Brussels Forum

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Brussels Forum Primer: Energy Trends and Transitions in Europe

Ms. Sharon Stirling-Woolsey: Ladies and Gentlemen, please welcome Group Managing Director of BP, Mr. Iain Conn.

Mr. Iain Conn: Well, good afternoon everyone and an invitation from the German Marshal Fund is always a pleasure, not least because of the origins of this organization around any discussion in pragmatism and reality. And current events certainly remind us of the necessity for pragmatism.

Understandably, all eyes are on the situation with Russia and the Ukraine, and while I don't intend this to be the locus of my speech, clearly the topic of European energy involves a significant relationship with both countries.

Recent events have challenged important international principles and agreements. That is clearly a matter for government-to-government action and does not fall under the purview of businessmen and women. For those of us conducting business in European energy, however, it's important to remember that the codependency of European energy supply and the Russian economy has been a material and important source of

security and engagement for both parties for many decades.

Europe's need for secure, affordable, lower-carbon energy will involve a focus on diverse sources of natural gas, including those of Russia. Any policy for energy has to be strong enough to serve a competitive Europe for decades, but also supple enough to accommodate unexpected shocks, even those of considerable magnitude.

In the speech to which this organization can trace its origins, George Marshall described the circumstances in the 1940s as follows: "The problem is of such enormous complexity that the very massive facts presented to the public make it exceedingly difficult for the man in the street to read a clear appraisement of the situation."

Today's energy challenges in Europe are no less complex, but I'll aim to be as clear as possible. First, by setting out the global energy context, then identifying the European challenges posed by that verbal context, both in terms of economics and energy, then by examining the current focus of EU energy policy. And finally, by explaining what I see as the priorities for energy policy in Europe.

Starting then with the global context; the first thing to say is that energy demand continues to increase. Not quite as steeply as over the past two

decades, but still substantially. At BP, our latest energy outlook forecasts a global increase in primary energy demand of 1.5 percent a year, amounting to a 41 percent rise by 2035, and despite a 36 percent reduction in the amount of energy per unit, GDP. That's the equivalent of adding another U.S. and another China to global consumption, or three European Unions.

But the pattern of demand will look very different. Fully, 95 percent of the increase in demand is going to come from the rapidly-industrializing non-OECD countries led by China and India. Demand for oil will grow the slowest at 0.8 percent a year, gas the fastest at 1.9 percent and coal in-between at 1.1 percent.

In terms of meeting that demand, we expect oil, gas and coal to converge on equal shares of the energy market at 27 percent each by 2035. Non-hydro renewables are set to grow the fastest of all, but from such a low base that we forecast they will still only contribute seven percent of the total global energy mix by 2035.

This, of course, raises questions about CO2 emissions and sustainability. Our BP outlook projects global CO2 emissions rising by 29 percent by 2035, with all the increase coming from developing countries, more specifically, from growth in coal use in industry in China where emissions are already 2.3 times those of the EU.

In striking contrast, the EU emissions today represent around 11 percent of the world's total, and we expect that to decline to seven or eight percent by 2030, by which time India alone will emit more CO2 than all 28 EU members combined.

The European Union's emissions are now at pre-1970 levels, down over 17 percent from their 1979 peak. And U.S. emissions are down below '95 levels. Both the EU and the U.S. have improved energy efficiency and both have reduced the volume of coal they burn. But then the pods diverge.

The U.S. has seen a major switch from coal towards gas in power generation and now gets 30 percent of all its energy from gas, compared to 24 percent in the EU. That change has largely come about through technology and the operation of the market, benefiting taxpayers and consumers. By contrast, the EU's approach has included a major focus on renewables, with the result that it now gets six percent of its energy from renewables compared to two percent in the United States.

Yet, in the short term, switching from coal to gas is a more powerful lever for emissions reduction than ramping up renewables. Our economics team calculates that switching just 1 percent of global power from coal to gas would reduce emissions by as much as increasing total global renewable capacity by 11 percent.

Given that broad context, let's now turn to the challenges for Europe. Principally, the challenges reside in Europe being squeezed between high unit energy costs that are uncompetitive with the U.S. and high labor costs that are uncompetitive with Asia. High unit energy costs arise from the need for energy imports combined with an internal energy market, which should be more competitive. The need to import is illustrated by the EU having less than zero-point-five percent of global-proved oil reserves and less than one percent of proved gas reserves.

Relative to the scale of our economy, this says it all. On the positive side, this vulnerability has undoubtedly contributed to the EU using energy more efficiently than anywhere else in the world, encouraged by incentives from the Commission and member states.

A clear illustration is the number of barrels of oil equivalent of energy it takes to generate $1,000 of GDP. The world average is about 1.3 barrels, equivalent per $1,000 of GDP, costing about $140 at today's oil prices. In China, it's around two-and-a-half barrels. In the U.S., it's about one barrel, so ahead of the global average. And in Europe, in the EU, it takes only three-quarters of barrel of oil equivalent to generate $1,000 of GDP, less than one-third of the intensity of China. This is a strength that Europe needs to value and exploit.

So the EU uses energy sparingly but it pays a high price for it. EU electricity costs are over two times those of the Unites States at $280 per megawatt hour versus 120 in the U.S. Electricity comes at a particularly high cost, largely because of the price we've paid to stimulate a low-carbon economy.

To give a specific example, in Germany, power costs have increased by 68 percent since 1998, despite the costs of power production and distribution increasing by only 11 percent. The rest of the increase arises from a combination of the eco tax, Renewable Energy Act, the Combined Heat and Power Act, the concession levy and Value Added Tax.

This matters for Europe's competitiveness. EU labor costs are also among the highest in the world and over double those in Asia. These facts matter a lot because the EU's prosperity depends largely on its industry with exports of goods at around 1.7 trillion euros a year worth around three times its exports and services. And it matters a lot given a goal, a good goal, of industry contributing one-fifth of GEP by 2020, from only about 15 percent today.

So with that brief analysis of background, let me turn to the policies that will shape the future, the obvious place to start being the European Commission's 2030 framework for climate and energy policy on which the ink is still drying.

First a word on the context. The EU has seen two phases of what I would call post-climate awareness energy policy -- post-climate awareness energy policy. The first, lasting roughly from 1995 to 2005 was one of visioning and alignment, defining a common vision of a desired future and aligning a strong global response to an undesirable one--that of global warming.

The second phase from 2005 to 2015, and now coming to a close, has been one of greater understanding and experimentation with policies--notably, the emissions trading system and targets for renewable energy and energy efficiency.

The third phase for the decade to 2025 needs to build on the first two. It also needs to be a phase of pragmatic action.

In this context, the 2030 framework is in many ways a positive step forward. The Commission clearly now recognizes the dimensions of competitiveness and specifically the importance of jobs, growth, affordability and security. The target to reduce greenhouse gas emissions by 40 percent on 1990 levels by 2030 is an ambitious one.

