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TURKEY'S ENERGY SECURITY CALCULUS:
ASPIRATIONS AND REALITIES

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Introduction:

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Featured Speaker:

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Discussants:

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P R O C E E D I N G S

MR. KIRIŞCI: Welcome. Thanks for joining us this afternoon. We're hoping that it's going to be a very energetic afternoon when we're going to talk about Turkey's energy security calculus and use also the occasion to lounge the fort in our Turkey Policy Paper Series, "Realization of Turkey's Energy Aspirations: Pipe Dreams or Real Projects?"

I'd like to introduce our main speaker who prepared the report, Gareth Winrow. Gareth Winrow is a very old friend. We go back together a long time into the very early 1990s, if not late '80s. Actually, he had just finished his Ph.D. on East Germany's foreign policy and his book had appeared on the book shelves in bookstores just as East Germany was disappearing. And from one day to the other, the book was transformed from a political science book to a history book. Both Gareth and I and the world have come a long way since then. Gareth taught together with me for many years at Boğaziçi University and then went on to another university in Istanbul, and now he's based in Oxford as an independent analyst of particularly energy issues. He will speak to us for about 20 minutes and he will present his report.

I then would like to introduce to you someone who you are very familiar with. I just discovered from our third speaker that he's very famous in Istanbul as well, Charlie Ebinger. Charlie, I need not say, has been dealing with energy issues for a very long time. I'm sure if you look at his bio you will pick up his detail, but the detail that impresses me the most, Charlie, is that you have worked with 50 governments throughout that career. And mine I think is restricted to one or two. We will be looking forward to Charlie's response to Gareth's paper.

And today we're also very fortunate and very happy to have Selahattin Hakman with us. Selahattin is also someone who has had a long career in energy but

from the business side rather than the analysis side. Many years with Siemens, and now he's working for Sabancı Holding or Sabancı Energy I think it's called. They are involved in a number of important projects. He may expand on it, so I won't go into the details of it. But at the same time, Selahattin Hakman is also the chair, the head of TÜSIAD's Energy Working Group.

Incidentally, I am Kemal Kirişçi. I am the senior fellow here, the TÜSIAD senior fellow at the Center for United States and Europe. This event is part of the Turkey Project, which is supported by TÜSIAD. TÜSIAD is the Turkish businessman and industrialists association. We have had this longstanding relationship, Brookings has had. It's been a very fruitful relationship, and I think the part that I believe excites me the most, as well as Strobe Talbott -- Strobe Talbott has just very briefly joined us for our luncheon. As you might imagine, he's very busy, and he expressed his best regards to the confidence to the occasion and also to the president of TÜSIAD who is with us and will also make a few comments shortly.

Let me just say a few words about TÜSIAD as to why we feel strongly about TÜSIAD here at Brookings. We believe that Brookings or TÜSIAD shares values that Brookings cares for, values associated with a pluralistic democracy, values such as the rule of law, accountability, transparency, and the program that TÜSIAD supports here is part and parcel of an effort to better explain Turkey but also work towards ensuring that these values are not lost in Turkey at a time when Turkey itself is going through a difficult period.

TÜSIAD has been supporting democratization in Turkey since at least the late 1990s. I was then -- I think I'd just been promoted to a full professorship from being an associate professor, and I do vividly remember when they put out the first major report on democratization in Turkey at the time in 1997, I think, I believe it was. And

today, to see our membership distinguishes itself as producing close to one-third of Turkey's gross national product and pays close to 50, half of the corporate taxes in Turkey, and I think that in itself will explain why TÜSIAD is very sensitive on the issue of democratic values, rule of law, transparency, and accountability.

It's with those remarks that I'd like to invite the president of TÜSIAD, Muharrem Yilmaz to make his opening remarks, and then we'll pass the ball to Gareth.

MR. YILMAZ: Thank you, Mr. Kirişci.

Good afternoon, ladies and gentlemen. On behalf of the Turkish Industry and Business Association, TÜSIAD, I would like to extend my sincere thanks to Brookings Institution for organizing this event, and to you all for being with us this afternoon.

I expect that we will have a very informative discussion following Dr. Winrow's presentation. Gareth Winrow has spent many years in Turkey and is one of the world's leading scholars on the politics of energy. To discuss his provocative type of paper, we are lucky to have on our panel three distinguished experts -- Dr. Ebinger, Dr. Hakman, and Dr. Kirişci. They all have extensive experience in both energy issues and U.S.-Turkey relations.

Dear guests, Turkey is not only one of the fastest growing economies in the world, it is also one of the fastest growing energy economies. Why? Per capita primary energy consumption is less than the OECD average. Turkey's energy market has been growing rapidly due to the economic growth, population increase, and urbanization. Turkey is also one of the biggest natural gas markets in OECD.

In terms of consumption, it is one of the six big markets. Despite the economic slowdown in 2011 and 2012, energy demand is expected to continue to rise. Turkey is currently the sixth largest electricity market in Europe. It is set to become one

of the three largest by 2030.

Because Turkey has high growth aspirations but it has very little hydrocarbon sources, security energy supplies is the most pressing issue for the country. Fortunately, Turkey is located at the center of 68 percent of the world's oil reserves and 75 of the world's natural gas reserves. This proximity can enable Turkey to secure and diversify its resources if relations with the regional countries are secure and well managed and the required infrastructure is built.

Turkey can play a much bigger role in the global energy scene. Due to its geographic location, it can act as a natural bridge between the demand centers in Europe and the resources and riches in the Middle East and the Caspian. Thus, Turkey can be vital to the European supply by offering a stable and safe alternative route for oil and gas.

This role, however, has wider implications and challenges. We all know that when it comes to energy issues, no country is an island, and because energy is a strategic issue, problems related to it are closely linked to international politics and power games. Recent developments in the Middle East and Ukraine, the energy picture in the United States are clear examples of these links. Therefore, Turkey's strategic picture is changed in relation to these developments.

In our view, this new energy configuration presents new challenges to Turkey. Turkey has the potential to be a successful energy hub. However, in order to achieve this goal, Turkey will have to further improve the institutions of its market economy and system of governance.

