

WHEN PRESIDENT JOSEPH BIDEN INVITED A group of US energy CEOs to the White House last year to discuss Russia's invasion of Ukraine, he included a guest with a personal connection to the topic: Michael Polsky.

Five decades ago, Polsky fled Soviet-controlled Ukraine as a 27-year-old Jewish refugee. He arrived in Detroit with \$500, four suitcases and a degree in thermal engineering.

Unable to speak English, Polsky mailed his résumé to hundreds of companies whose names he found by combing through directories at a library. He landed his first job—as an engineer for Bechtel—by communicating in math equations and sketches with his interviewer.

Today, Polsky leads Invenergy, one of America's largest independent and privately held clean energy companies, with more than 200 projects around the world with a capacity of 31,000 megawatts. The firm, which Polsky founded in 2001, is competing for market share with some of the world's biggest energy companies amid growing demand for zero-carbon energy—a shift that's accelerated in the US with the adoption of the Inflation Reduction Act (IRA).

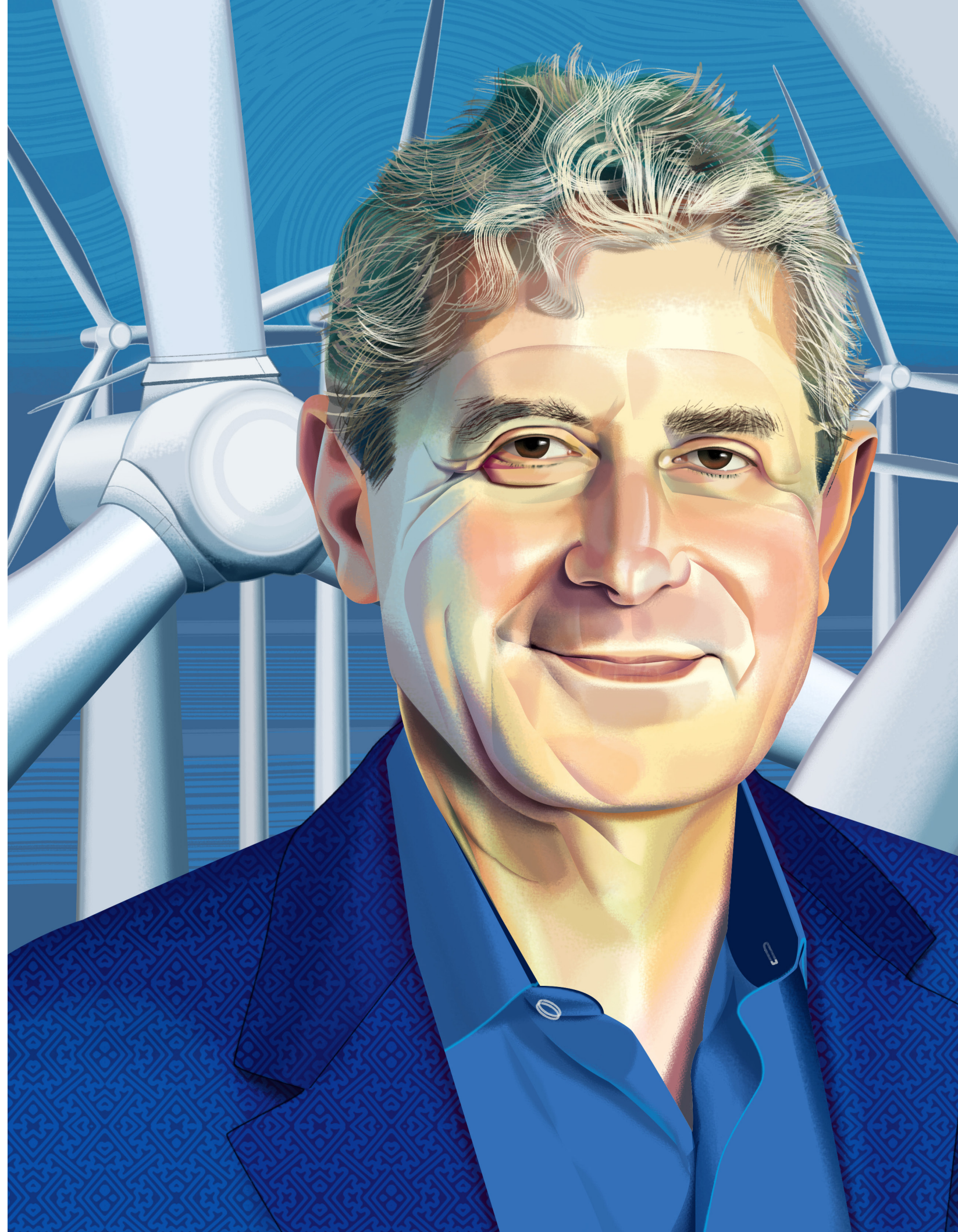
Wall Street is paying attention. In June, the investment firm Blackstone announced it was investing \$1 billion in Invenergy, on top of an



Energy Entrepreneur

MICHAEL POLSKY built the first half of his career on fossil fuels. Can he help the US get off them?
BY STEPHEN POWER

ILLUSTRATION: NIGEL BUCHANAN



earlier infusion of \$3 billion in 2021 and 2022. Invenergy remains privately held, though, and Polsky says he has no intention of taking it public.

