

**From:** Gil Masters (gmasters@stanford.edu)  
**To:** energyfolks@lists.stanford.edu  
**Date:** Tuesday, May 20, 2008 10:01:08 PM  
**Subject:** final seminars and energy social, 20% wind, 0 emissions city, 350 ppm, jobs

A note to new-ish people on the Energyfolks list: Old blurbs are archived by MAP at <http://www.maproyalty.com/e-news.html>.

Also, for those of you who send jobs and other notices to me, please try to summarize them concisely in a form that will allow me to simply cut and paste them into the newsletter without editing. That will save me a considerable amount of work.

Thanks,

gil

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2. Final Energy Social of the School Year: Weds, May 21, 5:30

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**JOBS JOBS JOBS**

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- 26. Energy Analyst, Kirksey

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**1. Remaining Woods Energy Seminar Schedule:**

Below are the upcoming Energy Seminar talks. The schedule is attached. NOTE: The June 4 talk has been changed, and Burt Richter will be rescheduled to the fall.

May 21, Chris Chidsey, Chemistry Department, Stanford University\*  
 TBD (Electrocatalysis with Discrete Metal Complexes Covalently Site-Isolated on Oxidation-Resistant Electrodes)  
 ..this may relate to fuel cells... (followed by an energy social as described below)

May 28, Gavin Conibeer, University of New South Wales  
 Approaches to Third Generation Photovoltaics

June 4, Christine Jojarth, Center on Democracy, Development, and the Rule of Law, Stanford University  
 Turning Hydrocarbons into Development: Strategies and Performance of Oil States

Thank you to Chevron for sponsoring the Energy Seminar  
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**2. Final Energy Social of the School Year: Weds, May 21, 5:30**

Please join us for the last energy social of the year, following the Woods Energy Seminar on Wednesday, May 21, 5:30 - 7:30, Y2E2, Red zone, 1st floor.

Thank you MAP for continuing to sponsor these socials.



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### **3. Wind capable of 20% of U.S. electricity by 2030: DOE study**

DOE's report, *20% Wind Energy by 2030: Increasing Wind Energy's Contribution to U.S. Electricity Supply*, develops a 2030, 20% wind energy scenario.

Included in the report are an examination of America's technological and manufacturing capabilities, the future costs of energy sources, U.S. wind energy resources, and the environmental and economic impacts of wind development. Under the 20% wind scenario, installations of new wind power capacity would increase to more than 16,000 MW per year by 2018, and continue at that rate through 2030.

"The report identifies the central constraints to achieving 20% - transmission, siting, manufacturing and technology - and demonstrates how each can be overcome.

The report finds that achieving a 20 percent wind contribution to U.S. electricity supply would:

- Reduce carbon dioxide emissions from electricity generation by 25 percent in 2030.
- Reduce natural gas use by 11%;
- Reduce water consumption associated with electricity generation by 4 trillion gallons by 2030;
- Increase annual revenues to local communities to more than \$1.5 billion by 2030; and
- Support roughly 500,000 jobs in the U.S., with an average of more than 150,000 workers directly employed by the wind industry.

The 20% wind scenario would only cost 2 percent more than the cost of the baseline scenario without wind or 50 cents per month for the average ratepayer.

According to an AWEA report released last week, the U.S. wind energy industry continued new installations at a breakneck pace in the first quarter of 2008, putting 1,400 megawatts (MW) or approximately \$3 billion worth of new generating capacity in place.

To download the full report, please go to [www.20percentwind.org](http://www.20percentwind.org).

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### **4. Abu Dhabi Zero-Emissions City**

Kevin Bullis, Technology Review: Construction has started on a city that will house 50,000 people and 1,500 businesses but use extremely little energy, and what it does use will come from renewable sources. The initial building is a new research institute that the founders hope will be the seed for the equivalent of a Silicon Valley of the Middle East, only one centered not on information technology but on renewable energy.

The city, which is expected to cost \$22 billion, will implement an array of technologies, including thin-film solar panels that serve as the facades and roofing materials for buildings, ubiquitous sensors for monitoring energy use, and driverless vehicles powered by batteries that make cars unnecessary. Indeed, the city's founders hope that it will serve as a test bed for a myriad of new technologies being proposed to reduce greenhouse-gas emissions.

The new zero-emissions city, which is being built near the city of Abu Dhabi in the center of the United Arab Emirates (UAE), is part of the Masdar Initiative, a \$15 billion government-funded investment program designed in part to ensure that the UAE's prosperity won't be linked exclusively to its oil. Its leaders say that the project will give the country a leadership position in renewable energy. If it's successful, says Sultan al Jaber, Masdar's CEO, "we'll be sitting on top of the world."

In Masdar, thin-film solar cells can be incorporated directly into the facades of buildings in place of conventional construction materials, reducing the costs of the solar power. Energy needed for cooling will be reduced by controlling the orientation and design of the city's buildings, streets, and green spaces to find a balance between shade and sun, and to promote natural-air circulation. Air conditioners will use absorption chillers that run on heat from the sun in place of conventional compressors.

Energy for transportation will also be reduced. Efficient electric transports will provide door-to-door service: just type in your destination, and the transport will come to your door and take you automatically to your destination. The power will be generated by renewable energy and stored onboard in batteries. On Monday, Masdar received the first bids on the system, which will likely use battery-powered vehicles running on tracks or powered by magnetic levitation.

