

3rd Transatlantic Energy Security Dialogue

The Changing Rules of the Game

Global Energy Governance and the
Transatlantic Agenda

Conference Report

Schloßhotel Cecilienhof, Potsdam, January 31 – February 1, 2008



www.gppi.net

Global Public Policy Institute

Reinhardtstr. 15
10117 Berlin · Germany

Tel +49-30-275 959 75-0

Fax +49-30-690 88 200

E-Mail gppi@gppi.net

Web www.gppi.net

Table of Contents

1. INTRODUCTION.....	3
2. STRUCTURE OF TRADE AND INVESTMENT AGREEMENTS FOR ENERGY.....	5
2.1 THE WORLD TRADE ORGANIZATION (WTO).....	5
2.2 THE ENERGY CHARTER TREATY	6
2.3 TRADE AND INVESTMENT IN NON-CONVENTIONAL RESOURCES AND TECHNOLOGIES.....	9
2.4 CHALLENGES AND POLICY RECOMMENDATIONS	11
3. THE FINANCING OF ENERGY.....	14
3.1 INTERNATIONAL OIL COMPANIES (IOCs) VS. NATIONAL OIL COMPANIES (NOCs)	14
3.2 FINANCIAL MARKETS AND GOOD GOVERNANCE.....	16
3.3 CHALLENGES AND POLICY RECOMMENDATIONS	17
4. SHORT-TERM SUPPLY MANAGEMENT MECHANISMS.....	19
4.1 BRINGING THE NEW CONSUMERS ON BOARD	19
4.2 THE INTERNATIONAL ENERGY AGENCY (IEA)	20
4.3 THE INTERNATIONAL ENERGY FORUM (IEF).....	20
4.4 SHORT-TERM SUPPLY MANAGEMENT IN NATURAL GAS AND THE EMERGING LNG MARKET	21
4.5 CHALLENGES AND POLICY RECOMMENDATIONS	23
5. CONCLUSION	24
ANNEX I: CONFERENCE PROGRAM.....	26
ANNEX II: PARTICIPANT INFORMATION.....	33
ANNEX III: ORGANIZER INFORMATION	35
THE GLOBAL PUBLIC POLICY INSTITUTE	35
THE DRÄGER FOUNDATION.....	35
ADDITIONAL SUPPORTERS.....	36
ACKNOWLEDGMENTS	37

1. Introduction

On January 31 – February 1 2008, the Global Public Policy Institute convened the third “Transatlantic Energy Security Dialogue” entitled “*The Changing Rules of the Game: Global Energy Governance and the Transatlantic Agenda*” at the Schloßhotel Cecilienhof in Potsdam. The conference was made possible by support from the Dräger Foundation, the European Commission and the German Marshall Fund of the United States.

The conference – a kick-off event for GPPI’s new research program on “Global Energy Governance” – brought together more than 35 decision-makers and professionals from both sides of the Atlantic for a strategic debate on the current and future role of the formal and informal institutions that govern central aspects of financing, trading and hedging oil and gas ventures in the global economy.

The development of the underlying “rules of the game” in these institutions very much reflected the realities of the Cold War era – an era characterized for the most part by significant increases in the discovery of supply stocks (and occasional supply shocks); intensifying conflicts between producer and consumer nations following decolonization and the formation of OPEC; and the geo-strategic competition for influence on major supplier countries in the Middle East and in Africa as a direct consequence of the Great Power conflict.

Yet, a number of significant trends are currently transforming the framework conditions for global energy governance and require us to rethink the suitability and effectiveness of current arrangements and potential transatlantic policy responses to tackle the resulting challenges. These trends include:

1. The Rise of New Consumers: Over the past years, the OECD’s weight in oil and gas consumption has been decreasing.

This shift away from the traditional fossil resources consumer base has resulted in issues such as supply strain, price increases, intense competition for new supplies and consumer fragmentation. As the “new consumers” (i.e. China and India) rise, there is concern not only regarding the availability of fossil resources in the future, but also the influence of the transatlantic alliance with respect to promotion of democracy and environmental protection initiatives.

2. The Increasing Role of State Players on Oil and Gas Markets: At present, few large oil sources are still open for private investment. As fossil resources become more scarce (and prices rise), what we have seen, and will likely continue to see, is the consolidation of resources by state players and National Oil Companies (NOCs). We have witnessed this in South America, driven primarily by the policies of Venezuela, Bolivia, Ecuador and, to some extent, Argentina and Peru. In Africa, we have seen the same sort of consolidation in Nigeria and Sudan. In Russia, the state (after a frenzied period of privatization in the 1990s) has also reasserted its control over the oil and gas sector.

3. The Elevation of Climate Protection and Resource Governance to “High Energy Politics”: As global demand for energy increases, there is growing concern about the effects on environment sustainability as well as development goals.

A consequence of worldwide economic growth and rising consumption of hydrocarbon resources is increasing levels of carbon dioxide emissions. However, in addition to an increase in worldwide demand for oil and natural gas, it is evident that the primary resource for power production in the foreseeable future will be that which is cheap, plentiful and without geopolitical trade-offs: coal. The growth of developing countries such as China and India and the resulting consequences for climate change heightens the pressure to act.

Furthermore, rising energy demand from developing countries also has consequences for good governance efforts, specifically in Africa, as consumers compete for access to resources. In addition, while western actors have turned away from some energy deals for political reasons (the prime case being Iran), these new consumers have taken advantage of this opening in order to secure supply for themselves regardless of the political implications.

This conference was designed to determine what implications these trends will have for existing institutions and mechanisms of global energy governance, what the consequences specifically for the transatlantic partners are, and what they can do to effectively deal with the resulting challenges.

Starting with an opening speech highlighting the key red threads in the debate on energy security on both sides of the Atlantic, the subsequent panel discussions and working groups proceeded to consider each of the trends listed above in three crucial areas of energy governance:

- The regulation of investment in energy sources mediated by financial markets;
- The structure of international energy trade that is governed by investment treaties as well as bilateral, regional and global trade agreements; and
- The organization of short-term supply risk management on the consumers’ side and management of supply on the producers’ side.

Rather than providing a summary of each of the panel sessions and working groups, this conference report traces the role of each set of institutions in the global energy market and highlights the main points of discussion during the conference. At the same time, it embeds these discussions and contributions into the main trends transforming global energy markets. Chapter 2 discusses rules of trade and investment agreements that structure global oil and gas markets. Chapter 3 addresses the role of financial institutions. Chapter 4 discusses short-term supply management mechanisms. Finally, Chapter 5 provides a brief conclusion and acknowledges avenues of future research.

2. Structure of Trade and Investment Agreements for Energy

There is no internationally agreed upon set of rules for the trading of energy resources and related investment flows. However, multilateral institutions such as the WTO and regional arrangements such as the North American Free Trade Agreement (NAFTA), the Energy Charter Treaty (ECT) or Asia-Pacific Economic Cooperation (APEC), accompanied by bi-regional fora such as the European Union Gulf Cooperation Council (EU-GCC) or the EU-Russian Dialogue, aim to facilitate mutual market access and cooperation in the energy sector. Today, oil and gas are basically freely traded (though this is not based on international agreements), whereas related investment is mainly subject to national legal provisions.

2.1 The World Trade Organization (WTO)

The primary objective of the multilateral trading system, as established by the WTO, is to provide mutual market access without barriers. Hence, trade in energy goods is – in principle – covered by WTO rules. Thus, the pertinent WTO agreements represented by the General Agreement on Tariffs and Trade (GATT), General Agreement on Trade in Services (GATS), Technical Barriers to Trade Agreement (TBT), Trade Related Investment Measures (TRIMs), Subsidies and Countervailing Measures Agreement (SCM), National Treatment (internal taxes for imported energy not higher than for domestic energy), as well as Most Favored Nation (MFN) distinctions do apply.

However, the impact of these rules on energy trade is considered to be rather limited, most importantly since the WTO addresses import rather than export barriers. Also, regional and bilateral trade and investment agreements are taking place independently from efforts to strengthen multilateral institutions in order to govern oil and gas trade and energy related investments. In addition, major producing countries in the WTO, such as Saudi Arabia, have reached exemptions for their energy sectors and related export and taxation regulations. It is also important to point out that the countries who are not members of the WTO, for example, Iraq, Iran, Russia, Libya, Algeria and Turkmenistan, will play extremely large roles with respect to future oil and gas supplies.

The WTO does not deal with investment per se, but rather deals with certain principles designed to foster or protect investment. Thus, at its roots the WTO is about trade – and it neglects investment issues.

Discussions at the conference highlighted that producer-consumer conflicts may well increase within the framework of WTO in the future. Currently, consumer nations are attacking production quotas as an export restriction, arguing that OPEC's practice to limit production in effect restricts exports. OPEC, on the other hand, is worried about a number of provisions in the GATT. First, they are concerned about Article V which focuses on freedom of transit (pipelines) through third countries. By law, the asset being transported through the pipeline cannot go into the internal market of the transit country without prior agreement. Moreover, it is the responsibility of these transit countries to not restrict these pipelines and to facilitate

them. However, OPEC is concerned that transit countries may restrict throughput of resources or charge too much for the privilege.

