



MACRO Voices
with hedge fund manager Erik Townsend

Dr. Anas Alhajji: 2024 Energy Markets Outlook & More July 20th, 2023

Erik: Joining me now is Dr. Anas Alhajji, managing partner at [Energy Outlook Advisors](#) and noted keynote speaker on energy markets. Anas, it's great to get you back on the show. I'm really excited to get an update for you on your outlook on energy markets. For the benefit of any new listeners who may have missed our prior interview. Anas basically has nailed this market saying to us look, don't get too excited even though I think Anas and I agree very much in the longer term, about a bullish outlook. Anas said don't get too excited in the first half of 2023, it's not time yet. If we're gonna have a big bull run and crude oil, it's not coming until the second half. So far, that's definitely proven right. So Anas, I'm just can't wait to get you back on for an update. You nailed that call, what comes next? Is it time for this market to finally turn up? Why didn't Chinese reopening recreate demand as everyone expected it to and what should we expect next?

Anas: Thank you very much Erik. it's always a pleasure to be on MacroVoices. It was clear from the beginning. If we look at how countries open after locked down that we are going to have an increase a sharp increase simply because of the transportation sector. But for the rest of the economy to pick up, it takes time. So aside from all the ills of the Chinese economy, it is just the fact that these things take time. So the idea that we open up tomorrow, and everything is back to normal, it's not what happened. So we expected that we have increase in consumption because of the transportation sector. And then the economy will kind of improve little by little over time. So we're not that excited about China. But the issue that some analysts basically fell into the trap of the Chinese government did after reopening. As you know, because of the long period of the lockdown many students and of course, they are in the 10s of millions got locked away from their families. And the same for soldiers and policemen and others. So they stayed away from their families for a very long time. When the government opened up, they literally chartered 1000s of planes and buses, etc., to move those people so they can visit their families. Some people look at that as look, this is back to normal. And this is what the trend is, but it was a one time thing. And then we'll go back to normal on the transportation sector. But for the rest of the economy, it's not that much. And we ended up with a situation now. And now since you mentioned that we nailed it on 2023. Today, we published the report on a first look at 2024. And we pointed out two issues that we overlooked in our outlook for 2023. And I think the both lessons that we learned from this are lessons for everyone. So we were really bullish on the fourth quarter of 2023. That's our view. We are still bullish, but not as bullish as before. Why? Because we never expected the Chinese to build their inventories the way they did in the last three months. Which is very dangerous because we've seen them doing this before. And we've seen them releasing this as oil prices go up.

Erik: Hang on a second, please elaborate on what you mean. What has happened in the last three months?

Anas: The Chinese basically build their inventory significantly. The commercial and the strategic petroleum reserves. So they are almost at a billion barrels right now for both.

Erik: They're buying every drop of crude oil they can get as long as they have a tank with space in it, they'll buy some more.

Anas: Correct but the issue here is that people confuse demand with consumption. Demand is not consumption. The difference between demand and consumption is the storage, which means that the consumption was way lower, but they were storing oil and those who did not know the difference. They looked at imports and they said oh look, the Chinese economy is growing. Look how much oil they are importing. Well, a lot of it basically went to storage and therefore the economy was not growing as fast as those guys thought. But for us, for our outlook the existence of this extra oil kind of destroyed our view of very bullish on the fourth quarter. So we are still bullish, but not we are not very bullish anymore. And the reason why because we've seen the Chinese releasing oil from the SPR and releasing oil from commercial inventories because in China, even commercial inventories are really strategic reserves anyway because they are mostly owned by the government owned companies. So if oil prices go to, let's say 80-85 and stay there, we will see the Chinese releasing probably 80 million barrels from the SPR in the next few months. And therefore, we are not going to see the spike in prices that we were expecting in the fourth quarter.

Erik: You're saying China has been building its SPR for the last three months, and you expect them to release 80 million barrels that they've just built in coming months? I'm missing something.

Anas: Yes up to 80 million if prices go up. If prices do not go up, they will just keep them. they will keep buying. But if prices go up and the market gets tighter, and prices go higher than what we are and the reason why we are talking about 85 and higher for releasing the SPR. Because historically they released the SPR anytime Brent went above 70. So now because they are buying the cheap Russia crude, the average for them is different from the past. So the threshold is no longer 70 Brent, it's higher than 70.

