

ASHLEY: The world is being shaken by a collision of energy needs, climate change, and clashes between nations in a time of global crisis made much worse by Russia's all-out invasion of Ukraine. Roaring inflation has shocked consumers, the Biden administration, and other governments around the world. This is Let's Find Common Ground. I'm Ashley Milne-Tyte.

RICHARD: I'm Richard Davies. In this episode, a new way to look at energy. We discuss the rapidly changing challenges of global and national security, plus the reasons behind President Biden's latest visit to Saudi Arabia, Europe's growing dependence on U.S. oil and natural gas, and the threats to the West from Russia and China.

ASHLEY: Our guest is Pulitzer Prize-winning author Daniel Yergin, one of the world's most highly respected thinkers on international politics, economics, and energy. His latest book is *The New Map: Energy, Climate, and the Clash of Nations*.

RICHARD: Daniel Yergin, welcome back to Let's Find Common Ground.

DANIEL: Glad to be with you again on Common Ground.

RICHARD: Since we last spoke late last year, the energy map has changed a lot. Let's start with the most dramatic piece of news, which was Russia's assault on Ukraine in late February. Oil and gas prices were already heading up before the invasion, but the war has made things worse. In what ways?

DANIEL: I think it's important to understand that, indeed, we were already in a global energy crisis last autumn when we talked the first time. Europeans were paying five, six times as much for imported natural gas as they had in the past. Energy markets were very tight. The U.S. administration was already worried about high gasoline prices, and then came February 24th, and one of the world's energy superpowers invaded Ukraine. And of course, that meant that we now have a combo of a global energy crisis and a global geopolitical crisis, and it's introduced new turbulence and certainly sent prices up and added to this sense of pervasive crisis and, by the way, has fed into this engine of inflation which now overhangs the global economy.

ASHLEY: Given that the U.S. is actually the world's largest producer of oil and natural gas, which I think a lot of us don't know. So why do we have such high energy prices here in the U.S.?

DANIEL: Well, our energy prices are high by U.S. standards, but they're not high by world standards. The reason, basically, is while the U.S. is the world's largest producer of oil, there's still only one global market for oil. So you don't have a set of prices that are different in one part of the world than the other. It's connected. The reason our prices are not as high as in Europe is, in the U.S., the federal gasoline tax is 18-and-a-half cents. In Europe, still, the bulk of the price that you pay at the pump is actually tax. For European governments, gasoline pumps are really tax-collecting machines.

RICHARD: Following up from Ashley's question about the U.S. being the number one producer of oil and natural gas...

DANIEL: Isn't that amazing, by the way?

RICHARD: Yeah.

DANIEL: Twelve years ago, the U.S. was importing 60% of its oil. Eight presidents in a row had said, "We have to be energy independent." It was a huge joke. People would make fun of it on late-night comedy shows, and suddenly, it almost happened, it seemed, overnight. It's quite remarkable and taken for granted.

RICHARD: Taken for granted at a time when many people see U.S. power in the world on the decline. In this case, and it's a pretty dramatic case, American power is stronger than it was.

DANIEL: Yeah. Let me give you an example. In the book, I have the story of being at a conference where Vladimir Putin and Angela Merkel, the former German chancellor, on the stage together in St. Petersburg, and their detestation of each other was obvious. They didn't even look at each other. But I was given the opportunity to ask the first question, and I was asking the normal question -- this was several years ago -- of Putin about diversifying your economy, not being so dependent on oil and gas, and by accident, I mentioned shale, and he erupted and started shouting at me in front of 3,000 people saying shale is barbaric, it's terrible. And I realized afterwards there were two reasons. One, he was concerned that U.S. shale gas would ultimately compete with Russian gas in Europe, which is exactly what's happening, and number two, he saw it augmenting U.S. influence and giving the U.S. a flexibility in foreign policy it didn't have before. So, in some ways, and we've seen it recently, the question, what's happening to U.S. power in the world? On the other hand, we see, now, that U.S. liquified natural gas, which is the way that you export natural gas to Europe, has now become a security asset for the Europeans. They're depending upon it in a way that would not have been imagined a year ago.

ASHLEY: You wrote recently, "The amnesia about energy security is over. The global energy crisis is shaking governments as consumers are stunned at angry at high prices and the prospect of shortages." What was the amnesia, and how has the view of governments changed?

