

9th Transatlantic Energy Governance Dialogue

Shale Gas: A Game Changer for European Energy Security?

Conference Report

Central European University, Budapest, 12 – 13 May 2011

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European
Commission

Dräger Foundation



NORWEGIAN EMBASSY

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1. Introduction

Gas markets have seen major changes within the last five years. Faltering demand, caused by the ongoing financial and economic crisis, coincided with supply increases in unconventional gas, notably due to soaring unconventional gas production in the United States. This has resulted in major shifts in the natural gas landscape and may have important implications for energy contracts, energy market structures and energy security in natural gas.

In Europe, re-directed cargoes of Liquefied Natural Gas (LNG) – initially destined for the now-saturated U.S. market – hit deeply depressed demand in late 2008. As a consequence, gas markets turned soft, replacing a prevalent sellers market that had given considerable (market) leverage to gas exporters such as Russia during the first half of the last decade. Now, long-term take-off contracts are being reconsidered, giving way to short-term arrangements and spot market transactions. Further, feeling the heat from its Western European customers, major exporters to Europe partially started using much lower spot prices as reference points instead of the common oil price peg. Finally, Russia, the once dominant supplier, has consistently lost market shares on European consumer markets. These shifts have led several observers to call shale gas a ‘sea change’ in European energy security.

Globally, gas markets are likely to integrate more deeply. To date, natural gas has very much remained a regionally traded commodity, a result of the difficulty and cost of transport, with natural gas trade remaining by and large restricted to the Atlantic Basin (including Europe) and the Asia-Pacific region. Recent developments, however, suggest that spot prices (e.g. on Henry Hub in the U.S.) tend to increasingly influence market developments in other world regions (e.g. on the National Balancing Point in the UK), which is a result of enhanced LNG trade. More integrated markets may offer opportunities in terms of liquidity and pricing, however, they may also entail new risks. Such risks may include increased price fluctuations stemming from more volatile spot markets, emerging possibilities to at least partially cartelize globalizing gas markets and incentive problems for investment in key producer countries. In sum, the changing structure of the international gas business is both raising a number of critical political and economic challenges that require careful attention, not at least by the Atlantic alliance.

This high level conference explored the transatlantic dimension of the shale gas ‘sea change’ and the governance challenges that have emerged on a variety of fronts. It brought together professionals from all sectors (governments, NGOs, business, the media, think tanks and universities) in order to promote constructive debate on these issues. The dialogue sessions are also designed to complement our research program on global energy governance and serve as an important forum for both presenting our ideas and receiving feedback. More information on this program can be found at www.globalenergygovernance.net.

2. The Potential of Shale Gas in the European Union

The potential of shale gas¹ in Europe is quite different from that of the United States. In the US, a number of key variables helped drive the shale gas revolution, including the in-depth knowledge on the existence of reserves, the location of shale gas basins near major gas consuming regions and long-term investment in research and development facilitated by federal funding and tax credits which made shale gas production both technically possible and cost-competitive. These investments, undertaken since the 1970's, led to technological breakthroughs in drilling techniques, including combinations of vertical and horizontal drilling, multiple-well drilling from one well pad and hydraulic fracturing. These new combined technologies coupled with economic incentives to develop non-conventional resources are reasons for the “silent” revolution the United States.

For Europe, participants agreed, the picture looks different. If Europe begins producing shale gas, it will rather be defined as an evolution as opposed to a revolution, with a number of uncertainties which need to be addressed. First, more work needs to be done on determining geological differences between the United States and reserves located in the European Union which could complicate production or make it exceedingly expensive. For example, in general, deposits on the European continent are more complex compared to US basins. They are located deeper underground, are more fragmented and have a higher clay content which makes deposits more difficult to fracture and more costly. While, in general, shale in Europe will be costlier to produce than in the US due to regulations, manpower and other reasons, some participants argued that Europe does not need to produce shale at such a low price like in US to be competitive with gas from pipelines and LNG.

Second, much more work needs to be done with regards to onshore exploration and the formulation of more comprehensive assessments regarding the potential size of basins. In addition, there is a significant shortage of service providers for exploration and production, though major players are acquiring acreage in Europe, including Exxon Mobil, Marathon, Chevron and Conoco Phillips in Poland; Exxon Mobil in Germany; Shell in Sweden and Ukraine; and Total in France.

