

# Final report on Energy Security and Climate Change

**June 2011** 

**Deliverable N°5.7** 

Month 29



















#### **EU-GRASP**

Changing Multilateralism: the EU as a Global-regional Actor in Security and Peace, or EU-GRASP in short, is an EU funded FP7 Programme. EU-GRASP aims to contribute to the analysis and articulation of the current and future role of the EU as a global actor in multilateral security governance, in a context of challenged multilateralism, where the EU aims at "effective multilateralism". This project therefore examines the notion and practice of multilateralism in order to provide the required theoretical background for assessing the linkages between the EU's current security activities with multi-polarism, international law, regional integration processes and the United Nations system.

#### **Partners**

EU-GRASP is coordinated by the United Nations University – Comparative regional Integration Studies (UNU-CRIS). The other partners of EU-GRASP are based worldwide and include: University of Warwick (UK), University of Gothenburg (Sweden), Florence Forum on the Problems of Peace and War (Italy), KULeuven (Belgium), Centre for International Governance Innovation (Canada), University of Peking (China), Institute for Security Studies (South Africa) and Ben-Gurion University of the Negev (Israel).

Additional information available on the website: <a href="www.eugrasp.eu">www.eugrasp.eu</a>

#### **Disclaimer**

All views and opinions are those of the authors.

EU-GRASP Coordination Team: Luk Van Langenhove, Francis Baert & Emmanuel Fanta

Editorial Assistance: Rik Vanhauteghem United Nations University UNU-CRIS 72 Poterierei – B-8000 – Bruges – Belgium

Email: fbaert@cris.unu.edu or efanta@cris.unu.edu

Additional information available on the website: www.eugrasp.eu

© 2011 by de Jong and Wouters. All rights reserved. No part of this publication may be reproduced without permission of the authors. The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 225722.

# **Table of Contents**

Executive summary	4
Introduction	8
1: Research Methodology	g
2: Energy and Security	11
2.1: Russia	12
2.2: Central Asia	13
2.3: China	15
2.4: Interim Conclusion	16
3: The Origins of EU External Energy Cooperation	17
3.1: Russia	17
3.1.1: The Current Status of EU-Russia Relations	26
3.2: Central Asia	27
3.2.1: The Current Status of EU-Central Asia Relations	36
3.3: China	37
3.3.1: The Current Status of EU-China Relations	46
3.4: Interim Conclusion	47
4: Key Issues in External Energy Cooperation	49
4.1: Reciprocity in EU-Russia Relations	49
4.2: EU-Russia Bilateral and International Legal Framework	58
4.3: Diversification of Energy Sources and Routes	65
4.4: Energy-Human Rights Nexus in Central Asia	71
4.5.1: The Chinese Renewable Energy Market	77
4.5.2: EU-China Cooperation on Carbon Capture and Storage	86
4.6: Coherence in External Energy Relations	93
4.7: An External Energy Policy Treaty?	100
5: Conclusions and Recommendations	106
Bibliography	114

# Final Report on Climate Change and Energy Security: Global Energy Security Governance: Key Challenges in EU Energy Relations with Russia, Central Asia and China

Sijbren de Jong and Jan Wouters

Catholic University of Leuven

## **Executive summary**

Influenced by environmental concerns, rising oil and gas prices, the emergence of giants such as China, and the interruptions in the supply of natural gas to the European Union ('EU' or 'Union') in recent years, energy security and climate change have become two of the 21st century's most defining themes. In its attempts to contribute to their effective governance, the EU guides its efforts both towards energy supplying-, as well as consuming countries and regions. Of particular relevance in this regard are the Union's relations with Russia, Central Asia and China. The present report presents an analysis of the EU's energy relations with these countries and regions, focusing in particular on the supply of natural gas from the viewpoint of energy security (Russia; Central Asia), and cooperation on energy efficiency and renewable energy (China) from the perspective of climate change. The study is based on a comprehensive consultation among policymakers and experts (see *infra*, 1).

External energy cooperation was notably intensified since the early 1990s, after which many durable forms of cooperation were established including, *inter alia*, the EU-Russia Energy Dialogue (see *infra*, 3.1.1), the Interstate Oil and Gas Transport to Europe (INOGATE) project in Central Asia (see *infra*, 3.2.1), and the EU-China Partnership on Climate Change (see *infra*, 3.3.1). Whereas up

until 2000 the Union's discourse was predominantly oriented towards the establishment of a permanent basis for cooperation, soon thereafter it became increasingly viewed through a security lens. Reasons include concerns over security of energy supply and the impact of geostrategic competition from Russia and China in regions such as Central Asia (see *infra*, 3.2.2 and 3.3.2).

This change in tone can partly be attributed to a range of interruptions in the supply of Russian natural gas to the EU (see infra, 3.1.1). However, beneath these visible 'disturbances' lay more fundamental differences concerning the legal nature and degree of reciprocity of the EU-Russia energy partnership (see infra, 4.1 and 4.2). Disagreement over reciprocal market access remains one of the thorniest nuts to crack. The EU has hitherto had little leverage in Moscow to 'persuade' Russia to open its lucrative oil and gas market more for European energy companies. Moreover, any such attempts were ultimately undermined by intra-EU dividedness (see infra, 4.1 and 4.6). Therefore, rather than trying to influence the Russian position, the Union should look into its **own market structure instead.** Today's EU internal market allows exceptions to full ownership unbundling to exist; a situation of which Europe's larger energy companies are seen as profiting. When simultaneously strong restrictions exist against third country entrants, Moscow sees this as the application of a double standard (see infra, 4.1). However, by granting access to competing firms, full ownership unbundling would all but rule out market abuse by vertically integrated companies; both EU ones, as well as Gazprom. Therefore, in the longer term it seems more advantageous for the Union to instigate a new attempt at across-the-board' unbundling, rather than granting continued existence to the current system (see *infra*, 5).

With respect to reaching a solution on a new **bilateral EU-Russia agreement**, there seems little chance for Russia that the EU will change its view that the Partnership and Cooperation Agreement (PCA) will need to include precise wordings on energy and energy security, and be based on the principles of the Energy Charter Treaty (ECT). Taking this into account, a first step in rapprochement will likely have to be found in less controversial issues. Promising are discussions within the Energy Charter on an **alternative transit allocation system** whereby transit capacity is awarded after a non-discriminatory review of the application. In cases where capacity is not readily available, the applicant is subsequently placed on a waiting list (see *infra*, 4.2). Such a system may contribute to finding a solution to **the broader issue of contractual mismatch** between long term supply contracts, and (often) shorter term transit contracts and possibly help to avoid future 'transit conflicts' such as the ones in 2006 and 2009 (see *infra*, 5).

The repeated uncertainties over the reliability of Russian gas supplies have led the EU to increase its focus on **Central Asia as a possible alternative supplier** (see *infra*, 4.3). However, the study makes clear that great difficulties exist in sourcing gas supplies from the region. The only viable option for the moment is Azerbaijan's Shah Deniz II gas field which will allocate 10 billion cubic meters (bcm) of gas to Europe in late 2011. Much of the difficulties surrounding Europe's flagship 'Nabucco' pipeline project relate to the fact that it – currently – is projected to run at one third of its capacity only; a feat which discourages investors and gas suppliers and renders it an unlikely recipient of Azeri gas. To further complicate matters, Nabucco faces stiff **competition** not only from Russia, but also **from rival European projects** such as the Italy-Turkey-Greece Interconnector (ITGI) and the TransAdriatic Pipeline (TAP) (see *infra*, 4.3). What is important is that **the EU anticipates that ITGI or TAP is granted the Azeri gas, rather than Nabucco** and that it puts it weight behind the best alternative project. Given its better chances for expansion and overall lower construction cost, it seems it would be in the Union's best interest to support the TAP project, rather than ITGI (see *infra*, 5).

The challenge of acquiring Central Asian gas is further compounded by difficulties to reconcile the Union's aims for **diversification** with its principles on **human rights** and democracy promotion, in light of the often dubious record of regimes in the region (see *infra*, 4.4). However, the two need not be irreconcilable, provided the EU succeeds in using the Central Asian countries' desire to diversify their export routes to its own advantage (see *infra*, 4.3). If the EU manages to become a substantial consumer of Central Asian hydrocarbons over time, Brussels' 'weight' in these countries' foreign relations will subsequently increase. With this increased weight comes additional leverage on part of the Union in its dealings with its Central Asian counterparts. A different kind of conditionality could thus takes shape whereby the **EU utilises its market weight and offers increased downstream access, in exchange for concessions** on part of the Central Asian States concerning human rights, legal and democratic reforms, rather than the other way around (see *infra*, 5).

The concerns over Russia's reliability and the fierce competition over Central Asian hydrocarbons have led the EU to increasingly look towards cooperation with one of its main competitors. Cooperation with **China** on **renewable energy and energy efficiency** was notably intensified as a means to 'lower pressure' on both sides' security of energy supply, whilst simultaneously working towards a more sustainable energy transition (see *infra*, 4.5.1 and 4.5.2). However, many challenges remain. One issue that cuts across multiple themes and is not limited to energy alone is the **lack of a proper enforcement of regulations and follow-up** on bilateral cooperation in China (see *infra*,

4.5.2). In this regard, it is suggested to create **a more efficient dialogue structure**, one which would incorporate future projects into **a single operating framework**, with a clearer hierarchy and a disciplined reporting line to allow for a stronger form of accountability and for projects to stay on track (see *infra*, 5).

Domestically, the **Chinese renewable energy market** is in need of stronger legal obligations for energy companies to purchase renewable energy so that the renewable energy market can continue to grow and become a commercially viable alternative to conventional – more polluting – power generation. Furthermore, specific energy sectors such as wind should be allowed to have a greater degree of foreign ownership in order for companies to be able to manage their wind power operations in China more efficiently (see *infra*, 4.5.1 and 5). In conjunction, new technologies such as Carbon Capture and Storage (CCS) show great potential for climate change mitigation in China. However, the lack of **an effective regulatory framework which 'rewards' electricity that exhaust less CO<sup>2</sup>** renders CCS generated electricity – for the moment – too expensive (see *infra*, 4.5.2). Possible remedies include the introduction of a 'Carbon tax' on electricity which exceeds a given amount of CO<sup>2</sup> output during its generation. Equally, CCS generated electricity can be made more attractive when power generation **moves away from treating CO<sup>2</sup> as a 'waste product'**, towards viewing it as a useful by-product of electricity generation. The stimulation of industry to utilise CO<sup>2</sup> for specific purposes, such as Enhanced Oil Recovery, could boost demand for CCS and help develop the value chain of its technology (see *infra*, 4.5.2 and 5).

Finally, it should be stressed that the EU's ability to exert real influence in its external relations is largely dependent on its degree of external coherence. The study points out that a certain divide exists between some of the Union's 'old' and 'new' Member States on how to engage third country suppliers. The former is somewhat reluctant to greater EU involvement, whereas the latter stands more welcoming towards a greater role for the Union (see *infra*, 4.6). It is for this reason that it is unlikely to expect a change from the status quo of predominantly bilateral policy to come from countries belonging to the EU-15. Therefore, in the medium to long term, it would be more worthwhile for those EU Member States who have the most to benefit from more concerted action at European level – including Poland, Latvia, Lithuania, Estonia, Hungary, Slovakia, Czech Republic, Bulgaria, Slovenia and Romania – to engage in pragmatic and voluntary cooperation along the lines of a 'Schengen for energy'. If, over time, this could develop into a more institutionalised practice, it could potentially attract other countries along the way and strengthen its presence within the EU system (see *infra*, 4.6, 4.7 and 5).

However, if in the end coherence in external energy relations is not to be reduced to an 'empty phrase' which is continuously repeated, yet not acted upon, it is of great importance that the **Lisbon Treaty** will be utilised to its full potential. It is imperative in this regard that **energy becomes instrumental in the work of both the High Representative/Vice-President** (HR/VP), **as well as the European External Action Service** (EEAS) (see *infra*, 4.7). For, ultimately it is only good cooperation between the HR/VP, EEAS and the Commissioner for Energy on the one hand, coupled with *coherent* Member State action on the other that can improve the current situation (see *infra*, 5).

#### Introduction

Influenced by the need for sustainable development; the rising prices of oil and gas; concerns over the availability and location of fossil fuel resources; and the emergence of giants such as China; energy security and climate change have become two of the 21st century's most defining themes.

In recent years, frequent interruptions in the supply of Russian natural gas to the European Union ('EU' or 'Union') have strengthened beliefs that energy should be approached from a security perspective. Subsequent concerns over 'energy security' have led to an increase in calls within the EU to diversify its energy suppliers and transit routes towards other regions, such as Central Asia. Russia's active foreign energy policy and the surge in demand coming from China only serve to reinforce this view. The latter's rise in particular prompted the Union to initiate far-reaching cooperation on renewable energy and energy efficiency to better manage China's energy demand and ensure its transition occurs in a sustainable fashion.

The above developments notwithstanding, many questions remain unanswered. For example, to what extent does the EU succeed in securing its energy supplies? Moreover, is energy really a security issue and should it be approached from this perspective? And, does international cooperation on renewable energy and energy efficiency have a noticeable effect on combating climate change? Through an in-depth study of EU-energy relations with Russia, Central Asia and China, these and many other questions are the focus of this report.

The report can be divided into five different sections. Section one briefly sets out the research method which was applied in the course of the study. Section two goes on to illustrate how energy came to be viewed from a security perspective. Differences and similarities in the construction of energy security relations with Russia; Central Asia; and China are highlighted where appropriate.

The third section subsequently analyses how energy relations between the EU and said countries/regions have evolved over time, both discursively and institutionally. The analysis adopts a chronological narrative which stretches from the early 1990s until the present day. Where appropriate, attention is given to events and moments which either strongly impacted on, or shaped the direction of external energy cooperation. These include, *inter alia*, policy initiatives; the establishment of institutionalised forms of collaboration; key-achievements; crises; and events external to the partnership that affected mutual relations. Next to allowing the reader to gain insight into the how and when of EU energy relations with Russia; Central Asia; and China; section three singles out the topics which – throughout the research – were most commonly identified as either inhibitive of the successful performance of the EU, or which exerted the greatest potential for achieving the Union's aims with respect to external energy cooperation.

Taking these issues as its starting point, section four subsequently analyses (i) their underlying causes and (ii) implications for EU security governance – set against the backdrop of defining international and regional undertakings on energy, and security of energy supply. Cross-case differences and similarities are highlighted where appropriate.

The fifth and final section builds on these findings and provides a set of recommendations on the future direction of EU external energy cooperation with Russia, Central Asia and China.

Before turning to our analysis of EU external energy relations, section one briefly outlines the research method which was applied throughout the study and details the motivations behind the selection of the three cases.

# 1: Research Methodology

For the purpose of this study, a total of 38 respondents were consulted on EU energy cooperation with Russia; Central Asia, and China through on-site semi-structured interviews. On average these interviews lasted thirty minutes to an hour.

Interviewees included EU civil servants (Commission, Council, and European Parliament); EU Member State officials (e.g. energy attachés from EU Member State Permanent Representations in Brussels); officials from non-EU States (e.g. representatives tasked with energy at their embassy in Brussels); officials from or who take part in relevant international and regional organisations and

fora (e.g. Energy Charter Secretariat, the International Energy Organisation and the World Bank); and private company representatives.

For each interview, a detailed transcript was drawn up. These transcripts were subsequently analysed to retrieve differences, similarities and trends in the data. The information gathered through these interviews was complemented by a thorough analysis of relevant policy documents including, *inter alia*, European Council Conclusions; Council of the EU documents (Programmes and Strategies, Council Conclusions, Working Group reports, Common Foreign and Security Policy (CFSP) statements); European Commission documents (Communications, White and Green Papers, Legislative Proposals); coupled with many other sources – official documents that are released by international and regional organisations, secretariats, dialogues and partnerships in which the EU participates, Treaty provisions and relevant legislation.

The information collected by the interviews and the study of primary sources was cross-checked with relevant secondary literature drawn from a range of scientific databases, catalogues and websites, including: Libis, Librisource, Web of Science, College of Europe Library Bruges, Springer Link and J-Stor, the websites of the European Commission, Council of the European Union, the European Parliament, Wiley Interscience, Econlit, Sciencedirect, EBSCOhost and Metapress. Relevant legal information has been primarily obtained from EUR-Lex, PreLex, European Commission Libraries Catalogue (ECLAS), Westlaw, Hein Online and the Peace Palace Library in The Hague.

Taken together, selected cases have to accurately reflect the interrelatedness of energy security and climate change, and the key-security challenges therein for the EU. It is for this reason that the study focuses on three different geographical areas and associated themes: (i) Russia and security of energy supply; (ii) Central Asia and diversification of energy supplies and routes; and (iii) China and cooperation on renewable energy and carbon capture and storage.

The following section explains in greater detail how security discourse came to influence the EU's energy relations with said countries and regions.

### 2: Energy and Security

The security dimension underpinning energy supply was laid bare in the early 1970s by a series of oil disruptions instigated by non-Western supplier countries.<sup>1</sup> In spite of the West's concerted response through the creation of the International Energy Agency in 1974, Europe itself did not react in a unified manner. In fact, the oil crises effectively prompted the fragmentation of the European energy market.

Whereas some countries, such as France diversified their energy mix through an increased focus on nuclear power, others such as the UK and the Netherlands embarked on a rapid exploration of their own deposits. Germany for its part built up strategic gas reserves and invested heavily in additional infrastructure.<sup>2</sup> It is this fragmentation of the market that would play a major role in the EU's energy policy for decades thereafter.

Following the entry into force of the Treaty of Maastricht in 1993, the European Commission intensified its efforts for the reintegration and reorientation of Europe's energy policy. One of the first times that this was openly and comprehensively addressed was through the launch of the European Commission's Green and White Papers on a European Energy Policy of 1995.<sup>3</sup> The documents introduced a tripartite structure which consisted of ensuring (i) the competitiveness of the European economy; (ii) the security of its energy supplies; and (iii) the protection of the environment. These effectively became the three mutually reinforcing angles from which European energy policy were to be approached at both European and international level.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> In 1973 the Arab members of the Organization of Petroleum Exporting Countries (OPEC) instigated an oil embargo and curbed their exports to the US and Western Europe as a response to support for Israel during the Yom Kippur War. The 1979 Iranian revolution caused a major disruption in Iranian oil production and exportation. After resumption of exports, production was irregular and at a lower volume, causing prices to rise. During the Iran-Iraq war that followed in 1980, Iranian production virtually grinded to a halt.

<sup>&</sup>lt;sup>2</sup> O. H. Maican, (2009), 'Some Legal Aspects of Energy Security in the Relations Between EU and Russia', *Romanian Journal of European Affairs* 9(4), p. 39.

<sup>&</sup>lt;sup>3</sup> COM(94) 659 final of 11 January 1995, p. 4; COM(1995) 682 final of 13 December 1995, p. 2

<sup>&</sup>lt;sup>4</sup> Early examples of their reflection at international level include COM(95) 223 final of 31 May 1995 final on the future relationship with Russia, p. 12; the SYNERY Programme on international cooperation in the energy sector, see COM(95) 197 final of 6 September 1995, p. 2; COM(95) 206 final of 10 October 1995 on the need to formulate a strategy for relations with the independent States of Central Asia, pp. 2 and 8-9; and COM(1998) 181 final of 25 March 1998 on Building a Comprehensive Partnership with China. Note that with China the EU frames energy relations more in terms of environmental concern and trade relations, rather than security, see *inter alia*, COM(1998) 181 final, p. 21; and COM(2001) 265 final of 15 May 2001 on the implementation of the 1998 Communication, pp. 12-13.

Next to general developments within EU energy policy, a number of events, initiatives and factors specific to Russia (*infra*, 2.1); Central Asia (*infra*, 2.2); and China (*infra*, 2.3) have contributed to a securitisation of mutual relations.

#### 2.1: Russia

Over time, the depletion of Europe's domestic gas resources has caused the Union to become increasingly dependent on external sources, Russia in particular.<sup>5</sup> At EU level the supply of natural gas is reasonably well diversified, whereas – mainly for historical reasons – at Member State level the dependence on a single gas supplier (in this case, Russia) is sometimes as high as 100%.<sup>6</sup> It is unlikely that this picture will fundamentally change in the near term, as the European economy is expected to remain highly dependent on imports of conventional fuels and Russia will remain one of the EU's main energy partners far into the future.<sup>7</sup>

Recent events have put the relationship between the Union and Russia under strain, causing the EU's energy dependence to be increasingly viewed in negative terms. In January 2006, a dispute between Russian gas giant Gazprom and Ukrainian national gas company Naftogaz over terms and conditions of gas transit to Europe led to an interruption in supply and non-delivery of gas reports by European companies. One year later, in January 2007, a disagreement between Russia and Belarus over terms and conditions of oil transit caused disruptions in oil supply to Poland and Germany, sparking angry reactions from the EU.8 In January 2009, the EU experienced its worst energy cut when a similar dispute between Gazprom and Naftogaz led to a two-week interruption in the supply of natural gas during what was one of the coldest winters in decades (see also *infra*,

<sup>-</sup>

<sup>&</sup>lt;sup>5</sup> In 2008, the EU27 were in total for 54,8% dependent on external sources of energy supply. With respect to natural gas the 27 Member States collectively had to import 62.3% of their needs and for oil this share amounted to 84,3%. See Eurostat Energy Statistics. Available at <a href="http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/main tables">http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/main tables</a>. Russian oil (33%) and gas (40%) take up a particularly high share in these imports. See <a href="http://www.energy.eu/#dependency">http://www.energy.eu/#dependency</a>. Accessed on 26 October 2010.

<sup>&</sup>lt;sup>6</sup> COM(2008) 781 final of 13 November 2008, p. 8.

<sup>&</sup>lt;sup>7</sup> European Commission. (2010). 'Stock taking document Towards a new Energy Strategy for Europe 2011-2020', p. 7. Available at: <a href="http://ec.europa.eu/energy/strategies/consultations/doc/2010\_07\_02/2010\_07\_02\_energy\_strategy.pdf">http://ec.europa.eu/energy/strategies/consultations/doc/2010\_07\_02/2010\_07\_02\_energy\_strategy.pdf</a>. Both accessed on 27 October 2010.

<sup>&</sup>lt;sup>8</sup> See Euractiv, 'Europe Caught in Middle of Russian-Belarus Oil Dispute, 9 Jan. 2007'. Available at: <a href="http://www.euractiv.com/en/energy/europe-caught-middle-russia-belarus-oil-dispute/article-160725">http://www.euractiv.com/en/energy/europe-caught-middle-russia-belarus-oil-dispute/article-160725</a>. A similar dispute occurred earlier in 2010. See Reuters, 'Update 1-Russian oil flows to Belarus despite talks failure', 10 January 2010. Available at: <a href="http://www.reuters.com/article/idUSLDE60904020100110">http://www.reuters.com/article/idUSLDE60904020100110</a>. Both accessed on 27 October 2010.

3.1.1).9 The recurrence of these disputes has prompted concerns on whether existing energy security arrangements and instruments are adequate and increased calls for diversification.<sup>10</sup>

Further complicating the relationship are the cumbersome negotiations over a successor to the 1997 Partnership and Cooperation Agreement<sup>11</sup> (see also *infra*, 4.2), as both the EU and Russia diverge quite strongly on what a new agreement should look like – energy being one of the key areas where agreement is as of yet forthcoming.<sup>12</sup> Partly as a consequence of the above events and the lack of progress on a new agreement, relations between the EU and Russia are currently described as tense, based on conflicts and mistrust; energy being an area where this is prominently felt.<sup>13</sup>

#### 2.2: Central Asia

The dissolution of the Soviet Union some twenty years ago seemed to give a positive impetus to Europe's security of energy supply when it prompted the opening up of hitherto more secluded energy markets in Central Asia. However, the end of the Cold War had caused a steep drop in crude oil prices, thereby lowering the Former Soviet Union (FSU) States' 'new' energy reserves as a

<sup>&</sup>lt;sup>9</sup> The severity of the January 2009 gas interruption was of unseen proportions. For a detailed overview of the way in which the EU handled the crisis and how the Lisbon Treaty affects future crisis management, see S. de Jong, J. Wouters, and S. Sterkx, (2010), 'The 2009 Russian-Ukrainian Gas Dispute: Lessons for European Energy Crisis Management after Lisbon', *European Foreign Affairs Review 15*(4), pp. 511-538.

<sup>&</sup>lt;sup>10</sup> See, inter alia, S. Haghighi, (2007), Energy Security: The External Legal Relations of the European Union with Major Oil and Gas Supplying Countries (Oxford: Hart Publishing), p. 357; J. Perovic & R. Orttung, (2007), 'Russia's Energy Policy: Should Europe Worry?, Russian Analytical Digest 18, p. 2; J. Stern, (2006), The Russian-Ukrainian Gas Crisis of January 2006, (Oxford: Oxford Institute for Energy Studies), p. 14; J. Grätz, (2009), 'Energy Relations with Russia and Gas Market Liberalization', Internationale Politik und Gesellschaft 3, pp. 67–68; J. Perovic, (2008), 'Russian Energy Power Abroad', Russian Analytical Digest 33, p. 2.

<sup>&</sup>lt;sup>11</sup> Agreement on Partnership and Cooperation Establishing a Partnership between the European Communities and Their Member States, of the One Part, and the Russian Federation, of the Other Part, OJ L 327/3 of 28 Nov. 1997.

 $<sup>^{12}</sup>$  T. Romanova, (2008), 'The Russian Perspective on the Energy Dialogue', *Journal of Contemporary European Studies 16*(2), p. 223.

<sup>&</sup>lt;sup>13</sup> R. Leal-Arcas, (2009), 'The EU and Russia as Energy Trading Partners: Friends or Foes?', *European Foreign Affairs Review*, 14(3), p. 348; J. Sherr, (2010), 'The Russia-EU Energy Relationship: Getting It Right', *The International Spectator*, 45(2), pp. 57–59. Contrary to the EU's 'market' perspective, Russia takes a firm 'statist' view with respect to its gas market characterized by strong vertical integration and control over its pipeline system. See J. M. Godzimirski, (2009), 'The Northern Dimension of the Russian Gas Strategy', *Russian Analytical Digest 58*, p. 3; and K. Hóber, (2009), 'Law and Policy in the Russian Oil and Gas Sector', *Journal of Energy & Natural Resources Law 27*(3), p. 426.

foreign policy priority for both the United States and Europe.<sup>14</sup> In general, it took quite some time before Central Asia and its Newly Independent States (NIS) were firmly on the EU's radar screen.<sup>15</sup>

Two developments speeded up the process. First, it was after the events of 9/11, that the Central Asian States were requested to host coalition military bases for operations in nearby Afghanistan.<sup>16</sup> Second, Central Asia and the Caspian Basin are home to impressive oil and gas deposits<sup>17</sup> and are geographically situated in Europe's near abroad. Given the rise of oil and gas prices and the controversies over dependence on Russian gas, the region became of strategic interest to the EU's security of energy supply (see also *infra*, 3.2.1).<sup>18</sup>

However, problems exist in terms of energy cooperation with Central Asian States, not least over the questionable human rights record enacted by regimes in the region (see also *infra*, 4.4).<sup>19</sup> Furthermore – for historical reasons – Central Asia is still subject to a strong influence from Moscow, something which is likely to make it harder for the EU to succeed in the region.<sup>20</sup>

<sup>&</sup>lt;sup>14</sup> A. Cooley, (2008), 'Principles in the pipeline: managing transatlantic values and interests in Central Asia', *International Affairs* 84(6), p. 1173.

<sup>&</sup>lt;sup>15</sup> Interview with official from European Commission Directorate-General (DG) External Relations, 30 September 2010.

<sup>&</sup>lt;sup>16</sup> See, *inter alia*, A. Cooley, *supra* note 14, p. 1173; R. Youngs, (2009), *Energy Security: Europe's New Foreign Policy Challenge*. (Abingdon: Routledge), p. 110; A. Cohen, (2009a), 'Energy Security in the Caspian Basin' in G. Luft and A. Korin (eds.), *Energy Security Challenges for the 21st Century*, (Santa Barbara CA: ABC-CLIO, LLC), pp.109-110 and 118.

<sup>&</sup>lt;sup>17</sup> At the end of 2009, Kazakhstan and Azerbaijan held 3% and 0,5% of the world's oil reserves respectively. No such shares were available for Uzbekistan and Turkmenistan, yet with 0,6 thousand million barrels (tmb) in 2009 their shares are considerably lower than those of Kazakhstan and Azerbaijan. In terms of natural gas Azerbaijan holds 0,7% of global reserves, Kazakhstan 1,0%, Turkmenistan 4,3% and Uzbekistan 0,9%. See BP Statistical Review of World Energy June 2010. Available at: <a href="http://www.bp.com/liveassets/bp internet/globalbp/globalbp uk english/reports and publications/statistical energy review 2008/STAGING/local assets/2010 downloads/statistical review of world energy full report 2010.pdf. Accessed on 28 October 2010.

<sup>&</sup>lt;sup>18</sup> See *supra* note 10. and EC Strategy Paper 2002-2006 and Indicative Programme 2002-2004 for Central Asia, pp. 4 and 18. Available at: <a href="http://www.eeas.europa.eu/central asia/rsp/02 06 en.pdf">http://www.eeas.europa.eu/central asia/rsp/02 06 en.pdf</a>. Accessed on 29 November 2010.

<sup>&</sup>lt;sup>19</sup> In its 2010 edition, Freedom House ranked Turkmenistan and Uzbekistan among the worst of human rights offenders in the world, among the ranks of Somalia and North Korea. Other Central Asian countries do little better. See Freedom House. (2010). Freedom in the World 2010. Worst of the Worst. Available at: <a href="http://www.freedomhouse.org/uploads/WoW/2010/WorstOfTheWorst2010.pdf">http://www.freedomhouse.org/uploads/WoW/2010/WorstOfTheWorst2010.pdf</a>. Accessed on 28 October 2010. On the EU's track record of democracy promotion, see A. Warkotsch, (2009), 'The European Union's Democracy Promotion Approach in Central Asia: On the Right Track?', *European Foreign Affairs Review 14* (2), pp. 249-269; A. Cooley, (2008), *supra* note 14, p. 1182; and J. Boonstra and J. Hale, (2010), 'EU Assistance to Central Asia: Back to the Drawing Board?'. EUCAM Working Paper 08, pp. 1-18.

<sup>&</sup>lt;sup>20</sup> International Crisis Group. 'Central Asia's Energy Risks'. Asia Report No. 133, p. 17; R. Youngs, (2009), *supra* note 16, p. 109; R. R. Hanks, (2009), 'Multi-vector politics' and Kazakhstan's emerging role as ageostrategic player in Central Asia', *Journal of Balkan and Near Eastern Studies* 11(3), p. 265.

