

Center for Strategic and International Studies (CSIS)

A Conversation with His Excellency Ali al-Naimi, Minister of Petroleum and Mineral Resources, Kingdom of Saudi Arabia

**Introduction:
John Hamre,
President and CEO,
CSIS**

**Moderator:
Frank Verrastro,
Senior Vice President and
James R. Schlensinger Chair for Energy and Geopolitics,
CSIS**

**Speaker:
Ali al-Naimi,
Minister of Petroleum and Mineral Resources,
Kingdom of Saudi Arabia**

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JOHN HAMRE: Good morning, everybody. Welcome. We're glad to have you here. My name is John Hamre. I'm the president of CSIS, and I have the great privilege of introducing Minister Naimi and welcome him to – back to CSIS. We've had the privilege of having him numerous times in the past. It's always been important and refreshing to have his perspective, and I know today is going to be that way as well.

One doesn't really need to say many words about Mr. Naimi. He's the quintessential American success story. Now, of course, the Saudis take credit for him too – (laughter) – you know? But when Minister Naimi, as a young man, came to Lehigh University to take a bachelor's degree in geology – and of course, that started him off on a lifelong path of friendship with the United States that's been so powerful, so important in his leadership.

Now, I think it's probably urban legend that this is a man who started at the bottom. I think the – many say that you began as a production supervisor; I heard that he started off in the mail room, you know. And actually, people saw his talent early and realized the potential for Aramco, where he rose up through the ranks, becoming the CEO of Aramco. And then his majesty decided that he needed his expertise and judgment leading the ministry. And it has been a remarkable success story since that time.

Just a bit beyond this: This is not just an oil man. This is a man who has a vision about the future for the kingdom and is willing to work every hour. We just had an interesting conversation about the role that he played in creating this remarkable new university, KAUST. And it's – it grows out of his vision for the great possibility of the kingdom tapping into the human talent and resources and needing to nurture that. And this is a man who is really, on behalf of the king, creating a new future for the kingdom.

And it's exciting to be with him. It's exciting to have him here. I will warn you all that he – somehow he caught a cold when he came to America. So he's a little bit diminished, so his throat is a little raw. I think he's still going to have a strong voice. Would you welcome with your applause His Excellency Minister Naimi? (Applause.)

MINISTER ALI IBRAHIM AL-NAIMI: You know, before I begin my talk, since Dr. Hamre mentioned my career, it's true I started as an office boy with Aramco. But the interesting thing, when I became president, some reporter I believe is from The New York Times came to Dhahran and asked me how do you feel now that you are the president of this giant company? I told him it's interesting. When I started in my work I used to take papers from one office to the other. Now I don't have to move that far. I take it from the inbox and put it in the outbox.

Excellencies, distinguished guests, ladies and gentlemen, I would like to thank CSIS for inviting me to speak here in Washington, D.C., today. I first came to the U.S. in 1959 to study at Lehigh University just up the road in Pennsylvania. There was a hip young Democrat on the scene, a great orator. The Middle East was going through a (heavy ?) periods of political upheaval. It was a time of simmering tensions between the U.S. and a country in Southeast Asia. How times have changed.

Ladies and gentleman, I am here today to talk about the one constant in all of our lives: energy. Fossil fuels are our most enduring energy source. They're the driving force of economic development in the U.S., Saudi Arabia and for much of the developed and developing world. The global oil business creates jobs, supports manufacturing, powers transportation, fuels innovation and boosts economic progress. It has helped the U.S. become the leading global power and enabled Saudi Arabia to become one of the G-20 nations. It's helping nations such as China offer their citizens unprecedented economic opportunities. And it's helping boost standards of living in Africa, Asia and Latin America.

Now, fossil fuels are the energy source that have truly endured. They have the capacity to sustain us well into the future. And I am pleased to see that here in the U.S., there is a renewed faith in their longevity. Wind and other relatively inexpensive alternatives will also be part of the mix. But in terms of cost, reliability and effectiveness, fossil fuels stand alone.

The final step, of course, will be devising a way of diminishing the negative side effects burning fossil fuels have on the environment, and I know how sensitive this subject of the environment is here. I remain confident that if enough resources and brainpower are invested, even this can be overcome.

Ladies and gentlemen, today I will discuss two broad themes which relate to the enduring legacy of oil. First, I will look at the implication of the current U.S. energy renaissance. I will then share with you my thoughts on energy and economic developments in Saudi Arabia.