Third, many believe that there is an inadequate regulatory framework for shale production in place in Europe, including the lack of necessary regulations on exploration licensing, mining processes and environmental protection. In addition, there are uncertainties on the issue of third party access to infrastructure. Moreover, the issue of property rights is a key concern. Whereas US citizens own resources located under their property, and can thus reap considerable financial benefits if gas is produced on their land, this is not the case in the European Union. As resources in Europe in most cases belong to the government, there is considerable opposition to shale gas due to disruptive exploration and production methods, especially in areas of high population density.

Fourth, and perhaps the most potent issue, is environmental concerns, with many Europeans turning against the production of shale gas due to its potential contamination of

¹ In line with contemporary policy debates, the terms shale gas and unconventional gas are used interchangeably in this report.

water, release of radioactive material and its overall carbon footprint, among other concerns. Moreover, fracturing operations require large amounts of water per well. Due to this, countries with strong environmental policies such as Germany and France will find it difficult to move forward without a swing in public opinion.

Participants also highlighted that the public relations teams in energy companies are losing the environmental argument against environmental NGOs with regards to shale gas production. Moreover, various critiques of the industry have emerged which participants criticized as being biased and give an incomplete picture of shale gas, in particular the movie "Gasland" as well as a recent study by Cornell University on the methane and greenhouse gas footprint of shale production.² A study by the US Environmental Protection Agency on the impact of shale on drinking water is due in 2014 (with preliminary results 2012).

In sum, participants argued that the strength of environmental movement, distrust of big oil and gas companies and the unresolved question of balance between energy security and environment concern may present significant obstacles to shale production in Europe. If these sentiments prevail, Europe could nevertheless capitalize on US shale production by importing US gas (in the event the US decides to export gas) or drawing in LNG capacity freed up by the US's increasing domestic production.

² See: <http://www.sustainablefuture.cornell.edu/news/attachments/Howarth-EtAl-2011.pdf>. Last accessed 2 August 2011.

3. Drivers of Shale Gas in the European Union

The potential for a shale gas “evolution” in Europe exists, as do compelling drivers. In this respect, conference participants identified the key drivers for the EU to make a shale gas move: Achieving energy security and mitigating carbon emissions.

3.1 Achieving Energy Security

Conference participants cited reducing dependency on foreign energy supply and avoiding supply shocks as key benefits of initiating domestic shale gas production, with participants also stressing that shale gas is most likely to be developed in areas where energy security is particularly valued, for example the United States – which is weary of dependency on the Middle East and China – which has been traditionally independent and self-reliant. For Europe, those countries particularly worried about dependency on Russia, for example in Eastern Europe, see heavy reliance on Russian gas more of a national security question as opposed to one of energy security.

While participants stressed the potential energy security benefits of shale gas vis-à-vis reducing energy dependency, they also addressed whether or not shale gas can compete with other sources of energy, namely coal, nuclear, renewables and conventional gas. Coal reserves are plentiful and cheap; nuclear is a low-carbon option; renewables are considered the future for powering a low-carbon economy and governments around the world are investing considerable sums of money into their development and deployment; and, finally, conventional gas is also plentiful and relatively cheap. Shale gas, on the other hand, is still relatively expensive and complicated to produce and, with the exception of the United States, is thus far not competitive with other sources of energy.

However, conference participants pointed out the myriad advantages associated with a switch the increasing gas consumption, with shale gas playing a key role in making this happen. First, it is a considerably cleaner fuel to burn in comparison with coal, which is dirty, requires high clean-up costs and is at a competitive disadvantage if carbon prices are enacted. Second, the nuclear disaster at Fukushima has shed light once again on the safety issues associated with nuclear power, not to mention the increasing recognition of the massive economic and opportunity costs of new reactors and the ongoing public policy issue of waste disposal. Third, while renewables have seen huge growth, this has been from a relatively low base level and the International Energy Agency’s most optimistic scenario puts 7 percent of total energy production from renewables by 2035. Renewables require subsidies and favorable regulation in order to induce investments. Moreover, participants stressed that replacing coal-fired power plants with renewables is not possible, from the standpoint of meeting demand, the need to have an uninterrupted supply of baseload power generation and the need for more advanced and distributed energy grids. Finally, with regards to conventional gas, participants stressed that pipelines are vulnerable to interruption and terrorism and the up-front cost of a new liquefied natural gas facility costs anywhere from US\$ 6-8 billion, requires 7 to 8 years to be built and about 10 to 15 years to see any financial return, which limits the amount of investors.