Erik: So you think that China has been spending the last three months aggressively building their stocks of oil. And if oil prices go higher, it makes perfect sense to me then they might start to reverse that. But you're saying only a little bit higher only, you know into the 80s 90s. I would have thought they'd hold out for 150 bucks before they would start reducing their storage.

Anas: Based on our studies, the threshold was 75 and then after looking at the data in 2021. We found out it is 70. And now because they are getting the cheap Russian crude, that threshold got messed up. So it's higher than 70. But the idea, this is one of the ideas that we

missed. We never talked about the Chinese basically building the SPR the way they did. The other idea that we missed and we learned from it the hard way is we knew and we talked about in the previous interview, how oil producing countries are buying oil and products from Russia. So OPEC+ basically are buying from each other in a sense. We talked about that but what we missed was this trade reality was way way larger than what we expected.

Erik: And how much larger is it and where did you get the data now that you didn't have then?

Anas: Last time, we did not have enough data. Remember the European sanctions on petroleum imports from Russia started in February. I think our last interview was in March. So there was not enough data to see what the impact of the ban is. So what the Russians did basically is they literally scrambled all over the world try to find markets, small and large, etc. But we found out that the large oil producing countries are buying large amounts of products from Russia. And the reason why this is important because Saudi Arabia for example, or other Gulf countries can literally cut their production in the summertime, which no one could have expected because their power demand for oil increases in the summer as you know that power burn because they need a lot of electricity for cooling. And that increase in the Gulf basically could add up to 7-800,000 barrels a day in the summer. And sometimes in a tight market that comes at the expense of exports, which means that exports decline and oil prices globally increase. What we see now is something different where they are cutting production. They are not worried about the power burn because they are importing the Russian high sulfur fuel oil to burn in their power plants at a very cheap prices. That's another point we did not forecast. We were not able to. We learned it the hard way.

Erik: Anas, let's move on beyond the immediate timeframe to longer out something you and I have agreed on in the past interviews at least has been that this ESG trend which is almost criminalized institutional investment in oil and gas exploration and production is going to result in a major energy crisis in future years. We were kind of perceived as crazy conspiracy theorists to think such things when we first started talking that way. Now JP Morgan has jumped on board with a very similar view and a recent research note where they're projecting a shortfall of 4.2 million barrels per day of crude oil production by 2030. Now Anas, bear with me if I get technical here with my terminology, there's no effing way that anybody on earth has 4.2 million barrels of spare capacity. If OPEC turned up every screw they could possibly turn, nobody's got an extra 4.2 million barrels of capacity until somebody invests in building it, which I don't see happening. Where is this all headed and what is your outlook longer term and when does that start to happen in markets?

Anas: Strangely enough, there 4.5 million shortage is very close to our numbers that we produced last year. And the issue here is this. Once you move from a static model to a dynamic mode, which they did not do. You end up with a better picture than what they are showing. And the reason why, once all prices increase, they reach a level where we end up with demand destruction, and that demand destruction will eat most of that shortage they are talking about. So the issues are in my view, are not really the lack of investment. If you look at 2022, the increase in investment in 2020 was one of the highest in the history of the oil industry, the rate

of growth is one of the highest. So the industry responded. If you look at what Total Energies and Shell did in last two months. As you know, the other side are attacking them big time because they're reenact on their ideas and BP too that they will cut their investment on oil and gas. And now they said no, they are going to go back to the original plans. Seems they knew even before JP Morgan and others that this is what's going to happen. We are going to end up with shortages. And I really advise everyone to read or listen to what the CEO of Total said about this because he was the most eloquent person to do this last week on CNBC. And for those who wants to read it, by the way, we already published it in last week report and we are publishing it today in the daily energy report. We are publishing his statements. He just stated that in a very beautiful way that look, if we don't focus this way, we are going to have a major energy crisis and a lot of people will die. I mean, that's the conclusion of everything he said. Of course, he said it more eloquently than the way I am saying it.