Water use will be kept to a minimum--which will reduce energy needed for desalination. And sensors throughout the city will also keep residents informed of their energy use--and when they're going to have to pay extra for using too much. All told, the city's designers predict that efficiency improvements will result in a 75 percent reduction in energy consumption compared with a conventional city of the same size. The energy that is used will come almost entirely from solar--with wind and power from technology that converts garbage into fuel contributing smaller

amounts.

This, as least, is the theory. One of the main purposes of the city is to find out what works and what doesn't. This experiment will continue even after the city is completed in eight years; "innovation hubs" throughout the city will test new technologies, including some developed at the new Masdar Institute of Science and Technology. The school is being developed in partnership with MIT, which is selecting faculty and designing curricula.

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## 5. James Hansen's new number: 350 ppm

From the LA Times, 5-11-08: By Bill McKibben

There's a number -- a new number -- that makes this point most powerfully. It may now be the most important number on Earth: 350. As in parts per million of carbon dioxide in the atmosphere.

A few weeks ago, NASA's chief climatologist, James Hansen, submitted a paper to Science magazine with several coauthors. The abstract attached to it argued -- and I have never read stronger language in a scientific paper -- that "if humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence and ongoing climate change suggest that CO2 will need to be reduced from its current 385 ppm to at most 350 ppm."

Hansen cites six irreversible tipping points -- massive sea level rise and huge changes in rainfall patterns, among them -- that we'll pass if we don't get back down to 350 soon; and the first of them, judging by last summer's insane melt of Arctic ice, may already be behind us.

His phrase was: "if we wish to preserve a planet similar to that on which civilization developed." A planet with billions of people living near those oh-so-floodable coastlines. A planet with ever-more vulnerable forests. (A beetle, encouraged by warmer temperatures, has already managed to kill 10 times more trees than in any previous infestation across the northern reaches of Canada this year. This means far more carbon heading for the atmosphere and apparently dooms Canada's efforts to comply with the Kyoto protocol, which was already in doubt because of its decision to start producing oil for the U.S. from Alberta's tar sands.)

A longer version of this article appears at Tomdispatch.com.

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**JOBS                    JOBS                    JOBS**

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## 6. Daylighting Designer, AEC, Boulder or SF

Architectural Energy Corporation is looking to add a daylighting designer / engineer to our staff. Understanding of lighting engineering and Radiance knowledge/experience are key skills and a general understanding of building simulation is desired. I realize that building lighting simulation is not the main topic of discussion here, but building simulation is a pretty tight-knit community so someone might know someone! See the ad below.

Daylighting Engineer / Designer

Architectural Energy Corporation, a national building energy research and design consulting firm, seeks full-time engineer in the Daylighting Analysis Group.

Required: solid understanding of lighting engineering concepts; lighting analysis software expertise (preferably Radiance); good communication and writing skills.

Preferred: Architectural engineering degree (or similar degree / background); programming, daylighting, sustainable design and Radiance experience.

For more information see [www.archenergy.com](http://www.archenergy.com).

Resume / salary requirements to: [zrogers@archenergy.com](mailto:zrogers@archenergy.com) or fax to Zack / 303-444-4304

The position is available in the Boulder, Colorado office (less experienced applicants) or the San Francisco, California office (more experienced applicants).

Zack Rogers, P.E., IESNA, LEED AP  
Daylighting Analysis Group Leader  
Architectural Energy Corporation  
2540 Frontier Avenue, Suite 201  
Boulder, CO 80301 USA

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## 7. Short-term work in energy efficiency and renewables at HDR

HDR is hiring for two energy positions (a team of 4 stanford grads is already here and we'd love to add a few more!!). We're also interested in hiring interns for the summer or fall, so if current students are interested in short term work in energy

efficiency, renewable energy, or solid waste, they can contact me as well.

#### Solid Waste / Energy Engineer

HDR Engineering, Inc. is seeking an entry-level solid waste and/or energy engineer for our San Francisco office. The San Francisco energy and waste management consulting group within HDR has 25 years of experience providing a full range of technical services related to energy efficiency, renewable energy, carbon emissions reductions, recycling/zero waste programs, and solid waste projects and planning. This individual will have the opportunity to work on a variety of exciting projects already underway with California utility companies, government agencies, and private companies. The ideal candidate has educational, internship, or work experience in performing engineering and economic analyses for energy efficiency or solid waste management projects and/or programs. Experience with carbon inventories and climate issues is a plus. Experience with energy audits, measurement and verification, cogeneration, solid waste planning and implementation, water efficiency, and green building design is also helpful. Good writing and spreadsheet skills are required. The ideal candidate possesses a bachelor of science engineering degree.

#### Energy Engineer / Project Manager

HDR Engineering, Inc. is seeking a mid or senior-level energy engineer with particular expertise in lighting and HVAC systems for our San Francisco office. This position may also be based in our Walnut Creek office, with frequent travel to our San Francisco office expected. The San Francisco energy and waste management consulting group within HDR has 25 years of experience providing a full range of technical services related to energy efficiency, renewable energy, carbon emissions reductions, and cogeneration projects. This individual will have the opportunity to work on a variety of exciting projects already underway with California utility companies, government agencies, and private companies. The ideal candidate has experience in the identification and evaluation of energy efficiency measures and possesses a bachelor of science engineering degree. In addition, experience with M&V, cogeneration, water conservation and green building design is also helpful. Requirements: BA/BS in Engineering or related Field. 3+ years of Energy Engineering experience. Good writing skills are required. A California P.E. is desirable, but not required. Excel, MS Word, Building Modeling Software experience required.

