

Utilities
Headed
for a Cliff?

Threats to the Monopoly Model

What is Next for Utilities – and Jim Rogers

By Martin Rosenberg

JIM ROGERS has helped steer the evolution of the U.S. electric utility industry for 25 years. His passionately held, innovative insights about the business grew out of a varied career that included stints as a journalist, lawyer and consumer advocate. He chaired the Edison Electric Institute, the industry trade association. And he has appeared on "The Colbert Report."

After recently stepping down from leading Duke Energy, he spoke with *EnergyBiz* about the future of the industry and the challenges that await him. His edited comments follow.

ENERGYBIZ You started your utility career in 1988. How would you characterize how this business has changed?

ROGERS Over the past 25 years, I've seen a continued erosion of the utility companies' monopoly. That model is not going to work in the 21st century.

ENERGYBIZ How did we get to this point?

ROGERS In 1978, you saw the emergence in the national energy act of a small provision called PURPA – the Public Utility Regulatory Policies Act. It really led to the building of a lot of generation. With the Energy Policy Act of 1992, we started to see the development of robust wholesale markets coupled with the deregulation of generation in many markets and the building of new gas generation by independent power producers. Add to that renewable portfolio standards in 29 states plus the District of Columbia, and we have had a significant erosion of utilities' generation monopoly. If you take a look at transmission, the vast majority of utilities operates in RTOs or ISOs and no longer have the ability to make decisions about the dispatch of generation or the building of new transmission. As you look at distribution,

you see an incredible number of new technologies such as solar on the rooftop and productivity gains in the use of electricity. So two components of the utility company have been significantly eroded since 1988. The attack on distribution is beginning. It raises the question of what will be the role of utilities over the next three to four decades.

ENERGYBIZ Are utilities prepared to proactively embrace change?

ROGERS The utility industry has been like the proverbial frog that's been put in a pot of cold water, and the heat's been turned up. And it's been turned up slowly. The many challenges ahead are going to fundamentally change this industry. Leaders in this industry in the future are going to have to run to the problems that they see on the horizon, embrace the problems, and then try to convert the problems and challenges they see into opportunities to create value for their customers as well as their investors.

ENERGYBIZ Will mergers and cost reductions be adequate to address capital spending needs?

ROGERS There have been significant cost reductions from consolidation in our industry. Cost reductions are going to be key to earnings growth in the future. There will be a few large, vertically integrated regulated businesses like Duke and Southern that will have major building programs. Where you have no major building programs to drive earnings, the industry still will experience significant capital expenditures much greater than their annual depreciation expense. Their capital expenditures are going to be on aging infrastructure. There will be an increased cost associated with moving from an analog to a digital grid. There's going to be a great public

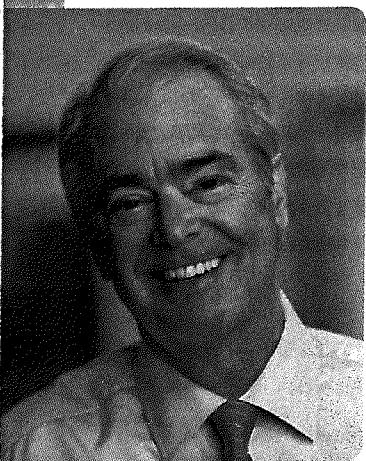
demand for greater resilience in the grid in the face of potential cyberattacks and storms.

These costs are going to put a lot of pressure on earnings. At the same time, power demand will be anemic or declining.

ENERGYBIZ What will this industry look like in coming years then?

ROGERS There's going to be a continuing battle between central and distributed generation. If we have to retire every nuclear plant and most coal-fired plants by 2050, that's going to translate into significant cost increases to replace them. If we don't build more nuclear, it's going to have a significant impact on our carbon footprint because 70 percent

of our carbon-free electricity today comes from nuclear. There will be companies in the industry putting solar on rooftops, deploying energy-saving technologies within the home and supplying 40 percent or more of the electricity utilities historically provided to that home. You'll see the development of a significant number of microgrids that will protect the grid against cyberattack.



ENERGYBIZ What role will China play in the future of electric power?

ROGERS China has moved to the head of the class in production of solar panels and wind turbines. The Chinese have significant environmental problems and they're now attempting to solve them. They will lead the world in the building and operating of new nuclear plants over the next 30 years. They will develop the supply chain and build nuclear plants in a modular fashion. We will have to change our rules and regulations and how we think about the Chinese. They're going to bring us the nuclear technology to replace our existing plants at a lower cost and build new ones faster than we can.

ENERGYBIZ If you were starting out your career today, where would you want to work?

ROGERS If I were coming into the industry again, I would come into the industry as David Crane. Maybe I should take that back. I would come into the industry as someone who is an attacker, not a defender. I'd want the solar on the rooftop. I'd want to run that. I'd want the ability to deploy new technologies that lead to productivity gains in the use of electricity in homes and businesses. I would go after the

monopoly that has been weakened over the last 25 years. My goal would be to take customers away from utilities as fast as I could, because I think they're vulnerable. Regulations will not be changed fast enough to protect them. The business model will not be changed fast enough.

ENERGYBIZ How should utilities think about carbon emissions and climate change?

ROGERS Every decision we make today we make with the knowledge that there will someday be carbon regulation in this country. There will be a price on carbon. And since we make decisions for 30, 40 and 60 years, we need to take that into account. Our industry needs to lead on environmental issues. We need to lead on productivity gains in the use of electricity. That's a critical way for us to continue to reinvent ourselves as an industry.

ENERGYBIZ What's next for Jim Rogers?

ROGERS How do we bring electricity to the 1.2 billion people that have no access? How do we bring electricity to the 3 billion people in the world that only get intermittent, inadequate electricity? You cannot solve any of the major problems of poverty and inequality in the world until you can give every person access to electricity. It has a catalytic impact on economic development.

I am writing a book identifying the problem and analyzing what needs to get done to accelerate the deployment of new electric infrastructure. I'm going to try to raise money and start to attack the problem. You have to do it with solar. You have to do it with wind. There's a great story of Bunker Roy in India who teaches grandmothers how to make inverters and how to install the inverters on solar panels in villages. There's a group called Solar Sisters in Uganda that is distributing solar lighting. Duke is investing in a group called the Global BrightLight Foundation that's distributing solar lanterns in poor communities around the world. There's an incredible amount of activity going on in this area and there needs to be some consolidation and coordination. I'm trying to take some of the lessons I learned providing electricity in the developed world and apply them.

We need to start down the road of providing electricity by using the technologies that are available today. I'm leaving Duke with a personal belief that everything I've done to date is in preparation for what I'm going to do next. ☾



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