The issue here is even if you look at the media, even the Financial Times published two days ago, an article that goes against ESG. That was unimaginable just a week ago. So even the media is changing, why? Because the government's... the European governments practically changed on the ground. They went back to coal, they went back to wood, they went back to fossil fuel, they literally spent billions of dollars subsidizing gasoline and diesel in their countries that are giving consumers money. And that's why by the way, gasoline consumption in Europe went up because of those subsidies. So they're already on the ground, they change their attitude. The companies saw that. So when we look at the oil companies behavior, we should put it within that framework. We have a major change globally, the whole sentiment and narrative is changing. And then if you look at what India is doing and China is doing and the oil producing countries and what the African leaders are saying, you can see that the narrative is changing. The European narrative is no longer valid. No one believes the European narrative anymore. So we will get more investment, because the narrative is changing. And I strongly believe that this COP28 that's going to be held very soon in the UAE is going to be a significant event in the history of the energy industry and all the environmental business, because the narrative is going to change. And once that narrative change, we will see people coming back. In fact, there was a piece of news today talking about a big fund basically changing their policy of just dumping ESG and coming back to invest in oil and gas. So the narrative is changing. We have no problem, we can catch up with investment. My fear, and this is part of our long term outlook. My fear is that no one is going to pay attention to the failure of some of the climate change policies that by default, the moment they fail, the moment they don't deliver the demand for coal, oil and gas is going to increase, by default. And the other related point is by default with the failure of those green policies, governments and companies are going to switch to natural gas because it is the natural choice for them under the climate change policies, and therefore, the demand for natural gas in particular is going to be way way higher than current forecast. The demand for oil is going to be higher than current forecast. And that's where the energy crisis is going to come from. It's really from the unexpected increase in demand that no one is counting for.

Erik: And when you say that there's going to be an unexpected increase in demand and nobody's counting on it, is the reason that you say nobody's counting on it because you think

that people who are counting on a reduction of demand, thanks to what I think you and I might agree are unrealistic expectations they have about how quickly green energy is going to come on to replace it. Is that the reason or is it something else that's leading you to that conclusion?

Anas: That's exactly the reason because if you look at every single long term outlook, they are taking government wishes and saying this is the outlook. Well, we have over 100 years of 1000s of books and articles on government policy failure. Why we talk about government policy failure when it comes to COVID, when it comes to health, when it comes to foreign policy, when it comes to immigration, and all of a sudden when it comes to climate change, it's perfect.

Erik: Okay well that will sort itself out in the political arena. We can't do too much about that. But what I want to understand in this interview Anas is let's imagine that people finally maybe came to their senses and realized that you can't phase out fossil fuels before phasing in viable replacements. And I'm all for phasing out fossil fuels but you got to have the replacements first. We don't have the replacements. Let's suppose we came to our senses about that and we realize okay, we are still going to have demand growth because as much as we would like to be replacing fossil fuels with green energy. We haven't made any progress on building that green energy. And until we do, we're stuck with fossil fuels, we're going to need more of it, we don't have it. What's going to happen, let's imagine that even the ESG investment trend finally gets rectified and comes to its senses. What I'm not seeing is where more production can come from even with investment without a really long time lag. And the reason I say that, at least is I understand how the market works. You're far more expert on this than I am, is that for all of history or at least for the all of my lifetime. For the last 60 years of OPEC existing, the way things have worked is that OPEC always had plenty of spare capacity. And if they wanted to, they could increase production. And of course, they don't always want to, that's a negotiation and so forth. But when they want to, they can increase production. And there's a still a lag time it takes a while before prices can come back down. But with time they can bring the price back down. I think we've gotten to a point where OPEC has almost completely run out of spare production to where they can't do anything. There's nothing for OPEC to do other than to say, yeah nothing we can do either. Prices are going to keep going up until it leads to enough demand destruction to balance the market. And I think that's where you have energy suddenly completely strangling the entire global economy because energy becomes too expensive. So where is this going to come from? It seems to me like we've kind of seen shale oil growth go pretty much as far as it can go. Maybe there's another million barrels a day there in US shale... I don't know. Maybe there's some offshore on Guyana, a couple million barrels eventually there. But that's only going to make up for a decline. Where's that 4.2 million barrels from 2030 going to come from even if we came to our senses.

Anas: Sure. So if you look at some forecasts three or four years ago with ESG and all those wishes by the government's some forecasts, basically were predicting that global oil demand will reach 105 million barrels a day by 2030. So only seven, eight years from now basically. By that time, it was a decade. And simply because they said look EVs and this and this is meant to replace this, this, this, and this. People have to realize that based on the current forecasts, we are going to hit 105 by the end of 2024. 6-7 years earlier. So the crisis is really near in this case.