Polsky's career illustrates how geopolitics and a determined entrepreneur can upend energy markets. His first big break came when the US Congress, in response to the Arab oil embargo of the 1970s, passed legislation to spur greater domestic energy production. The legislation allowed private companies to own power plants for the first time.

Polsky saw an opening for a technology he'd worked on in Ukraine: cogeneration, or cogen plants—so-named because they generate both electricity and heat in the form of steam that can be used to power factories. Unable to sell his employer on investing in such plants, Polsky struck out on his own. He launched a company that designed cogen plants for big industrial customers like International Paper, Morton Salt and DuPont while earning a business degree at night from the University of Chicago. After selling his stake in that business, he started another firm, this time specializing in building natural gas-fired generators. A decade later, he sold that enterprise for nearly half a billion dollars to the former Calpine Corporation shortly before the market for natural gas plants collapsed.

These days, Polsky is capitalizing on another shift in US energy demand—one he foresaw two decades ago. Starting with a single wind project on a Tennessee mountain in 2004, Polsky has steered Invenergy into developing a range of alternative energy projects: solar farms in Texas; wind farms in Illinois; battery storage in Iowa; wind projects off the California coast; and high-voltage interregional transmission lines across the country. With help from the IRA, Polsky thinks Invenergy can build as much new clean-energy capacity in the next 10 years as it built in the past 20.

Big challenges loom. The IRA doesn't do anything to accelerate the permitting of transmission lines needed to bring wind and solar power from remote areas to cities; if the US doesn't double the rate of transmission buildout, according to one Princeton University study, the law's potential climate benefits will be largely wiped out.

In an interview with Brunswick Partners Stephen Power and Kevin Helliker, Polsky discussed how growing up Jewish behind the Iron Curtain influenced his career path; what he'd say to members of Congress reluctant to continue supporting Ukraine; and what he sees as the biggest obstacles standing in the way of renewable energy.

"WHEN I ARRIVED, THE VOCATIONAL SERVICE HELPED ME PUT A RÉSUMÉ TOGETHER. I DIDN'T KNOW WHAT A RÉSUMÉ WAS."

You started your career as a thermal engineer.

Why?

When I graduated from high school, I knew I wanted to go to engineering school. But it was pretty well known that certain engineering departments like electronics were out of reach for Jews. In the Soviet Union, particularly Soviet Ukraine in the 1970s, there was a lot of anti-Semitism.

I did not know what thermal engineering was, but I did know it was not glamorous. I thought that I would have a better chance to gain admission and stay in the city [Kyiv] that I was growing up in.

Why did you leave Ukraine?

In the Soviet days, to advance in society, you had to be active in the Communist Party. I did not really fit in, both because I was Jewish and also not interested in being political. In the Soviet system, people were paid based not on their skills and abilities but on how they fit into the system and whether they could take advantage of their position. A person working in a store could make tons of money if they operated in cash and had access to goods in short supply, for example; they could sell them on the black market. In engineering, there's not much you could squeeze from the system.

What was it like to go from communism to a society where you could be an entrepreneur?

I knew that going to the West was going to be better. I didn't know how much better—I knew it would be difficult, but I knew that it would be better. The hardest part was leaving my parents. I didn't see them for 13 years after I left.

Did anyone in the US help you?

There were different organizations that helped Jewish people resettle at the time. I remember I went in a small school bus. They took us to a vocational service to help us orient ourselves.

How did you find work?

When I arrived, the vocational service helped me put a résumé together. I didn't know what a résumé was. I went to Wayne State University library in Detroit, driving there every day. At that time, there was no internet, but there were directories of electric utilities and engineering companies. I just went through these books, writing down the names, and then made copies of my résumé and a cover letter on the Xerox machine. On each letter, I used Scotch tape to add the name of the specific person at each company.

The exciting part was going to the mailbox every day and getting like five letters in a row saying, "Thank you very much, but we have no openings." I thought, "Oh, my God, they are actually responding."

I mean, in the Soviet system, nobody would have responded. First of all, people didn't look for jobs that way. They'd say, "OK, whom do you know?" Or sometimes you'd just walk into a place and say, "Are you hiring? Yes or no?"



How did you go about starting your own business?