Dear guests, our partnership with the Brookings Institution started in 2007 with the goal of making tangible contributions to ongoing debates about Turkey and Turkish-American relations. We hope that improved analysis and open discussion

platforms such as today's meeting will contribute to a better understanding of needs and priorities, and therefore, to increase bilateral cooperation on critical issues. I believe today's deliberation will make a contribution to the energy discussion by shedding light on what Turkey can offer to the global energy markets and the steps we need to take to improve the sustainability and security of energy flows.

I look forward to an informative discussion with the audience participation and thank you very much for your kind attention. Thank you very much.

(Applause)

MR. KIRIŞCI: Thanks, Mr. Yilmaz. You got Gareth a little bit worried because he felt that you were intruding into parts of his report there. But going back to the late '80s and early '90s, we have a long soccer career with Gareth as well, and I'm sure he will do a great job in picking up the ball and scrambling towards the net there.

Gareth, the floor is yours. Try to be within the 20 minutes so that we do also hear the respondents and taking questions.

Gareth.

MR. WINROW: Thank you very much, Kemal. Thank you for inviting me here.

Okay. There's a lot of ground to cover, and I won't be able to cover all the ground in 20 minutes. So what I will try to do is emphasize or pick up on a few points and hope that in the Q&A we can go into more detail.

This paper covers a wide range of topics, a number of topics which in themselves can be separate papers, and obviously, it's dealing with an issue which is ongoing, rapid pace of developments even in the week or so since the paper was written. There have been a number of developments related to this paper and to Turkey and to energy security which have been going on.

The first point is obviously that as far as Turkey and energy policy is concerned, and I suppose this would apply to almost any other country, you cannot separate energy policy from domestic politics and from foreign policy concerns. Now, this is clearly the case in Turkey. When I was writing this paper, local elections were about to be held and we had developments as far as Russia and Ukraine Crimea were concerned. And so these clearly have impacted on Turkey on energy issues, and I tried to reflect those in this paper.

In Turkey then one could argue that there's been a lot of political upheavals, all these allegations of corruption which have been leveled, increasing polarization or dangers of increasing polarization in Turkey's society. And what impact could this have or is having on issues such as rule of law, transparency, and possible impact on foreign investments, bearing in mind that foreign investments, very important for the Turkish economy, and in particular for energy.

As far as Russia is concerned, I would argue that what we are seeing is clearly a watershed moment as far as Russian policy towards Ukraine and Crimea, and this is bound to have wide-ranging repercussions for energy security in Europe and more wide, and this is having an impact on Turkey and one could say that the strategic importance of Turkey as a transit corridor for non-Russian sources of gas to the European market is becoming more and more important. The prospects for a Southern Gas Corridor is becoming more and more important as a consequence of what we've been seeing in Russian policy towards Ukraine.

The aims of Turkish energy policy if one could simplify it would be to satisfy the rising energy demand of a growing economy, clear priority there. Also, the importance to try to make Turkey a more important energy transit state, and the importance of Turkey possibly becoming a significant energy hub. And the paper tries to

address those issues and also talks -- tries to talk about the implications of these sort of issues for U.S.-Turkish relations.

As far as Turkey's energy needs are concerned, I'll try and avoid going into too much detail, bombarding you with too many facts and information. They're there in the paper but obviously some points I need to sort of emphasize. Turkey has little oil and gas of its own, so it's dependent on purchasing about 75 percent of its energy needs. And these energy imports account for two-thirds of the current account deficit, and the current account deficit last year was over \$65 billion, about 8 percent of GDP. The current state of the Turkish economy is open to debate. To what extent will it grow in 2014? Four percent, 2.3 percent? We hear different figures. But in the longer term we could say that the economy will continue to grow. There will be a continued need for more investments in energy -- \$12 billion a year until 2023 has been spoken of. And foreign investment in the energy sector last year amounted to \$2.5 billion. So foreign investment is very important then.

The paper tends to focus on gas, and I try and justify reasons for that -- the importance of gas as an important fuel for the Turkish economy currently accounting for about 35 percent of Turkey's total energy consumption and meeting over 40 percent of Turkey's electricity generation. To cut the energy import bill as Turkey has to import more or less all of its gas, Turkey has been trying to make more use of local resources, hydropower, other renewable forms of energy, more use of its coal, and starting to embark on a nuclear power program. But there are delays in developing the nuclear power program.

One can argue more incentives are needed to further develop the renewable energy sector. There could be problems with further use of heavily polluting coal. Turkey has lots of lignite, brown coal, but heavily polluting. So gas will clearly

remain for the foreseeable future as a crucial source of energy and of power generation.

In 2013, Turkey consumed about 46 billion cubic meters of gas. How much will Turkey consume in 2020 is open to debate. BOTAŞ, the state pipeline corporation talks of 70 BCM for instance, whereas in 2012, Turkey only produced about 63 BCM. So a lot of this gas has to be imported.

There are attempts to find more gas in the Black Sea. There is talk of a possible shale gas revolution in Turkey, but I think that's somewhat exaggerated. The technically recoverable reserves as far as we know at the moment aren't that great.

Turkey as a gas consumer is greatly dependent on Russia. About 60 percent of gas imports come from Russia, and clearly Turkey will not want to jeopardize its ties with Russia over Ukraine because of this gas dependence. Gazprom has been a reliable supplier of gas to the Turkish market, including in previous crises with Ukraine over pricing issues in 2006 and in 2009.

So the paper goes into some detail of the Turkey-Russian energy relationship -- the pipelines, the pricing issues, take-or-pay obligations, and how BOTAŞ, the Turkish state-owned pipeline corporation has transferred part of its gas import contracts to private companies as part of the ongoing liberalization of the Turkish gas market.

Significantly, in December 2011, Turkey gave permission for the construction of the South Stream gas pipeline from Russia to Europe, a 63 billion cubic meter pipeline across its exclusive economic zone in the Black Sea. So more Russian gas would go to Europe if the South Stream project is realized. That project is now under serious question by the EU, especially with developments in Ukraine. Turkey has remained supportive of the South Stream project and most recently, Turkey has negotiated with Russia to increase its gas imports from Russia on the Blue Stream

pipeline which connects Turkey and Russia cross the Black Sea.