So looking at 2024 balances which a report that we released today. And it's really amazing to see that oil demand is going to hit record in 2024 under any scenario. It is going to hit a record, under any scenario.

Erik: When you emphasize any scenario. Why are you emphasizing that? Do you mean even in a significant economic recession?

Anas: Yes because we still have about 17-18 months to the end, about 16 months left to the year. And recession usually does not last that long. But even if you count for that, because the recession wipes out growth. The decline in demand does not exceed 3-400,000 barrels a day and that's it. So after the recession, everything builds up again. So under any of those scenarios, we are going to have a record demand no matter what, and that 105, we are going to reach it sooner than earlier expectations. and what is amazing about 2024 is the presidential election. The presidential election is going to cast a shadow on the oil market. Trump and Biden both of them entrench themselves in their positions toward the oil market. So oil is going to be an issue in the elections no matter what. And the option of using the SPR becomes a big issue. Probably we'll talk about SPR later on. But the issue for 2024 because you are talking about the long term and the 4.5. I'm trying to show you it could be way earlier than that. If OPEC maintains its cut as promised, until the end of 2024. Given that the demand is going to reach 105. We are already going to be short 2 million.

Erik: Well, it seems to me Anas that before 2028 or so and I don't know exactly, it's very hard to time these things and get it right. But definitely before 2030. We're going to get to a situation where I think it's 1973 all over again, where what's different is it's not about like say 2005 where energy prices get so high that you know gasoline costs \$6 a gallon. Everybody in a very strong economy at a time when people are making a fortune flipping houses, you know, gasoline costs a lot. So when you drive to the job site, where you're making 100 grand flipping a house in three months, you know, it cost a lot of money in 2005 to fill your gas tank. Well you had plenty of money to burn. Now we've got a completely different economic situation. And I think we get to where the cost of energy prevents the economy from growing and locks the economy into recession that stays in recession for several years as happened in the 1970s energy crisis. Is that too extreme or is that consistent with what you see coming?

Anas: Okay, there are certain points that the listeners need to know. What we are seeing right now in the oil producing countries yes, we have the spare capacity grew as Saudis and others cut. So we have a certain spare capacity. But counting that spare capacity on its own is not the right way of doing it. And the reason why because those countries are spending massive amount of money right now on renewable energy and switching to natural gas. And some of them already went to nuclear, which means that their domestic consumption of oil is going to decline. So we have to count the spare capacity, plus the switch from domestic consumption to export. So we do have a lifeline there in those countries. That's number one. Number two, we have the Arctic. Now with all the eyes on it, if you look at Norway. Norway, basically at the beginning of last year, they opened up 136 fields despite all the environmental objections and all that stuff. And we're not even talking about Russia, in this case, at all. China just last week,

finished building the first icebreaker. So in a sense, we still have areas to go to but most of that 4.8 that you are talking about will be demand destruction. We cannot handle high prices so there will be demand destruction.

Erik: And I think that is the fundamental difference that I'm talking about is there's an economic phenomenon, which as the cost of energy gets more expensive and therefore because it's more expensive, you know, it hurts the profit of everybody's business, and it just drags the economy down, then there's a completely different equation, which is there's not enough energy, and therefore the price gets bid up to some level that stabilizes and creates enough demand destruction. It means that people who need energy aren't getting it. And the markets mechanism is not to say no to anyone, but instead to just increase everyone's price to the point that some people say no to themselves, but it's still preventing the economy from recovering as it did in the 1970s as opposed to other times when we've had high energy prices that just contributed to the high price of everything else. What we had in the in the early 70s was energy and energy crisis was literally the thing on everybody's mind because it was stopping the economy from moving forward. I think we're headed back into that in the late 2020s.

Anas: I'm going to be the devil's advocate here. I don't agree on using the example of the 70s because really what destroyed the economy at that time and caused the shortages and all that stuff is really price controls, which we don't have. That's number one. Number two, on the second part of of this, we have to pay attention to what happened in 2007 and 2008. Oil prices almost reached 150 and yet, we had one of the best economic growth rates between 2004 and 2008, until the financial crisis happened in Europe, and the United States, and China, and India, and many of the Asian countries despite the \$150 oil. What the conclusion, what the lessons we learned from it is, if you have the right fiscal and monetary policies to go with that crisis, then you can mitigate most of it. The problem is if our politicians and our officials in the Fed and the central banks adopt the wrong policies, that's where the problems are. But we do have evidence from history that if we have the right fiscal and monetary policies, we can handle or mitigate the impact of higher energy prices.

