

Federal Reserve Bank of Kansas City / Denver / Oklahoma City / Omaha

Highlights from the 2023 Energy Conference

December 05, 2023

Hosted by the Kansas City and Dallas Federal Reserve Banks, this year's eighth annual conference was themed "Reshuffling the Energy Deck." Programming focused on improving supply chains, as well as the outlook for energy markets and capital allocation in the energy transition.

Nearly 200 energy professionals, academics and others gathered Nov. 7 in Oklahoma City for the 2023 Energy and the Economy Conference. Hosted by the Kansas City and Dallas Federal Reserve Banks, this year's eighth annual conference was themed "Reshuffling the Energy Deck." Programming focused on improving supply chains, as well as the outlook for energy markets and capital allocation in the energy transition.

"We view this annual convening, rotating across several key energy cities in our Districts, as extremely important to helping us understand how the energy sector is evolving," said Kansas City Fed President Jeff Schmid.

"Developments in the sector have an important impact not only on the economy of both of our Fed Districts, but also on the financial sector and national economy."

Attendees, including more than 600 online viewers, came from 24 countries and five continents. Chad Wilkerson, Kansas City Fed senior vice president and Oklahoma City branch executive, said this conference is a natural outcome of the Kansas City and Dallas Fed's connection with the energy sector. He said the conference became a place to make connections between research, data collection and anecdotal information received from industry contacts.



Nearly 200 energy professionals, academics and others gathered Nov. 7 at the Petroleum Club in Oklahoma City for the 2023 Energy and the Economy Conference. Additionally, more than 600 people streamed the conference online. Attendees came from 22 countries and five continents.

"It became a bit of a feedback loop over time, "Wilkerson said.

"I would really look forward to this conference, to really having deep conversations with a variety of perspectives from across the world – certainly across the country – to learn more about the sector."

Kunal Patel, senior business economist at the Federal Reserve Bank of Dallas and chair of the event, said this year's theme, Reshuffling the Energy Deck, is a nod to the idea that while energy production is always in transition, centuries-old energy practices are still at play in the marketplace.

"Things are always changing in energy," he said, "and really the reshuffling of the deck is how is the energy mix changing and how are we looking at it going forward? It's good to hear the perspectives, whether it's from executives, companies or from analysts."



Kansas City Fed President Jeff Schmid delivered opening remarks at the event.

Several key takeaways from the event included:

- Continuing need for more energy. The players in the market are changing along with technology, pricing and global politics.

 However, more energy will be needed with a growing global population and greater need for energy security.
- Material and technological advancement is necessary as other nations develop infrastructure and policies around energy production and consumption.
- The energy market is global and complicated, as well as sensitive to supply chain, infrastructure, material and geopolitical shifts.

Material, Technology and Supply Chain enhancements

More energy from a variety of sources will be necessary for ensuring future energy stability, multiple speakers agreed.

Whether the energy came from battery, mineral or renewable sources, speakers also agreed supply chains and infrastructure improvements would be critical to ensuring future energy stability.

"Any conversation about energy is ultimately a conversation about materials and about infrastructure," said Ken Medlock,

Energy and Resource Economics fellow at the Baker Institute and director of the Center for Energy Studies at Rice University.

Harold Hamm, founder and executive chairman of Continental Resources, said in an executive panel that his company was

investigating future iterations of shale.

"What we'll need in the future is what I'll say is Generation 3," he said. "That's to deal with the tough rock that contains a lot of

things that heretofore we weren't able to produce, and also to get more out of the Generation 1 and 2 rock."

Chay English, policy strategist and managing counsel for Ford Motor Company, discussed challenges around permits, mining

and the refinement process of using batteries for their electric vehicles.

"The battery supply chain was not originally designed for EVs (electric vehicles), but for more traditional consumer

electronics," he said.

"Who would have thought that Ford would be a major purchaser of lithium? We would not have expected that 20 or 30 years

ago."

Wilkerson said this year's event highlighted consumer impacts with focus on growing demand for goods like solar panels and

electric vehicles.

"Understanding the supply chains of those kinds of products, of what the challenges are, can maybe help with some of the

frustrations that even I as a consumer have sometimes.