DANIEL: For the U.S., I think the fact that we became energy-dependent lead to forgetting about energy security. When we were importing lots of oil, every president worried about that. Didn't seem to have to worry about it when we were energy-independent. I was in a meeting with a U.S. senator, a moderate Democrat, and he said, "We need to right-size our policy towards the Middle East." This s several months ago. I realized he wouldn't have said that if we were still importing 60% of our oil. So I think we just forgot about it and thought, "We can only focus on energy transition and just kind of forget about an industry that employs 10.5 million people in the country.

ASHLEY: So the U.S. felt it only had to focus on the transition to renewables without paying too much attention to energy security, and Europe was relying heavily on Russia for huge supplies of oil and gas for its energy needs.

DANIEL: I think the Europeans, what a wake-up call it has been for them, thinking that they could just, almost overnight, do an energy transition and forget about energy security. And it's been most striking to me to hear from the German Economics Minister, Robert Habeck, who's one of the leaders of the Green Party, saying it's not black and white on energy sources; it's shades of gray, and you have to pay attention to security, as well. I think kind of a big message from this is you're not going to have a reasonable energy transition unless you have energy security. So that's the change, and I think it was already evident last autumn, but certainly with

Russia's invasion of Ukraine, what's happened to markets, it's really driven home this sense that the world still, according to the latest analysis, depends on hydrocarbons for 82% of its energy. You can't just forget that fact.

RICHARD: Hydrocarbons being oil and natural gas, primarily.

DANIEL: Oil and gas and coal. The economics minister of Germany, who's agreeing, saying, "We have to burn more coal." It's a bitter thing to do, but it's essential. By the way, it's very interesting. It's now seen that it was a great mistake for Chancellor Merkel to decide over a weekend back more than a decade ago to shut down Germany's nuclear power plants. Ironically, the last two plants closed down this year, and there's no turning back.

RICHARD: Another major event just days ago, actually, was President Biden's visit to Saudi Arabia, which he once called a "pariah state" after the murder of Saudi journalist and Washington Post columnist Jamal Khashoggi, which the CIA certainly believes was ordered by the most powerful man in Saudi Arabia, Mohammed bin Salman. And you've just had this rather famous fist-bump between Biden and Mohammed bin Salman. Is this all part of the changing politics of energy, or was this just a huge mistake?

DANIEL: I think Biden and people at the senior level of the administration came to the conclusion that they had no choice, that this was as tragic and awful as the murder of Khashoggi, and the president expressed and continued to express his abhorrence about it. National interest, as he wrote in The Washington Post, of all places, impelled him to go to the Middle East, and certainly it had to do with oil, this kind of view that there was this gusher of oil. All you had to do was turn the wrench, and the oil would come out. But, in fact, the markets are very tight anyway. And so there will be more oil but not in huge volume, and Biden is looking at it and saying, "Well, there's inflation. There's an election coming. This is causing hardship for the U.S. economy. We need more oil." It's not only about oil. It's also about geopolitics. It's the fact that because the U.S. is kind of disengaged from the region, Russia has become much more active, and China has become much more active. Iran, the hopes to reinstate the Nuclear Deal, it goes up and down, but it seems pretty slight right now. There's Russia buying drones from Iran to use in Ukraine, but I think there's also the whole geopolitical thing there, this great power competition, which really characterizes the age that we're in. It's Russia, and behind that is China and sort of reasserting the U.S. engagement in the region. Obviously, no one will describe the trip as triumphant, and the criticism in the U.S. has been... a lot of criticism of it. But probably Biden's conclusion was that, in terms of national interest of the U.S., it was necessary to do it, as uncomfortable and awkward as it may have been.

ASHLEY: And Biden was quite sharply criticized for urging Saudi Arabia and other OPEC nations to produce more oil while he supports restrictions on U.S. drilling. Do his critics have a point there?

DANIEL: Yeah, I think that's true. I mean, the administration has recently urged our domestic producers to produce more oil. We had energy secretary Jennifer Granholm at our CERAWEEK conference in March, and her message was, "Please produce more oil." She also said, "Oh, by the way, Wall Street institutional investors, also, ease up," because they're the ones who have been partly choking production in the United States by putting pressure on companies to return money to them rather than to invest. But U.S. production is going up. It'll probably go up 800,000 or 1,000,000 barrels a day, which not everybody knows what that means, but that's a lot of oil, and that's more new production than all the rest of the world combined.

