InfrastructureUSA

Guest on THE INFRA BLOG

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It's All About Fossil Fuels

We are heavily reliant on fossil fuels right now for providing our basic energy needs and in fact almost all aspects of society are reliant on fossil fuels. Whether it's the roads that we drive on, or the food that we eat, the medicine we use, the clothes that we wear, a lot of that is either directly fed in by petrochemicals or is reliant upon them. So it's definitely something for the future; our view is that it's an inevitable future, in the sense that fossil fuels are finite resources and we are using massive amounts of them and they're depleting, so we're going to have to find another solution.

We built the world that we live in. The environment has been built around these fossil fuels. The cities that we live in, certainly suburbia, our transportation systems, where our food is produced and gets to us is heavily reliant on fossil fuels. It takes about eight and a half calories of fossil fuel energy for every one calorie of food that we consume. But people just look out their window, they can see the infrastructure that we built, everything from cement and concrete, and you know the buildings that we're in, the walls, all of that is really built on fossil fuel energy.

Energy Independence

I think there's been a recognition for decades now, that we really had started with the first oil crisis I think for us here in the United States, that we were vulnerable as a result of our dependence on fossil fuels. So that's a conversation that's been had. And in fact, if you look back at all the presidents all the way back to Nixon, there's been conversations about making us energy independent and transitioning our energy system. And in some ways we've not made a lot of progress. And that's in part because we built the world that we live in now over generations, around fossil fuel resources and it's a very difficult thing to transition away from. It's not something we can do overnight. So it's a massive undertaking. It's probably the biggest undertaking that we will have to go through. It's akin to the industrial revolution in the first place, in terms of the kind of transformation that has to take place, so that's not an easy task. And I think in terms of the denial, because it's not easy and because there are vested interests, they'll want to maintain kind of the world that we live in now for as long as possible. You know there's a lot of misinformation and misunderstanding. And energy is one of those things that people take for granted, you know. They flip a switch, they put the key in the ignition and everything is working. You know it's pretty remarkable actually how efficient and effective the energy system is, but because of that I think it's sort of out of sight, out of mind. And so people don't really understand where energy comes from, understand that

it's sort of the underpinnings of the entire economy, and then understand that we're dealing with some real issues of cheap, readily available supplies of energy.

The Time Is Now

I think a lot of the emphasis around education has been around new technologies. And there's been amazing advances in internet technologies, communications technologies in general, and so there's a lot of focus in that globalized type of economy. But we take for granted the infrastructure that has been built generations ago. In fact a lot of it—as you know better than I—is at risk because it hasn't been maintained and was built many, many decades ago. And it's not until those things start breaking down unfortunately, that people start paying attention to them. And that is one of our tasks: helping people understand that we have to be proactive about these issues. We are experiencing already I think, the shuddering shocks of the systems being brittle and breaking down in places, but it could go a lot worse. And what we need to do is be making investments now because they are very large investments, they are very time-consuming, they're labor intensive, they're energy intensive, they're capital intensive. Those things can't be transitioned overnight, so we've got to get cracking.

Better Energy Investments

There's a big debate that's happening now around the potential approval of a pipeline that would bring down oil from the tar sands up in Canada down to the Gulf. That is such a hot issue because even if that pipeline is not going to be providing a very significant amount of our daily oil needs, it's about the investment choices that we're making, investing in sort of the dirtiest, hardest to get to, least valuable sources of energy, which is what the tar sands represent. We need to be investing in the future of energy, which has to be renewable. We don't have a choice about that. We can kick the can down the road but the price is going to be much steeper if we do so. So that's a big focus for us, which is helping people to understand that we need to be making the right kinds of investments right now. I mean there are people who have been working on that.

However, there's I think a misperception right now that we are swimming in a new abundance of domestic fossil fuel resources in terms of shale gas, which we can get now through advanced drilling technology, and tight oil which is called shale oil at times. And there's a lot of talk about the fact that the United States can become effectively energy independent through these domestic resources. And we have a big choice here. We can be investing in those things and continue to be on this drilling frenzy that we've been on for the past decade or so, or we can say: 'you know, this is not a long-term solution for us. We need to be shifting these investments into things like wind and solar, and even more than anything else into efficiency,' which I think gets a lot into infrastructure, the built environment and other infrastructure issues.

Citizen Engagement

That debate that I was mentioning about the Keystone XL pipeline, that is in some ways an infrastructure issue, an infrastructure question; it's not the majority of Americans by

any stretch, but a surprisingly large number of Americans, are engaged in lots of protests, people getting arrested trying to blockade this thing. Which is not the thing that people should be rushing out to do, going to get arrested, but it does show that there is a need and there are opportunities for citizens to be engaged in these questions, in sort of our future infrastructure, our future energy choices on the national level. So I think it's for us the kind of thing that we try to promote from an infrastructure perspective, rethinking a little from our built environment, the communities and cities that we inhabit, and yes that's local but it also comes down to where federal dollars are being invested. And it's certainly true for transportation: when we suffered and went into the great recession and there were talks about the stimulus and the federal government was trying to fast-track money towards infrastructure projects. It's understandable that they wanted to fast-track things they could do very quickly, right away, which a lot of that went into highway projects, road projects, or maintenance projects. What we would advocate for is really investing stimulus dollars or federal dollars in infrastructure that's more about rail, light rail, things that are not really dependent on fossil fuel energy, oil in particular, in the long-term.

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