Moreover, the EU finds itself increasingly in 'competition' with other major players such as China who is increasingly looking towards Central Asia to meet its energy demands (see also *infra*, 4.3).<sup>21</sup>

#### 2.3: China

In 1995, the Commission launched its first Communication on the need for having a long-term policy for China-Europe relations.<sup>22</sup> The report notes the phenomenal development of the Chinese economy, but is keen to point out that it has raised China's energy consumption to a level already second to that of the USA by the mid-1990s; turning China into an indispensible player within the wider policy exchange on issues such as the environment, population and health.<sup>23</sup> The link between energy, climate change and China's pivotal role was also made early on, noting that the overall impact of energy efficient technology on climate change mitigation would depend to a great extent on the level of penetration of such technologies in areas of the globe (China, India, ASEAN, etc.) which would use more solid fuel in the future.<sup>24</sup>

Policy-makers at times have framed climate change as a sort of 'threat-multiplier' that – if left unattended – could, through changing weather patterns, cause massive droughts, crop failure, river basin degradation and bring about an influx of 'climate refugees' who would be forced to relocate to less affected areas, causing wider tension and possibly even violent conflict.<sup>25</sup> Also, there is a growing academic literature on the purported link between climate change and violent conflict; however no real consensus yet exists on the extent to which such a scenario is a real possibility.<sup>26</sup>

<sup>&</sup>lt;sup>21</sup> Interview with official European Commission DG External Relations, 30 September 2010; interviews with officials from Permanent Representations of Germany and UK to the EU, 2 July and 10 June 2010. On China's increased activity in Central Asia see, *inter alia*, D. Zweig and B. Jianhai, (2005), 'China's Global Hunt for Energy', *Foreign Affairs 84*(5), pp. 25-38; M. Lanteigne, (2007), 'China's Energy Security and Eurasian Diplomacy: The Case of Turkmenistan', *Politics 27*(3), pp. 147-155; R. R. Hanks, (2009), *supra* note 20, pp. 259-266; S. Howell, (2009), 'Jia You! (Add Oil!): Chinese Energy Security Strategy', in G. Luft and A. Korin (eds.), *Energy Security Challenges for the 21st Century*, (Santa Barbara CA: ABC-CLIO, LLC), pp.191-218; and G. Xuetang, (2006), 'The Energy Security in Central Eurasia: the Geopolitical Implications to China's Energy Strategy', *China and Eurasia Forum Quarterly 4*(4), pp. 117-137.

<sup>&</sup>lt;sup>22</sup> COM(95) 279 final of 5 July 1995.

<sup>&</sup>lt;sup>23</sup> *Ibid.*, p. 2.

<sup>&</sup>lt;sup>24</sup> See COM(96) 576 final of 20 November 1996, p. 45; and COM(97) 196 final of 15 May 1997, p. 8.

<sup>&</sup>lt;sup>25</sup> Council of the European Union. (2008). 'Climate Change and International Security. Paper from the High Representative and the European Commission to the European Council'. Council Doc. S113/08. Brussels,14 March 2008, pp. 2-5; Council of the European Union.(2008). 'Report on the Implementation of the European Security Strategy – Providing Security in a Changing World'. Council Doc. S407/08. Brussels, 11 December 2008, pp. 5-6.

<sup>&</sup>lt;sup>26</sup> See, *inter alia*, C. Raleigh and H. Urdal, (2007), 'Climate change, environmental degradation and armed conflict', *Political Geography 26*, pp. 674-694; R. Nordas and N.P. Gleditsch, (2007), 'Climate change and conflict', *Political Geography 26*, pp. 627-638; J. Barnett and W.N. Adger, (2007), 'Climate change, human security and violent conflict, *Political Geography 26*, pp. 639-655; R. Reuveny, (2007), 'Climate change-

The relations between the EU and China are not seen from the prism of security provision as a counterweight to the adverse effects of climate change. In fact, when seen from an energy perspective, the nature of EU-China cooperation differs compared to the type of relations the Union has with countries such as Russia or regions such as Central Asia. The EU and China do not have a consumer-producer relationship, but are rather both vying for limited energy resources in order to safeguard their economic growth (see also *infra*, 3.2.1 and 4.3).<sup>27</sup>

The focus of EU-China energy relations is therefore less structured in terms of security of supply questions; dialogue and cooperation is rather more oriented towards initiatives that allow for the best possible management of China's energy demand to limit its impact on climate and the environment (see also *infra*, 4.5.1 and 4.5.2)<sup>28</sup>, whilst at the same time relieve pressure on the EU's own security of energy supply.

#### 2.4: Interim Conclusion

This brief introduction allows us to make a number of initial observations concerning the adoption of a security perspective in the three cases. First, it appears the increased use of 'security language' in the EU's relations with Central Asia is – next to the September 11 events – strongly related to the number of disturbances in the supply of Russian gas to Europe since 2006. Second, the Union's subsequent strides to 'court' Central Asian energy suppliers in an attempt to reduce its dependence on Russian gas have caused Gazprom to mount a 'counter offensive'; keen as it is to retain its dominant market position in the region (see also *infra*, 3.2.1; 4.3; and 4.6). Thirdly, China's active foreign energy policy – particularly in Central Asia – in turn has strengthened perceptions in Brussels that energy cooperation with Beijing deserves full attention, not only from a climate change point of view (see also *infra*, 3.2.1; 4.3 and 4.5.1).

induced migration and violent conflict', *Political Geography 26*, pp. 656-673; German Advisory Council on Global Change (WBGU) (2008), *World in Transition - Climate Change as a Security Risk. Report by the German Advisory Council on Global Change*. (London: Earthscan); C.S. Hendrix and S.M. Glaser, (2007), 'Trends and triggers: Climate, climate change and civil conflict in Sub-Saharan Africa', *Political Geography 26*, pp. 695-715; and I. Salehyan, (2008), 'From Climate Change to Conflict? No Consensus Yet', *Journal of Peace Research 45*(3), pp. 315-326.

<sup>27</sup> Over the years, China has developed a very active foreign energy policy. One region where China is taking a heightened interest is Central Asia. On China's active role in Central Asia see *supra* note 21. Also see A. Goldthau, (2010), 'Energy Diplomacy in Oil and Gas' in A. Goldthau and J. M. Witte, *Global Energy Governance: The New Rules of the Game,* (Washington D.C.: Brookings Institution Press), pp. 25-47; and C. Mo, (2009), 'Securing China's oil supply: from Saudi Arabia to Sudan', *International Institute for Asian Studies Newsletter 51*, p. 20.

<sup>28</sup> COM(1998) 181 final, *supra* note 4, p. 7; interview with official of the European Commission DG Energy, 23 June 2010.

To research the origins of energy relations and the connections between the cases in more detail, the next section analyses how energy relations between the EU and Russia (*infra*, 3.1.1); Central Asia (*infra*, 3.2.1); and China (*infra*, 3.3.1); were formed over time both discursively and institutionally.

# 3: The Origins of EU External Energy Cooperation

#### 3.1: Russia

By late 1997, the European Community (EC) and Russia had finished negotiations on a Partnership and Cooperation Agreement (PCA).<sup>29</sup> The agreement, which came into force for a period of ten years, is automatically prolonged, unless either party gives notice of termination. Both parties have agreed to leave it in place until a new document is signed, to avoid having no agreement at all.<sup>30</sup> Given energy's vital importance, the PCA contains specific provisions, including the 'improvement of the quality and security of energy supply'.<sup>31</sup> The agreement also aims to modernise Russia's energy infrastructure and improve the management and regulation of its energy sector in line with market economy principles.<sup>32</sup>

In 2000, when Vladimir Putin became president, Russia entered a period of marked economic recovery. Along with this growth came a strengthened role of the State – bolstered by the high energy prices at the time.<sup>33</sup> As the European economy was consuming increasing amounts of energy – geopolitically – this translated into a 40% dependence on Russian natural gas, in spite of Europe

<sup>&</sup>lt;sup>29</sup> Agreement on Partnership and Cooperation Establishing a Partnership between the European Communities and Their Member States, of the One Part, and the Russian Federation, of the Other Part, OJ L 327/3 of 28 Nov. 1997.

<sup>&</sup>lt;sup>30</sup> See K. Barysch, (2006), 'Report from the 4th Friedrich-Ebert Stiftung and Foundation for Unity for Russia Roundtable', p. 2. Available at: <a href="http://www.cer.org.uk/pdf/partnership with russia barysch dec06.pdf">http://www.cer.org.uk/pdf/partnership with russia barysch dec06.pdf</a>. Accessed on 9 November 2010.

<sup>&</sup>lt;sup>31</sup> Art. 65 EU-Russia PCA, *supra* note 29. It is expected that the energy chapter will be one of the most important ones in the new PCA, should an agreement be reached. Interviews with officials from Permanent Representation of Poland to the EU, 13 May 2010; and official from European Commission DG Energy, 8 October 2010; Brussels European Council, 8-9 March 2007, Presidency Conclusions, ANNEX I: European Council Action Plan (2007-2009) – Energy Policy for Europe (EPE), point 4, first indent, p. 19.

<sup>&</sup>lt;sup>32</sup> *Ibid.* See also S. Haghighi, (2007), *supra* note 10, pp. 343–344; and R. Leal-Arcas, (2009), *supra* note 13, p. 352.

Country Strategy Paper 2002-2006 Russian Federation, p. 1. Available at: <a href="http://www.eeas.europa.eu/russia/docs/02-06\_en.pdf">http://www.eeas.europa.eu/russia/docs/02-06\_en.pdf</a>. Accessed on 14 November 2010. The European Commission speaks of a dramatic rise in oil prices. Late November 2000, oil prices were hovering around US \$30 a barrel. See US Energy Information Administration, 'World Crude Oil Prices', 24 November 2000. Available at: <a href="http://www.eia.doe.gov/dnay/pet/pet\_pri\_wco.k.w.htm">http://www.eia.doe.gov/dnay/pet/pet\_pri\_wco.k.w.htm</a>. Accessed on 10 November 2010.

having adopted a policy of diversification.<sup>34</sup> This dependence also showed the need to tackle access restrictions to Russia's market (see also *infra*, 4.1).<sup>35</sup>

Arguably, the most significant achievement in EU-Russia energy relations during the first half of the 2000s was the establishment of a regular dialogue on energy.<sup>36</sup> The EU-Russia Energy Dialogue's as it became known is served by three main working groups dedicated to energy strategies, forecasts and scenarios; market developments; and energy efficiency.<sup>37</sup> Some of the initial topics in the dialogue focused, *inter alia*, on the improvement of the legal basis for energy production and transport in Russia; the legal security for long term supplies and the important role played by long-term contracts in this regard.<sup>38</sup>

Around this time however, it started to become clear that the EU was getting worried over delays in Russian ratification of the Energy Charter Treaty (ECT).<sup>39</sup> According to Brussels, few problems remained in the way of ratification and completion of the Draft Transit Protocol (DTP) – a thought clearly not underlined by Moscow (see also *infra*, 4.2).<sup>40</sup> Some of this reluctance can be traced back to Russia's view on energy security. According to the Kremlin, energy security refers to the 'state of protection of the country, its citizens, society, state, economy from the threats to the secure fuel and energy supply' [and the] 'full and secure provision of energy resources to the population and the

<sup>&</sup>lt;sup>34</sup> COM(2000) 769 final of 29 November 2000, pp. 2 and 23.

<sup>&</sup>lt;sup>35</sup> Country Strategy Paper, *supra* note 33, pp. 4 and 12.

<sup>&</sup>lt;sup>36</sup> Joint Declaration, EU-Russia Summit, Paris, 30 October 2000. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/ACF262F.html">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/ACF262F.html</a>. Accessed on 11 November 2010.

<sup>&</sup>lt;sup>37</sup> European Commission, Directorate-General Energy, EU-Russia Energy Dialogue. Available at: <a href="http://ec.europa.eu/energy/international/russia/dialogue/dialogue en.htm">http://ec.europa.eu/energy/international/russia/dialogue/dialogue en.htm</a>. Accessed on 11 November 2010.

<sup>&</sup>lt;sup>38</sup> *Ibid.*; EU-Russia Energy Dialogue, Synthesis Report, Brussels/Moscow, September 2001, pp. 2-4.

<sup>&</sup>lt;sup>39</sup> The ECT is a legally binding multilateral agreement that has as its aim to strengthen the rule of law on energy issues, by creating a level playing field of rules to be observed by all participating governments, and so mitigate risks associated with energy-related investment and trade. The EC concluded the ECT in 1997. See Council and Commission Decision 98/181/EC, ECSC, Euratom of 23 September 1997 on the conclusion, by the European Communities, of the Energy Charter Treaty and the Energy Charter Protocol on energy efficiency and related environmental aspects, OJ L 69 of 9 March 1998.

<sup>&</sup>lt;sup>40</sup> EU-Russia Energy Dialogue, Synthesis Report, *supra* note 38, p. 4; Joint Statement, EU-Russia Summit, Brussels, 3 October 2001, Annex 3: Future direction of the energy dialogue between the European Union and the Russian Federation. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/12423.en1.doc.html">http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/12423.en1.doc.html</a>. Accessed on 11 November 2010.

economy on affordable prices that at the same time stimulate energy saving, the minimisation of risks and the elimination of threats to the energy supplies of the country'.<sup>41</sup>

Externally, Russia applies a policy whereby it aims to 'lock in' demand with energy importers, and consolidate oil and gas supplies by signing long-term contracts with Russian and Central Asian State-owned or State-controlled energy producers and pipeline monopolists owned by Moscow. It strives to control supply through the purchase of major energy infrastructure companies, such as pipelines, refineries, electric grids and ports.<sup>42</sup> Furthermore, Russia prefers to deal with EU Member States separately, rather than as a group which allows for price-discrimination among its customers, and maximizes the revenue close to the country's paying potential (see also *infra*, 4.6).<sup>43</sup>

By 2004, divergence on a new PCA had emerged as one of the most pronounced institutional issues. This was also reflected in the Energy Dialogue where the EU and Russia seemed to speak different languages; whereas Moscow put forward a political vision which did not translate into specific legal norms of action to follow, the EU did the exact opposite (see also *infra*, 4.2).<sup>44</sup>

Moscow, seemingly unhappy with closer ties between Ukraine and the West following the former's 'Orange Revolution'<sup>45</sup>, moved towards the charging of 'European prices' for gas delivered to Ukraine by January 2006.<sup>46</sup> Kiev was prepared to pay market prices for gas; however it insisted that these

<sup>&</sup>lt;sup>41</sup> Energy Strategy of Russia for the Period up to 2030, Approved by Decree No 1715-r of the Government of the Russian Federation, dated 13 November 2009, pp. 28-36. See also, O. H. Maican, (2009), *supra* note 2, p. 30. See also De Jong, S., (2011), 'Towards Global Energy Governance: How to Patch the Patchwork' in Carbonnier, G. (ed.), *International Development Policy: Energy and Development*, (Geneva/Houndmills | The Graduate Institute/Palgrave Macmillan), pp. 34-35.

<sup>&</sup>lt;sup>42</sup> Cohen, (2009b), 'Russia: The Flawed Energy Superpower' in G. Luft and A. Korin (eds.), *Energy Security Challenges for the 21st Century*, (Santa Barbara CA: ABC-CLIO, LLC), p. 93; A. Goldthau, (2010), *supra* note 27, pp. 31-33.

<sup>&</sup>lt;sup>43</sup> A. Cohen, (2009b), *supra* note 42, p. 93. This is largely supported by the actions of certain EU Member States who do not wish to see an increase in the Commission's autonomy on external energy relations. See T. Romanova, (2008), *supra* note 12, p. 227; S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, pp. 518, 529-530 and 537-538; R. Youngs, (2009), *supra* note 16, p. 34; R. Leal-Arcas, (2009), *supra* note 13, p. 351; E. Kirchner and C. Berk, (2010), 'European Energy Security Co-operation: Between Amity and Enmity', *Journal of Common Market Studies 48*(4), pp. 859-880; R. Alcaro and E. Alessandri, (2010), 'Engaging Russia: Prospects for a Long-Term European Security Compact', *European Foreign Affairs Review 15*(1), pp. 196-197, and K. Rosner, (2009), 'The European Union: On Energy, Disunity' in G. Luft and A. Korin (eds.), *Energy Security Challenges for the 21st Century*, (Santa Barbara CA: ABC-CLIO, LLC), pp. 160-175.

<sup>&</sup>lt;sup>44</sup> COM(2004) 106 final of 10 February 2004, p.3; T. Romanova, (2008), *supra* note 12, p. 226.

<sup>&</sup>lt;sup>45</sup> Following the 2004 Presidential elections in Ukraine, allegations of massive fraud and corruption on part of winning candidate Viktor Yanukovych resulted in a two month street protest against the election outcome. The protest – which later became known as the 'Orange Revolution'– eventually caused the annulment of the election results in December 2004.

<sup>&</sup>lt;sup>46</sup> See BBC News, 'Russia threatens Ukraine gas cut', 13 December 2005. Available at: <a href="http://news.bbc.co.uk/2/hi/business/4526138.stm">http://news.bbc.co.uk/2/hi/business/4526138.stm</a>. Accessed on 17 November 2010; J. Stern, (2006), *supra* note 10, p. 5; A. Heinrich, (2006), 'Gazprom – A Reliable Partner for Europe's Energy Supply?', *Russian* 

were phased over a period of time to allow for a gradual adjustment.<sup>47</sup> The two sides eventually did not manage to reach agreement on the terms and conditions for a new contract, causing Gazprom to cut gas supplies to Ukraine on 1 January 2006.<sup>48</sup> In spite of Russian assurances, the impact was immediately felt in the EU where falling pressures and non-delivery of gas were reported by European companies.<sup>49</sup> Eventually, a solution to the dispute was found on 4 January 2006.<sup>50</sup> The damage to both countries' reputation however was significant, which caused Europe to rethink its existing energy security arrangements.<sup>51</sup>

In the wake of the crisis, the European Commission released its Green Paper on 'a European Strategy for Sustainable, Competitive and Secure Energy' in which it claimed a 'pan-European energy community' would prove the best guarantor of security.<sup>52</sup> In this view, energy security is achieved through the extension of the Union's own energy market to its neighbours within a common regulatory area with shared trade, transit and environmental rules along the lines of the Energy Community Treaty<sup>53</sup> (ENCOM).<sup>54</sup> Furthermore, in their statements, the Commission;

Analytical Digest 1/06, p. 2; S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, p. 516; and Council on Foreign Relations, 'The Business and Politics Behind the Russia-Ukraine Gas Dispute'. Available at: <a href="http://www.cfr.org/publication/18178/business">http://www.cfr.org/publication/18178/business</a> and politics behind the russiaukraine gas dispute.html. Accessed on 17 November 2010.

<sup>&</sup>lt;sup>47</sup> J. Stern, (2006), *supra* note 10, p. 6; BBC News, 'Ukraine ups ante over Russian Gas', 28 December 2005. Available at: <a href="http://news.bbc.co.uk/2/hi/business/4564228.stm">http://news.bbc.co.uk/2/hi/business/4564228.stm</a>. Accessed on 17 November 2010.

<sup>&</sup>lt;sup>48</sup> See BBC News, 'Putin admits Ukraine gas 'crisis', 29 December 2005. Available at: <a href="http://news.bbc.co.uk/2/hi/business/4567270.stm">http://news.bbc.co.uk/2/hi/business/4567270.stm</a>; and BBC News, 'Russia cuts Ukraine gas supplies', 1 January 2006. Available at: <a href="http://news.bbc.co.uk/2/hi/4572712.stm">http://news.bbc.co.uk/2/hi/4572712.stm</a>. Accessed on 17 November 2010. See also, J. Stern, (2006), <a href="mailto:supra">supra</a> note 10, p.7.

<sup>&</sup>lt;sup>49</sup> See BBC News, 'Russian gas cut 'will not hit EU'', 30 December 2005. Available at: <a href="http://news.bbc.co.uk/2/hi/business/4568288.stm">http://news.bbc.co.uk/2/hi/business/4568288.stm</a>. Accessed on 17 November 2010; and J. Stern, (2006), <a href="mailto:supra">supra</a> note 10, p. 8.

<sup>&</sup>lt;sup>50</sup> See BBC News, 'Ukraine and Russia reach gas deal', 4 January 2006. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/4579648.stm">http://news.bbc.co.uk/2/hi/europe/4579648.stm</a>. Accessed on 17 November 2010. Also see J. Stern, (2006), supra note 10, p.10.

Naftogaz. Joint Press Conference with Mr. Bartenstein, Austrian Federal Minister for the Economy and Labour, Brussels, 4 January 2006, p. 2. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/1&format=HTML&aged=0&language=EN&guiLanguage=en">http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/1&format=HTML&aged=0&language=EN&guiLanguage=en</a>. Accessed on 17 November 2010. The 2006 gas crisis was labeled a wake-up call by various EU actors, including the then External Relations Commissioner Ferrero-Waldner and the European Parliament. See B. Ferrero-Waldner, (2006), 'Guest Editorial: The European Neighbourhood Policy: The EU's Newest Foreign Policy Instrument', European Foreign Affairs Review 11(2), p. 141. The Parliament also claimed energy is at times used as a political tool and called for the continued assessment of third countries' observance to EU market rules. See European Parliament, Report on towards a common European foreign policy on energy of 11 September 2007, pp. 14 and 16.

<sup>&</sup>lt;sup>52</sup> See COM(2006) 105 final of 8 March 2006, pp. 15-20; and R. Youngs, (2009), *supra* note 16, p. 30.

<sup>&</sup>lt;sup>53</sup> ENCOM is a regional Treaty building an integrated market in Southeast Europe adjacent to the Union, represents a form of EU 'external governance', by extending the Union's *acquis* in relation to the internal

Member States; and the European Council all emphasised that Europe should speak with a single voice in its external policy and intensify diversification efforts with respect to external and indigenous sources, suppliers and transport routes (see also *infra*, 4.3 and 4.6).<sup>55</sup>

2007 started off in similar fashion when Russia interrupted oil supplies to Belarus due to a dispute over transit tariffs, affecting the supplies of several EU Member States.<sup>56</sup> Following the dispute, Putin claimed Russia would reduce dependency on unreliable transit States by forging direct pipeline deals with EU Member States (see also *infra*, 4.6).<sup>57</sup>

Later that year, dedicated to complete the internal market and speed up its liberalisation, the Commission put forward a package of proposals to reform the internal gas market.<sup>58</sup> Internally, these plans met with fierce resistance from several Member States.<sup>59</sup> By this time, access to the European market was firmly seen as a conditional, political tool. The principle of reciprocity was formally included in the proposals, including a clause that threatened restrictions on third-country access to the European market where EU investment was seen to be impeded elsewhere. The clause quickly became known as the 'Gazprom clause'<sup>60</sup>, something by which Russia was obviously not amused (see *infra*, 4.1).<sup>61</sup>

market, security of supply legislation for electricity and gas, environment and renewables. The EU is a full member, having joined in October 2005. See: The Energy Community Treaty, OJ L 198/18 of 20 July 2006.

<sup>&</sup>lt;sup>54</sup> An External Policy to Serve Europe's Energy Interests. Paper from Commission/SG/HR for the European Council, p. 3. Available at: <a href="http://www.consilium.europa.eu/uedocs/cmsUpload/st09971.en06.pdf">http://www.consilium.europa.eu/uedocs/cmsUpload/st09971.en06.pdf</a>. Accessed on 18 November 2010. This view was also voiced in various interviews. Interviews with officials from Permanent Representations of Belgium, Germany, and UK to the EU, 22 April, 2 July and 10 June 2010.

<sup>&</sup>lt;sup>55</sup> European Council, Presidency Conclusions, Brussels European Council, 23-24 March 2006, p. 14. See also COM(2006) 590 final of 12 October 2006, p. 2; and 2717<sup>th</sup> Transport, Telecommunications and Energy Council Meeting, Brussels, 14 March 2006, pp. 6-7.

<sup>&</sup>lt;sup>56</sup> BBC News, 'Russia oil row hits Europe Supply', 7 January 2007. Available at <a href="http://news.bbc.co.uk/2/hi/6240473.stm">http://news.bbc.co.uk/2/hi/6240473.stm</a>. Accessed on 18 November 2010.

<sup>&</sup>lt;sup>57</sup> R. Youngs, (2009), *supra* note 16, p. 86.

<sup>&</sup>lt;sup>58</sup> See COM(2007) 529 final of 19 September 2007; and Euractiv, 'EU unveils plan to dismantle big energy firms', 20 September 2007. Available at: <a href="http://www.euractiv.com/en/energy/eu-unveils-plan-dismantle-big-energy-firms/article-166890">http://www.euractiv.com/en/energy/eu-unveils-plan-dismantle-big-energy-firms/article-166890</a>. Accessed on 18 November 2010. The third legislative market package was eventually adopted on 25 June 2009. See Directive 2009/72/EC of 13 July 2009 concerning common rules for the internal market in electricity, OJ L 211/55 of 14 August 2009; and Directive 2009/73/EC of 13 July 2009 concerning common rules for the market in natural gas, OJ L 211/94 of 14 August 2009.

 $<sup>^{59}</sup>$  R. Youngs, (2009), *supra* note 16, pp. 37-38; Interview with official from Permanent Representation of Bulgaria to the EU, 19 April 2010.

<sup>&</sup>lt;sup>60</sup> COM(2007) 529 final, *supra* note 58, p. 7. See also R. Youngs, (2009), *supra* note 16, p. 38.

<sup>61</sup> RiaNovosti, 'Putin to attend EU-Russia Summit in Portugal', 19 October 2007. Available at: <a href="http://en.rian.ru/russia/20071019/84574250.html">http://en.rian.ru/russia/20071019/84574250.html</a>. Eventually, the clause was watered down somewhat. Member States now have to take into account the Union's energy security when allowing third party access to the grid, and also inform the Commission. See EUobserver, 'EU weakens 'Gazprom clause' on foreign energy investors', 13 October 2008. Available at: <a href="http://euobserver.com/9/26914">http://euobserver.com/9/26914</a>. See also European Parliament,

By March 2008, the EU discussed reopening the PCA negotiations, in response to the change of Presidency within Russia.<sup>62</sup> Negotiations were eventually re-launched at the EU-Russia summit of late June 2008.<sup>63</sup> However, just as relations began to improve, a war broke out between Russia and Georgia over the breakaway region of South Ossetia, bringing post-Cold War EU-Russia relations to an all time low.<sup>64</sup> The conflict pushed the Union into pressing harder for additional infrastructure interconnections, oil and gas reserve stocks, adequate crisis response mechanisms, and diversification of both energy sources and routes in its Second Strategic Energy Review (see also *infra*, 3.2.1).<sup>65</sup>

However, with the ink of the Review barely dry, there were increasing signs that Russia and Ukraine would face a new crisis.<sup>66</sup> Russia finally cut off the gas on 1 January 2009.<sup>67</sup> What followed was a two week crisis, in what was one of the coldest winters in decades.<sup>68</sup> The crisis caused stark reactions from the EU, who claimed

"Gas coming from Russia is not secure. Gas coming through Ukraine is not secure. This is an objective fact";<sup>69</sup>[...] "Given the importance attached to solidarity within the EU, this is a problem for the EU as such. It is unacceptable for the EU to see its citizens and enterprises suffering from gas shortages due

<sup>&#</sup>x27;3rd Energy Package gets final approval from MEPs', 29 April 2009. Available at: <a href="http://www.europarl.europa.eu/sides/getDoc.do?type=IM-PRESS&reference=20080616FCS31737&language=EN">http://www.europarl.europa.eu/sides/getDoc.do?type=IM-PRESS&reference=20080616FCS31737&language=EN</a>. Both accessed on 18 November 2010.

<sup>&</sup>lt;sup>62</sup> R. Youngs, (2009), *supra* note 16, p. 89. The new President of Russia became Dimitry Medvedev, former CEO of Gazprom. Vladimir Putin became Prime Minister. The close links between the Kremlin and Gazprom are seen as a cause for concern. See BBC News, 'Russia's energy giant flexes its muscles', 24 February 2008. Available at: <a href="http://news.bbc.co.uk/2/hi/business/7259407.stm">http://news.bbc.co.uk/2/hi/business/7259407.stm</a>. Accessed on 19 November 2010.

<sup>63</sup> Slovenian Presidency of the EU 2008, 'EU Council of Ministers approves mandate for negotiating new with framework Russian Federation'. agreement 26 May 2008. Available http://www.eu2008.si/en/News and Documents/Press Releases/May/0526MZZ GAERC Rusija.html; Joint Statement of the EU-Russia Summit on the launch of negotiations for a new EU-Russia agreement, Khanty-2008. Mansiysk, 27 June Available http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/101524.pdf. Both accessed on 19 November 2010.

<sup>&</sup>lt;sup>64</sup> R. Alcaro and E. Alessandri, (2010), *supra* note 43, p- 193; R. Youngs, (2009), *supra* note 16, p. 89; and A. Cooley, (2008), *supra* note 14, p. 1184.

<sup>&</sup>lt;sup>65</sup> COM(2008) 781 final, *supra* note 6, p. 3.

<sup>66</sup> BBC News, 'Russia may cut off Ukraine's gas', 24 December 2008. Available at: <a href="http://news.bbc.co.uk/2/hi/7799321.stm">http://news.bbc.co.uk/2/hi/7799321.stm</a>; BBC News, 'Russia-Ukraine gas row heats up', 31 December 2008. Available at: <a href="http://news.bbc.co.uk/2/hi/7805770.stm">http://news.bbc.co.uk/2/hi/7805770.stm</a>. Accessed on 19 November 2010.

<sup>&</sup>lt;sup>67</sup> BBC News, 'Russia shuts off gas to Ukraine', 1 January 2009. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/7806870.stm">http://news.bbc.co.uk/2/hi/europe/7806870.stm</a>. Accessed on 19 November 2010.

<sup>&</sup>lt;sup>68</sup> For a comprehensive overview of the crisis and the EU's attempts to resolve it, see S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10.