Erik: Anas, let's come back to the Strategic Petroleum Reserve which you brought up a little bit earlier in this interview. You and I have talked about this before and I think we've tended to agree on most of this in the sense that when a lot of people were saying okay, in the spring of 2023 get ready guys because there's going to be a huge bull market in oil because the US is going to be refilling its SPR. I think we both kind of chuckled and said don't count just because they said once that they were going to do that on it really happening. I didn't think they were going to refill it. But I also didn't think they would continue. I think we're at something like 15 consecutive weeks now of draw downs continuing against the the US SPR at the very time of year when we were originally promised that the Biden administration was going to be refilling what they had drawn down last year. So what's going on here, where's this headed?

Anas: The first thing that people must know is that the refill rate of the SPR, and I'm talking about technical issues here is very low. That's why the government is buying 3 million or 3.2 a month because it takes a month to inject the 3 million into one site. So whatever they do in

terms of refill and of course, there's 12 million barrels that they bought some and they are planning to by this fiscal year has no impact on the market anyway, because it is a small amount but even if they go for 60 or 90 million, the impact is very limited, because this will be over a long period of time, because the injection time. It takes long time. So let's start at this point that the impact of the refill is very limited. It's not like you just you know, bring a whole Tanker of 2 million barrels and dump it in one day. It does not work that way. The second point is, it is very clear, as we discussed in the past that they want to refill with medium sour crude. And a lot of people do not understand the requirements for the SPR because many Canadians were saying look, we're out here buy from us. Well, the conditions are very clear. The first one is it has to be American produced oil. And it has to be medium sour which means that shale producers will not benefit from it. And some people say yeah, but we can blend it. Well, the second condition is that the oil into the SPR cannot be a blend. It has to be original crude, no blending. And therefore because it's American, we exclude Canada and the rest of the world. And because it cannot be blended we exclude shale and others. So most likely, all of it is going to come from the Gulf of Mexico, because that's where most of the oil that matches those conditions is. The third point, which is kind of very interesting that we really and I hope that there was an effort basically to have an open congressional investigation of this. And I really would love to see it although it's costly, but it opens up so many things here. We really want to know what the technical status of the coverings are and what happened after the drawdown. And why is costing billions of dollars basically to maintain and revamp this coverage. And the reason why I'm saying this because I have no evidence but there is no commercial sense of buying those 12 million barrels. There must be some other technical issues related to that. It just does not make sense. You release 221 million barrels in 2022 that the 180 plus the congressionally mandated amount, and then you go and buy only 12. For the SPR to make perfect sense. Oil prices have to be low and I'm talking about the refilling of the SPR. Oil prices have to be low, and based on our calculations, probably 43 or lower for the WTI to make sense to buy and refill the SPR.

Erik: Do you think the SPR, the US SPR will ever be refilled fully to let's say back up to more than it was at the beginning of the Biden administration, 600 and...

Anas: No basically, they already kind of expressed their intentions. And it's very clear. First of all, we don't need to and the reason why because if you look at the SPR, when it started in the 70s and then President George W. Bush after September 11 terrorist attack, he ordered to refill it to 700. At that time, we did not have the shale revolution. The shale revolution came in at 2010 and added literally 8 million barrels a day of sweet crude. 8 million every single day, every single day. So why I need sweet crude if I am producing more than what Saudis exports in one day.

Erik: Anas, I'm a little concerned by your statement that the rules require refilling the SPR with American made oil and that blending is not allowed. And the reason I say that is it seems to me like the worst thing we could do is refill the SPR with the same kind of light sweet crude that we have abundantly already in the United States. Because the whole point of the SPR is if our imports got cut off, that we wouldn't be screwed. So what we need is the blend stock, we need the medium and the heavy to blend with the light that we can get from US producers.

Anas: Technically, when you are storing oil for years, you cannot have a blend. It's a technical issue. It's not a political decision.

Erik: Okay so where are we going to get oil to refill the SPR? That's not light sweet? And what's the point of having late sweet in an SPR. You know, what does that accomplish?