Let me begin by addressing the changing U.S. energy scene. Just a few years ago a vocal body of expert opinion was categorical that the world was running out of oil. And I remember that in – no, in 2009 I was here when peak oil was really at the peak. Peak oil is here, they said. The age of oil is over, they said. I haven't heard much from them lately. Now, in the blink of an eye the scarcity scaremongers have been replaced by the apostles of plenty.

But this time at least the prophets are backed up by evidence. I have seen it with my own eyes, and nowhere is this bounty more evident than right here in the U.S. The U.S. energy scene is witnessing a remarkable evolution. Newly commercial reserves of shale oil or tight oil are transforming the energy industry in America. And that's great news. It is helping to sustain the U.S. economy and to create jobs at a difficult time.

I would like to put on the record here today that I welcome these new supplies into the global oil market. I hope these additional resources will add depth and bring increased stability to global – to global oil markets. I believe these reserves will lead the U.S. into a much deeper engagement in world energy markets. And this is good news.

Of course, these shale developments are also leading some to hope that it spells the end of America's so-called reliance on foreign and particularly Middle Eastern oil and all that is associated with it. On that, I have few brief points.

First, I note Middle East oil exports to America, especially from Saudi Arabia, were higher in 2012 than at – than any time since the U.S. tight oil production began soaring in 2009.

The United States is and will remain a major energy consumer. It will continue to meet domestic demand by utilizing a range of different sources, including from the Middle East. This is simply sound economics.

Second, I believe this talk of ending reliance is a naïve – a rather simplistic view. It seems to conflate, on the one hand, U.S. foreign policy, and on the other, U.S. energy policy. Talk of energy independence fails to recognize the interconnected nature of global oil – global energy markets. If you take crude and all liquid products together, the U.S. is the third largest exporter in the world, after Saudi Arabia and Russia, and I was really surprised to know that.

We are all part of a global market, and no country is truly energy independent. So just as I didn't buy into the peak oil theories, I do not go along with the opinion that increasing U.S. liquid production means the United States could and should detach itself from international affairs. I don't believe that is in anyone's best interests, and I don't think it will happen. In fact, perhaps the question is not how the U.S. can achieve energy independence, but to what degree it will, in the future, be prepared to export its oil and gas supplies.

Third, I believe that history shows, and real U.S. energy experts understand that in times of stress, Saudi Arabia has repeatedly acted to make up for any supply shortfalls. This was true after Hurricane Katrina, following labor disputes in Venezuela and in the wake of the uprising in Libya. Since 2009, Saudi Arabia has carried a spare capacity of between two and a half and three and a half million barrels. These investment decisions on this scale would not usually have been taken, particularly when set against the challenging global economic situation, but it was necessary and it proved wise. Only Saudi Arabia has the capacity and the ability to take steps such as these.

And we have never failed in our commitment to global energy market stability. Saudi Arabia's sensible oil policy does not stop at simply turning on the taps when the U.S. or other need more supplies. In 2012, I came out and called for lower oil prices. That's right: I stressed to the media and others that supply fears were unfounded and that the current prices were not a true reflection of supply-demand fundamentals. Through this effort and other factors, prices did come down. Our number one interest is a well-balanced oil market which leads to a healthy global economy. The objective of Saudi Arabia's oil policy is not high prices at any cost.

Lastly, the rhetoric on reliance fails to properly recognize the importance of the partnership between the U.S. and Saudi Arabia. We have a shared history and close bonds which began with oil, but they go far deeper than a simple consumer-producer relationship. We are allies in more than just oil. U.S. companies helped, and I'm happy that some of them are here – U.S. companies helped form the basis of what is today Saudi Aramco, one of the world's finest oil companies.

Many thousands of U.S. citizens continue to work in Saudi Arabia. U.S. and Saudi firms are partners in a range of industries, and U.S. universities continue to help educate some of our young people. Ladies and gentlemen, this brings me to the second part of my talk here today: The current energy and economic outlook in Saudi Arabia.

During my lifetime, Saudi Arabia has witnessed a remarkable transformation. I am a living proof of this. I was a nomad, by the way. In just 100 years, it has changed from a region stricken by poverty and famine to a nation that now provides a burgeoning number of schools, universities, hospitals and infrastructure for its people. This past decade in particular has seen Saudi Arabia put its oil revenues to maximum use. Since 2002, capital investment in the Kingdom has doubled to almost 140 billion (dollars). Over the same period, foreign direct investment has increased by 36 times to more than 16 billion (dollars). We are seeing a wave of industrialization. We are developing our petrochemical sector, we are boosting our downstream capability. Saudi Arabia is, for example, the world's leading exporter of fertilizer. We are increasingly building manufacturing expertise and we are developing new mineral industries.

