

## Dr. Anas Alhajji: There Is No Escaping The Coming Energy Crisis

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*Erik:* Joining me now is Dr. Anas Alhajji, energy markets consultant and former instructor at the Colorado School of Mines at the University of Oklahoma and one of our favorite oil market experts. Anas, it's great to have you back on the show. It's been way too long. Let's start with the big picture of where things stand right now. A lot of people are wondering why OPEC hasn't done more to increase production in order to bring prices down. My take is OPEC is basically out of spare capacity and maybe doesn't want to admit that although they have admitted it to some extent. What's your take? What's going on here? What is the major factor that is keeping prices so elevated?

Anas: Thanks Erik, and it's really great to be on your show again. We got to look at the mix of economics and politics together when we talk about OPEC and OPEC+ and their decisions. As you know, we ended up with this OPEC+ since 2016, where 10 members including Russia, being added to OPEC. And that's why we ended up with OPEC+ which has 23 countries. It is led by Saudi Arabia and Russia. And this coalition is not only about changing oil production or oil market. The coalition between Saudi Arabia or the Gulf States and Russia is way way stronger than that. And we've seen it in recent months and there are many reasons for that. If you think about it, and if people are wondering why the Saudis and others in OPEC did not really take a strong stand against Russia, think about it this way, the Saudis have a problem in Yemen. And there were resolutions in the Security Council against the Saudis and who did the veto Russia, there was a resolution in the Security Council that the UN Security Council on climate change that would have destroyed the economies of the oil producing countries who did the veto vote, It was Russia. So in a sense all of a sudden, OPEC members and the GCC countries that the Gulf Cooperation Council in the Gulf have a veto power within the UN Security Council or they are not member of it. So why let Russia go when they have this power?

So there are really kind of course, there are other reasons though when it comes to climate change, carbon tax, how to stand to the extremists on climate change in Europe, etc. It is really Russia who can do that. And in fact, if you look around, you'll find out that Putin single handedly without intention has delayed all the climate change policies of Europe for at least seven, eight years. Which means that we have an additional oil demand, we have additional gas demand. That's not being counted in any outlook. And probably within the next few months, as we see the long term outlook coming out of the International Energy Agency, OPEC and the oil majors. We are going to see a revision, an upward revision to oil demand as a result of the failure of

those policies simply because of Putin. So this coalition basically is a very important coalition. And that's why everyone was sticking to it. So they agreed to increase production by a certain amount, which was 400,000 at the beginning. And then when they changed the base later on at 432,000 barrels a day every month. And they've been going with this and sticking to it as they go. When Putin went to Ukraine, there was pressure on those countries to increase production. If they increase production, then they are going to anger Putin and then the coalition will collapse. They already invested a lot of money and a lot of capital, political capital in it, they don't want to lose that. So they decided to stick to the plan, increasing production and that's it.

All of a sudden about 10 days ago, when they had probably more than that, when they had the meeting, they decided to forward the end of the agreement. The agreement will end at the end of September where they can recover all the production cut. So they can go back to pre-COVID production by the end of September, at least in terms of ceiling not in terms of actual production and that's what the agreement was. All of a sudden, they decided to end it at the end of August. If they ended at the end of August. Then what you're going to do with the production of September, what they did is they took the increase in September, divided it into two halves and they added one half to July, one half to August and that increase the amount of the ceiling from 432 to 648. There are many explanations for that. Some people think they are extending the olive branch to President Biden that look we are we are already increasing production. Look what we did. At the same time, they were expecting Biden to visit but they did not know when. But if he's going to visit in July as planned right now, because he's supposed to be in Saudi Arabia on the 15th and the 16th of July. By the time they increase production, it will be September. So it makes perfect sense. If they want to increase production in September, because they are free, they are no quota in September so they can really extend an olive branch to Biden and increase production. The only thing is most of that production is not going to see the market simply because we are talking about production, we're not talking about supplies. We are talking about production, we're not talking about exports. Summer demand for oil increases in those countries because they need additional power generation to meet the cooling demand. And this does not apply only to the Gulf nations that apply to nations in North Africa such as Algeria for example, or nations in Latin America or other places they need the extra demand. Of course, there is winter on the other side. But the idea here is there is extra demand and as domestic demand, so their exports may not increase at all, although they are increasing production. Do they have the capacity to increase production? Yes, they still have between UAE, Saudi Arabia, Kuwait, and Iraq, they probably still have about 1.6 million barrels a day of what we call effective production capacity, which means that they can bring online within 90 days and sustain it. So we still have about 1.6 million barrels a day of spare capacity.