So the Turkey-Russia gas relationship is strengthening one could argue in the short-term, not weakening, in spite of what's been going on in developments in Ukraine. Turkey also gets gas from Iran, Azerbaijan, and liquefied natural gas from Algeria, Nigeria, and buys LNG on the spot market.

What about the future? Is Turkey making efforts to diversify its sources of gas? Become less dependent on Russia? Yes. And here one can open up huge topics of discussion about the prospects for Turkey to getting gas from Iraqi Kurdistan, from the Kurdistan regional government. A gas sales agreement was concluded in November 2013, which envisages Turkey eventually possibly importing up to 20 billion cubic meters of gas from northern Iraq -- Iraqi Kurdistan.

Will this ever materialize? We have serious problems in the relationship between Baghdad and Erbil at the moment on the whole energy issue, on oil and gas, so it's really open to debate what's going to happen in the short term and in the medium term as far as the possibility of Turkey importing gas from Iraqi Kurdistan. But evidently, sections of pipeline are being built on the Turkish side to connect Iraqi Kurdistan eventually with the Turkish gas grid.

What about Israel? There's a lot of talk about the possibility gains. It's a huge topic in itself. Papers are written on it all the time. The possibilities of Turkey importing gas from Israel, from the Leviathan gas field in the Eastern Mediterranean, the prospects of a pipeline connecting to Turkey and then on to Europe, a lot of expectation attention has been raised on this. We've had a recent tender for a 7 to 10 billion cubic meter pipeline to possibly take gas from the Leviathan gas field to Turkey and which two Turkish companies, Zolo Group and Turcas Holding, and now with Energy Czar's link with Turcas Holding suggest are interested in this tender, of participating in this tender or

are interested in building this pipeline.

Will it ever be built given the problems in Turkish-Israeli relations? Even in the news today, Israeli Prime Minister Benjamin Netanyahu is arguably refusing to ratify the agreements on compensation payments to the families of the people killed in the Mavi Marmara incident a few years ago when Israeli commandos raided the ship which was trying to break the blockade of Garza.

So you've still got that ongoing issue, problems between Turkey and Israel politically, and a pipeline from the Leviathan gas field would have to go across the Cypriot exclusive economic zone in the Eastern Mediterranean. So then you have the whole problems of Cyprus and Turkey still. And the need to resolve that very complicated and complex issue. And the Israelis have other options. They can export the gas in the future by tankers with liquefied natural gas.

What about Turkey as a gas transit state? One could argue that Turkey already is an important transit state for oil -- the Baku-Tbilisi-Ceyhan Oil Pipeline, the Kirkuk-Ceyhan Oil Pipeline. And one can argue that the latest crisis, as I said with Russia and Ukraine, does provide new opportunities for Turkey to promote itself as a key gas transit state in the future. And talk then of speeding up work and expanding work on developing the Southern Gas Corridor to make Europe and the EU less dependent in the future on Russian gas imports.

So the first phases of this envisioned Southern Gas Corridor are unfolding now. We have proposals to expand the South Caucasus pipeline linking Azerbaijan and Georgia and Turkey to hook up with the TANAP, Trans-Anatolian Natural Gas Pipeline to be completed by late 2018-2019, to hook up with the Trans-Adriatic Pipeline to carry gas through Greece and onto Italy. And initially, Turkey would take 6 billion cubic meters of Azerbaijani gas from the Shah Deniz gas project in the Caspian

Sea, and further, 10 billion cubic meters would go on to Europe. And there are plans to further expand the capacity of the TANAP, Trans-Anatolian Pipeline in the future.

Here I try and argue in the paper that as far as transit issues are concerned, in the first phases of the Southern Gas Corridor anyway, one could argue that it is Azerbaijan which is calling the shots. Azerbaijan has a majority ownership, SOCAR, of the TANAP pipeline. Azerbaijan will want to ensure that gas from Shah Deniz and later on from other Azerbaijan gas fields being developed in the Caspian Sea will get priority in going through the Southern Gas Corridor to Europe. So I think that's an important issue to bear in mind. There's limitations in the way -- how -- what role Turkey can play as a gas transit state in the short term at least when Azerbaijan has majority ownership of TANAP, control of the southern Caucasus pipeline as well, and wants to give priority to its own gas fields.

The paper also then talks a bit about Turkey as an energy hub. Oh, by the way, on that, just to hit another nail on the head, the problem also then with Azerbaijani control or what looks like control of a TANAP is that it will be much more difficult for Turkmenistan to get its gas to markets in Europe via caucuses and via Turkey. There are already lots of problems in trying to build a Trans-Caspian gas pipeline, and so the prospects for Turkmen gas going to markets in Turkey and Europe in the foreseeable future, as far as I can see, do not look promising.

As far as Turkey as an energy hub is concerned, I mean by an energy hub here a genuine commercial trading hub where suppliers and consumers can meet in an open, transparent, self-regulated competitive market. And to achieve that a number of issues need addressing. You need to further revise the natural gas market law of 2001 in Turkey. You need to improve physical infrastructure in Turkey. You need more pipelines. You need better gas storage facilities. Start is being made to expand the gas

storage capacity in Turkey, but a lot more needs to be done. You need to get the energy markets operating company EPIAS up and running, which will eventually run a spot natural gas market in Turkey. You need the stock exchange to operate a market handling trade in standardized gas contracts. You need to have a balancing and settlement system for the trading of gas, and all this will take time and there are delays. You need to speed up work to unbundle BOTAŞ, the state pipeline corporation. You need an independent transmission system operator to operate the gas networks. You need BOTAŞ to transfer more of its contracted gas volumes to the private sector. You need to address the issues of subsidies in the Turkish gas market.

Currently, under a complicated system, different prices are charged by BOTAŞ to various customers. BOTAŞ pays a high price for imported gas, sells it to households at a subsidized price. The government then reimburses BOTAŞ.

There are further distortions of the market. Private companies buy Russian gas at a price cheaper than BOTAŞ, but they have to sell the gas on the Turkish market at a capped wholesale price. So you don't have in an ideal world prices reflecting supply and demand. So a commercial gas trading hub will not develop overnight. You need a properly functioning legal and regulatory framework, transparency, effective rule of law.

