings. An applicant must describe his or her current position responsibilities and how the proposed training course is relevant to the employer, the applicant's current position, and/or career development with the employer. Only applicants who have the potential to influence a building's energy performance will be considered.



The Association of Energy Engineers (AEE) has a Memorandum of Understanding with UC Davis University Extension (UCDE) to advance the knowledge and professionalism in the field of energy management. As an adjunct to the Certified Energy Manager (CEM®) and Business Energy Professional (BEP® program) AEE pleased to be an official sponsor of the **U.C. Davis University Energy Resource Management Certificate program**. This initiative aims at enhancing student's involvement and increases their role in the growing energy management discipline. The course will serve as a solid foundation for students to move towards obtaining their CEM or BEP Certification. For more information on the U.C. Davis certificate program [CLICK HERE](#). UC Davis Extension is the professional and continuing education branch of UC Davis and is a link to the many resources students can only get from the University of California.



The American Council on Renewable Energy (ACORE) and the Association of Energy Engineers (AEE) recently signed a memorandum of understanding to recognize the [Fundamentals of Renewable Energy: Technologies, Applications & Strategies](#) training seminar as well as the [Renewable Energy Professional \(REP\) certification](#) exam. ACORE will appoint an official to the Renewable Energy Professional Certification Board, and provide feedback as to course content as the renewable energy marketplace changes. According to Albert Thumann, Executive Director of AEE, "We are pleased to work in cooperation with ACORE and its participating members to develop an in-depth technology and solutions seminar for the rapidly growing renewable energy marketplace. ACORE has a strong presence in Washington, DC and has brought together a growing list of leading corporate members. ACORE's involvement brings added critical insight into renewable energy policy developments, market trends, and technology innovations." ACORE is a non-profit organization based in Washington, D.C. with members representing every aspect and sector of the renewable energy industries and their trade associations, including wind, solar, geothermal, biomass and biofuels, hydropower tidal/current energy and waste energy. The scope of ACORE's membership also spans financial institutions, government leaders, educators, end-users, professional service providers and allied non-profit groups. ACORE members receive a savings of \$100 off the regular registration fee for the Fundamentals of Renewable Energy seminar when registering online. (To receive this savings, use Discount Code *acoremem* when checking out).



The Clean Energy & Renewable Energy Project Feasibility Analysis Training Series. AEE is adding a series of nine courses focusing on Clean Energy/Renewable Energy Project Feasibility Analysis to its 24/7 Online Seminar Program via training partnership with Willis College. Included in each of these courses is an in-depth overview of relevant technologies and projects, system costs, implementation savings, and design considerations, as well as theory on using related tools to conduct a project feasibility analysis. To learn more about these courses [click here](#).



AEE has teamed up with the University of Wisconsin -Madison Engineering Professional Development Department to offer Fundamentals of Lighting Efficiency training seminar on a real-time, online basis. Presented in a series of six two-hour time modules, this program is designed to provide comprehensive professional training in the design and application of energy-effective lighting systems, with emphasis on: Evaluating lighting systems

through effective audits, Achieving energy-effective lighting systems with high regard to lighting quality and occupants, Examining the latest lighting products for your applications, Performing lighting calculations to obtain proper light levels, Evaluating and implementing effective lighting control strategies, Reviewing environmental impacts of lighting efficiency projects, Calculating and documenting savings achieved through lighting improvements, Assuring compliance with building energy codes, and Implementing effective lighting maintenance practices. For more information on this programs, please refer to [online training here](#).

AEE Partners the Green Building Engineer Certification (GBE™) Program with US EPA ENERGY STAR Challenge. AEE's participation in the ENERGY STAR Challenge – Build a Better World 10% at a Time is a natural extension of AEE's efforts to encourage its members to reduce energy usage in buildings by 10% or more. AEE is committed to provide training and certification opportunities to help the profession meet the ENERGY STAR Challenge ahead. To find a

Professional Engineer (P.E.) and/or GBE, please refer to EPA's online directory:

http://www.energystar.gov/index.cfm?fuseaction=PE_DIRECTORY



U.S. Green Building Council

The Association of Energy Engineers is a qualified education provider under the U.S. Green Building Council educational program and its programs are featured in the [GREENBUILD 365 course catalogue](#). Whether you are a design, construction or real estate professional, an educator or student, or a LEED AP, Greenbuild365's rich variety of educational offerings will inform your journey from novice to expert and beyond.

Information on a broad range of green building topics is available in formats tailored to your knowledge level and preferred learning style, whether you're looking for in-person

interaction, online courses you can take in the comfort of your own home, or do-it-yourself research through an extensive online media library.