3.2 Mitigating Carbon Emissions

Participants pointed out that replacing coal fired plants with natural gas can achieve up roughly a 60-70 percent reduction in greenhouse gas emissions. As a global leader in the effort to stop climate change, shale gas is attractive for the European Union with respect to driving the efforts of the world's largest polluters, namely China and the United States. In the case of the United States where shale is competitive against coal, this could lead to huge reductions without the need for implementing politically unpopular cap-and-trade or carbon tax policies. The Chinese are also fully aware that improved environmental protection policies are needed, however, since coal represents roughly 14 percent (though growing) of electricity production, a massive switch on a scale similar to that in the US would not be necessary. Moreover, participants argued that since coal is located considerably far away from major Chinese cities, it is costlier to produce than gas – a compelling argument for domestic shale production.

4. Implications of Shale Gas in the European Union

Participants highlighted a number of key areas where the implications of shale gas for the European Union are considerable, including environmental protection and the move towards a low-carbon economy, geopolitical implications, as well as economic and regulatory issues.

4.1 Environmental protection and the shift to a low carbon economy

The general consensus among the participants was that the negative environmental implications of shale gas production, while requiring additional research to fully understand the extent of this, have been overblown. Some participants argued that the specific use of the word “frack job” had acquired environmentally negative connotations that gave the industry a bad name. Participants pointed out that it is not the fracking process itself which is inherently dangerous to groundwater, but rather poor drilling practices. In addition, some participants made the case that the water usage has thus far only been looked at in vacuum and not compared to the usage of shale alternatives, including coal and biofuels.

One of the key questions considered by conference participants is whether shale gas represents competition to renewables uptake (by crowding out investment) or whether it can act as a complementary bridge towards more sustainable, non-fossil fuel-based energy sources. In addressing this question, participants pointed out that while the goal of achieving 50 percent or 80 percent of energy supply from renewable sources is a noble and important goal, it is still necessary to think about where the remaining percent comes from and, therefore, the increase in renewables must coincide with the continued use of fossil fuels. In this respect, shale gas can act as an ally of renewables, with enough room for years to come for both gas and renewables.

4.2 Geopolitical implications

As shale gas supplies are also located in abundance in politically stable countries, this would reduce dependence on politically unstable or otherwise politically inconvenient producers. In the case of Europe and, especially, the former CIS countries, reducing dependence on Russian gas is seen as an issue of national security and the production of domestic shale gas could help achieve this goal.

Moreover, due to increased production of shale gas, the US is now in a position to become independent of gas imports as well as to consider becoming an exporter of natural gas. In this context, Europe has been an indirect beneficiary of increasing US shale development due to the fact that LNG shipments originally bound for the US market, including those from Trinidad, are now hitting the European market. In addition, Europe could benefit from US know-how in a number of areas, including in areas of technical development (fracturing, lateral wells), the management of projects and sensitivities of non-conventional production.

4.3 Economic and regulatory implications

The economic implications of increasing shale gas production are considerable. First, increasing gas supply and the number of producers could lead to the development of a truly global gas market, with more flexibility and liquidity, and the pushing down of gas prices. However, some participants pointed out that it takes 10-15 years to see returns on high up-front investments and it may be difficult to attract investment if the primary narrative is that of only using gas as a bridge fuel over 20-30 years.

While some participants stressed that Europe needs to develop the proper regulatory framework for the production of shale gas, other participants pointed out that any regulation on the production of shale gas will more than likely be through domestic regulation, with little chance that the European Union will be able to regulate production in member states. Poland is the key example in this context and, while a domestic regulatory framework is in place, it remains to be seen how this plays out on a European level. For European gas market arrangements, pricing formula have already emerged a key issue. Prevalent long term take off agreements between Russian or Norwegian producers and European consumers have come under pressure and are to see adjustments. Much will depend on the pace of this adjustment and to what extent the prevalent oil price peg will give way to alternative formula, possibly oriented towards spot markets. Participants agreed that this transfer to new pricing arrangements will entail far ranging consequences for both producers and consumers on Eurasian gas markets. On a global level, some participants argued that the capacity for governance is limited at this stage because of the evolving global market and the sheer number of players.