RICHARD: So the U.S. will be producing more energy in the future. Dan, talk about permitting and the steps needed to win approval for new construction on pipelines and all kinds of energy plants.

DANIEL: The world of permitting, which is not something that's very visible, has huge roadblocks to getting things done that, in previous years, would take a year or two, grind on for three years or five years, go through court challenges and stuff. I think if we had the kind of permitting system we have today during World War II, we would've lost World War II because we couldn't have gotten things done.

RICHARD: Explain a little bit more the permitting situation. You're talking about what it takes to actually get something built.

DANIEL: Built, and it was, again, interesting. I did a podcast with both the head of the Renewable Power Association, which is wind and solar, and with the head of the American Petroleum Institute. You'd think two totally contending trade associations, but the one thing they agreed on is permitting is a really big problem in the United States whether you're trying to get a permit to put a pipeline under a road in a kind of desert-y area in New Mexico or whether you're trying to bring a cable onshore from an offshore wind terminal. Natural gas prices are higher in the United States. We have no shortage of natural gas. We have an essential shortage of pipelines. So there's a 350-mile pipeline from this huge gas field that we have in Pennsylvania, that region, trying to get it down the Atlantic coast, going south. 320 miles has been built. The last 30 miles is help up by permitting, and by the way, permitting battles between different government agencies, and a cost of a pipeline that was going to be \$3 billion is now \$6 billion.

RICHARD: So permitting is potentially an area of common ground?

DANIEL: I think it's perfect for common ground because, there, we have the head of the Renewable Power Association and the head of the API saying, "We agree this is a big problem."

RICHARD: We're speaking with Daniel Yergin, author of *The New Map*. He's also a business executive, vice chairman of S&P Global, and the founder of Cambridge Energy Research Associates, or CERA.

ASHLEY: This is Let's Find Common Ground. I'm Ashley.

RICHARD: I'm Richard. When you visit our website, commongroundcommittee.org, you're greeted with a popup. What does it say, Ashley?

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RICHARD: And now back to our interview with Daniel Yergin.

ASHLEY: Dan, we last spoke with you late last year, before the invasion of Ukraine. Do you think that now there's a greater change for common ground between Democrats and Republicans on energy?

DANIEL: Oh, gosh, I would think so. You're not going to have an energy transition, a successful one, unless you have energy security, and energy security does require diversity, and it requires a kind of realism about how fast you can move. But I think we did see some common ground that finally, after years and years of debate, they did pass an infrastructure bill, a bipartisan infrastructure bill. That was a big achievement. The one thing, there is agreement on infrastructure, but then even you get into infrastructure, you get into the debate about: what is infrastructure, and how expansive is that concept, if you put everything under infrastructure? I'm sure you're looking at, at Common Ground, at the structure of our political system and in particular the primary system and how that works against common ground. At the end of the day, very large numbers of people are on common ground. They are in the center, but there are certain inertial forces that push things to the extreme and make it harder to actually follow through on the common ground. So the theme you're working on, I think, goes not only to the minds but the hearts of many Americans, and energy is just one piece of ground in the common ground issue.

ASHLEY: I was going to ask you a quick question about Europe. I know you alluded to this before. You were talking about Germany. They obviously have relied heavily on Russian gas, and President Putin has definitely stepped up the energy war on the West. And right now, Germany's supply of Russian gas has been cut. What's the outlook for autumn and winter in Europe, do you think?

DANIEL: Well, I think you've gone to a subject of great concern. Right now, in one sense, the great decider on energy prices isn't what the Saudis do. It's what the U.S. Central Bank does, what the Federal Reserve does, whether we have a recession which will lead to commodity prices coming down, and some will come down more. But it's interesting seeing copper, which is very sensitive to economic cycles, come down a lot. But oil is still fluctuating around \$100 a barrel, and I think that reflects the fact that markets are very tight. You have just gone to a fundamental area of peak concern, which is that Putin has opened a second front in this war, not only on the battlefield in Ukraine but in Europe, and it's an energy war. And the high cards he has right now are, as you say, the exports of gas, and there's a race on because the Europeans are racing to fill their gas reserves right now so they have the gas they need for the winter. And Putin is interrupting and disrupting those flows. His high cards right now... My view is that Russia is an economic superpower today. They probably won't be in two years because, by that point, the Europeans really will have reoriented their economies, and Putin will have to look east to China, and Russia will become an economic dependency on China. His venerated hero, Peter the Great, the czar of centuries ago, as they say, opened a window to the West for Russia, and Putin, in effect, has shut it, and he is going to depend on an escape hatch to the East, which is China. The current global energy crisis, this combo crisis of energy and geopolitics, could get worse, and the outcome... You can't say with certainty and confidence what the outcome's going to be. It's a real struggle, and it's a real battle. The German economics minister has been very forthright and said, if Putin gets his way, there could be a Lehman Brothers-style contagion because Europe will be hit very hard. I think understanding the depth of risk, as you point to, is very important for having a framework on what happens the next few months.