*Erik:* Okay Anas, but as I understand things, right now OPEC+ is not producing even at the level of its current quotas. They seem to have changed their messaging to where they're no longer using the word quota, and they're using target instead. It sounds to me like the game has changed and where we used to expect OPEC+ producers to basically lie and cheat if they could get away with it and exceed their quotas if they could possibly manage not to get caught doing so. It seems like now they're struggling to meet those quotas, which now they've begun to describe as targets rather than quotas. This all to me spells a story of OPEC+ struggling to

increase its capacity. And by your description, you know 1.6 million barrels, that's not very much. So what happens if we need 5 million barrels of extra capacity to meet demand? Where's that going to come from?

Anas: Sure. So let's go back to your original point here. The focus on the quarter or what I call the ceiling here is a mistake. This is not an issue. No one from the beginning basically believed those numbers but we focus on the actual increases. We knew from day one that some countries cannot increase their production. But let's face it, OPEC changed drastically. OPEC+ changed drastically. The most important news in 2021 in the oil market was not covered by the media. What was the big news? The big news basically is that for the first time in OPEC history. major oil producers with spare capacity decided to stick to their own quar and not compensate for others. That was a major, a major change in market structure, a major change in policy, but the media ignored it. What that means is Saudi Arabia will increase production only by its guota. Historically, it did. It did compensate for those who cannot do it. So the idea here is that we should not focus on the quarter, or the ceiling, we should focus on the increases in production. That was literally known before. In fact, we already knew that who those who cheated earlier, they have to compensate. And they knew months ahead of time that they don't compensate, they wait until the ceiling goes up. They will naturally compensate and then they are in compliance. So there is no problem with this here. Regarding the 1.6 million, at least we are covered for this year. We have no problem. If you look at the remaining increase in demand without having a recession versus what's available. We have no problem at all. The problem, of course is what's going to happen to the Russian exports and Russian production. Luckily, it's been increasing. But will things change? We don't know. We'll see how the Russian production is going to go and export. All we are seeing right now is we are seeing changes in the direction of trade worldwide and we are seeing swaps. The Russians are playing it very smart. They are selling to as you know at discounted prices to India and China. They are going to sell to us The OPEC plus members, e are going to see swaps with Iran and other OPEC members, we are going to see some OPEC members buying Russia, Russian fuel oil during the summer, while they export their own instead. So everyone is going to cooperate with Russia to circumvent the sanctions

*Erik:* Anas, let's talk about what's going on in Russia and how their production is going to affect the global market. Because on one hand, you can make the argument that, hey, if they take 4 or 5 million barrels of Russian exports off the market well somebody else has to make up for that. But then you say, wait a minute, wait a minute, if they're going to sell some of that oil to India and China, perhaps at a discount? Well, that's oil that India and China don't have to buy from Saudi Arabia and other OPEC producers. So it really hasn't come off of the market, it's only come off of the Western market, that may affect prices, but it's not as dramatic of an upset as if it was totally off of the market. So let's start with the picture of Russia now. But I also want to integrate into this. What happens in the fall when Europe really really really needs that Russian gas. Supposedly, President Biden is going to export a whole bunch of US gas on ships that don't exist through export terminals that don't exist in order to solve the problem. We know that's not the solution. So what's going to happen with Russia and their production as we get into the fall months, when Europe really needs gas for heating purposes?

Anas: Sadly, Europe has become a political football between Russia and the US and China and the rest of the world. What's going to happen Erik, and this is kind of what's already happening. But people do not believe it until it's published by Bloomberg and Reuters, for some reason. What's been happening is India been buying the Russian cheap, the cheap oil from Russia, and then re-exporting it to Europe. What we are seeing right now is China and Russia buying more and more Russian crude, refining it in China and Russia and exporting the products to Europe at the higher price. So Europe has become a political football. Let's look at what's been happening right now because the idea that there is a competition between Russia and Saudi Arabia is nonsense. Saudi Arabia already announced they are going to cut their exports to China. So Chinese teapot refiners can go and buy Russian crude, and the Saudis basically will start exporting to Europe. So everyone is playing the game, because everyone can make money out of this game here. So Russian crude, or Russian oil will end up in Europe no matter what, but in several formats, at the higher price, and the Europeans got stuck. The other issue is Europe will get the Russia and crude in a different way. Because Russia can export fuel oil to some OPEC members right now who are going to burn it, burn it in their pod plans, instead of their own. And literally, they can export their own initiative of the Russia and crude to Europe. So it is really Russian crude, but the DNA is not Russian crude. So it's kind of a swap and everyone is playing the game.