<sup>&</sup>lt;sup>69</sup> EUobserver, 'EU cannot trust Russia or Ukraine, Barroso says', 20 January 2009. Available at: <a href="http://euobserver.com/?aid=27442">http://euobserver.com/?aid=27442</a>. Accessed on 9 December 2010.

to the non respect by both partner countries of their contractual obligations [and it] calls on both parties to accept independent monitoring of the actual flows of gas through the pipelines."<sup>70</sup>

Following the crisis' resolution, Commission President Barroso called for the rapid development of infrastructure, diversification of energy sources and supply routes, and a revision of the 2004 Gas Directive.<sup>71</sup> A proposal to the latter's effect was put forward on 16 July 2009.<sup>72</sup>

In the remainder of 2009, the EU pressed hard to make diversification a reality in the (near future).<sup>73</sup> Noticeable progress was made with regard to the Southern Corridor<sup>74</sup> when, in May 2009, a high-level summit was organised by the Czech EU Presidency. The summit held in Prague saw the participation of the Presidents of Azerbaijan, Turkey, Georgia and Egypt – Kazakhstan and Turkmenistan were notably absent.<sup>75</sup> Importantly, Turkish President President Abdullah Gul signed a declaration promising to close an inter-governmental agreement (IGA) in June on building the Nabucco gas pipeline through his country.<sup>76</sup> Two months later, the IGA was signed by all four EU

<sup>&</sup>lt;sup>70</sup> EU Declaration on the Russia/Ukraine problem and energy security, Brussels, 8 January 2009, points 1 and 3. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=PRES/09/04&type=HTML">http://europa.eu/rapid/pressReleasesAction.do?reference=PRES/09/04&type=HTML</a>. Accessed on 19 November 2010.

<sup>&</sup>lt;sup>71</sup> José Manuel Barroso President of the European Commission. Statement of President Barroso on the resolution of the Ukraine-Russia Gas Dispute, Press Point, Doc. SPEECH/09/12, Brussels, 20 January 2009. Available

http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/12&format=HTML&aged=0&langua ge=EN&guiLanguage=en. See also Extraordinary Council meeting Transport, Telecommunications and Energy, Council conclusions, Brussels, 12 January 2009, p.2. Available at: http://register.consilium.europa.eu/pdf/en/09/st05/st05215.en09.pdf. Both accessed on 19 November 2010.

<sup>&</sup>lt;sup>72</sup> See COM(2009) 363 final of 16 July 2009.

<sup>&</sup>lt;sup>73</sup> In March 2009 former External Relations Commissioner Benita Ferrero-Waldner said the EU was seeking bilateral agreements on gas shipments with former Soviet countries, including Armenia, Azerbaijan, Moldova, Ukraine and Belarus. See Bloomberg, 'EU Seeks Gas Accords With Ex-Soviet States, Commissioner Says', 9 March 2009. Available at: <a href="http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aoON0rcc\_3ZY">http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aoON0rcc\_3ZY</a>. Accessed on 19 November 2010.

<sup>&</sup>lt;sup>74</sup> Several projects are identified as 'Southern Corridor' projects. Nabucco is a planned gas pipeline connecting the Caspian region, the Middle East and Egypt via Turkey, Bulgaria, Romania, and Hungary with Austria and further on with the Central and Western European gas markets, bypassing both Russia and Ukraine. The project enjoys EU support, stemming from its desire to diversify both in terms of suppliers and transit routes. Others include the Italy-Turkey-Greece Interconnector (ITGI) which aims to expand the Turkish national grid for transmitting natural gas to Italy and Turkey, build a pipeline between Turkey and Greece, and build a further pipeline between Greece and Italy. The pipeline between Turkey and Greece has by now been built and became operational in 2007. The TransAdriatic Pipeline (TAP) runs from Greece onshore all the way to the Adriatic Sea coast, crossing Albania, under the Adriatic Sea to Italy. The upstream part will connect with the above mentioned existing pipeline between Turkey and Greece and onwards to the BTE gas pipeline.

<sup>&</sup>lt;sup>75</sup> Declaration, Prague Summit, Southern Corridor, 8 May 2009, p. 6. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/misc/107598.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/misc/107598.pdf</a>. Accessed on 2 December 2010.

<sup>&</sup>lt;sup>76</sup> *Ibid.*, p.5. See also EUobserver, 'Turkey plays politics with EU pipeline scheme', 8 May 2009. Available at: <a href="http://euobserver.com/?aid=28095">http://euobserver.com/?aid=28095</a>. Accessed on 1 December 2010.

transit countries and Turkey, paving the way for its further development and construction (see also *infra*, 3.2.1; 4.3 and 4.6).<sup>77</sup>

To allow for better crisis management capabilities and a more rapid response, the EU and Russia reached agreement on strengthening the bilateral Early Warning Mechanism (EWM) in November 2009.<sup>78</sup> Towards the end of the year however, tensions between Ukraine and Russia rose once more.<sup>79</sup> A new crisis was eventually averted when Russian Prime Minister Putin and his Ukrainian counterpart agreed on a modification of transit terms.<sup>80</sup> The agreements nevertheless did not prevent tensions from flaring up with Belarus. Luckily for Europe, this time damage was modest.<sup>81</sup>

Elections held in Ukraine in February 2010 saw the era of the Orange Revolution come to and end and a return to the scene of former 'villain' – and pro Russian candidate – Viktor Yanukovych. It did

\_

<sup>77</sup> BBC News, 'Europe gas pipeline deal agreed', 13 July 2009. Available at: <a href="http://news.bbc.co.uk/2/hi/business/8147053.stm">http://news.bbc.co.uk/2/hi/business/8147053.stm</a>; See also: 'José Manuel Barroso President of the European Commission Signature of the Nabucco Intergovernmental Agreement', Ankara, 13 July 2009. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/339">http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/339</a>. Both accessed on 19 November 2010.

<sup>&</sup>lt;sup>78</sup> EU-Russia Energy Dialogue, the Tenth Progress Report, Moscow, November 2009, p. 10. Available at: http://ec.europa.eu/energy/international/russia/doc/reports/progress10 en.pdf. See also 'The EU and Russia reinforce the Early Warning Mechanism to improve prevention and management in case of an energy crisis', Brussels. 16 November Available http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1718; Euractiv, 'Russia and EU agree on supply alert mechanism', 16 November 2009. Available at: http://www.euractiv.com/en/energy/russia-euagree-gas-supply-alert-mechanism/article-187360?Ref=RSS. An agreement in principle on the EWM had been reached some two years earlier. See EU-Russia Energy Dialogue, Eighth Progress Report, Brussels/Moscow, October 2007, 3-4 and 6-7. Available pp. at: http://ec.europa.eu/energy/international/russia/doc/reports/progress8 en.pdf. All four accessed on 19 November 2010.

<sup>79</sup> See BBC News, 'Putin in new Ukraine gas warning', 30 October 2009. Available at: <a href="http://news.bbc.co.uk/2/hi/business/8335041.stm">http://news.bbc.co.uk/2/hi/business/8335041.stm</a>; Euractiv, 'Bulgaria fears new winter gas crisis', 18 November 2009. Available at: <a href="http://www.euractiv.com/en/energy/bulgaria-fears-new-winter-gas-crisis/article-187411?Ref=RSS">http://www.euractiv.com/en/energy/bulgaria-fears-new-winter-gas-crisis/article-187411?Ref=RSS</a>; and EUobserver, 'EU risks winter gas crunch despite Russia pact', 17 November 2009. Available at: <a href="http://euobserver.com/9/28999">http://euobserver.com/9/28999</a>. All three accessed on 19 November 2010.

80 See France 24, 'Putin says compromise gas deal reached with Ukraine', 20 November 2009. Available at: <a href="http://www.france24.com/en/20091120-russia-ukraine-putin-compromise-gas-deal-reached-energy-oil">http://www.france24.com/en/20091120-russia-ukraine-putin-compromise-gas-deal-reached-energy-oil</a>; Euractiv, 'Putin says Ukraine gas deals ensure supplies', 20 November 2009. Available at: <a href="http://www.euractiv.com/en/energy/putin-ukraine-gas-deals-ensure-supplies/article-187532?Ref=RSS">http://www.euractiv.com/en/energy/putin-ukraine-gas-deals-ensure-supplies/article-187532?Ref=RSS</a>; and BBC News, 'Russia agrees to ease Ukraine gas supply terms', 20 November 2009. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/8369705.stm">http://news.bbc.co.uk/2/hi/europe/8369705.stm</a>. All three accessed on 19 November 2010.

<sup>&</sup>lt;sup>81</sup> Euractiv, 'Russian oil flowing to EU despite Belarus dispute', 5 January 2010. Available at: <a href="http://www.euractiv.com/en/energy/russian-oil-flowing-eu-despite-belarus-dispute/article-188545">http://www.euractiv.com/en/energy/russian-oil-flowing-eu-despite-belarus-dispute/article-188545</a>. Accessed on 19 November 2010.

not take Kiev long to reassert its ties to Moscow, reaching a long awaited agreement over the extension of the lease for Russia's Black Sea fleet in exchange for cheaper gas.<sup>82</sup>

The following months witnessed a range of new initiatives. Former Commission President Jacques Delors – together with European Parliament (EP) President Jerzy Buzek – released a widely published call for a 'European Energy Community' in May 2010 (see *infra*, 4.7).<sup>83</sup> The EU-Russia summit sought to bring new life to the reform of Russia's energy sector and market and launched the EU-Russia 'Partnership for Modernisation'.<sup>84</sup> The Partnership aims to bring about a reform of the Russian economy and society, whereby expanding investment opportunities and the promotion of a sustainable and energy efficient low-carbon economy are some of its key priorities.<sup>85</sup>

Unfortunately, almost immediately after this successful summit another dispute with Belarus erupted.<sup>86</sup> The dispute caused a cut in supplies to EU Member State Lithuania, prompting the Commission to voice its strong concerns over the events – who called it an affront to the whole Union.<sup>87</sup> Negotiations on the new Gas Regulation subsequently intensified and it was approved by Parliament by mid September.<sup>88</sup>

\_\_\_

<sup>82</sup> BBC News, 'Ukraine's Yanukovych signals shift over Russia fleet', 5 March 2010. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/8550969.stm">http://news.bbc.co.uk/2/hi/europe/8550969.stm</a>; and BBC News, 'Ukraine extends Russia's Black Sea Fleet lease', 21 April 2010. Available at: <a href="http://news.bbc.co.uk/2/hi/8635345.stm">http://news.bbc.co.uk/2/hi/8635345.stm</a>. Both accessed on 19 November 2010.

<sup>83</sup> See President of the European Parliament, 'The Buzek and Delors Declaration on the creation of a European Energy Community'. Available at:

http://www.europarl.europa.eu/president/view/en/press/press\_release/2010/2010-May/press\_release-2010-May-4.html . Accessed on 19 November 2010; and S. Andoura, L. Hancher and M. van der Woude, (2010), 'Towards a European Energy Community: A Policy Proposal'. Paris: Notre Europe.

<sup>&</sup>lt;sup>84</sup> Joint Statement on the Partnership for Modernisation, EU-Russia Summit 31 May-1 June 2010, Rostov-on-Don, 1 June 2010. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/114747.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/114747.pdf</a>. Accessed on 19 November 2010.

<sup>85</sup> Ibid., p. 2.

<sup>&</sup>lt;sup>86</sup> EUobserver, 'Russia to cut supplies to Belarus', 21 June 2010. Available at: http://euobserver.com/9/30328. Accessed on 19 November 2010.

<sup>87</sup> Russia-Belarus gas dispute: Commission strongly concerned about gas cuts in Lithuania, Brussels, 23 June 2010.

Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/797&format=HTML&aged=0&language=E">http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/797&format=HTML&aged=0&language=E</a>

N&guil.anguage=en. See also Euractiv 'Russia-Belarus gas row leaves hitter aftertaste' 25 June 2010

<sup>&</sup>lt;u>N&guiLanguage=en.</u> See also Euractiv, 'Russia-Belarus gas row leaves bitter aftertaste', 25 June 2010. Available at: <a href="http://www.euractiv.com/en/russia-belarus-gas-row-leaves-bitter-aftertaste-news-495592">http://www.euractiv.com/en/russia-belarus-gas-row-leaves-bitter-aftertaste-news-495592</a>. Both accessed on 19 November 2010.

<sup>&</sup>lt;sup>88</sup> Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, OJ L 295 of 12 November 2010. See also Euractiv, 'Parliament approves rules to secure gas supply', 22 September 2010. Available at: <a href="http://www.euractiv.com/en/energy/parliament-approves-rules-secure-gas-supply-news-497983">http://www.euractiv.com/en/energy/parliament-approves-rules-secure-gas-supply-news-497983</a>. Accessed on 19 November 2010.

In late 2010, the Commission published its long awaited energy strategy towards  $2020.^{89}$  The  $\leq 1$  trillion Strategy proposes to pursue an external EU energy policy and was accompanied by a  $\leq 200$  billion plan laying out the EU's infrastructure priorities for the next decade. The plan identified four priority corridors in the electricity sector and three in the gas sector – none of which involve Russia.

2011 seemed to start without any signs of disturbance. However, on 1 January Gazprom stopped deliveries of crude oil to Belarus following a pricing dispute.<sup>92</sup> The row caused Belarus to halt diesel supplies to Europe and forge a two-year deal with Ukraine on transit through the Odessa-Brody pipeline, allowing Minsk to import alternative supplies of crude.<sup>93</sup> European distillates diesel prices subsequently rose to a 28-month high.<sup>94</sup> Some say the dispute arose because Belarus declined to sell some of its assets to Russia in exchange for cheap energy supplies. This view is contended in Moscow, as it claims it does not use energy as a leverage tool, but rather simply phases out energy subsidies to its neighbours.<sup>95</sup>

#### 3.1.1: The Current Status of EU-Russia Relations

The above overview demonstrated an EU-Russia relationship which has considerably evolved since the end of the Cold War. Today, relations can be described as tense, distrustful and antagonistic, causing it to be difficult to move beyond a lowest-common-denominator solution for key issues. How different were relations some twenty years ago, when the end of the Cold War prompted almost a decade of incremental rapprochement between Brussels and Moscow.

However, this convergence came to a halt in the late 1990s and subsequently worsened throughout the first five years of this century. It was during these years that a resurgent Russia, bolstered by

<sup>92</sup> The dispute did leave exports to Germany and Poland via the Druzhba pipeline unaffected however. See Euractiv, 'Russia-Belarus dispute cuts EU diesel supplies', 18 January 2011. Available at: <a href="http://www.euractiv.com/en/energy/russia-belarus-dispute-cuts-eu-diesel-supplies-news-501371?utm">http://www.euractiv.com/en/energy/russia-belarus-dispute-cuts-eu-diesel-supplies-news-501371?utm</a> source=EurActiv+Newsletter&utm campaign=6e86cec7d3-

my\_google\_analytics\_key&utm\_medium=email. Accessed on 19 January 2011.

<sup>89</sup> COM(2010) 639 final of 10 November 2010.

<sup>&</sup>lt;sup>90</sup> *Ibid.*, pp- 6-18; COM(2010) 677 final of 17 November 2010.

<sup>&</sup>lt;sup>91</sup> *Ibid.*, pp. 10-11.

<sup>&</sup>lt;sup>93</sup> Oil and Gas Insight, 'Diesel Exports Halted As Russian Crude Tax Dispute Drags On', January 2011. Available at: <a href="http://www.oilandgasinsight.com/file/95531/diesel-exports-halted-as-russian-crude-tax-dispute-drags-on.html">http://www.oilandgasinsight.com/file/95531/diesel-exports-halted-as-russian-crude-tax-dispute-drags-on.html</a>. Accessed on 19 January 2011.

<sup>&</sup>lt;sup>94</sup> Reuters, 'Europe Distillates-Diesel prices up on Belarus export problems', 17 January 2011. Available at: <a href="http://af.reuters.com/article/energy0ilNews/idAFLDE70G20U20110117">http://af.reuters.com/article/energy0ilNews/idAFLDE70G20U20110117</a>. Accessed on 19 January 2011.

<sup>&</sup>lt;sup>95</sup> Forexyard, 'Russia-Belarus dispute cuts diesel export to Europe-Update 1', 17 January 2011. Available at: <a href="http://www.forexyard.com/en/news/Russia-Belarus-dispute-cuts-diesel-export-to-Europe-2011-01-17T190314Z-UPDATE-1">http://www.forexyard.com/en/news/Russia-Belarus-dispute-cuts-diesel-export-to-Europe-2011-01-17T190314Z-UPDATE-1</a>. Accessed on 19 January 2011.

high international energy prices, became increasingly assertive in its bilateral relations and with respect to its position on the international political stage. This trend has caused EU-Russia relations to end up in a downward spiral, culminating in a series of high profile energy disputes over the last five years which continue all the way up to the present day.

As paragraph 3.1.1 has shown a number of times, and what is demonstrated more clearly in the next one, is that the EU's relations with Russia and the question of security of energy supply are intricately linked with the evolution of Brussels' and Moscow's ties to Central Asia.

#### 3.2: Central Asia

Initial cooperation between the EU and Central Asia was embedded in the Technical Aid to the Commonwealth of Independent States (TACIS) Programme, launched in 1991. Energy, energy efficiency and nuclear safety in particular were key components. 6 Cooperation took the form of advice to governments and industry, and training, but was faced with a lack of understanding and familiarity not only with the economic and social reform agenda, but also with technical assistance in general and the TACIS Programme in particular. 97

Early 1995, the TACIS Programme established the Interstate Oil and Gas Transport to Europe Project, which had as its objective to help the Newly Independent States (NIS) to take over and operate the oil and gas transmission systems of the Former Soviet Union (FSU); modernise them; and embed their functioning within a structure of a market oriented economy in compliance with international rules and standards.<sup>98</sup>

To foster regional cooperation, the initial phase of the project ended with a conference which brought together all relevant States and discussed regional oil and gas pipeline management issues.<sup>99</sup> The main objective of phase two of the project, which began late 1995, was to design a work programme that could be endorsed by all participating countries. General consensus was that priority should be given to the rehabilitation and modernisation of the region's gas transmission system and of oil and refined products, as well as the assessment of alternative options for energy

 $<sup>^{96}</sup>$  COM(93) 362 final of 28 July 1993, pp. 7, 9, 25-26. Initial funding was €115 million, *ibid*, p.7.

<sup>&</sup>lt;sup>97</sup> COM(95) 57 final of 23 March 1995, pp. 43-44; COM(93) 362 final, *supra* note 96, p. 34.

<sup>98</sup> Interstate Oil and Gas Pipeline Management, Final Report, p.2. Available at: <a href="http://www.inogate.org/inogate-programme/about-inogate/inogate-programme/inogate-projects/pre-2004-projects/interstate-oil-gas-pipeline-management">http://www.inogate.org/inogate-programme/about-inogate/inogate-projects/pre-2004-projects/interstate-oil-gas-pipeline-management</a>. Accessed on 28 November 2010.

99 *Ibid.*, p. 11.

transport from the Caspian to Western markets.<sup>100</sup> Subsequently, by late 1996, concrete projects were proposed, including *inter alia*, regional oil and gas rehabilitation projects, and a feasibility study of a TransCaspian pipeline (see also *infra*, 4.3). It was at this time also that the project became known under the acronym INOGATE, under which it would continue to exist for years after.<sup>101</sup>

It was not until the late 1990s that the EC had managed to conclude several PCAs in the region.<sup>102</sup> However, major difficulties were encoutered with Tajikistan and, especially Turkmenistan. Due to the Tajik civil war, negotiations on an agreement only started in 2003 and were completed in 2009. The PCA entered into force on 1 January 2010.<sup>103</sup>

With Turkmenistan, the Commission signed a PCA back in 1998, but grave concerns over Ashgabat's human rights record prevented ratification both in the European Parliament, as well as in most EU Member States.<sup>104</sup> To provide for a way out of the stalemate, an Interim Trade Agreement was proposed by the Commission and Council back in 1998, and eventually approved by the European Parliament over ten years later. Although approved, the decision came with strong reservations on Turkmenistan's human rights situation (see also *infra*, 4.4).<sup>105</sup>

After the 9/11 attacks, the context in which Central Asia was viewed had firmly altered the EU's interest in the region for counter-terrorist and Afghanistan related reasons (particularly, in

<sup>&</sup>lt;sup>100</sup> *Ibid.*, pp. 11-15.

<sup>&</sup>lt;sup>101</sup> *Ibid.*, pp. 17-18.

<sup>&</sup>lt;sup>102</sup> See Partnership and Cooperation Agreement between the European Communities and their Member States and the Republic of Kazakhstan, OJ L 196/3 of 28 July 1999; Partnership and Cooperation Agreement establishing a partnership between the European Communities and their Member States, of the one part, and the Republic of Uzbekistan, of the other part, OJ L 229 of 31 August 1999; and Partnership and Cooperation Agreement establishing a partnership between the European Communities and their Member States, of the one part, and the Kyrgyz Republic, of the other part, OJ L 196/48 of 28 July 1999.

<sup>&</sup>lt;sup>103</sup> Partnership and Cooperation Agreement establishing a partnership between the European Communities and their Member States, of the one part, and the Republic of Tajikistan, of the other part, OJ L 350/3 of 29 December 2009.

<sup>&</sup>lt;sup>104</sup> See COM(97) 693 final of 6 February 1998; interview with several officials from European Parliament Directorate-General External Policies, 5 March 2010. See also A. Warkotsch, (2009), *supra* note 19, p. 254; R. Youngs, (2009), *supra* note 16, p. 123; and S. Peyrouse, (2009a), 'Business and Trade Relationships between the EU and Central Asia'. EUCAM Working Paper 1, p. 5.

<sup>&</sup>lt;sup>105</sup> See European Parliament resolution of 22 April 2009 on the Interim Trade Agreement with Turkmenistan, P6\_TA(2009)0252, OJ C 184 E/20 of 8 July 2010; EUobserver, 'EU normalises relations with Turkmenistan', 22 April 2009. Available at: <a href="http://euobserver.com/?aid=27985">http://euobserver.com/?aid=27985</a>; and EUobserver, 'EU presidency defends credentials after Turkmenistan move', 30 July 2009. Available at: <a href="http://euobserver.com/?aid=28510">http://euobserver.com/?aid=28510</a>. Both accessed on 1 December 2010.

response to US operations in Afghanistan) had considerably risen.<sup>106</sup> Germany stationed a military base in Uzbekistan, and the UK participated in US-led military exercises in Central Asia.<sup>107</sup>

Although overall funding remained limited, the Commission's aid priorities over the period 2002-2006, increasingly showed an energy security focus. The goal was to ensure the development of transport and energy routes that link Central Asia with Europe and other neighbouring countries, as well as to promote the sustainable use of resources in the partner countries. Energy security was equally reflected at summit level where it featured increasingly prominent on the agenda's of various Cooperation Council meetings. However, this increase in attention was not met with an increase in visibility on the ground'. European diplomatic presence remained limited, with Germany being the only EU State with embassies in all the Central Asian States. Commission diplomatic presence remained equally negligible, with one small office in Almaty dealing with Kazakhstan, Kyrgyzstan and Tajikistan. 111

By 2003, energy security was increasingly entering the domain of, then Commissioner for External Relations, Ferrero-Waldner for whom it became an integral part of her work.<sup>112</sup> Furthermore,

<sup>&</sup>lt;sup>106</sup> See Council Conclusions of 17 October 2001 – Action by the European Union following the attacks in the United States of America, point 9, p. 2; 2397<sup>th</sup> General Affairs Council, Brussels, 10 December 2001, Central Asia – Conclusions, p. V; and M. Emerson et al. (2010), *Into Eurasia Monitoring the EU's Central Asia Strategy*, (Brussels/Madrid: CEPS/FRIDE), p. 9.

 $<sup>^{107}</sup>$  R. Youngs, (2009), *supra* note 16, p. 110; and A. Cohen, (2009a), *supra* note 16, p. 118. Youngs wonders that if security was the main priority, the EU's focus should rather have been on Tajikistan and Kyrgyzstan, rather than on the region's energy powerhouses.

<sup>&</sup>lt;sup>108</sup> R. Youngs, (2009), *supra* note 16, p.105.

 $<sup>^{109}</sup>$  EC Strategy Paper 2002-2006 and Indicative Programme 2002-2004 for Central Asia, *supra* note 18, pp. 18 and 21-22. See also COM(2003) 262 final/2 of 26 May 2003, p.12.

In See Fourth Meeting of the Cooperation Council Between the European Union and Uzbekistan, Brussels, 27 January 2003, p. 3. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/74259.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/74259.pdf</a>; Fifth Meeting of the Cooperation Council Between the European Union and Kazakhstan, Brussels, 22 July 2003, p. 2. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/76753.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/76753.pdf</a>; and Fifth Meeting of the Cooperation Councils Between the European Union, Armenia, Azerbaijan and Georgia, Brussels, 30 September 2003, p. 2. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/77424.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/77424.pdf</a>. All accessed on 29 November 2010.

<sup>&</sup>lt;sup>111</sup> R. Youngs, (2009), *supra* note 16, p. 104.

<sup>&</sup>lt;sup>112</sup> For a detailed overview, see C. Portela, (2007). 'Community Policies with a Security Agenda: The Worldview of Benita Ferrerro-Waldner'. European University Institute Working Paper 2007/10, pp. 6, 8, and 11. See also Benita Ferrero-Waldner, European Commissioner for External Relations and European Neighbourhood Policy, Opening Address, Conference: Towards an EU External Energy Policy to Assure a High Level Supply Security. Brussels. 20 November 2006. Available http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/710&format=HTML&aged=0&langu age=EN; Benita Ferrero-Waldner, European Commissioner for External Relations and European Neighbourhood Policy, European External Relations and Energy Policy: Towards an international energy strategy, EWI/F.A.Z. Energy conference, Cologne, 11. September 2007. Available

energy was incorporated into the European Neighbourhood Policy (ENP).<sup>113</sup> It was however, not until 2004 that the Southern Caucasus was considered for inclusion into the ENP in terms of the region's ability to supply the EU with new sources of energy from Central Asia and the Caspian region.<sup>114</sup>

Also in 2004, the EU launched the 'Baku Initiative' during the Energy Ministerial Conference held in Baku.<sup>115</sup> The initiative brought together the European Commission, the littoral States of the Caspian and Black Sea<sup>116</sup>, as well as their neighbours in one single framework with the aim to approximate legal and technical standards in the region; modernise infrastructure; and improve overall energy efficiency – all with a view to create a functioning integrated energy market in accordance with EU and international legal and regulatory standards.<sup>117</sup> The recipe was simple; the promotion of European investment in Caspian Sea/Central Asian States in return for their cooperation in supplying energy to the EU.<sup>118</sup>

In July 2005, the EU appointed its first Special Representative for Central Asia, whose job it was to promote democratic change as a formal and priority element of his mandate.<sup>119</sup> Within a few months of his appointment, a crisis broke out in Uzbekistan when government forces opened fire on demonstrators in Andijan (see *infra*, 4.4). The EU responded by partially suspending the PCA and

http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/517&type=HTML&aged=0&language=EN&guiLanguage=en. Both accessed on 29 November 2010.

<sup>114</sup> 2590<sup>th</sup> General Affairs and External Relations Council, Luxembourg, 14 June 2004, point 12, p. 13. Available

http://ec.europa.eu/delegations/georgia/documents/eu georgia/council decision on the inclusion of georgia armenia and azerbaijan in the enp.pdf. Accessed on 29 November 2010. See also COM(2004) 373 final of 12 May 2004, p. 17. The EU's new Member States, and the Baltic States in particular, played a key-role in advocating the inclusion of the Southern Caucasus in the ENP. See L. Jonavicius, (2008). 'The Democracy Promotion Policies of Central and Eastern European States'. FRIDE Working Paper 55, p. 8.

- Littoral States and their neighbouring countries. Available at: <a href="http://ec.europa.eu/dgs/energy transport/international/regional/caspian/doc/final energy conclusions en.pdf">http://ec.europa.eu/dgs/energy transport/international/regional/caspian/doc/final energy conclusions en.pdf</a>. Accessed on 29 November 2010.
- <sup>116</sup> Participants are Azerbaijan, Armenia, Bulgaria, Georgia, Iran (observer), Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation (observer), Romania, Tajikistan, Turkey, Ukraine and Uzbekistan. Given the high political tensions between some of these countries and the lack of a history of cooperation, this was heralded as a major achievement. Interview with official from European Commission DG External Relations, 30 September 2010.
- <sup>117</sup> Conclusions of the Ministerial Conference on Energy Co-operation, *supra* note 115, ANNEX I Concept Paper, p. 2.
- <sup>118</sup> G. Baghat, (2006), 'Europe's energy security: challenges and opportunities', *International Affairs 82*(5), p. 971.
- <sup>119</sup> Council Joint Action 2005/588/CFSP of 28 July 2005, OJ L 199/100 of 29 July 2005; R. Youngs, (2009), *supra* note 16, p. 111. Jan Kubis would however not finish his term. He was succeeded by Pierre Morel in October 2006. See Council Decision 2006/670/CFSP of 5 October 2006, OJ L 275/65.

<sup>&</sup>lt;sup>113</sup> COM(2003) 104 final of 11 March 2003, p. 13.

shelving a plan to open a Commission delegation. Also, at the time Uzbekistan was not offered an energy Memorandum of Understanding (MoU), like with Azerbaijan and Kazakhstan (see *infra*, this paragraph).<sup>120</sup>

Following the January 2006 crisis between Russia and Ukraine (see *supra*, 3.1.1), diversification skyrocketed onto the top of the European agenda.<sup>121</sup> By this time, it was acknowledged that if Central Asia had initially been the focus because of Afghanistan, it was now energy security that was driving a more fundamental reassessment of EU policy.<sup>122</sup>

In the remainder of 2006, Central Asia was the stage of many energy related developments. In April 2006, former Turkmen President Niyazov struck a deal to build to build an export pipeline to the east that would break Russia's monopoly on export routes for Turkmen gas (see also *infra*, this paragraph and 4.3).<sup>123</sup> One month later, the Baku-Tblisi-Ceyhan (BTC) Pipeline was opened as the first significant supply route into Europe that bypassed Russia. It was built to provide (Western) access to Caspian oil reserves – a project heavily pushed by Washington.<sup>124</sup> Also in May 2006, Azerbaijan and Kazakhstan signed an agreement to build a pipeline under the Caspian that would connect to the line flowing out of Baku.<sup>125</sup> By the end of the year, the Baku-Tblisi-Erzurum (BTE) or South Caucasus Pipeline – a natural gas pipeline that runs parallel to the BTC Pipeline – became operational, carrying gas from Azerbaijan to Turkey. Aware of the crucial roles played by Azerbaijan and Kazakhstan, the EU signed Memoranda of Understanding on energy cooperation with both countries and an ENP Action Plan with Azerbaijan in late 2006.<sup>126</sup> Harmonisation of

<sup>&</sup>lt;sup>120</sup> Council Common Position 2005/792/CFSP, OJ L 299/72 of 16 November 2005. See also R. Youngs, (2009), *supra* note 16, p. 121; A. Cohen, (2009a), *supra* note 16, p. 118; and A. Cooley, (2008), *supra* note 14, p. 1179-1180.

