



Green Jobs

Posted by [Robert Rapier](#) on March 22, 2008 - 10:00am

Topic: [Environment/Sustainability](#)

Tags: [accsys technologies](#), [choren](#), [google](#), [ls9](#), [renewable diesel](#), [vinod khosla](#) [[list all tags](#)]

What Matters

Like many of you, I want to "make a difference." I have felt this way as long as I can remember. After my first child was born, it became almost an obsession to make a better future for the generations that follow. When I see children enduring hardship, I internalize that by imagining my own children in that situation (this is why I avoid the news, as well as any discussions of "Die-Off"). Sometimes I wish I didn't feel this way as it is often depressing, but this is the way my brain is wired. I strongly feel that we are making choices today that are setting up future generations for just the kind of hardship that troubles me. This, above all else, is what motivates me. And while I may fail to make a difference, I am compelled to try.

A big concern for me is that quality of life for a large segment of the world's population - never good to begin with - is poised for further deterioration as fossil fuel supplies deplete. Quality of life to me starts with the basics: People have enough food and clean water, they have shelter, they live and work in safe conditions, and they have adequate access to affordable energy. At various stages of my life I have had involvement in projects in all of these areas, but most of my career has been focused on the energy portion - both in providing adequate supplies, and in urging conservation efforts to stretch our supplies.

The affordable energy piece is becoming more challenging, and we need more people working on this issue. Conservation must continue to be central to the solution, but we will still need a variety of energy options. As I transition into my new "green" job, I intend to step up my efforts on the sustainable energy front. There are a number of ways I can do this. First, my new job directly impacts on this. The technology we are engaged in - described briefly in the final section - promises significant environmental and sustainability benefits. But that isn't the sole contribution I can make. I can also help bring promising sustainable technologies together with highly-motivated and talented people to enhance the odds of success. Up to this point I have done this by calling attention to technologies that I felt were promising, as well as by providing technical advice for some projects on an *ad hoc* basis.

With this essay, I am attempting to marry talent/passion with need by publicizing vacancies for some specific "green jobs." I have had a series of conversations over the past year or so with [Choren](#), a renewable diesel company that is now looking to scale up. [Google](#) contacted me last week to inform me of some of their vacancies in their new renewable energy efforts. Vinod Khosla has informed me several times that many of the companies he is involved with are looking for talent. And my new company is recruiting as well. I don't think these jobs will be competing for exactly the same talent pool, because the job locations are geographically diverse. So, if you are

looking for a green future and decent job stability ([a recent story from Yahoo](#) identified jobs in the energy and environmental sectors as "recession proof") – here are some opportunities of which I am currently aware.

Choren

I have had a series of discussions over the past year or so with some of the Choren staff, including the president of Choren USA, Dr. David Henson. During the course of these discussions, I formed the opinion that Choren is ideally positioned for long term success in the renewable energy sphere. I think they are focusing on the right technology (biomass-to-liquids) for sustainable liquid fuel production, and they are on the leading edge of that technology. Dr. Henson will be hosting me at Choren's new BTL plant in Germany in a month or so, and hope to make a report on the visit.

Their opportunities are described from their website as follows:

For the expansion to "world"-scale 600 MWth "Sigma" production facilities and the exploration of additional applications of CHOREN's technologies we are now seeking highly motivated engineering specialists in the areas of Mechanical Engineering, Process/Chemical Engineering and Energy Technology, preferably with long or short-term experience in any of the fields of gasification, Fischer Tropsch Fuel Synthesis and/or in the Petrochemical Industry.

Choren is looking to fill the following positions in Houston:

Project Manager CHOREN USA, [Job Description](#)

Senior Process Engineer CHOREN USA, [Job Description](#)

Process Engineer CHOREN USA, [Job Description](#)

You can learn more information about the job opportunities at Choren by visiting their [Employment Opportunities USA](#) page.