It was also pointed out that one of the problems that GATT aims to highlight in terms of its relations to the energy sector is the issue of transparency. The WTO is a strong proponent of transparency and its policies require that exporting countries make their export figures public, a point that is, for obvious reasons, not particularly attractive to OPEC. To what extent the WTO should be involved in these issues was debated by conference participants. While the WTO does make some efforts to address issues of transparency, it was argued that the unique selling position of the WTO is that it is strictly about trade and nothing else. Tying together these issues would mean running the risk of energy producing countries leaving the organization and, adding to the issues that the WTO regards as its core duties, could also generate pressure to involve other topics such as human rights and labor practices which would take the focus away from its core issue of trade.

Another issue discussed during the proceedings included energy services and the WTO. At present, it is disputed whether services are properly defined in the General Agreement on Trade in Services (GATS). Since traditional oil companies are currently strengthening their service arms, a move which enables them to stay in business given ever more limited resource access, this aspect will become crucial in the future. As has been stressed, in the framework of GATS, nations have to explicitly name sectors in which they want to open to WTO law. Hence, at present, expert discussions center on listing energy services in the up- and downstream sectors, and then opening them up. The tendency is to establish a request-offer system: upon request by one or a group of companies, a country may open up the sector to that company, thus applying WTO rules.

2.2 The Energy Charter Treaty

The Energy Charter Treaty (ECT) is at the core of the energy governance discussion in Europe and was designed to foster energy trade and provide a forum for knowledge sharing among all countries in the energy chain. Members of the ECT include energy producers, consumers and transit countries, though membership is open to all countries. In contrast to the WTO, the ECT also provides trade provisions for non-WTO members (at present, 9 out of 51 ECT members are not in the WTO) as well as including a multilateral investment treaty with enforcement via investor state arbitration.

The treaty is built upon legally binding multilateral instruments on trade and transit provisions as well as investor protections which are based on enforceable dispute settlement mechanisms; soft tools (i.e. peer pressure) on issues of energy efficiency and investment climates; and model agreements. The ECT does not, however, impose supranational regulations, national energy policies, privatization, third party access or the *Acquis Communautaire* of the European Union (though the ECT is built into the *Acquis*).

ECT Trade Provisions include the umbrella of WTO rules (incorporated by reference with some exceptions) and applies them to energy as well as energy transit. Furthermore, trade provisions include trade-related investment measures and ECT specific dispute settlement.

The ECT Article VII on transit addresses a number of issues, including specifying GATT Article V for energy materials and products and for grid bound energies; facilitating transit and securing established flows (also during disputes); including a non-discrimination clause as to origin, destination, ownership or pricing; and not impeding the creating of new infrastructure capacity.

Furthermore, the ECT defines provisions for investment protection, including definitions of “investment” and “investor”; a principle of non-discrimination; freedom of investment-related capital transfers; compensation in case of expropriation and losses due to war and similar events; protection of individual investment contracts; prohibition of some TRIMs (e.g. national content); and employment of key personnel. Furthermore, the Treaty covers a broad range of disputes in the energy sector, including investment, trade, transit, competition and the environment.

Lastly, in the Draft Transit Protocol, the Treaty seeks to define a consensus text at the multilateral level which includes a definition for available capacity; non-discriminatory and transparent access to capacity and cost-reflective transit tariffs; no unauthorized taking of energy; and standards on technology, environment, health, safety, among others.

A key question among conference participants was the purpose and effectiveness of the ECT. In particular, is the ECT fostering trade and how is this being accomplished? The aim of the ECT was to lead signatories to join the WTO; however, it was pointed out that the ECT just copied and pasted GATT provisions which are not conducive to this end. Some participants emphasized that the goal of the ECT to bring energy producers and consumers together for constructive dialogue is being jeopardized by the fact that the treaty is influenced heavily by the EU, which incidentally funds 65 percent of the organization’s budget.

Furthermore, it was discussed that the ECT was concluded during the so-called “romantic” period as part of “seminar diplomacy” in the wake of the collapse of the Soviet Union. Hence, given that the ECT’s original goals may no longer be applicable in today’s environment, the question arose: what should the ECT do to remain relevant despite having what was perceived as limited overall results? Responses to this question revolved around the fact that once you have these frameworks, and once they are developed, they grow on their own and require a major upheaval in order to either get redone or simply undone. In order for the ECT to become a relevant organization reflecting the current energy environment, some participants argued it should get rid of the various provisions and come out strictly as an investment body (investment provisions were listed as one of the things working well at the ECT). It was felt that provisions on trade and transit have not been successful, it was pointed out, and without this fundamental restructuring towards becoming primarily an investment body, the organization may be doomed to failure.

Other participants then asked to what extent the ECT’s investment provisions are actually working. However, it was pointed out that, the OECD multilateral agreement on investment (MAI) died in 1998 because a) states do not want anyone to have a say in how investment occurs in their own country and b) because of provisions on free access. Under this agreement, countries would have had to open the door to anyone who wanted to invest – this does not apply to the current ECT.

With respect to the dispute mechanisms of the ECT, it was stressed that, in the case of energy, good relations are extremely important and utilizing the ECT dispute mechanisms (essentially taking another state to court) to solve cross-border issues harms this relationship. In the Ukraine-Russia dispute, participants pointed out that the ECT dispute mechanism indeed could have been applied; however, for both sides it was preferable to arrive at a compromise as opposed to a lengthy and expensive dispute.

Russia and the ECT

Another primary question in the debate on the ECT is the thus far unsuccessful attempt to bring countries like the United States, Russia and Norway into the Treaty. It was argued that the reason is fundamentally the same in that these countries believe that unilaterally they have much more leverage. However, conference discussions focused primarily on the need to bring Russia on board despite problems stemming from both the Russian side and the EU side of the issue. This begs the question: how to get Russian oil and gas producers (primarily Gazprom) on board and gain mutual trust?

Before 2003, the Russian state only possessed 36 percent of Gazprom shares. After 2003, however, the Russian state re-engaged in the oil and gas sector, on a significant scale. After the capital reform of 2005, the government raised its share in Gazprom to 51 percent. Today, Gazprom is a strategic company closely linked with the government apparatus. Gazprom has also emerged a key opponent to the ECT. In particular, Gazprom – and by extension the Russian government – opposes the ECT on at least three fronts, advanced the following arguments against the ECT:

1. On transit, Gazprom rejects any “private” pipelines despite existing legislation which allows this option. There is, in fact, a law on access to gas pipelines which requires non-discriminatory access to pipelines approaching the practices with international standards. However, it was pointed out that Gazprom does not deliver any information on the available capacity of its networks, illustrating a lack of transparency in the allocation of access. Some LNG projects (mainly in Sakhalin), have been considered the only opportunity to avoid access to the pipelines owned by Gazprom, though new Russian legislation enacted in 2006 attempts to institutionalize Gazprom exports, including LNG, which would make it more difficult for independent gas producers to export LNG and condensate. Therefore, if independent producers had hoped to avoid the lack of transparency in pipeline allocation, the LNG trade is now also submitted for Gazprom approval.
2. ECT investment provisions do not guarantee access to the EU distribution market at the pre-investment phase. At this point in time, Russia is not ready to allow pre-investment phase non-discrimination.
3. Gazprom argues that too much power is allocated to the conciliator in the Dispute Settlement Mechanism, whereas Gazprom has been able to resolve disputes bilaterally. However, a counter-argument emphasizes that the ECT could have been useful for the Russia-Ukraine dispute settlement without harming Gazprom’s reputation.

As has been pointed out, Gazprom believes it can only be sure about demand if it becomes increasingly involved over ownership of delivery to final customers. At the same time, it aims to control transit to maximize profit ('pipeline rent'). Hence, for Russia to join the ECT, it is perhaps necessary to assure that Gazprom's monopoly position will not be affected by accession. The EU, on the other hand, looks at the transit protocol and sees it as a part of its internal market creation. The reciprocity issue, it was argued, is a negative zero-sum deal.

In the long-term, some argued that Russia will realize the benefit of joining the ECT due in part because of the investment provisions (and fewer arguments over investment). As has been stressed, after several electricity sector reforms since 2001¹, liberalization of the electricity market is more advanced in Russia than in some European countries. Hence, for the moment, the electricity sector would already be a beneficiary of the ECT.

However, the current Russian distaste for ECT legal procedures and the fear of risking Gazprom's strong position in the regional gas market are major obstacles to ratification. In the long run, it was emphasized, Russia may indeed be better off by signing on to the ECT. Once Russia is ready to ratify the ECT, however, some participants argued that the EU may actually decide to stall Russian ratification.

