Energy

I think a lot about how important cheap, safe, and abundant energy is to our future. A lot of problems—economic, environmental, war, poverty, food and water availability, bad side effects of globalization, etc.—are deeply related to the energy problem.

I believe that if you could choose one single technological development to help the most people in the world, radically better energy generation is probably it. Throughout history, quality of life has gone up as the cost of energy has gone down.

The 20th century was the century of carbon-based energy. I am confident the 22nd century is going to be the century of atomic energy (i.e. terrestrial atomic generation and energy relatively directly from the sun's fusion). [1] I am unsure how the majority of the 21st century will be powered, but I'd like to help get things moving.

Although a lot of people are working on solar, I don't think enough people are working on terrestrial-based atomic energy, which has major advantages when it comes to cost, density, and predictability.

Given the potential importance, I'm making an exception to my normal policy of not joining YC boards for Helion Energy and UPower. Both of these companies went through YC about a year ago. Helion is working on fusion and UPower is working on fission; I've looked at many companies working on both and think these are the two best. I'll be the chairman of both companies and I'm also investing in the seed/A rounds for both companies. [2]

Both companies hope to have a test reactor operating in a few years, and

both companies are hiring. If you're interested in working on this, please get in touch.

[1] I'm unsure of is what the split between sun-generated (I'm just going to call it solar but I use it to include wind and biofuels) and terrestrial-generated will be. There will only be one cheapest source of energy, and history suggests whatever that is will be fairly dominant. So it will probably be 80/20 one way or the other.

[2] I will save my thoughts about traditional technology investors being afraid to touch expensive, long-term, high-risk high-reward projects for another time. A lot of people talk about the need to try new things that are hard but could have huge impact; it's important to not just talk about them but to act. I think it's easier for individual investors to do this than for venture funds, at least given how they are currently structured.

I don't think investors are doing nearly enough to fund atomic energy. With the exception of China, new fission development has effectively stopped and very few plants have been built in recent memory. Fission has been a remarkably safe and effective power source while generating 11% of the world's electricity—the first time I saw the data on the safety data of fission energy relative to other power sources, I thought there was an error.

On the fusion side, only about four US fusion companies have raised venture capital in the past few decades. The big government projects, like NIF and ITER, unfortunately have the feel of peacetime big government projects.