Very briefly -- I'm conscious of time going by already -- the paper also talks a bit about the implications for the U.S. and Turkey, of recent developments, crisis over Ukraine has forced more American attention on the Southern Gas Corridor and on the expediting of the export of U.S. LNG to Europe, liquefied natural gas to Europe, to offset Europe's dependence on Russian gas.

There has been traditionally, one could argue, lukewarm support, American support for the Southern Gas Corridor under the Obama Administration. That

has now changed. If you look at the joint statement of the EU-US Energy Council recently, Taner Yıldız as the Energy Minister of Turkey in December 2012, spoke at the time of Turkey possibly purchasing 6 billion cubic meters of LNG from the U.S. within three or four years. Clearly that would be a useful supplementary source of energy for the Turkish market, but it's not going to come in that timeframe. U.S. LNG, when it's finally able to be exported, will go to markets in Asia rather than Europe, most probably because of the higher price for LNG in the Asian markets.

And at the moment, as you're probably well aware, there's this time-consuming process to get approval in the U.S. for LNG exports to countries with which the U.S. does not have a free trade agreement, including Turkey. Will this speed up with developments in Russia and Ukraine? We do have the ongoing talks between Washington and Brussels over the Transatlantic Trade and Investment Partnership in which the Europeans want energy to be covered within that. Kemal has given a previous policy paper link with that. Turkey is not a member of the EU though, won't be covered by that, and the Turks have not had very much success in getting a separate free trade deal with the U.S.

So, and there's also, as you're probably aware, this expedited LNG for American Allies Act, which is in Congress, and clearly if that is passed, Turkey would benefit as an American ally in getting in the future U.S. LNG. But one can argue that the Southern Gas Corridor will remain important as we're not likely to see large volumes of U.S. LNG going to markets in Europe in the foreseeable future. All of this approval process needed to be approved. It's going to take several years and then we've got the competition from the Asian market. As Gazprom in the meantime can try and make its exports more competitive, more attractive to Europe by reducing gas prices, and Turkey could possibly benefit from that. The Turks are constantly trying to get a reduction in the

gas price from Russian gas.

To conclude, although I can't really conclude, it's an ongoing story, clearly, if we're talking of Turkey as an energy hub, as a commercial trading energy hub, we need a stable political economic climate in Turkey, and in the region around Turkey to encourage foreign investment, to see that there's a rule of law in transparency, et cetera. For Turkey as a gas transit state, the prospects look more promising in that there's going to be more attention given to the development and further expansion of the Southern Gas Corridor in the future because of problems between Russia and Ukraine, and this could lead to other projects being revived or different versions of other projects being revived. Remember I said that there's the Trans-Adriatic Pipeline linking the TANAP on the Turkish-Greece border linking to Europe? That only has a capacity at the maximum of 20 billion cubic meters. You're going to have to have other pipelines in the future connecting Turkey to Europe. So this may lead to a revival of projects like the Nabucco-West Project which would help then feed markets in central and Eastern Europe which are greatly dependent on Russian gas.

And finally, as far as Turkey as a gas consumer is concerned, I can't see in the short term Turkey reducing its gas dependence on Russia. In the longer term, we will see what will happen with U.S. LNG. We will see what will happen with the possibilities for gas from Israel, from Kurdistan -- Iraqi Kurdistan, possibly from Turkey's Turkmenistan. There's also Iran. I didn't even mention Iran. The possibilities with the improvement in relations possibly with the West and with the U.S., Iranian gas could be more important again for the markets in Europe. And there is a Turkish company, Turan Transit, which is still pushing for a project in the future to carry 35 billion cubic meters of gas from Iran to Europe via Turkey.

On that note, I'll leave it there. Thank you very much.

(Applause)

MR. KIRIŞCI: I had always suspected that there was a Swiss hidden away in an Englishman here. That was perfect timing. Thank you for covering otherwise a very rich topic. In the benefit of time, I'd like to very quickly turn to Charlie.

Charlie, I noticed how you were shaking your head as you heard the Turkish Minister of Energy, like the rest of Europe, aspiring to lay his hands on American LNG. But maybe beyond that, how do you locate this agenda that Gareth made references to Turkish energy and the future of Turkey's energy policies in the broader context, in the global context?

MR. EBINGER: Thank you, Kemal. And let me say I think Gareth's presentation was a tour de force. Having followed these various pipeline alternatives for many years, to summarize the complexity and how these all interrelate to each other in 20 minutes was truly excellent.

But I think there is a broader context, because I think we are now in a situation with the Russians where if the Russian adventurism goes any further, Europe, hopefully aided by the United States, but Europe is going to have to make a fundamental decision to what degree they are willing to pay prices that may be two to three times higher than they are currently paying in exchange for energy security. And I'd like to say that I was convinced that the Europeans would come out on the right side of that equation but I think at best we'll see a divided Europe and at worse we may see no decision to stand up to the Russians at all.

The other dimension that I think so many people that talk about all these varied pipeline proposals don't always take enough consideration of is that at least in many forecasts, European gas demand is predicted to be flat for a decade and perhaps more. Now, if that is true, where are all these various projects that people are pushing,

including some Gareth talked about about Israeli gas. We didn't mention huge natural gas, both conventional and shale gas in Algeria. Now, all kinds of reasons why the Algerians never, ever quite get it together to develop their vast resource, but there's huge amounts of gas there.

If Europe surprised me and really did decide to take a tougher stance to expand Russian effort in the east, are we likely to see the French revisit their attitude toward fracking, sitting on huge shale gas reserves? Are the British going to be able to push forward the fracking? Lots of opposition, but some estimates say they're sitting on 1,500 trillion cubic feet of shale gas, a staggering amount. That makes it not all that much different than the United States. And a handful of other east European gas for shale gas that hasn't gotten much success to date, but places where people are still at least optimistic in places like Poland. You know, you hear some people say Poland doesn't have shale gas. Sixty wells have been drilled in Poland, 15,000 were drilled last year in the United States. You can't judge on what Poland has or doesn't have on the basis of 60 wells.