The Georgia Tech Enterprise Innovation Institute works with Georgia enterprises to help them compete nationally and internationally. By calling on the resources of Georgia Tech – one of the world's leading engineering, technology and research universities – our team can keep you current with the leading research, methods, technology and more in your industry. The Certified Energy Manager (CEM) Program is recognized by the [Georgia Tech Enterprise Innovation Institute](#) and they have several faculty on staff with CEM Certification.



The GHG Gas Management Institute and the Association of Energy Engineers have signed Cooperative Agreement to offer additional educational & training options to their respective members. The GHG Institute offers rigorous training that meets the needs of both individuals

and organizations working on all aspects of climate change. The Institute's training courses are authored by leading experts in their fields. Using our interactive e-learning system and specialized onsite workshops, we are able to meet the training needs of both beginners and experienced professionals anywhere in the world. The Institute's membership program connects the largest global community of greenhouse gas and climate change experts in the world and is developing courses in multiple languages. As a nonprofit U.S.-based 501(c)(3) organization, financial aid and full scholarships are available to qualified applicants, especially from developing countries and those working for non-profit organizations.



The Institute of Industrial Engineers (IIE) has formed a joint venture agreement with AEE for the [Fundamentals of Carbon Reduction](#) live seminar program and the [Fast Track CRM Training Program for Carbon Reduction Managers](#) online seminar. IIE, a leading association in support of the industrial engineering professional, is an official co-sponsor of these programs and will be offering them to its broad, strategic membership base. IIE helps to elevate the image and prominence of industrial engineers (IE). By bestowing awards that recognize the achievements of prominent IEs, taking part in high-profile events such as National Engineers Week, and working on campaigns that put industrial engineering in the minds of the public, IIE raises the awareness of contributions made by industrial engineers.



Corporate College has signed an agreement of partnership with the Association of Energy Engineers to deliver AEE training in the field of energy management in the Midwest region. According to Jessica Davis, program manager for Corporate College, "This partnership will ensure the region's talented workforce is prepared with the valuable credentials needed to meet the growing demand for energy management/green collar jobs." You can register online for courses offered under this partnership at www.corporatecollege.com or e-mail jessica.davis@tri-c.edu for information.



The Western New England College School of Engineering recently signed a Memorandum of Understanding (MOU) with AEE whereby the College will develop an extensive Renewable & Alternative Energy System Design course, and offer the Certified Energy Manager (CEM®) Certification Exam to attendees. The Association of Energy Engineers is expanding the Certified Energy Manager program offerings as more States are adopting the CEM as a standard, and numerous corporations are making the CEM credential a job requirement. To register for this course please contact the provider directly:

Email: CMFENGRINC@aol.com / Springfield, Massachusetts <http://www.wnec.edu>

[Section Five: Green Jobs, Energy Jobs & Titles](#)

There are many currently many “green collar” jobs which exist in the current marketplace. The job titles listed below are typical energy, sustainable, green, environmental and industry jobs based on the actual survey responses of AEE members and participants of AEE programs. These are some of the hot growth areas for professional entering or transitioning into the energy – green field.

[CLICK HERE TO VIEW CURRENT JOBS IN THE AEE CAREER CENTER](#)
[CLICK HERE TO VIEW CURRENT JOBS IN THE AEE LINKEDIN JOBS GROUP](#)

Account Manager/Executive
Account Manager – Building Automation
Systems Sales
Advisor for Management and Energy
Agency Energy and Environmental Manager

A

Application Engineer/Technician
Architect
Auditor
Automated Controls Technician

B

Building Automation Systems Engineer
Building Consultant/Engineer
Building Control Specialist
Building Energy Engineer
Building Energy Analyst

Building Services Engineer
Business Development Manager
Business Services Engineer
Business Unit Energy Services

C

Campus Energy Manager
Carbon Consultant
Carbon Reduction Manager
Central Plant Engineering Manager
Certified Energy Manager
Certified Geothermal Designer
Chief of Energy Engineering
Certified Energy Auditor
Chief Operations and Maintenance
Chiller Team Manager
Civil Engineer
Climate Change Consultant
Climate Initiative Program Director
Cogeneration Manager
Command Utility Energy Engineer
Commercial Engineering Manager
Commercial and Industrial Energy Services
Engineer
Commercial Energy Management Consultant
Commissioning Manager
Commissioning Engineer
Commissioning Technician
Commercial/Industrial Services Manager
Compressed Air Specialist
Conservation Engineer
Conservation Program Engineer
Construction Manager
Construction Manager/Designer
Construction Project Manager