Of course, Saudi Arabia will continue to make the most of the competitive advantage presented by our abundant hydrocarbon reserves. But our ultimate aim is to diversify away from our overreliance on oil revenues. In this regard, we are making clear progress. In 1973, the contribution of oil to Saudi Arabia's GDP was 65 percent; last year, it was under 30 percent. We are creating sustainable economic growth for the long term. We are generating job opportunities for our young people, encouraging enterprise and providing the right environment for renovation and progress. It's not easy and it will not happen overnight. But it is happening.

Part of the strategy entails increasing usage of natural gas and developing other renewable resources where we also have an advantage, not least, solar, where we have the silica, sunshine and the acreage. We hope solar energy will help meet a growing share of our electricity needs and even help us create a thriving solar industry and expertise in the Kingdom.

We're also conscious of the need to mitigate inefficient energy use in the Kingdom. Being so blessed with natural resources has unsurprisingly corresponded with a boom in their domestic consumption. But I would say that Saudi Arabia has recognized the need to tackle the situation and we are taking vital measures to address this demand by efficiency efforts and by investing in renewables. We are aware that our increase in domestic energy usage is not favorable in general, although we do believe usage, which creates real economic value, is positive.

We are also using energy revenues to invest in our most important asset: our people. We are investing in schools and universities. We are trying to give our young people the skills they will need to compete in the 21st century. Again, it will not happen overnight, but again, we are making progress.

When I came here in 1959, there were a mere handful of Saudi students at the U.S. universities. Today, 10 percent of Saudi Arabia's budget is spent on higher education. The King Abdullah's scholarship program sponsors around 150,000 students worldwide to gain qualifications and nearly half of them are here in the U.S. That's a huge number, which will have a profound impact on the future of Saudi Arabia and it underlies how important our two countries are to one another.

Ladies and gentlemen, my message is fundamentally this, that the U.S. - Saudi relationship remains vital, that it is one of partnership and trust and that like oil itself, it is

enduring. I am pleased the U.S. energy industry is witnessing a renaissance. I believe we are two nations united by many things. We are both blessed with great energy assets. We have both put our energy assets to great use, economic growth and creating jobs for our people. And to the future, it's important we continue to work together to ensure oil market stability and prosperous futures for all.

Thank you very much. (Applause.)

FRANK VERRASTRO: Do you want to have a seat, or do you want to stay at the podium? OK. So actually, I have a throat drop for you. (Off mic) – already approved it and said it was good for you.

MIN. AL-NAIMI: (Chuckles.) OK, thank you.

MR. VERRASTRO: So thank you, Mr. Minister.

And thank you all for coming this morning. I'm particularly pleased and honored that General Scowcroft and Dr. Schlesinger are here as well. And I would just like to say that between the three of these gentlemen – (chuckles) – there's been a lot of energy and national security policy over the last several decades, and it's just been astounding to me to watch, and I've been enamored with the outcome. So Mr. Minister, welcome, and thank you for returning to CSIS.

As Sarah indicated earlier, we've asked for questions. I've already got a couple of them here. And so if that's OK, we'll read them this way. One of the prerequisites, of course, was to write legibly, because if we can't read them, we can't ask them, which is always helpful. And then the minister has already told me that he will invoke the prerogative, if he doesn't like the question, we may not get a full answer, and that's certainly his prerogative. (Laughter.)

And the first one I have to start with – we talked about your long career upstairs and all that you've seen in terms of oil markets, the decline in 1986, how prices dropped in the '90s. For most of the '90s we saw \$20 to \$30 oil, and then as demand picked up – and I recall when I was in the kingdom with you in 2004, we talked about the rise of China and the demand numbers, and then the volatility that we've seen forward. So I know you spent a lot of time in your remarks looking forward, but if you could just look back for a second, because you've had an extremely unique perspective and long-term perspective. When you look at what's happening in the world now and you compare it to what you've see, how would you characterize the changes going on?

MIN. AL-NAIMI: Well, that's a very puzzling question. I can tell you that the changes I have seen throughout the past have been phenomenal. But the one thing about them is when people work together to solve some of the issues that developed during these cycles, they were successful in resolving many of the issues that arose.