<sup>&</sup>lt;sup>121</sup> COM(2006) 105 final, *supra* note 52, pp. 4, 15 and 18. The Green Paper speaks of 'independent gas pipeline supplies from the Caspian region' as a good example of diversification; *ibid.*, p. 15.

<sup>&</sup>lt;sup>122</sup> R. Youngs, (2009), *supra* note 16, p. 105.

<sup>&</sup>lt;sup>123</sup> Radio Free Europe, 'Central Asia: Turkmenistan-China Pipeline Project Has Far-Reaching Implications', 10 April 2006. Available at: <a href="http://www.rferl.org/content/article/1067535.html">http://www.rferl.org/content/article/1067535.html</a>. Accessed on 30 November 2010

<sup>&</sup>lt;sup>124</sup> R. Youngs, (2009), *supra* note 16, p. 101; A. Goldthau, (2010), *supra* note 27, p.27.

<sup>&</sup>lt;sup>125</sup> R. Youngs, (2009), *supra* note 16, p. 102.

<sup>&</sup>lt;sup>126</sup> See Memorandum of Understanding on co-operation in the field of energy between the European Union the Republic of Kazakhstan. Available at: http://ec.europa.eu/energy/international/international cooperation/doc/mou kazakshtan en.pdf; and Memorandum of Understanding on a strategic partnership between the European Union and the Republic of the field Azerbaijan in of energy. Available at: http://ec.europa.eu/energy/international/international\_cooperation/doc/mou\_azerbaijan\_en.pdf; and Plan. Available EU/Azerbaijan Action http://ec.europa.eu/environment/enlarg/pdf/enp action plan azerbaijan.pdf. All accessed on 30 November 2010.

legislation and technical standards in the electricity and gas markets played a key-role in all three agreements.<sup>127</sup>

In December 2006, the sudden death of Turkmen President Niyazov sparked hopes of democratic change.<sup>128</sup> However, subsequent elections proved undemocratic and saw former health minister Gurbanguly Berdymukhammedov get sworn in as the country's new President.<sup>129</sup> Europe kept largely quiet about the outcome, hoping that the new regime would be more willing to cooperate on energy matters.<sup>130</sup> However, Turkmenistan remained keen to not upset Russia and did not deliver any positive signals on supporting an eventual TransCaspian Pipeline (see also *infra*, 4.3).<sup>131</sup>

The German Council Presidency during the first half of 2007 declared Central Asia as a top priority and set out to work on a new Strategy for the region.<sup>132</sup> The Strategy, which was adopted at the June 2007 European Council<sup>133</sup>, states the development and consolidation of stable, just and open societies, adhering to international norms, are an essential precondition to bring the partnership between the EU and Central Asia to full fruition.<sup>134</sup> Energy security is framed as an aspect of global security, to which EU and Central Asian efforts would contribute through their common interest in diversifying export routes, demand and supply structures and energy sources.<sup>135</sup> The Strategy is supported by the Commission's assistance programme for 2007-2013. It possesses double the level

<sup>&</sup>lt;sup>127</sup> See MoU Azerbaijan, p. 6 and MoU Kazakhstan, p. 2, *supra* note 126.

<sup>&</sup>lt;sup>128</sup> EUobserver, 'EU hopes Turkmen leader's death will bring change', 21 December 2006. Available at: <a href="http://euobserver.com/?aid=23162">http://euobserver.com/?aid=23162</a>. Accessed on 1 December 2010.

<sup>&</sup>lt;sup>129</sup> EUobserver, 'EU to beef up diplomatic corps in Central Asia', 6 February 2007. Available at: <a href="http://euobserver.com/?aid=23430">http://euobserver.com/?aid=23430</a>. Accessed on 1 December 2010; and International Crisis Group, Asia Briefing 60, Bishkek/Brussels, 12 February 2007, p.1.

<sup>&</sup>lt;sup>130</sup> R. Youngs, (2009), *supra* note 16, p. 123.

<sup>&</sup>lt;sup>131</sup> International Crisis Group, *supra* note 129, pp. 14-15.

<sup>&</sup>lt;sup>132</sup> *Ibid.*, p. 106; and A. Cooley (2008), *supra* note 14, p. 1181. See also, Euractiv, 'EU outlines new Central Asia Strategy', 24 April 2007. Available at: <a href="http://www.euractiv.com/en/enlargement/eu-outlines-new-central-asia-strategy/article-163327">http://www.euractiv.com/en/enlargement/eu-outlines-new-central-asia-strategy/article-163327</a>. Accessed on 1 December 2010. EU States were also opening up new embassies in Central Asia around this time to be able to compete better with Russian and Chinese presence in the region. See, EUobserver, 'EU to beef up diplomatic corps in Central Asia', *supra* note 129.

<sup>&</sup>lt;sup>133</sup> Brussels European Council, 21-22 June 2007, Presidency Conclusions, point 47, p.12. Available at: <a href="http://www.consilium.europa.eu/ueDocs/cms">http://www.consilium.europa.eu/ueDocs/cms</a> Data/docs/pressData/en/ec/94932.pdf. Accessed on 1 December 2010.

<sup>&</sup>lt;sup>134</sup> European Union and Central Asia: Strategy for a New Partnership, p. 5. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms">http://www.consilium.europa.eu/uedocs/cms</a> data/librairie/PDF/EU CtrlAsia EN-RU.pdf. Accessed on 1 December 2010.

<sup>&</sup>lt;sup>135</sup> *Ibid.*, p. 18.

of financial backing compared to the previous period; a total budget of €750 million, 30% of which is spent on facilitating closer inter-State cooperation in the region, including on energy.<sup>136</sup>

Several months after the Strategy's release, Russia – possibly as a result of the EU's heightened interest in the region – offered to increase the prices it paid for Turkmen gas by 30% in return for Ashgabat's assurance of a Gazprom monopoly in the foreseeable future.<sup>137</sup> The deal was accompanied by a second one which foresaw the construction of a Caspian littoral pipeline through Russia – undercutting the prospects of a TransCaspian Pipeline (see also *infra*, 4.3).<sup>138</sup> Furthermore, in December 2007, Russia signed a deal with Kazakhstan, ensuring that Kazakh gas exports to Western Europe would continue to flow through the restored Central Asia-Center (CAC) Pipeline System, a route from Turkmenistan through Kazakhstan to Russia.<sup>139</sup>

One year after its adoption, the EU released a progress report on the implementation of the Central Asia Strategy. The report notes that since its adoption, several high-level visits to the region have taken place and numerous meetings were held. It further mentions the intensifying dialogue within the Baku Initiative and heralds the MoU signed with Turkmenistan in May 2008. However, despite the EU's considerable efforts, the prospect of Central Asian gas reaching Europe in pipelines that bypass Russia had by no means risen.

Within the EU, the August 2008 conflict in Georgia had cast doubts on the Nabucco project, prompting the September 2008 EU-Central Asian Ministerial Meeting in Paris to deal firmly with

<sup>&</sup>lt;sup>136</sup> *Ibid.*, p. 28. See also N. Melvin and J. Boonstra, (2008), 'The EU Strategy for Central Asia @ Year One'. EUCAM Policy Brief 1, p. 2.

<sup>&</sup>lt;sup>137</sup> R. Youngs, (2009), *supra* note 16, p. 124; A. Cooley, (2008), *supra* note 14, p. 1183; and K. Barysch, (2010), 'Should the Nabucco pipeline project be shelved?'. Centre for European Reform Policy Brief, p. 7.

<sup>&</sup>lt;sup>138</sup> R. Youngs, (2009), *supra* note 16, p. 124.

<sup>&</sup>lt;sup>139</sup> A. Goldthau, (2010), *supra* note 27, p. 35.

<sup>&</sup>lt;sup>140</sup> Joint Progress Report by the Council and the European Commission to the European Council on the implementation of the EU Central Asia Strategy, 24 June 2008, p. 2-5. Available at: <a href="http://www.eeas.europa.eu/central\_asia/docs/progress\_report\_0609\_en.pdf">http://www.eeas.europa.eu/central\_asia/docs/progress\_report\_0609\_en.pdf</a>. Accessed on 1 December 2010.

<sup>141</sup> *Ibid.*, p. 9; and Memorandum of Understanding and Co-operation in the field of Energy between the European Union and Turkmenistan, 26 May 2008. Available at: <a href="http://ec.europa.eu/energy/international/international cooperation/doc/mou\_turkmenistan.pdf">http://ec.europa.eu/energy/international/international cooperation/doc/mou\_turkmenistan.pdf</a>. Accessed on 1 December 2010.

<sup>&</sup>lt;sup>142</sup> One achievement was that in the framework of the MoU, Turkmenistan announced it would be willing to supply 10 billion cubic metres (bcm) of gas for Nabucco. Nevertheless, doubts remained as to whether this consisted of gas that Turkmenistan had already sold to Russia, and whether Turkmenistan could supply such volumes at all, given ongoing commitments. See R. Youngs, (2009), *supra* note 16, p. 124; A. Cooley, (2008), *supra* note 14, p. 1182; K. Barysch, (2010), *supra* note 137, p. 7; J. Boonstra, (2010). 'The EU-Turkmenistan energy relationship: difficulty or opportunity?'. EDC 2020 Policy Brief, p. 2; Euractiv, 'Expert: Turkmenistan is unreliable partner for Nabucco', 19 May 2010. Available at: <a href="http://www.euractiv.com/en/energy/expert-turkmenistan-unreliable-partner-nabucco-interview-494342">http://www.euractiv.com/en/energy/expert-turkmenistan-unreliable-partner-nabucco-interview-494342</a>. Accessed on 2 December 2010.

energy security – human rights and democratisation once again having been put on the back burner.<sup>143</sup> The Second Strategic Energy Review subsequently called more strongly for source and route diversification; a Southern Gas Corridor from the Caspian and Middle East to Europe; and the exploration of a possible block purchasing mechanism for Caspian gas dubbed the Caspian Development Corporation (see *infra*, 4.6).<sup>144</sup>

The January 2009 gas crisis (see *supra*, 3.1.1) only served to further reinforce belief within the EU that diversification was an absolute necessity. In April 2009, German Nabucco shareholder RWE claimed it had signed a MoU with Ashgabat to develop Turkmen offshore gas resources. However, this act was later downplayed by the Turkmen government who merely claimed to have "expressed confidence in the successful building of a mutually beneficial partnership". Meanwhile, Russia managed to secure the commitment of several EU Member States to its South Stream project and had gained access to the vital gas fields of Azerbaijan – seen by many as the only readily available source of gas for Nabucco (see also *infra*, 4.3). 148

<sup>&</sup>lt;sup>143</sup> EUobserver, 'Human rights take back seat at EU-Central Asia talks', 19 September 2008. Available at: <a href="http://euobserver.com/9/26778">http://euobserver.com/9/26778</a>. Note that some months later former French Foreign Minister Kouchner, who's country held the Presidency at the time, remarked that "there is a permanent contradiction between human rights and foreign policy of a country". See EUobserver, 'France distances itself from Kouchner human rights remarks', 11 December 2008. Available at: <a href="http://euobserver.com/?aid=27284">http://euobserver.com/?aid=27284</a>. Both accessed on 1 December 2010.

<sup>&</sup>lt;sup>144</sup> COM(2008) 781 final, *supra* note 6, p. 3.

EUobserver, 'Czechs finalise line-up for EU energy summit', 21 April 2009. Available at: <a href="http://euobserver.com/?aid=27975">http://euobserver.com/?aid=27975</a>. Accessed on 2 December 2010.

<sup>&</sup>lt;sup>146</sup> European Dialogue, 'Turkmenistan postpones signing agreement on gas supply to Nabucco', 7 May 2010. Available at: <a href="http://eurodialogue.org/energy-security/Turkmenistan-postpones-signing-agreement-on-gas-supply-to-Nabucco">http://eurodialogue.org/energy-security/Turkmenistan-postpones-signing-agreement-on-gas-supply-to-Nabucco</a>. Accessed on 2 December 2010. See also K. Barysch, (2010), *supra* note 137, p. 7. A lack of clarity concerning Turkmenistan's current and future commitments is a recurrent problem. In October 2010, Ashgabat claimed it had the capacity to almost quadruple its exports. However, such claims are often unsubstantiated. See Euractiv, 'Turkmenistan claims 'huge gas reserves' to supply Europe, 1 October 2010. Available at: <a href="http://www.euractiv.com/en/energy/turkmenistan-claims-huge-gas-reserves-supply-europe-news-498347">http://www.euractiv.com/en/energy/turkmenistan-claims-huge-gas-reserves-supply-europe-news-498347</a>. Accessed on 2 December 2010.

 $<sup>^{147}</sup>$  South Stream is a proposed gas pipeline to transport Russian natural gas to the Black Sea to Bulgaria and further to Italy and Austria. It is commonly viewed as a competitor to Nabucco.

<sup>&</sup>lt;sup>148</sup> See Euractiv, 'Russia wins Hungary's support for South Stream pipeline', 11 March 2009. Available at: http://www.euractiv.com/en/energy/russia-wins-hungary-support-south-stream-pipeline/article-180126; Euractiv, 'Putin and Berlusconi seal 'South Stream' pipeline deal, 18 May 2009. Available at: http://www.euractiv.com/en/energy/putin-berlusconi-seal-south-stream-pipeline-deal/article-182435; and Euractiv, 'Russia adds final pieces to 'South Stream' puzzle', 25 May 2009. Available at: http://www.euractiv.com/en/energy/russia-adds-final-pieces-south-stream-puzzle/article-182594; and News. 'Gazprom Azerbaijan deal'. 29 Iune 2009. in gas http://news.bbc.co.uk/2/hi/8124809.stm. All accessed on 2 December 2010. See also K. Barysch, (2010), supra note 137, p. 6; R. Youngs, (2009), supra note 16, p. 113; and The Quaker Council for European Affairs, (2009), The Nabucco Gas Pipeline: A chance for the EU to push for change in Turkmenistan, (Quaker Council for European Affairs: Brussels), p. 8.

Some months thereafter, Nabucco gained a significant boost through the signing of the Nabucco IGA (see *supra*, 3.1). Notwithstanding this initial success, it remains unclear how much gas Turkey will be able to take from the pipeline, as this matter was left out of the Agreement. More important however is that it is still unclear with which gas Nabucco will be filled and along which route it will be transited (see also *infra*, 4.3). 150

The end of 2009 again made clear that Russia and China booked steady progress in the region, illustrated by France's decision to join South Stream, and the opening up of a direct pipeline between Turkmenistan and China (see also, *infra*, 4.3).<sup>151</sup> By comparison, Europe – through its Southern Corridor initiative – remained markedly inactive.<sup>152</sup>

By March 2010, the Nabucco IGA had been ratified by all parties, thus putting the legal framework for the pipeline in place. Two months later, Turkey and Azerbaijan reached agreement on an annual shipment of 11 billion cubic meters (bcm) of Azeri gas to Turkey by 2017. The deal sparked hopes within the EU that some of the gas would feed into the Southern Corridor. That this was by no means certain was, *inter alia*, illustrated by the growing internal competition between Southern

\_

<sup>&</sup>lt;sup>149</sup> BBC News, 'Europe gas pipeline deal agreed', supra note 77; B. Vermeulen, (2009), 'Pijpleiding Nabucco bliift ondanks politieke wil', NRC Handelsblad, July 2009. Available leeg 13 http://www.nrc.nl/economie/article2299086.ece/Pijpleiding Nabucco blijft leeg ondanks politieke wil; and T. Vogel, (2009) 'Turkey to sign up to Nabucco', European Voice, 3 July 2009. Available at: http://www.europeanvoice.com/article/2009/07/turkey-to-sign-up-to-nabucco/65411.aspx. Both accessed on 2 December 2010.

<sup>&</sup>lt;sup>150</sup> B. Vermeulen, (2009), *supra* note 149; K. Barysch, (2010), *supra* note 137, pp. 1 and 3; and The Quaker Council for European Affairs, (2009), *supra* note 148, p. 8.

Euractiv, 'France joins South Stream gas pipeline', 1 December 2009. Available at: <a href="http://www.euractiv.com/en/energy/france-joins-south-stream-gas-pipeline/article-187830">http://www.euractiv.com/en/energy/france-joins-south-stream-gas-pipeline/article-187830</a>. Earlier, France had joined the Russian Nord Stream project in March 2010 after a controversial deal involving the sale of French warships to Russia. See EUobserver, 'France and Russia forge alliance with gas, warship deals', 2 March 2010. Available at: <a href="http://euobserver.com/9/29587">http://euobserver.com/9/29587</a>. It is thought that France's bid to join South and Nord Stream had much to do with Turkey's opposition to GDF joining Nabucco in 2008, after the French Parliament adopted a resolution about the Armenian 'genocide'. See O. Coskun, (2008), 'Turkey opposes GDF in Nabucco', Reuters, 6 February 2008. Available at: <a href="http://in.reuters.com/article/idINL0630081720080206">http://in.reuters.com/article/idINL0630081720080206</a>; and K. Barysch, (2010), \*supra\* note 137, p. 3. The Turkmenistan-China Pipeline carries Turkmen gas all the way across Uzbekistan and Kazakhstan to China's Xinjiang Province. See EUobserver, 'China beats EU in race for Turkmen gas', 15 December 2009. Available at: <a href="http://euobserver.com/884/29158">http://euobserver.com/884/29158</a>. All accessed on 1 December 2010; and K. Barysch, (2010), \*supra\* note 137, p. 8.

<sup>&</sup>lt;sup>152</sup> A. Petersen, (2009), 'The Caspian Comes to Europe', 12 October 2009. Available at: <a href="http://blogs.euobserver.com/petersen/2009/10/12/the-caspian-comes-to-europe/">http://blogs.euobserver.com/petersen/2009/10/12/the-caspian-comes-to-europe/</a>. Accessed on 2 December 2010.

<sup>&</sup>lt;sup>153</sup> Euractiv, 'Turkey's gas deal with Azerbaijan fuels hopes in EU', 17 May 2010. Available at: <a href="http://www.euractiv.com/en/energy/turkey-s-gas-deal-azerbaijan-fuels-hopes-eu-news-494198">http://www.euractiv.com/en/energy/turkey-s-gas-deal-azerbaijan-fuels-hopes-eu-news-494198</a>; Euractiv, 'Turkey brokers key gas supply deals for Nabucco', 8 June 2010. Available at: <a href="http://www.euractiv.com/en/energy/turkey-brokers-key-gas-supply-deals-nabucco-news-494988">http://www.euractiv.com/en/energy/turkey-brokers-key-gas-supply-deals-nabucco-news-494988</a>. Both accessed on 2 December 2010.

Corridor projects themselves and the postponement of the final investment call on Azerbaijan's giant Shah-Deniz II gas field to late 2011 (see *infra*, 4.3).<sup>154</sup>

Finally, at a regional security meeting in November 2010 Caspian States' leaders signed an agreement on security cooperation, which included a statement reaffirming their intention to sign a convention establishing a new legal status for the Caspian Sea.<sup>155</sup> If agreed, such a convention could pave the way for the construction of a TransCaspian pipeline that could feed Kazakh and Turkmen gas into the Southern Corridor (see *infra*, 4.3).

#### 3.2.1: The Current Status of EU-Central Asia Relations

The above overview demonstrated an EU-Central Asian relationship which, in the early 1990s, was characterised by a predominantly development oriented engagement on part of the EU. This relationship started to change towards the end of the 1990s and early 2000s when, heavily influenced by perceived energy insecurities and concerns over instability in nearby countries, Brussels started to take a heightened interest in the region.

Events such as the frequent interruptions in gas transit between Russia and Ukraine, the war in Afghanistan, and the 2008 conflict in Georgia have all contributed to an increase of European engagement in Central Asia. The EU's efforts have met with mixed success in terms of securing energy supplies however, and growing criticism over the apparent lack of a sufficient connection with its human rights policies. The key-question therefore is whether the EU can succeed in diversifying its energy supply, yet not drift away from the core democratic values that underpin the Union's existence.

What paragraph 3.2.1 also demonstrated are the links between the evolution of the EU's energy relations with Central Asia and those with Russia. Equally clear is that beyond the presence of the Union and Russia, China is increasingly manifesting itself in Central Asia in order to meet its energy needs. As Brussels cannot prevent Beijing from doing so, the prospects for mitigating Chinese

The Trans-Adriatic-Pipeline (TAP) linking Greece to Italy appears to be competing with the Italy-Greece-Turkey-Interconnector (ITGI) for the upstream section of Nabucco as both seem to have their mind set on Azeri gas. See Euractiv, 'EU 'southern gas corridor' getting crowded', 21 May 2010. Available at: <a href="http://www.euractiv.com/en/energy/eu-southern-gas-corridor-getting-crowded-news-494430">http://www.euractiv.com/en/energy/eu-southern-gas-corridor-getting-crowded-news-494430</a>; and Euractiv, 'Adriatic pipeline to tap into Azeri gas', 15 September 2010. Available at: <a href="http://www.euractiv.com/en/energy/adriatic-pipeline-tap-azeri-gas-news-497811">http://www.euractiv.com/en/energy/adriatic-pipeline-tap-azeri-gas-news-497811</a>. Both accessed on 2 December 2010. See also S. de Jong, (2011), 'The Nabucco Pipeline: Turkey and Europe's Drive towards Diversification', *REVOLVE Magazine* Summer Issue, Turkey Report, pp. 26-27.

<sup>&</sup>lt;sup>155</sup> European Dialogue, 'Caspian States' Leaders Seal Security Deal', 22 November 2010. Available at: <a href="http://eurodialogue.org/energy-security/Caspian-States-Leaders-Seal-Security-Deal">http://eurodialogue.org/energy-security/Caspian-States-Leaders-Seal-Security-Deal</a>. Accessed on 2 December 2010.

energy demand should thus be sought within China itself. In this light, the next paragraph conducts a similar analysis with the aim of demonstrating the origins and evolution of EU-China energy relations.

#### 3.3: China

The Commission was keen to point out early on that for the EC to have the greatest possible impact, its contribution would best be geared towards environmental policymaking and technology, including clean energy technology. A partnership to that effect was cemented in 1999 through the bilateral Science and Technology Agreement which became the permanent legal basis for cooperation in the area of energy technology.

However, at this stage it still took a number of years for cooperation to go beyond more 'loose forms' of working together and a general perception of the need to strengthen cooperation. The first two bilateral EU-China summits of 1998 and 1999 had laid the groundwork for a more broadly based political dialogue. Thereafter, the frequency of meetings and dialogues intensified on a number of areas, including energy. 160

Already by then, it was clear that China's economic growth remained firmly linked with an increase in energy demand and a subsequent stark rise in CO<sup>2</sup> emissions (see *infra*, this paragraph).<sup>161</sup> It is not until China is able to make the transition from an investment driven economic growth model, towards one driven by productivity that this is likely to change.<sup>162</sup> To satisfy its demand, Chinese National Oil Companies (NOCs) increasingly looked beyond borders, even if this implied accessing regions which were politically and geologically more challenging; including countries where the

<sup>&</sup>lt;sup>156</sup> COM(95) 279 final, *supra* note 22, p. 15.

<sup>&</sup>lt;sup>157</sup> Agreement for Scientific and Technological Cooperation between the European Community and the Government of the People's Republic of China, OJ L 6/40 of 11 January 2000.

<sup>&</sup>lt;sup>158</sup> Interview with official of the European Commission DG Energy, May 2010.

<sup>&</sup>lt;sup>159</sup> Interview with official of the European Commission DG Energy, 25 May 2010.

<sup>&</sup>lt;sup>160</sup> COM(2000) 552 final of 8 September 2000, p. 2.

<sup>&</sup>lt;sup>161</sup> Unlike fully industrialised nations, China has not yet decoupled economic growth from energy consumption. See A. Goldthau, (2010), *supra* note 27, p. 28. Moreover, China's long subsidising of domestic energy consumption has led China to consume up to five times as much energy to produce each dollar of economic output. See F. Umbach, (2009), 'EU-China energy relations and geopolitics: Challenges for cooperation', *International Institute for Asian Studies Newsletter 51*, p. 27.

<sup>&</sup>lt;sup>162</sup> Interview with official of the World Bank in the margin of the EU-China Energy Conference, Shanghai, 7 July 2010. See also F. Wang, H. Yin, and S. Li, (2009), 'China's renewable energy policy: Commitments and challenges', *Energy Policy 38*(4), p. 1872.

activities of International Oil Companies (IOCs) are legally restricted or politically unfeasible, such as Sudan, Myanmar, Iran and Central Asia. 163

Although, both Asia and Europe seemed to acknowledge the need to reconcile economic growth with sustainable development<sup>164</sup>, the trend of increased energy demand in Asia was set to grow continuously. The impact thereof on EU energy security and the need for adequate mitigation had not gone unnoticed within Brussels.

In 2000, the European Commission expressed its concerns over the energy choices made by developing countries – China and India in particular – arguing it is necessary for agreements with these nations to take the aspect of security of energy supply into account.<sup>165</sup> Furthermore, it also noted that this trend could be reduced, by international efforts to promote renewable energy and energy efficiency.<sup>166</sup>

Shortly thereafter the Chinese government released its 10<sup>th</sup> Five-Year-Plan<sup>167</sup>, which publicly introduced the term 'energy security' in China. Major measures included, *inter alia*, the development of clean coal; accelerating the prospecting, development and use of oil and gas; the active use of overseas oil and gas resources through co-operative development and other channels; to promote the construction of a nationally unified power transmission network; developing new sources of energy and renewable energies<sup>168</sup>; and to spread energy-saving technologies.<sup>169</sup>

on 2 November 2010.

<sup>&</sup>lt;sup>163</sup> A. Goldthau, (2010), *supra* note 27, p. 30; and Howell, S. (2009), *supra* note 21, pp. 192 and 198-199.

Chairman's Statement of the Third Asia-Europe Meeting, Seoul, 20-21 October 2000, point 9 second para. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms">http://www.consilium.europa.eu/uedocs/cms</a> data/docs/pressdata/en/er/Chairmans.doc.html. Accessed

<sup>&</sup>lt;sup>165</sup> COM(2000) 769 final, *supra* note 34, p. 27. Moreover, the size of China's energy sector renders the country's energy policy and its potential impact on the world scene a matter of great international importance, particularly for air pollution and climate change. Transfer of EU environmental knowledge, skills and technologies are imperative if China is to achieve sustainable patterns of production and consumption. See COM(2001) 265 final, *supra* note 4, p. 13.

<sup>166</sup> Ihid

<sup>&</sup>lt;sup>167</sup> The Five-Year-Plans of China are a series of economic development initiatives. For an overview of the 10<sup>th</sup> Five-Year-Plan see Premier Zhu Rongji's Explanation of 10th Five-Year Plan Drafting. Available at: <a href="http://chinagate.cn/english/e-plan/index.htm">http://chinagate.cn/english/e-plan/index.htm</a>; and Chinese Government's Official Web Portal, 'The 10<sup>th</sup> Five-Year Plan (2001-2005). Available at: <a href="http://www.gov.cn/english/2006-04/05/content-245624.htm">http://www.gov.cn/english/2006-04/05/content-245624.htm</a>. Both accessed on 2 November 2010. Also see Commission Working Document, 'Country Strategy Paper on China 2002-2006, pp. 8-9.

<sup>&</sup>lt;sup>168</sup> The Plan speaks of a Chinese desire to build large wind farms in areas with proper conditions, invite international tenders, and develop large wind farm pilot projects. US Department of Energy National Renewable Energy Laboratory, (2004), 'Renewable Energy in China: China's Plan for Renewable Energy, p. 2. Available at: <a href="http://www.nrel.gov/docs/fy04osti/35787.pdf">http://www.nrel.gov/docs/fy04osti/35787.pdf</a>. Accessed on 2 November 2010.

Although, the plan did not set forth specific development objectives, nor contained any quantitative targets; it is clear there was an at least partial focus on renewable energy, with the concept of sustainable development playing a key role.<sup>170</sup>

The September 2001 EU-China summit held shortly after the plan's release made no mention of it, nor did it include any mutual recognition of the need to mitigate China's energy and environmental impact. It merely spoke of the importance to strengthen sectoral dialogues on the environment and energy.<sup>171</sup> Interviewees indicated that this lack of public statements concerning energy and environment cooperation was largely due to the difficult start of cooperation, differences of opinion on energy security policy, and on how to mitigate China's environmental impact.<sup>172</sup>

In its 2002-2006 Strategy Paper on China the European Commission carefully spoke about possible support for the integration of EU technical standards in China in the areas of energy and environment.¹¹³ Promoting energy efficiency, and the transfer of energy technologies, e.g. clean coal; natural gas; nuclear fission; and alternative energy technologies, notably in the fields of new and renewable energies; were marked as top priorities.¹¹⁴ However, these priorities were not translated into an equally ambitious financial contribution. The €15 million of EC funding which was earmarked seemed to fall well short of establishing this objective.¹¹⁵ Perhaps, it is telling in this regard that the fifth EU-China summit, in fact, did not mention energy at all.¹¹⁶

By way of contrast, at the end of 2002, China had finished its '21st Century Oil Strategy'.<sup>177</sup> It consisted of a US \$100 billion programme with a variety of domestic and international components. The plan envisaged the creation of joint ventures overseas<sup>178</sup>, the instalment of strategic oil

<sup>&</sup>lt;sup>169</sup> Premier Zhu Rongji's Explanation of 10th Five-Year Plan Drafting, *supra* note 167.

<sup>&</sup>lt;sup>170</sup> US Department of Energy National Renewable Energy Laboratory, (2004), *supra* note 168, p. 1; Country Strategy Paper on China 2002-2006, *supra* note 167, p. 8.

<sup>&</sup>lt;sup>171</sup> Joint Press Statement Fourth EU-China Summit, Brussels, 5 September 2001. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/ACF28D9.html">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/ACF28D9.html</a>. Accessed on 2 November 2010.

<sup>&</sup>lt;sup>172</sup> Interview with official of the European Commission DG Energy, 25 May 2010; interview with official of the European Commission DG External Relations, 23 June 2010.

<sup>&</sup>lt;sup>173</sup> Country Strategy Paper on China 2002-2006, *supra* note 167, p. 26.

<sup>&</sup>lt;sup>174</sup> *Ibid.*, pp 27-28.

<sup>&</sup>lt;sup>175</sup> *Ibid.*, p. 18. Note that the European Commission itself seemed aware of the limited funding, p. 27.

<sup>&</sup>lt;sup>176</sup> The Statement only refers to a reaffirmed commitment to environmental issues on part of the leaders. See Joint Press Statement Fifth EU-China Summit, Copenhagen, 24 September 2002. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/72250.pdf">http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/72250.pdf</a>. Accessed on 2 November 2010.