BP supports having a clear objective, but we are concerned that the goal should first be proportionate given the EU's small share of global emissions, and second, be realistic given the imperative for competitiveness.

We continue to support strongly reliable forms of carbon pricing and believe that if the ETS can be implemented effectively in conjunction with a single overarching goal, it should not be necessary to have separate targets for renewable energy and energy efficiency. These are important components, but they should not represent competing ends in themselves.

Perhaps the most important thing we now need is an aligned high-level energy philosophy, which should be agreed by the Council of Ministers and based on everything we've learned over the last 20 years. This philosophy must be sufficiently clear and simple so that it guides the EU over the coming two or three commissions and it would be an enabling framework for long-term decision making.

Within such a philosophy, which would embody a limited set of targets, member states should be left to decide how best to implement in their countries, again, on the basis that simplicity encourages compliance.

So within that, what does BP see as the specific priorities for European energy policy? Above all must be the imperative of the EU's competitiveness. The EU has been a leader over the long-term in energy intensity and emissions reduction. Although the U.S. has made great gains in recent years, the EU has trailed in terms of competitiveness, energy prices and labor costs. So the priority for the new Commission has

to be to create a better balance. The more competitive the economy, the more Europe will be able to afford in terms of material future change.

So in terms of how the EU achieves this I see four strands of activity. The first general point is to learn from experience. In my view, it's been beneficial for the world that the EU has sought to lead in tackling climate change in its first two policy phases on this issue. However, we've learned that measures predominantly and independently focused on addressing climate change only have had unintended but serious impacts on competitiveness. We've also created perverse and unintended outcomes, and lack of coherence of policy which leads to confusion and a burden that industry can ill afford.

The second priority is, therefore, to rebalance the focus of energy policy in favor of competiveness. The EU is a world leader in energy efficiency, but lags much of the world in the cost of that energy. The EU has also been a material proportion of historical carbon emissions, but will be an increasingly small part in the future. It's time to address that cost deficit through competition and making European energy markets more efficient.

So in the current context and from this starting point, in my opinion the correct order should be, first, maintain leadership in energy intensity per unit

GDP. Secondly, reduce the cost of that energy and then thirdly, to reduce the carbon content of that energy.

My third priority is the shaping of specific pragmatic pathways for the two big applications of energy: power and heat, and transport. The starting point for both is a complete and competitive single market that favors the most efficient and innovative operations supported by a well-functioning carbon trading market. Research is also vital with strong investment in both public and private R&D to maintain Europe's technological and commercial edge.

That's the platform. And in terms of the two pathways themselves, the lion's share of energy is used for power and heat. And here, an important means of reducing costs and emissions is within our reach.

The vision of a continent running on sunshine, wind and waves is an inspiring one, and no less for an oil man like me. And in the very long term it may be an attainable one, but trying to make that vision a reality prematurely has led to many unintended consequences, with the proportion of renewables in the EU's energy mix still only standing at six percent.

The lesson from the U.S. is that switching from coal to gas can have at least as big an impact on emissions as extensive programs to promote renewables. And Europe is surrounded by competitive natural gas supplies, including those from Norway, the Caspian Sea,

North Africa, the Middle East, potentially the East Mediterranean, as well as Russia, of course.

The current crisis underlines the importance of increasing and diversifying Europe's gas supplies--something that BP and others are already working on. As many of you know, we're a leading partner in the project to open up the southern gas corridor from the giant Shah Deniz gas field in the Caspian to Europe.

So for heat and power, the right pathway should focus on energy efficiency, natural gas, nuclear power of where it's supported--I know it's not supported everywhere--and over time, steady growth in competitive renewables. And we must, as part of this, move away from unabated coal.

The second pathway is transport. Battery-electric vehicles have potential, but realistically will only be deployed at scale when low-level pollution is addressed, the power grid is decarbonized and when there's a demonstrable saving in total energy use over a significant distance. This will also require some breakthroughs in battery technology.

The pragmatic transport pathway is that of continued improvements in fuel economy through downsizing, boosting, and hybridizing internal combustion engines, and by increasing the use of competitive biofuels.

So that brings me to my fourth and final priority, which is for Europe to not only learn from other regions, but to use its capability in international relations to mutual advantage. One substantial and specific contributor to this process should be the Transatlantic Trade and Investment Partnership or TTIP, which is now taking shape.

BP has suggested that energy should be an explicit theme within the TTIP, with the aims of improving the competitiveness of both parties and avoiding distortions. This could include shared standards, pulling best practice on energy efficiency, joint R&D programs and, perhaps most importantly, finding a way to ensure that the pace of carbon and price intensification is monitored on both sides of the Atlantic to avoid unintended dislocations and loss of competitiveness.

Alignment between the U.S. and the EU could also materially accelerate the global dialogue and negotiations on climate change. If the EU and the U.S. align others may just follow.

So let me attempt now to draw these strands together while maintaining some Marshall-like clarity, if I can. The challenge is on globally to get energy policy right because energy is such a large part of the economy. Europe's one of the most efficient global energy blocks and one of the lowest carbon emitters,

but it's one of the least competitive. It has the greatest need for the greatest improvement in its energy costs.

Traveling on our recent path, we now find ourselves in an unexpected place. Europe has been leading, but on this path cannot win. The U.S. has not been leading, but may be winning. And China has the greatest potential contribution, and if we engage with her she may yet lead.

Europe must rebalance its energy policy towards competitiveness and the provision of secure, affordable energy and not only lower carbon energy. This means focusing on energy efficiency, natural gas, new technologies, opening up new corridors of supply, and encouraging more gas-on-gas competition, greater diversification of power generation, and a fully functioning single market in energy.

Current circumstances certainly serve to underline these needs. We'd all do well to invoke the spirit of George Marshall and the need for understanding, cooperation, and great wisdom that has served Europe and its neighbors so well for so long. Thank you.

Ms. Sharon Stirling-Woosley: Ladies and gentlemen, please welcome the moderator for the next panel, Mr. David Ignatius.

Mr. David Ignatius: So thank you, ladies and gentlemen. Thank you very much, Iain, for the superb

overview. The title for our session today, which is Global Energy Transition and Economic Competitiveness, to me illustrates the paradox that's built into this subject. Energy, as I think we all understand, is at once a political commodity and an economic commodity and sometimes the two roles get in the way of each other.

In a world of oil spills, oil shortages, global climate change, use of oil as an economic weapon, it's obvious that there's a need for energy policy. And yet if there's one thing that I feel I've learned as an observer, and I bet most people in the room would share this, over the last 20-30 years, it's that when there are solutions to energy problems they're usually because of the unhindered effect of the price system, which finds solutions to problems that policymakers in their energy policy hats have difficulty with.