Anas: I think we are going to end up with 2/3 and 1/3 which means that 1/3 is light sweet just in case of emergency and the 2/3 is going to be sour.

Erik: And where does the sour come from?

Anas: The sour is going to come from the Gulf of Mexico and let me remind you of one thing that's very important. How did George W. Bush refill the SPR? He did not buy a single barrel. What he did basically is and of course the Department of Interior. They literally forced the companies to pay royalties in-kind. So the royalties, the government was collecting instead of money, the companies were giving them the oil. And they literally built the SPR from the royalties from the Gulf of Mexico.

Erik: So the government cut a deal with the oil companies saying we'll give you a lease and allow you to drill your oil wells here. And instead of paying us dollars, you can pay us in barrels and just put them into the SPR so the country has them in the piggy bank, that was the deal.

Anas: It does not have to be in a lease basically because companies that have been already producing before that. They can ask them to tell them look from now on give me in-kind don't give me money. It does not have to be part of the lease. But the idea here is we filled the SPR in the past from the Gulf of Mexico. And we can do it now with the Gulf of Mexico is producing between 1.8 to 1.9 million barrels a day. So we do have a lot of oil coming from there and all of it almost is sour, we can get that. And the idea here and the listeners must realize the following. I want to go back to your point because it is a very important point. If you look at US imports today, the 6 to 7 million barrels that we import from overseas, about 97 to 98% of it is sour which means that if we have disruptions overseas, we need a replacement and it has to be sour. At the same time we have hurricanes in the Gulf of Mexico. And historically, we have companies that are producing in the Gulf of Mexico that borrowed oil from the SPR because they couldn't produce because of the damage from the hurricanes. So that disruption is coming from the Gulf of Mexico which means that again, it's sour. So the refill is going to be all sour simply because all the rest are in sour supplies.

Erik: I want to move on to another topic, which is dark shipments. A little bit of background just for any listeners who may be unfamiliar. All ships at sea have a device called an AIS transponder. Its purpose is not so much to track oil markets, but to stop ships from crashing into each other and sinking in the middle of the night. It's basically allowing a ship to digitally transmit a signal that says this is who I am and this is where I'm going so that other ships can see it on radar and know not to crash into it. They're turning these things off on us and basically

going back to the 1800s when ships were passing in the night secretly and nobody knew who was passing, and they cross their fingers not to crash into each other, because they're trying to prevent being tracked. Because there's so many dirty deals going on now to skirt sanctions. What are the impacts of this? How's it going to affect the market and what does it do to the quality of data available to us?

Anas: Generally speaking, as you know, the Iranians perfected this game over the years. Then the Chinese came in and added technology to it. So they reached the kind of the level of perfection of how to work with these things. However, when Russians decided to do the same thing, they took the page from the Iranian book, and the Chinese basically came with it and they helped them do it. This should bring us to another point because this point is very important and it's been in the news today and in the previous days. What happened is when the Russians invaded Ukraine, and they knew that their oil is going to be embargoed. They started looking for other markets, before the embargo, and before the price caps, before any of that. So to shift, if you look at the map and look at Northern Russia, and look where China and India is, relative to Europe, the distance is like several times the distance to Europe. And there were only a few ships running that route. So the shipping cost basically went through the roof. And those shippers basically made a lot of money. China and Russia realized that if they want to work this out, they need to bring more ships. And because of the sanctions, a lot of ship owners are afraid. So they decided to go on a shopping spree around the world. And they bought over 1000 tankers. That's between China and Russia. But most of it basically probably about 60-70% are bought by the Chinese. And the objective is to bring them from around the world and literally work this route out. So they did. Of course, what happened is when you take this out of the global market, the shipping costs outside that area will go up, and the shipping costs within this area is going to go down. So the rushing discount that was \$30 or more than \$30 at one point was not because of the sanctions, it happened before the sanctions, and before the price cap, simply because of the shipping cost. When they brought in those hundreds of ships or tankers to the area, the shipping cost declined substantially. And therefore, look at the Russian oil price, the recovery in it was amazing. And exceeded \$60 now, It exceeded the price gap. It exceeded the drive price gap not because of the increase in oil prices substantially, it is because the shipping cost declined.