Google

I have admired Google for a long time. They seem genuinely motivated by a desire to help humanity. You may also be aware that they have topped [CNN Money's list of 100 Best Companies to Work For](#) for the second year in a row.

Recently, they announced their intent to [help power a clean energy revolution](#). I was aware of, and supportive of their efforts, and in a different time and place I might jump at the opportunity to work for them. Recently, they contacted me about just that, and I replied that while the timing is not right for me, I would help them publicize their vacancies.

Here is a short description of their vision, and what they are looking for:

Our thinking is that business as usual will not deliver low-cost, clean energy fast enough to avoid potentially catastrophic climate change. We need a clean energy revolution that

will deliver breakthrough technologies priced lower than carbon-intensive alternatives such as coal. Google is launching an R&D group to develop electricity from renewable energy sources at a cost less than coal.

We are looking for extraordinarily creative, motivated and talented engineers with significant experience in developing complex engineering designs to join our newly-created renewable energy group. This group is tasked with developing the most cost-effective and scalable forms of renewable energy generation, and these people will play a key role in developing new technologies and systems.

...if you know other outstanding engineers who may be interested, I encourage you to pass along this information as we are hiring for multiple positions. If you prefer that I reach out to them directly, I am more than happy to do so.

Their [specific job opportunities](#) at the moment, mostly at their Mountain View, California site:

[Renewable Energy Engineer](#)
[Head of Renewable Energy Engineering](#)
[Director, Green Business Strategy & Operations](#)
[Director of Other](#)
[Investments Manager, Renewable Energy](#)

They are also asking for people with the following experience:

If you have relevant expertise in other areas beyond these specific positions, please send an email with your resume to energy@google.com. Areas of interest include, but are not limited to:

- regulatory issues
- land acquisition and management
- construction
- energy project development
- mechanical and electrical engineering
- thermodynamics and control systems
- physics and chemistry
- materials science

Khosla Ventures

Vinod Khosla has built quite a renewable energy portfolio. See [this PowerPoint presentation](#) for his complete (or at least what's public) renewable portfolio. Opportunities range from corn ethanol (which I don't recommend) to cellulosic ethanol (some promising opportunities there) to advanced biofuels, electrical power, and even water desalinization. There are far too many companies to give details on all of the job vacancies, so I will just pick out one of the most interesting (to me), [LS9](#). They describe themselves as the Renewable Petroleum Company™, and have this description on their website:

LS9 DesignerBiofuels™ products are customized to closely resemble petroleum fuels, engineered to be clean, renewable, domestically produced, and cost competitive with crude oil.

LS9 is the market leader for hydrocarbon biofuels and is rapidly commercializing and scaling up DesignerBiofuels™ products to meet market demands, including construction of a pilot facility leading to commercial availability. While initially focusing on fuels, LS9 will also develop sustainable industrial chemicals for specialty applications.

They are [looking for the following](#) for their South San Francisco location:

Current openings at LS9 are listed below. Please submit your resume stating qualifications and relevant experience to hr@ls9.com and include the job title in the subject line. We look forward to hearing from you.

Bioprocess/Engineering

[Director, Bioprocess Development](#)
[Scientist, Fermentation](#)
[Scientist, Fermentation](#)
[Associate Scientist, Fermentation](#)
[Research Associate/Senior Research Associate, Fermentation](#)
[Downstream Recovery Scientist](#)

Chemistry/Biochemistry

[Biochemist / Bio-organic Chemist Scientist](#)
[Research Associate/Senior Research Associate, Biochemistry](#)

Instrumentation

[Automation Laboratory Specialist](#)

Metabolic Engineering

[Scientist, Metabolic Engineering](#)
[Associate Scientist, Microbiology](#)
[Senior Research Associate, Microbiology](#)

Corporate Development

[Corporate Planning Analyst](#)

What LS9 is attempting is Holy Grail stuff, but what they are trying to do should be technically feasible. However, it won't be easy and it's going to take some very talented people.