Finally, as participants argued, the Energy Charter Treaty has the potential to become a useful forum for producers and consumers, but as of yet it has not been used this way. Many believed that the treaty is hamstrung because the majority of funding comes from the EU. Along this line, its base in Brussels does not help, particularly because at the moment producers feel that the treaty is aligned with the EU, and they get wary of cooperation. Therefore, many argue that, in the long-term, the ECT should distance itself from the EU or, alternatively, create a true world energy forum or merge with the IEA. Finally, regarding the EU's role in the ECT, it was argued that the internal structures of the EU produce little with respect to energy simply because of a lack of expertise and authority.

2.3 Trade and Investment in Non-conventional Resources and Technologies

For the purposes of discussions at the conference, non-conventional resources were defined as being non-fossil fuel resources. However, it should be noted that this emphasizes the existing problem of actually defining what "non-conventional" means, as there is currently a lack of global agreement that clearly delineates this term (i.e. some countries include nuclear energy in their definition on "non-conventional").

Regarding renewables, the development of global policies are still at an early stage. Europe, at least for now, is somewhat ahead of the game with respect to transforming their energy mix towards a greater share of renewables, but individual states in the US are catching up fast with many believing that the next US administration will finally address the issue of climate change in a comprehensive manner and join Europe in pushing for specific standards.

¹ Between 2001 and 2003 creation of the wholesale market; Federal Law on Electrical Energy in 2004; Decree on the functioning of wholesale market in 2006; break up of RAO UES' natural monopoly in 2007

Europe is still a patchwork of policies which includes a mixture of both feed tariffs and quotas. The goals do indeed exist, in many cases, for hitting renewables targets but varying schemes and production could negatively impact the ability to actually achieve these targets.

The United States is also defined by a patchwork approach to investment in non-conventional resources. Federal targets in the US are still comparatively low and there tends to be a lack of enthusiasm regarding the technical issues of non-conventional energies at the Federal level. However, much is being pushed forward in individual states, for example California and Texas, which recognize the need for low-carbon economies. This is essential as both California and Texas are net importers of energy meaning they have a rational reason for wanting to move forward quickly with renewable and other non-conventional energies. A number of other state legislatures are also moving forward with state-wide or regional agreements. It is important to note that the energy network in the US is publicly owned, while generation is privately owned, thus providing a more efficient infrastructure for the growth of non-conventional resources than in the EU.

China and India also have very strong rational reasons for wanting to drive ahead with renewables and other non-conventional energies and represent a huge potential market for Western companies. Some participants suggested that biomass and conversion of waste are perhaps the best opportunity for the progressive generation of energy in both China and India. This approach would also aid in the decentralization of energy supply that is hampered by insufficient federal structures and a myriad of differing regulations. However, it is evident that in order to fuel these growing economies, coal is the most likely candidate due to its availability, affordability and relative lack of geopolitical implications. In this respect, mechanisms such as an Emissions Trading System (ETS) would likely penalize developing countries for their increasing usage of coal to the extent that they become non-cooperative and an ETS or cap-and-trade system could be very dangerous to overall relations.

Very few participants actually expressed belief in governments' claims that they will live up to their promises with respect to climate targets as they would require vast increases in investment. In addition to large increases in government investment, there is also a need for more investment from companies which are supported by a legal framework that protects these investments. Furthermore, there is uncertainty about how this legal framework should actually be upheld and by who as laws protecting common public goods (such as the environment) are very hard to write and enforce.

Compounding these issues are various other significant problems. For example, the existence of multi-level decision making makes it difficult for coordinated action. There exists global climate policy decisions, international mitigation commitments, national climate and energy policy decisions, carbon pricing and other incentives, as well as company level investment decisions that all contribute to collective but uncoordinated action on climate change policy. The coming price of carbon also remains a huge uncertainty with respect to both what the suitable price for all actors is as well as when these costs will come into effect. However, it was emphasized that the crux question is how to integrate a carbon market into the existing energy market.

One key issue discussed by participants was legal protections for investment. A prime example of this is protection for those investors who commit to investing high up-front costs,

for instance for the production of renewables, under the assumption that state policies will not shift which would go against the original purpose of investment. It was emphasized that the rule of law as enshrined in the Energy Charter Treaty was, in fact, upheld when an investor (company) sued a consumer (state) when the consumer tried to shift away from their promised policy on increased investment in renewables in favor of nuclear energy.

In this respect, it was argued that the ECT does have the ability to protect investors and original government promises and was suggested as a potential go-to model for energy governance in the 21st century. The strengths of the ECT other than legal protections include the fact that it is already in place, with many signatures, and that it takes as one of its leading aims the need to mitigate climate change. The problem, however, is remaining uncertainty as to whether the same result as the above mentioned case would occur if this was a domestic issue as opposed to an international investor versus the state.

Furthermore, there was a discussion on the relationship between trade and climate change represented by the strong push to talk about environmental goods and to take into consideration production methods. Naturally, it was emphasized that environmentally friendly production and a consequent system of rewards in the market is not particularly appealing to OPEC, nor is pin-pointing production methods a simple task.

2.4 Challenges and Policy Recommendations

Who is setting the rules of the game in the field of trade and investment in energy? And how can they be changed? The rules, it was stressed, are usually set after the fact and are essentially based on a balance of power and interests. For example, as there was a strong desire to get Saudi Arabia into the WTO, states acted pretty flexible regarding the rules of Saudi Arabia's accession. A main driver in this case was the fact that the global oil market has become a producer's market, which contributes to consumers willing to make some sacrifices.

What about the already existing multilateral institutions? Some conference participants emphasized that the challenge of integrating energy and climate issues into trade law is both a matter of international motivation as well as the decision of which multilateral structure to utilize. The problem does not reside in the setting up of another multilateral institution to deal with these issues; the problem is that once constructed, these institutions never disappear. So why don't the old ones simply adjust and take on new responsibilities? Or alternatively, why are sunset clauses not built into the framework of these institutions? In essence, "killing" a multilateral institution is difficult. The perception of failure of existing organizations, it was argued, provokes increased scrutiny of multilateral organizations in general and is seen as a potential detriment to this adjustment. Furthermore, the question was raised that if we were to create new institutions, who would run them and who would actually work in them? Many participants emphasized that a number of existing institutions dedicated to oil and gas issues already lack the adequate expertise (and money to pay them) and newly created institutions would face the same problem.

The ECT, while successful in some areas such as investment provisions, has not had the overall success that was expected. Many attribute this its inability, thus far, to bring Russia

into the Treaty. Until this is done, the ECT cannot effectively play the role of a key governance institution for trade and investment in the energy market. At the same time, many emphasized that in the long-run it is in Russia's best interest to join the ECT.

Regarding governance institutions for trade in renewables, there again was a consensus that adding more institutions is not a feasible solution for regulating national differences in renewables and energy efficiency. Many of the same questions brought up in the conference discussions on multilateral institutions and trade also apply here: Why build a new institution instead of reforming, say, the IEA or the WTO? How would this new organization work? Who would work there (problem of expertise)? Why would it overcome problems faced by other similar organizations and institutions?

The United Nations was thrown out as a possible option simply because the UN is not known for rule-based work and, as a result, is not a credible forum for organizing trade and investment in non-conventional resources. It was emphasized by a handful of participants who either currently work, or have worked, at the IEA that the institution could potentially incorporate the goal of 20 percent (renewables) by 2020 and bring together other energy efficiency targets through its strong training procedures and administrative structures. Furthermore, the IEA has experience in working to a set contract using a range of specialists. For example, the OECD Nuclear Energy Agency was created in collaboration with the IEA, thus lending additional credibility to the organization and its flexibility in taking on issues. However, it was emphasized that a stronger IEA is only a feasible option with more funds from within the OECD umbrella.

Finally, there was a consensus that a high carbon price is required in order to make renewables attractive. However, the exact amount of this price is still being debated. The actual price would greatly depend on the cost that economies and individual firms could absorb, but a figure of EUR70 per tonne was raised as being potentially sufficient to achieve the set goals. However, this amount is roughly four times the price we have now. This difference highlights that the carbon trading system needs to undergo a serious overhaul in order for non-conventional energies to be put at the front and center of climate change mitigation. It is no surprise that at this cost some governments are backing off and coal (unless specific costs are levied) remains attractive.

With respect to climate goals, Europe is the frontrunner and must continue to bring other actors and regions into a climate prevention regime. In addition, it could be beneficial for Europe to combine ongoing liberalization attempts with the promotion of an emissions trading system that promotes renewables. Europe, in contrast to the US, also requires a far better (and stronger) grid in order to move energy across the continent in a similar way to which it can be moved in the US.

Europe must also work together with the US first on a common level and then push forward from there. While the coming change in the US administration will likely include a change in US climate change policy, Europe must be willing to start less ambitiously, for example, by working together first on technology sharing, biofuels standards, as well as carrying out more research to better understand the resultant issues a global biofuels market would have on agriculture, food prices, deforestation and related sectors. It was argued that trade in biofuels should come out at the WTO level in order to structure and regulate this emerging market.

This type of cooperation is already happening, and will likely become more ambitious as the US changes its policies.