 $\hbox{``It's exciting that those kinds of things are being developed," he said, \hbox{``but it also highlights how difficult it really is to bring it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said, \hbox{``but it also highlights how difficult it really is to bring it in the said highlights how difficult it in the said highlights highlights how difficult it in the said highlights highlights$

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Global marketplace

Presenters from several panels discussed how shifting geopolitics and developing international conflicts made it difficult to forecast energy market activity. Additionally, forging international trade deals or collaborating on technologies in a precarious global environment also makes innovation in the sector more difficult, said Amy Myers Jaffe, director of the Energy, Climate Justice and Sustainability Lab at New York University's School of Professional Studies.

"Because if they don't come to a common view, then all these conflicts have the potential of activating," she said.

Despite the growing global demand for energy, the instability in the market and overall economy made investors uneasy, said Jeff Ard, managing director and North American head of energy for corporate banking at Citi.

"What am I supposed to advise my clients to do until we really know what the regulations are going to be?" he asked. "We have to be able to articulate that to our clients in order for them to be able to succeed."



Amy Myers Jaffe, director of the Energy, Climate Justice and Sustainability Lab at New York University's School of Professional Studies, speaks with Ken Medlock, Energy and Resource Economics fellow at the Baker Institute and director of the Center for Energy Studies. The two spoke to the outlook for global energy markets at the event.

Optimism

Despite the issues facing the industry, speakers offered reasons to be optimistic. Jaffe highlighted how technology can help mitigate issues like long gas station lines.

"We have efficiency tools today that we've never had before, so if you imagine us thinking we'll have to sit in a gasoline line, you need to remember that we could allocate fuel to Uber and Lyft drivers, or Amazon can bring it you," she said. "Every time the price of oil goes up very high, all these technologies move much faster and faster into the market."

Arjun Murti, energy macro and policy partner at Veriten, said the cost of capital normalizing – while painful in the short term – is beneficial for long-term forecasting since investors would better understand profit potential, risks and costs.

"The fact that moneys not for free is a good thing," he said. "I think this is a very healthy environment, where you're going to have to have real economics."

When asked about pursuing a career in energy, executives showed perhaps the most optimism, claiming that the field is as promising as ever.

"We need as many STEM (Science, Technology, Engineering and Math) grads as we can, but we also need skilled labor," said Jonathan Evans, director, president and CEO of Lithium Americas Corp.

"You need people to actually build this stuff. The wages pay well. AI (artificial intelligence) isn't going to get stuff out of the ground. You need to get people to get pipes in place."

Why Energy matters to the Dallas and Kansas City Federal Reserves

Energy is a critical industry for both the Kansas City and Dallas Feds.

- The Dallas and Kansas City Feds rank first and second, respectively, in total energy activity, accounting for an area that is responsible for 20% of total U.S. energy production.
- The Kansas City Fed's Tenth District accounts for more than 40% of U.S. coal production, about 25% of U.S. wind energy installation and more than 15% of U.S. natural gas production.
- Wyoming, located in the Tenth District, is the nation's top producer of coal and among the leaders in oil and natural gas.
- The Tenth District state of Oklahoma is also among the nation's leaders in oil, natural gas, and wind energy.
- New Mexico, divided between the Kansas City and Dallas Fed Districts, is also one of the leading energy producers in oil, natural gas, and wind.

Dallas Fed President Lorie Logan said this moment could be a good opportunity to examine how the Federal Reserve supports communities impacted by the energy transition.

"We need to really be thinking about the community development parts of our job as this transition takes place and how it's affecting different communities around our country. That's a really important part of the research we need to be doing," Logan said.

"It's not just how to support the transition, but how do we support communities as they may be going through this transition."



Conversation between energy professionals at the conference is one of the most anticipated aspects of the event.

Stay Connected

The 2023 Energy and the Economy Conference will be available to stream here until mid-December. Materials presented during the event are posted on the event webpage. [KR1]

Details for next year's event, which will take place in Dallas, will be available on kansascityfed.org. The Kansas City Fed publishes a quarterly Tenth District energy survey, tracking key indicators at oil and gas firms. Access it here and subscribe to receive the Bank's latest energy information here.