And now what we see is India basically is talking to Iran and telling them look, I need some oil, give me some discount. I can just get rid of some of the Russian oil and I can get Iranian oil. Of course, they're contact in Saudi Arabia and UAE, and others those countries are already increasing their prices so they have no interest in giving India a discount. So they are left only with Iran. But the idea to go back to your point here is we have hundreds of ships, hundreds of tankers, basically taking the Russian oil in addition to the other tankers taking Venezuelan and the Iranian crude to the same way. And we don't know much about them. That led to major data deterioration we already know from 2017 until now that data deteriorated significantly. But with the Russian invasion of Ukraine and then the sanctions and the price cap and everything else, the data deteriorated significantly in the oil market to the extent that any journalist right now in any newspaper can write any story with any numbers and they can prove to themselves and to their readers they are correct because we really don't know. No one knows what the correct

numbers are. We don't know. Add to that, that the EIA until now could didn't figure out a way to reduce the adjustment number as you know in this weekly data, which increased significantly since last year, that's data deterioration too. Then add to it other issues related to the threshold even within OPEC members between what is condensates and what is crude is really kind of no one knows really where the boundaries are. So a country can exceed a quota and literally tell OPEC members oh by the way, that was condensates, you should not count that.

Erik: Well Anas, I can't thank you enough for a terrific interview. But before I let you go, I want to come back. You said earlier that you have two reports that you recently released on your [substack](#). For anybody who's not familiar with your [substack](#) and what you do at Energy Outlook Advisors, please tell us what's on offer, how people can find out more. I know that out of respect to your paying subscribers, you can't tell us everything that's in those two most recent reports, but maybe give us a quick overview of what subscribers can find there. And if there are any samples of prior subscriber materials that you can share with our listeners, I'm sure they'd love it.

Anas: Thank you Erik for this. So, we do have the Energy Outlook Advisors weekly newsletter. It's not really weekly, we publish several reports with that. There are several reports included in this. Today we publish the report on the outlook for 2024. And it is just a summary of what the expectations are and our point of views, etc. Last week, we published a very significant report that gained a lot of media attention on the title of it basically is back to Earth, reality of the energy transition. And we have 11 charts basically in it showing that this idea that some countries are going to reach carbon neutrality by 2050 or 2060 is a complete nonsense. And please allow me to mention two points that are extremely important. The first one is the increase in energy demand in recent decades is really significant, any way you look at it. Whether the amount or the rate of growth is just amazing. So you look at since 1965, the global energy demand increased by fourfold. That is the energy. The problem is this trend is going to continue. And what that means is even if countries, even if developing countries trying to catch up with the climate change policies, and they invest in renewables. The investment in renewables is barely kind of meeting the growth, which means that renewables are not replacing fossil fuel so that's the first important point. The second one is since 2010 until now the world spent more than listen to this number, more than \$4 trillion on renewable energy, and that's excluding hydro. More than 4 trillion since 2010. That \$4 trillion just to put it in context, more than the GDP of Africa and the Arab world and Asia combined, which means that it does include some huge economies like Saudi Arabia, Egypt, Nigeria, Kenya, South Africa. Yet if you look at 2022 world primary energy consumption by source. So this is the most recent data and very close to us right now. What is the percentage of renewable energy out of the total energy consumption after we spent \$4 trillion? Only 7%! Only 7%!

Erik: So up 2% from less than 5% last year.

Anas: But still, the idea here is we have 93 or at least, let's say 80% that we need to take care of. And we spent \$4 trillion to get not the 7% because 3% already existed before that. So we have 4% only, we spent \$4 trillion on that. And if you look at it from the electricity point of view,

because this is what total energy and this is what really was kind of shocking. Only 14% of the global energy or the global electricity generation, only 14% came from renewable energy. So the idea here is we have 2050 it just you know, it's very close. There is no way we can achieve carbon neutrality with this. Here is a final statement. The number one country in terms of investing in renewable energy is China. China is spending on energy more than anyone else. And the difference between China and the second country and the third country is a huge. Yet for China to achieve carbon neutrality, it needs \$38 trillion. Based on current spending, China needs more than 210, basically it needs 211 years. 211 years! And that assumes all the current projects basically will stay forever, no maintenance, and they just stay there and they have no limits on their lifetime. You look at India, India needs 350 years!

Erik: Well Anas, we look forward to getting you back for an update in a few months. Patrick Ceresna, Nick Galarnyk, and I will be back as MacroVoices continues right here at macrovoices.com