For more information or to forward your resume, please contact Lauren Casey at 415-814-6714 or [lcasey@hdrinc.com](mailto:lcasey@hdrinc.com).

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### **8. Renewable Energy Marketing Association**

Renewable Choice Energy, along with several other renewable energy marketers have established a new organization - the "Renewable Energy Marketing Association." We

are currently looking to hire an Executive Director. Contact Cameron Brooks (below) for a more detailed job description and scope of work

Cameron Brooks  
Vice President  
Resource Development  
Renewable Choice Energy  
4041 Hanover Avenue, Suite 200  
Boulder, Colorado 80305  
(303) 468-0405 x231  
(303) 957-7667 mobile  
[cameron@renewablechoice.com](mailto:cameron@renewablechoice.com)

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## **9. Wells Fargo: Summer Associate - Environmental Finance**

Job Description: This newly created, short-term paid position will work within Wells Fargo's Environmental Finance Group in San Francisco, and will support activities related to the Bank's growing efforts to deploy capital to environmentally-beneficial businesses and projects, across a wide range of industries - including renewable energy, energy efficiency, "green" real estate, greenhouse gas (GHG) markets, sustainable agriculture and forestry, and resource management.

Wells Fargo's Environmental Finance Group was created shortly after the Bank announced a 10-point Environmental Commitment in July 2005, which included a five-year, \$1 billion lending and investment goal towards environmental finance opportunities. The Bank has already exceeded this initial goal, and is now focused on building off of our early successes and expanding into new areas of business.

The Summer Associate will help support the Environmental Finance Group's growing efforts to catalyze lending and investments throughout the Bank in various environmental business segments. Specific job functions are yet to be determined, but are expected to include research and analysis of environmental finance market opportunities, assessment of the Bank's Wholesale customer base as it relates to these opportunities, and support the development of new business and products in these sectors.

The Summer Associate will have the opportunity to engage with other Wells Fargo team members involved in the Bank's Environmental Commitment, including Wholesale Business Units, Credit and Environmental Affairs, and will be encouraged to participate and provide input in Environmental Finance team meetings and strategy discussions.

Minimum Qualifications: The candidate will be a self-starter who has completed or will be in the process of completing a Graduate-level degree in business, engineering, energy, environmental economics, or a related field. Most importantly, the ideal candidate will have an existing knowledge base, and personal interest and passion, in the market segments, policies and issues related to environmental finance - particularly energy efficiency, renewable energy, climate change, emissions trading/GHG markets, and green real estate.

Preferred Qualifications: The candidate will preferably have at least 1-2 years of prior work experience, including specific industry experience - such as in clean energy, GHG markets, environmental or resource management - and/or banking or related experience.

To apply, please visit [www.wellsfargo.com/careers](http://www.wellsfargo.com/careers) (job requisition number 3216432), and complete the online application.

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## **10. USGBC, New York, Director of Advocacy**

The New York Chapter of the U.S. Green Building Council (USGBC New York), a nonprofit organization working to advance sustainable buildings in the New York City area, currently has an excellent opportunity for a highly motivated and enthusiastic individual who is interested in being part of the growing green building movement.

USGBC New York is in the process of a significant expansion and this senior position presents a unique opportunity to shape the field of green building and have a major impact on the future of New York City.

The Director of Advocacy will oversee USGBC New York's efforts to improve the city and state building codes, public policy, guidelines and standards. Additional responsibilities will include development of initiatives to facilitate the development and implementation of the LEED standard, as well as ongoing research projects.

Yetsuh Frank AIA, LEED AP  
Director, Programs & Policy  
[yetsuh.frank@usgbcny.org](mailto:yetsuh.frank@usgbcny.org)  
[www.usgbcny.org](http://www.usgbcny.org)

U.S. Green Building Council, NY Chapter  
Alexander Hamilton U.S. Custom House  
One Bowling Green, Suite 419  
New York, NY 10004

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## **11. Intern at SunPower: Proposal development of Utility-Scale Solar Power Plants**

We are seeking an Utility Proposal Development Intern to assist with preparing proposals for the development of Utility-Scale Solar Power Plants.

This intern will be a Master's student, or Bachelor's with minimally Junior status. Coursework in Land Development and Policy preferred, Energy Policy and/or Technology useful. Proposal writing and/or GIS experience a plus.

This position will be based at SunPower's Systems unit at the newly-rehabilitated historical Ford Assembly Plant near Point Richmond, CA. The facility is assessable by the waterfront Bay Trail and by BART via a free shuttle.

Please send resume to [pli@sunpowercorp.com](mailto:pli@sunpowercorp.com).

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## **12. Communications Administrator, SunPower Corporation, Richmond**

SunPower Corporation, Richmond, CA

The Communications Admin will provide direct administrative support to the training and marketing teams. The position will help produce, edit, and distribute marketing and training materials across a variety of mediums, including print, video, and the web. This position will also be responsible for the information management of the marketing and training functions.