3. The Financing of Energy

The oil and gas industry is very capital intensive which requires financial markets to facilitate exploration and production (E&P) projects. Unlike other investment projects, the energy sector often entails considerable political risks and the industry thus depends on the ability of financial markets to mitigate or hedge these risks. In this respect, the underlying “rules of the game” determine which oil and gas investment projects attract financing and which do not.

Furthermore, the “good governance” agenda is being pushed forward through voluntary initiatives such as EITI. It is thus important to determine whether financial markets appreciate the existence of democratic regimes, compared to “stable” but authoritarian ones, as well as whether good governance in producing countries makes a difference in the terms and conditions of financing E&P projects.

Today, the bulk of known global oil and gas reserves are controlled by state-owned companies and this share is set to increase significantly over the coming years. Thus, state-owned companies (including the national oil companies, or NOCs) play a pivotal role in exploration projects and drilling consortia. In addition, some governments (specifically the Chinese and others) are increasingly providing preferential financing deals and other support to their NOCs giving them an edge over the private International Oil Companies (IOCs) in the international “race for acquisitions.”

The oil industry has experienced numerous instances of expansion and contraction in the past. At present, the influence and clout of the international oil companies (IOCs) is declining in favor of a growing role for national oil companies (NOCs). The ‘Big Five’ or the ‘Big Seven’ large Western oil companies which have until recently dominated the sector now control a declining share of the remaining reserves of oil. This may reflect a major new investment cycle where the only thing that has really changed is the price. If oil prices would suddenly and significantly drop, the NOCs, due to structural inefficiencies and underinvestment, would not be able to produce enough to meet demand. In this case, it would be necessary for IOCs to re-enter the scene.

3.1 International Oil Companies (IOCs) vs. National Oil Companies (NOCs)

While much attention has been given to the increase in the role of state players on oil and gas markets, one may also argue that having had no more than 15 percent of market share over the last 30 years, the IOCs have never really governed the market.

Currently, many IOCs are changing their investment scheme. While the majority of their investments still go to the core business of exploration and production of fossil resources, due to windfall profits from high prices, coupled with a shortage of new reserves open for investment, IOCs are beginning to seriously invest in alternative energy sources such as renewables. IOCs are also buying back shares in production projects, but, it was emphasized that this cannot go on forever.

National Oil Companies (NOCs), on the other hand, play by a different set of rules. First, they are subject to a different commercial model where pressure to generate short-term profits

is lower as they only have a single shareholder; the state. While profit is indeed one driver of the behavior of NOCs, it is just one driver among numerous others. For instance, Chinese NOCs indirectly help to keep the communist regime in place. Furthermore, the conduct of NOCs does not correspond to macro-economic models, a good example of which is the supposition that Iran's investment decisions are totally unpredictable. Additionally, it is because Chinese NOCs accept a much lower rate of return than IOCs that they possess a competitive advantage when it comes to the awarding of E&P projects. The shareholders of large IOCs, on the other hand would not allow such a long-term perspective.

Second, NOCs do not have to fear negative reputational effects for bad environmental conduct, as they are confronted with only limited pressure by NGOs. If one compares this to the pressure put on Total at the time of the monk protests in Burma/Myanmar, one can distinctly notice the difference.

Third, NOCs are part of a bigger governmental picture and can occasionally rely on (indirect) government support. Consider, for example, the involvement of the Chinese government in infrastructure projects in those African countries where its NOCs are extracting resources.

On the other hand, the NOCs also face specific challenges. Some NOCs, it was stressed, are struggling to keep their talent and/or to ameliorate their bureaucracies. In addition, they are confronted with nationalistic rejections (e.g. the US rejecting CNOOC's bid to takeover Unocal), or local rejections (e.g. China in Africa). Furthermore, as Middle Eastern countries try to diversify their economies, investment money is being taken away from the NOCs. In this respect, Arab NOCs are increasingly competing with other state companies outside the energy sector to attract investments. Lastly, NOCs have difficulties obtaining money from financial markets due to a lack of transparency and (the perception of) a lack of efficiency. All in all, the 'majors' are still the most profitable companies in the field.

On the investment side, it was stressed that the low oil prices of the past decade restrained investments in general. Furthermore, some producing countries have limited openness to foreign investment, for example Saudi Arabia and Kuwait. Also, investment is sometimes deferred due to the growing uncertainty regarding the cost of licensing (i.e. in Venezuela and Russia), political tensions (i.e. Iraq and Nigeria) and international sanctions (i.e. Iran). Given that, according to IEA estimations, a total amount of USD 90 billion per year is needed until 2030 to meet demand, we will be confronted with underinvestment in the Middle East, Venezuela and Russia unless the disincentives for investment by IOCs are rescinded.

On the other hand, it was argued that "underinvestment" depends on the perspective from which one gauges it. From their own perspective, the NOCs in producing countries are not "under-investing," but rather they are taking into account how long their reserves will last. In this respect, the West simply does not like to admit that "underinvestment" is just another word for prices that are too high. In the same vein, Chinese NOCs are probably over-investing because they pay triple the amount for oil assets, while most of the crude coming into China is not equity produced (90 percent). This emphasizes that China does not have sufficient trust in the international energy market and that sufficient dialogue between consuming nations is lacking.

Last but not least, in terms of actors it is essential to acknowledge the growing role of service companies, such as Schlumberger and Halliburton, in the international energy market who do not drill themselves, but rather provide services to drilling companies. Whereas the NOCs used to lack sufficient money and technology for these services, they now receive assistance from external companies and, as a result, some of these NOCs have accumulated extra capital. Consequently, they have invested heavily overseas. This highlights a new downstream integration trend where Middle Eastern NOCs do not need help in the upstream anymore, but rather require partners on the downstream side to gain access to markets.

3.2 Financial Markets and Good Governance

Empirically, there exists a negative correlation between resource richness and democratic development. Fighting this “resource curse” is not only a norm-driven desire but may also be of interest to investors as accountable and transparent regimes are more likely to provide investors with higher planning security. Furthermore, while the good governance agenda has gathered strength in recent years, it is yet unclear how this agenda will be affected as fossil-fuel resources become scarcer. The conference examined to what extent financial markets appreciate the existence of democratic regimes compared to “stable” but authoritarian ones; if good governance in producing countries makes a difference in terms of financing E&P projects; as well as what the role of transparency initiatives such as the Extractive Industries Transparency Initiative (EITI).

3.2.1 Good Governance and the “Resource Curse”

The oft-cited “Resource Curse” and “Dutch Disease” among countries with a high single-commodity export dependency cannot be overstated. It not only creates situations of corruption and sometimes violence, it diminishes the competitiveness of other sectors. The natural resources sector is fundamentally separated from other industries with respect to four key areas:

1. Violence. Most industries don’t lend themselves to conquest, i.e. “killing the golden goose”. Mineral resources pose different incentives as the oil remains no matter who is leading the country;
2. Taxation. Normally, rulers tax citizens who produce wealth but demand accountability in return. In oil countries, citizens don’t matter and the taxation relationship only covers the resources sector. Thus, citizens are extremely disenfranchised.
3. Political fragmentation. Revenue comes in at the top and flows down vertically through patronage systems. There is very little horizontal interaction between groups and factional interests gain importance where people at the top play “divide and rule”;
4. Difference between contracts inside and outside of the oil sector. For example, in Angola oil contracts are respected while this is not necessarily the case in other sectors. In Nigeria, on the other hand, politics even affected contract reliability in the oil industry. The key difference being that in Nigeria, political power is fragmented and contested, whereas in Angola it is not.

3.2.2 The Extractive Industries Transparency Initiative (EITI)

While the Extractive Industries Transparency Initiative (EITI) sounds nice and has some leverage, many believe that it is, in fact, not working in practice. It was argued that EITI has served as a focal point for people in consuming countries but as of yet, has not transmitted to genuinely home-grown NGOs in producing countries. Furthermore, while revenue transparency is desirable, it is much harder to implement expenditure transparency and corruption has basically moved from revenue to expenditure sides in countries that joined EITI. It was also stressed that there are double standards in that the EU, while demanding transparency from others, for example, does not provide transparency on sources of revenue and has therefore also not implemented EITI fully.

In terms of taxation, transparency is positive for financial markets and actually helps to get non-oil-backed financing, but this does not necessarily increase the influence of the people on their politics (for example, in Angola). It was mentioned that the only way to involve people would be to replicate Alaska's solution to distribute the money to the people and tax them back. Furthermore, the example of São Tomé demonstrated that despite getting key experts in to draft a model oil law, the law was essentially ignored in practice. This emphasizes that the answer is not only making good laws, but that the law is also implemented and enforced.

3.2.3 Good Governance, China and Africa

The discussions on good governance focused also on the effect of China's energy scramble in Africa, which some participants stressed was actually smaller than reported. One example is that of Angola, where participants pointed out that the best oil acreage in has, in fact, already been taken by the large Western International Oil Companies (IOCs) with the Chinese only controlling a share of a deep water well with potential to get some access to other wells. China has, however, given large loans and have developed mechanisms for building infrastructure in these places. From this perspective, it is striking how significantly China's influence has grown in Africa over the past years.

