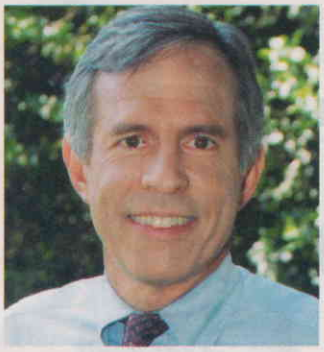

Best and the Brightest

A Tennessee congressman says with the energy crisis we face another Sputnik moment.

IT SOMETIMES SEEMS AS IF THE days of ambitious government science programs, like the Apollo space missions or the Manhattan Project, have ended. But Rep. Bart Gordon, a Democratic congressman from Tennessee and chair of the Science & Technology committee, believes the United States faces a new challenge in need of government support: finding the fuel of the future. He's proposed a new government entity, the Advanced Research Projects Agency-Energy, with the mandate to invest in revolutionary technologies. NEWSWEEK's Fareed Zakaria spoke with him about ARPA-E and why the private sector alone isn't up to the challenge. Excerpts:

ZAKARIA: You've talked about the need for "revolutionary breakthroughs, not just incremental change," to solve the energy crisis. What kind of breakthroughs are you talking about?

GORDON: We may not know [what they are] right now. Combining solar and nanotechnology could make [solar panels] easier to implement or easier to deploy. Energy storage, too, is a good example. Batteries are monumental in terms of the renewable industry: you're never going to be able to fully use renewables until batteries can store energy for times when the wind's not blowing and the sun's not shining. That's one example, but we often don't know what we're going to get from basic research. I think we could get an entirely new fuel.

And to make those advances, you've proposed a new government program.

ARPA-E is an advanced research agency that would be set up in the Department of Energy ... with a program director that will have the ability to go to the best and brightest of the country to pick out folks that can crash on different research areas.

There are people who are skeptical, who say this is something the market should do.

These are areas of basic research that we're not seeing the private sector move forward on. It's also a unique opportunity to bring together the public sector, the private sector, industry, the national labs, the universities. By doing that, not only do you make breakthroughs, but you already have this community involved, so they can take it to the next step, to the market.

But Silicon Valley is throwing money at this problem, is it not?

Not at the basic research level. You're seeing them by and large trying to take existing solar research, or whatever the technology might be, and make incremental improvements, not transformational ones. And the other thing that Silicon Valley and private investors can't do is they can't pull in the national labs, the universities. The government has that unique ability. This is what DARPA, an advanced research agency within the Department of Defense, has done.

We can't have incremental change. We need to make a major ... breakthrough.

Why do you think DARPA is a good model for energy research?

DARPA was where the Internet was developed—and when they developed the Internet, they didn't really know all its uses. But they developed this concept and with that basic research, it flourished. GPS was developed at DARPA—again, not knowing at the time how it would blossom and be used for so many commercial purposes.

The Abu Dhabi government has proposed a project similar to ARPA-E, hoping to make itself a hub for alternative-energy research. It has allocated $15 billion. Your allocation is $15 *million*. Are we taking this seriously enough?

Well, the $15 million is what you might call stopgap funding to get up and going. The authorization has a $300 million initial funding followed by $1 billion a year. We set that on the recommendation of experts that have seen these kinds of startups before.

You're a Democrat, so maybe this isn't a fair question, but which presidential candidate would better support alternative-energy research?

Well, they both have better plans than the current one. We win in that regard. Senator Obama seems to put the biggest emphasis on alternative-energy research, but I think Senator McCain also understands the need. Being from Arizona, he has seen firsthand the benefits of solar energy there. This legislation has bipartisan support, and because of that I think you're going to see it's acceptable to either candidate. This is not a partisan issue.

The European Union has much stronger requirements in terms of its use of alternative energy. Are we losing the race?

Currently we are. But I don't think we're so far behind we can't catch up. The next step is really an international collaboration. If you look at carbon capture and sequestration, it's going to be very expensive [to develop it]. If we pool our resources and our minds, then we can work together to make this breakthrough, which would benefit all of us. And then we need to make it available to China and India and other countries that are large coal users.

You've said we're on "the cusp of another Sputnik moment." Do you think the American government will respond the way it responded then, by making massive investments in science and technology?

I would like to see us do that. We're looking at a multibillion-dollar bailout [for financial firms], we're looking at a large national deficit—but I certainly think that we can invest $1 billion a year. A few years ago we gave tax incentives to the oil companies, back when the price of oil was $50 a barrel. Since the price has doubled, those incentives are no longer needed. We can take the approximately $20 billion over 10 years in tax breaks [for oil companies] and shift them into alternative-energy research. That way we're not adding to the deficit, but rather we're shifting the incentives.

What happens if we don't commit ourselves to finding new types of energy?

I helped write a bipartisan letter to the National Academies three years ago, asking them to do a report on the competitiveness of America in the 21st century. Their bottom line was that my 7-year-old daughter and her generation are going to inherit a national standard of living that's less than their parents unless we make some changes. Part of the reason for that is [the lack of] energy independence—this is a very important area and we can't have incremental change. We need to make a major, out-of-the-box breakthrough.

Submit your questions about energy to Fareed Zakaria at **xtra.Newsweek.com**

COURTESY OF CONGRESSMAN BART GORDON