So we have a potential stagnant gas market. We have a situation some of you in the room probably are tired of hearing me speak about this subject, but we've got to get -- Gareth certainly alluded to it -- we've got to get the pricing right. There is absolutely no reason for Turkish gas and electricity demand to be growing at the levels they are if we rationalize pricing. And it makes no sense, particularly for a country that is growing as far as Turkey and emerging as an economic power in its own right, to build infrastructure based on inflated demand projections if those demand projections down the road after you've invested billions of dollars in infrastructure prove not to be needed.

Let me just mention quickly in the interest of time two more factors. One is the reality of the European gas market leaving politics aside is that Russia will remain

the low cost producer for the foreseeable future. And by foreseeable, I mean the next 40, 50, 60 years. They simply have the reserve base. They have the lowest marginal cost gas of any of the alternatives, whether you're talking about Norway, the Netherlands, North Africa, the other places Gareth talked about.

He talked about the prospect of much more Iraqi gas, whether from Kurdistan or Iraq more broadly, if Iraq can solve its political problems and Iran could offer additional alternatives coming through Turkey as a hub. But if we look at the IEA's projections for the future of the gas market and the EIA's projections, almost every oil company's projections, the demand for gas in the future is not in Europe; it is in Asia. Ninety percent of the growth in world gas markets is projected to be in Asia between now and 2035.

So again, if we have a stagnant or declining market, some parts of Europe, Eastern Europe, may well want the gas, but Europe *en toto* is not going to be a resilient gas market.

And let me just conclude with a quick remark about LNG. There has seldom been as much stupidity emanating out of the American Congress the last several weeks than on the subject of American LNG bailing out Turkey. First of all, the kinds of volumes we're talking about, the most optimistic projections have 12 billion cubic meters coming out of the United States in the mid-2020s. The first four or five projects, only one of which has actually truly cleared all the regulatory hurdles, are all contracted for, overwhelming contracted for. There is no gas going to be available. The president cannot order it under a Friendly Nations, under a pro-NATO, under a WTO. You name the various things people have proposed. The president doesn't own the gas; the private sector does. And the private sector will sell it in Asia where currently they can get \$17 or \$18 in MCF as opposed to \$10.50 or \$11, or thereabouts that they can get in Western

Europe.

So I think Gareth is on the right track. Turkey has many opportunities, many pitfalls. The pitfalls relate to domestic pricing. The pitfalls relate to corruption. The pitfalls relate to getting the regulatory process in place. And as one who spent most of my career advising on these kinds of institutional features, let me just remind you that we started gas price decontrol in 1978. We got the price decontrol in 1985, but the various pipeline and other regulatory issues we're still arguing about today.

Thank you.

MR. KIRIŞCI: So, Charlie, you're telling us that Gareth and I, we probably won't see the fruition of all these efforts if they are actually put into place

MR. EBINGER: You're more likely to see it than I am.

MR. KIRIŞCI: Now that you've heard these two presentations, especially Charlie's, what's the business perspective? Will energy SAR continue with its enthusiasm to look for ways of getting Israeli gas into Turkey and maybe beyond?

MR. HAKMAN: I believe so. As Muharrem Bey has already mentioned and Gareth has described it in more detail, although Charles has mentioned that Turkish energy demand in general might not grow in that pace as it was, but taking all measures into consideration, what would decrease the growth of the Turkish energy demand, namely above all increasing energy efficiency, of course, but also looking into developing Turkish indigenous resources, like any renewables, wind and solar, and also the Turkish coal and so on and so forth. Looking at the pace -- let me give you certain numbers about what Muharrem has also mentioned.

Turkish energy consumption as of today is on the level of one-third of the OECD average. Half of the EU 27 average. Looking at the pace Turkey is developing and has been developing in the last decades, Turkish energy demand will still grow. And

the growth will not be able to be covered by local resources of Turkey, especially also taking into account the measures against climate change effects and so on and so forth, Turkish gas demand will continue to grow. To what extent, okay, this can be discussed, but I think if not 70 in 10 years' time, 60 BCM would be a reasonable number. But this means that Turkey will have to renew and extend its gas contracts by one-third. Renewal of them and extend them by one-third. That means Turkey is facing a challenge to get a hold of these gas volumes in a competitive manner. And the competitive manner is also important as Gareth has mentioned since the energy imports contribute to a large extent to Turkey's main economic problem, which is the current account deficit.

And this can only be handled by Turkey for its own purposes, by creating gas-to-gas competition. And Turkey is in a lucky position that we are surrounded with countries who own gas. Russia, Azerbaijan, Gareth has mentioned them all, including the Eastern Mediterranean gas resources. And these all provide Turkey with the opportunity of creating this competition. And when talking about the supply security of Turkey in the first instance, and also having these volumes in a competitive manner, we need to bear one other thing in mind. These countries, the owners of the gas, they also need demand security because these hydrocarbons are their main national income, including Russia. And so they need markets where they have a demand security and the growing Turkish demand will provide an interesting market for those countries.

Right at the moment, as Gareth also has mentioned, Turkish companies, among them are Enerjisa, are talking to the owners of the East Mediterranean gas resources, and what they are asking for is (inaudible) security. This is the thing that we are discussing right now. And so this provides Turkey by itself to get these volumes, these gas molecules into the country in a competitive manner. And the European quest for diversification of the resources or roots will only add to that. And once the gas is

coming into Turkey, it is much more easy to extend the supply into Europe -- Eastern Europe, Central Europe -- and create also competition there. It is not only about securing the supply but also creating a competition.

As Charles mentioned, American shale gas in the form of LNG is not competitive in Europe. Will not be competitive in Europe. If you have nowadays \$4 million BTU in the states and if you add the \$6 transportation cost, because gas is something which is not as cheap to be transported as oil is, it is much more expensive if you calculate it on a BTU basis, so the Turkish aspirations as Gareth has called them to develop to a transit country and to an energy hub, they are supported by the economy. And it is also for beat the Eastern Mediterranean gas, beat the Iraqi gas or Azerbaijani gas. The most effective and most economical way to reach the world markets are pipelines through Turkey. And so this provides a basis for Turkey to develop, to realize these aspirations.

And as Gareth very rightly mentioned, and also Charles contributed to that, there are things, steps Turkey has to undertake. A liberal, transparent, competitive market. This is essential. This is a sine qua none.