RICHARD: Let's talk about something else which could cause us all worry, which is copper. The last time we spoke, you said that new technologies would be a big part of reducing climate change, but you wrote recently in the Financial Times that a lot of these technologies rely on copper, and our supply of copper is not guaranteed. Tell us more.

DANIEL: I've been very preoccupied with this question since The New Map. I have there a section where I talk about moving from that famous phrase that's particularly used when gasoline prices are high: Big Oil to big shovels. It was clear that energy transition is going to require a lot of mining, what the International Energy Agency says a move from fuel-intensive to mineral-intensive energy system.

RICHARD: So from Big Oil to big shovels.

DANIEL: To big shovels, a lot more mining focused in on copper because copper is everywhere. It's in your cell phone. It's in the wires in your house. It's in your computer. It's so pervasive. But there's a new demand for copper, which is what we call energy transition demand, which is this rapid move to electric cars. An electric car uses two and a half times more copper than a conventional car. Offshore wind uses a lot more copper, and suddenly you see this new demand, and you say, "Okay, let's take the Biden administration or the EU goals for net zero by 2050. How much copper will you need?" So we calculated it technology by technology and concluded that the copper demand by 2035... to meet these objectives of net zero by 2050, copper demand would double. Then you say, "Well, where does the copper come from?" 38% of world copper comes from Peru and Chile. China smelts 42% of world copper. And you say, "Well, wait a second. If we continue as business as usual, there's no way we can meet those goals. Even if everything goes right, and you have really... out the outer bounds of what seems possible, you still don't have enough copper." So I guess the point is people think, "Oh, renewables, sun and wind." What they don't realize is that sun and wind require a lot of minerals and a lot of manufacturing and making of things.

ASHLEY: We've discussed a range of problems and concerns. Where do you think the next crisis will come?

DANIEL: The obvious thing is between the U.S. and China. What I focus on in The New Map a lot and try to give context to something that's not on people's minds today is the South China Sea, which is where the U.S. and Chinese Navy come the closest to actually colliding and have come close to collisions because China claims the South China Sea, a very vast body of water, as their own, and others don't accept that, and they're fortified islands. So it's sort of out of the news now. We're more focused on Taiwan, but that's what has me concerned, particularly as this relationship between the U.S. and China has changed so dramatically from, "We're all in the global economy together," to great power competition, strategic rivalry. You can just see the direction that things are going.

RICHARD: With the theme of this show in mind, Dan, do you think that the invasion of Ukraine, which resulted in an extraordinary bipartisan response about the need to support Ukraine is an opportunity for coming together on the need to realize that energy is not just about climate, and it's not just about supplies, but it's also about our shared values as a nation.

DANIEL: Yeah, I see where you're going. I think that's right. Part of what you're trying to address is the demonization of one side by one side or the other and understanding that there's legitimacy to both. The advance of wind and solar, the fact that these costs have come down so

dramatically, that they've reached scale, is great. We talk about shale revolution. There's been a solar revolution, but at the same time, these things coexist together, and I think what you're doing with Common Ground is an effort at de-demonization and to understand the legitimacy across the system, that it's not an either/or, but it is combined. And if you don't recognize it, then you have conflict and you have worse outcomes.

ASHLEY: Daniel Yergin, thanks again for joining us once more on Let's Find Common Ground.

DANIEL: Thank you. It's a pleasure to be with you again, and certainly I hope that your efforts continue to expand at Common Ground.

ASHLEY: Thank you.

RICHARD: Daniel Yergin on Let's Find Common Ground.

ASHLEY: Thanks to our editor and sound designer, Miranda Shaffer, and our team of producers and advisors at Common Ground Committee: Erik Olsen, Bruce Bond, Donna Vislocky, Mary Anglade, Isabella Moore, and Brittany Chapman.

RICHARD: And thank you for listening.

ANNOUNCER: This podcast is part of The Democracy Group.