*Erik:* At the World Economic Forum, George Soros told WEF attendees that supposedly and he claimed to have it on very good authority, but he didn't elaborate on what authority that was. He believes that Russia is engaged in a bluff here, and specifically, he thinks that if Russia were unable to sell gas to Europe, it would force them to shut in their producing oil wells because there'd be nothing to do with the gas. I would think that in Russia, they have flaring stacks like other markets have, and they would have the ability to flare off that gas and continue producing oil. So does George Soros nobody's talking about in this case?

**Anas:** No, not really, because we have associated gas and we have non-associated gas. If you go all the way to the east for example, there are plenty of fields that are completely gas fields. They have some liquids. So this might apply to some small oil fields that have some gas in them, but it's not a blanket statement on everything else. But this is not really the issue. The issue is can Europe handle a gas caught under any circumstances because the game really is the game of biting fingers. What that means is you have two people, each one is biting the finger of the other and who is going to scream first. The one who is gonna scream first is going to lose although the difference between the two could be a split second. So both of them will scream but one of them is going to scream before the other in a split second. And the one who's gonna scream for us is going to lose and Europe is going to lose. Europe cannot afford that. Russia been running a budget surplus Russia in running a trade surplus, they have massive reserves, currency reserves, gold reserves, they can survive a year or two. Europe cannot survive a winter. You already mentioned the winter earlier, they cannot survive that. And that's why they've been delaying those sanctions because they know they cannot survive.

*Erik:* Well, I'm not even sure that they're delaying them. It seems like right now in Europe for politicians, it's very much in vogue to talk tough to Russia, we're not going to let them get away with this. We don't need their stinking gas. That's easy to say in June, it's a lot harder to say that in October, and it seems to me like the stage is set for an escalation of this energy crisis around October when Europe realizes we don't have any choice. We have to buy gas from Russia. And I wouldn't be surprised if at that point Russia says well guess what? We're not going to sell it to you at any price until you lift all of these sanctions, which Russia considers to be politically motivated and unjust and so forth. So you gotta get rid of all your sanctions against Russia or you're not getting another drop of gas? Is that a possibility and what would that mean for Europe?

Anas: Erik, the problem is going to be in July and August, not even October. And I'll tell you why. First of all, we had this fire at the LNG plant, and they announced today that's going to take months to repair. So we lost two BCF a day. That's not going to Europe anymore, where that's going to come from? Where is the compensation is going to come from? The other issue is we already have problems with the interconnector in the UK that brings gas to you. Something wrong went with that. I mean, last week was very strange week. And you can see the web of Putin playing all around. I will not be surprised. I'm not talking about conspiracy theory here. But I will not be surprised basically, if the fire is Russian related and the interconnector is Russia related. We have Kazakhstan announcing that their product oil production would be lower. Other countries in that area saying our gas production could be lower. Algeria already announced or they are conveying the message that we are going to cut off gas to Spain. The Saudis already said we are not going to send the additional amount of oil to China, all of this in the same week where we have the fire and the technical problem the interconnector. So it gives you a feel like as if Putin working his web in one way or the other because every time Algeria, Algeria is an ally of Putin. Why they are pressuring Europe right now trying to take advantage of this. What the Algerians want? They said we need to renegotiate the price, all of a sudden at this time. So you can see that the Russians are playing the game. And then the Russians basically went to the smaller countries where they have small demand, but those countries will be affected, they start cutting them off. And all of a sudden, now everyone is competing. Everyone said oh we don't care because we have enough gas. While everyone is looking at the same gas. Everyone is looking at and said when push comes to shove, everyone wants that gas and there is only 1441. So there is a serious problem. The other issue is all the US LNG that is exported to Europe comes from the Gulf of Mexico. And the hurricane season is coming. And we already know the forecast. We have 21 hurricanes, five of them are major hurricanes. And we know when we have hurricanes even that are not destructive. That limits the shipping, that delays shipping. So Europe could be in trouble, although their storage, their gas storage went up to comfortable levels right now, that can be wiped out in days if they don't have any additional supplies coming. Qatar has no nothing to supply, simply because everything is contracted. Algeria has nothing to supply and if they cut their supplies to Spain, it is going to be a major crisis. So where is the gas going to come from? So I think the crisis is going to happen in the summer not even in October.