Debate at the conference also underscored that the Chinese cannot be fully blamed for letting the Africans off the hook regarding transparency. China simply appears to be a very convenient target for the World Bank and IMF who have given so many structural adjustment loans to these countries and are now blaming China for their failure. However, Chinese infrastructure financing is a clear benefit for these countries as these infrastructure needs have not been met before.

3.3 Challenges and Policy Recommendations

Some participants stressed that much of the financing for upstream investments comes from oil companies' themselves and not from banks because of the extremely high risks. As a result, upstream investments are usually a joint-venture between banks and companies. At the same time, however, given that oil companies are able to finance critical E&P projects

out of their own pocket, they are bound to the rules of financial markets to only a limited extent. E&P projects bound with a high degree of risk, as in Africa, for instance, are often realized as part of a larger corporate portfolio, in which riskier projects are balanced by other, less risky ones. As a result, there may also be only limited possibilities to push companies towards a good governance agenda in these countries, since the concerned investments are made out of corporate equity, and the lever may therefore only be an indirect one.

4. Short-Term Supply Management Mechanisms

In recent years the heightened global tensions emanating from the Middle East, as well as the oft commented on rise of China and India, have brought short-term risk management of global oil back to the forefront of global energy security. When added to the fear of “peak oil” it is clear to see why mitigation mechanisms available to the consumers must be dusted off and reassessed.

Chinese and Indian oil consumption represent a fundamental movement away from the traditional consumer base, complicated by the reality that these new consumers are not part of the institutional framework that encompasses short-term supply management mechanisms, namely the International Energy Agency (IEA). In this respect, it is important to know how and where the new consumers limit the scope and power of IEA risk management mechanisms as well as what bargaining chips transatlantic actors can utilize in order to integrate non-OECD consumers better into the rules of short-term risk management. Additionally, open dialogue and access to information (data transparency) in the energy market is necessary in order to mitigate the risks of a supply disruption. Currently, the International Energy Forum (IEF) is the only place where producers and consumers have engaged in an institutionalized exchange on energy market developments and related policies. In this respect, it is important to analyze where we stand regarding effectiveness of producer-consumer dialogue.

Furthermore, given the emerging importance of Liquefied Natural Gas (LNG), the gas market will soon reflect similar characteristics to the oil market and it is necessary to determine what exactly is needed in order to govern an emerging global gas market, including the development of supply disruption mitigation mechanisms.

4.1 Bringing the New Consumers on Board

As the primary consumer base for energy resources shifts to include new consumers such as China and India, it is essential to bring these countries into the mechanisms of short-term supply management. In order to better mitigate supply disruptions, the availability of data on the energy market, as well as a functioning strategic reserve are required.

However, the inclusion of new members is hindered for a number of reasons, including that of voting weight allocation within the IEA. IEA members pay according to their GDP, but the voting shares are based on the oil consumption shares of 1973. This system was conceived for two reasons: First, the US wanted to have a blocking majority in the IEA; and second, this was supposed to make entry of new IEA members easier because voting shares of older members would not decline, therefore older members would not have an interest in blocking the entry of new members. Due to the free riding and voting weight allocation issues, however, the incentives for China and India to join the IEA, other than perhaps a feeling of international achievement, are small. While the question of an IEA membership outreach has gained considerable attention during the past few years, the question of how this outreach should actually happen still needs further inquiry and if this is to occur, these

fundamental institutional flaws of the existing governance mechanisms within the IEA will need to be addressed.

However, there does appear to be an interest in China and India to collaborate with the IEA on strategic stocks and the ongoing debate is mainly concentrated on reasons why the IEA should enlarge its group of members. In this respect, it is worthwhile to focus on whether China and India have fulfilled the necessary preconditions for IEA membership and the question of whether these countries have the political willingness as well as the administrative structures and financial resources to fulfill IEA membership obligations is essential. Especially with regard to India, participants voiced concern that the country is unable to effectively participate in IEA work because of a lack of coherent domestic energy institutions. At the very least, the highly selective structure of IEA membership should not inhibit entering into a close dialogue with both China and India.

4.2 The International Energy Agency (IEA)

One of the key issues emphasized at the conference was the issue of data transparency. Currently, only the IEA and the US Department of Energy provide regularly updated data. The majority of other crucial actors in the market, however, either do not provide data at all or present estimated, skewed or false data. At the very least, it was emphasized, it would be good to know the rate of depletion (production rate) of oil in producing countries and to introduce a standardized vocabulary with respect to oil reserves (for example, oil sands are not counted as oil).

Furthermore, it is important to take into account the emergency system of the IEA which has two problematic issues. First, the risk of moral hazard, namely that industry stocks of companies are declining because of the rationalization that since governments are creating stocks, why should companies? Second, there is the free riding issue of non-IEA members benefiting from the IEA strategic reserve should these stocks be released.

In addition, it was emphasized that spare capacity is paid for by OPEC members (more precisely Saudi Arabia and Kuwait) who are essentially paying for the security of consumers. IOCs, on the other hand, cannot drive the price down with spare capacity simply because they are too small with only 14 percent of the market share of resources. However, this argument was countered by the suggestion that Saudi Arabia built up spare capacity for the exact purpose of hiking up prices in order to keep cheap oil off the market. Therefore, it is the consumer who pays for spare capacity. Saudi Arabia has increased output a number of times to relieve hikes in price, though it was argued that this was simply to ensure a long-term perspective where oil remains the dominant form of energy for years to come.

4.3 The International Energy Forum (IEF)

The International Energy Forum (IEF) is a dialogue forum for producers and consumers. It is a rather soft institution with the role of promoting informal dialogue as opposed to a forum for decision-making or negotiations. While between producers and consumers there is no shared interest in the oil price, there is the transparency issue which helps to reduce uncertainty. It enhances mutual understanding and allows the discussion of long-term issues

between producers and consumers. The high oil prices of today, for instance, are due to underinvestment in the 1990s and unexpected high demand with some believing this could have been avoided through dialogue. Some participants suggested that turning the IEF Secretariat (IEFS) into a stronger institution could be an interesting alternative to IEA enlargement, however, turning the IEFS into a decision-making institution could potentially jeopardize open dialogue.

There are, nevertheless, a number of hard issues on which the IEFS does not hold discussions, for example, infrastructure protection. The Strait of Hormuz is the passageway for roughly one-third of global oil transfers and there exists only one pipeline that circumvents this passage: the East-West pipeline in Saudi Arabia. This pipeline has a capacity of 5 million barrels per day, however, at present it is only used for 1 million barrels per day. Interestingly, Saudi Arabia pays for the pipeline, essentially a safeguard for consumer energy security. Therefore, it was suggested that consumers should think of not only increased dialogue, but also financial cooperation in this respect.

4.4 Short-term Supply Management in Natural Gas and the Emerging LNG Market

Recently, gas producing countries established the Forum of Gas Exporting Countries (GECF), still a rather loose gas club that might potentially become the gas equivalent to OPEC. Accordingly, mechanisms of gas supply risk management will become imperative for consumers, It will therefore be necessary to determine what the underlying market logics of the emerging LNG market are and what future mechanisms of supply risk management they necessitate. Many people are discussing the possibility that this GECF, formed in 2001, will transform into a “Gas OPEC” cartel in a similar vein to OPEC in the oil market. However, in terms of production and production share of oil and gas, the largest producer in OPEC; Saudi Arabia, represents 29 percent of production in comparison to Russia representing 52 percent of gas production in the gas cartel. This is a huge power difference and one of the main reasons why many believe that a gas cartel will never materialize. In addition, the oil market is a global market while the gas market, while expanding, is almost exclusively regional. While it can be argued that a truly global gas market will never exist and will only develop regionally, there are positive effects occurring which are a necessary step towards a global market, including the establishment of a pricing mechanisms based on market developments as well as the breaking up of the prevalent bilateral contract arrangements.

However, due to demand-side fragmentation, political actors are essentially creating a sustaining model wherein dwarf companies meet giants in the gas market which is counterproductive for consumers. This demand-side fragmentation exists in contrast to the supply-side where gas resources are concentrated in the five big players: Algeria, Russia, Qatar, Iran and Norway. Hence the contemporary situation would seem to require something similar to what was needed in the oil market (IEA) in 1974 in terms of demand-side response.

Needless to say, at present, the situation is certainly comfortable for major gas sellers. Conference participants focused mainly on the example of Gazprom, which benefits from the fact that the markets it is selling in are mostly liberalized. In Europe, Russia already has

significant market power and some participants argued that long-term contracts can help to mitigate this power. From a Gazprom perspective, it was suggested that, in general, the 30 year track record of the company has been stellar and many Gazprom insiders wonder why there has been a sudden fear that gas will not be delivered. In addition, Gazprom's new investments in infrastructure, such as the Northstream pipeline, are not always recognized within the industry. Gazprom wants to be a world-leading energy company, an aim that requires a shift into the downstream market that has already begun (albeit slowly) in most liberalized markets, for example, in the UK.