But there is one indication: Turkey has managed on the electricity side to develop to a certain extent such a market in quite a short time. At the moment, our Enerjisa has been investing close to 5 billion Euros into the Turkish electricity market depending on a free competitive market without any uptake agreements, and so on and so forth. And Turkey has the track record of being able, if it is wanted, if it is wished, to provide for this competitive market and EPIAS, the energy exchange, which is now being established starting with electricity but hopefully soon also including natural gas, will contribute to that. And of course, there are infrastructure investments to be made in the pipeline capacity, in storage capacity, and so on and so forth, but these are investments

what Turkey anyhow needs to do for itself. To increase them by size will make them more economical and more competitive, so I think Turkey has all the basis to develop, to not only a transit country but to a real energy hub as Gareth mentioned where demands meets supply and there is competitive pricing being formed.

MR. KIRIŞCI: Well, thank you very much. I'm glad that you did also address the issue of competition within Turkey which will be critical as Gareth has also pointed out to Turkey's aspirations for an energy hub.

I'm also aspiring that there will be questions coming from the floor. We're looking forward to them all. I'm suggesting if there is a demand, to encourage maybe two or three questions in a bundle, and if you could also briefly mention your names.

Sir, please.

SPEAKER: (Inaudible) Sort of following up on this discussion about competition and those effects, I'm sure you're all aware that right now in the electricity market, regulatory authority and TETAŞ, you know, the electricity off-taker, there are significant pressures on them with regard to the aspirations that Turkey has to what I call front-end loaded, high capital intensive projects to sign up to power purchase agreements, take-or-pay arrangements. There's only a certain number of those that obviously can be promised by any market and still have viability. And now with the eventual formation of sort of an energy rather than a specific electricity or gas market, I'm just wondering what your thoughts are on the confidence level on the regulatory agencies and authorities to, if you will, harmonize and not basically create a noncompetitive market or one that's already been locked down because of too many taker or pay purchase agreements.

MR. KIRIŞCI: Very good.

Yes, sir. Cathy, right behind you, on your left.

MR. MARSHALL: Dana Marshall with Transnational Strategy Group.

What I wanted to ask the panel is in the short term, and I'm thinking here let's say up to the next heating season in the Ukraine, what are the realistic opportunities and possibilities to get gas into Ukraine and an ancillary question, what does that do to the politics as one of the panelists noted between Turkey and Russia? Both the infrastructure question and the political question about the role that Turkey will play in short-term movement of gas.

MR. KIRIŞCI: Thanks.

Yes, here in the front and then I'll turn to the panel.

MR. ALAHDAD: Thank you. My name is Ziad Alahdad, former Director of Operations at the World Bank.

Excellent summary of the situation, and I must say very powerful comments up there. And what does come across, of course, to me in your presentation that the future of the country is, in fact, as a transit country and as a commercial hub, and you very rightly pointed out the trials and tribulations of the contact with the political horizon that you see in the planning of such a road.

What I want to ask you further, and pressing the point here, you seem to be drawing a gap on the indigenous resources. And the present, yes, figures that we have it looks that way. But can we stretch the horizon a bit, prospective planning here? You talk of nuclear, you talk of the renewables. It's small hydro, big hydro, I suppose, and coal, lignite, poor quality, but are we looking at a perspective which actually can increase the indigenous proportion of the energy supply or not? And give us some idea of the time horizons for doing this if it's possible.

Thank you.

MR. KIRIŞCI: Gareth, I think that was a tough question, so I'll allow you

a few minutes to think about it, and maybe start with Selahattin Hakman, the question there especially I thought came from the (inaudible) fellow. And then Charles and then we'll come back.

MR. HAKMAN: Talking about the take-or-pay agreements or take-or-pay contracts of TETAŞ, these are the first steps of Turkey into attracting private capital into the electricity market. And at that time this was the middle of the '90s, late '90s, BOT, and then BO projects. This was seen as the only possible way of attracting private capital or long-term take-or-pay electricity sales agreements. But after that, since the enactment of the electricity market law in 2001, and today, IPPs, without any long-term at least government guaranteed or state guaranteed long-term contracts, they are generating 50 percent of the electricity in Turkey. So Turkey has been able and the regulator has been able to attract these investments. As I mentioned, ourselves, our Enerjisa has invested 5 billion Euros into this sector without any take-or-pay agreements, and this is developing.

Last year, in 2013, 7,000 megawatts have been put into operation, which were 90 percent built without any take-or-pay contracts. And so the competitive liberal market is developing in Turkey. And with the privatization of the state-owned, U.S.-owned power plants - which has started now - and with the finalization because their terms are going to end latest until 2019, the BOT and (inaudible) contracts will also fall away. So this provides the environment where a competitive private market is developing. And I think this can be -- of course, there are also other dynamics playing into that, but a similar structure can also be replicated into the natural gas market once Turkish government sees that Turkey will not be lacking, will not be short of natural gas. But given the opportunities and the mentioned need for supply security -- demand security for the supplies, this is a fear which is not justified.

MR. KIRIŞCI: Do you agree with that, Charlie?

MR. EBINGER: Yes, I do. And just on the question of what can be done by next winter, just today you may have seen in the New York Times Business Section, there was an article that the Slovaks have agreed to reverse an unused, fairly significant in size, pipeline to move gas eastward. The EU, from my understanding, and I'm sorry, I'm not an expert on this, but the EU is apparently having sessions right now looking at all kinds of what they could do with reverse flows. The Germans are looking at contributing to that effort. They're also looking at what could be done in terms of storage. I think the answer will probably be not a lot by the next heating season, but maybe if we think two or three years ahead and we start taking some of these actions and making some of the capital investments that continue to be double and bottleneck the European gas market, that might be a partial solution.

My own feeling, again, is not going to be dramatic by next winter, but Ukraine remains -- and Turkey both -- remain relatively inefficient in terms of efficiency investments. This could be particularly useful if we get some of the multilateral banks to come in and do kind of crash assessments of what might be done on energy efficiency, particularly maybe in big commercial buildings which are fairly easy to -- things like rooftop solar that can be instituted pretty quickly. But it's going to be a long slog, you know, certainly for Ukraine and for Turkey to get itself off dependence on Russian gas. And when you see the kinds of prices Turkey enjoys for the Russian gas, it's not going to be an easy political decision to give that up easily.