*Erik:* Let's quantify how big this gas situation is for Europe. When President Biden made the comment that we could supply as much as they needed. I think everybody knew that that's not

really accurate. But how much could we supply? Let's suppose that the United States does what it's able to do with the facilities that we have, the production capabilities, and the export terminals, and the ships that are available, and we try to bail out Europe by sending US LNG to Europe. How much of a dent could the US realistically make? Does it really change anything for Europe or are they still completely stuck on Russian gas?

Anas: Okay, the first thing is the largest exporter of gas to Europe right now is the United States. So they did make a dent. So that's number one dent. The second dent is caused because the demand at this period, as you know, declines in Europe, and therefore they were able to increase and build up their storage, so that's the second dent because this storage will be useful in the coming weeks, not months, but in the coming weeks. So we have two dents already. And this, the issue here is if Russia because those contract long term contracts, Russia did not by the way stop the flow of gas that is based on long term contracts. So some of the long term contracts are coming to an end in the coming months. And Russia basically saying, I am not going to renew the contract unless you pay me a ruble. and the EU already decided we will not pay you in Ruble. So what's going to happen then? So any cut off in Russian supplies, that's where the crisis is because the US cannot compensate for the Russian loss at this stage.

**Erik:** Do you think that Russia is likely to stand firm come fall when Europe really needs that gas and say, hey, it's in rubles. That's the story. If you don't like it buy rubles, you don't have any other choice. Is it really going to come to that or is that a bluff?

**Anas:** They already did that with other countries. I think they've done so far with four or five countries. And they literally stopped gas supplies to those. The only issue is these are small countries. And the amount of gas is small, and therefore, it does not cause that much pain in terms of loss of revenues. But we don't know what's going to happen with the larger countries and with the larger contracts, whether there will be a pressure on that or not.

*Erik:* And is there any truth to George Soros allegation that Russia is in a pickle, where if they stop exporting the gas, they might be forced to shut in their oil production.

Anas: The Russians are way smarter than what George Soros is talking about. We already have seen them in actual markets and how they operate and work. So it's not only about selling this gas and working deals about this gas, we've seen them basically working deals with in the oil and how they lowered prices, etc. We've seen them play the game of the ruble, because the way they played the game of the ruble is this way. I think it was around the 28th of March when Putin requested that the unfriendly nations in Europe have to pay a ruble for gas. And they have to buy the ruble from the central bank, from the Russian Central Bank. Couple of days later, it seemed his legal advisors told him look, we cannot do both. One because the long term contracts have about 95% of them, the currency is specified. So it's either Euro or US dollar. And if you are going to change anything in the contract, you can nullify the whole contract. So you cannot do that. And the fear was those who signed those contracts, if they are forced to pay in ruble and they refused, and they go to court, Putin loses because when they go to court, they win. Because that's what the language of the contract, and then they can go to another court

and ask for compensation from the frozen assets of Gazprom and Russia. So they know they will rule will lose hundreds of millions of dollars, probably more if this happened. So what they did is two days later, they came up with a system, they said, Okay, you buy gas from Gazprom, and you pay for a bank that is related to Gazprom. So what about this, that your contract calls for paying in dollar or euro, go to this bank and pay in dollar or euro, so you can fulfill the legal obligations of the contract. And you cannot go to the Russian Central Bank, because it's on the list of sanctions. So you don't have to mess with it, just give us the money and we will exchange it to ruble. And then in our country, we will open a ruble account in your name. And then we take the money and we pay Gazprom so it was just again, and that's how they continued. So now Russia can play the same game and continue with it. So okay, to fulfill the obligation of the EU. Let's continue with the same game. You just pay me and I will do the exchange. And we go with that game.

But here I would like to illustrate something that is really important and really important for the audience to hear. What are the sanctions on Russia, if you especially that are energy related? This is why some people cashed on oil and gas and they left the industry in recent months because they thought, you know, there could be problems and why some people basically came to the industry because of this, but both of them are wrong on this, Here's why, Let's start with the Prime Minister of Canada. Justin Trudeau. Justin Trudeau announced early that he is with the Ukraine and he wanted to punish Putin by preventing or stopping crude oil imports from Russia, so he issued an order no more crude oil imports from Russia. But Canada does not import crude oil from Russia. Johnson, Boris Johnson, the Prime Minister of the UK, announced publicly to everyone that we are going to stop oil imports from Russia. And then if you look at the details, it says, By the end of 2022, you go to the to Biden, when he announced that we are going to stop imports. And then he gives them two months leeway where we imported massive amount of Russian oil. During this period, he and literally announced that we kicked out Russian banks from SWIFT system and it was only some minor banks that are not relevant to international trade that's been pulled out of the SWIFT system. Shell, the oil company said that we are not going to buy Russian oil anymore, then you go to the fine print, it says in the spot market. And then you go company by company, all the service companies, people think they left Russia. No, all the service companies said the following. We are going to stop future investment. And what is the new future new investment means, which means that if you have a contract right now for let's say \$15 billion and later on, you want to expand that... well, this is kind of a Brownfield, this is nothing new. This is an extension and therefore it's not included in our pledge not to invest. None of the companies left Russia until today, not a single old company, not a single service company left Russia today. Even McDonald's said we left Russia, and you go now to Russia and you eat at McDonald's. Why because it does not apply to the franchisee. Danon, which is the agricultural company, the French company that has supermarkets and produce yogurt and all that stuff. People think they left Russia, what they said, we are not going to open new stores in Russia. So everyone is playing around this game of language. And even Putin played it to the ruble.