So to help us sort out this paradox, if you will, and also to help us think about the urgent, immediate issue for energy policy, which is Ukraine and the consequences of what appears to be a period of use of energy as an economic weapon back and forth, we have an extraordinarily good and useful panel, and let me introduce them. Starting with my far right, Jean-Pierre Clamadieu, who is the Chief Executive Officer of the Solvay Group, which is a Belgian chemical company. He's a former chairman of the Sustainable Development

Commission of the French Business Federation, the MEDEF.

Next to him is Seiji Kihara, who is the parliamentary vice-minister for foreign affairs in Japan. He was elected as an LDP member to the Japanese House of Representatives in 2005 and again in 2012. Next to him is Carlos Pascual, who is the special envoy and coordinator for international energy affairs at the U.S. State Department. Carlos has held so many important jobs in our national security area from the White House and NSC to other key jobs in the State Department. He was also our ambassador to Mexico for a time.

And finally, closest to me is Norbert Röttgen, who is a German member of the Bundestag. He is currently chairman of the Foreign Affairs Committee of the Bundestag, and he was previously German minister for the environment nature conservation and nuclear safety.

So we have an excellent panel. I'm going to ask people to begin. I'm being handed a sign that says "Video: All Technology Invites New." So let's watch a video.

(Video begins)

Unidentified Woman: A fossil fuel boom in the United States has freed the country from fears of peak oil and allowed the U.S. to surpass Russia as the world's top natural gas producer. At the same time in

Europe, renewable energy sources are upending traditional models for power generation and spurring new investments and technologies. These transitions help shape the energy choices for countries around the world, as India, China and other fast-growing nations strive to find the right balance for their energy supplies.

How do varied national and regional responses to new technologies influence economic competitiveness? Are benefits of the U.S. shale gas boom transferrable to other countries? How will Europe's proposed 2030 climate and renewable energy targets affect economic competitiveness in the EU? What role can renewable energy have in securing Europe's long-term competitiveness?

[video ends]

Mr. David Ignatius: So I've promised our panelists, and I promise you that I won't let Ukraine eat the subject of our entire discussion as it ate many of our discussions yesterday, but it is important and on all of our minds. So I want to begin there. And I'd like to begin with Norbert Röttgen and ask him a question that I've heard posed so many times it's obviously a crucial strategic issue, and that is how dependent is Germany today on Russian exports of energy? Can that dependency be reduced over the next year and over the next few years after that? And how should the world think of

Germany as a player in this period in which Russia is being sanctioned, and there's every likelihood that Russia will respond with sanctions of its own?

The Honorable Norbert Röttgen: Okay, thank you for this first question. I would beg to make three one-sentence remarks, which are relevant for energy policy even when we are facing a current crisis. So the first sentence is energy policy, even when we are facing current crises, is by nature long-term, future-oriented policy. It's not a short-term reaction but long-term policy in any case.

So we are--it requires, second sentence, a notion of what the future requires if we want to shape the future. I am deeply convinced that the future has to be low-carbon and that the political challenge is to achieve this goal as far as it is possible while remaining or regaining economic competitiveness. So I think it is not the choice between either/or, but we have to achieve both of the goals.

Third sentence as an introductory remark is I'm convinced that Europe, and Germany especially, will not win the race to the bottom, but we can win the race about leadership in technology, in innovation, in green and efficiency technologies. These three pillars are the elements of our, of German and European energy policy.

What does this mean for the current crisis? To answer in figures, Russian gas is responsible for around about one-third of German gas supply. The export of natural resources are 80 percent of Russian exports. Energy exports contribute more than 50 percent to the Russian public budget. So you can call this dependency of Germany, but I think the more realistic picture is to this--is a description of interdependency, and this is one fundamental difference between the confrontation we are facing now to the historical experience of Cold War.

There we had the world divided into military, political, and economic blocks. Now we have globalization, and we have interconnectivity and interdependence.

[audio gap 01: 05: 21 - 01: 09: 22]

Ambassador Carlos Pascual: ...to coerce other countries to take political actions or measures. And that should be something that we have to be in fundamentally--have to be able to address in our global economic policies and in our national security policies.

One of the things I would underscore about Germany and Europe is the degree of change that has occurred in this market over the last five years. So let's just take a second on this because compared to the year 2009, during the Russia-Ukraine energy disputes, when

Russia shut off supplies to Ukraine, you saw downstream impacts all the way throughout Europe. And why is it that we're not having the same nature of discussion today?

A fundamental reason is the change in policies that have occurred in the European market. Through leadership in the European Commission and the countries that have been involved, there have been a radical change of policies that have created anti-monopoly measures so that you cannot own the gas, own the pipelines and own the distribution systems, simple mechanisms like the elimination of destination clauses so that now when Germany buys that gas from Russia, when it gets to Germany, they own it. And if Germany wants to trade it, it can trade it. If it wants to send it to Ukraine, it can send it to Ukraine.

There has been a program to build infrastructure so that you now have the ability to move gas west to east, north to south, south to north, so that it's possible for a country like Slovakia to buy gas from Norway, to have it delivered to Germany, and the Russian supplies that are coming through Nord Stream Pipeline entering Germany on the other side can actually be swapped through, sent back to the Czech Republic, to Slovakia, and amazingly enough those supplies with some policy changes could actually end up in a country like Ukraine.

The other piece that has been phenomenally different over time is that the United States, and this comes to your point about shale gas, the United States has produced a huge amount of gas. Our gas production has increased 35 percent over the last five years largely because of shale. As a result of that, the United States is not importing LNG. At this stage, we were expected to be importing about 80 billion cubic meters of gas a year--we import five, from Canada.

The result of that has been a redistribution of gas supplies in different parts of the world, from Qatar, Trinidad and Tobago, Nigeria, and one of the places that that gas largely came to in 2012 was Europe. And as a result of the gas, the changes in policies, the infrastructure, the ability to trade, in 2012 Statoil sold more gas in the European market than Gazprom did, and every single one of the 21 major Western European utilities renegotiated their contracts with Gazprom to reduce the price and extend the financing terms, okay.

That is a market power that's created by competition. It's also reflective of what the supplies of American gas not even being exported, but the fact that there was more supply in a global market. So since then the United States has approved six export licenses for gas. If all of those contracts, licenses come into complete fruition, by the year 2017 to 2019, it will

mean that the United States is exporting another 89 billion cubic meters of gas.

In addition to that, there is more gas that's coming from Norway, from the Mediterranean, from Australia. Mozambique has had the largest gas finds in the world. Just say, then one last thing to come back to the part of Ukraine. Ukraine needs help today with the issue of diversification. They have been fundamentally dependent on gas from Russia. They have produced, out of a total consumption of 50 billion cubic meters a year, they've produced about 20, they've imported on the scale of about 25 from Russia, and they've made up the difference with some minor imports from other parts of the world.