Don't forget that this is only one of the Khosla Ventures' companies. There are numerous job opportunities there if you dig a little.

Accsys Technologies

As I have mentioned previously, I left the oil industry on March 1, 2008 to become the [Engineering Director](#) (note the TOD plug in my profile) for [Accsys Technologies](#). While we are not producing energy as was the case with the previous companies I described, we are saving energy, sequestering carbon emissions, and attacking the problem of rainforest destruction. Here is a brief summary of [what appealed to me](#) about the company and my desire to make a difference:

Growing concerns about the **destruction of tropical rainforests**, a declining world stock of high quality timber and increasingly restrictive government regulations regarding the use of **wood treated using toxic chemicals** have created an exceptional market opportunity for the Company. Accsys believes that its technology will transform the use of wood in existing applications where durability and dimensional stability are valued, both halting the decline in the use of wood in outdoor applications and **substituting plastics and metals**.

Wood acetylation is a process which increases the amount of 'acetyl' molecules in wood, thereby changing its physical properties. The process **protects wood from rot** by making it "inedible" to most micro-organisms and insects, without - unlike conventional treatments - making it toxic.

I think you can see why that might appeal to me - this technology enables a sustainable replacement for tropical hardwoods, and can replace plastics and metals – which are energy intensive to produce - in some applications. What that means is that we have one of the best – if not the best – carbon sequestration technologies in existence. Carbon dioxide is pulled from the atmosphere as the (fast-growing) trees are developing, and then tied up for a much longer period of time because the durability of the wood has been greatly increased. Throw in the fact that you can use the wood for some applications currently dominated by metals (window frames, for instance), and you have sequestered even more CO₂, and avoided the CO₂ emissions from the producing the metals.

We are filling a wide variety of positions at our plant in Arnhem, in the Netherlands (where I am presently working) and in Dallas (where I will be based). If you are a citizen of an EU country, I believe you are eligible to work in the Netherlands. You can see the [current listing of jobs at our Titan Wood](#) site (Titan Wood is a [subsidiary of Accsys](#)).

We are also filling jobs in [our new Dallas office](#) that are global in nature. For Dallas we are looking for a Global Process Improvement Manager (reports to me), Global Procurement Manager (reports to CEO), and a Panel Products Manager (reports to Panel Products Director). These positions require travel (got to break a few eggs to make a cake) to places like the Netherlands, New Zealand, Chile, and China (where we are building a large facility in Nanjing). Required qualifications for these jobs include an engineering or chemistry degree, 7-10 years of relevant experience, and a preference for an MBA. Further, I want my Global Process Improvement Manager to share my passion for making the world a better place.

For now, you may send a cover letter and your resume or CV to JOBSUSA "at" accoya "dot" info (edited to slow the spambots) for positions in the U.S., or JOBSEurope "at" accoya "dot" info for positions in Europe. (Accoya® is what we call the wood we are producing). You may want to indicate that you are responding to this essay, and then the resume may be circulated to me.

Conclusion

While I am not going to get in the habit of using my writing as a platform for promoting my new company, it is directly topical to what I like to write about. I plan to do one post in the future about the technology, particularly on the potential for carbon sequestration. However, most of my posts will be as they have been in the past: Broad coverage of energy, sustainability, and environmental responsibility. I do plan to focus more on "problem solving", and this post was one aspect of that. It is an attempt to bring together talent and passion with a critical need, and it also will hopefully provide needed job stability in a fragile economy.

I am really interested in writing more about promising technologies, especially those that haven't received much attention, but I first have to figure out a way to manage this. I tend to get about 19 bad or unworkable ideas e-mailed to me for every 1 that shows promise. I can't afford the time at present to work my way through that sort of volume (and some of the proposals I see are very extensive), so I will continue to focus for now on those that are already on the radar.



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](http://creativecommons.org/licenses/by-sa/3.0/).