*Erik:* Let's move on to what this is going to mean in terms of price transmission to markets. It sounds like you're saying we don't need to wait until the fall heating season when European

demand for Russian gas picks up. You think that this comes to a head in markets before that? Does that mean the price goes to the moon or have we already seen the price go to the moon.

**Anas:** This is very hard to tell for the following reasons. What we are waiting right now is we have of course, remember we have the substitution between coal, natural gas, and oil in a way that we never seen before. We've seen some of it historically, but not to the extent that we are seeing right now. If spot LNG will go through the roof, we are going to see switching to oil in power plants, we're going to see private generation going through the roof, especially in China, that's going to put massive pressure on the oil market. So that substitution is going to matter. So we cannot talk about oil prices without talking about natural gas prices or LNG prices in the spot market because the contract is completely different game. That's number one. Biden visit by the way to Saudi Arabia, a lot of people are saying, well it's all related. Oil is probably the least important subject in this visit. And one of the main reasons why because even if Saudis want to cooperate and Biden give the Saudis everything they want, between the time they increase production, and that oil reaches the United States, the elections in the United States are over. And the the summer demand for gasoline is over. So the Saudi increase in production at that time, the additional increase is irrelevant. And therefore, there is no reason to waste any political capital on oil discussion. There are more important subjects to focus on. You have the medium and file you have the Iran file, you have the Iraqi file, you have the Syrian file, you have the Lebanese file, you have the two islands that Saudi Arabia got back from Egypt. You have the Abraham accord, the role of Israel in the area. And then you have those major investments that Saudi Arabia might make in the United States, etc. The Saudis are going nuclear, they want to build nuclear plants for power generation, we might see an agreement on this where GE or Westinghouse or others selling the technology to the Saudis, etc. But oil is going to be relevant climate change is going to be very big on this visit. I think the Saudis will try to show how they are leaders in policies to reach carbon neutrality by 2060. They are going to show off this in every way possible. So oil is going to be irrelevant here. If it isn't relevant, that's bullish for the oil market. So it's very hard to tell. On the other side, you have the recession, whether we are already in recession or we are going to head for a recession. So it's very hard to tell where over the next few months are going to be, but I can tell you without any reservation, that in the medium term and the long term, I am very bullish on oil and natural gas.

*Erik:* Let's focus on natural gas specifically in the United States. One of the theories that's been posited by several different analysts is that US and European natural gas prices are set to converge not necessarily because of direct arbitrage is possible because of course, the transportation cost of LNG is much higher than oil. But the thesis is basically that as we get more that is being exported, eventually, we're not going to have the surplus that has existed in natural gas for so many years in the United States. And all of a sudden market prices are going to balance out. What that would mean is dramatically, dramatically higher natural gas prices in the United States, because European prices for natural gas are about three times higher than US prices. Is that a realistic concern that we could be looking at dramatically higher US Nat gas prices, which would of course translate to higher electricity prices as well.