<sup>&</sup>lt;sup>177</sup> See S. Howell, (2009), *supra* note 21, p. 193.

<sup>&</sup>lt;sup>178</sup> The Strategy's main priority lay squarely with securing new energy resources abroad. See B.W. Marcois, (2005), 'China, U.S. interests conflict', *The Washington Times* March 24, 2005. Available at:

reserves, the development of increased oil shipping capacity, and the strengthening of a navy and air force capable of protecting China's marine resources and energy supplies.<sup>179</sup> The degree of securitisation stemming from these plans and the sheer size of the available budget made clear that China's intentions were more than serious.<sup>180</sup>

In 2003, the EU and China initiated their vice-minister level Environmental Dialogue, which coincided with the launch of the five-year long Energy and Environment Program (EEP) $^{181}$  – a  $\leq$ 45 million co-financed project. $^{182}$  The Program aimed, *inter alia*, to foster cooperation between Chinese and EU industries in China's energy market, to ensure sustainable development in line with international objectives (in particular in the context of climate change), as well as to promote new technologies by funding feasibility studies in China. $^{183}$  Between 2004 and 2008, 26 workshops and

 $\frac{\text{http://www.washingtontimes.com/news/2005/mar/24/20050324-075950-4488r/?page=1.}}{\text{November 2010.}} \text{ Accessed on 3 }$ 

<sup>179</sup> G. Christoffersen, (2004). 'Angarsk as a Challenge for the East Asian Energy Community'. Paper presented at the conference on 'Northeastern Asian Security: Traditional and Untraditional Issues'. Renmin University of China, 2-4 April 2004, p. 6. Available at: <a href="https://www.dur.ac.uk/chinese.politics/papers%20conference%20Beijing/12Christoffersen.pdf">https://www.dur.ac.uk/chinese.politics/papers%20conference%20Beijing/12Christoffersen.pdf</a>. Accessed on 3 November 2010.

The 21st Century Oil Strategy represented in fact a strengthening of China's ongoing external energy security policy. In 2002, the China National Petroleum Corporation (CNPC) replaced several Western oil companies operating in promising Sudanese exploration projects. A few years earlier, in 1996, the CNPC was able to buy a 40% share in the Greater Nile Petroleum Operating Company (GNPOC) in Sudan and 1999 saw the completion of the Greater Nile Oil Pipeline from the south to the Red Sea. Moreover, China's protection of Sudan in the United Nations Security Council over the conflict in Darfur is also a frequently referred to example of China's approach to energy security. See A. Goldthau, (2010), *supra* note 27, p. 37; and S. Howell, (2009), *supra* note 21, p. 199; and M.E. Chen, (2007), 'Chinese National Oil Companies and Human Rights', *Foreign Policy Research Institute 51*, pp. 41-54. In 2006, the European Parliament passed a resolution on EU-China relations in which it also recognised Africa's importance for Chinese energy supply, but urged Beijing to uphold its responsibilities as a permanent member of the UN Security Council and to promote good governance, democracy, the rule of law, respect for human rights and conflict prevention in its relations with African states. See European Parliament resolution on EU-China Relations (2005/2161(INI), point 87.

<sup>&</sup>lt;sup>181</sup> China Daily, 'EU-China energy and environment program launched', 4 November 2004. Available at: <a href="http://www.chinadaily.com.cn/english/doc/2004-11/04/content\_388294.htm">http://www.chinadaily.com.cn/english/doc/2004-11/04/content\_388294.htm</a>. Accessed on 3 November 2010; See also J. Holslag, (2010), 'China's Scepticism of Clean Energy Champion Europe', *The International Spectator 45*, p. 118.

<sup>&</sup>lt;sup>182</sup> The EU funded a €20 million share of the project, with the remainder funded by China. See COM(2003) 533 final of 10 September 2003, ANNEX 3, p. 31.

<sup>&</sup>lt;sup>183</sup> EU China Energy and Environment Program, 'About EEP'. Available at: <a href="http://www.offshore-wind.de/page/fileadmin/offshore/Kurznachrichten/2009/070109EU-China\_EEPgeneral.pdf">http://www.offshore-wind.de/page/fileadmin/offshore/Kurznachrichten/2009/070109EU-China\_EEPgeneral.pdf</a>. Accessed on 3 November 2010; J. Holslag, (2010), *supra* note 181, p. 118.

conferences were organised in the framework of the programme, and cooperation expanded to new areas, including biomass resources, rural power supply and offshore wind power.<sup>184</sup>

China's rise as a global economic power meant that, politically, Beijing was increasingly viewed at the level of 'strategic partner', roughly among the ranks of the EU's more traditional partners such as Canada and Japan – and not limited to trade alone. It was however not until after 2005 that EU-China energy relations started to mature rapidly.

On 28 February 2005, China adopted its Renewable Energy Law ('REL' or 'the Law'). <sup>186</sup> Key elements of the Law – which speaks of renewable energy as the preferential area for energy development in the context of both 'energy security, as well as 'sustainable development' <sup>187</sup> – included provisions for renewable portfolio standards, along with feed-in tariffs for biomass, 'government-guided' prices for wind power, guaranteed grid access for all renewable power generated, new financing mechanisms, and other market-enhancing provisions (see *infra*, 4.5.1). <sup>188</sup>

In the wake of the REL, two action plans were agreed. The Action Plan on Clean Coal intended to aid Chinese policy-makers with the development and implementation of key-technologies in this field. In the longer term, one of the main priorities is to develop a 'near-zero emissions coal' (NZEC) fired plant that captures CO<sup>2</sup> and can store and/or use it commercially.<sup>189</sup> The second plan aimed more specifically at forging industrial cooperation in order to increase the use of energy efficiency and renewables in China (see *infra*, 4.5.2).<sup>190</sup>

<sup>&</sup>lt;sup>184</sup> J. Holslag, (2010), *supra* note 181, p. 118.

<sup>&</sup>lt;sup>185</sup> China was also increasingly viewed as a strategic partner in the realm of security and sustainable development. See COM(2003) 533 final, *supra* note 182, pp. 3, 6; and, A Secure Europe in a Better World – European Security Strategy, Brussels, 12 December, 2003, p. 14. By 2007, the decreasing share of Official Development Aid (ODA) in China's GDP compared to Foreign Direct Investment (FDI) contributed even more strongly to this view. See European Commission, 'China Strategy Paper 2007-2013', p. 4.

<sup>&</sup>lt;sup>186</sup> The Renewable Energy Law of the People's Republic of China. Available at: <a href="http://www.frankhaugwitz.info/doks/policy/2005-07-25">http://www.frankhaugwitz.info/doks/policy/2005-07-25</a> China RE Law Beijing Review.pdf. Accessed on 3 November 2010.

<sup>&</sup>lt;sup>187</sup> Arts. 1, 2 and 4 Renewable Energy Law of the People's Republic of China, *supra* note 186.

<sup>&</sup>lt;sup>188</sup> The Renewable Energy Law of the People's Republic of China, *supra* note 186; See also E. Martinot and L. Junfeng, (2010), 'Renewable Energy Policy Update For China', *Renewableenergyworld.com*, 21 July 2010. Available at: <a href="http://www.renewableenergyworld.com/rea/news/article/2010/07/renewable-energy-policy-update-for-china">http://www.renewableenergyworld.com/rea/news/article/2010/07/renewable-energy-policy-update-for-china</a>. Accessed on 4 November 2010.

 $<sup>^{189}</sup>$  Carbon Capture and Storage, or 'CCS', is not yet commercially available technology. Considerable research & development and demonstration is underway however. There are various possibilities for storing greenhouse gases. These include injecting  $CO^2$  into mature oil fields to improve the recovery of oil – a process known as 'Enhanced Oil Recovery'. Another option is to inject  $CO^2$  into depleted oil and/or gas fields or into saline aquifers.

European Commission DG Energy, Bilateral Cooperation: China. Available at: <a href="http://ec.europa.eu/energy/international/bilateral cooperation/china/china en.htm">http://ec.europa.eu/energy/international/bilateral cooperation/china/china en.htm</a>. Accessed on 3

Arguably, the most significant outcome was the establishment of the EU-China Partnership on Climate Change at the 2005 EU-China summit.<sup>191</sup> The Partnership endorsed the objectives of the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, and aimed to strengthen policy dialogue on climate change and practical cooperation. Technical cooperation was agreed on six areas: energy efficiency, conservation and renewable energy; clean coal; methane recovery; CCS; hydrogen and fuel cells; and power generation.<sup>192</sup> Building on the action plan for clean coal, the Partnership's main priority until 2020 is to develop the NZEC technology through carbon capture and storage (CCS) and to reduce the cost of such technologies.<sup>193</sup> A MoU to that effect was signed in February 2006 and the project got support from two coordinated feasibility studies (see *infra*, 4.5.2).<sup>194</sup>

The Partnership proved a stimulus for a range of new initiatives. Negotiations on a new PCA which would replace the 1985 China Trade and Economic Cooperation Agreement were launched soon thereafter.<sup>195</sup> Interestingly, post-2005 summits showed a noticeable increase in the use of strong language, labelling climate change:

"[A] serious threat to sustainable development and the future of our planet". 196

In late 2006, China released its 11<sup>th</sup> Five-Year Plan (5YP or 'the Plan'). The Plan, taking coal as the basis, set the objective of optimising the national energy industry, significantly reduce the energy

November 2010; see also Joint Declaration on Climate Change between China and the European Union, point 8, p. 2. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/86133.pdf">http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/86133.pdf</a>. Accessed on 3 November 2010.

<sup>&</sup>lt;sup>191</sup> *Ibid.*, Joint Declaration on Climate Change.

<sup>&</sup>lt;sup>192</sup> *Ibid.*, point 5, p. 2.

<sup>&</sup>lt;sup>193</sup> *Ibid.*, point 7, p. 2. See also J. Holslag, (2010), *supra* note 181, p. 119.

<sup>&</sup>lt;sup>194</sup> See Joint Declaration on Climate Change between China and the European Union, point 7, p. 2; Memorandum of Understanding Between The Ministry of Science and Technology of the People's Republic of China And The European Commission On Cooperation on Near-zero Emissions Power Generation Technology through Carbon Dioxide Capture and Storage. Available at: <a href="http://ec.europa.eu/clima/documentation/international/docs/nzec\_mou\_en.pdf">http://ec.europa.eu/clima/documentation/international/docs/nzec\_mou\_en.pdf</a>. Accessed on 3 November 2010.

<sup>&</sup>lt;sup>195</sup> Joint Statement Ninth EU-China Summit, Helsinki, 9 September 2006, point 4, p. 2. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/90951.pdf">http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/90951.pdf</a>. Accessed on 4 November 2010. See also Council Regulation (EEC) No 2616/85 of 16 September 1985 concerning the conclusion of a Trade and Economic Cooperation Agreement between the European Economic Community and the People's Republic of China.

<sup>&</sup>lt;sup>196</sup> Chairman's Statement of the Sixth Asia-Europe Meeting, Helsinki, 10 and 11 September 2006, point 28, p. 12. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/90964.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/90964.pdf</a>. Accessed on 4 November 2010. The Meeting further underlined the 'synergies between the promotion of energy security and addressing environmental concerns', *Ibid.*, point 29, p. 12.

intensity of the Chinese economy, and limit the emissions of major pollutants.<sup>197</sup> To combat emissions, the 5YP foresaw ambitious targets of reducing energy consumption per unit of GDP by 20%, lowering total sulphur and chemical oxygen demand (COD) emissions by 10% by 2010, and ensure that renewable energy sources account for 15% of primary energy consumption by 2020.<sup>198</sup> It was the first time for Beijing to set a domestic target for improving energy efficiency, together with its economic growth targets listed in its social and economic development plan during the 11<sup>th</sup> five-year period.<sup>199</sup>

The following year, the European Investment Bank granted Beijing with a €500 million loan<sup>200</sup> in support of its National Climate Change Programme. The Programme aims at improving energy efficiency; to include a greater proportion of renewable and nuclear energy in primary energy supply; CCS; reforestation projects; increased R&D efforts, and raising public awareness on climate change (see *infra*, 4.5.2).<sup>201</sup>

In August 2007, China released its Mid- and Long-Term Plan for Renewable Energy Development (MLTPRED) which stipulates renewable energy should make up 10% of total energy consumption by 2010, 15% by 2015 and 20% by 2020 (see *infra*, 4.5.1).<sup>202</sup> To aid the Chinese government in reaching its targets, the EU and China agreed to establish a China-EU Clean Energy Centre by

\_

<sup>&</sup>lt;sup>197</sup> The World Bank, (2008), 'Mid-term Evaluation of China's 11<sup>th</sup> Five Year Plan'. Poverty Reduction and Economic Management Unit East Asia and Pacific Region, 18 December 2008, p. 133-134. It should be noted here that by early 2007, China had effectively surpassed the US as the world's largest emitter of greenhouse gases. See PBL Netherlands Environmental Assessment Agency. Global CO<sup>2</sup> emissions: increase continued in 2007. Available at: <a href="http://www.pbl.nl/en/publications/2008/GlobalCO2emissionsthrough2007.html">http://www.pbl.nl/en/publications/2008/GlobalCO2emissionsthrough2007.html</a>. Accessed on 8 February 2011.

<sup>&</sup>lt;sup>198</sup> Chinese Government Official Web Portal. Facts and Figures: China's main targets for 2006-2010. Available at: <a href="http://english.gov.cn/2006-03/06/content">http://english.gov.cn/2006-03/06/content 219504.htm</a>. Accessed on 5 January 2011; Z.Y. Zhao, J. Zuo, T. T. Feng, and G. Zillante, (2010), 'International cooperation on renewable energy development in China – A critical analysis', *Renewable Energy 36*(3), p. 1105; B. Buijs, (2009), *China, Copenhagen and Beyond: The Global Necessity of a Sustainable Energy Future for China*, (the Hague: Netherlands Institute of International Relations, Clingendael), p. 29.

<sup>&</sup>lt;sup>199</sup> X. Zhang, W. Ruoshui, H. Molin and E. Martinot, (2009), 'A study of the role played by renewable energies in China's sustainable energy supply', *Energy 35*(11), p. 4392.

<sup>&</sup>lt;sup>200</sup> Joint Statement 10<sup>th</sup> EU-China Summit, Beijing, 28 November 2007, point 22, second para. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms">http://www.consilium.europa.eu/uedocs/cms</a> data/docs/pressdata/en/er/97355.pdf. Accessed on 4 November 2010.

<sup>&</sup>lt;sup>201</sup> National Development and Reform Commission People's Republic of China, (2007). 'China's National Climate Change Programme', pp. 26-29. Available at: <a href="http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File188.pdf">http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File188.pdf</a>. Accessed on 4 November 2010.

<sup>&</sup>lt;sup>202</sup> F. Wang, H. Yin, and S. Li, (2009), 'China's renewable energy policy: Commitments and challenges', *Energy Policy 38*(4), p. 1872, p. 1873; Q. Wang, (2009), 'Effective policies for renewable energy – the example of China's wind power – lessons for China's photovoltaic power', *Renewable and Sustainable Energy Reviews* 14(2), p. 706.

2010. $^{203}$  Other initiatives to that effect included the €2.8 million worth EU-China Clean Development Mechanism (CDM) $^{204}$  Facilitation Project; set up to support China's CDM, through policy research, capacity building, technical exchange and training activities until 2010 (see also *infra*, 4.5.1). $^{205}$ 

In 2008, the parties attending that year's ASEM Meeting expressed their concern over the evolution and high level of oil prices, stressing that joint efforts were needed by all parties to contribute to the stability, transparency and predictability of the market.<sup>206</sup>

Later that year, EU-China relations briefly cooled when, in the run-up to the 11th EU-China summit, the Chinese informed the Union of their decision to postpone the event due to visits of the Dalai Lama to Heads of State and Government of several EU Member States around that same period.<sup>207</sup> The summit however eventually did take place some six months later, in May 2009, during which both parties agreed to strengthen cooperation on climate change and signed a Joint Statement on the EU-China Clean Energy Centre.<sup>208</sup> One month later, the first Asia-Europe Conference on energy security was held in Brussels. Particular focus was placed on the inclusion of investment promotion in renewable energy, low carbon technology and the transfer and exchange of technology and regulatory technical know-how within comprehensive energy security policies.<sup>209</sup>

Shortly before the 2009 Copenhagen Climate Change Conference, both parties reconfirmed their desire to work towards a comprehensive outcome, in line with the principle of common but

<sup>&</sup>lt;sup>203</sup> Joint Statement 10<sup>th</sup> EU-China Summit, Beijing, 28 November 2007, point 23, second para., p. 11. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms">http://www.consilium.europa.eu/uedocs/cms</a> data/docs/pressdata/en/er/97355.pdf. Accessed on 4 November 2010.

<sup>&</sup>lt;sup>204</sup> The CDM is one of the 'flexibility' mechanisms established under the Kyoto Protocol. It allows developed countries to invest in emission reductions wherever it is cheapest globally.

<sup>&</sup>lt;sup>205</sup> EU-China CDM Facilitation Project – Final Report, p. 4. Available at: <a href="http://www.euchina-cdm.org/media/docs/Final%20report\_EN.pdf">http://www.euchina-cdm.org/media/docs/Final%20report\_EN.pdf</a>. Accessed on 4 November 2010.

<sup>&</sup>lt;sup>206</sup> Chair's Statement of the Seventh Asia-Europe Meeting. Declaration II: Climate Change and Energy Security. Beijing, 24-25 October 2008, p. 10. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/103551.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/103551.pdf</a>. Accessed on 4 November 2010.

<sup>&</sup>lt;sup>207</sup> Report du Sommet UE/Chine, Déclaration de L'Union Européenne, Bruxelles, le 26 November 2008. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/104305.pdf">http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/104305.pdf</a>. Accessed on 4 November 2010.

<sup>&</sup>lt;sup>208</sup> Joint Press Communiqué, 11<sup>th</sup> EU-China Summit, Prague, 20 May 2009, point 4, p. 2. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/107965.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/107965.pdf</a>; Euractiv, 'Climate change, trade top agenda at EU-China summit', 20 May 2009. Available at: <a href="http://www.euractiv.com/en/foreign-affairs/climate-change-trade-top-agenda-eu-china-summit/article-182507">http://www.euractiv.com/en/foreign-affairs/climate-change-trade-top-agenda-eu-china-summit/article-182507</a>. Both accessed on 4 November 2010.

<sup>&</sup>lt;sup>209</sup> Joint Statement ASEM Ministerial Conference on Energy Security, Brussels, 17-18 June 2009, points 7-11. Available at: <a href="http://www.eeas.europa.eu/energy/events/asem\_energy\_2009/docs/joint\_statement\_en.pdf">http://www.eeas.europa.eu/energy/events/asem\_energy\_2009/docs/joint\_statement\_en.pdf</a>. Accessed on 4 November 2010.

differentiated responsibilities.<sup>210</sup> Furthermore, the EU and China agreed to intensify policy dialogues and cooperation under the framework of their Partnership on Climate Change.<sup>211</sup> However, the summit's most significant outcome was the signing of the MoU on Energy Performance and Quality in the Construction Sector.<sup>212</sup>

By 2010 China had become the world's largest producer of wind turbines and solar panels<sup>213</sup> and was pushing equally hard to build nuclear reactors.<sup>214</sup> However, it must be said that at the same time China's coal consumption continues to grow rapidly, causing emissions to rise. This problem is in turn exacerbated by a low overall level of energy efficiency and conservation (see also *infra*, 4.5.1 and 4.5.2).<sup>215</sup>

The massive growth in renewable energies and technologies in China is however also viewed with a critical eye. The Commission's 2020 Strategy<sup>216</sup> for example speaks of China as a growing

<sup>&</sup>lt;sup>210</sup> Joint Statement of the 12<sup>th</sup> EU-China Summit, Nanjing, China, 30 November 2009, point 9, p. 3. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/111567.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/111567.pdf</a>. Accessed on 5 November 2010. Note also that shortly before the Summit, the European Commission had pledged up to €57 million to the NZEC project. *Ibid.*, point 11, p. 4.

<sup>&</sup>lt;sup>211</sup> The intensification of cooperation included, but was not limited to, renewable energy, energy efficiency, joint development, demonstration and transfer of climate-friendly technologies, sustainable urban development, capacity building and regional cooperation. See Joint Statement of the 12<sup>th</sup> EU-China Summit, *supra* note 210, point 10, p. 4.

<sup>&</sup>lt;sup>212</sup> This is a much needed development as energy conservation and energy efficiency in this sector – the highest energy consuming one in all of China – remains very low. See Cooperation Framework on Energy Performance and Quality in the Construction Sector between the Directorate-General for Enterprise and Industry and the Directorate-General for Energy and Transport of the European Commission and the Ministry of Housing and Urban-Rural Development of the People's Republic of China, November 2009. Available at: <a href="http://ec.europa.eu/energy/international/bilateral cooperation/china/doc/summit/2009\_30\_11\_signed\_mou.pdf">http://ec.europa.eu/energy/international/bilateral cooperation/china/doc/summit/2009\_30\_11\_signed\_mou.pdf</a>. Accessed on 5 November 2010.

<sup>&</sup>lt;sup>213</sup> K. Bradsher, (2010), 'China Leading Global Race to Make Clean Energy', New York Times, 30 January 2010. Available at: http://www.nytimes.com/2010/01/31/business/energy-environment/31renew.html. Accessed on 8 November 2010; B. Buijs, (2009), supra note 198, pp. 9, 34, 37; Ernst & Young, (2010), Renewable energy attractiveness indices, May 2010 Issue Available http://www.ev.com/Publication/vwLUAssets/Renewable energy country attractiveness indices Issue 25/\$ FILE/Renewable Energy Issue 25.pdf. Accessed on 8 November 2010. Early 2009, the European Parliament already stressed the opportunities for the EU in the emerging renewables market in China, urging the Chinese to improve market access and for the Union to step up the transfer of low carbon technology. See European Parliament resolution of 5 February 2009 on Trade and Economic Relations with China (2008/2171(INI)), points 29 and 30. By 2030 non-OECD economies, like China, will produce some 17% of global wind energy, rising to 57\$ in 2050. According to the IEA, by 2030 China overtakes the US and is market leader by 2050. See IEA Technology Roadmap: Wind energy, pp. 4, 9, 15.

<sup>&</sup>lt;sup>214</sup> Interview with Director-General of the European Commission DG Energy in the margin of the EU-China Energy Conference, Shanghai, 7 July 2010; interview with official of French Embassy in China in the margin of the EU-China Energy Conference, Shanghai, 7 July 2010; B. Buijs, (2009), *supra* note 198, p. 40. By far the largest expansion of nuclear capacity is taking place in China. See IEA Technology Roadmap: Nuclear Energy, p. 17. Available at: <a href="http://www.iea.org/papers/2010/nuclear roadmap.pdf">http://www.iea.org/papers/2010/nuclear roadmap.pdf</a>. Accessed on 17 November 2010. <sup>215</sup> 'China Strategy Paper 2007-2013', *supra* note 185, p. 13.

<sup>&</sup>lt;sup>216</sup> COM(2010) 2020 Europe 2020: a strategy for smart, sustainable and inclusive growth of 3 March 2010.

competitor<sup>217</sup> in designing 'green solutions' and called on the Union to maintain its lead in the market for green technologies as a means of ensuring resource efficiency throughout its economy.<sup>218</sup> This contrasted with earlier statements made in the Stocktaking document 'Towards a new Energy Strategy for Europe 2011-2020' which rather frame Europe's lead in the market as an opportunity to promote international cooperation with China.<sup>219</sup> Nevertheless, it seems the dominant view nowadays is, that China is increasingly seen as a potential challenger to the EU's lead position in renewable energies (see *infra*, 4.5.1).<sup>220</sup>

### 3.3.1: The Current Status of EU-China Relations

The above longitudinal analysis showed it took the EU and China roughly two decades to develop their energy relations up to the point where cooperation on renewable energies and energy efficiency became a cornerstone within broader action on climate change. Today, the potential for renewable energy and energy efficiency to contribute to energy security is acknowledged on both sides. Indeed, the need for China to actively promote renewable energy as part of its national energy mix has gained high priority among the authorities, not least given the sector's enormous market potential.

What the analysis in paragraph 3.3.1 also served to demonstrate is the broad range of issues included in the EU-China energy relationship. For each and every one of these areas, achieving concrete results is naturally the top priority. However, it must be noted that some areas matter more than others when it comes to an issue such as climate change. Moreover, given China's enormous demand for energy, actions should be targeted at those areas of cooperation which provide the greatest positive offset for the EU's security of energy supply. Therefore, if the partnership is to remain meaningful in the long term, it is of particular importance that visible results are achieved in those areas which have the greatest potential to deliver.

However, before we continue our analysis, it is necessary to first briefly summarise the findings of the preceding paragraphs. Therefore, by means of comparison and in order to structure the analysis

<sup>&</sup>lt;sup>217</sup> The Strategy speaks of China as a growing competitor also because of a lack of harmonisation within the EU itself. European businesses still have to deal with 27 different legal systems, whereas China does not have this problem and can draw on the full strength of its home market. *Ibid.*, p. 18.
<sup>218</sup> *Ibid.*, p.12.

<sup>&</sup>lt;sup>219</sup> European Commission. (2010). 'Stock taking document Towards a new Energy Strategy for Europe 2011-2020', *supra* note 7, p. 5.

<sup>&</sup>lt;sup>220</sup> The November 2010 Energy 2020 Strategy confirms Europe's lead is challenged, as China and the US are now cited as the best investment opportunities for renewable energy. See COM(2010) 639 final, *supra* note 89, p. 4.

conducted in section four, the next paragraph highlights the various issues that were identified across the longitudinal analyses as essential for success in external energy cooperation.

#### 3.4: Interim Conclusion

With respect to the three cases, a number of issues emerged from the longitudinal analyses which deserve further attention either because they inhibit the successful performance of the EU, or exert the greatest potential for achieving the Union's aims in external energy cooperation.

Concerning EU-Russia energy relations, one of the issues that emerged from the analysis is reciprocity in energy market access. This topic is continuously highlighted by both Russia and the EU, yet has come to mean different things on either side of the partnership. In general, a true partnership is predicated on mutual trust and equal rights and participation. With regard to energy, this should manifest itself in equal access to each other's energy market. The question remains why this is not the case today (*infra*, 4.1).

A second issue is that EU-Russia relations are based on a – by now over thirteen years old – Partnership and Cooperation Agreement. This document is outdated and represents an incomplete reflection of the status quo between Brussels and Moscow. This lack of clarity is exacerbated at international level by Moscow's recent withdrawal from the Energy Charter Treaty. Given the importance attached to Russia's participation, the Charter's role in international energy security governance has been called into question and a proposal for an alternative Treaty has emerged (*infra*, 4.2).

Third, the deterioration of relations with Russia since the mid 2000s has led to an increased desire on part of the Union to break with its dependency on Russian natural gas and diversify its energy sources and transit routes to Central Asia.<sup>221</sup> However, many uncertainties remain with respect to achieving this aim. Paragraph 4.3 analyses the EU's achievements, abilities and future prospects in this area in greater detail.

Fourth, a key-area of EU engagement is formed by the Union's efforts to improve development, human rights, democracy and the rule of law worldwide. This work ties into the EU's diversification

<sup>&</sup>lt;sup>221</sup> K. Barysch, (2010), *supra* note 137, p. 4; S. Wood, (2009a), 'Energy Security, Normative Dilemmas, and Institutional Camouflage: Europe's Pragmatism', *Politics and Policy 37*(3), p. 619; S. Wood, (2009b), 'The European Union: A Normative or Normal Power?', *European Foreign Affairs Review* 14, p. 118; S. E. Cornell and N. Nilsson (eds.), (2008), *Europe's Energy Security: Gazprom's Dominance and Caspian Supply Alternatives*, (Washington D.C.: Johns Hopkins University-SAIS); and R. Leal-Arcas, (2009), *supra* note 13, p. 356.

efforts in Central Asia, yet is not always perceived to be effective when balanced against the actions of other geostrategic powers in the region.<sup>222</sup> Paragraph 4.4 investigates to what extent these two potentially clashing aims can be reconciled.

Fifth, as explained above, the actions of China in regions such as Central Asia have – among others – led the EU to step-up its energy cooperation with Beijing. The Partnership on Climate Change explicitly lays out six priority areas for technical cooperation between the EU and China.<sup>223</sup> One area to which the Partnership attaches firm weight is renewable energy development and energy conservation. China is endowed with some of the world's greatest potential for renewable energy generation and the more this is exploited, the greater is the potential offset for the environment and security of energy supply in Eurasia (*infra*, 4.5.1). Second, the other main goal of the Partnership is to develop and demonstrate advanced near-zero emissions coal (NZEC) through Carbon Capture and Storage (CCS), work to reduce the costs of key technology and promote its deployment and dissemination.<sup>224</sup> When the NZEC project is successful, CCS technology could in the future significantly contribute to the reduction of CO<sup>2</sup> emissions in China and elsewhere. Moreover, CCS technology shows the potential for turning CO<sup>2</sup> emissions into a valuable and tradable by-product. In light of the potential impact that the development of clean coal and CCS may have on climate change mitigation, paragraph 4.5.2 analyses the current state of the technology in more detail based on the activities under the EU-China Partnership on Climate Change.

Sixth, calls for diversification have – in spite of declarations to that effect – not led to a concerted European effort on security of supply. Rather, more often than not, the EU and its Member States do not form a coherent whole with respect to their initiatives and actions vis-à-vis hydrocarbon producers in Central Asia and Russia. This lack of unity is seen as one of the prime reasons for the

<sup>&</sup>lt;sup>222</sup> A. Cooley, (2008), *supra* note 14, p. 1176 and 1187; Quaker Council for European Affairs, (2009), *supra* note 148, p. 4; J. Boonstra, (2010), *supra* note 142, p. 3; S. Wood, (2009b), *supra* note 221, p. 115; R. Youngs, (2004), 'Normative Dynamics and Strategic Interests in the EU's External Identity', *Journal of Common Market Studies* 42(2), pp. 415-435.

<sup>&</sup>lt;sup>223</sup> These fields of cooperation are energy efficiency, conservation and renewable energy; clean coal; methane recovery; CCS; hydrogen and fuel cells; and power generation.

Joint Declaration on Climate Change between China and the European Union. Available at: <a href="http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/86133.pdf">http://www.consilium.europa.eu/uedocs/cms data/docs/pressdata/en/er/86133.pdf</a>. Accessed on 3 November 2010.