- \* Highly organized with excellent administrative and interpersonal skills
- \* Basic to intermediate skills with video and photo editing software, including but not limited to the Adobe suite, the Macromedia suite, or Apple iLife programs

- \* Proficiency with Mac OS X
- \* Intermediate PowerPoint skills
- \* Basic to intermediate knowledge of information/database management
- \* Working knowledge of other Microsoft Office programs
- \* Comfortable taking direction from more than one person - able to prioritize competing tasks and effectively communicate prioritization decisions

EDUCATION and EXPERIENCE

- \* At least two years in a similar role in marketing preferred
- \* Bachelor's degree preferred but not required

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**13. Program Manager, Technology Assessment (4 positions), PG&E, SF**

Are you impatient to work on energy initiatives that will make a real impact? Try turning your impatience into action at PG&E. We’re working hard on initiatives like zero energy homes that will radically change California’s energy future. But we can’t get there without people like you: energy experts who bring the ideas, skills, and passion needed to make it happen now. Explore this key position on PG&E’s Emerging Technologies team — the epicenter of PG&E’s search for the new energy systems, practices, and concepts needed to transform energy use.

Program Manager / Sr. Program Manager, Technology Assessment (4 positions)

Provide PG&E a clear understanding of the energy savings and performance of new technologies by conducting evaluations and overseeing the management and contracting of assessments. A key part of your job is prioritizing projects to align with goals and fostering integration of projects into larger pilots. You’ll also coordinate with other PG&E groups to encourage the rapid market penetration of the most promising options.

Other responsibilities include tracking and managing your budget; arranging for data collection, tracking, recording, and reporting; and collaborating to fulfill all external and internal reporting requirements. We’ll also look to you to represent PG&E in regulatory forums, workshops, and proceedings related to ET Technology Assessments.

- \* BS/MS in Mechanical or Electrical Engineering
- \* Technical expertise in one of these fields: HVAC, industrial processes, gas technologies, lighting, electronics, or zero net energy homes/buildings
- \* Strong contracting and project management skills
- \* Excellent interpersonal and communication skills
- \* Regulatory and testimony experience

For more information, please contact: Lee Cooper, lcooper@yahoo.com  
Lee C. Cooper  
Team Lead, Emerging Technologies  
Customer Energy Efficiency  
Pacific Gas and Electric Company  
245 Market Street  
San Francisco, CA 94105

(Several summer internships are also available at PG&E)

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#### **14. Senior International Fellow Pew Center on Global Climate Change, Arlington, VA**

The Pew Center on Global Climate Change seeks a highly qualified and committed individual to work with the International team on policy analysis and outreach.  
Starting Date: July

- Research and analyze international climate policy issues
- Monitor international and national (outside the U.S.) climate policy developments
- Establish and maintain relations with representatives of governments, institutions, and stakeholders engaged in international climate policy
- Work on oversight and editing of Pew Center reports
- Coordinate planning and logistics for workshops, briefings, and other events
- Conduct outreach at international climate negotiations and other meetings and conferences
- Assist with administrative tasks as needed

Qualifications:

- Advanced degree in environmental policy, international relations, energy/resources or related field
- Strong analytical, quantitative, writing, and editing skills
- Interdisciplinary understanding of the climate change issue (technology, politics, economics)
- Background in international climate negotiations and policy
- Expertise on energy and climate policy in China and other developing countries a strong plus

- Attention to detail
- Willingness to pitch in at all levels
- Willingness to travel
- English fluency; other languages a strong plus

Application Deadline: June 6

For more information about the Pew Center visit [www.pewclimate.org](http://www.pewclimate.org).

Send resume and cover letter to:  
Human Resources Office  
Attn: Senior International Fellow  
Pew Center on Global Climate Change  
2101 Wilson Boulevard, Suite 550  
Arlington, VA 22201  
Fax: 703-8141-1422  
Email: [hr@pewclimate.org](mailto:hr@pewclimate.org)

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## **15. New Energy Finance: 2-3 summer interns in clean energy analysis, Palo Alto**

The right candidate welcomes the prospect of learning how a wind power project gets financed, how a solar company lists its shares on a public stock exchange, how a cellulosic ethanol firm raises venture capital financing or the potential for an energy efficiency technology to reduce electricity demand. At the same time, NEF internships are an excellent way to gain exposure to the real-time geopolitics of clean energy and all new and maturing technologies.

Candidates should possess the independence, creativity, and self-motivation required to thrive in a start-up environment. The NEF corporate culture reflects the exciting industry it covers: young, entrepreneurial, highly ambitious, but always professional. Finally, interns should have a sense of humor and be outgoing, prepared to work in a dynamic office and ready to take on new responsibilities.

Openings: Interns for Research on Global Clean Energy

Interns will have tangible projects to work on and complete by the end of the internship. Projects will involve data and information collection, analysis, report writing and surveying. Interns may also be involved in in-depth sectoral analyses of particular emergent trends in clean energy, or of particular geographical markets.

See end of description for examples of current projects.

Duration: Summer 2008 for a minimum of 8 weeks, full-time. Start date flexible.

Location: Palo Alto

Pay: Modest Summer Stipend

Requirements:

We are looking for students with strength in one of the following core areas - finance, clean energy science and environmental policy - with interest in building content and skill set in all three areas. Ideally, candidates will have:

- \* Background in business, finance, economics, environmental policy, or sciences
- \* Awareness and interest of the energy sector, climate change policy and market principles
- \* Comfort in using Excel and other MS Office applications
- \* Attention to detail
- \* Excellent written and spoken English. Interns will be using databases, financial statements, in-person and telephone interviews.