Construction Services Manager
Construction/Facilities Manager
Consultant
Consulting Engineer
Controls and Commissioning Manager
Controls and Energy
Controls Engineer
Controls Manager
Controls Specialist
Coordinator of Environmental Services
Coordinator of Infrastructure
Coordinator of Energy Management
Coordinator of Residential Energy Programs
Corporate Director Engineering and
Construction
Corporate Director of Energy Management
Corporate Director of Energy and Environmental
Services
Corporate Director Plant Operations
Corporate Energy Coordinator
Corporate Energy Director
Corporate Energy Management Leader
Corporate Energy Manager
Corporate Facilities/Energy manager
Corporate Facilities Manager
Corporate Facilities Engineer
Corporate Manager of Building Operations
Corporate Project Manager
Corporate Utilities Manager

D

Design Engineer
Design Build/Energy Engineer
Design Manager
Design/Energy Engineer
Development Engineer
Distributed Energy Manager

Distribution Standards Engineer
Demand-Side Management Coordinator
Demand-Side Management Engineer
Demand-Side Management P&E Specialist
Demand-Side Management Program Consultant

E

Electric Engineering Officer
Electric Meter Relay Technician
Electric Utility Analyst
Electric Utility Project Coordinator
Electrical & Energy Manager
Electrical & Instrument Engineer
Electrical and Controls Engineer
Electrical and Mechanical Engineer
Electrical Consultant Engineer
Electrical Coordinator
Electrical Design Engineer
Electrical Designer
Electrical and Automation Engineer
Electrical Engineer
Energy Engineer
Energy Manager
Energy & Sustainability Program Manager
Energy & Commissioning Engineer
Energy & Environment Engineer
Energy & Environmental Consultant
Energy & Environmental Manager
Energy & Sustainability Solutions Specialist
Energy & Utilities Manager
Energy & Water Resource Planner
Energy Advisor
Energy Analyst
Energy Auditor
Energy Balance Engineering
Energy Conservation Advisor
Energy Conservation Analyst
Energy Conservation Consultant
Energy Conservation Coordinator
Energy Conservation Engineer
Energy Conservation Manager
Energy Conservation Program Manager
Energy Conservation Technical Specialist
Energy Coordinator
Energy Education Specialist
Energy Efficiency Program Director/Engineer
Energy Efficiency Consultant
Energy Efficiency Coordinator
Energy Efficiency Engineer
Energy Efficiency Program Manager
Energy Efficiency Specialist
Energy Efficiency Technician Instructor
Energy Facility Manager
Energy Information Manager
Energy Management Analyst
Energy Management Consultant
Energy Management Engineer
Energy Management Quality Consultant
Energy Management Representative
Energy Management Specialist
Energy Management/Environmental System Consultant
Energy Manager
Energy Performance Analyst
Energy Plant Manager
Energy Procurement Manager
Energy Program Coordinator
Energy Program Engineer
Energy Program Manager
Energy Program Specialist
Energy Programming Technician
Energy Project Development
Energy Project Engineer
Energy Project Manager
Energy Projects Specialist
Energy Resource Conservation Specialist
Energy Resource Manager
Energy Sales Consultant
Energy Scientist
Energy Service Engineer
Energy Service Manager
Energy Service Specialist
Energy Services Account Executive
Energy Services Advisor
Energy Services Analyst
Energy Services Coordinator
Energy Services Program Consultant
Energy Services Project Developer
Energy Services Project Manager
Energy Services Representative
Energy Services Specialist
Energy Services Supervisor
Energy Solutions Analyst
Energy Solutions Consultant
Energy Solutions Manager
Energy Specialist
Energy Supply Manager
Energy Systems Engineer
Energy Technician
Energy Trader
Energy/Environmental Consultant
Energy/Mechanical Manager
Energy/Resource Conservation Program Manager
Energy/Utilities Engineer
Energy/Utilities Manager
Engineer
Engineering & Environmental Services
Engineering Analyst
Engineering and Design Supervisor
Engineering Consultant
Engineering Development Director
Engineering Director

Engineering Manager
Engineering Specialist
Engineering Technician
Engineer – Load Management
Environmental Health, Safety & Security
Manager
Environmental Solutions Manager
Environmental & Utilities Manager
Environmental & Energy Manager

Environmental Consultant
Environmental Director
Environmental Engineer
Environmental Health & Safety Mgr.
Environmental Manager
Environmental Program Manager
Environmental Project Manager
Environmental Specialist
Equipment Engineer