And I can tell you that one of the hardest things for me was in 1998, how can we bring the producers and consumers together to stabilize the market. The prices were plummeting,

down almost to \$9 a barrel. And I'm sure neither the consumers nor the producers were happy, particularly the oil companies, because their profits also dwindled. So there was a lot of effort to bring especially the consumers.

And that's how, although people were talking about the South and North and there was a lot of dialogue between producers and consumers, there was really not much coming out of it. I remember first – my first debut on the international energy market was in 1995. It was just two months after I was appointed minister of petroleum and mineral resources of Saudi Arabia. And I went to Venezuela for the so-called producer-consumer dialogue. I noticed that everybody got up, spoke and sat down. There was no dialogue. (Laughter.) It was dialogue (ph). (Laughter.)

So when we met in 1998, there was a minister – a lady minister from Norway. We put our efforts together. I told her, you know, this is no way this consumer-producer dialogue is going to work, unless we change the format. And we did. And now we have a forum, an International Energy Forum with 99 nations participating. And what – and that answered, I hope.

MR. VERRASTRO: Yeah, absolutely. You've talked about two things consistently. One has been demand certainty, and then the other is the role of technology that you already touched on. When you look out at demand growth, with all the supply increments that potentially can come on, do you see strong growth in the oil and gas sector going forward? And if so, from where? Predominantly Asia, but also Saudi Arabia, I mean, the internal –

MIN. AL-NAIMI: You are asking an oilman, yes? (Laughter.)

MR. VERRASTRO: That's a softball question, we call it – (inaudible) – (laughter) – and I also got a note here to remind you all that we were never peak oil people, which I'm actually pleased to talk about. (Laughter.) Can you speak a little bit about Manifa? And talk about – it's just a phenomenal project, as we were discussing upstairs. John and I were out there in February. It's 26 artificial islands with production coming on as early as the middle of this year. But what's the forecast for that?

MIN. AL-NAIMI: I am looking for if there's anybody from our upstream group here. (Laughter.) Well, you know, Manifa is a great example of what technology can do. You know, Manifa was discovered long time ago, and I remember when I was superintendent of production of the so-called northern area, we were producing Manifa at around 50,000 barrels per day, lousy crude then, we thought, and nobody really cared for it, so we shut it down. It's a huge field. So we closed it. And as now – I think it was April that the field was brought on. I think they will reach 500,000 by June or July. They are producing now around 200,000. And by midyear next year they will be at 900,000 barrels per day.

But it is an example of what technology can do. The field is not in very deep water. It's in very shallow water. So a decision had to be made, how are we going to develop this field. Should we use jack-ups, or should we use just normal drilling rigs? So they built these nice islands, and they made big wells. Actually, I think the production string is something like 7 inches instead of the normal 3 ½ tubing. So I mean, that's the beauty of faith in technology.

Have your faith in technology. This oil and gas business will be with us for many, many years. Manifa is an example of that Aramco can do and will do by emphasizing high-tech, doing a lot of research, both upstream and downstream, but mainly upstream. And it's – we will see a lot of development like that.

MR. VERRASTRO: Thank you. And staying on the technology piece, shale gas in the kingdom?

MIN. AL-NAIMI: Well, we know we have shale gas. I think every geologist realizes that most of the oil trapped in reservoirs came from shale, so – or the carbonate stuff in the shales. And it didn't all come out. Some stayed in tight zones. And so when you crack it, you get, like what you are doing here. We believe we have tremendous volumes of shale oil. What we need to figure out is how to develop it. You know, each area, each place is unique, its geologic structure, the way it is. You are very lucky; you have many good areas you tapped in. And again, that is, again, a faith in technology. You have developed great technology, you have great infrastructure. I visited, I think it was last Wednesday, Chesapeake in Fort Worth. They were, I believe, cracking – what do you call it –

MR. VERRASTRO: The Barnett?

MIN. AL-NAIMI: – Barnett Shale, and I was impressed by the infrastructure there. So it's – you may have the shale, but you need all of the infrastructure to be able to develop that shale. And you are very well-advanced. I hope we will get there one of these days.

MR. VERRASTRO: Excellent.

MIN. AL-NAIMI: I think we are going to try to crack seven wells or so this year.

MR. VERRASTRO: There's no question that Saudi Arabia has source rock. We know that.

MIN. AL-NAIMI: Oh, the source rock is there. (Laughter.)

MR. VERRASTRO: There's a number of questions on nuclear and solar. Can you address those in the context?