Contact: Interested candidates should send a cover letter with preferred sector, a short (less than 5pp) writing sample relevant to finance or energy, and a Resume to:

New Energy Finance (NEF) is a London-based financial information provider serving venture capitalists, Wall Street investors, financial analysts, entrepreneurs and others operating in the burgeoning clean energy industry. It has global reach, with headquarters in the UK and offices in New York, Washington, Palo Alto, Sao Paulo, Beijing, Perth, New Delhi, Hyderabad, Tel Aviv, and Cape Town.

NEF tracks investment in the global clean energy, energy efficiency and carbon trading sectors. NEF offers a number of services, from a weekly newsletter and an online news and data service, through to higher level research and bespoke consulting services. The Desktop, NEF's core data product, can be viewed at [www.newenergymatters.com](http://www.newenergymatters.com)

Jacqueline R. Crespo  
Head, VC & Technology Practice  
New Energy Finance Limited  
tel: +1 650 321 7338  
e-mail: [jackie.crespo@newenergyfinance.com](mailto:jackie.crespo@newenergyfinance.com)  
Web: <http://www.newenergyfinance.com/>

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## **16. KEMA Summer energy efficiency openings,**

An Oakland energy consulting firm seeks talented and flexible individuals to help us with ongoing energy efficiency research projects. These individuals will be conducting field-work in various capacities and locations throughout California. The position involves some work during evenings and weekends and candidates must be comfortable working in Microsoft Excel, at least 18 years old, willing to travel in California, and possess a valid driver's license and cell phone. Other desirable qualifications are:

- o Fluency in Spanish, Mandarin or Cantonese
- o Engineering or construction experience
- o An interest in energy efficiency

We are looking for candidates who have excellent communication skills and are outgoing and dependable. Pay is \$20 per hour and also includes reimbursement for all travel expenses. Work is on an as-needed basis and up-to full time through the summer. Please send resume to Doug Norris at [doug.norris@us.kema.com](mailto:doug.norris@us.kema.com).

Alissa K. Johnson  
Senior Engineer | KEMA Inc.  
492 Ninth Street, Suite 220 | Oakland | CA | 94607 | USA  
Tel + 1 510.891.0446 | Fax +1 510.891.0440  
[alissa.johnson@kema.com](mailto:alissa.johnson@kema.com) | [www.kema.com](http://www.kema.com)

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## **17. Electricity Markets Expert position at the International Energy Agency (IEA) in Paris**

Closing date is June 5th.

The International Energy Agency (IEA) of the OECD, an international organisation based in Paris, is looking for an Electricity Markets Expert. Under the supervision of the Head of the Energy Diversification Division and as one of the Agency's two key experts on electricity, the person will monitor and analyse developments in electricity markets and industry, carry out studies on the development of electricity industry and markets and take forward electricity policy issues.

Full position posting:

[http://erecruit1.oecd.org/psc/ERECRUIT/EMPLOYEE/HRMS/c/HRS\\_HRAM.HRS\\_CE.GBL](http://erecruit1.oecd.org/psc/ERECRUIT/EMPLOYEE/HRMS/c/HRS_HRAM.HRS_CE.GBL)

"Jolanka Fisher" <jolankafisher@gmail.com>

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## **18. BRANZ, Senior Scientist, Building Performance, New Zealand**

BRANZ, the leading provider of building technology expertise to the New Zealand building industry requires a Scientist or Senior Scientist in Wellington, New Zealand. The position is within the Building Performance team carrying out research, consultancy and testing within the ventilation, indoor environment quality and moisture management area. Their major role will be to assist a research team, led by two Principal Scientists, investigating residential ventilation processes and link this research with the research needs of government and commercial clients in the ventilation and indoor air quality area.

### Key Responsibilities

- Contribute to research into multi-zone ventilation models investigating significance of airtightness trends and ventilation options in terms of energy efficiency goals and the need to manage moisture
- Research on aspects of buildings involving the physics of heat, air and moisture and gain understanding of the range of ventilation options available internationally for residential buildings and the criteria on which they are specified
- Contribute to the development of updating relevant New Zealand Building Code clauses and assistance with review of IAQ/ventilation standards, as necessary
- Contribute to our Indoor Environment Modelling Programme to develop an indoor environmental model for testing products.

### Experience

- Honours degree or higher in physical science or engineering, with a strong physics background
- Background in both passive and mechanical ventilation in buildings would be a distinct advantage
- Excellent oral, written and interpersonal communication skills
- Ability to work with a range of clients wanting applied research and information for commercial and policy requirements
- Work with minimal supervision in a team environment and lead small research and consultancy teams.

A remuneration package commensurate with experience and qualifications will be offered. Reasonable relocation expenses will be paid. BRANZ is an equal opportunity employer.

For a full job description, please contact Helen Mallon [helenmallon@branz.co.nz](mailto:helenmallon@branz.co.nz)  
For more information on BRANZ, see our website <http://www.branz.co.nz>.  
Applications and full curriculum vitae please send by email to  
[helenmallon@branz.co.nz](mailto:helenmallon@branz.co.nz)

The closing date for applications is Friday 23 May 2008.

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## **19. Sustainable Engineering Group, energy engineer, Madison, WI**

Sustainable Engineering Group (SEG) is seeking an experienced Energy Engineer in the Madison, WI location. Candidate must have relevant work experience in improving energy performance (e.g. HVAC, sustainable design, and geothermal) in commercial buildings.