This is a critical time first of all to be able to help Ukraine import gas from the West. Poland and Hungary already have pipeline interconnections that can be utilized. They're small, but they're symbolic. Ukraine has the possibility to work out with Slovakia a pipeline interconnection that, depending on how it is handled, can handle between 7 to 15 billion cubic meters of gas.

Mr. David Ignatius: And how quickly can that be done, Carlos?

Ambassador Carlos Pascual: The 7 billion cubic meters, which is a physical interconnection, no reason why it could not be completed by the end of this year.

And indeed, next year the--next week the European Commission is hosting the principal parties from Slovakia and Ukraine to get into the technical details. I was in Ukraine the past three days and had a chance to discuss it with Minister Krodan(ph). The Ukrainian side is very willing to do it. This is something with the right political will and the willingness to finance what is actually a very small amount, $20 million, principally from meters, could actually be operational by November.

Mr. David Ignatius: So that's something specific and short term that we should expect will happen, that pipeline interconnection providing some additional supplies to Ukraine by year end?

Ambassador Carlos Pascual: Very definitely one of the things that can be done. But let me stress another point. To work out all of these issues, it is, I think, critical that Russia recognize what Norbert just said, that Russian supply to the European market and to its neighbors and to be seen as a reliable supplier is important for Russia and it's important for Europe. Because in the end, even if it's 30 percent dependency, taking 30 percent off a market is bad for Europe.

Dr. Norbert Röttgen: Yes, of course.

Ambassador Carlos Pascual: It’s going to drive prices up, and frankly, it’s bad for Russia. So look at this perspective. Russia has pipelines connecting it

with Europe for about 140 billion cubic meters. The fastest-growing gas market in the world is Asia, and Russia has the capacity to export 14 -- 1-4 -- billion cubic meters. Russia is totally dependent on this market for its revenue from gas exports.

Mr. David Ignatius: I want to ask you one last question. Imagining the Secretary of State of the United States in this crisis, and he has a prominent official who's his energy policy coordinator, given the nature of crises in America, I can't imagine but that Secretary Kerry didn't summon Carlos Pascual and say what can we do? What's our policy for this crisis? What are the five things that we can work on right now? And although you talked specifically about this pipeline connection I'm not hearing that kind of what are we going to do now to help Ukraine and our allies in Europe get through this, and if there's more to say I think we'd all be interested.

Ambassador Carlos Pascual: There are a number of things to say, and that's part of what we were working through when I was in Ukraine over the past week, why we've been so engaged with the European Commission, why we've been working so closely with a whole range of different companies to understand what the private sector can do and what the financial requirements are. I think one of the things that's important to do is go back to what Norbert said at the beginning. To have a

strategy you need to know where you're going and what the long-term solution is because otherwise you're building bridges to nowhere.

And so the bridge to somewhere in Ukraine is to recognize that, first of all, the 20 billion cubic meters a year that they've been producing has been consistent since Soviet times. They're using 1970s technology. If they invite private participation investments and engagement they can quickly and quite readily increase that production by 30 percent, so one of the first things that we discussed is what is it going to take to set up the projects that are necessary to invite private participation.

Secondly, there are projects and contracts that were signed last year that could by the year 2020 bring Ukraine another 20 billion cubic meters of gas. Those are contracts that have been signed with Chevron, with Shell, with ENI. And if you bring those two together, 20, 23, 25 billion cubic meters, another 20, you start putting in place energy efficiency measures. You put in place these reverse-flow measures, Ukraine could find itself realistically by the year 2020 in a situation where it becomes its choice on whether or not it wants to import gas from Russia.

And if you understand that as a starting point then you have the potential to go back and say okay, these bridges make sense: the interconnections with Poland,

reactivating that, the interconnections with Hungary, reactivating that. And so that's part of what we've been talking about, how to put them back in place--the interconnection with Slovakia, putting that in place. Who's going to provide the gas? Because in the end someone has to sell it. There is, not surprisingly, an interest on the part of sellers of gas to have guarantees for those purchases. How can they work? How does this get integrated with an IMF program? How does that interrelate with implications and expectations about pricing? So all of these things are issues that we have to work out in the short-term.

Here's the final point. Ukraine is buying gas from Russia, and it's important for us to work with that and encourage it to be a stable and transparent relationship because what is critical here is to have that gas flow on commercial terms and be extracted from the political equation.

Mr. David Ignatius: Okay. I think the secretary just sort of said okay, I have a five-point policy. Thank you. Seiji Kihara.

Honorable Seiji Kihara: Yes.

Mr. David Ignatius: First, I should just note that one of the interesting consequences of this Ukraine crisis is that your Prime Minister Abe who'd been involved in this interesting diplomatic opening with Vladimir Putin--had gone to Sochi, you know, the world

was watching the Abe-Putin relationship--immediately when the crisis began pulled back toward traditional allies--the United States and Europe--and pulled back from Putin. That was a striking development. I just want to ask you, from your perspective in Japan, an energy-needy, energy-stressed country in some ways, how do you look at this kind of energy turmoil in European markets, the response to it. What's that going to mean for Japan and by extension for other Asian importers?

Honorable Seiji Kihara: Right. First of all, I would like to make it very clear that Ukraine's situation is of great concern not only to Europe and United States but also to Asia and Japan as well. As David correctly pointed out, Japan has a scarce energy resource, and our energy self-sufficiency is only below 4 percent. We depend almost all energy outside Japan [sic]. Any kind of turmoil in the energy market is a bad effect, quite bad effect on Japan at the moment, especially in the current Japanese situation is we have no nuclear power at the moment, and 90 percent of our energy comes from the fossil fuel. So it's very important to have a very stable market, and we have to work very hard on this.

I would like to add one more thing is [sic] not only on the perspective from economy or energy point of view, what is very important here is the geopolitical point of view. As you know, in Asia tension still

remains. We have a country increasing their military expense by double digits for nearly two decades. How to deal with the Ukrainian issue had a great impact on the Asian geopolitical issue as well. So these are the two reasons why Japan is so concerned on this Ukrainian issue.

And one more thing I would like to add is that in Asia we don't have the same kind of pipeline network as in Europe, so this is another factor we have been very worrying about [sic].

Mr. David Ignatius: Jean-Pierre Clamadieu, I said at the outset energy is a political commodity as well as an economic commodity. You have to deal with the economic commodity. What do you think the implications will be for companies like yours and other buyers of electricity, buyers of energy-related supplies in the aftermath of what we're seeing now?

Mr. Jean-Pierre Clamadieu: Maybe when – an explanation on why I'm here. I'm the CEO of a large chemical company who is a large user of energy and a large user of natural gas (inaudible) sulfurous raw material. What we've seen in the past five years is not a nice transition. We've seen a revolution in terms of energy, very impressive success story in the U.S. We've developed natural shale gas, and there are a lot of challenges in Europe. My colleague from BPS described it in a very diplomatic word, the reality is that today

the energy landscape in Europe is not a pretty one, and I think we'll come back to this in the remaining part of this discussion.