4.4.1 Storage

Many participants emphasized that a solution for creating a functioning spot market for natural gas is the construction of further storage capacity. In fact, there has been a large increase in storage investment due to the higher value of market flexibility. The relationship between storage and import dependency is also important; the level of storage must increase as import dependency increases. It would be a very risky to not increase storage given the possibility of decreasing supply in the future. At present, Italy and Hungary have the highest storage capacity in Europe due primarily to the fact that gas encompasses the highest share of their energy mix, excluding producing countries such as the UK.

Some participants emphasized that if and when storage becomes regulated, private companies may have no interest whatsoever in building gas storage capacity in an environment where the amount of return on this investment would be regulated. In this respect, companies will likely not create extensive storage capacity for the purpose of strategic stocks.

It is also necessary to promote massive investments to generate spare capacity all along the chain. For a strategic commodity such as gas, the laissez faire approach alone is a dangerous option, especially in a liberalized economy where investment tends to arrive too late. Furthermore, the right of an individual to choose their downstream gas provider may not in fact be in the general interest as the entire economy is affected when gas supply is switched off. In this respect, government policies are advisable if market failures exceed the failures of such policies.

4.4.2 LNG

In order to mitigate the rising concentration of resources in major gas producing states as well as prepare for a potential supply disruption, it is necessary to further develop the spot market for gas. However, this would create a greater role for liquefied natural gas (LNG). While the LNG market is indeed growing, it represents only 7 percent of consumption and would need to expand significantly through massive amounts of investment in order to fully develop a functioning spot market. As stressed, it is also necessary to have accurate data through market transparency in order to be able to assess any situation and take the appropriate action to mitigate crises.

For LNG to fill this greater role, a number of obstacles must be overcome. Some participants emphasized that the market limitation is simply in the amount of production facilities and that many production facilities in progress are currently delayed or have recently been abandoned (i.e. in Australia and Nigeria) and that we will not see a significant increase in the

next few years. Moreover, LNG is currently being sold at a marginal price. In the future, however, LNG may very well be the price setter for gas as it will always be the highest costing gas product and it will always go to the consumer who pays the most. This may have the consequence of increasing the cost of piped gas as well.

Lastly, participants largely agreed that any fear of the formation of a gas OPEC in the form of the GEFC seems unfounded due to the fact that, at present, the majority of gas is tied up in long-term pipe-gas contracts. LNG, by contrast, makes up for only a fraction of globally consumed gas. At the same time, it was stressed that the only way to cover short-term supply disruptions in the gas market is to develop an LNG spot market. Again, the question here is whether the spot market for gas will increase significantly (i.e. whether there will be fewer long-term contracts) and whether as a result potential market fluctuations may make short-term supply management necessary to manage potential market shocks. As additional arguments against the effectiveness of a gas cartel participants pointed to the disproportionate distribution of gas resources as well as to the regional nature of the gas market. In addition, it has been characterized as a largely European (specifically EU-Russia relations) issue as, due to its near self-sufficiency, North America would only be marginally impacted by the formation of a gas cartel.

4.5 Challenges and Policy Recommendations

For consumers to have leverage in the market, it is essential to have effective consumer cooperation, however, because of the free riding and voting weight allocation issues discussed in the previous section, China and India essentially have no incentive to join the IEA other than the fact that membership could be seen as a sign of achievement for these two countries. There was the consensus that if consumers (IEA) want to have any leverage in discussions with producers (OPEC), the new consumers must be provided incentives to be involved, for example, through access to technology and technical cooperation.

There was a consensus that the forming of a new energy governance institution is not an effective solution, nor is incorporating energy governance into the United Nations. Many participants suggested a greater role for the International Energy Agency, but, for this to occur, the IEA would require significant new resources (both human and financial) in order to take on additional roles.

5. Conclusion

The 3rd Transatlantic Energy Security Dialogue has emphasized that the road towards more effective global energy governance will be a difficult one. Cooperation, especially among transatlantic actors, is essential. The era of cheap and easily accessible oil is over, yet hydrocarbons will remain the primary source of energy for decades to come. There is once again a strategic eclipse developing in the energy market similar to oil 40 years ago under OPEC and prior to the development of a holistic energy security strategy among consumers (IEA). The “rise” of the new consumers, the increasing involvement of state companies, and concerns about environmental sustainability and good governance render the situation increasingly complex. The implications of this are many and the implementation of sound energy policies on both sides of the Atlantic is essential. The European Union has no common energy policy, while many expect the energy policy in the United States to change with the next administration. This fact, coupled with the new EU Commission, marks an influential time in the debate on energy security and policies.

As literally billions of new consumers enter the market, the demand for energy is set to increase substantially. Asia is poised to become the world’s leading energy consumer and, in addition to requiring more energy, the impact on the global climate and environment will be large without appropriate mechanisms to mitigate potential crises. While renewables will allow for some diversification of the energy mix, in all likelihood they will make little difference over the next 20 years with fossil fuels remaining at the front and center of energy consumption. The correct approach to take, emphasized numerous times during the conference, is by not focusing on one form of energy in particular but by focusing on the entire energy mix. We cannot afford to exclude any energy sources, including LNG and nuclear power.

One discussion that was touched upon but was essentially ruled out as a major trend was that of “peak oil”. While it is agreed that the increased demand for fossil fuels will strain future supplies, some argued that the debate on “peak oil” has been around for over thirty years and that what we are currently experiencing is simply that these resources are becoming more expensive. The world is indeed consuming more oil than it finds, however, there is enough oil in the ground to satisfy energy needs (at a significant price) for decades to come and the argument of “peak oil” is not a good basis for policymaking.

Large companies and market experts are predicting that the production of oil cannot go higher than 60 million barrels per day. This brings about one certainty: greater reliance on OPEC. However, uncertainty as to how that will be achieved and at what cost remains an issue. In the medium term, prices may fall as new oil fields come online in Nigeria, Azerbaijan and Kazakhstan, but with demand forecasted to continue to grow, and oil set to remain a crucial fixture in the global energy mix, it is unclear to what extent this will make a large difference. Furthermore, the decrease in OPEC spare capacity (Saudi Arabia) has historically been a check on high oil prices, however, this is becoming less of a factor and thus the reduction of spare capacity is now one of several reasons why the oil price has continued to grow. In addition, underinvestment in the 1990s coupled with producer

strategies to keep production low so prices are high and resources last longer have exacerbated this.

Europe needs to end national energy policies and have one common strategy for obtaining security of supply. Furthermore, Europe would benefit from a consistent policy “source” for international problems, particularly energy. Right now, there are too many people with too little expertise on these specific issues, and they are changing positions too often. This complicates effective transatlantic dialogue on security of energy supply. From a forward-looking perspective there is much more that the EU can do regarding the creation of a more transparent system of energy governance, and bring itself in line with the US Department of Energy efforts to increase transparency in the energy market (i.e. through providing consistent and accurate market data). There is a great deal of uncertainty in the global energy market and the theme of transparency and access to accurate data pervaded most discussions at the conference.

The energy market is certainly not perfect and there is still a critical perspective of sovereignty over resources. The governance of energy resources will be extremely difficult due to many of the above outlined reasons coupled with a lack of political will on both sides to construct stronger institutions. In addition, as prices continue to rise (and the end is not in sight for the price of oil) every sovereign actor will try to claim more of the cake. In this respect, effective multilateral institutions and transatlantic cooperation are essential for achieving the goals of both energy security as well as mitigating climate change and promoting good governance.

To address these challenges, more policy-oriented research is necessary. The Global Public Policy Institute is committed to pursuing this important research agenda in the years ahead. In January 2008, GPPi, in cooperation with the New America Foundation and with support from the European Commission, the Dräger Foundation and the German Marshall Fund of the United States, launched a global energy governance research program entitled “Changing Rules of the Game: Global Energy Governance in the 21st Century”. Adopting an institutionalist perspective on global energy, the project will assess the key areas in which existing governance structures need to adapt to meet the challenges of the 21st century in terms of security of supply at affordable prices, environmental sustainability and good governance. This approach fills an obvious gap in current analyses on energy security, and, at the same time, addresses a highly relevant policy area. Consequently, the project will complement clear-cut applied analyses with input from decision-makers representing industry, government and civil society. Moreover, it will offer a set of concrete and implementable policy recommendations and draw conclusions on the transatlantic policy agenda in the field of global energy governance.