MIN. AL-NAIMI: Yes. As you heard in my speech, I didn't mention nuclear, I mentioned solar.

MR. VERRASTRO: Right.

MIN. AL-NAIMI: I am in favor of solar, and I believe Saudi Arabia is positioned – we have the sun every day, we have great acreage, and we have an effort, ongoing today, in the area of research to make solar energy economic one of these days. It's not yet, but it will be. We are dabbling like everybody else; we have solar power here and there, but that's very – like, 10 megawatts, five megawatts there; these are small units. But maybe I will repeat what I said

earlier in our private discussions: When we were building King Abdullah University of Science and Technology, of course, we established a great solar energy center, and when I met the director, I gave him a challenge for the future. I told him, Saudi Arabia is exporting about seven millions barrels per day. Please convert that into BTUs, and I want to see Saudi Arabia producing that much BTUs from solar and exporting solar energy. So he has a challenge.

MR. VERRASTRO: Ambitious target. (Laughter.)

MIN. AL-NAIMI: Ambitious target. That will stretch him a little bit. (Laughter.)

MR. VERRASTRO: Saudi Arabia and China. We had a little discussion upstairs about the geopolitics when you look at new demand centers and they look at supply sources that are secure – the relationship going forward between – particularly Saudi Arabia, but all of the Middle East and Asia and India – China and India – how does that play?

MIN. AL-NAIMI: Well, you know, I think consuming nations realize how reliable Saudi Arabia as a supplier of fossil fuels. And so China is a – today, a major consumer of Saudi oil. I believe it's – we sell them around a million barrels. But about 70 percent today of our exports go to Asia – not only to China, but India, Korea, Japan, and we have big interests in both China, Korea and Japan. We're also supplying India, Indonesia, Thailand – name it in Asia. We are a major player. Remember, before, we were a major supplier to North America and Europe, but things have changed for different reasons. You are now blessed with a lot of shale oil and shale gas, great. But, as I said, we have supplied you in 2012 more than we did before that. So –

MR. VERRASTRO: And the high-volume, it's – next question is a two-parter. So you talked a little bit about the upstream, but this goes downstream in terms of investment and refining in petrochemicals and what that means for the Kingdom. And then also, other minerals. When we were in Saudi Arabia, you spoke about aluminum and a car industry – automobile industry. So can you talk a little bit about the vision and what diversification means?

MIN. AL-NAIMI: Well, you know, Saudi Arabia, besides oil and gas, is blessed with a lot of mineral resources. We have two world-class deposits of phosphates and bauxite. We have built a mining city in – on the Gulf side called Ras Al-Khair. And there, we have – we are producing (dynamic ?) phosphate as a fertilizer and exporting it – (inaudible).

And we have built also an aluminum industry. We are building – and finally to process bauxite, we have built the smelter and rolling mill. The smelter and the rolling mill are working today, but we are importing aluminum until our refinery is completed, I think, next year. Then we will be processing that, so we'll be integrated from the mine to the final product.

Now, we are interested in adding value to what we do, so we will be taking what comes out of the rolling mill and making products that a secondary industry can take and do – produce consumer goods, aluminum, for instance, parts of cars and so forth. And I believe we are negotiating a Kickstarter where hopefully they will build a manufacturing car facility. I think it's ranging over – some – one of these cars.

Now, in the petrochemical area – now, there is another project, which is – we are developing. It’s about an \$8 billion project in the north. It’s called King Abdullah Promise for the North and again, it takes phosphate and converts it to phosphoric acid and then takes the phosphoric acid and develop small industries there. So that’s another area.

We are looking at silica. We have both quartzite and pure silica, about 99.9 silica, plenty of silica. I believe – and I have to convince investors – that we can build a totally integrated system by taking silica, making polysilicone, making these panels and (going ?) until we generate power. Now, hopefully, that will be totally integrated from the mine to a power plant.

We have other minerals in the country, gold, copper, zinc and so forth. That’s being developed by the private sector. The whole purpose is to really diversify the economy. We need to reduce the government budget from reliance on oil.

Now, that doesn’t mean we are not going to exploit oil; we are going to exploit oil to the nth degree. But we want to take that revenue and not use it all for government. Hopefully, the government will have many sources of revenue besides oil so we can take the income from oil and further diversify the economy.

MR. VERRASTRO: OK, so these questions are from the day traders in the audience. And you can exercise that prerogative, if you want. So the first one is, what strategies and technologies are being used to prolong the life of Saudi oil? And the second is, what is the sweet spot for oil prices that we can look forward to? (Laughter.)