Key responsibilities include:

1. Work with architects, engineers, contractors and stakeholders to provide energy efficiency and sustainable design services to the commercial building sector by identifying opportunities for energy savings and demand reduction;
2. Perform energy simulations using tools such as DOE2 (eQuest, Visual DOE, etc), Trane Trace, TRNSYS etc;
3. Perform on-site energy audits and installation reviews; and
4. Evaluate energy conservation measures and assist in the implementation of energy conservation measures that involve HVAC equipment such as pumps, fans, boilers, chillers, solar collectors, the control and integration of such equipment, as well as lighting and the building envelope.

### Requirements/Qualifications

- A minimum of a Mechanical Engineering bachelor degree (or equivalent) required, a graduate degree is preferred.
- A minimum of five years of relevant energy engineering/HVAC experience.
- PE and/or CEM certification is preferred.
- Good technical writing and excellent communication skills.

- Highly motivated to learn more about sustainable practices and is passionate about sustainability and energy efficiency.
- Some travel required.

Sustainable Engineering Group (SEG) is committed to investing in the professional development and growth of its employees. We offer a working environment that values work/life balance, competitive salaries and excellent benefits package. SEG's mission is to improve building performance and occupant comfort while reducing resource consumption and environmental degradation. Located in Madison WI, SEG is a team of licensed engineers, lead by two principals with extensive experience in helping building owners optimize their buildings. Project experience spans across the nation and in diverse industries including research laboratories, healthcare, education, and office buildings.

SEG is an equal opportunity employer. Email inquiries to: [csinmorner@sustaineng.com](mailto:csinmorner@sustaineng.com)  
 Visit our website at [www.sustaineng.com](http://www.sustaineng.com).

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## 20. Victoria University, NZ, scholarships in zero-C buildings

REFERENCE: <http://www.Victoria.ac.nz/home/admisenrol/payments/scholarships/stratresschol.aspx>

Just wanting to make sure people who might be interested are aware of the offer of this scholarship at Victoria University in 'Wellywood: <http://www.stuff.co.nz/dominionpost/blogs/arts/2008/04/07/justice-league-and-wellywoods-works-in-progress/>'

"The research topics covered by the scholarships represent established or emerging topic areas with strategic importance to Victoria University. Applicants are expected to have the equivalent of a New Zealand first class honours degree and skills and research experience appropriate for the topic." [Honours degree = 4 year undergrad with final year comprising approximately 25% research topic, normally in a field related to the PhD topic; Masters = further 12-18 months of full time study on a single thesis research project]

Each year up to twelve scholarships can be awarded, each valued at \$20,000 per annum for three years plus tuition fees. [Tax free as I recall - US\$15800 approximately]

Research contact details:

Dr Brenda Vale  
 School of Architecture  
 Victoria University of Wellington  
 PO Box 600, Wellington  
 New Zealand  
 Telephone: +64 4 463 6275

Email: [brenda.vale@vuw.ac.nz](mailto:brenda.vale@vuw.ac.nz)

General Description:

In all developed countries, the pressing architectural problem of our time as we try to reduce our carbon dioxide production by 90% is not the design of new buildings, but the refurbishment of our existing stock.

Can existing buildings, both commercial and residential, be modified to deliver at least 90% reductions in carbon emissions, and can this be done for less than the cost of demolition and rebuilding? What techniques are likely to be the most effective, to offer the lowest cost and the greatest reliability, while being the least disruptive to the on-going use of the buildings?

Today's buildings will comprise half of the total building stock of 2030. While we have some knowledge of how to make new buildings 'zero emissions', or even net producers of energy, we must devise techniques for converting and upgrading existing buildings in order to achieve a low-carbon future.

The deadline for applications is 15 May 2008. Application forms are available from [www.victoria.ac.nz/scholarships](http://www.victoria.ac.nz/scholarships)

Further information is available from the contact below.

Application contact:

Scholarships Office

Victoria University of Wellington

PO Box 600, Wellington

New Zealand

Telephone: +64-4-463 7493

Email: [philippa.hay@vuw.ac.nz](mailto:philippa.hay@vuw.ac.nz)

Michael Donn

Director Centre for Building Performance Research

School of Architecture

Victoria University +64 4 463 6221 work

PO Box 600 +64 21 611 280 mobile

Wellington +64 4 463 6204 work fax

New Zealand +64 21 611 594 mobilefax

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## 21. Low-Carbon Energy System Modeling Summer Interns - Sandia

Sandia National Laboratories: <http://www.sandia.gov/>

Department - Energy & Infrastructure Future

Job Description:

We are looking for chemical or mechanical graduate or undergraduate engineering

students with backgrounds in chemical engineering process simulation, heat transfer, thermodynamics, stationary or mobile power plant design, and/or energy conversion device design. Ideal candidates have

- knowledge of chemical engineering process simulation software, such as Chemcad and/or ASPEN,
- knowledge of fuel cell systems, and/or
- knowledge of stationary cogenerative power plant design.

Some knowledge of economics and optimization is also helpful.

The core body of this work is in developing models of stationary cogenerative fuel cell systems and related energy conversion or storage devices. These energy device models will be connected to each other to simulate a distributed energy grid composed of many such devices. This macro-distributed grid model will be tested against electricity and thermal demands in buildings. The design of these energy devices, their installed capacity, and their installation design and control will be optimized in the context of energy demands.

Successful candidates will help evaluate avant-garde designs of cogeneration stationary fuel cell power plants, and building energy demands. Assessment criteria for these energy systems and supply chains will include 1) their impact on the environment including a) greenhouse gas emissions, b) criteria air pollutants, c) solid waste production, d) human health and e) energy efficiency; 2) their implications for national security including a) the security of the fuel and energy supplied, b) the diversity of the fuel supply, and c) the dependence of foreign oil; and 3) their costs to consumers, governments, and incumbent energy suppliers.