F

Facilities & Compliance Analyst
Facilities & Maintenance Manager
Facilities and Construction Manager
Facilities Consultant
Facilities Coordinator
Facilities Design & Construction Supervisor
Facilities Design Engineer
Facilities Electrical Engineer
Facilities Electrical Systems Coordinator
Facilities Energy Engineer
Facilities Engineer

Facilities Environmental Manager
Facilities HVAC Engineer
Facilities Manager
Facilities Operations Manager
Facilities Performance Analyst
Facilities Plant Engineer
Facilities Project Manager
Facilities Systems Specialist
Facility Energy Conservation Manager
Field Engineer
Fuel Analyst

G

Gas & Energy Coordinator
Gas Management Service Analyst
Gas Supply & Technology Engineer
General Engineer
Geo-Exchange Designer
Geothermal Operations Manager
Geothermal Designer
Global Commodity Manager-Energy
Global Director Energy & Sustainability
Global Director – Energy & Plant Services

Global Energy & Climate Change Program
Global Energy Director
Global Energy Manager
Global Energy Program Manager
Global Energy Solutions Manager
Global Environmental Engineer
Global Energy Manager
Green Building Engineer
Greenhouse Gas Lead Assessor

H

Health and Safety Manager
Health, Safety, and Environmental Manager
HVAC Design Engineer
HVAC Designer
HVAC Engineer

HVAC Facilities Manager
HVAC Services Manager
HVAC Systems Engineer
HVAC Technician
Hydro Geologist

I

Indoor Environmental Consultant
Industrial Engineer
Industrial Gas Engineer
Infrastructure Engineer

Installation Energy Manager
Installation Manager
Intelligent Building Specialist

L

LEED AP

LEED Performance Assurance Engineer

Lighting Consultant
Lighting Design Specialist

Lighting Engineer
Load Analyst

M

Maintenance Engineer
Maintenance Manager
Maintenance Planner
Manager of Energy Initiatives
Measurement & Verification Engineer
Measurement & Verification Specialist
Mechanical Design Engineer

Mechanical Designer
Mechanical Engineer
Mechanical Operations Manager
Mechanical Project Engineer
Mechanical Systems Engineer
Mechanical Utilities Engineer

N

National Energy Manager
National Energy Services Manager

National Energy Solutions Specialist

O

Operations & Energy Manager
Operations & Maintenance Engineer
Operations Analyst

Operations Engineer
Operations Manager

P

Performance Assurance Consultant
Performance Assurance Engineer
Performance Assurance Specialist
Performance Contract Engineer
Performance Contracting Energy Engineer
Performance Engineer
Performance Manager
Plant Engineer
Plant Manager
Pollution Prevention Engineer
Power Application Engineer
Power Management Applications Engineer
Power Optimization Engineer
Power Plant Manager
Power Quality Engineer
Power Quality Specialist
Power Resources Manager
Power Systems Engineer
Power Utilization Engineer
Power, Energy & Environmental Market
Manager
Procurement Analyst
Procurement Manager (Electric & Gas)

Product Manager
Product Manager – Energy
Production Engineer
Professional Engineer
Program Analyst
Program Director
Program Director - Energy
Program Manager
Program Manager – Corporate Energy Services
Program Manager – Energy Services
Program Manager – Renewable Energy
Project Analyst
Project Coordinator
Project Development Engineer
Project Developer
Project Director
Project Energy Engineer
Project Energy Manager
Project Engineer
Project Manager
Purchasing Director
Purchasing Manager
Purchasing Specialist

Q

Quality Control Manager

Quality Engineer

R

Refrigeration Engineer
Reliability Engineer
Renewable Energy Business Manager
Renewable Energy Consultant

Resource Conservation Engineer
Resource Conservation Manager
Resource Efficiency Manager
Retro-commissioning Engineer

S

Safety & Environmental Coordinator
Shipboard Resource Efficiency Manager
Smart Grid Engineer
Solar Energy Engineer
Solar Energy Systems Designer
Solution Design Specialist
Solution Development Engineer
Staff Engineer
Staff Research Engineer
State Energy Manager
Storm water Planning & Engineer Supervisor
Strategic Energy Analyst
Surveillance Coordinator, Work Control
Sustainable Development Professional

Sustainability Coordinator
Sustainability Engineer
Sustainability Leader
Sustainability Manager
Sustainable Building Analyst
Sustainable Building Technologist
Sustainable Design Specialist
Sustainable Development Coordinator
Sustainable Solutions Engineer
System Applications Engineer
System Control Operator
Systems Analyst
Systems Engineer