**Anas:** Absolutely. In fact in 2014, I've written a report saying that once LNG exports. That is US LNG exports exceed 8 BCF a day, what you described is going to happen, and everything happened to the letter, this prediction although it's from 2014. So it is very clear what you said is absolutely correct. But here are the issues. What we are seeing right here is I mentioned earlier that Europe became a political football. And what the European did, and that was a big mistake is shifting all their purchases of spot gas from Russia to the United States. And from an energy security point of view, is a big mistake. And Europe is going to pay the price dearly for this. And one of the reasons why we already mentioned earlier, the hurricanes in the Gulf of Mexico. But if natural gas prices go up to \$12 and \$14. In the United States, you are going to see politicians who support Ukraine and they are against Putin, and they support the EU, they are going to say, look, we have to restrict our LNG exports. We heard this with oil, right? We heard this with several senators basically calling to either to return to the pre-2015 when US crude was not allowed to be exported or at least put some regulations where smaller amounts will be exported. So we are going to see politicians basically pushing this idea that we should limit the exports to Europe. So Europe is in trouble where they are going to get that gas. The first big move in gas is going to be in 2027. So there is a big gap here, if the US is not going to export to Europe and what is Europe going to do? They are going back to to Russia. The other issues, basically is this is a spot market, this is not a long term contract market. That's very important because if the Chinese pay or the Koreans or their Japanese pay the American companies more then that gas is going to move to Asia and not to Europe, because it is a spot contract. So there are several problems here where Europe really got stuck and they have to really rethink their policies. Otherwise, we are going to see crisis in Europe and we are going to see people dying, either from heat or cold.

*Erik:* When we talk about the situation in Europe. Do they have a substitution option? In other words, if they were willing to compromise on their climate goals and say, okay, look, we're gonna go back to a whole bunch of coal fired power generation, rather than Nat gas because we've got this shortage of gas from Russia. Do they even have the ability to do that?

Anas: That's the sad part is that there is a limited ability to do that. They can go back to some of the old plants, even oil, some of them still have oil. And some of them still have the option on nuclear. But the problem is they closed most of it. And to return to it will take really long time and massive investment to go back to it. So that optionality exists but limited. And that's why they got stuck. And the idea that this of course, they did not put limit on natural gas imports like they did with oil. But they already said that 90% of the oil we import will stop by the end of the year. They are going to extend it and they have no choice basically, otherwise, those governments are going to collapse and a new government will come in. So Putin is winning no matter what regardless of what the press is saying.

*Erik:* So far, we've been talking tactically about what's going to happen between now and the fall heating season in Europe. Let's now step back and take a bigger longer term view. It seems to me for as long as I've been trading crude oil, everybody was speculating as to how much spare capacity OPEC really has, is it 10 million barrels like they think, or is it really only eight? Well, now you're telling me it's about 1.6 Seems like the number, whatever it is, is really pretty

darn small. I talk to people in the investment community, we just added a new sponsor, Respect Energy. This guy really gets it, he understands exactly what's going on with oil and gas and Europe and so forth. And I meet this guy, he was completely plugged in. And then I talked to him about what businesses and he says get involved in oil and gas investment now! Are you crazy? You know, we're totally in renewables. That's where the future is. That's where we get the benefit of a tailwind from governmental approval and subsidies and so forth as opposed to a headwind from governmental disapproval resulting in sanctions and so forth. Why in the world would anybody invest in oil and gas? I see a situation Anas where I think that we probably are in the final years of the age of oil. But it seems to me like we've phased out oil and gas before phasing in its replacement. And it seems to me like a setup for those last few years of the oil industry to be defined by an oil and gas crisis where we don't have enough and nobody wants to invest in finding more because there's no future in it. Am I right to think that and where could this be headed?

Anas: You know what is my dream? My dream basically is to leave everything I'm doing and just go to private equity right now, and build a private equity that has over \$100 billion to invest in oil and gas. And I'm going to make the case right now. First of all, there is no substitution or very limited substitution between oil and renewable energy. And the reason why because renewable energy is used for or to generate electricity, very little oil is used to generate electricity, whether you're talking about Europe, India, China, US, Canada, Japan, South Korea, etc. A very small percentage, and most of it is related to geographic location, or historical reasons. So there is no substitution between renewable energy and oil. If Europe today decides to double its renewable energy has no impact on oil. That's number one. Number two, we have a serious problem right now with the forecast. Because the first issue is, if you look at the long term forecast, the first mistake that they assume the largest drop in oil demand in the future is not coming from electric vehicles. It's coming from the improvement in efficiency of ice engine internal combustion engines, which mean gasoline and diesel. But if you look at their numbers, they think that between now and in the next 25 years, the demand for oil declined between eight to 12 million barrels a day, just because of the improvement in ice engines. So notice this, they are talking about ice engines in 2045. So what the heck when when people say this is they are themselves talking about this. The irony is, if you look at the efficiency they are predicting, I don't need electric vehicles because those cars will be more environmentally friendly than electric vehicles and way cheaper. And the infrastructure is already there. I don't need any new infrastructure. So you can see the contradiction. So we have exaggeration in this improvement in efficiency. We had the low hanging fruit in the 80s, we already improve the efficiency of the engines technology maxed out, we used lighter metals, we cannot use any lighter metals right now, simply because the cost of the car will go up. Like if you look at Ford 150. It will go up, let's say from \$60,000 to about \$110,000. So Ford is not going to do it. And we are using smaller cars, we cannot make cars smaller than our bodies. So we maxed out on everything. And therefore those estimates of a decline of 8 to 12 million is absolutely incorrect. It never happened in history. And there is no reason for it to happen in the in the future.