For more information on the project, please visit <http://www.globalenergygovernance.net>

Annex I: Conference Program

DAY 1

12:00pm Arrival and Registration

12:30pm Lunch

02:00pm **Welcome**

- *Prof. Dr. Dieter Feddersen, Chairman of the Supervisory Board of Drägerwerk AG and Member of the Board, Dräger Foundation*
- *Jan Martin Witte, Associate Director, Global Public Policy Institute*

02:15pm OPENING SPEECH

Transatlantic energy security dialogue: The role of Germany

Viktor Elbling, Commissioner for International Energy Policy, Globalization and Sustainable Development, German Federal Foreign Office

03:00pm **Coffee break**

03:30pm OPENING PRESENTATION & PANEL DISCUSSION

Global energy governance in the 21st century: The changing rules of the game

The opening presentation will set the scene of the conference by offering an overview of, and the current challenges facing, global energy governance institutions in the 21st century. A number of different trends are challenging the existing “rules of the game” in regards to global energy governance. What is the effect of the rise of the “new consumers” on energy governance institutions? To what extent do “peak oil” and the increasing role of state players challenge existing institutional mechanisms? How do the climate change and good governance agendas change the game?

Panelists:

- *Andreas Goldthau, Transatlantic Fellow, RAND Corporation and Fellow, Global Public Policy Institute*
- *Julia Nanay, Senior Director, PFC Energy*
- *Joachim Pfeiffer, Member of the German Parliament, CDU-CSU*

Moderated by: *Achim von Heynitz, Senior Advisor, FAO/IFAD*

05:00pm WORKING GROUP SESSION (I)

Financing exploration and production: The changing global energy landscape

Being a capital intensive industry, all oil and gas businesses heavily rely on financial markets to facilitate exploration and production (E&P) projects. Unlike other investment projects, however, the energy sector often also entails considerable political risks. It thus depends on the ability of financial markets to mitigate or hedge these risks, i.e. its underlying “rules of the game” determine which oil and gas investment projects attract financing – and which do not. The workings groups in this session provide an impetus to discuss some of the main challenges of financing the future of energy exploration and production in a politically and environmentally sustainable manner.

- WORKING GROUP A

State-backed financing in E&P

Today, the bulk of known global oil and gas reserves are controlled by state-owned companies and this share is set to increase significantly over the coming years. Hence, state-owned companies (including the national oil companies, or NOCs) play a pivotal role in exploration projects and drilling consortia. In addition, some governments (specifically the Chinese and others) are increasingly providing preferential financing deals and other support to give their NOCs an edge in the international “race for acquisitions”. Does the trend towards increasing nationalization of oil and gas companies have an effect on re-channeling investments? Do financial markets affect international oil companies (IOCs) and national oil companies (NOCs) differently? How significant is the current trend to state-backed financing for E&P projects?

Introduction: *Heinrich Kreft, Senior Foreign Policy Advisor, CDU/CSU Parliamentary Group, German Bundestag*

- WORKING GROUP B

Climate change and policy uncertainty: What is the impact on energy sector investment?

Climate change has emerged as a top item on the international policy agenda. Almost all developed countries are now experimenting with policy tools – including carbon taxes or cap-and-trade approaches – to respond to the climate change challenge. Internationally, governments are set to negotiate the further development of the Kyoto Protocol after 2012. As such, energy companies are currently operating in an environment characterized by extreme policy uncertainty. How does that uncertainty impact investment decisions? What can governments do to respond to the challenges (e.g. through improved policy design)?

Introduction: *William Blyth, Associate Fellow, Chatham House*

- WORKING GROUP C

Financing the future: Financial markets and investments in good governance

There exists a negative correlation between resource richness and democratic development. Fighting this “resource curse” is however not only a norm-driven desire but may also be of interest to investors as accountable and transparent regimes are susceptible to provide investors with a higher planning security. Hence, to what extent do financial markets appreciate the existence of democratic regimes, compared to “stable” but authoritarian ones? Does good governance in producing countries make a difference in the terms and conditions of financing E&P projects?

Introduction: *Nicholas Shaxson, Associate Fellow, Chatham House*

- 06:15pm** Break
- 07:00pm** Dinner
- 09:00pm** Night Cap: The Next Decade of Caspian Oil and Gas: Evolving Euro Atlantic and Asian Pacific Perspectives
Christof van Agt, Advisor, Caspian Affairs, International Energy Agency

Day 2

09:00am PANEL DISCUSSION II

Trade and investment agreements and the challenge to multilateral institutions

The primary objective of the multilateral trading system as established by the WTO is to provide mutual market access without barriers. Hence, trade in energy goods is – in principle – covered by WTO rules. However, the impact of these rules on energy trade is considered to be rather limited, and regional and bilateral trade and investment agreements are taking place independently from efforts to strengthen multilateral institutions in order to govern oil and gas trade and energy related investments. How are multilateral arrangements challenged by these recent trends? Where may they complement each other? How do China's and India's increased efforts to cover growing demand by engaging in bilateral treaties with resource rich states put into question future arrangements on a multilateral basis?

Panelists:

- *Thomas Waelde, Professor of International Economic, Natural Resources and Energy Law, University of Dundee*
- *Ralf Dickel, Director for Trade, Transit and Relations with Non-signatories States, Energy Charter Secretariat*

Moderated by: *Dagmar Graczyk, Manager for South Asia, Office of Non-Member Countries, International Energy Agency*

Q&A

- 10:00am **Coffee Break**

10:15am

WORKING GROUP SESSION (II)

BITs, RITs and the WTO: Challenges and trends of trade and investment

There is no internationally agreed set of rules for trade of energy resources and related investment flows. Multilateral institutions such as the WTO and regional arrangements such as the North American Free Trade Agreement (NAFTA), the Energy Charter Treaty (ECT) or APEC, accompanied by bi-regional fora such as the EU-GCC or the EU-Russian Dialogue provide mutual market access without barriers. Today, oil and gas is basically freely traded (though this is not based on international agreements), whereas related investment is mainly subject to national legal provisions. This set of working groups will examine the current “rules of the game” regarding global energy trade and investment agreements and the resulting challenges for the future.

- WORKING GROUP A

The WTO and regulation: The entry effect of major oil and gas states

The WTO entails a traditional bias towards market access (mostly for products of high added value) and is currently not suited to address the issue of export restrictions and investment protection. Further, major producing countries such as Russia and Saudi Arabia have reached exemptions for their energy sectors and related export and taxation regulations. Is the existing arrangement of multilateral trade and investment agreements (GATT/WTO) able to provide a) a reliable framework for increasingly strained oil and gas markets and b) an investment regime in oil and gas that suit the interests of both producers and consumers? If not, will it be adaptable?

Introduction: *Sanam S. Haghighi, ECONGAS*

- WORKING GROUP B

The Energy Charter Treaty and Russia

Signed in 1991, the Energy Charter Treaty (ECT) is an international agreement designed to integrate energy sectors of the former Soviet Union and Eastern Europe Cold War into the broader European and world markets. As an internationally binding instrument specifically focused on trade and investment in energy, it is the only one of its kind. So far, however, Russia has failed to ratify the ECT, pointing primarily to concerns over provisions that would require third-party-access to Russia’s pipeline network. In response, some in the EU have threatened to withdraw support for Russia’s application to enter the WTO. What is the current status of negotiations between the EU and Russia? To what extent does the ECT provide a model for other regions seeking to enhance energy sector integration?

Introduction: *Andrei Belyi, Associate Professor, State University Higher School of Economics, Moscow and Vice-Chair of the Cathedra on Political Issues of International Energy*

- WORKING GROUP C

Trade and investment in non-conventional resources and technologies

Existing WTO regulations and rules established by regional and bilateral trade and investment treaties are partially at odds with objectives of environmental protection. On the one hand, the removal of barriers to trade in renewable energy equipment and technology has the potential to reduce the cost and increase the feasibility of meeting global environmental obligations. At the same time, existing trade rules (e.g. under the WTO regime) may pose a barrier to the provision of fiscal and other support to nascent renewable energy industries. To what extent do existing multilateral, regional and bilateral arrangements favor or discriminate the trade/investment of/into non-conventional resources, biomass and climate-oriented technologies versus fossil fuels? How must the existing set of rules be revised in order to foster a global governance agenda that promotes Biomass to Liquid (BTL) and other alternatives to fossil resources?

Introduction: *Miranda Schreurs, Director, Environmental Policy Research Centre, Free University of Berlin*

11:30am

Lunch

(Meeting of the Steering Committee of the Global Energy Governance research program)

01:30pm

WORKING GROUP SESSION (III)

Short-term Supply Management

In recent years the heightened global tensions emanating from the Middle East, as well as the oft commented on rise of India and China, have brought short-term risk management of global oil back to the forefront of global energy security. When added to the fear of “peak oil” it is clear to see why mitigation mechanisms available to the consumers must be dusted off and reassessed. The three working groups in this session will focus on the role of supply and demand governance (the IEA and OPEC) and the dialogue between these institutions.

- WORKING GROUP A

The IEA and the rise of the new consumers

Chinese and Indian oil consumption represent a fundamental movement away from the traditional consumer base, complicated by the reality that these new consumers are not part of the institutional framework that encompasses short-term supply management mechanisms, namely the International Energy Agency (IEA). How and where do the new

consumers limit the scope and power of IEA risk management mechanisms? What bargaining chips can transatlantic actors utilize in order to integrate non-OECD consumers better into the rules of short-term risk management?