Union's inability to position itself strongly in its dialogues with these suppliers, resulting in a suboptimal energy security situation within the EU (*infra*, 4.6).<sup>225</sup>

Finally, precisely the issue of coherence has led some to believe that the EU is in need of a specific Energy Treaty to guide its external policy. Such a Treaty would provide the Union with a stronger basis and ability to 'close its ranks', thereby safeguarding coherence. In that respect, paragraph 4.7 discusses the role of the Treaty of Lisbon and another recent 'Energy Treaty' proposal.

## 4: Key Issues in External Energy Cooperation

# 4.1: Reciprocity in EU-Russia Relations

For the EU, reciprocity means that if a country decides to open its market to outsiders, it should subsequently gain access to those States' markets in return. Similarly, reciprocity principle allows for the protection of markets against others who have not liberalised their energy sectors in equal measure. The Union thus sees reciprocity as a qualitative exchange, as a sort of 'values-by-values' type of deal. From a Russian perspective however, reciprocity is related to the status of the long-term supply regime that exists in international gas trade. It deals more with quantitative exchanges, such as 'volumes-by-volumes', or asset swaps. At the same time, investment reciprocity stems from any political accord between the actors involved.<sup>226</sup>

The differences of opinion over the meaning of reciprocity have resulted in a series of misunderstandings and difficulties, both between Russia and the EU, as well as *intra-EU*; between EU Member States and the European Commission themselves. This paragraph analyses the issue of reciprocity based on a number of key energy market reforms within the EU and Russia, illustrated by actual cases where appropriate.

The issue concerning reciprocity finds its catalyst in early 2006 when rumours emerged that Gazprom was interested in taking over UK gas supplier Centrica. Allegedly, the move worried the British government to the extent that it contemplated a change in its merger rules in order to

<sup>&</sup>lt;sup>225</sup> See R. Leal-Arcas, (2009), *supra* note 13, pp. 355-356; K. Barysch, (2010), *supra* note 137, p. 5 and 10; R. Youngs, (2009), *supra* note 16, pp. 121-122; A. Warkotsch, (2009), *supra* note 19, p. 259 and 268; and A. Cooley, (2008), *supra* note 14, p. 1183.

<sup>&</sup>lt;sup>226</sup> See A. Belyi, (2009), 'Reciprocity as a factor of the energy investment regimes in the EU-Russia energy relations', *Journal of World Energy Law & Business 2*(2), p. 117; A. Konoplyanik, (2009a), 'A Common Russia-EU Energy Space: The New EU-Russia Partnership Agreement, Acquis Communautaire and the Energy Charter', *Oil Gas and Energy Law Journal 27*(2), p. 268.

prevent the takeover from happening. Gazprom reacted by warning the EU that attempts at politicising gas supply could result in a redirection of gas supplies to other world markets.<sup>227</sup>

The row over Centrica seemed to have inspired then President Vladimir Putin when he delivered his speech at the 2007 Munich Security Conference, who claimed examples of Russian companies who participate extensively in key economic sectors in western countries simply did not exist.<sup>228</sup> Within the EU, what followed were a series of far-reaching reforms of the internal energy market, with the aim of creating a fully liberalised market.<sup>229</sup> At the time, the opinion in Brussels was that in order for the Union to be an effective external actor, it would first have to complete its internal market.<sup>230</sup> The proposals, which included strong rules on the separation of networks from activities of production and supply (unbundling) and a reciprocity clause – popularly dubbed the 'Gazprom clause' – raised eyebrows in Moscow<sup>231</sup>, but also within the EU.<sup>232</sup>

<sup>&</sup>lt;sup>227</sup> T. Romanova, (2008), *supra* note 12, p. 224; EUobserver, 'Gazprom warns EU on Russian gas supplies', 20 April 2006. Available at: <a href="http://euobserver.com/?aid=21396">http://euobserver.com/?aid=21396</a>; EUobserver, 'EU gives wary backing to G8's 'new global energy order', 16 July 2006. Available at: <a href="http://euobserver.com/?aid=22101">http://euobserver.com/?aid=22101</a>. Similarly, it is alleged that European companies considered outbidding Gazprom. See The Guardian, 'Centrica bidders aim to thwart Gazprom', 17 June 2007. Available at: <a href="http://www.guardian.co.uk/business/2007/jun/17/utilities.observerbusiness">http://www.guardian.co.uk/business/2007/jun/17/utilities.observerbusiness</a>. All accessed on 7 December 2010.

<sup>&</sup>lt;sup>228</sup> President Vladimir Putin, Speech at the Munich Conference on Security Policy, 11 February 2007. Available at: <a href="http://www.globalresearch.ca/index.php?context=va&aid=4741">http://www.globalresearch.ca/index.php?context=va&aid=4741</a>. Accessed on 8 December 2010.

<sup>&</sup>lt;sup>229</sup> Proposals to that effect were put forward by September 2007. See COM(2007) 529 final, *supra* note 58.

<sup>&</sup>lt;sup>230</sup> Interviews with officials from Permanent Representations of Belgium and Germany to the EU, 22 April and 2 July 2010; interview with officials from European Commission DG Energy, 8 and 15 October 2010; interviews with several officials from European Parliament Directorate-General External Policies, 5 March 2010. See also R. Youngs, (2009), *supra* note 16, pp. 31-32.

The original proposal reads that companies from third countries [who] wish to acquire a significant interest or even control over an EU network, will have to demonstrably and unequivocally comply with the same unbundling requirements as EU companies, allowing the Commission to intervene where a purchaser cannot demonstrate both its direct and indirect independence from supply and generation activities. See COM(2007) 529 final, *supra* note 58, p. 7 and p. 30; P.K. Baev and I. Øverland, (2010), 'The South Stream versus Nabucco pipeline race: geopolitical and political stakes in mega-projects', *International Affairs* 86(5), p. 1081. See also Euractiv, 'EU may restrict foreign access to energy assets', 30 August 2007. Available at: http://www.euractiv.com/en/energy/eu-may-restrict-foreign-access-energy-assets/article-166303;

Euractiv, "Gazprom Clause' issues Russia ultimatum for energy co-operation', 20 September 2007. Available at: <a href="http://www.euractiv.com/en/energy/gazprom-clause-issues-russia-ultimatum-energy-operation/article-166888">http://www.euractiv.com/en/energy/gazprom-clause-issues-russia-ultimatum-energy-operation/article-166888</a>; EUobserver, 'Germany highly critical of EU energy package', 19 September 2007. Available at: <a href="http://euobserver.com/?aid=24797">http://euobserver.com/?aid=24797</a>; EUobserver, 'Energy and Kosovo tension sets tone for EU-Russia summit', 25 October 2007. Available at: <a href="http://euobserver.com/?aid=25040">http://euobserver.com/?aid=25040</a>; and EUobserver, 'Experts to lock horns over EU energy market reform', 16 October 2007. Available at: <a href="http://euobserver.com/877/24980">http://euobserver.com/877/24980</a>. All accessed on 7 December 2010.

<sup>&</sup>lt;sup>232</sup> France, Germany, Austria, Bulgaria, Cyprus, Greece, Latvia, Luxembourg and Slovakia opposed full ownership unbundling, with France and Germany leading the charge. Interviews with officials from Permanent Representations of Bulgaria, Romania, Slovenia and Poland to the EU, 19 April, 12 May, 23 April

After vehement opposition to full ownership unbundling<sup>233</sup> in several EU Member States, an alternative proposal was put forward which would see the transmission system operator (TSO) be a separate firm, distinct from the parent company, but simultaneously owned by the same set of shareholders as the parent firm.<sup>234</sup> An agreement was eventually reached in April 2009, where companies will be required to choose one of three options of unbundling – full separation of transmission and production, handing over the management of the grid to an independent operator or keeping the transmission business but under strict supervision by a mixed body which includes third party shareholders.<sup>235</sup>

This third option – or 'third way' as it became known – resembled closest the views of the group of eight Member States who opposed the Commission's plans.<sup>236</sup> Similarly, the 'Gazprom clause' was weakened during negotiations, resulting in an agreement that, EU Member States remain free to decide whether to allow a foreign bidder to enter their market. However, should they decide to do so, they must take into account the impact of the move on the Union's energy security, whilst also consulting the European Commission.<sup>237</sup> The 'third market package' was eventually adopted in June 2009.<sup>238</sup>

and 13 May 2010; EUobserver, 'Piebalgs brushes off criticism of energy package', 24 September 2007. Available at: <a href="http://euobserver.com/?aid=24818">http://euobserver.com/?aid=24818</a>; and EUobserver, 'Germany highly critical of EU energy package', *supra* note 231. All accessed on 7 December 2010. The proposal initially only won support from the UK, Spain, Sweden, the Netherlands. R. Youngs, (2009), *supra* note 16, p. 37: P.K. Baev and I. Øverland, (2010), *supra* note 231, p. 1081; Interviews with officials from Permanent Representations of the UK, and Bulgaria 10 June and 19 April 2010. Italy was said to be in favour of electricity unbundling, yet not in the oil and gas sector. Interview with official from Permanent Representation of Italy to the EU, 24 June 2010.

<sup>&</sup>lt;sup>233</sup> EUobserver, 'EU energy liberalisation plans run into opposition', 3 December 2007. Available at: <a href="http://euobserver.com/?aid=25260">http://euobserver.com/?aid=25260</a>; EUobserver, 'Eight member states criticise EU energy liberalisation plans', 31 January 2008. Available at: <a href="http://euobserver.com/9/25570">http://euobserver.com/9/25570</a>; EUobserver, 'Energy liberalisation critics suffer blow in EU parliament', 7 may 2008. Available at: <a href="http://euobserver.com/?aid=26090">http://euobserver.com/?aid=26090</a>. All accessed on 7 December 2010.

<sup>&</sup>lt;sup>234</sup> Interview with official from Permanent Representation of Bulgaria to the EU, 19 April 2010; EUobserver, 'France and Germany push ahead with own energy liberalisation plans', 17 January 2008. Available at: <a href="http://euobserver.com/?aid=25480">http://euobserver.com/?aid=25480</a>; EUobserver, '[FOCUS] Energy liberalisation battle reaches critical stage', 19 May 2008. Available at: <a href="http://euobserver.com/9/26136/?rk=1">http://euobserver.com/9/26136/?rk=1</a>. Both accessed on 7 December 2010.

<sup>&</sup>lt;sup>235</sup> Art. 9 Directive 2009/73/EC, *supra* note 58. See also O. H. Maican, (2009), *supra* note 2, p. 37; R. Youngs, (2009), *supra* note 16, p. 38; EUobserver, 'EU energy giants escape forced break up', 9 June 2008. Available at: <a href="http://euobserver.com/?aid=26287">http://euobserver.com/?aid=26287</a>; EUobserver, 'MEPs approve softer version of energy law', 22 April 2009. Available at: <a href="http://euobserver.com/863/27981">http://euobserver.com/863/27981</a>. Both accessed on 7 December 2010.

<sup>&</sup>lt;sup>236</sup> Interviews with officials from Permanent Representations of Bulgaria and Slovenia to the EU, 19 April and 23 April 2010; EUobserver, 'Parliament rejects full gas company unbundling', 10 July 2008. Available at: <a href="http://euobserver.com/?aid=26472">http://euobserver.com/?aid=26472</a>.

<sup>&</sup>lt;sup>237</sup> Art. 11 Directive 2009/73/EC, *supra* note 58. Again, Germany was said to be particularly influential. See EUobserver, 'EU weakens 'Gazprom clause' on foreign energy investors', *supra* note 61.

<sup>&</sup>lt;sup>238</sup> See Directive 2009/72/EC, *supra* note 58; and Directive 2009/73/EC, *supra* note 58.

This relaxation of terms however seemed to have done little to quell concerns in Moscow, which continues to assert that unbundling reduces the opportunity for investors to get a reasonable income and might possibly therefore look to more attractive markets, such as China.<sup>239</sup> Moreover, the Kremlin claimed that limiting Russian investment in the Union could prevent asset swaps that could give European energy companies access to Russia's vast energy reserves.<sup>240</sup>

Indeed, the third market package, and its 'Gazprom clause' in particular, stem *inter alia* from similar concerns in Brussels over restrictions faced by EU companies that try to invest in the Russian energy market.<sup>241</sup> Looking back, it were particularly the cases of Shakhalin II<sup>242</sup> and Shtokman<sup>243</sup> in 2006 that raised concerns in Brussels. Sakhalin II, which was governed by a Production Sharing Agreement (PSA), was heavily criticised by the Russian National Accounting Chamber over high cost-overruns – the negative point for Russia being that PSA agreements allow foreign companies to recover all costs before the State starts to receive any profit. Moscow argued that the Russian State has lost several hundred million US dollars as a result. In addition, Shell was accused of having caused serious environmental damage to the region.<sup>244</sup> Following the accusations, an agreement was reached where Gazprom was to buy 50 percent, plus one share, in the project operating company from the Sakhalin II shareholders. The environmental problems, as well as other related issues, were subsequently 'solved'.<sup>245</sup>

Discussions on the Shtokman gas condensate field had been going on for nearly 10 years. However, Gazprom was in need of a partner as it lacked the necessary advanced technology itself to

December 2010.

Gazprom was in need of a partner as it lacked the necessary advanced technology itself to

<sup>&</sup>lt;sup>239</sup> Euractiv, 'Gazprom warns EU it could turn to China', 15 October 2010. Available at: <a href="http://www.euractiv.com/en/energy/gazprom-warns-eu-it-could-turn-china-news-498822">http://www.euractiv.com/en/energy/gazprom-warns-eu-it-could-turn-china-news-498822</a>. Accessed on 7 December 2010.

<sup>&</sup>lt;sup>240</sup> Euractiv, 'Putin warns EU energy laws hurt business', 26 November 2010. Available at: <a href="http://www.euractiv.com/en/energy/putin-warns-eu-energy-laws-hurt-business-news-500036">http://www.euractiv.com/en/energy/putin-warns-eu-energy-laws-hurt-business-news-500036</a>. Accessed on 7 December 2010.

<sup>&</sup>lt;sup>241</sup> Euractiv, 'EU may restrict foreign access to energy assets', *supra* note 231; A. Belyi, (2009), *supra* note 226, p. 124.

<sup>&</sup>lt;sup>242</sup> Sakhalin II is an oil and gas development project on Sakhalin Island in Russia. It includes development of the Piltun-Astokhskoye oil field and the Lunskoye natural gas field offshore Sakhalin Island in the Okhotsk Sea, and associated infrastructure onshore. Sakhalin-2 includes the first Liquefied Natural Gas (LNG) plant in Russia.

 $<sup>^{243}</sup>$  The Shtokman gas condensate field is one of the world's largest natural gas fields in the central part of the Russian sector of the Barents Sea.

<sup>&</sup>lt;sup>244</sup> K. Hóber, (2009), *supra* note 13, p. 440; and The Guardian, 'Kremlin attack dog vows to take on Shell in the battle of Sakhalin', October 2006. Available at: http://www.guardian.co.uk/business/2006/oct/04/russia.oilandpetrol. Accessed on 7 December 2010. <sup>245</sup> K. Hóber, (2009), *supra* note 13, p. 441; and International Herald Tribune, 'Shell cedes control of Sakhalin-Gazprom', 21 December 2006. Available http://www.nytimes.com/2006/12/21/business/worldbusiness/21iht-shell.3981718.html. Accessed on 7

successfully extract the gas. In September 2005, a short list of candidates to develop the field was announced – including Norwegian Statoil, Norsk Hydro; American ChevronTexaco and ConocoPhilips; and French Total. Negotiations however dragged on until Gazprom announced it did not need a partner as none of the candidates offered a sufficient stake in exchange for a share in Shtokman.<sup>246</sup> The decision raised eyebrows in Brussels where officials pondered whether the decision was taken on political, rather than economic grounds.<sup>247</sup>An agreement was however finally reached in 2007, when French Total, Norwegian Statoil and Norsk Hydro became Gazprom's partners.<sup>248</sup>

What served to create greater concern in the EU was Russia's adoption of the Law on Foreign Investments in Strategic Sectors<sup>249</sup> in April 2008. The law lays out 42 different sectors of the economy, including oil and gas, for which investment now requires approval from a government committee.<sup>250</sup> Foreign investors must obtain preliminary consent to acquire more than 50 percent of the shares in strategic companies.<sup>251</sup> The law does not pose retroactive effect with regard to transactions which were finalised before it came into force, however foreign investors must notify the designated authority if they hold at least 5% of shares in strategic companies.<sup>252</sup> The designated authority is hence able to monitor the activities of foreign investors in the relevant sectors of the economy.<sup>253</sup>

Subsequently, a number of existing laws were amended, the most important of which was the 2008 revision of the Russian Law on the Subsurface (hereinafter, both are referred to as the Law on Foreign Investment).<sup>254</sup> The amendments introduced allow the Russian government to grant

<sup>&</sup>lt;sup>246</sup> T. Romanova, (2008), *supra* note 12, p. 224; and EUobserver, 'Russia snubs European firms in Arctic gas project', 9 October 2006. Available at: <a href="http://euobserver.com/?aid=22597">http://euobserver.com/?aid=22597</a>. Accessed on 7 December 2010.

<sup>&</sup>lt;sup>247</sup> EUobserver, 'EU must save energy to offset import risks, Barroso says', 10 October 2006. Available at: <a href="http://euobserver.com/?aid=22609">http://euobserver.com/?aid=22609</a>. Accessed on 8 December 2010.

<sup>&</sup>lt;sup>248</sup> T. Romanova, (2008), supra note 12, p. 224.

<sup>&</sup>lt;sup>249</sup> Law No. 57-FZ "On the Procedure for Contributing Foreign Investments in Legal Entities which are of Strategic Importance for the Defence of the Country and Security of the State" ('Law on Foreign Investments in Strategic Companies'). Available at: <a href="http://www.russland.no/filestore/57FZ.27.html">http://www.russland.no/filestore/57FZ.27.html</a>. Accessed on 8 December 2010.

<sup>&</sup>lt;sup>250</sup> Ar. 7 Law No. 57-FZ, *supra* note 249. See also K. Hóber, (2009), *supra* note 13, p. 436; S. Seliverstov, (2009), 'Energy Security of Russia and the EU: Current Legal Problems'. Note de L'Institut Français des Relations Internationales (IFRI). April 2009, p. 16; and Clifford Chance, (2009), 'Russian oil and gas'. Client Briefing April 2009, p. 1.

<sup>&</sup>lt;sup>251</sup> *Ibid.*; A. Belyi, (2009), *supra* note 226, p. 126.

<sup>&</sup>lt;sup>252</sup> S. Seliverstov, (2009), *supra* note 250, p. 17; A. Belyi, (2009), *supra* note 226, p. 126.

<sup>&</sup>lt;sup>253</sup> *Ibid.*; Clifford Chance, (2009), *supra* note 250, p. 3.

<sup>&</sup>lt;sup>254</sup> Law No 58-FZ amending and repealing certain legislative provisions. The Law on the Subsurface is the fundamental legislative act for natural resources in Russia. It was adopted on 21 February 1992 and provides

approval for 'mineral exploration and production' to a Russian or foreign entity who has discovered strategic resources during geological survey, or it may terminate the right to use these strategic resources even if a foreigner has a license for survey, exploration, and production.<sup>255</sup> More importantly, the license to use subsoil parcels of federal significance<sup>256</sup> on the continental shelf may only be grated to Russian legal entities that have at least 5 years experience of the Russian continental shelf exploration/production and are at least 50% controlled by the Russian federation.<sup>257</sup>

The Law on Foreign Investment drew in widespread criticism, claiming that it breads unpredictability, does not accord with international business practice and contradicts the ECT's investment provisions (see *infra*, 4.2).<sup>258</sup> Moreover, the limitations set on continental shelf exploration means that *de facto* only Gazprom and Rosneft qualify as eligible.<sup>259</sup> This puts the exploration of Russia's huge Siberian gas fields in major doubt, as Russia lacks the technologies, equipment and funds needed to successfully explore these fields itself (see also *infra*, 4.2).<sup>260</sup> Moreover, a chronic lack of investment during the boom years and the impact of the financial crisis have seen Gazprom's share value reduced by about <sup>3</sup>/<sub>4</sub> in 2008, making the prospects for the successful exploration of these fields look even more doubtful in the short to medium term.<sup>261</sup>

The problems surrounding the EU's third legislative market package and Russia's lack of openness to foreign investors recently again came to the fore in two cases involving Poland and Bulgaria. In late October 2010, Polish company PGNiG and Gazprom reached a deal to prolong the contract on

for a general framework for licensing exploration and development activities relating to minerals and other subsurface resources, including hydrocarbons. See K. Hóber, (2009), *supra* note 13, p. 432.

<sup>&</sup>lt;sup>255</sup> Art. 1 Law No 58-FZ, *supra* note 254. See also K. Hóber, (2009), *supra* note 13, p. 438.

<sup>&</sup>lt;sup>256</sup> Subsoil parcels of federal significance include all subsoil parcels in the internal waters, territorial sea and continental shelf and other parcels that contain extractable reserves over a certain threshold. Any field with – or with more than – 50 bcm of gas or 70 million tons of oil.

<sup>&</sup>lt;sup>257</sup> S. Seliverstov, (2009), *supra* note 250, p. 17; K. Hóber, (2009), *supra* note 13, pp. 438-439.

<sup>&</sup>lt;sup>258</sup> S. Nappert, (2010), 'EU-Russia Relations in the Energy Field: The Continuing Role of International Law'. International Association for Energy Economics, Third Quarter 2010, p. 12; S. Seliverstov, (2009), *supra* note 250, p. 17; Clifford Chance, (2009), *supra* note 250, p. 4; Interview with official from European Commission DG Energy, 15 October 2010.

<sup>&</sup>lt;sup>259</sup> S. Seliverstov, (2009), *supra* note 250, p. 17; K. Hóber, (2009), *supra* note 13, p. 439.

<sup>&</sup>lt;sup>260</sup> K. Hóber, (2009), *supra* note. 13, p. 439.

<sup>&</sup>lt;sup>261</sup> K. Rosner, (2009), *supra* note 43, p. 166; J. Sherr, (2010), *supra* note 13, p.60; A. Goldthau, (2010), *supra* note 27, pp. 32 and 38-39; R. Kefferpütz, (2009), 'Gazprom's Changing Fortunes'. CEPS Commentary. Brussels: Centre for European Policy Studies; and K. Rosner, (2008), 'Russia's Financial Market Meltdown: Energy Security Implications', *Journal of Energy Security*. Available at: <a href="http://www.ensec.org/index.php?option=com content&view=article&id=168:russias-financial-market-meltdown-energy-security-implications&catid=90:energysecuritydecember08&Itemid=334.">http://www.ensec.org/index.php?option=com content&view=article&id=168:russias-financial-market-meltdown-energy-security-implications&catid=90:energysecuritydecember08&Itemid=334.</a> Accessed on 9 December 2010.

the Yamal pipeline<sup>262</sup> to 2037, increasing supplies by 2,5bcm annually to 10bcm.<sup>263</sup> The EU however put the deal on hold, claiming a 'territorial clause' within the contract violated internal market rules by banning Poland to sell surplus gas to its neighbours when it receives more than it needs.<sup>264</sup> The Commission claimed Poland should grant third-party access to the Yamal pipeline and allow gas to flow in both directions by allowing the transport of gas from Germany to Poland, as required by EU law.<sup>265</sup> To meet that requirement, Polish state-owned pipelines operator Gaz-System has been charged with managing the Yamal-Europe gas pipeline, owned by a joint venture between Gazprom and PGNiG. However, the state-owned operator will only manage any excess pipeline capacity that may appear, while it will effectively be EuRoPol Gaz and its owners deciding when (and if) that happens. This translates into Gazprom and PGNiG to decide among themselves if there's any capacity to sell to a third party.<sup>266</sup> So, third party access exists – yes – though, mostly on paper. The deal was eventually finalised in late October 2010, after the territorial clause was lifted, thus allowing PGNiG to re-export natural gas surpluses to other countries without Gazprom's consent.<sup>267</sup>

Around the same time, an agreement between Russia and Bulgaria to set up a joint venture, which will build and operate the Bulgarian section of the South Stream gas pipeline<sup>268</sup>, sparked questions of compatibility with EU law. The initial draft contract provided South Stream shareholders with exclusive gas transportation, thus violating EU law on ownership unbundling. A sentence has since been added that renders such possibility conditional upon the Commission's approval.<sup>269</sup> The main problem however is a 2008 intergovernmental agreement between Bulgaria and Russia which

\_\_\_

<sup>&</sup>lt;sup>262</sup> The Yamal pipeline brings Russian gas to Germany from Poland's border with Belarus.

<sup>&</sup>lt;sup>263</sup> Euractiv, 'Gazprom warns EU it could turn to China', *supra* note 239.

<sup>&</sup>lt;sup>264</sup> Euractiv, 'Commission slams Poland over 'Gazprom clause', 15 July 2010. Available at: <a href="http://www.euractiv.com/en/energy/commission-slams-poland-over-gazprom-clause-news-496352">http://www.euractiv.com/en/energy/commission-slams-poland-over-gazprom-clause-news-496352</a>.

Accessed on 8 December 2010. The Commission also pointed to the lack of access for foreign companies to the Yamal pipeline.

<sup>&</sup>lt;sup>265</sup> *Ibid.* 

<sup>&</sup>lt;sup>266</sup> M. Sobczyk and M. Kruk, (2010), 'Gazprom Keeps Grip on Polish Pipeline', October 27. The Wall Street Journal Blogs. Available at: <a href="http://blogs.wsj.com/new-europe/2010/10/27/gazprom-keeps-grip-on-polish-pipeline">http://blogs.wsj.com/new-europe/2010/10/27/gazprom-keeps-grip-on-polish-pipeline</a>/. Accessed on 8 December 2010.

Euractiv, 'Polish-Russian gas treaty receives EU blessing', 4 November 2010. Available at: <a href="http://www.euractiv.com/en/energy/polish-russian-gas-treaty-receives-eu-blessing-news-499415">http://www.euractiv.com/en/energy/polish-russian-gas-treaty-receives-eu-blessing-news-499415</a>?utm source=EurActiv+Newsletter&utm campaign=2ca220a26a-

my google analytics key&utm medium=email; and EUobserver, 'Poland and Russia finalise major gas deal', 27 October 2010. Available at: <a href="http://euobserver.com/9/31138">http://euobserver.com/9/31138</a>. Both accessed on 8 December 2010.

 $<sup>^{268}</sup>$  South Stream is a proposed gas pipeline to transport Russian natural gas to the Black Sea to Bulgaria and further to Italy and Austria.

<sup>&</sup>lt;sup>269</sup> Euractiv, 'Commission urges Bulgaria to change Gazprom clause', 15 November 2010. Available at: <a href="http://www.euractiv.com/en/energy/commission-urges-bulgaria-change-gazprom-clause-news-499737">http://www.euractiv.com/en/energy/commission-urges-bulgaria-change-gazprom-clause-news-499737</a>; WAZ.EUobserver, 'Putin leaves Bulgaria with a gas deal and a new puppy', 15 November 2010. Available at: <a href="http://waz.euobserver.com/887/31264">http://waz.euobserver.com/887/31264</a>. Both accessed on 8 December 2010.

ensures full and unrestricted transit of Russian gas across Bulgarian territory. The agreement violates EU rules on third party access to planned pipeline projects such as Nabucco or South Stream.<sup>270</sup> Bulgaria afterwards assured the Commission, it would revise the agreement. The difficulties prompted Russian Prime Minister Putin to criticise EU legislation, warning that rules on ownership unbundling would prevent big energy players from building new gas infrastructure projects, thus stalling much needed infrastructure development – small and inexperienced companies being unable to carry the risk and putting an additional burden on current prices.<sup>271</sup>

In terms of positions, Russia views the Law on Foreign Investment as logical to ensure the protection of a vital industry, yet sees the EU's third legislative market package as a source of 'imbalance' and concern of the investment climate between Russia and the EU. Possibly even in violation of World Trade Organization (WTO) law, which could become a problem if Russia eventually joins the organisation.<sup>272</sup> However, when compared, the EU's 'reciprocity clause' does not seem to be as restrictive as the Law on Foreign Investment, rendering a change in Russian policy more justified – a view shared by many of the EU's New Member States.<sup>273</sup> Some of the Union's big Member States seem to have a different stance on reciprocity which ranges from questioning whether reciprocity is desirable at all<sup>274</sup>, to whether in fact it should mean that there should be the *exact same* rules, or that EU rules would also have to apply outside of the EU.<sup>275</sup>

The EU seems to view reciprocity as a tool to export market liberalisation beyond its borders as well as a leverage on access to downstream markets, whereas Russia considers it a bargaining tool for further investment projects in its domestic upstream.<sup>276</sup> Some comment that Brussels has little leverage in Moscow to move on this issue however. Moreover, the internal dividedness between

<sup>&</sup>lt;sup>270</sup> Euractiv, 'Commission urges Bulgaria to change Gazprom clause', *supra* note 269.

<sup>&</sup>lt;sup>271</sup> *Ibid.*; WAZ.EUobserver, 'Putin leaves Bulgaria with a gas deal and a new puppy', *supra* note 269.

<sup>&</sup>lt;sup>272</sup> Interview with official from Permanent Mission Russian mission to the European Union, 26 May 2010. The likelihood of Russia joining the WTO has become greater after the last EU-Russia Summit saw a partial relaxation of EU objections. See EUobserver, 'EU and Russia to sign trade memo amid US mockery', 7 December 2010. Available at: <a href="http://euobserver.com/9/31442">http://euobserver.com/9/31442</a>; and Euractiv, 'EU backs Russia's WTO bid at 'best ever summit', 8 December 2010. Available at: <a href="http://www.euractiv.com/en/global-europe/eu-backs-russias-wto-bid-best-ever-summit-news-500397">http://www.euractiv.com/en/global-europe/eu-backs-russias-wto-bid-best-ever-summit-news-500397</a>. Both accessed on 8 December 2010.

<sup>&</sup>lt;sup>273</sup> Interviews with officials from Permanent Representations of Romania, Estonia, Poland, Slovakia, Lithuania, Bulgaria and the Czech Republic to the EU, 12 May, 7 June, 13 May, 20 May, 5 May, and 19 April 2010, ; interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010.

<sup>&</sup>lt;sup>274</sup> The reasoning here is that when a State is unwilling to open up its markets, there is no guarantee that closing 'your' market in return will facilitate the opening up of the former. Instead it prevents exports from running properly.

<sup>&</sup>lt;sup>275</sup> Interviews with officials from Permanent Representations of the UK and Germany to the EU, 10 June and 2 July 2010. See also, R. Youngs, (2009), *supra* note 16, p. 34.

<sup>&</sup>lt;sup>276</sup> A. Belyi, (2009), *supra* note 226, p.128.