I was at the right time and the right place. Private ownership of power plants did not exist in the US until the late '70s. At the time, there were a lot of big companies that were inefficient. And there was not as much of a system back then of private equity and venture capital to scout new areas. So, when Congress changed the law to allow private ownership, the US power sector was open to disruption from an outsider if you had talent, skills, drive and hunger.

You made your career in cogeneration and fossil fuels. What led you to pivot to wind?

When we started Invenergy, we thought we were going to buy distressed assets. The problem with power plants is that it costs a lot of money to buy one. And even more money to maintain. Then the market for natural gas collapsed. We felt "we're developers. We need to build something new."



Michael Polsky fled Soviet-controlled Ukraine as a 27-year-old Jewish refugee. He arrived in the United States with \$500, four suitcases, a degree in thermal engineering—and unable to speak English. Today, Polsky leads Invenergy, one of America's largest independent

So I said, "What's the next thing we can do?" We knew coal is not good for the environment. Nuclear plants were being cancelled because they'd become too expensive. Then Enron collapsed, and General Electric bought Enron's wind business. So we started looking into wind. I thought, "this makes a lot of sense for many reasons." Natural gas is a volatile commodity. Also, many communities did not want natural gas plants. I thought, "Finally for once I don't have to fight with anybody."

Also, after September 11, there was greater interest in the country in energy security. I thought, "wind just makes sense." We went after it not for environmental reasons, or to save the world, but because it just made business sense. We also liked that we could develop it ourselves from scratch as a developer.

In the past 20 years, Invenergy has built 200 projects totaling more than 31 gigawatts—enough to power about 2 million average-sized homes—across the Americas, Europe and Asia. What kind of growth are you trying to achieve now? Do you have a target?

When I read about companies setting targets, I always joke that they are just artificial. Some energy companies have so much money they can buy the target. We can't afford to buy the target. We can only spend so much. So I stay away from targets. I just want to make sure we do the best we can and hopefully achieve things.

That said, we believe we can double what we've already built in the next 10 years. In the last 22 years, we've built about 31 gigawatts. Our ambition is to do much more than that in the next decade.

What do you see as the biggest obstacles standing in the way of that goal?

Energy is a very policy-driven business. So, government policy is very important. The Inflation Reduction Act provides some certainty for a period of time and government support. But there are a lot of other variables we have to manage, like interest rates and supply-chain issues. There's also a lot of inexperienced developers coming into the space with private-equity backing driving prices to unrealistically low levels. And some communities have moratoriums against renewables. So, we have to juggle a number of things that we really have no control over.

What about getting the US economy to net zero by 2050? What is the biggest obstacle there?

The biggest obstacle in my opinion is that we don't have the infrastructure needed to support this

transition. For example, our transmission grid is plagued by delays and bottlenecks. To build transmission takes decades. To get approvals is very difficult, because it's disjointed. I believe that the transition will eventually succeed, but based on all of these things it can take longer or quicker.

What is something that you feel is not well understood about energy by decision makers in Washington or on Wall Street?

That renewable energy technology has improved to the point that renewables have become cheaper [than fossil fuels]. When I talk to people who are opposed to renewables, I like to tell them I'm not an environmentalist and I don't want to talk about climate change. What I want to talk about is the future. If you ask me, "What is the energy of the future?" I would say renewables. Renewables are very susceptible to technological advancement compared to fossil fuels.

What has it been like as someone who grew up in Ukraine to see your native country become one of the top foreign-policy issues for the US government?

Nobody I think could have imagined that the full firepower of one country could be directed against another country. It was inconceivable to me.

You are co-chairing a nonpartisan commission for the Center for Strategic and International Studies in Washington to advise policymakers on how to rebuild Ukraine. What's your message to the members of Congress who are debating whether to provide more aid to Ukraine?

It's hard for me to describe the implications for the world if Ukraine is allowed to be taken over by Russia. Are we just going to say, "It's fine?" We're going to be part of this conflict no matter what, particularly if Putin later goes after a NATO country.

Nobody wants war and nobody wants to give money to another country. But I think what Putin wants to do is to split the world into spheres of influence. He wants to basically have a Russian sphere with one half of the world, and then there will be a Western sphere. And I don't know what the United States' position on that would be. Are we going to say we're withdrawing from the world?

How has entrepreneurship changed?

When I started my first company in 1985, entrepreneurs tended to be people running small businesses: restaurants, dry cleaners, coffee shops, that kind of

thing. There were fewer big businesses starting from scratch—and nothing like the tech sector we have now. When I tried to hire young people, they looked at joining a new company like mine as a risk. Practically everybody said no.

Now, the mentality has changed. People have become much more driven by the idea of working with a company that does something new, that has no bureaucracy, where they have more responsibility and where they have sense of mission that is not watered down to the point that they don't see it. That's what we're trying to retain at Invenergy; we're a big company but trying to be run like a small one.

You are a graduate of the University of Chicago's Booth School of Business, which has a center named after you that is dedicated to the study of entrepreneurship. Can entrepreneurship be taught?