So we are going to be short, probably 4, 5, 6 million barrels a day that increase in demand because of the failure of forecasts of the green policies that is not there. The other issue on

electric vehicles, we have major exaggeration, I mean look at it this way. When they tell you we are going to have this 200 or 300 or 700 million vehicles, guess what they are including scooters and electric bicycles. Well, if you are replacing a regular bicycle with electric bicycle where is the gasoline saving in this case and look at the numbers. They are assuming for example, and this is a true story. One major city is going to change its buses to electric buses. And the major reports that are without naming names are saying that this is going to save us 60,000 barrels a day. So demand for oil will declined by 60,000 barrels a day, because this big city is changing its buses to electric buses. Here's the problem, this city does not have a single diesel bus, all the buses run on CNG, compressed natural gas. So the impact basically is coming, it will be on natural gas demand, not on oil. So there are all kinds of exaggeration and lies about those numbers. And the compensation basically is well demand is not going to decline by 60,000. Therefore, where did that 60,000 is going to come from? The final point is why I'm very bullish on oil is we are right now the global demand is about 200 million barrels a day. To keep oil demand at 100 million barrels a day in 2050. We need at least 700 million electric vehicles on the road. And when I talk about vehicles, I'm talking about real four wheel cars 700 million. How many do we have? We have less than 30 million right now. So in 30 years, I'm supposed to have almost all that 700 million. This is not the story. Here's the story, that 100 million even if you go with the decline in demand, let's assume that demand is going to decline. And today, it's 100 it is going to go probably 112-115 like some people are predicting and then it's going to decline to 75. That's 75 million barrels a day in 2050 has to be completely fresh oil that we don't have today. I need trillions of dollars of investment to have that 75 million by 2050, a decline in demand does not mean lower prices, I might end up with 75 million in 2050 and the price of oil is \$500.

Anas, I want to go back to your pitch for the multi 100 billion dollar private equity fund that's going to rescue oil and gas. First of all, right now it is completely not viable as an investment vehicle because anybody with an ESG mandate is unable to invest in it even if they want to even if they agree with you. And eventually I think that will change. But I want to go through this scenario. Let's imagine for the next two or three years that it is just not viable to create that investment vehicle because nobody is allowed to invest in it even if they want to because of misplaced ESG mandates. Eventually I predict that as people get their heads around just how big the cost of this great energy transition that our elite leaders are pitching to us when they get their heads around how expensive that's going to be. I think you're gonna see a change in the politics, a change in government attitudes and a realization that we really do need to invest in oil and gas I'd say three to five years into the future from now. If it happens then and we have to pick up the pieces at that point and say, Okay, how are we going to take care of all of the spare capacity which has eroded the production capacity, which has declined is all producing oil wells do decline in their production ability over time. And we have to play catch up and start at that point five years into the future. And all the sudden it becomes okay again to invest in oil and gas. I would argue at that point, we're already screwed. We've gotten to the point where we're so underwater, and so out of spare capacity that prices are going to be debilitating.

**Anas:** You are absolutely correct. And that's why we are going to see if you want to talk about the Arab Spring being repeated in other countries, changing governments, unstable governments, which mean that a government will go for re-election, and then it will fall two months later, and then another election and then it will fall two months later. Because that's really I mean, your description is a perfect description of the crisis that I'm talking about. That it's too late already. We can reduce it a little bit. But it's going to be crisis no matter what. All we can do is instead of having this mega crisis, probably a little bit smaller. Because not only ESG basically and there is a good news, by the way about ESG. The good news is the same way I explained how politicians played with the sanctions and the promise things that were totally false or irrelevant. We are seeing the same thing with ESG exactly the same thing. I'm going to give you some examples. When companies, I call those scavengers, scavengers are the companies who set goals to reach carbon neutrality, and then they told their people look at my history and what I have today and see what I've been doing green already. So companies like Target, like Walmart, and all those big mega stores, basically found out that they've been green already a long time ago. Why? Because they have those skylights in those stores. And they counted that. But that's been there for 40 years. So you can see how everyone is playing the game companies, major company that has let's say big canvases with 2000 trees on canvas. They are counting the carbon that sequestered by those trees right now but those trees are 100 years old. Companies that decided to downsize because of Corona, they counted the downsizing toward their climate change goals.

