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#### Asset Allocation February 27, 2024

## What Science Tells Us About Investing in the Energy Transition

CIO connected with Scott Tinker, a noted geologist at the University of Texas, about what areas of the energy transition are ripe for investment.

By Amy Resnick

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Professor Scott Tinker is director of the University of Texas' Bureau of Economic Geology, the state geologist of Texas and a professor holding the Allday Endowed Chair in the Jackson School of Geosciences at the University of Texas at Austin. He is also a filmmaker, founder of the Switch Energy Alliance and host of the

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PBS show Energy Switch, an energy and climate program. In addition to other appointments, Tinker serves on Shell's science council, the board of trustees at Trinity University in San Antonio, is a trustee associate for the Southwest Research Institute and is on the alumni advisory board of earth and environmental systems at the University of Michigan.



Scott Tinker 🛨

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He spoke to CIO Executive Editor Amy Resnick this month about what investors should know about investments in the energy transition. The interview was edited for clarity and conciseness.

**CIO:** Can you help us understand what kinds of things institutional investors should be paying attention to as they consider or continue investing in the energy transition?

**TINKER:** It's complicated, but I understand people's desire to make it simple. ... This isn't simple, but it's solvable. ... Probably the most important thing I would think first is to understand 'transition' means something different to everyone.

Regionally, we have seen the rich world decrease our coal consumption by 50% while growing other things. But globally,

nothing has gone down in terms of primary energy sources. That's important: Any decreases in one area are being offset by more [usage] in other areas geographically. So the transition has really been one of energy addition ... because the world is demanding more energy. Two big drivers behind that [are] population and industrial growth.

Another big framing observation is that eventually physics and economics win, and physics drives this toward denser energy, not less dense energy.

Dense forms of energy—nuclear, hydrogen, natural gas and, to some degree, oil and its derivatives—those are the dense forms of energy. Coal is somewhere in the middle, and then less dense are solar and wind, biomass and hydro, waves, tides.

Energy has to be reliably priced, nonvolatile and reliable. For a century or more, that equation has been satisfied by fossil fuels. Therein lies the challenge: How do you continue to provide energy for human flourishing and check the environment?

I think investors need to always think about doing both ... finding something that continues to provide affordable, reliable energy and try to see how to best minimize the environmental impacts of that. I think you'll end up ... making wise investments, and a lot of these things are infrastructure investments.

CIO: How do investors best find long-term opportunities?

**TINKER:** You know, some people are in it for a month or a quarter or even a year, and you can make a lot of money in the energy business with things that don't last. But most of that money is coming from governments. Governments have picked a lot of winners and are throwing hundreds of billions to trillions of dollars at them, and people are designing full businesses and industries around government money.

Depending on your term, you could say, well, they're economic, they're making a profit. Sure, it's all from governments, which means everybody pays, , because the poorest among us pay more, proportionally—that's not great. That's an injustice, for sure.

Nonetheless, industries are making quite a bit of money doing things that wouldn't make money if it was purely in the markets. Maybe that's good. Maybe that's bad. I don't have a judgment on that.

Some things need to be done for the public good. You know, we wouldn't have built interstate highways without public money; [the same with] power lines, which were very helpful. We're now saying we should build electric charging stations to facilitate this forced transition to electric vehicles, but we didn't build gasoline stations. The markets did that, because that was a better product than the horse and buggy.

CIO: What are your thoughts about electronic vehicles?

**TINKER:** The leading manufacturer of EVs today is China, by far:

They make over half of the world's [supply.] They need to. They don't have oil, and they've bought up, through the Belt and Road [Initiative] and others, most of the world's metals that are needed for batteries, solar panels and wind turbines. They own the supply chains to making the batteries, and they're making the EVs, and they're selling them to the world.

Europe needs the same thing. They have the same, so they're competing heavily with China. Eighty-five percent of the world's EVs —85%—are sold in Europe or China. But let's not pretend that it's a climate move. It's a security move. It's an economics move.

CIO: Where are there investment opportunities in energy?

**TINKER:** I think most who look at these things from an investment side realize [natural gas] is going to be here for a while. Whatever things are done with natural gas, exploring ... and producing it, to moving it, to burning it, to using it as a molecule—there's a lot of money to be made in those supply chains for a long time.

CIO: Are there opportunities in energy efficiency?

**TINKER:** Yes, efficiency is good for several reasons. You do more with less. So how do we use energy? We use it to move ourselves around. We cool things, basically, right? So heating and cooling—commercial, residential, industrial—all the things related to efficiency from windows to other insulations to lighting, smarter meters: All the kinds of things we can do to save energy and money

make sense. They're expensive initially to retrofit, so building new with them is more economic. I think there's plenty of money to be made in that space.

Let me give you a feeling for the low-hanging fruit here in the United States. We put about 100 quadrillion BTUs [British thermal units] of energy [each year] into all of our systems. Of that, two-thirds isn't used to do useful work; it's wasted: 60-something-percent. That mostly is heat out of [smoke]stacks from various systems or out of tailpipes from our cars or all the things we do, you name it—just wasted energy. That's the gap. If we could just get to 50 [percent useful], we would have done a lot of good.

You can't save your way out of anything, you know, but from an investment side, I would argue that the more we continue to do there, the better, and I think we'll continue to see improvements in efficiency across the board.

**CIO:** Other opportunities?

**TINKER:** It's critical to think of these things in a life cycle and as systems, because oftentimes what seems good, seems clean, isn't OK, because there's something going on all along the supply chain.

There is no silver bullet [for] all this.

And that's good for investors. That means there's a lot of opportunity. It means the people that figure out how to recycle wind turbine blades economically will probably do well. ... If you figure out how to do that better or [make a] different kind of battery, again, [there's a] lot of money to be made.

Tags: electric vehicles, energy transition, infrastructure investment, Renewable Energy



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### Meketa Plans Emerging Manager Conference in April

The firm's public and private markets emerging and diverse manager research day is scheduled for April 24 and will be conducted remotely.

By Matt Toledo





Investment consulting and fiduciary management firm Meketa Investment Group will hold its 14th emerging and diverse manager conference on April 24. Held semiannually and now held virtually, the public and private markets emerging and diverse manager research day seeks to connect Meketa with new and diverse managers.

To participate, an emerging firm must be majority owned by its employees and have assets under management of less than \$2 billion. Firms cannot have had more than \$5 billion in AUM and must have been in business for less than 10 years.

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Meketa also categorizes as diverse managers those with majority ownership by women, minorities and people with disabilities. For managers in this category, there is no limit to AUM or tenure to participate in the conference.

During the virtual event, managers will be able to meet with Meketa consultants and present their firm and investment strategies to the consulting firm.

The firm's last event, in October 2023, was also conducted virtually and featured more than 70 managers across domestic equities, global equities, fixed income, hedge funds, infrastructure, international equities, natural resources private debt, real estate and venture capital firms, according to Meketa.

The conference is one of several emerging manager conferences taking place this year. The New York State Common Retirement fund held an emerging manager conference on February 16, and the Employees Retirement System of Texas and the Teacher Retirement System of Texas will co-host an emerging manager conference on February 28.

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