On the Ukrainian crisis, I think the situation seen from the large energy users in Europe is very simple. We need in Europe more gas in our energy mix and more competitive gas. It's probably worth reminding to some of the member of the audience that today natural gas prices in Europe is three to four time what it is in the U.S. [sic] We need more and more competitive. Today it's coming largely from Russia. Forty percent of our energy, of our gas supply in Europe is coming from Russia, more or less the same number as in Germany. Currently, Russia share is slightly increasing, and Russia is really in gas problem, both commercial company but also a political arm of the Russian government is ready to be a little bit more accommodating in terms of prices.

So very short-term, we are very lucky because this crisis is happening at the end of a mild winter. Storage are very high [sic]. We can do what we want. There is no issue short-term.

Medium-term, I would say in the next couple of years we don't have that much flexibility, or to say that differently, flexibility will have a price. And if we decide to go for other sources this will have an

impact on the price of gas for household and for large industrial uses.

Longer-term, there are not that many potential game-changers. One of them is LNG export from the U.S., but it will take time. I mean, to build the liquefaction or gasification you need it takes three, four years if you expect the permitting to be quick, which might not be the case. We could also look at developing our own European resources--shale gas--but it will take a long time. You know, we know how the public opinion is reacting to shale gas in Europe, and even if the political decision-makers are ready to move on I think we won't see the same success as what we've seen in the U.S. So I think we have some flexibility but limited and with cost associated with it in the current crisis.

Mr. David Ignatius: So I want to move the camera back now from the immediate Ukraine crisis to the larger issues of energy policy and I'd like to start again with Norbert Röttgen and ask you to speak about what you began to describe, which is Germany's commitment to clean energy, to renewable energy. I want to push you a little bit on the question that I'm sure Jean-Pierre and other people in the market would which is at what economic cost is this strategy of clean energy being purchased? And are you pushing Europe for sensible political reasons or understandable political

reasons into a more and more difficult economic situation where European competitiveness begins to be at risk?

Honorable Norbert Röttgen: Of course, prices count for competitiveness, but I would say Germany did not so bad deciding for the energy shift and remaining competitive. Your question gives me the opportunity to deliver the facts about the prices. The fact is that the consumers are paying the price, not the industry in Germany.

The industry has--this energy shift is called--the name is energy shift, but it is reduced to electricity. So we have to have a view on the electricity prices in Germany, and the electricity prices for the industry has decreased after Fukushima. We have lower electricity prices because the price level in the stock exchange has plunged from about 70 Euros per megawatt hour to lower than 40, I would say about 35 Euros per megawatt hour because we have such a supply and offer of electricity. So the stock exchange level has decreased, and the political decision in Germany is--it is a little bit challenged by the European Commission to make an exemption, exclusion for the industry.

The industry is not burdened with the financing of these investments. They are not burdened in order to make this shift and to remain economically, industrially competitive. We have consumer costs, so we

have social costs and by this, we have political costs because we have justify why are the consumers held to pay more for electricity. We have still remained a broad support for this. We have caused public debate about it. It played a role in the last Parliamentary election. We will have a re-launch or a new bill of the so-called Renewable Energy Act, so this means we will adjust the costs of subsidizing.

Green technologies have also decreased. We have now photovoltaic for about 10 cent per kilowatt-hour [sic], windmills on shore are about 7 or 8 cents per kilowatt-hour. So we have an increase in productivity, we have a decrease in costs, and you have to manage this transformational process. This is a challenge, of course, but we want to exclude the industry from this and we are struggling with the EU Commission. If the EU Commission allows Germany to pursue the energy shift by remaining economically competitive, and I would say a coherent EU Commission policy would require Germany to allow to remain economically competitive.

Mr. David Ignatius: I should ask Jean-Pierre Clamadieu who has to live in the marketplace with these rules whether he feels--well, to evaluate what Norbert just said.

Mr. Jean-Pierre Clamadieu: Well, I mean, Norbert obviously is absolutely right. But the situation is very complex. We have to--but it's really having an

impact--first, I will come back to what's happening. But it's having an impact because for emergent (inaudible) industries we are today relocating assets, us, BASF, Bayer, the steel industry, the glass industry, we are seeing today capital investments being relocated from Europe to North America or to Asia. So what's happening is very different in gas and electricity. In gas, the issue is Europe versus the U.S. And, again, we're seeing a situation where no one, I think, five years ago, even in a seminar like this one, would have forecasted such a breakthrough. U.S.--

Mr. David Ignatius: (Inaudible).

Mr. Jean-Pierre Clamadieu: Yes, yes, and gas, U.S. today, is very, very competitive country.

Mr. David Ignatius: Yeah.

Mr. Jean-Pierre Clamadieu: And we are seeing our colleagues in the chemical industry investing hundreds of billions of dollar to develop (inaudible) and transformation units. And soon we'll see plastics, to use a simple word, flowing from North America into Europe and competing with our own export in Asia.

Concerning electricity, we have a very fragmented European landscape. There is nothing like an EU energy policy, and this is something which is missing. We are seeing Germany moving its way, very strong focus on renewable, but a clear political decision to insulate industries from the cost of this investment in

renewables. This is not at all case in France, in Belgium, or in Spain.

When I look at how much I pay for electricity, I'm a very large user of electricity, in Europe, I have 30 percent differences between Germany with their low cost trough there with Italy and France or Belgium. And the difference is not so much of a price of the electric in what I pay to the utilities, it's taxes or transportation cost. And this situation, I think, is detrimental for European industry.

We need to develop real European energy policy, and we are far from this. Europe has a very clear climate change policy. We've a European-wide (inaudible) with its strengths and weaknesses. But as far as energy is concerned, I think we are just up to a point where policymakers, Mr. Bouzul(ph), the head of state, are starting to realize that we have an issue. And this was part of the framework that the Commission has issued as published a few weeks ago, but in terms of actual action plans, very, very limited. And I think that for industry, this is a big issue. We need to develop a European energy policy. Yes, we need to move towards renewable. No question.

Something which is certainly a bit more difficult to address is the role that nuclear should play. And we've seen very different decisions in very different countries, Germany moving very quickly out of nuclear.

By the way, we've limited discussion with its neighbors on this issue. We've seen Belgium moving out mostly of nuclear. We've seen France asking the question, but probably at the end of the day we won't see much of a change. But we need to have a common answer how we see nuclear playing its role.