MIN. AL-NAIMI: How far is Las Vegas from here? (Laughter.)

No, you know, I don’t think Saudi Arabia is really concerned too much about running out of oil. I think – as I said, our faith in technology – we are doing very interesting things, you know, like CCS, carbon, capture and sequestration. We have a pilot trying to inject about 50 million cubic feet per day of CO₂. We had – we are – one of our major gas plants will collect the fumes from it and inject it in wells. Now, for Saudi Arabia, that’s economic because we can enhance recovery by injecting CO₂ and moving the oil toward the wellbores and actually improving recovery.

Now, I think in one field, our recovery in the Abqaiq field is close to 69 percent. Most of the industry looks at 50 percent as a good recovery percentage. We’re aspiring to get up to 70 percent through improved upstream technology. So there is no concern.

Our resource base is huge. We started one time with 700 billion. Our reserves today are 266 billion. And I think we have produced over a hundred billion. So with improved recovery and with further exploration, I believe the resource base will grow to 900 billion, and our reserves will rise accordingly. So there is no concern that we are going to be running out of – out of oil soon.

On the issue of price, that’s market-determined.

MR. VERRASTRO: Nicely done. (Laughter.)

So by comparison, Bakken recovery rates here at less than 5 percent – lot of barrels, but we're still working on – we're still learning.

Let me switch gears on – so actually, this is a question on the education side. So what are the possibilities of doing oil and gas business in Saudi Arabia as a woman?

MIN. AL-NAIMI: As a woman?

MR. VERRASTRO: Yeah, the –

MIN. AL-NAIMI: Working in –

MR. VERRASTRO: Yeah, the Aramco – we've been dealing with the sams (ph) group this year or the last four or five years, the middle managers – there's been a number of women – and a variety – they – from finance to exploration and production to public affairs to health care, we're seeing more and more women being promoted within Aramco. But within the kingdom, do you see that as a – and I know KAUST is looking to turn out technology-based people. But what do opportunities look like?

MIN. AL-NAIMI: Immense.

MR. VERRASTRO: There you go.

MIN. AL-NAIMI: Opportunities for women. And I, for one, am one of the greatest proponents for promoting women.

MR. VERRASTRO: I know that.

MIN. AL-NAIMI: Actually, they have a lot of talents that men don't have.

MR. VERRASTRO: OK. Be careful now. (Laughter.)

MIN. AL-NAIMI: Really, in certain jobs, they have more endurance than men. They have better concentration than men in certain jobs, I can tell you. If you go to a chemistry class or a chemistry lab, you will find who is ahead. It's not men. Now, in KAUST, we have many women, both students and faculty, and in KAPSARC, we have the same.

But King Abdullah is a great promoter of women. They are now working almost everywhere. Of course, in education, they are all over the place. So the opportunity –

MR. VERRASTRO: – is huge.

MIN. AL-NAIMI: By the way, those 70,000 students I mentioned in the U.S. are not all men. They are women also.

MR. VERRASTRO: Right.

MIN. AL-NAIMI: Medicine and – medical area is loaded with doctors.

MR. VERRASTRO: So we have a question here from our esteemed Dr. Yergin. And he starts it by referencing: You've spoken at CSIS before about security of energy infrastructure – (chuckles) – so that way I'll ask the question – nice going, Dan. When you ask about El Aminas (ph) or you talk about even some of the threats to infrastructure and facilities and the importance – the length of pipelines, pumping stations, refineries and facilities, how does Aramco deal with that, and what's your prognosis on the future? Will the infrastructure and security challenge become greater and a source of innovation to deal with that, or are we going to deal with these kind of on a one-off basis?

MIN. AL-NAIMI: No, I think Saudi Arabia as well – I think the U.S. and Saudi Arabia work together on this issue. And I can tell you that we have one of the best redundant security systems in our facilities. And if you – some of you have a chance to visit, you will see that very significantly. (Chuckles.)

MR. VERRASTRO: Up to you.

MIN. AL-NAIMI: Yeah, I can answer that. That's not a problem.

MR. VERRASTRO: OK, so there's – (laughter) – I asked the minister what he was getting me for my birthday. (Laughter.) No, so the question was Prince Turki Al-Faisal yesterday, I believe at Harvard, made a comment about 15 million barrel-a-day Saudi capacity and production levels by 2020, and we had a kind of an interesting discussion upstairs on that earlier. And Mr. Minister, I'll ask you to elaborate.