Required / Desired Criteria:

Required General Student Internship Program (SIP) Criteria:

Must be at least 16 years of age

Must have full-time enrollment status at a college or university

Must have a minimum cumulative GPA of 3.2/4.0 (or 4.0/5.0)

Must be a U.S. citizen

Graduate or undergraduate student status

Knowledge of chemical engineering process simulation software (Chemcad and/or ASPEN)

Desired Criteria:

We are also looking for chemical or mechanical engineers with backgrounds in chemical engineering process simulation, heat transfer, thermodynamics, stationary or mobile power plant design, and/or energy conversion device design. Ideal

candidates have

- Knowledge of chemical engineering process simulation software, such as Chemcad and/or ASPEN.
- Knowledge of fuel cell systems.
- Knowledge of stationary cogenerative power plant design.

Some knowledge of economics and optimization is also helpful.

We are looking for both undergraduate and graduate students.

To Apply:

- Please feel free to contact Dr. Whitney Colella directly ([wgcolel@sandia.gov](mailto:wgcolel@sandia.gov) or [phone \(505\) 844-8534](tel:5058448534)).

Whitney Colella , PhD, MBA  
Truman Research Fellow  
Sandia National Laboratories  
MS 0734, PO Box 5800, Albuquerque, New Mexico, 87185  
Phone: (505) 844-8534; Voice Mail (only): (925) 294-2612  
Fax: (505) 844-7786; Email: [wgcolel@sandia.gov](mailto:wgcolel@sandia.gov)

- To learn more about the summer intern programs at Sandia, please check

Graduate Summer Internships: <http://tinyurl.com/5km54o>

Undergraduate Summer Internships: <http://tinyurl.com/4o2c7v>: [Energy & Infrastructure Future](#)

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## **22. Program Manager GRID Alternatives**

Founded during the 2001 California energy crisis, GRID Alternatives' ([www.gridalternatives.org](http://www.gridalternatives.org)) mission is to empower communities in need by providing renewable energy and energy efficiency services, equipment, and training. GRID Alternatives provides these services exclusively to low-income households earning less than 80% of area median income, including families, seniors, and persons with disabilities. Our programs seek to enhance long-term housing affordability for

low-income households by permanently reducing their energy costs, and to expand economic opportunity by providing skills and training in the growing field of solar electricity.

We are currently assembling a proposal to administer the California Public Utilities Commission's California Solar Initiative (CSI) Single-Family Low-Income Program, a landmark program to provide significantly subsidized solar electric systems to low-income homeowners throughout the state of CA. GRID Alternatives is in a strong competitive position and we are looking to provisionally hire a full time Program Manager in anticipation of being awarded this contract. The resume for the selected candidate will be used in GRID Alternatives' proposal and their employment at GRID Alternatives will be contingent upon GRID Alternatives being awarded the role of Program Manager of the CPUC's CSI Single-Family Low-Income Program. For this reason, the person offered the position would not need to leave their current positions unless and until we have secured this contract. There will be short term potential for a candidate to obtain a consulting position with GRID Alternatives to be in on the ground floor, participating in program design and putting together the proposal. Interested candidates must have significant experience managing large multi-million dollar government and/or utility contracts in a related field. This is an exciting position for someone interested in being part of a high growth non-profit organization at a critical juncture in its growth. We are looking for someone who is independent, driven, and whip smart; can figure out what to do without being told to do so; and has a personality that easily builds relationships with government, utilities, subcontractors, partners, and staff. All this and you must be able to join a non-profit organizational culture that values above all else the low-income communities we server and is continually challenging ourselves to make sure we do right by our clients.

This is an office position at GRID Alternatives' Oakland Office - within walking distance of BART.

ASAP - Applications will be reviewed and interviews scheduled on first-come basis. Hope to fill position immediately with future start date to be determined pending results of RFP process. Anticipated start date August 2008

To Apply

Submit resume and cover letter via email to [jobs@gridalternatives.org](mailto:jobs@gridalternatives.org)  
Please include CPUC Program Manager in the subject line.

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### **23. Energy Efficiency Software Architect, Energy Solutions**

Energy Efficiency Software Architect  
Job Announcement  
Posted: May 14, 2008

California is a national and world leader in energy efficiency and renewable energy, tapping the power of the market to address global warming and sustainability issues. Energy Solutions is a fast paced and innovative consulting firm, specializing in energy efficiency program design, implementation, and marketing; and also working on alternative energy, emerging technologies, and water conservation projects. We are currently seeking to fill an Energy Efficiency Software Architect position. Our offices are located in downtown Oakland, California.

As a member of the Energy Solutions team, you will experience all of the benefits of working for a medium sized company: opportunities to manage projects, close working relationships with colleagues, an active role in shaping company direction and your own future, and flexibility in work schedules. At the same time, you will have a broad impact on energy efficiency markets through our work for major California utilities, the California Public Utilities Commission, and other national leaders in energy efficiency. This unique blend creates a perfect environment for individuals who want to have an active voice in shaping the future of energy efficiency in California and beyond.