And the next question brings us back to a previous discussion on gas. What role we want gas to play in the European energy policy. What we've seen in the past year, which is really a, I think, a shock and probably not something which goes in the right direction, is coal, cheap coal coming from the U.S. because the U.S. went from gas to coal, cheap coal being imported into Europe replacing gas at the cost of more CO2 emission. Germany's one of the few developed countries which has seen CO2 emission moving up in the last 12 months.

Mr. David Ignatius: Let me--I think this is a good moment to come to Carlos Pascual. I'll come back to Mr. Kihara in a minute about the nuclear issue for Japan. But, Carlos, give us your best summary of what you see as the shale oil and gas revolution in the U.S. and its consequences for the world of the State Department, the world of foreign policy. We hear a lot of loose talk about how everything's different. You know, the people throw these numbers around. From your perspective, what is the transformation going on as a result of these

very substantial finds of shale oil and gas in the U.S.?

Ambassador Carlos Pascual: Sure. I think you have to separate out the markets between oil and gas. The increases in both have been phenomenal. The United States has increased its oil production by about 30 percent in the last five years. It increased by a million barrels a day in 2012, another million barrels a day in 2013, on track for another million barrels a day, 2014. So in three years, the United States will have created the functional equivalent of a UAE, Kuwait, equivalent to what Iraq is exporting today. And the principal supplier of that oil has come from the State of North Dakota. And it really has been as result of the developments in innovation, in technology that has allowed the development of shale oil resources.

And part of that development of technology goes back to exactly what you said before, of having the price environment and the entrepreneurial environment to reward it and allow it to grow. One thing I want to say is that both on oil and gas, how you do it and the environmental protections that you take is absolutely key. And we had to learn lessons in the United States. And we are doing everything that we can to share them with other countries, the European Commission. We've worked with the IEA to help set up a repository of information. We've had exchanges with countries ranging

from Poland to China to Ukraine to Chile, really throughout the world to try to be able to extend some of the best practices and lessons. And that's key to what we're doing.

So the first thing that comes up regarding oil is, as a result of this increase in production, our imports of oil have gone from 60 percent of consumption in 2005 to about 35 percent. And so the question is why do we care about the rest of the world? Do we care about the Middle East? Do we care about peace and security? And the answer is, absolutely, you bet. Because while we have changed the security of supply and put the United States in a position of greater ability to access resources to support our economy, oil is a global commodity with a global price. And when there's instability and insecurity anywhere in the world, we pay it here in Europe, we pay it in the United States, and we have a fundamental concern about this. And so the United States, yes, for many reasons is going to stay engaged and involved in the Middle East. But we're going to do it as well for our own economic interest. We're going to stay engaged in the security transit lanes because it's in our own economic interest.

But I think the other part of the oil market that is even more critical than what the United States is producing--I go back to one of the things Iain said--is the majority of the growth and consumption is in the

non-OECD countries. If you look out in the future, all of our countries are absolutely flat or declining. And absolutely all of the growth is in the non-OECD countries. China, India, Brazil, countries in the Middle East. And the question that arises is that, number one, if you ask--if you look at a country like China and you think about its position in the market, it, potentially in the future, is the price pull factor on global prices. So did we think we would be in a room where we would be saying that China's ability to satisfy its demand for oil is fundamentally critical to every single one of us because it's going to affect the prices that you're going to pay in Europe and we're going to pay in the United States? It is now.

And related to that is another question which is, who's going to create the rules of governance in this world? Because the principal governance agencies--the International Energy Agency was created after the 1972 crisis on oil. The purpose of it was to try to figure out how to have emergency responses in the oil world. And, my God, a majority of the countries that are consuming are outside of the OECD, so how do we work with them? And this is one of the critical challenges that we're facing right now in how to reach out to those countries.

Mr. David Ignatius: So--

Ambassador Carlos Pascual: Can I just say one thing on gas?

Mr. David Ignatius: Yes. And then I want to go to one of our word clouds.

Ambassador Carlos Pascual: Okay. Okay. All right. I just want to go into gas for one second because we talked a little bit about gas in the European market and how much it's changed. The fastest growing market for gas in the world is Asia. And there's a reason why Asia is paying 15 to $20 per million BTU for LNG, and Europe is paying about 10, the United States right now is paying 4.5. Part of it's supply, but the other part of it is that the market infrastructure in Asia is so, so thin. They have not made the investments yet and regasification infrastructure and storage and pipelines and vessels. There's still a need for the elaboration of the regulatory policies that ensure competition within that market. There are few lengths between the market and the financial world so that you can get financial intermediation. And the data that's necessary to make the market function is still very, very, very thin.

And so one of the biggest issues on the geopolitics of gas in the future may seem pretty boring, but it's going to be what happens in Asia to build that market infrastructure to create a competitive market and to begin to be able to create the kind of environment

where gas can compete with coal so that the fastest growing coal market in the world might--which is Asia--might have the beginnings of a possibility to bend that demand curve for coal.

Mr. David Ignatius: So I do want to use this little bit of technology, and if our Brussels Connect people could put up the word cloud, the question is, in 15 seconds, please, what words come to mind when thinking of the U.S. shale gas boom? And you can't use words that you wouldn't use on television. Plastics, well, awesome. There's a word that you couldn't say is under-used for any subject. Lucky, I think. Lucky is--so I'm going to note opportunity and independence as the two most interesting words there. And I'm sure they're both absolutely right.

And one more question for our panel, and then we're going to go to the audience. So please be thinking of your questions. And the last question is to Mr. Kihara. After Fukushima, this terrible nightmare that Japan suffered with, Japan is in a fascinating and painful dilemma. You can't live with nuclear. You can't live without nuclear. You've stopped it. But there are many people who say it's just crazy not to resume nuclear power production. And I'd be very interested what you, as somebody looking at both the market and public policy sides of this, would share with this audience about where nuclear energy goes in the future in Japan.

Honorable Seiji Kihara: Yeah. As I told you, currently we don't have any nuclear power plant in work. What happening is the electricity cost price increase by, on average, by 20 to 25 percent, and it is a huge toll on business, especially for small and medium size companies. This is a huge increase of electricity price. So in the short term, we have to resume our nuclear power according to the stricter safety standard set by the new regulatory authority. We cannot afford without the nuclear power as a base load energy at the moment. But in the mid to long term, at the same time, it seems to me very difficult to make new or to construct new nuclear power plant in Japan. I don't think we can get the approval or the consensus from the Japanese public after such kind of big accident.

So what we are going to do is to fill the gap by increasing the renewable energy. But I think it takes a long time. So for the time being, we have to very much work on the--what Carlos says, to improve the market mechanism on the gas or the coal, particularly on the gas as he--as you really correctly pointed out. We have no market mechanism in Asia, so we have to have a kind of partial market mechanism on the gas as well in this regard.

And one more thing is technical innovation, I think. What we can do is to improve our technical

innovation. So last November, we announced the $110 billion investment for the new technology for the new environmental technology and also for new renewable energy technology. So we are going to be--work very hard on these issues at the moment.