Introduction: *Enno Harks, Political Adviser, Deutsche BP AG*

- **WORKING GROUP B**

Producer-consumer dialogue: The role of the IEF

The International Energy Forum (IEF) is the only place where producers and consumers have engaged in an institutionalized exchange on energy market developments and related policies. It may become central in providing the notoriously speculative oil market with more information, given increasingly tight supply situations. Further, the IEF's Joint Oil Data Initiative (JODI) provides an important instrument to render the oil market more transparent. To what extent have these mechanisms promoted effective producer-consumer exchange? What role can the IEF and JODI play in reducing market uncertainty?

Introduction: *Randy Gossen, President, World Petroleum Council*

- **WORKING GROUP C**

LNG and short-term supply management in the emerging global gas market

Given the emerging importance of Liquefied Natural Gas (LNG), the gas market will soon reflect similar characteristics as the oil market. Positive effects of this trend towards a global gas market include the establishment of a pricing mechanisms based on market developments the breaking up of the prevalent bilateral contract arrangements. Recently, the gas producing countries have established the Forum of Gas Exporting Countries (GECF), still a rather loose gas club that might potentially become the gas equivalent to OPEC. Hence, mechanisms of supply risk management will become imperative for consumers. What are the underlying market logics of the emerging LNG market, and what future mechanisms of supply risk management to they necessitate?

Introduction: *Thierry Bros, Equity Analyst, Societe Generale*

02:45pm **Coffee Break (Lobby)**

03:00pm **CONCLUDING KEYNOTE SPEECH & PANEL DISCUSSION**

Global energy governance: The transatlantic agenda

The time has come to develop a more comprehensive strategy towards energy governance and security. The 21st century holds very serious challenges regarding energy supply scarcity, climate change and environmental degradation, however, global energy governance mechanisms are failing to address these issues in a cohesive manner. The role of the transatlantic

relationship in this respect is crucial: How can the EU and the US work on common ground and not in parallel in regards to energy security and environmental sustainability? What should be the role of the transatlantic relationship with respect to the “new consumers”?

Keynote Speaker: *Peter Eigen, Chairman, Extractive Industries Transparency Initiative (EITI)*

Panelists:

- *Alan Hegburg, Deputy Assistant Secretary for International Energy Policy, US Department of Energy*
- *Graeme W. Preston, Principal Administrator, Directorate-General for Energy and Transport, European Commission*

Moderated by: *Dr. Jörg Himmelreich, Senior Transatlantic Fellow, German Marshall Fund of the United States*

Q&A

04:45pm

Farewell

Annex II: Participant Information

Dr. Eltje ADERHOLD

Scientific Coordinator, Working Committee International Policy and Human Rights, Parliamentary Group Alliance 90/the Greens, Berlin

Dr. Andrei BELYI

Associate Professor, State University Higher School of Economics, Moscow and Vice-Chair of the Cathedra on Political Issues of International Energy

Dr. William BLYTH

Associate Fellow, Chatham House and Director, Oxford Energy Associates

Dr. Thierry BROS

Equity Analyst, Société Générale

Ralf DICKEL

Director for Trade, Transit and Relations with Non-signatories States, Energy Charter Secretariat

Prof. Dr. Peter EIGEN

Chairman, Extractive Industries Transparency Initiative (EITI)

Viktor ELBLING

Commissioner for International Energy Policy, Globalization and Sustainable Development, German Federal Foreign Office

Prof. Dr. Dieter FEDDERSEN

Chairman, Supervisory Board of Drägerwerk AG & Co. KGaA

Thomas GEISEL

Senior Vice President and Director, Gas Supplies North, E.ON Ruhrgas, Berlin

Dr Andreas GOLDTHAU

Transatlantic Fellow, RAND Corporation and Fellow, Global Public Policy Institute

Dr. Randy GOSSEN

President, World Petroleum Council and Vice President, Health Safety Environment and Social Responsibility, Nexen

Dagmar GRACZYK

Manager for South Asia, Office for Global Energy Dialogue, International Energy Agency, Paris

Enno HARKS

Political Adviser, British Petroleum in Germany

Alan HEGBURG

Deputy Assistant Secretary for International Energy Policy, US Department of Energy

Dr Jörg HIMMELREICH

Senior Transatlantic Fellow, German Marshall Fund, Berlin

Jens HOBOHM

Research Fellow, German Institute for International and Security Affairs (SWP)

Wade HOXTELL

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

Kelly JOHNSON

Fellow, Global Public Policy Institute (GPPi), Berlin

Dr. Heinrich KREFT

Senior Foreign Policy Advisor, CDU-CSU Parliamentary Group, German Bundestag

Julia NANAY

Senior Director, PFC Energy

Dr. Joachim PFEIFFER

Member of the German Parliament, CDU-CSU

Petra PISSULLA

Director, Dräger Foundation

Graeme W. PRESTON

Principal Administrator, Directorate-General for Energy and Transport, European Commission

Philipp ROTMANN

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

Dr. Sanam SALEM HAGHIGHI

Supply and Trading Department, EONGAS

Oliver SANDERSON

Student, Hertie School of Governance

Dr. Miranda SCHREURS

Director, Environmental Policy Research Centre, Free University of Berlin

Nicholas SHAXSON

Associate Fellow, Chatham House

Dr. Charlotte STRECK

Director, ClimateFocus B.V., Amsterdam and Chairwoman, Global Public Policy Institute, Berlin

Alexander THAMM

Program Associate, German Marshall Fund of the United States

Christof VAN AGT

Advisor, Caspian Affairs, International Energy Agency

Thijs VAN DE GRAAF

Ph.D Student, Global Governance Group, Ghent University, Belgium

Timo VEHR

Deputy Director of Strategy, Gazprom, Berlin

Achim VON HEYNITZ

Senior Advisor, FAO/IFAD

Dr. Thomas WÄLDE

Professor of International Economic, Natural Resources and Energy Law, University of Dundee

Dr. Jan Martin WITTE

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

Tobias WOLNY

Political Advisor, British Petroleum in Germany AG, Berlin

Annex III: Organizer Information

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.

The Dräger Foundation

The Dräger 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. In this context the Foundation considers itself primarily as an operational foundation which develops and implements its own programs, partly in cooperation with other organizations. Other areas which the Foundation promotes, especially in North Germany, are medicine, music, art and culture, as well as the protection of the landscape and the environment.

Not least as a result of the rapid development of communications, today's world is characterized by numerous international networks and interdependencies – and this will be even more true of tomorrow's world. Contact between different nations and economic areas is intensifying, and this demands that we promote mutual understanding as an essential prerequisite for efficient international cooperation. The constant exchange of ideas, thoughts and experience between peoples and countries, as well as joint actions, are necessary if we are to overcome existing problems. By encouraging the intensive exchange of experience and ideas regarding issues which are of importance for our future, the Dräger Foundation endeavors - within the bounds of its capabilities - to make a contribution towards improved international relations. More information can be found at <http://www.draegerstiftung.de/>.

Additional Supporters

In addition to substantive and financial support of the Dräger Foundation, the “Transatlantic Energy Security Dialogues” series is supported by a grant from the European Commission as well as generous support from the German Marshall Fund of the United States.

European Commission

The European Commission supports the Global Public Policy Institute’s research project “Changing Rules of the Game: Global Energy Governance in the 21st Century” as well as the TESD conference series through a generous “EU-US Policy Research and Debate” grant. More information on the European Commission can be found at http://ec.europa.eu/index_en.htm.

The German Marshall Fund of the United States

The German Marshall Fund of the United States (GMF) is a nonpartisan American public policy and grantmaking institution dedicated to promoting greater cooperation and understanding between the United States and Europe.

GMF does this by supporting individuals and institutions working on transatlantic issues, by convening leaders to discuss the most pressing transatlantic themes, and by examining ways in which transatlantic cooperation can address a variety of global policy challenges. In addition, GMF supports a number of initiatives to strengthen democracies.

Founded in 1972 through a gift from Germany as a permanent memorial to Marshall Plan assistance, GMF maintains a strong presence on both sides of the Atlantic. In addition to its headquarters in Washington, DC, GMF has six offices in Europe: Berlin, Bratislava, Paris, Brussels, Belgrade, and Ankara.

For more information, please visit <http://www.gmfus.org>.

Acknowledgments

First and foremost, we would like to thank the Dräger Foundation for its support in planning and financing this conference. We would also like to thank the European Commission and the German Marshall Fund of the United States for their generous financial support for GPPi's "Global Energy Governance" research program.

Furthermore, we would like to thank all the participants for helping to make the 3rd "Transatlantic Energy Security Dialogues" conference a success. In addition, we would like to kindly thank the speakers as well as those participants who acted as group moderators and kept discussions on track. Lastly, a special thanks to the rapporteurs (Wade Hoxtell, Kelly Johnson, Philipp Rotmann, Oliver Sanderson and Thijs Van de Graaf) without whom this conference report could not have been possible.