T

Technical Advisor
Technical Analyst
Technical Consultant
Technical Director
Technical Engineer

Technical Facilities Assistant
Technical Manager
Technical Solutions Engineer
Technical Specialist
Test and Balance Engineer

U

Utilities and Energy Director
Utilities Engineer
Utilities Manager

Utility Analyst
Utility Conservation Representative

W

Waste Reduction Consultant
Wastewater Engineer
Water & Energy Management Specialist
Wind Power Engineer

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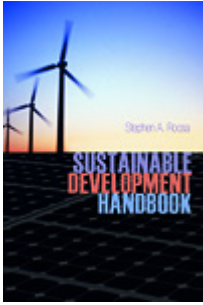
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Professional Reference Books Available Featuring:

Sustainable Development Handbook



Sustainable development is a concept that incorporates energy, urban management, environmental objectives, policy integration, and the idea that effective solutions can be achieved in a cooperative manner with concerted effort. Now gaining momentum on the world stage, sustainable development is beginning to significantly redefine the policies and decision making of both corporations and governmental entities. Sustainability development initiatives can vary widely in both scope and application, as well as success. This book is intended to clarify critical issues, proven approaches and potential pitfalls associated with such initiatives, covering underlying concepts, renewable energy solutions, environmental issues, green design and LEED® programs, sustainable industrial processes, sustainable development policy considerations, local government programs, corporate programs, tracking results, and future trends.

ISBN: 0-88173-565-5 6 x 9, Illus., 455 pp., Hardcover ORDER CODE: 0594 Price: \$115

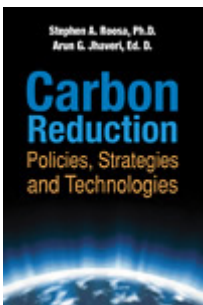
Visions for a Sustainable Energy Future

This book offers a unique insight into the corporate health of energy companies in an evolving landscape of deregulation. Cutting across both historical and present-day situations, it demonstrates important elements vital to the success of energy companies coming out of a safe regulated structure, and dealing with a new, competitive environment. Targeted at corporate executives, energy professionals, the financial and investment communities, strategic planners, and regulators, readers will find this resource helpful to understand how energy companies can meet the challenges of a competitive environment, what it will take to evolve into healthy energy companies, the impacts of deregulation and assessment of successful and unsuccessful strategies for energy companies, the role of technology in business/product re-invention and a successful business model, and the differences and similarities of electricity to other commodities-the challenges to generation, power delivery, environmental science and end-use sectors of the business.



ISBN: 0-88173-513-2 6 x 9, 254 pp, Illus., Hardcover ORDER CODE: 0579 Price: \$98

CARBON REDUCTION: POLICIES, STRATEGIES AND TECHNOLOGIES

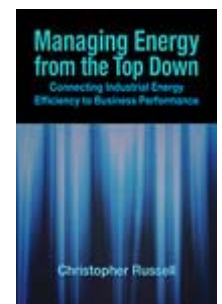


In this time of increasingly pressing concern about global climate change and its potentially irreversible and detrimental impacts on the world's population, it is considered urgent to find effective means for significantly reducing local, regional, national and international greenhouse gas emissions in homes, businesses, industries and communities around the planet. This book, first of all, describes in clear, concise and understandable terms the nature and scope of the climate change problem. The authors then combine their considerable expertise to offer specific guidelines for defining and applying the most effective carbon reduction policies, strategies and technologies. Finally, they propose a well-defined blue-print or road map for an action plan for use by practicing engineers, scientists, technicians, managers, and decision-makers, which can be implemented to help control and abate the alarming increases in carbon dioxide and other greenhouse gas emissions.

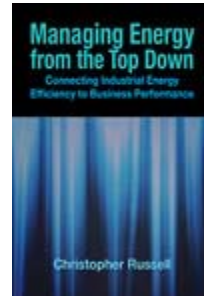
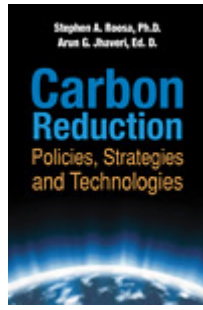
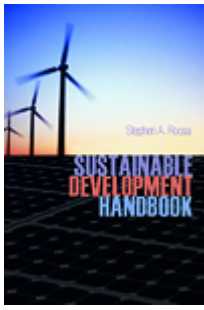
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