MR. KIRIŞCI: Thanks, Charles.

Gareth, your reflections?

MR. WINROW: Okay. There were so much questions thrown out there I won't be able to answer them all, but very briefly, on pricing issues in Turkey on gas, so

subsidized prices, bear in mind we're in another electoral cycle in Turkey. Presidential elections, parliamentary elections coming up. So I can't really see sort of households significantly paying more for their natural gas in the short and the near future. That will not look good politically for the government.

On demand security issues one could sort of throw into the ring the Russian interest in trying to export gas to China, to the huge Chinese market there, and Putin is going to be visiting China very shortly. And there are suggestions that the Russians and Chinese are finally agreeing on a price for that gas, so that would open up alternatives for Russia in the longer term than expanding the Chinese market.

I think on electricity and gas markets in Turkey, I agree that there's been a lot of progress in the liberalization of the electricity market, but businessmen I've talked to have always been confident on that, but questioned rather the difficulties in the liberalization of the gas market. They see it as much more problematic than the electricity market.

And on the independence of the regulatory bodies, there has been -- I read something in the Turkish press very recently, concerns about the energy market regulatory authority in Turkey, that it should remain independent and that the government should not be interfering in that. So concerns about it are being voiced by some people in the media.

As far as Ukraine is concerned, yes, there have been these talks with Slovakia. There is now an agreement for small volumes of gas on these sort of interconnected pipelines. The Ukrainians want more gas from Slovakia. There are issues there with contractual arrangements with Gazprom in Slovakia which need to be sorted out. I believe the Ukrainians are now talking with the Hungarians as well to get gas from Hungary.

As far as Turkey is concerned, why were the Turks pushing for more gas from Blue Stream, raising the capacity from 16 to 19 billion cubic meters on this pipeline across the Black Sea? Why were the Turks interested in getting the South Stream pipeline to go across Turkish territory? Not just the Black Sea exclusive economic zone, but across Turkish land in Greece. This would give the Turks more opportunities to get gas from Russia, not being dependent then on the route via Ukraine.

And finally on the question on the future of Turkey, in the paper I talk about the sort of 2023 vision of the Turkish government where they do talk of 30 percent of electricity being generated in 2023 from renewables, 30 percent from gas, 30 percent from coal, 10 percent from nuclear power. Will those targets actually be met? I question that, especially on the nuclear. There are delays in building the two power plants. They will not be fully operational. One of them certainly will not be fully operational by 2023. You're going to need more -- I would argue still more gas than 30 percent to -- in 2023, bearing in mind the problems of the nuclear. And as I said, with coal, I think there are these plans to rehabilitate coal fields, privatize them, tax incentives, but we are dealing then with the issue of carbon emissions from what is a pretty dirty, poor quality lignite in most cases.

MR. KIRIŞCI: Thanks, Gareth.

I'm glad that you --

MR. EBINGER: Kemal, can I just make one quick point on that?

MR. KIRIŞCI: Yes, please.

MR. EBINGER: That's very important because the growing dependence on coal, particularly poor quality coal, could become still another stumbling block in any near-term hopes for Turkey to join the EU, particularly if the EU gets its act back together and gets the carbon trading mechanism price up to a level that truly has some bite. But

we ought to -- I think Turkey ought to think about that because it's going to be a stumbling block if they get more and more dependent.

MR. KIRIŞCI: Before getting even that far, I think as someone who spent the late '60s and early '70s in Ankara, I think the public wouldn't be very comfortable with the idea of that level of pollution.

I know Selahattin may want to say something about independence.

MR. HAKMAN: Now two things.

MR. KIRIŞCI: Two things. All right.

We mustn't forget the audience though.

MR. HAKMAN: One is to the carbon emissions and coal and EU problematic. Poland has got some exemptions for its indigenous coal, and Turkey wants on the way to join the EU, there needs to be a similar arrangement for Turkey also, considering that with all the increases, Turkish carbon emissions are and will still be below EU average.

And the second thing to the independent regulators and so on and so forth, what I tried to mention is the success of Turkey we might say so in liberalizing the electricity market. And this can be taken as an example with other constraints and other problems to the natural gas market. But this does not mean that the Turkish market is liberalized and transparent and there is nothing to be done. On the contrary, this needs to be further developed. This needs to be further deepened. And for this it is essential -- of essential importance that the Turkish energy market regulator remains independent or its independence is even more increased.

MR. KIRIŞCI: Very good. Thank you.

Yes, ma'am.

MS. FRIEDMAN: Hi, thanks. My name is Lisa Friedman. I'm a reporter

with ClimateWire. We're an energy policy magazine here in D.C. Thank you for doing this.

I wanted to stay on the topic of emissions and climate change for a moment if we can. I spent a lot of time covering the U.N. discussions on climate change towards a global agreement in 2015. Turkey and other countries have all decided that countries of all levels of development will contribute to reducing emissions. I'm glad to kind of hear it mentioned now, but I'm wondering, you know, what role -- how do I say this? Turkey has not played a very visible role since I've been covering this in the U.N. Please correct me if you think I'm wrong, if there's something I'm missing, but what role does this topic have domestically? Is this, you know, what role does climate change and Turkey's role as a growing energy user and coal demand, or pardon me, coal development as one of your avenues play, and what role do you think Turkey will take on as it's kind of expected to take on more responsibilities with other countries?

MR. KIRIŞCI: Great. Thanks.

Cathy, right over there. Yes. Someone is coming.

MR. TANER: Hi. Orhan Taner, Atlantic Council.

Mine is more of a political question in its pure sense, if there is such a thing. Let me ask the question first and then I'll expand on it a little bit.

Is becoming a transit country for Turkey a really desirable thing? I mean, we basically take it for granted that being a transit country is a nice thing to do, but given the fact that Turkey is a very large consumer and given that Turkey is surrounded by the sources of these things, why can't Turkey, for example, say, playing the devil's advocate, "I don't really want to become part of Europe's issue. I don't want to be part of that equation." Obviously, economically, being a transit country makes a lot of sense because somebody else pays for the pipeline and you take part of it, but you then

become part of an equation which is not really your problem. I mean, obviously, there are also advantages from the political point of view. One might argue that you can cut it off sometimes and play a role, but on the other hand, even if you don't cut it off.