*Erik:* So it sounds like we are in agreement on us that we've reached a point where a major global energy crisis is inevitable. And that crisis is defined essentially, by our political leaders policy, taking away investments in producing oil and gas resources before the replacement had realistically been phased in. Am I right that at this point, it's just too late to avoid that crisis? It's coming no matter what.

Anas: Absolutely, we can influence the size of it, the size of that crisis. We can mitigate some of it, but you are absolutely correct. And that's why when I talked about, by the way, I talked about the dream and what I hope for, because I agree with you, that is very difficult to build such a private equity. But the idea here is we need someone who had the right vision for the future basically to manage those investments because people are going crazy. For example, let me give you an example on how crazy it is. Right now, when you have major funds divesting from energy. There are rabbits, I mentioned scavengers earlier. Those guys are rabbits, why they are rabbits. Because if you really care about climate change, you just left the table to someone who does not care, because you sold your assets to someone who does not care or care less than you. So you are being a chicken, you chickened out, you are not fighting for climate change, you just made the situation worse. So those who are divesting basically, and they believe they are standing for climate change, it's exactly the opposite. And to give you another example, let's say I'm an energy company, and I own several assets, including a refinery and my refinery is 80 years old. And most of my carbon footprint is coming from that refinery. And I have a mandate, basically, to get the Greener for my board. All I get to do basically is sell that refinery, and come back to the board and show them how I reduce my footprint by 60%. But someone else bought that refinery. So the carbon is still there. The society, the globe did not change.

*Erik:* Anas, final question for our investors in the audience who want to make money and maybe even do a little bit of good along the way by being smart about this. What do you do from an investment play standpoint to both help the problem and take advantage of the economic opportunities? Because I think, unfortunately, that you're right, we are headed toward an inevitable global energy crisis, which is going to be a major big deal and probably contribute to a global food crisis, which is also in the making. How do we make this better? Where are the investment plays? How do you make money on this?

Anas: Investors must realize that we have governments, we have markets, and we have unintended consequences to government regulations, they must realize that all the ESG and the climate change policies and the carbon neutrality policy basically are representative of government wishes, not what happened actually in the market. So if you put those three parts together, you end up with the idea that we should focus on the unintended consequences, and the power of markets, for God's sake, people sin because of the power of markets, although they are religious and believers, but the power of markets so powerful it trumps either religion in this case, so they need to focus on those unintended consequences. How the power of markets basically Trump and overrun government regulations and how people believe behave on the ground. And if they do that, they realize that we are heading for that major energy crisis. And if they prepare their investment for that, they will make a lot of money.

*Erik:* Anas, I can't thank you enough for a terrific interview. But before I let you go, I want to talk a little bit about the work that you do. When I first met you before the COVID crisis. You were one of the most sought after keynote speakers on the global energy circuit. Are you able to do any of that public speaking now that the crisis is winding down and if so, where will you be speaking, and what else can people do to follow Are your work?

**Anas:** Sure I am back in this speaking circle globally. Most of my talks basically are international. But I do have three, four of them, I cannot talk about them because they are private events here in the United States. Mostly to board members and the financial community. The best place, I do have a website. Unfortunately, I was not able to update it, but it's my first name and my last name, anasalhajji.com. The same thing with my Twitter handle is the same thing (@anasalhajji). People can reach me on Twitter too, because I put a lot of stuff on Twitter and I urge people two things here. The first one is when I put stuff on Twitter because of certain things they need to read between the lines, I'm not going to be very clear on some issues and purpose by design. And I think people understand that. So they need to understand this. I can convey it in private speaking engagements and explain it, but I cannot say it publicly. The other one is, I tweet out of things in Arabic, very valuable information in Arabic. And when people see a tweet in Arabic, Twitter has a function, which is the translate function in the bottom left of the tweet of every tweet, or they get to do just press that translate and they get it in the language they need. So don't look at the Arabic thing and just let it go because there are some really valuable information sometimes breaking a news like today for example. There was breaking news that the waiter story about OPEC 2023 forecast is absolutely not correct. And that was

published first in Arabic. So they can get the breaking news too by clicking on that translate button.

*Erik:* Well Anas, I strongly concur having translated your Arabic tweets for several years. They definitely are an excellent source of information that should not be missed. Patrick Ceresna and I will be back as <a href="MacroVoices">MacroVoices</a> continues right after this.