Mr. David Ignatius: Thank you. So I want to turn for our first question, comment from the audience to the person who actually led us off. Iain, who gave the overview at the beginning, and if you have a question or comment for this panel, please. We do have a microphone and where's it coming from? There. So if you could bring it here to--yes.

Mr. Iain Conn: Thank you very much. I mean, firstly, just a brief comment since the last two points on gas. I think this is quite an important fact for the audience that cheap gas in America, even if it could come to Europe, isn't going to save the world. And there's a very important fact that underpins that. It costs $4 a barrel to move oil from anywhere in the world to anywhere else and it costs $45 a barrel to move the same amount of energy as natural gas from one side of the world to the other, which means that actually what markets need to find is near-market gas, ideally by pipeline and that's a big challenge.

Now, my question is, to the panel, I outlined a view that we need to have an over-arching energy philosophy that will guide us over multiple decades,

and Jean-Pierre underscored that desire. And the real question is; have we learned enough to do that and if we have, is a block of 28 independent countries capable of coming up with such a thing?

Mr. David Ignatius: You want to direct that at anyone in particular, Iain or leave it to the panel?

Mr. Iain Conn: Well, I think Jean-Pierre and Norbert, I'd ask them to maybe comment on that.

Mr. David Ignatius: Good. Norbert?

Honorable Norbert Röttgen: Yes. We have to deliver on this point and I think we agree very much on this. We do not have--we have an internal European market but we do not have a market for energy. And creating this market in Europe would contribute this strength which we, in general, share and have as a European common market. So creating this market by regulation, by political decision, would make Europe much more stronger. And this would include, of course, the infrastructure for energy.

Mr. David Ignatius: Jean-Pierre?

Mr. Jean-Pierre Clamadieu: I'm an optimistic person, so I will say yes, I think it's possible but it requires much more leadership coming from the EU and it requires for member state to agree to let the EU set guidelines. I think our areas where it's probably not that difficult is about renewables. I know we can create mechanism which allow us to increase our

exposure to renewables. Where I think it's probably a bit more to achieve is about nuclear. I think there we have issues where are very complex in some countries and I think the role of nuclear is probably a subject on which there is no European consensus to that.

Honorable Norbert Röttgen: Just one remark. Energy policy has been, for long, been a matter of security policy. We argued in this way but now we are making the experience and I think experience is able to change politics.

Mr. David Ignatius: Let me call on a representative of one of the world's leading energy producers, Russia. Ambassador Chizhov.

Ambassador Vladimir Chizhov: Thank you very much. My question would be not on nuclear, not on Asia but on the situation in Europe against the backdrop of the Ukrainian crisis. I've heard Pierre and from the panelists and elsewhere, I would say a rosy picture is painted how Ukraine would be able to shift from using Russian gas to reverse flows, be it from Slovakia, be it from other countries. I believe that, technologically, that is possible. I wouldn’t argue against that. But in order to bring gas from somewhere, you need to have that gas somewhere.

As far as I know, Slovakia is not a major producer of natural gas.

Mr. David Ignatius: No.

Ambassador Vladimir Chizhov: So if Slovakia undertakes to resell Russian gas to Ukraine, it would be perfectly okay with me. I would regard Slovakia as a much more reliable partner for gas problem than Ukraine currently is.

And the next question of ensuing, of course, who is going to pay for it? I fully share the view of experts regarding the figures of how much it costs to transport oil and gas from one place to another. So if there is a possibility to make that strange re-routing of gas becoming cheaper than gas directly supplied to Ukraine, well, that may be possible but it's not that easy to imagine.

So my question is, all these projections, are they economically supported by calculations?

Mr. David Ignatius: Carlos, I think that's probably directed at you. Who owns the gas and who's going to pay for it?

Ambassador Carlos Pascual: Ambassador Chizhov, I'm very, very glad you made that comment. It's an excellent comment and I hope that your comment is an indication of Russia's policy because the implication is that Russia would be committed to continue to supply gas to its neighbor and to supply gas to Europe, and that you would do it at a reasonable price. And indeed, yesterday, Russia indicated that it will increase the price for Ukraine from $260 per thousand cubic meters

to 478 on April 8, with the expiration of the deal negotiated with Viktor Yanukovych. And that it will eliminate the $100 discount which was previously provided for the Black Sea Fleet because you now have proposed to make, or your country has proposed to the international community that Crimea's now a part of the Russian Federation.

That would put Ukraine receiving a price of gas higher than any other European country at rates that are clearly not market-determined rates. So I think, first of all, the issue here is exactly as you stated; that Russian gas is an important stabilizer in the market, it can create good competition, it could be a force for economic good. And I hope that Russia will actually act on that, ensure that it will continue to supply gas and that it will do it at market rates.

What we've also seen is that competition's a good thing. And so when in Europe, there was the advent of LNG in 2011 and 2012 and it created an environment that allowed competition with Russian gas where there is a lot of Norwegian cash coming into the market. That created a good, competitive environment, which allowed renegotiation of contracts with gas product.

So I think your point is absolutely correct; gas coming back from Poland, Hungary, Slovakia is not going to fix the issue in Ukraine. What it does is it creates an environment for competition.

Last thing I would just say on this is that--and this is indicative of the new gas world in which we live in. The gas that is potentially purchased by Ukraine is not gas from Slovakia. It could be gas from Norway, it could be gas from Trinidad and Tobago, which is delivered at LNG ports in different parts of Europe. But now what Europe has is the ability to trade and swap and move gas in ways that didn't exist before.

So it creates possibilities for openness and competition that we just didn't simply have in the past.

Mr. David Ignatius: So I want to collect three comments here, since we're slowly running out of time--quickly running out of time. First, I want to call on the chairman of our board of the German Marshal Fund, Robin West, who's also one of the world's leading energy consultants. And then the gentleman there and then--yes, back here. Robin.

Mr. Robin West: Yeah, one subject isn't brought up at all has been all the southern core gas coming from the Black Sea, the eastern Mediterranean. That is proximate gas. It could compete with Russian gas. The Russians have done everything in their power to stop the development of those projects. And by the same token, the Europeans, as far as I can make out, have bungled this opportunity. They've refused to get

organized, they've refused to move that gas. Will they start doing that now?

Mr. David Ignatius: And, yes, the microphone is making its way--yes.

Mr. Nelson W. Cunningham: Yes. Nelson Cunningham from McLarty Associates in Washington. My question is for Ambassador Pascual, who, in addition to having been Ambassador to Mexico, was also Ambassador to Ukraine, which gives him that unique competence in dealing with this current issue.

You mentioned, Ambassador, that the U.S. has recently awarded six export permits for LNG. It's my understanding that there are 28 additional permits awaiting approval by the Department of Energy. The way that DOE has handled these in the past is it's waited strictly in queue, it's waited three or four months between each approval and then it's approved the next one.