Moreover, as shale gas production could occur in countries and regions which have no history in production and distribution, financing and regulating infrastructure is also a key issue. As is often the case with infrastructure, the most important question stressed by participants is who will pay for it. It is a "chicken and egg situation" in that in order to develop the shale gas, you need the infrastructure to transport it. At the same time, in order to build the infrastructure, you first need the resource. In the case of Poland, for example, suggestions have been floated that, once the size and locations of gas reserves are proven, customers pay a tariff for the construction of infrastructure.

4. Conclusion

While there are strong prospects for shale gas in Europe and globally, the overall potential remains unknown and more and better data is needed. European movement into shale gas is still mostly in the early phases and, in order to assist in framing the debate in Europe, the EU should continue to learn from the US by sharing information and lessons learned, especially on environmental issues. The Global Shale Gas Initiative (GSGI) of the US government was named one of the possibilities to transfer best practice. Should the EU or individual member states indeed move towards producing shale gas, it will be a long time before a significant impact is felt on Europe's energy mix and there was a general consensus that this potential should be characterized as an "evolution" rather than a "revolution".

Development in Europe will likely not be uniform. In countries with strong environmental policy like Germany and France, production is unlikely, whereas countries with more pronounced geopolitical incentives, for example Poland, will likely move forward. Either way, most agreed that shale gas can only contribute to the energy mix rather than pushing everything else out and it is still too early to answer the question of whether or not Europe can repeat the shale boom seen in the United States. More work is needed on determining the potential size of basins in order to illustrate the overall potential of shale gas in the supply mix and, if Europe or member states move forward, a proper regulatory environment is required in order to govern investments, infrastructure, production and distribution.

While there was a consensus that shale gas will not solve the climate change issue, it can contribute to bridging the fossil fuel age with that of a low-carbon age. The burning of gas produces less greenhouse gas emissions, however, in order to hit recommended climate targets, even the full replacement of coal burning plants with gas plants will be insufficient. Thus, while shale gas may buy us some time, we need to continue to develop renewables, new technologies and carbon capture and storage as well as conduct additional research on the environmental implications of shale gas production.

Annex I: Conference Program

DAY 1

01:00pm **Arrival, Registration and Light Lunch**

02:00pm WELCOME AND KEYNOTE

- *John Shattuck, President and Rector, Central European University*

Keynote:

- *Nick Butler, Chair, King's Policy Institute, King's College & former Group Vice-President, Strategy and Policy Development, BP*

Chair:

- *Wolfgang Reinicke, Director, Global Public Policy Institute*

PANEL DISCUSSION I (PUBLIC SESSION)

The Shale Gas “Revolution” in the US – Implications for International Gas Market(s) and European Energy Security (public session)

Panelists:

- *Paul Stevens, Senior Research Fellow, Chatham House & Emeritus Professor, University of Dundee*
- *Melanie Kenderdine, Executive Director, MIT Energy Initiative*
- *László Varró, Head of Gas, Coal and Power Markets Division, International Energy Agency*
- *Cho Khong, Chief Political Analyst, Shell*

Chair:

- *Andreas Goldthau, Associate Professor in Public Policy, CEU; Fellow, Global Public Policy Institute*

05:15 pm **Break**

06:30pm EVENING EVENT

Venue: Residence of the Norwegian Embassy, Budapest

Welcome Address

- *Ambassador Siri Sletner, Royal Norwegian Embassy in Budapest*

Keynote

- *Geir Westgaard, Vice President for EU Affairs, Statoil Brussels office*

Input/ comment

- *Charles Ebinger, Director, Energy Security Initiative, Brookings Institution*

Chair:

- *Nick Sitter, Head of Department, Department of Public Policy, CEU*

Followed by Buffet Reception

DAY 2

09:00am WORKING GROUPS (PRIVATE SESSION)

Fact Finding – What’s behind the ‘Shale Gas Revolution’?