So assuming that Turkey will become a transit country, but haven't really thought about that in the way that I have explained, is Turkey getting paid enough politically for the favor it's doing to other people? That's the question.

MR. KIRIŞCI: Thanks.

Maybe one more question. Go ahead, please. And we'll turn to the panel.

MR. EMERY: Hi. My name is Valkon Emery from (inaudible) Platform. My question is to Mr. Hakman.

What is your opinion on the likelihood of injecting treatment gas into the TANAP Pipeline? This topic was mentioned by the Turkish foreign minister, Mr. Davutoğlu in this room in late 2013? Thank you.

MR. KIRIŞCI: Thanks.

Gareth, maybe we could start with you with the counterfactual question here. Why a transit state?

MR. WINROW: In the paper I do talk a little bit more about this idea of good and bad transit states, which is from Paul Stevens, Chatham House. And how a bad transit state would grab some of the gas going through it, for instance. I think as far as Turkey is concerned, yes, you spelled out the economic benefits that Turkey would get from transit revenues, which it's is getting already from the oil. I think politically -- remember Turkish officials always want to stress Turkish strategic importance. It's been there in the Cold War period. Turkey is a frontline NATO state. Turkey is trying to be strategically important in Central Asia and the caucuses, and I think the sort of whole

issue of transit and strategic nature of that strategic importance of that plays into all the sort of argument or Turks wanting to be seen as strategically important to the U.S., to the European Union, and try and get some sort of beneficial spinoffs from that, whatever they may be.

So I think that has to be taken into account. And I think also it's linked -- you cannot separate transit issues and energy hub. So if Turkey has these ambitions as we heard from those people as well of being an energy hub, then transit issues come into that as well and the pipeline connections and storage as well. You cannot separate the two. They are two different issues. I try and take issue in the paper with people who sort of use energy hub and energy transit state interchangeably. They are different things. You need to look at the commercial trading aspects of an energy hub to separate it from transit issues, but I do think that you can't separate the two either, or the Turkish officials not separating the two.

So I think that there is a lot in it for the Turks. They believe there's a lot in it, and economically, politically, and strategically. So yes, and I do try and say that they like to be seen as a good transit state rather than as a bad transit state. And we saw that with all the prolonged negotiations over Nabucco before there was an intergovernmental agreement. When Turkey and some quarters are being accused of being a bad transit state for demanding too much, demanding -- taking some of this gas at a discount price going through the Nabucco pipeline. And it was the Ministry of Foreign Affairs which had to intervene in the end to get that agreement.

MR. KIRIŞCI: The other two questions?

MR. WINROW: The other two questions. Well, I think on the coal -- on the emissions, I think -- I agree with what has been said, sort of the Polish connections example with Turkey. And I think, yes, it would be some sort of problem in the U.S.

accession process for Turkey but there are many other issues as well with the EU accession process. And I think maybe there are environmental protest groups and NGOs in Turkey who have in the past on nuclear, they've been quite vocal and on hydropower. Less on coal at the moment, but maybe as coal comes more into the picture with more fields being rehabilitated, then maybe those NGOs will focus more on coal as well.

MR. KIRIŞCI: Anyone who is familiar with the Yatan (inaudible) we call it would be familiar with the reaction that the public has.

MR. HAKMAN: I just wanted to come to that point. In Turkey, in the general public, you're talking about environmental problems and so on and so forth, and also related to coal, this is more the sulfur emissions where the immediate surrounding is affected and so on and so forth. But climate change, carbon emissions, this is not -- for the general public this is not an issue at the moment.

And looking at the policies of the government and also the U.N. talks and other platforms, the government is (inaudible) common but differentiated responsibilities, taking into account the social indicators of a country, the economic indicators of a country, the historic responsibility of the country to carbon emissions, and so on and so forth. So it should not be the same thing.

MR. YILMAZ: But as TÜSIAD, we are one of the forerunners of environmental -- especially climate change issues in Turkey where we try, first of all, for ourselves, to decrease our own footprint on carbon, but also developing awareness on these issues and propagating that this is a serious issue for all mankind, which includes Turkey, of course, also.

MR. KIRIŞCI: Thanks.

Charlie?

MR. YILMAZ: And there was a question to the Turkmen gas. If I may

come back to that.

I mean, Turkmen gas coming to Turkey is a longer term issue anyhow. For this, the Caspian Sea problems need to be resolved first before we can talk about (inaudible).

MR. KIRIŞCI: Charlie, did you want to comment?

MR. EBINGER: Well, I hesitate to say this because it's so futuristic and we've been talking about it so many years and it hasn't happened and may not in the future, but don't forget that Turkmen gas also has two potential additional markets -- one would obviously move to China, and the other, and this is where I'm talking futuristic, would be, of course, the longstanding talk of building a pipeline across Afghanistan down to the subcontinent where the gas is in desperate need in both Pakistan and India. There has also even been talk from time to time about Gazprom linking up with that project were it to ever come to fruition and join either that and/or the Iranian pipeline proposed from Iran across Pakistan into India. They could all meet around Multan in Pakistan. Is this likely to happen in the next 10 years? Probably not, but it is a potential because there is a huge gas market sitting there waiting to be met in India and Pakistan.

MR. KIRIŞCI: Thank you.

I think we have time just for one more question if there is anyone burning to raise a question. Otherwise, I'm prepared to call it a very full day.

I'd like to start by thanking Gareth for the report and the presentation, but also Charlie and Selahattin. I think it was a very fruitful meeting.

But before I close, I also would like to share the best regards of our director, the director of the Center for the United States and Europe, Fiona Hill, who traditionally likes participating in these annual conferences, events we organize with TÜSIAD. But for reasons you might suspect given Fiona's background to do with Russia

and Ukraine, she's right now in high demand by a multitude of agencies in Washington, D.C., and sweating somewhere in D.C., but she did ask me to share these best regards with you.

Thank you very much.

(Applause)

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