As an Energy Efficiency Software Architect at Energy Solutions, you will design and maintain software solutions in support of Energy Efficiency and Green Technology programs in California and throughout the United States. Some current projects at Energy Solutions include the California Solar Initiative, Statewide Energy Efficiency HVAC, Motors, and Lighting technologies rebate programs, Green Business Certification programs, and many other significant programs in the Green, Renewable, and Energy Technology Areas. You will work directly with Information Architects and Business Analysts to translate business requirements into software system design and architecture and develop data and object models. You will work closely with and manage a sub-team of software engineers to develop technical architecture specifications and implement the system design. At the completion of software development, you will manage the Quality Assurance process and contribute to system rollout and user training. You will assist in and help manage network center and data and web server operations at Energy Solutions hosted data center.

Experience or familiarity with software development, developer tools, and

technologies a requirement. Some particular examples include but not limited to:

- \* Open source software in general
- \* Network Operations: Unix Web and Data Server administration, network configuration, high availability/high performance architectures
- \* SQL databases: Postgres, MySQL
- \* Programming Languages and Frameworks: Python, Django
- \* Web Application Development: dHTML, CSS, JavaScript, XSL, DOM, XML, Apache, Linux Server Administration, Shell Scripting
- \* Developer Tools: Subversion, Issue Tracking Systems, Wikis

Energy Solutions expects employees to manage project tasks with minimal oversight. Candidates should possess a degree in computer science, engineering, or similar technical major. One to three years work experience in designing, developing and enhancing software or web-based applications is required. Energy-related professional experience (or at least interest) and consulting experience are a positive, but not required. Strong technical document writing and client management skills are required. Experience in Software and Information Architecture is desired. Candidates will be asked to provide technical writing samples and Information Architecture or Technical Specifications if available.

Salaries are competitive and commensurate with experience. Energy Solutions offers medical and dental insurance benefits and an excellent retirement package. Please email cover letter with start date availability and your resume to Luther Kopf at lkopf@energy-solution.com. For more information about Energy Solutions, please visit us on our website at [www.energy-solution.com](http://www.energy-solution.com).

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## **24. Green Building Conference and Expo Intern Needed**

West Coast Green - the nation's largest and most innovative residential green building conference has an immediate opening for an intern interested in assisting with the development of the conference's educational curriculum and events. This year's conference will be held September 25-27th in San Jose, CA.

This position is an opportunity to learn and grow in a work environment that is filled with exceptional people and a commitment to growing as a learning

organization. We seek someone who loves to contribute, collaborate, and create contagious positive change

Our ideal intern will have excellent written, technical, and interpersonal skills. Additionally, we are looking for someone with a fabulous sense of humor and work ethic!

If you are a self-starter, a creative thinker, have good computer skills and the ability to track a large number of details in a fast paced environment, then interning at West Coast Green will be a fun, gratifying and incredible learning experience for you.

Interns are paid a minimum hourly wage and work approximately 15-30 hours a week. This position is for a minimum length of five months and is open immediately.

If you are interested please send your resume and cover letter to:  
genevieve@westcoastgreen.com

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## **25. Climate Action Coordinator: The Ecology Center, Berkeley**

The Climate Action Coordinator will expand the Ecology Center's climate change educational activities and integrate our existing programs with other carbon-reduction projects, such as the City of Berkeley's Measure G efforts and the UC Climate Action Plan.

The Ecology Center: For nearly 40 years, the Ecology Center has been helping residents, agencies, organizations, and businesses reduce their environmental impacts. The Ecology Center provides information, products, and direct services through our Berkeley Residential Curbside Recycling Program, three Berkeley Farmers' Markets, Farm Fresh Choice food justice program, Terrain Magazine, Ecology Center Store and Information Services, and our EcoHouse demonstration site.

This position is 20 hours per week, and includes benefits.

To Apply: Email resume and cover letter to Beck Cowles:  
beck@ecologycenter.org. Please put the position's title in the subject line.

Accepting applications until May 23. Position open until filled. No calls or walk-ins. The Ecology Center is a multicultural work environment, and

diversity is a core value.

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## 26. Energy Analyst, Kirksey

Kirksey is seeking a new or recent college graduate with up to two years work experience for an entry-level Energy Analyst position with our EcoServices team. We seek a person with a passion for green building and sustainability. The position includes energy modeling, daylight modeling, other types of building simulation, and green building research. The ideal candidate will be articulate and highly organized with strong technical, communications and writing skills. Candidates must be able to read detailed architectural and mechanical drawings and specifications, and understand building industry terms, though they need not be architecture graduates. Candidates with school or work projects reflecting knowledge of green building and/or LEED are strongly preferred. LEED Accreditation is strongly preferred. Education and/or work experience related to mechanical engineering is also a plus.

### Responsibilities:

- Study and thoroughly learn the LEED green building rating systems.
- Perform energy modeling for LEED projects.
- Perform daylight modeling for LEED projects.
- Conduct research on green building materials and methods as required.
  
- Bachelors or graduate degree
  
- Ability to pick up new skills quickly
  
- Solid organizational skills
  
- Web/Computer savvy: MS Office (Word, Excel, Powerpoint), Energy and Daylight modeling software (such as eQUEST or EnergyPlus) Adobe Acrobat, Internet. Photoshop or other graphics programs a plus.

Please send resumes and a cover letter to Julie Hendricks at [julieh@kirksey.com](mailto:julieh@kirksey.com) .

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-----Inline Attachment Follows-----

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energyfolks mailing list

[energyfolks@lists.stanford.edu](mailto:energyfolks@lists.stanford.edu)

<https://mailman.stanford.edu/mailman/listinfo/energyfolks>