If somebody is not a risk taker, can you teach him to become a risk taker? No. If somebody who lives life and doesn't have a sense of urgency, can you teach him to become more urgent? No. But what you can teach are examples and best practices.

If you want to be an entrepreneur, you've got to learn about finance. Even if you're an engineer, you've got to put spreadsheets together. You've got to be able to write. You've got to understand a little bit about sales and how to sell, because we all sell. I think schools can teach those skills.

How do you maintain entrepreneurship at Invenergy as it grows?

You have to remain able to pivot and look for opportunities in new areas. We'll have a meeting about doing something, and we'll decide a certain course, and then we'll have another meeting two weeks later and I say, "I learned something new; maybe we should change direction?" Someone will say, "we just decided this two weeks ago." I'll say, "Two weeks ago was two weeks ago. It's not today."

How do you motivate people at a company like Invenergy that is now so large—2,400 people in different parts of the world—that you cannot have a personal relationship with each of them?

It's harder. Companies do lose something becoming big. I just try to do what I can to make sure there is no bureaucracy and to promote people that have that sense of urgency and drive.

At Invenergy, we have very good people. Our biggest problem is retaining people; everybody wants our people.

Would Invenergy ever go public?

While I'm here, no, because I feel, particularly in this business, being private is good. This is a very cyclical and lumpy business; it's very hard to explain to analysts all these issues that I described to you. It also creates bureaucracy and reporting. That's not for me. I'm an entrepreneur, not a public company CEO. It would drive me crazy.

What energy project are you most proud of?

We have several, but one is the Energia del Pacifico (EDP) project. This is a liquefied natural gas-to-power project in El Salvador, which we built during the COVID days. I feel very proud about what we as a company have been able to accomplish there.

El Salvador is a country with very poor infrastructure and a high crime rate. It also has a very low credit rating. The CEO of another US energy company told me this project would never happen.

We were building it in the middle of the pandemic. There was no vaccine available, and we had to build the testing as well as a local field hospital. We had a COVID positivity rate of 25% at the site—every fourth worker. And we couldn't bring in other workers, because so many countries were closed, airports were closed. Everything is closed. You could not even be on the streets.

Why is this the project you're most proud of?

This was probably one of the most impactful projects for El Salvador, because it supplied more than a third of their electricity. We stabilized their electrical grid. We helped their economic development. We lowered their energy prices. And we reduced the country's greenhouse-gas emissions by displacing heavy fuel oil—a much more emissions-intensive fuel source.

What enabled you to overcome these obstacles?

The president of El Salvador. He saw the benefits of these projects. Especially in this part of the world, somebody has to have the influence to make it happen. Before him, nothing could be done. All the bureaucracy in every agency took forever.

We were ready to walk away, but then he was elected. I met with him and he said, "I'll help you guys to solve problems." And he did. It took us a few months longer, with more money, but we succeeded.

What should people reading this interview think of the fact that the first project you mention

"THIS WAS PROBABLY ONE OF THE MOST IMPACTFUL PROJECTS FOR EL SALVADOR, BECAUSE IT SUPPLIED MORE THAN A THIRD OF THEIR ELECTRICITY. WE STABILIZED THEIR ELECTRICAL GRID."

when asked for an example of a project you're most proud of is a fossil fuel project?

I would say two things: The first thing is that there are of course many renewables projects I'm proud of. To take just one example, we are developing a transmission line—the Grain Belt Express—to bring more affordable, reliable power to the Midwest. This is one of the largest energy infrastructure projects of its kind in the US.

The second thing I'd say is that the transition to cleaner energy will not look the same across different parts of the world, or even within the same countries. What might be achievable today in a wealthy country like the US might not make sense for a country that lacks resources. Even within the US, we operate natural gas plants as part of our portfolio. This is because we know natural gas is essential to providing backup when renewable energy isn't available.

We have to move as fast as we can to address climate change while also recognizing the need of societies for access to affordable, reliable energy—and the dangers when access is suddenly cut off. That is one of the lessons of Russian's invasion of Ukraine.

What lessons do you draw when you pull off a project like the EDP project?

First of all, I'm very proud of our people. I like to tell them, "If we did this project, we can build anything." Anything and anywhere.

The other lesson I think is that when you are trying to build projects of a certain magnitude and impact, you have to have the might of the government behind you to get things done. In most countries, if not in all countries besides the United States, projects of that magnitude are sponsored by the government and done with government support, not just financially, but with all the might of the government behind it, like a war effort.

In the United States, the government says, "Private sector, you do this project," despite the fact that we as private companies don't have the ability to do so alone. Here, one farmer or two can stop you because they don't want you to go through their property. We have to respect the property rights of individuals, but we also have to be able to build the infrastructure that's needed to support the energy transition. ♦

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