'old' and 'new' Europe makes it harder to reach a compromise on reciprocity, and easier for powerful suppliers such as Russia to take advantage of the lack of a unified stance (see also *infra*, 4.6).<sup>277</sup> Instead, Brussels should seek to overcome French and German opposition and impose true reciprocity through the establishment of 'across-the-board' unbundling, rather than focus on the 'third way' and its reciprocity clause as an intermediate measure (see also *infra*, 5 concluding remarks).<sup>278</sup>

<sup>&</sup>lt;sup>277</sup> R. Alcaro and E. Alessandri, (2010), *supra* note 43, p. 204; E. Kirchner and C. Berk, (2010), *supra* note 43, p. 868; S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, p. 518; The Economist Intelligence Unit, (2008), 'Lithuania: Holding EU-Russia talks hostage'. Economist Country Monitor, 28 April 2008; interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010; interview with official from Embassy of Azerbaijan in Brussels, 13 September 2010.

<sup>&</sup>lt;sup>278</sup> O. H. Maican, (2009), *supra* note 2, p. 37; K. Barysch, (2007), 'Reciprocity will not secure Europe's energy'. CER Bulletin 55. Available at: <a href="http://www.cer.org.uk/articles/55">http://www.cer.org.uk/articles/55</a> barysch.html. Accessed on 8 December 2010.

# 4.2: EU-Russia Bilateral and International Legal Framework

The PCA between the EU and Russia has been automatically prolonged since November 2007, when its ten year span officially came to an end. Although, no bilateral legal vacuum was created as such, both parties are well aware of the need to introduce a new treaty sooner, rather than later.<sup>279</sup>

Internationally, the Energy Charter Treaty (ECT) and its Draft Transit Protocol (DTP) represent the only intergovernmental agreement in the energy field that has legally binding rules backed up by a dispute settlement mechanism; the first binding multilateral agreement for the promotion and protection of foreign energy investment; and the first multilateral instrument that explains detailed provisions on transit.<sup>280</sup> However, much to EU's consternation, Russia never ratified the ECT. Instead, Moscow opted to apply the Treaty provisionally<sup>281</sup>, until it finally announced it would terminate provisional application on 20 August 2009.<sup>282</sup>

The issues concerning the PCA and ECT are strongly interrelated since, in the eyes of the EU, a new bilateral agreement should be firmly based on the principles of the Charter, as well as reciprocity, transparency and non-discrimination.<sup>283</sup> Russia on the other hand sees full implementation of the ECT, among other things, as providing free access to its oil and gas production and transport infrastructure and is not sure it will get something of equal value in return, both in terms of assets as well as regulatory protection (see also *infra*, this paragraph).<sup>284</sup> If a new PCA is to be based on Energy Charter principles, inability to reconcile on these matters is a fundamental problem. Given

<sup>&</sup>lt;sup>279</sup> J. Kulhánek, (2010), 'EU and Russia in search of a new modus operandi: Time is running out'. Association for International Affairs, 12 April 2010. Available at: <a href="http://www.amo.cz/publications/eu-and-russia-in-search-of-a-new-modus-operandi-time-is-running-out.html?lang=en">http://www.amo.cz/publications/eu-and-russia-in-search-of-a-new-modus-operandi-time-is-running-out.html?lang=en</a>. Accessed on 8 December 2010.

<sup>&</sup>lt;sup>280</sup> Y. Selivanova, (2010), 'Managing the Patchwork of Agreements in Trade and Investment', in A. Goldthau and J. M. Witte (eds.), *Global Energy Governance: The New Rules of the Game*, (Washington D.C.: Brookings Institution Press), p. 61; S. Haghighi, (2007), *supra* note 10, p. 193; O.H. Maican, (2009), *supra* note 2, p. 32; R. Leal-Arcas, (2009), *supra* note 13, p. 359.

<sup>&</sup>lt;sup>281</sup> Provisional application is provided for by Art. 45 ECT. Russia linked ratification of the ECT to reaching an agreement on the Transit Protocol.

<sup>&</sup>lt;sup>282</sup> See Energy Charter, 'About the Charter: Members & Observers'. Available at: <a href="http://www.encharter.org/index.php?id=414#c1338">http://www.encharter.org/index.php?id=414#c1338</a>. Accessed on 9 December 2010.

<sup>&</sup>lt;sup>283</sup> COM(2008) 740 final of 5 November 2008, p. 3; COM(2006) 590 final, *supra* note 55, p. 3. See also A. Hadfield, (2008), 'EU-Russia Energy Relations: Aggregation and Aggravation', *Journal of Contemporary European Studies* 16(2), p. 234.

<sup>&</sup>lt;sup>284</sup> Interview with official from Energy Charter Secretariat, 13 October 2010; Responses to questions from Russian journalists following the Russia-EU Summit and Press Conference, Sochi, 25 May 2006. Available at: <a href="http://archive.kremlin.ru/eng/speeches/2006/05/25/2359">http://archive.kremlin.ru/eng/speeches/2006/05/25/2359</a> type82915 106123.shtml. Accessed on 9 December 2010. See also F. Lukyanov, (2008), 'Russia-EU: The Partnership That Went Astray', *Europe-Asia Studies* 60(6), p. 1110.

the strong interrelatedness of both agreements, this paragraph analyses their key-issues in a combined fashion.

Whereas, the EU seems to favour a new agreement that contains precise wordings on energy, and energy security in particular, based on exporting the Union's *acquis communautaire*<sup>285</sup>, Russian President Medvedev rather supports a document that is 'short, without too many details' and would leave provisions for cooperation in different sectors to special protocols or agreements.<sup>286</sup> The EP on the other hand, reiterated after the June 2010 EU-Russia summit that EU-Russia energy cooperation must be based on the principles of the Energy Charter and the Transit Protocol and incorporated into the new framework agreement in order to ensure transparent and fair mutual investment conditions, equal access and a rule-based market – which excludes the use of energy as a foreign policy tool.<sup>287</sup>

Integrating provisions on energy cooperation within a new PCA and cross-border extension of the EU's *acquis*, for example through the Energy Community Treaty (see *supra*, 3.1.1) is something Moscow is particularly opposed to.<sup>288</sup> Indeed, one can expect that as the EU's dependence on external supplies grows, key gas exporters, particularly those that are part of the integrated Eurasian (EU plus non-EU) gas supply system based on fixed infrastructure, will want to remain outside the area which is governed by EU legal rules.<sup>289</sup> However, it will prove equally difficult for Russia to reach an agreement with the Union on terms incompatible with European law.<sup>290</sup> Alternatively, preparing a new EU-Russia agreement with an energy chapter based on ECT principles is equally unlikely to bode well with Moscow, particularly as it viewed the Charter Secretariat as unable to play an active role in preventing and solving the January 2009 crisis.<sup>291</sup>

<sup>&</sup>lt;sup>285</sup> A. Konoplyanik, (2009a), *supra* note 226, p. 261.

<sup>&</sup>lt;sup>286</sup> International Herald Tribune, 'Medvedev makes nice with the EU', 27 June 2008. Available at: <a href="http://www.nytimes.com/2008/06/27/world/europe/27iht-union.4.14050408.html?r=1">http://www.nytimes.com/2008/06/27/world/europe/27iht-union.4.14050408.html?r=1</a>. Accessed on 9 December 2010; T. Romanova, (2008), *supra* note 12, p. 223; A. Konoplyanik, (2009a), *supra* note 226, p. 261. 
<sup>287</sup> European Parliament Resolution of 17June 2010 on the conclusion of the EU/Russia summit (31 May-1 June 2010, P7\_TA-PROV(2010)0234, point 10.

<sup>&</sup>lt;sup>288</sup> T. Romanova, (2008), *supra* note 12, p. 223; A. Konoplyanik, (2009a), *supra* note 226, p. 269; Interview of Russian Deputy Minister of Foreign Affairs Alexander Grushko on Relations Between Russia, and the EU and US, Granted to Interfax News Agency on November 10, 2008. Available at: <a href="http://www.russianembassy.org.za/statements/text/nov08//relations.html">http://www.russianembassy.org.za/statements/text/nov08//relations.html</a>. Accessed on 9 December 2010. <sup>289</sup> A. Konoplyanik, (2009a), *supra* note 226, p. 266.

<sup>&</sup>lt;sup>290</sup> A. Konoplyanik, (2009c), 'Russia: don't oppose the Energy Charter, help to adapt it', *Petroleum Economist*, July 2009, p. 2. Available at: <a href="http://www.konoplyanik.ru/ru/publications/articles/090618-PE-ECT-final.pdf">http://www.konoplyanik.ru/ru/publications/articles/090618-PE-ECT-final.pdf</a>. Accessed on 8 December 2010.

<sup>&</sup>lt;sup>291</sup> *Ibid.*, p. 270; R. Leal-Arcas, (2009), *supra* note 13, p. 359; O.H. Maican, (2009), *supra* note 2, p. 34; S. Seliverstov, (2009), *supra* note 250, p. 9. During said crisis, the ECT was indeed used very limitedly and

Moreover, much has changed since the existing PCA and the Energy Charter were negotiated: the Union has grown from 15 to 27 Member States; the gap in 'level of market liberalisation' between the EU and Russia has increased over time; and politically the window of opportunity has significantly narrowed compared to the early 1990s when the fall of the Berlin Wall prompted euphoria on both sides.<sup>292</sup> The prospects of negotiating a new treaty based on ECT principles are therefore not optimal, particularly not since the January 2009 crisis.<sup>293</sup> Since that crisis, Russia has been increasingly vocal on the need to develop an entirely new treaty; one that would completely replace the ECT. Moscow continues to insist that such a treaty should address the concerns of producer countries more substantially, and states the chances Russia would ratify the existing Charter are minimal (see also *infra*, this paragraph).<sup>294</sup>

The Treaty's inability to resolve the recent crises and other issues<sup>295</sup> set aside, two of Russia's most fundamental – and substantial – concerns with regard to the ECT relate to transit and the idea of the EU as a Regional Economic Integration Organisation (REIO).<sup>296</sup> The first issue pertains to what is known as the 'contractual mismatch' problem. This is an issue which arises when the duration of a long-term export supply contract does not match the duration and/or volume of the agreement provided to the shipper by the owner/operator of the transport system within an unbundled

proved unable to prevent or solve the dispute – although Ukraine is a full member of the Treaty. See S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, p. 529.

<sup>&</sup>lt;sup>292</sup> Interview with official from European Commission DG Energy, 8 October 2010; A. Konoplyanik, (2009a), *supra* note 226, pp. 272-274; R. Leal-Arcas, (2009), *supra* note 13, p. 362.

<sup>&</sup>lt;sup>293</sup> R. Leal-Arcas, (2009), *supra* note 13, p. 362

<sup>&</sup>lt;sup>294</sup> Interview with official from Permanent Mission Russian mission to the European Union, 26 May 2010; T. Romanova, (2008), supra note 12, pp. 223-224; S. Seliverstov, (2009), supra note 250, p. 8; Russian President Medvedev, in an interview with the Spanish press. Russiatoday, 'Europe needs new Energy Charter -Medvedev', 1 March 2009. Available at: <a href="http://rt.com/news/europe-needs-new-energy-charter-medvedev/">http://rt.com/news/europe-needs-new-energy-charter-medvedev/</a>; at Davos', Street Journal, 'Putin Speaks 28 January 2009. http://online.wsi.com/article/SB123317069332125243.html; R. Jozwiak, (2009), 'Chances of Russia ratifying charter 'minimal". European Voice, 4 February 2009. http://www.europeanvoice.com/article/2009/02/chances-of-russia-ratifying-energy-charter-are-minimal-/63821.aspx . All accessed on 9 December 2010.

<sup>&</sup>lt;sup>295</sup> When the process of ratification was discussed in the Russian State Duma, Russian companies such as Transneft and Gazprom argued that the ECT would oblige them to open their network to lower cost gas from Central Asian countries. Calculations were made on how much they would lose. However, the Treaty does not foresee Mandatory Third Party Access (MTPA). This is clearly written down in both the ECT and the DTP. Therefore, one might argue that this argument is in fact wrong.

<sup>&</sup>lt;sup>296</sup> Interview with official from Energy Charter Secretariat, 13 October 2010; interview with official from Permanent Representation of Slovenia to the EU, 23 April 2010; A. Konoplyanik, (2009a), *supra* note 226, p. 280; A. Konoplyanik, (2009b), 'Gas Transit in Eurasia: Transit Issues between Russia and the European Union and the Role of the Energy Charter', *Journal of Energy and Natural Resources Law 27*(3), p. 470; O.H. Maican, (2009), *supra* note 2, p. 33; E.F. van der Meulen, (2009), 'Gas Supply and EU-Russia Relations', *Europe-Asia Studies 61*(5), p. 850.

market (*i.e.* the 'transit contract').<sup>297</sup> The other issue stems from the nature of the EU within the ECT and the DTP. Whereas under the ECT transit refers to the crossing of the territory of both the EU as a whole *and* of its individual Member States<sup>298</sup>, pursuant to Article 20 DTP – as proposed by the EU – transit constitutes merely crossing the territory of the Union as a whole, and *not* of individual Member States as such.<sup>299</sup>

The contractual mismatch problem originates predominantly within the Commonwealth of Independent States (CIS) countries, particularly with respect to Belarus and Ukraine. As transit contracts were usually signed on an annual basis – the recent crises with both countries illustrate well which risks such practice entails.<sup>300</sup> In other CIS countries, this problem was 'solved' through a practice called the 'right of first refusal' (RFR).<sup>301</sup> However, given the lack of alternative pipelines for most other CIS countries, the practice of RFR simply meant a continuation of business as usual, *i.e.* shipping the gas to Russia.<sup>302</sup> Gazprom suggested, as a way to overcome the problem of contractual mismatch within the EU context, granting a priority right for an existing supplier with a long term contract for rebooking the transport capacity in cases where the long term contract was still in place.<sup>303</sup> However, the EU saw RFR as a means of granting preferential access rights to incumbents and discriminate against newcomers, whose only option would be to construct a new pipeline. Brussels subsequently rebuffed by idea on grounds of it violating the Union's internal competition rules.<sup>304</sup>

When the DTP was developed, discussions moved from a system of RFR to a principle that was thought to be more non-discriminatory and in line with what the EU was asking for.<sup>305</sup> The idea is that when transit capacity is requested and cannot be granted due to a supply contract, the

<sup>&</sup>lt;sup>297</sup> Interview with official from Energy Charter Secretariat, 13 October 2010; A. Konoplyanik, (2009a), *supra* note 226, p. 280; A. Konoplyanik, (2009b), *supra* note 296, p. 470.

<sup>&</sup>lt;sup>298</sup> Art. 7 ECT.

<sup>&</sup>lt;sup>299</sup> Interview with official from Energy Charter Secretariat, 13 October 2010; interview with official from Permanent Representation of Slovenia to the EU, 23 April 2010; A. Konoplyanik, (2009a), *supra* note 226, p. 282; A. Konoplyanik, (2009b), *supra* note 296, p. 470; S. Haghighi, (2007), *supra* note 10, p. 330.

<sup>&</sup>lt;sup>300</sup> A. Konoplyanik, (2009b), *supra* note 296, p. 480.

<sup>&</sup>lt;sup>301</sup> Right of first refusal ( RFR) is a contractual right that gives its holder the option to enter a business transaction with the owner of something, according to specified terms, before the owner is entitled to enter into that transaction with a third party.

<sup>&</sup>lt;sup>302</sup> Interviews with officials from Permanent Representations of Germany and Slovenia to the EU, 2 July and 23 April 2010.

<sup>&</sup>lt;sup>303</sup> Interview with official from Permanent Mission Russian mission to the European Union, 26 May 2010.

<sup>&</sup>lt;sup>304</sup> *Ibid.*; Interview with official from Energy Charter Secretariat, 13 October 2010; A. Konoplyanik, (2009b), *supra* note 296, p. 481; S. Haghighi, (2007), *supra* note 10, pp. 328-329.

<sup>&</sup>lt;sup>305</sup> The system was dubbed the 'Paris Opera System'. Interview with official from Energy Charter Secretariat, 13 October 2010.

applicant party would be placed on a waiting list. In order to enter up on this waiting list, one has to undergo a non-discriminatory selection practice. If transit capacity could ultimately – for some reason – not be granted, it should be created. For now however, this idea has not yet been developed into a more concrete form, nor does the latest version of the DTP reflect it.<sup>306</sup>

The application of the DTP within the territory of the EU has been an issue since 2002, ever since the Union first proposed the new Article 20 DTP.<sup>307</sup> The stricter nature of Article 20 DTP compared to Article 7 ECT, would limit the application of the DTP to cases where energy originates from a third country and passes through EU territory destined for another third country. Examples include shipments to areas such as Switzerland, Kaliningrad or deliveries to Turkey.<sup>308</sup> Conversely, EU Member States are considered transit countries if the energy originated from a third country and was destined for an EU Member State, crossing their territory in the process. This means that in this case, the DTP will not apply and the EU's own internal market rules on transit will apply instead.<sup>309</sup> This exclusion of the DTP should be problematic only if EU law is not as protective as the DTP.<sup>310</sup>

However, this is precisely where a vital problem lies. A few years ago, a new wording was introduced in Article 20 DTP, stating 'the rules of a REIO shall provide an *overall* standard at least equivalent to that resulting from the provisions of this Protocol'.<sup>311</sup> For Russia, this *overall* standard is not enough as it would have to be at least a *similar* standard.<sup>312</sup> A member of the industry advisory panel to the Energy Charter explained that 'Russian gas exporters cannot rely on the goodwill and even on the wisdom of the creators of EU Directives on Gas and prefer to have a say in discussing issues which are of vital importance for them'.<sup>313</sup> Moscow has since never given up that the EU might be ready to surrender this provision, but for the EU this remains a *sine qua non*.<sup>314</sup>

<sup>306</sup> Interview with official from Energy Charter Secretariat, 13 October 2010.

<sup>&</sup>lt;sup>307</sup> *Ibid.*; interview with official from Permanent Representation of Slovenia to the EU, 23 April 2010; Interview with official from Permanent Mission Russian mission to the European Union, 26 May 2010; A. Konoplyanik, (2009a), *supra* note 226, p. 281.

<sup>&</sup>lt;sup>308</sup> A. Konoplyanik, (2009a), *supra* note 226, p. 281; A. Konoplyanik, (2009b), *supra* note 296, p. 282; S. Haghighi, (2007), *supra* note 10, p. 332.

<sup>&</sup>lt;sup>309</sup> S. Haghighi, (2007), *supra* note 10, pp. 330-331.

<sup>&</sup>lt;sup>310</sup> *Ibid.*, p. 333.

<sup>&</sup>lt;sup>311</sup> Art. 20 DTP.

<sup>&</sup>lt;sup>312</sup> Interview with official from Energy Charter Secretariat, 13 October 2010.

<sup>&</sup>lt;sup>313</sup> See T.I. Shtilkind, (2005), 'Energy Charter Treaty: A critical Russian perspective', *Oil Gas & Energy Law 3*(1).

<sup>&</sup>lt;sup>314</sup> Interview with official from Energy Charter Secretariat, 13 October 2010. Others admitted that the negotiation process on this matter has been long, but without much result. Interviews with officials from Permanent Representations of Slovenia, Romania and Estonia to the EU, 23 April, 12 May and 7 June 2010.

Prior to Russia's announcement to terminate provisional application, President Medvedev had launched its own 'alternative' to the ECT in April 2009. The proposal frames energy security in terms of unconditional state sovereignty over natural resources and a guarantee that access to international energy markets is non-discriminatory and competitive. A substantial part of the proposal deals with transit. It seeks to introduce the principles of establishing transit tariffs and obliging all parties to ensure the proper fulfilment of transit requirements by their entities. He document stems from Russia's dissatisfaction with the Charter prior and after the January 2009 crisis. Russia's 'producer concerns' are however difficult to translate into treaty form, as 'security of demand' remains an elusive concept to define in legal terms. Indeed, the current proposal is considered very broad and incompletely formulated at this stage to be seen as a credible alternative to the ECT. He European Commission for its part had already ruled out abandoning the Energy Charter, claiming the EU should rely on existing arrangements and not question the present energy security system in Europe. The common line within the EU is that the proposal should be analysed within the ECT framework and benchmarked against the Charter.

Russia's withdrawal from the ECT did little good to its reputation for adhering to standards of international law. In fact, it deprives Russia of additional protection of its own investments abroad – something which ought to be of particular value to Moscow in light of its concerns over the EU's third legislative market package (see *supra*, 4.1).<sup>322</sup> However, Russian withdrawal does not mark the end of the Energy Charter as such.<sup>323</sup> On the contrary, other countries will continue to enjoy its

President of Russia, Conceptual Approach to the New Legal Framework for Energy Cooperation (Goals and Principles), 21 April 2009. Available at <a href="http://archive.kremlin.ru/eng/text/docs/2009/04/215305.shtml">http://archive.kremlin.ru/eng/text/docs/2009/04/215305.shtml</a>. Accessed on 8 December 2010. On this proposal, see also: Bochkarev, A. 2010. Redrawing the global energy blueprint. European Voice, 12 February 2010. Available at: <a href="http://www.europeanvoice.com/article/2010/02/redrawing-the-global-energy-blueprint/67151.aspx.">http://www.europeanvoice.com/article/2010/02/redrawing-the-global-energy-blueprint/67151.aspx.</a>; EUobserver, 'Russia invites Europe to join new energy charter', 21 April 2009. Available at: <a href="http://euobserver.com/?aid=27970">http://euobserver.com/?aid=27970</a>; and Euractiv, 'Russia unveils new global energy treaty blueprint', 22 April 2009. Available at: <a href="http://www.euractiv.com/en/energy/russia-unveils-new-global-energy-treaty-blueprint/article-181505">http://www.euractiv.com/en/energy/russia-unveils-new-global-energy-treaty-blueprint/article-181505</a>. All accessed on 8 December 2010.

<sup>&</sup>lt;sup>316</sup> Euractiv, 'Russia unveils new global energy treaty blueprint', *supra* note 315; O.H. Maican, (2009), *supra* note 2, p. 35.

<sup>&</sup>lt;sup>317</sup> A. Konoplyanik, (2009b), *supra* note 296, pp. 483-484.

<sup>&</sup>lt;sup>318</sup> Interview with official from Energy Charter Secretariat, 13 October 2010.

<sup>&</sup>lt;sup>319</sup> S. Nappert, (2010), *supra* note 258, p.11; A. Konoplyanik, (2009b), *supra* note 296, p. 484; A. Konoplyanik, (2009c), *supra* note 290, p. 3.

<sup>&</sup>lt;sup>320</sup> EUobserver, 'EU-Russia summit ends with prickly exchange over energy', 23 May 2009. Available at: <a href="http://euobserver.com/?aid=28173">http://euobserver.com/?aid=28173</a>. Accessed on 8 December 2010.

<sup>&</sup>lt;sup>321</sup> Interviews with officials from Permanent Representations of Romania and Slovenia to the EU, 12 May and 23 April 2010.

<sup>&</sup>lt;sup>322</sup> A. Konoplyanik, (2009c), *supra* note 290, p.2.

<sup>&</sup>lt;sup>323</sup> Interviews with official from European Commission DG Energy, 11 March and 15 October 2010.

advantages – such as reduced energy-financing costs – giving them a possible competitive advantage over Russian firms. Also, it is in no way guaranteed that the rejection of the Charter means that Russia is able to create a – in its view – more effective instrument in the foreseeable future.<sup>324</sup>

In terms of investment protection, Russia's withdrawal did not have immediate consequences for investments which were done in the past. An arbitrary court recently ruled that, in spite of not having ratified the Treaty, Russia was in fact bound by the ECT for investments pre-dating 19 October 2009. This means that all investments made up to that date, will continue to be protected for another 20 years.<sup>325</sup> Also, one has to bear in mind that the application of transit rules are in any event a direct transcription of those transit rules under the WTO, which Russia may or may not join eventually.<sup>326</sup> However, one should equally note that the WTO is not an energy-specific organisation and does not deal with transit through fixed infrastructure as such. This is the task for which the ECT and its related documents, such as the DTP were specifically designed.<sup>327</sup>

The unlikely chance that Medvedev's proposal will serve as a real alternative, coupled with the strong rules on investment protection enshrined within the ECT and the Treaty's long-standing history, provide it with enough value in the negotiations on a new EU-Russia agreement. Moreover, Moscow deems it deserves an equal place at the negotiating table and signing a new partnership agreement – whether or not based on the EU's *acquis* or principles of the Energy Charter – should not be viewed as a kind of reward that Russia gets for showing good behaviour. Indeed, rather than pursuing a new bilateral treaty and doing away with the ECT altogether, Brussels should try to take Russia's concerns on transit duly into account, balance these against the Charter, and subsequently draft a new EU-Russia Agreement that takes the ECT's strong points as its basis (see also *infra*, 5 concluding remarks).

<sup>&</sup>lt;sup>324</sup> A. Konoplyanik, (2009c), *supra* note 290, p.2.

<sup>325</sup> Interview with official from European Commission DG Energy, 11 March 2010. Euractiv, 'Court rules against Russia in Yukos case', 1 December 2009. Available at: <a href="http://www.euractiv.com/en/energy/court-rules-russia-yukos-case/article-187869">http://www.euractiv.com/en/energy/court-rules-russia-yukos-case/article-187869</a>; EUobserver, 'Investors call for tough EU-Russia energy treaty', 2 December 2009. Available at: <a href="http://euobserver.com/?aid=29084">http://euobserver.com/?aid=29084</a>. Both accessed on 8 December 2010; A. Konoplyanik, (2009c), <a href="mailto:supra">supra</a> note 290, p. 3; S. Nappert, (2010), <a href="mailto:supra">supra</a> note 258, p.13.

<sup>&</sup>lt;sup>326</sup> Interview with official from European Commission DG Energy, 11 March 2010.

<sup>&</sup>lt;sup>327</sup> A. Konoplyanik, (2009b), *supra* note 296, p. 485; EUobserver, 'Russia inches closer to WTO membership after EU deal', 25 November 2010. Available at: <a href="http://euobserver.com/?aid=31352">http://euobserver.com/?aid=31352</a>. Accessed on 8 December 2010

<sup>&</sup>lt;sup>328</sup> S. Nappert, (2010), *supra* note 258, p. 11; Russian President Medvedev, in an interview with the Spanish press. Russiatoday, 'Europe needs new Energy Charter – Medvedev', *supra* note 294.

## 4.3: Diversification of Energy Sources and Routes

By November 2010, the Commission published its long awaited energy strategy towards 2020.<sup>329</sup> Among other things, the €1 trillion the Strategy proposes to pursue an external EU energy policy, based on privileged partnerships with key supplier and transit countries. These partnerships should aim at promoting principles, such as those contained in the ECT (for example the freedom of transit, transparency, safety, investment opportunities, as well as compliance with international law).<sup>330</sup> Furthermore, the Strategy seeks to extend the EU's internal market rules to all the Union's neighbours who are willing to adopt it. The Strategy also envisages proposals to set the required regulatory framework between the Union and third countries to develop strategic routes from new suppliers, notably around the Southern Corridor.<sup>331</sup>

The Strategy was accompanied by a €200 billion plan laying out the EU's infrastructure priorities for the next decade.³³² The plan states every European region should implement infrastructure allowing physical access to at least two different sources of gas and identifies three priority corridors in the gas sector, including the Southern Corridor; linking the Baltic, Black, Adriatic and Aegean Seas; and a North-South Corridor in Central, Eastern and South-East Europe to remove internal bottlenecks.³³³ Among these, the Southern Corridor is singled out as the one initiative which diversifies both in terms of new sources of natural gas, as well as transit routes.³³⁴ Moreover, when compared to importing future supplies from Russia's Siberian fields – leaving aside the investment uncertainties and the political implications of this option – , the abundance of natural gas deposits available in the Middle East and Caspian Basin³³⁵, coupled with the latter's

<sup>&</sup>lt;sup>329</sup> COM(2010) 639 final, *supra* note 89.

<sup>&</sup>lt;sup>330</sup> *Ibid.*, p. 19.

<sup>&</sup>lt;sup>331</sup> *Ibid.*, pp. 18-19. See also European Parliament, Report on Towards a new Energy Strategy for Europe 2011-2020 of 8 November 2010, pp. 22-23

<sup>&</sup>lt;sup>332</sup> COM(2010) 677 final, *supra* note 90.

<sup>&</sup>lt;sup>333</sup> *Ibid.*, p. 11. During the January 2009 crisis between Russia and Ukraine, it is said that a lack of interconnectedness of Europe's pipeline system significantly hampered efforts to solve the crisis. See de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, p. 527. The EP notes in this regard that funding for increasing Europe's resilience to external energy shocks is, as a general rule, better spent inside the EU rather than outside the EU. This is because new gas cross-border interconnections and storage within the EU constitute a lasting addition to Europe's energy infrastructure, and are a practical expression of energy solidarity among member states. See European Parliament, Report on Towards a new Energy Strategy for Europe, *supra* note 331, p. 23.

<sup>&</sup>lt;sup>334</sup> European Parliament, Report on Towards a new Energy Strategy for Europe, *supra* note 331, p. 23.

<sup>&</sup>lt;sup>335</sup> At the end of 2009, the Middle East and the Caspian Basin were home to 89,09 trillion cubic meters (tcm) of natural gas, compared to 44,38 tcm within Russia. See BP Statistical Review of World Energy 2010, *supra* note 17.

geographical proximity to the Union make it the EU's region of choice. This paragraph assesses some of Europe's key projects on diversification, their merits, interrelationship, current status, and prospects for success. Concrete examples of the impact coming from rival projects from Russia and China are given where appropriate.

In its current form, Nabucco - the Southern Corridor's main project - intends to source its initial gas supplies from Azerbaijan. But, competition for Azeri gas is fierce, notably also from within the Southern Corridor itself, as other projects such as the Italy-Greece-Turkey-Interconnector (ITGI) and the TransAdriatic Pipeline (TAP) have similar plans to extract their gas from Azerbaijan.<sup>336</sup> In this regard, this proves to be a crucial year, when the winner of a 10bcm per year contract from Azerbaijan's Shah Deniz II field will be decided upon in late 2011.<sup>337</sup> This quantity of gas could easily fill TAP's initial capacity of 10 bcm per year<sup>338</sup> and/or most of the ITGI pipeline, which has a planned capacity of up to 12 bcm. Nabucco is a far larger pipeline however, and the 10bcm would only make up about one third of its 31 bcm per year capacity,<sup>339</sup> Moreover, as the Nabucco consortium is not producing any gas itself, it cannot expect profits resulting from gas trade to cover its investment costs and as such has to 'sell' its pipeline as a 'common good' project for security reasons.<sup>340</sup> This is precisely where Nabucco's problems begin.