My question for you is, and the number of members of Congress have called on the U.S., why don't we accelerate that pace? If there are 28 permits waiting, if we accelerate that pace of permitting, accelerate the pace of exports, don't we improve the competitive situation that you were just referencing a minute ago?

Mr. David Ignatius: And, yes, please, if there's a microphone here for--yes.

Ms. Heather Grabbe: Thank you. Heather Grabbe from Open Society Foundations. I have a question for Norbert Röttgen, above all, and indeed for the Europeans, who read with great interest on Friday, the European Council conclusions that called for much more radical and quicker steps towards energy independence in Europe, and particularly, cutting off the isolation of, for example, Hungary, Slovakia and Bulgaria. But that could take a very, very long time and we need very quick results.

How about this idea; why doesn't the EU start to treat energy, external energy supply, like trade and simply appoint a single negotiator to negotiate on behalf of all of the 28 member states, get one price for all the member states and essentially have a mandate from all of them at the level of the Commission?

Mr. David Ignatius: Monopsony, one might call it. So let's take one more question here and then we'll go back to the panel.

Mr. Matthew Bryza: Thanks. I'm Matt Bryza from the International Center for Defense Studies in Tallinn. In the spirit of Heather's question about getting Europe more organized, better organized on these issues, what are the mechanisms should worse come to worse? And the sanctions that are considered or the response by Russia is that the gas flows stop from Russia to the EU.

And picking up on Ambassador Pascual's point; the reality, of course--and Dear Mr. Ambassador, is that Russia is a lot more dependent or is highly dependent on those revenues. At least as dependent on those revenues as is Europe on the gas flows. So is there a way for Europe to develop a mechanism to share the risk and share the pain and make sure companies like Bulgaria, that are 100-percent dependent on Russian gas, or Estonia or Latvia or Lithuania, make it through the storm? Thank you.

Mr. David Ignatius: So let's go back to our panel. Please select among those what interests you most. Jean-Pierre, why don't we start with you.

Mr. Jean-Pierre Clamadieu: Just on the last two questions. I think better coordination in negotiating gas supply for Europe is certainly a way to go. Now we are very, very far from the situation where one single negotiator would be negotiating on behalf of probably 10 or 15 companies. Because today, it's a business-to-business type of negotiation. But, yes, I do believe that better coordination makes sense and we see that in today's world, NLG [sic.] as you were, I was listening at the beginning of this session, energy is a critical tool.

Mr. David Ignatius: But you'd feel comfortable with one monopsony buyer on behalf of these leading purchasers of--

Mr. Jean-Pierre Clamadieu: No. I don't feel confidant, I just think that we are not in a situation, especially in Europe, where we can just let market forces deal with these types of negotiation. I think there needs to be the political will to make sure that we try to make the best out of a very challenging situation, as far as Europe gas supply is concerned.

Mr. David Ignatius: Mr. Kihara.

Honorable Seiji Kihara: Yeah, I just have an interest in the question about the shale gas energy export. Recently, United States authorized the export to Japan involving the Japanese company, and now we have the full project on the table. And it's really helpful to diversify our resource, you know, energy resources. And I'm quite sure that it will help the whole world, so I quite agree with him. It might be very helpful if you can accelerate the approval process.

Mr. David Ignatius: Carlos, I hope you will speak to this question of the southern sources of gas and how they fit into the picture, the question that Robin West raised.

Ambassador Carlos Pascual: You didn't want me to say that, yes, the United States is going to accelerate the process and--

Mr. David Ignatius: Yeah, we want to know.

Ambassador Carlos Pascual: My boss sure would prefer I didn't. I mean, Nelson, what he lays out is a very good question here and he knows that I can't answer the question. But it's an issue--it's under the direct responsibility of the Department of Energy. But there are a couple of things that I just briefly want to note on it. Since May of last year, there have been five licenses that have been approved. The whole process has been accelerated quite extensively. There is constantly a look at how it could be handled expeditiously within the constraints of the legislation that we have today. There is a great awareness on the part of the senior leadership in the United States that deals with energy policy on the interests and having more exports be able to go to market. One of the reasons why it becomes a complicated policy is exactly the reason that Jean-Paul [sic.] said that so many companies are going to the United States; but within the United States it has an impact on competitiveness, on petrochemicals, on steel, on cement, and those issues have to be addressed as well.

But I think that the critical issue is that the United States has sent a very, very clear signal with the licenses that we have approved, that we are going to be a player in global markets in LNG, and that this is going to facilitate trade.

On the southern corridor issues, there are both huge possibilities and real progress that are being made. One piece of that progress Iain knows very well because BP is one of the principal players. It's the Shah Deniz 2 project in Azerbaijan. They recently came to a finally investment decision. There is a whole pipeline stream that connects Azerbaijan, Georgia, Turkey, leading into Greece, Albania and Italy. Marta Dassù is here, I saw her walk out; she was a great champion of this when she was in the Italian government. That project is certainly going ahead full steam. There are a number of things that still need to be worked through. But it is one of the few projects that actually would bring new supplies of gas onto the European market, not just re-divert the way that current gas is flowing into the European market.

There are other Black Sea possibilities. Romania and Bulgaria have quite significant possibilities in both oil and gas. There are international companies involved in the development of those resources.

I think one of the key things that still remains on the table today is for all of us to work very, very actively with the countries that are involved, to ensure that the regulatory obstacles, the problems and the constraints, are moved away as quickly as possible. And that that gas and that oil that is possible to develop there is, Robin, as you suggest, getting to

markets, contributing to a competitive environment, contributing to energy security as quickly as it can get there.

Mr. David Ignatius: Norbert, close us out, please.

Honorable Norbert Röttgen: If Ukraine will come under supply pressure by Russia, I think there are some short-term but costly measures we will take. And I am convinced we will share the burden. And by this, this crisis will contribute to forge a European unity in energy policy and in foreign policy. This is one effect of this crisis.

And secondly, I am convinced that the experience of energy supply is a fundamental issue of security. And even the Ukraine security problem is perceived as a European--and by this, for example, a German problem, will contribute to accelerate a competitive environment for our energy policy with regard to creating a common market, investment in infrastructure, and evolving energy as a trade good in order to trigger the benefits of competition. I think we will accelerate to adjust under the experience we are facing now.

Mr. David Ignatius: Thank you, panel. Clear, direct, helpful. Thank you very much.

Mr. Craig Kennedy: Thank you, David. Hardest working guy at the Brussels Forum, David Ignatius. Okay. We're going to take a coffee break, but two quick announcements. Please trade business cards using your

SpotMe devices. Second, whoa! Before anybody leaves, if you have a SpotMe device, before you permanently leave the hotel, be sure to return it. We can track you down and we will. But please return them. Thank you.