Shale gas has come to be regarded as a ‘magic bullet’ for policy concerns in the fields of foreign affairs, climate change and energy security. Since natural gas is widely regarded as a bridge fuel, high hopes are being put on shale gas to be developed and prospected in Europe and elsewhere in the years to come. This session of working groups explores the facts behind the current debate on shale gas as a ‘game changer’.

WORKING GROUP A

Assessing Prospects and Limits of Shale Gas in Europe

Key questions to be addressed: Can the American success story be replicated elsewhere? What are the deposits in Europe and Asia and can they be tapped at favorable economic costs? What impact does environmental regulation have on E&P in shale gas?

Input:

- *Viktor Söreg, Director, Eurasian Exploration Projects, MOL Group*

Commentator:

- *Roderick Kefferpuetz, Associate Research Fellow, CEPS*

Chair:

- *Max Grünig, Fellow, Ecologic Institute, Berlin*

WORKING GROUP B

Assessing the Long Term “Business Case” of Shale Gas

Key questions to be addressed: Is there a long-term business case for unconventional gas in light of increasing LNG supplies coming on-stream? Does shale gas form a sound basis for a future ‘natural gas economy’? What are the risks of long-term underinvestment given the current gas glut?

Input:

- *András Tóth, Member of the Board, E.ON Földgaz*

Commentator:

- *Tomasz Chmal, Sobieski Institute/ White & Case Warsaw*

Chair:

- *Thorsten Benner, Associate Director, Global Public Policy Institute*

WORKING GROUP C

Assessing the Impact on Gas Market Structures

Key questions to be addressed: What are the implications on existing take-off based market structures? How will established European utilities adapt to a changing market environment? Is the oil price peg a phase-out model? Will prices become more volatile due to increased gas-to-gas competition?

Input:

- *Thomas Geisel, Senior Vice President Gas Supply Continental Europe, E.ON Ruhrgas AG*

Commentator:

- *Danila Bochkarev, Research Fellow, EastWest Institute*

Chair:

- *Caroline Kuzemko, Head, PEEER network, University of Warwick*

10:30am Coffee Break

11:00am WORKING GROUPS (PRIVATE SESSION)

Shale Gas in Europe – Scenarios and Implications

While some observers regard shale gas as key to solving urgent climate related and geopolitical problems surrounding European energy supplies, others point to the risks of a fast and largely ungoverned rush into the natural gas economy. This session explores the implications, particularly for the European market.

WORKING GROUP A

Implications for Investments, Renewables and a Shift towards a Low Carbon Economy

Key questions to be addressed: Will unconventional gas crowd out investments into renewables (locking Europe in the carbon age) or provide a bridge towards a low carbon future? What policies might be needed to avoid adverse incentives and to accommodate (shale) gas in long-term climate targets?

Input:

- *Anne-Sophie Corbeau, Senior Gas Analyst, IEA*

Commentator:

- *Alexander Ochs, Director, Energy and Climate Program, WorldWatch*

Chair:

- *Kevin Massy, Energy Security Initiative, Brookings Institution*

WORKING GROUP B

Implications for Pipeline Infrastructure and Transport

Key questions to be addressed: What implications does shale gas have for existing or planned pipeline projects, such as Nabucco, South Stream or Nord Stream? What infrastructure needs will stem from increased domestic production, particularly in Central and Eastern Europe?

Input:

- *Anita Orbán, Ambassador-at-Large for Energy Security, Ministry of Foreign Affairs, Hungary*

Commentator:

- *Julia Nanay, Senior Director, Markets & Country Strategies & Head, Russia and Caspian Service, PFC Energy*

Chair:

- *Steven Pifer, Senior Fellow, Center on the United States and Europe & Director, Arms Control Initiative, Brookings Institution*

WORKING GROUP C

Economic and Geopolitical Implications for Russia

Key questions to be addressed: what implications does shale gas have for the Russian gas sector? What economic implications does the current change in gas market arrangements have for Gazprom's business? Does a changing gas market landscape alter geopolitics in Eurasia?