MIN. AL-NAIMI: I don't know really what he means by 15 million. He may be thinking about our ability to do that, in other words, not that we're going to do it but that Saudi Arabia is capable of doing it, building capacity to 15 million.

Now, based on what we see as projection and call on Saudi oil, we don't see anything like that, even 2030 or 2040. So the need to build the facilities and drill wells to produce 15 million or have the capability for 15 million is not there. We will be lucky to go past 9 (million) by 2020.

But you can see what's happening in the oil market. Supplies are coming from everywhere. We – and we are happy for that. It's coming from all over, the U.S., Iraq, the Caspian area, Brazil, now Africa, so from everywhere. And a lot of liquids are coming besides oil. You know, when you produce a lot of gas, you also produce a lot of NGLs, so that also feeds into the refineries and satisfies the oil demand.

So we don't really see a need to build capacity to – beyond what we have today. We have 12 ½ million barrel-per-day capacity. At the production level we are idling at today on 9

million, we have between 2 ½ and 3 ½ million barrels per day spare capacity. So we really don't need to even think about 15 million.

But I believe he may have meant that Saudi Arabia, based on its reserves, are certainly capable, if called upon one of these days, 15 million. But realistically, and based on all projections that I have seen, including ours, there is no call on us to go past 11 (million), 11.5 (million) by 2030 or 2040. So the – I think it's – I don't think he means we are going to build capacity by 2020. I think he says – he means probably – and I normally don't comment on other people's statement, but I think because where he is and what he knows about the kingdom – and he has been in a very key position, I think what he means is he's talking in the U.S. And he's trying to convince his audience that Saudi Arabia is capable of producing, if called upon, 50 million barrels per day. But we have no plans, nothing like that today, nor do I see it.

MR. VERRASTRO: When we look out at the future on the oil side, we've distinguished between, it used to be, natural gas and oil, and now we have this liquid, so we view it as kind of a continuum. The liquid situation in the United States is developing infrastructure on its own, and new demand markets in petrochemicals, and in some ways it helps refineries and in some ways now it's being pulled back to compete directly with refineries as a fuel. This natural gas liquids – are we looking at a separate market for liquids or continued integration?

MIN. AL-NAIMI: No, I see, when we look at the balances, we see – we put NGLs as part of non-OPEC production.

MR. VERRASTRO: Right.

MIN. AL-NAIMI: And it's about 6 million barrels per day, somewhere like that. And it's used as feed stock to the refinery. I think this will continue.

MR. VERRASTRO: OK.

MIN. AL-NAIMI: Now, some people spike their oil and sell it as crude oil, as light crude oil. They take heavy oil and spike it with NGL and it becomes either medium or light crude oil.

MR. VERRASTRO: This question says: There are many countries – Japan, Qatar, China – that are investing in place in the United States. In addition to or besides the Motiva refinery, will we see Saudi Aramco investing in the United States upstream?

MIN. AL-NAIMI: Is there an opportunity? Is anybody offering us an opportunity? (Laughter.)

MR. VERRASTRO: I have some property in West Virginia that you might want to -- (laughter).

MIN. AL-NAIMI: No, we're not in the real estate business. In the oil business, oil and gas business.

There was a time when I offered to build – I think it's in one of these councils, foreign council – I think I was in San Francisco. I challenged people and I told them we are ready to build two 500,000 barrel-per-day refineries; is there anybody willing to do that, help us get the permits to do that? Nothing happened. Of course, today I don't think it's that attractive.

MR. VERRASTRO: So our – refining in the United States has not been profitable for a long time because of distressed crudes now. There are actual people looking at the refining business, and because of some of our export restrictions, we're actually seeing – remember the old topping facilities that we used to have – we're dating ourselves here – light oil topping facilities that you could export condensate under licenses, so they're building refineries for export and then will use the rest of the crude for the (system ?). So our market is changing. It's a dynamic market.

MIN. AL-NAIMI: Frank, are you suggesting we should build topping refineries in the U.S.? (Laughs.) (Laughter.)

MR. VERRASTRO: No. No, we went through that in the '80s and we rationalized and downsized. But – my goodness.

Wow, this is a great question. When you start looking at – we always talk about black swans and discontinuities. There are things like the shale gas revolution, that we couldn't have foreseen – it was a combination of price and technology and access – that allowed this to take off and happen so fast, accelerated change. Is there anything that you could see on the horizon – when we were in Saudi Arabia last time, they talked about reservoir robots, that the technology is changing so much – that you see as a breakthrough technology or a change that will impact the dynamics of this market?