Input:

- *Andrey A. Konoplyanik, Professor, Russian State Oil & Gas University & Consultant to the Board, JSC Gazprombank*

Commentator:

- *John Roberts, Energy Security Specialist, Platts*

Chair:

- *Alan Riley, Professor & Director, LLM Program, City University Law School*

12.30pm

Light Lunch

Lunch address

- *Prof. Dr. Dieter Feddersen, Member of the Board, Dräger Foundation*

02:00pm **PANEL DISCUSSION II**

Shale Gas and Options for Transatlantic Energy Governance

Panelists:

- *Franklin D. Kramer, Vice Chairman, Board of Directors, Atlantic Council*
- *Pál Kovács, Deputy State Secretary for Energy Affairs, Ministry for National Development of the Republic of Hungary*
- *Michael Sullivan, Senior Advisor, Office of the Coordinator for International Energy Affairs, U.S. Department of State*

Chair:

- *Péter Balázs, Professor & Director, CEU Center for EU Enlargement Studies*

03:30pm **CONCLUDING DISCUSSION**

Chair:

- *Andreas Goldthau, Associate Professor in Public Policy, CEU*

04:00pm Farewell

Annex II: List of Participants

Vegar ANDREASSEN

Deputy Head of Mission, Royal Norwegian Embassy, Budapest

Péter BALÁZS

Professor & Director, Center for EU Enlargement Studies, Central European University

Thorsten BENNER

Associate Director, Global Public Policy Institute (GPPi), Berlin

Danila BOCHKAREV

Research Fellow, East West Institute, Brussels

Suzanne BUBIC

Senior Trade Commissioner, Canadian Embassy in Budapest

Nick BUTLER

Chair of the King's Policy Institute, King's College, London

Aleh CHERP

Professor, Academic Secretary & Research Director, Central European University

Tomasz CHMAL

White & Case, Warsaw and the Sobieski Institute

Amy CONROY

Economic Officer, US Embassy in Budapest

Bud COOTE

Economic Officer, Office of the Special Envoy for Eurasian Energy, U.S. Department of State

Anne-Sophie CORBEAU

Senior Gas Analyst, International Energy Agency, Paris

Charles EBINGER

Director, Energy Security Initiative, Brookings Institution, Washington DC

Dieter FEDDERSEN

Member of the Board, Dräger Foundation, Lübeck

Thomas GEISEL

Senior Vice President Gas Supply Continental Europe, E.ON Ruhrgas AG

Andreas GOLDTHAU

Associate Professor, Central European University & Fellow, Global Public Policy Institute

Max GRÜNIG

Fellow, Ecologic Institute, Berlin

Wade HOXTELL

Project Manager, Global Public Policy Institute (GPPi), Berlin

Roderick KEFFERPÜTZ

Associate Research Fellow, Centre for European Policy Studies Brussels & Policy Advisor, European Parliament

Melanie A. KENDERDINE

Executive Director, MIT Energy Initiative

Cho KHONG

Chief Political Analyst, Global Business Environment team, Shell International

Andrey A. KONOPLYANIK

Consultant to the Board, Gazprombank & Professor, Russian State Oil & Gas University n.a.acad. Gubkin, Moscow

Pál KOVÁCS

Deputy State Secretary for Climate and Energy Affairs, Ministry of National Development of the Hungarian Government

Franklin D. KRAMER

Former Assistant Secretary of Defense for International Security, and Vice Chairman, Atlantic Council Board of Directors

Caroline KUZEMKO

Head of PEEER network, University of Warwick

Michael LABELLE

Research Project Manager, Center for Climate Change and Sustainable Energy Development, Central European University

Ole Andreas LINDEMAN

Special Advisor, Norwegian Ministry of Foreign Affairs & board member of INTSOK, Oslo

Gábor LIPCSEY

Gas Operations Advisor, Shell European Gas & Power, Budapest

Balázs MAGYAR

Legal expert, Secretariat for Energy Security, Ministry of Foreign Affairs, Hungary

Kevin MASSY

Assistant Director, Energy Security Initiative, Brookings Institution, Washington DC

Gergely MORVAI

Trade Commissioner, Canadian Embassy in Budapest

Alexander OCHS

Director, Climate and Energy Program, Worldwatch Institute, Washington DC

Anita ORBÁN

Ambassador-at-Large for Energy Security, Ministry of Foreign Affairs, Hungary

Steven PIFER

Senior Fellow & Director of the Arms Control Initiative, Brookings Institution, Washington DC

Petra PISSULA

Director, Dräger Foundation, Lübeck

Wolfgang REINICKE

Director, Global Public Policy Institute, Berlin

Alan RILEY

Professor & Director of the LLM Program, City University Law School, London

John M. ROBERTS

Energy Security Specialist, Platts

John SHATTUCK

President and Rector, Central European University

Nick SITTER

Professor & Head of the Public Policy Department, Central European University

Ambassador Siri SLETNER

Royal Norwegian Embassy, Budapest

Victor SÓREG

Director, Eurasian Exploration Projects, MOL Group, Budapest

Paul STEVENS

Senior Research Fellow, Chatham House, London

Michael A. SULLIVAN

Senior Advisor to the Special Envoy for International Energy Affairs, U.S. Department of State

György SZABÓ

Chairman of the Board, Falcon Oil & Gas Ltd & CEO, TXM Exploration and Production LLC

Tamás SZÚCS

Head of Mission, European Commission Representation in Hungary

András TÓTTH

Member of the Board of Directors,
E.ON Földgáz Trade Zrt.

Péter VARGHA

Senior Economist, MOL Group, Budapest

László VARRÓ

Head of Gas, Coal and Power Markets
Division, International Energy Agency,
Paris

Geir WESTGAARD

Vice President, Statoil EU Affairs Office,
Brussels

Kirsten WESTPHAL

International Energy Relations and
Global Energy Security, German Institute
for International and Security Affairs
(SWP), Berlin

Dóra ZOMBORI

Energy Policy Coordinator, Ministry of
Foreign Affairs, Hungary

István ZSOLDOS

Chief Economist, MOL Group, Budapest

Organizer Information

This conference was hosted and organized by Central European University in Budapest, Hungary, together with the Global Public Policy Institute, Berlin and the Brookings Institution. The conference was part of an ongoing two-year research and dialogue program entitled “Common Goals - Different Approaches? Strengthening Transatlantic Cooperation on Global Energy Issues” which is funded by the European Commission. For more information on this program, please visit: www.globalenergygovernance.net.

Central European University (CEU)

Located in one of Europe's most elegant capital cities, Budapest, accredited in both the USA and Europe, CEU offers a uniquely international atmosphere of academic excellence, critical reflection, and social engagement. CEU students come from over 100 countries of five continents, our faculty - from 30 countries. CEU stresses both academic excellence and public policy relevance of its teaching and research. We focus on key issues of the 21st century ranging from climate change to democratic governance and from international security to deeper understanding of history and philosophy.

To learn more about CEU, please visit www.ceu-budapest.edu.

The Global Public Policy Institute

The Global Public Policy Institute (GPPi) is an independent think tank based in Berlin and Geneva. Our mission is to develop innovative strategies for effective and accountable governance and to achieve lasting impact at the interface of the public sector, business and civil society through research, consulting and debate.

Our approach:

- We are an independent and non-profit institute. We receive project funding from foundations as well as our project partners and clients from the public and private sectors. We re-invest profits from consulting activities into our research work.
- We build bridges between research and practice. Our international team combines research and public policy expertise with management consulting skills. We foster the exchange of knowledge and experience between researchers and practitioners.
- We promote policy entrepreneurship. Our work strengthens strategic communities around pressing policy challenges by bringing together the public sector, civil society and business.

To learn more about GPPi, please visit www.gppi.net.

The Brookings Institution

The Brookings Institution is an independent, nonpartisan organization devoted to research, analysis, education, and publication focused on public policy issues in the areas

of economics, foreign policy, and governance. The goal of Brookings activities is to improve the performance of American institutions and the quality of public policy by using social science to analyze emerging issues and to offer practical approaches to those issues in language aimed at the general public.

For more information on the Brookings Institution, please visit www.brookings.edu.

Supporters

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The European Commission

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The Draeger Foundation

The Draeger Foundation, founded in 1974, is a non-profit institution committed to the promotion of science and research, especially in the field of national and international economic and social order. By encouraging the intensive exchange of experience and ideas regarding issues which are of importance for our future, the Draeger Foundation endeavors—within the bounds of its capabilities—to make a contribution toward improved international relations. More information can be found at <http://www.draegerstiftung.de/>.

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