MIN. AL-NAIMI: The only thing I can say is technology will not stop evolving, and technology will pleasantly surprise us. So it's there. All we have to do is use it and develop it. And I think we'll be happy with it. But black swans are there. I read the book, "The Black Swan." I found it one of the hardest books to read. (Laughter.)

MR. VERRASTRO: Wait for the movie.

MR. AL-NAIMI: And it's written by an Arab.

MR. VERRASTRO: I'm going to take you totally off of oil here just for a section. So your roles within the kingdom, whether it's KAUST OR KAPSARC, there are many hats that you wear, both as minister and just because of your capability within the kingdom. What excites you outside of the oil and gas business?

MIN. AL-NAIMI: Well, you know, when – I remember in 2006 we were – we were in a Council of Ministers meeting. King Abdullah held my hand and said: Ali, can you build a university? I said, your majesty, we have built – I mean, Saudi Aramco has built a lot of refineries, gas plants, pipelines, some housing. But universities? No. But we can, if you want. And we did.

MR. VERRASTRO: And you did?

MIN. AL-NAIMI: Aramco – Saudi Aramco built a great university structure-wise. Now, he also asked me to be the chairman of a board of trustees. Again I told him, you know, your majesty, I know nothing about academia. I only remember being a college student a long time ago. That's all I know about academia. So he said, yeah, you will do. It's OK. (Laughter.)

So here I am. I am now – one great thing that happened to me is associating with all these presidents of universities, all of our board of trustees had a number of presidents of universities – Alice Gast from Lehigh, Shirley Tilghman from –

MR. : Princeton.

MIN. AL-NAIMI: -- Princeton. And who else? Anyway, their either presidents or ex-presidents of – and so the vision of King Abdullah is – for that university is amazing. University is supposed to do three things: One, develop science; it's a – it's a teaching and research university. The second thing is do research – practical research. And then take – the third thing is take the product of this research and convert it into an industry. And that's happening today. And it's going to progress well.

Now, the students that enroll in that university are really very talented students. The – we select them worldwide. In Saudi Arabia, we go to high schools and pick the talent from there. We sponsor them in accordance with King Abdullah scholarship program to universities that KAUST chooses, like MIT, Harvard, Stanford, Oxford, Cambridge and so forth. And they go for four years or five years, or however it takes them to finish their bachelor of science and then they enroll in KAUST.

Now, for expatriates, we go worldwide and pick the best. And really one thing, I learned how tough it is to entice talent to come to your university because the student that comes to do graduate work in KAUST has already three or four acceptances from the finest universities in the world. And that's tough. And the good thing is when they come there they – we invite them to come and see the campus and see the resources, the labs – research labs and so forth. Then they really get interested and come.

It's a whole – it's a whole community. It's a beautiful facility, great faculty. We, again, hire the best. We just hired president – our current president is retiring, and we were very lucky to get the president of Caltech, Jean-Lou, and he's – will be with us next July. So everybody is wondering, what did we do to entice such a great president? Well, he came and saw the charter of the university, the objective of King Abdullah, and saw the facilities, and immediately developed the passion for it. So we are lucky.

But we have great faculty at the university. They are small. We have about 120. We'd like to be at 220 and about 2,000 students. That's all. It's no undergraduates. It's mainly graduate research university. And KAPSARC is a policy research, with energy on one side and environment on the other, because we are involved heavily in environmental issues worldwide.

We are a participant in all the dialogues. And we want to contribute to the betterment of the environment. That's why we are injecting CO₂, testing it. We hope the world will see a benefit in doing that, (and we can do it ?), so we can continue using fossil fuels and save the environment.

MR. VERRASTRO: That's what we call a twofer. (Chuckles.) Mr. Minister, I had promised you that I – given your throat and the situation that I wouldn't belabor this beyond this. It's been extraordinary that you've given us this much time. Your career, your thoughtful and calming voice in oil markets has been astounding over many decades, and we appreciate all that you have done. We also appreciate the fact that you've been such a good and trusted friend for CSIS and many of us personally.

And if you all will join me in thanking Minister Naimi, and we welcome you back here anytime – (inaudible). (Applause.)

MIN. AL-NAIMI: Thank you. I am – I am a friend of CSIS, but I am also a friend of the U.S. (Laughter.)

MR. VERRASTRO: Absolutely. (Applause.) Thank you so much.

(END)