Recently, Azerbaijan's top negotiator, Elshad Nassirov, made known that Socar - Azerbaijan's national oil company – wants to supply the aforementioned quantity only when it simultaneously

<sup>&</sup>lt;sup>336</sup> Euractiv, 'Adriatic pipeline to tap into Azeri gas', *supra* note 155; and Euractiv, 'Political pipelines are not 'cost-effective', 24 November 2010. Available at: http://www.euractiv.com/en/energy/political-pipelinesnot-cost-effective-news-499978; K. Geropoulos, (2010), Nabucco, ITGI, TAP: In the end there can be only one', 10 October 2010. Available at: http://www.neurope.eu/articles/Nabucco-ITGI-TAP-In-the-end-therecan-be-only-one-/103085.php; Offshoreenergytoday.com, 'Trans Adriatic Pipeline Reconfirms Shah Deniz II (Azerbaijan) initial Source Pipeline'. as the Gas for the Available http://www.offshoreenergytoday.com/trans-adriatic-pipeline-reconfirms-shah-deniz-ii-azerbaijan-as-theinitial-gas-source-for-the-pipeline/. All four accessed on 16 December 2010.

<sup>337</sup> Euractiv, 'Nabucco in 'David vs. Goliath' battle for Azeri gas', 10 December 2010. Available at: http://www.euractiv.com/en/energy/nabucco-david-vs-goliath-battle-azeri-gas-news-500465?utm\_source=EurActiv+Newsletter&utm\_campaign=aae3b0133b-

my google analytics key&utm medium=email. Accessed on 16 December 2010. It seems relatively certain that the gas indeed will be shipped for Europe as indicated by a January 2011 deal between the EU and Azerbaijan. The deal promises the delivery of the 10bcm per year, in exchange for 'visa facilitation' for Azeri nationals. See Euractiv, 'Barroso tops Azeri gas deal with visa facilitation', 14 January 2011. Available at: http://www.euractiv.com/en/energy/barroso-tops-azeri-gas-deal-visa-facilitation-news-

<sup>501255?</sup>utm source=EurActiv+Newsletter&utm campaign=f2468c6a81-

my google analytics key&utm medium=email. Accessed on 14 January 2011.

<sup>338</sup> The pipeline can however be extended to 20bcm per year.

<sup>&</sup>lt;sup>339</sup> K. Geropoulos, (2010), *supra* note 336; P.K. Baev and I. Øverland, (2010), *supra* note 231, p. 1082.

<sup>&</sup>lt;sup>340</sup> In the 1990s, the major oil companies led by BP who constructed the BTC pipeline were able to cover their investment costs from profits that accrued from their traded oil. Oil which they produced in Azerbaijan. Nabucco is unable to do this. See P.K. Baev and I. Øverland, (2010), supra note 231, p. 1083.

acquires the right to sell its gas to the nearest markets. Moreover, more problematic is that according to Nassirov, Socar is only willing to pay for gas transport costs as if Nabucco were running at full capacity.<sup>341</sup> However, at a fixed transit tariff and when running at only a third of its full potential, Nabucco carries a higher per unit transit cost compared to a full pipe; a cost which is ultimately borne by the final consumer.<sup>342</sup> As Nabucco gets financial support from the EU only when it runs at full capacity, this means that unless it is able to find a second source of gas, Socar is not willing to bear the commercial risks.<sup>343</sup> The Nabucco consortium is hoping an Azeri concession of 10bcm per year will convince other partners, such as Northern Iraq and/or Turkmenistan to start supplying additional sources of gas to Nabucco.<sup>344</sup> Socar is clear however that it does not want the transit tariff to depend on the mere *possible* availability of gas from other sources. Baku does not want to be seen as the EU's 'filling station' and wants hard guarantees and for Nabucco to quote its tariff.<sup>345</sup> One should also note here that Azerbaijan needs to take Moscow's concerns into account, as the country shares a common border with Russia. It would therefore be inadvisable for Baku to export all of its gas and oil to the West.<sup>346</sup> This perhaps partly explains Azerbaijan's cautious attitude, alongside the aforementioned commercial concerns.

In order to circumvent this problem, Azeri gas will have to be augmented from other sources. Iran would be Nabucco's ideal supplier, as it would be possible to source the gas from an overland connection, avoiding an expensive pipeline that spans the Caspian Sea (see *infra*, this paragraph). However, sanctions against Iran stemming from its disputed nuclear programme rule out the country as a potential supplier in the near future.<sup>347</sup> As Uzbekistan and Kazakhstan do not have the

\_\_\_

<sup>&</sup>lt;sup>341</sup> Nassirov claims that with a small upgrade, more Balkan countries, as well as Greece can be linked to Nabucco. Furthermore, he adds that if ITGI gets built, Socar would not want to limit itself to the supply zones of Greece and Italy only. Instead, Bulgaria, Macedonia, Albania and Serbia could also be supplied. See R. ten Hoedt, (2010), 'We do not Want to Depend on Only One Pipeline', 15 November 2010, p. 2. Available at: <a href="http://www.europeanenergyreview.eu/index.php?id=2528">http://www.europeanenergyreview.eu/index.php?id=2528</a>. Accessed on 16 December 2010.

<sup>&</sup>lt;sup>342</sup> *Ibid.* ITGI representatives also claim the pipeline is cheaper to build than Nabucco and could act as a first step for the latter's eventual construction. Interview with official from Permanent Representation of Italy to the EU, 24 June 2010; Euractiv, 'Italy's Edison promotes cheaper version of Nabucco', 27 April 2010. Available at: <a href="http://www.euractiv.com/en/energy/italy-s-edison-promotes-cheaper-version-nabucco-news-485149">http://www.euractiv.com/en/energy/italy-s-edison-promotes-cheaper-version-nabucco-news-485149</a>. Accessed on 17 December 2010.

<sup>&</sup>lt;sup>343</sup> According to Nassirov the Nabucco consortium will lose its stimulus for finding a second source, if Socar signs up to a half empty pipeline. R. ten Hoedt, (2010), *supra* note 340, p. 2.

<sup>&</sup>lt;sup>344</sup> K. Geropoulos, (2010), *supra* note 336.

<sup>&</sup>lt;sup>345</sup> R. ten Hoedt, (2010), *supra* note 340. p.3; A. Paul, (2010), 'How Do You Deal with An Autocratic and Energy-Rich Ally like Azerbaijan? Why We Need to Engage Azerbaijan – and Treat It as More than Just a Gas Station', *The German Marshall Fund of the United States On Wider Europe,* June 25 2010, p. 2.

<sup>&</sup>lt;sup>346</sup> P.K. Baev and I. Øverland, (2010), *supra* note 231, p. 1078.

<sup>&</sup>lt;sup>347</sup> See Council Regulation (EU) No 961/2010 of 25 October 2010. See also The Quaker Council for European Affairs, (2009), *supra* note 148, p. 8; and K. Barysch, (2010), *supra* note 137, p. 9.

potential to supply Nabucco substantially in the short term, this leaves the EU with basically two alternatives; Turkmenistan and/or Northern Iraq.<sup>348</sup>

The MoU between the EU and Turkmenistan of April 2008, and the April 2009 deal between Nabucco shareholder RWE and Turkmenistan in particular were much heralded (see *supra*, 3.2.1). Since, contacts with Ashgabat have intensified within the framework of the Union's policy dialogue with Turkmenistan.<sup>349</sup> At present there are essentially two options for getting gas from Turkmenistan: (i) acquiring offshore access to Turkmen gas; or (ii) to gain onshore access to Turkmen gas from the South Iolatan field.<sup>350</sup>

Gaining offshore access to Caspian gas is by no means an easy undertaking. Gas can be shipped across the Caspian by tanker, either in the form of Liquefied Natural Gas (LNG), Gas to Liquids (GTL) or as Compressed Natural Gas (CNG). However, in the long run this is much more expensive and cumbersome compared to constructing a pipeline.<sup>351</sup> Politically however, building a TransCaspian pipeline is likely to meet with fierce resistance from both Russia and Iran on grounds of sovereignty, environmental concern and fears over potential loss of export revenues.<sup>352</sup> Nevertheless, a series of recent developments could impact positively on the establishment of such a connection.

At a recent regional security meeting (see *supra*, 3.2.1) the Turkmen President decided to de-link construction of a Trans-Caspian pipeline from the resolution of the long-standing dispute between Turkmenistan and Azerbaijan over the Serdar/Kyapaz gas field in the central Caspian – an area over which both countries claim sovereignty.<sup>353</sup> The decision was followed by an announcement from Turkmenistan's deputy Prime Minister who claimed that given the domestic consumption in

<sup>&</sup>lt;sup>348</sup> The Quaker Council for European Affairs, (2009), *supra* note 148, p. 10; M. Denison, (2009), 'The EU and Central Asia: Commercialising the Energy Relationship'. EUCAM Working Paper 02, pp. 7-8: N. Kassenova, (2009). 'Kazakhstan and the South Caucasus corridor in the wake of the Georgia-Russia War'. EUCAM Policy Brief No. 3, p. 3.

<sup>&</sup>lt;sup>349</sup> M. Emerson et al. (2010), *supra* note 106, pp. 78-79.

<sup>&</sup>lt;sup>350</sup> M. Denison, (2009), *supra* note 348, p. 9.

<sup>351</sup> *Ibid.*; T. Tsakiris, (2010), 'Turkmenistan Tilts towards the West As It Considers Strategic Rapprochement with Azerbaijan', 6 December 2010. Available at: <a href="http://www.ekemeuroenergy.org/en/index.php?option=com\_content&view=article&id=136:turkmenistan-tilts-towards-the-west-as-it-considers-strategic-rapprochement-with-">http://www.ekemeuroenergy.org/en/index.php?option=com\_content&view=article&id=136:turkmenistan-tilts-towards-the-west-as-it-considers-strategic-rapprochement-with-</a>

<sup>&</sup>lt;u>azerbaijan&catid=35:analyses&Itemid=57</u>; N. Comfort, (2010), 'RWE Says Nabucco Won't Need Turkmen Gas If Azeri, Iraq Supplies Secured', 18 October 2010. Available at: <a href="http://www.bloomberg.com/news/2010-10-18/rwe-says-nabucco-won-t-need-turkmenistan-gas-if-supplies-materialize-.html">http://www.bloomberg.com/news/2010-10-18/rwe-says-nabucco-won-t-need-turkmenistan-gas-if-supplies-materialize-.html</a>. Both accessed on 17 December 2010.

<sup>&</sup>lt;sup>352</sup> *Ibid.*; A. Cohen, (2009a), *supra* note 16, pp. 113-114 and 119-120; T. Tsakiris, (2010), *supra* note 351; P.K. Baev and I. Øverland, (2010), *supra* note 231, p. 1082.

<sup>&</sup>lt;sup>353</sup> T. Tsakiris, (2010), *supra* note 351; M. Denison, (2009), *supra* note 348, p. 9.

the west of the country and gas supplies from there to Iran, Turkmenistan will have about 40 bcm of gas annually for export to Europe. $^{354}$ 

The doubtfulness of similar past statements concerning Turkmen reserves notwithstanding, it is certain that this gas will not come from offshore supplies, but rather from Turkmenistan's onshore South Iolatan field. The development of this field is said to be technically complex and poorly explored, thereby possibly giving a competitive edge to European companies. However, Europe is facing stiff competition from China. Beijing did not only agree to lend Turkmenistan around \$3 billion for the development of the field in 2009, but also recently opened a direct pipeline between the two countries. The pipeline was constructed, finalised and opened in under three years' time. China managed to finish the deal so quickly, simply because it was able to construct the pipeline itself, buy lots of gas for many years, sort out the transit issues through Kazakhstan and Uzbekistan, help with the development of the gas within Turkmenistan and simultaneously provide the money needed for all of this. Turkmenistan will subsequently repay China through the gas it ships through the pipe over the years. 357

Needless to say, the EU's operating structure does not allow for it to do the same as the responsibility to strike such deals is borne by private companies, rather than the State. At present, no strong indications exist that Turkmen gas is to flow westwards anytime soon, due to uncertainties concerning a TransCaspian connection, Ashgabat's existing commitments to China over its South Iolatan gas field, as well as the large commercial risks associated with putting forward the necessary investments. A possible solution to alleviate some of the commercial risks associated with the purchase of Turkmen gas and to get Ashgabat interested in shipping large amounts of gas westwards is to aggregate and "pool" demand from EU Member States and buy gas collectively – as proposed by the European Commission in its Second Strategic Energy Review (see *infra*, 4.6).

\_

<sup>&</sup>lt;sup>354</sup> T. Tsakiris, (2010), *supra* note 351.

<sup>355</sup> M. Denison, (2009), *supra* note 348, p. 9; P.K. Baev and I. Øverland, (2010), *supra* note 231, p. 1082.

<sup>&</sup>lt;sup>356</sup> S. Peyrouse, (2009b). 'Central Asia's growing partnership with China'. EUCAM Working Paper 4, p. 8; S. Swartz, (2009), 'Turkmenistan Awards Giant Gas Deal', 31 December 2009. Available at: <a href="http://online.wsj.com/article/SB10001424052748704152804574627691852612668.html">http://online.wsj.com/article/SB10001424052748704152804574627691852612668.html</a>; EUobserver, 'China beats EU in race for Turkmen gas', *supra* note 151. Both accessed on 17 December 2010.

<sup>&</sup>lt;sup>357</sup> K. Barysch, (2010), *supra* note 137, p. 8.

Next to Turkmenistan, another alternative for the EU is to source gas from Northern Iraq. The majority of Iraq's natural gas resources<sup>358</sup> are associated with oil field exploration. Fewer than 20% of its known gas reserves are non-associated autonomous gas fields, the majority of which are concentrated in the North.<sup>359</sup> Aware of the region's vast resources and its strategic location along the Southern Corridor, several of the Nabucco consortium members have signed MoU's with Kurdish Iraq.<sup>360</sup> In May 2010, OMV, of Austria, and Hungary's MOL agreed to invest \$8 billion in Kurdistan's gas fields and each bought about a 10% stake in Pearl Petroleum, which is developing Kurdistan's Khor Mor gas field. Both companies claimed they could pump as much as 30 bcm annually<sup>361</sup>, of which 15 bcm could flow to Europe and fill half of Nabucco.<sup>362</sup> Similarly, German RWE signed a cooperation agreement with Kurdish Iraq in August 2010. In a statement issued by RWE in Germany, quoting Iraqi Kurdistan's natural resources minister, it claimed that up to 20 billion cubic metres of gas a year could be fed into the pipe to bring gas to Turkey and Europe.<sup>363</sup>

As promising as these deals may sound, gas supplies from Northern Iraq face some serious obstacles. First, the Iraqi central government and the Kurdish north have a long-standing dispute concerning the distribution of oil and gas revenues. Second, there are disagreements between the various political parties over how much of a role international energy companies should play in the restoration and further development of the country's oil and gas sector.<sup>364</sup> Third, and preventing a comprehensive solution to the first two problems, is that Iraq until recently faced a political stalemate after the March 2010 elections proved inconclusive.<sup>365</sup>

\_\_\_

<sup>&</sup>lt;sup>358</sup> At the end of 2009, Iraq was home to 3,17 tcm of natural gas. See BP Statistical Review of World Energy 2010, *supra* note 17.

<sup>&</sup>lt;sup>359</sup> US Energy Information Administration, (2010), Country Analysis/Briefs: Iraq. Available at: <a href="http://www.eia.doe.gov/cabs/iraq/NaturalGas.html">http://www.eia.doe.gov/cabs/iraq/NaturalGas.html</a>. Accessed on 19 December 2010.

<sup>&</sup>lt;sup>360</sup> In January 2010, the EU itself had signed a MoU with Baghdad concerning energy cooperation. See Memorandum of Understanding Between the Government of Iraq and the European Union on Strategic Partnership in Energy, 18 January 2010. Available at: <a href="http://ec.europa.eu/energy/international/bilateral cooperation/doc/iraq/2010\_01\_18\_iraq\_mou\_en.pdf">http://ec.europa.eu/energy/international/bilateral cooperation/doc/iraq/2010\_01\_18\_iraq\_mou\_en.pdf</a>. <sup>361</sup> Author's own calculations.

<sup>&</sup>lt;sup>362</sup> See C. Hoyos, (2009), 'Nabucco hopes grow after \$8bn Iraqi gas deal', 18 May 2009. Available at: <a href="http://www.ft.com/cms/s/0/f19c0f76-4341-11de-b793-00144feabdc0.html#axzz18YuNmij1">http://www.ft.com/cms/s/0/f19c0f76-4341-11de-b793-00144feabdc0.html#axzz18YuNmij1</a>; Energia.gr, 'OMV Gas Plan Is Risky But Promising, Analysts Say', 21 July 2009. Available at: <a href="http://www.energia.gr/article-en.asp?art\_id=20562">http://www.energia.gr/article-en.asp?art\_id=20562</a>. Both accessed on 19 December 2010.

Reuters, 'RWE signs Nabucco cooperation deal with Iraq Kurds', 27 August 2010. Available at: <a href="http://uk.reuters.com/article/idUKLDE67Q12H20100827">http://uk.reuters.com/article/idUKLDE67Q12H20100827</a>.

<sup>&</sup>lt;sup>364</sup> The Quaker Council for European Affairs, (2009), *supra* note 148, p. 8; K. Barysch, (2010), *supra* note 137, p. 8.

<sup>&</sup>lt;sup>365</sup> BBC News, 'Nouri Maliki starts work on forming Iraq government', 25 November 2010. Available at: <a href="http://www.bbc.co.uk/news/world-middle-east-11836484">http://www.bbc.co.uk/news/world-middle-east-11836484</a>. Accessed on 19 December 2010.

Following the aforementioned gas deals, Baghdad was quick to respond and label them as 'illegal', making clear that all gas export agreements need to be signed by the central authorities.<sup>366</sup> This claim is not undisputed<sup>367</sup>; however it is not expected that the EU or the US would be in favour of exporting gas without prior consent from Baghdad.<sup>368</sup> In the unlikely event that they *would*, Turkey is expected to be highly reluctant to transit such gas over fears that such a move may spark its own Kurdish region towards greater autonomy.<sup>369</sup> Crucial to overcoming these issues is the ratification of Iraq's long-awaited hydrocarbon law which was drafted in 2007. The law outlines a regulatory and policy development framework for future oil and gas exploration and production in Iraq. Due to the above mentioned points of contention however, no agreement has hitherto been reached.<sup>370</sup> It is expected that after Iraq has formed its government, a decision on the law will be made in 2011.

The above analysis showed that in spite of the EU's great intentions concerning its Southern Corridor, actual gas supply contracts are (as of yet) still to materialise. 2011 will therefore be the Southern Corridor's crucial year, pending key decisions in both Azerbaijan and Iraq. With fierce competition both inside and outside of the Union however, time favours the supplier countries, rather than Brussels.

# 4.4: Energy-Human Rights Nexus in Central Asia

In the early 1990s, the Union was of the opinion that States possessing valuable energy resources could be persuaded into becoming reliable partners and eventually be on par with EU principles founded on the functioning of a free market ideology.<sup>371</sup> Back then, energy policy was little associated with broader foreign policy, let alone issues of human rights and democratisation.

Over time, this has changed considerably. Human rights and democratisation are now widely considered an intricate part of foreign policy. Developments in-; and a broader access *to* modern

<sup>&</sup>lt;sup>366</sup> EUobserver, 'EU banks throw their weight behind Nabucco pipeline', 6 September 2010. Available at: <a href="http://euobserver.com/880/30739">http://euobserver.com/880/30739</a>. Accessed on 19 December 2010.

<sup>&</sup>lt;sup>367</sup> Energy Intelligence, (2010), 'Energy Compass Iraq: Oil Under the New Government', 26 November 2010. Available at: <a href="http://www.energyintel.com/DocumentDetail.asp?document\_id=696273">http://www.energyintel.com/DocumentDetail.asp?document\_id=696273</a>. Accessed on 19 December 2010.

<sup>&</sup>lt;sup>368</sup> K. Barysch, (2010), *supra* note 137, p. 8.

<sup>&</sup>lt;sup>369</sup> K. Barysch, (2010), *supra* note 137; R. Rapier, (2010), 'How The Kurdistan Problem Could Torpedo The Iraq Energy Comeback', 15 January 2010. Available at: <a href="http://www.businessinsider.com/how-the-kurdistan-problem-could-torpedo-the-iraq-energy-comeback-2010-1">http://www.businessinsider.com/how-the-kurdistan-problem-could-torpedo-the-iraq-energy-comeback-2010-1</a>. Accessed on 16 December 2010.

<sup>&</sup>lt;sup>370</sup> C.M. Blanchard, (2009), *Iraq: Oil and Gas Legislation, Revenue Sharing, and U.S. Policy,* (Washington D.C: Congressional Research Service), p.5.

<sup>&</sup>lt;sup>371</sup> S. Wood, (2009a), *supra* note 221, p. 616.

media have resulted in greater public scrutiny of private company transactions, not limited to the energy sector alone. However, given the fact that energy deals are often brokered in parts of the world where the human rights situation leaves a lot to wish for, the energy-human rights nexus has become a particularly challenged one. This paragraph analyses the ability for the EU to reconcile its diversification efforts in Central Asia with its ideals and values in terms of human rights and democracy promotion in greater detail. Exemplary cases are highlighted where appropriate.

One such case is the May 2005 massacre in Andijan, Uzbekistan (see also *supra*, 3.2.1). The events caused a heavy response by the EU who immediately suspended the PCA, shelved plans for a Commission delegation and dropped the signing of a Memorandum of Understanding (MoU) for the time being (see also *infra*, this paragraph).<sup>372</sup> Uzbekistan reportedly threw out virtually all European NGOs, denied the EU's Special Representative a visa and threatened Germany over the use of its military base.<sup>373</sup>

Within a few months, the 2006 crisis and the frequent interruptions of both gas and oil supply that followed, prompted the EU Institutions to change their view on energy and foreign policy. Indeed, in 2006, then High Representative of the Union for Foreign Affairs and Security Policy, Javier Solana remarked that external energy policy should be consistent with the EU's foreign policy objectives such as conflict prevention and resolution, non-proliferation and promoting human rights.<sup>374</sup>

By October 2006 – in spite of calls from both the European Parliament and human rights organisations to extend sanctions against Uzbekistan<sup>375</sup> – the Council diluted them instead, leaving in place only an arms embargo and a visa ban on 12 officials.<sup>376</sup> The change came after Uzbekistan

<sup>72</sup> C 11 C D

<sup>&</sup>lt;sup>372</sup> Council Common Position 2005/792/CFSP, OJ L 299/72 of 16 November 2005; European Parliament resolution of 27 October 2005 on Uzbekistan, P6\_TA(2005)0415, point 4. See also R. Youngs, (2009), *supra* note 16, p. 121; A. Cohen, (2009a), *supra* note 16, p. 118; and A. Cooley, (2008), *supra* note 14, p. 1179-1180.

<sup>373</sup> *Ibid.* Note that not all Member States responded coherently. Germany had soon thereafter lifted the entry ban for Uzbek politicians, granting Uzbek interior minister Zakir Almatov a special visa to allow him to undergo medical treatment in Hanover in November 2005. See Institute for War and Peace Reporting, 'EU Easing of Uzbek Sanctions "Absurd"', 30 October 2007. Available at: <a href="http://iwpr.net/report-news/eu-easing-uzbek-sanctions-%E2%80%9Cabsurd%E2%80%9D">http://iwpr.net/report-news/eu-easing-uzbek-sanctions-%E2%80%9Cabsurd%E2%80%9D</a>; and E. Follath and C. Neef, (2010), 'Who's Afraid of the Ruler of the Silk Road?', *Spiegel Online International*, 29 October 2010. Available at: <a href="http://www.spiegel.de/international/world/0,1518,724471-3,00.html">http://www.spiegel.de/international/world/0,1518,724471-3,00.html</a>. Both accessed on 1 December 2010.

<sup>374</sup> An External Policy to Serve Europe's Energy Interests, *supra* note 54, p. 3.

<sup>&</sup>lt;sup>375</sup> European Parliament resolution of 26 October 2006 on Uzbekistan, P6\_TA(2006)0467, point 2; International Crisis Group, 'Uzbekistan: Europe's Sanctions Matter', 6 November 2006. Available at: <a href="http://www.crisisgroup.org/en/publication-type/media-releases/2006/asia/uzbekistan-europes-sanctions-matter.aspx">http://www.crisisgroup.org/en/publication-type/media-releases/2006/asia/uzbekistan-europes-sanctions-matter.aspx</a>. Accessed on 1 December 2010

<sup>&</sup>lt;sup>376</sup> EUobserver, 'EU reaches out to Uzbek regime', 10 November 2006. Available at: <a href="http://euobserver.com/?aid=22833">http://euobserver.com/?aid=22833</a>. Accessed on 1 December 2010. See also R. Youngs, (2009), *supra* note 16, p. 121.

agreed to host an EU experts' meeting on the Andijan events, and to start a regular human rights dialogue with the Union.<sup>377</sup> Germany – who would take up the Council Presidency in the first half of 2007 – was said to have particularly pushed for sanctions to be eased.<sup>378</sup>

Until today, the Andijan massacre hangs heavily over EU-Uzbekistan relations, as witnessed by the recent meeting between Uzbek President Karimov and European Commission President Barroso.<sup>379</sup> During Karimov's visit, a long awaited MoU on energy cooperation was signed.<sup>380</sup> Human rights groups were quick to condemn the deal and the visit in general. They claim the EU applies a double standard by on the one hand strongly condemning Kazakhstan and Belarus, yet having no problems to meet Karimov given his country's importance with respect to Afghanistan and energy transit.<sup>381</sup> Renowned NGO Human Rights Watch lashed out at the EU in its annual report for not standing up against notorious regimes. It labelled the Union's human rights dialogues as "the most egregious examples of replacing pressure to respect human rights with softer approaches such as private 'dialogue' and 'co-operation'".<sup>382</sup> Such allegations are not limited to Uzbekistan however and are often heard with respect to other countries in the region. Some claim for example that the EU takes

\_

<sup>&</sup>lt;sup>377</sup> EUobserver, 'EU reaches out to Uzbek regime', *supra* note 376.

<sup>&</sup>lt;sup>378</sup> German Foreign Minister Frank-Walter Steinmeier visited Central Asia earlier in November, where he visited Uzbekistan and pushed for EU sanctions to be eased. Following his visit to Uzbekistan, Steinmeier said the EU was ready to ease sanctions, provided the central Asian country gave clear assurances that it will improve its poor human rights record. Analysts have claimed Germany is anxious to maintain its military base at Termez, in Uzbekistan, which provides access to Afghanistan for its troops. See Deutsche Welle, 'European Union Extends Sanctions Against Uzbekistan', 13 November 2006. Available at: <a href="http://www.dw-world.de/dw/article/0,,2235204,00.html">http://www.dw-world.de/dw/article/0,,2235204,00.html</a>. Accessed on 28 December 2010. See also International Crisis Group, 'Uzbekistan: Europe's Sanctions Matter', *supra* note 375.

<sup>&</sup>lt;sup>379</sup> EUobserver, 'Uzbek massacre hangs over Barroso-Karimov meeting', 18 January 2011. Available at: <a href="http://euobserver.com/24/31662">http://euobserver.com/24/31662</a>. Accessed on 25 January 2011.

<sup>&</sup>lt;sup>380</sup> Memorandum of Understanding on Cooperation in the field of Energy between the European Union and the Republic of Uzbekistan, Brussels, 24 January 2011. Available at: <a href="http://ec.europa.eu/energy/international/international cooperation/doc/2011\_01\_24\_uzbekistant\_mou.pdf">http://ec.europa.eu/energy/international/international cooperation/doc/2011\_01\_24\_uzbekistant\_mou.pdf</a>. Accessed on 26 January 2011.

<sup>&</sup>lt;sup>381</sup> Euractiv, 'Human rights concerns overshadow EU-Uzbek summit', 24 January 2011. Available at: <a href="http://www.euractiv.com/en/east-mediterranean/human-rights-concerns-overshadow-eu-uzbek-summit-news-501532?utm source=EurActiv+Newsletter&utm campaign=8454e5cd63-my google analytics key&utm medium=email. Accessed on 25 January 2011.

<sup>&</sup>lt;sup>382</sup> Human Rights Watch, (2011), *World Report 2011: Events of* 2010, (New York: Human Rights Watch), pp. 478 and 501; EUobserver, 'EU human-rights dialogues exposed as 'soft talk'', 24 January 2011. Available at: <a href="http://euobserver.com/9/31692">http://euobserver.com/9/31692</a>. Accessed on 25 January 2011.

an equally soft stance on Azerbaijan, given the importance of its energy resources for the Southern Corridor.<sup>383</sup>

The human rights dialogues with the Central Asian States were set up by the 2007 Central Asia Strategy. In parallel the Strategy established an 'EU Rule of Law Initiative'. The latter was coined to address the specific priorities indentified by each country and support the governments in the region in implementing core legal reforms, including reform of the judiciary, and in drawing up effective legislation.<sup>384</sup> However, upon its presentation, it was argued that EU presence should be decoupled from democracy and human rights conditions; that earlier policies were regarded as having flopped; and that the Union should rather take a pragmatic stance and position itself better compared to Russia and China who managed to seize opportunities, which the EU had largely missed.<sup>385</sup> The European Parliament however disagreed, claiming the Strategy was insufficiently ambitious with respect to bilateral cooperation on human rights, the rule of law, good governance and democratisation.<sup>386</sup>

Others claimed that European efforts in the region were hitherto rather aimless, unplanned and uncoordinated and that US' experience with its heavy-handed insistence on democracy and human rights had instead simply allowed Russia and China to revitalise their ties to the autocratic regimes.<sup>387</sup> A direct approach whereby the EU deals forcefully with States who disregard and undermine democracy and human rights – a sort of 'democratise and Europe buys the gas' approach – was claimed to be counterproductive.<sup>388</sup> Upon close inspection, the Central Asia Strategy seems to reflect such reservations. The Strategy lacks significant benchmarks which would allow for a stringent evaluation of progress on human rights and democratic reform. Moreover, the

<sup>&</sup>lt;sup>383</sup> See Radio Free Europe, 'The EU is Tough on Minsk, But Easy On Baku', 19 January 2011. Available at: <a href="http://www.rferl.org/content/eu azerbaijan aliyev barroso commentary/2281186.html">http://www.rferl.org/content/eu azerbaijan aliyev barroso commentary/2281186.html</a>. Accessed on 28 January 2011.

<sup>&</sup>lt;sup>384</sup> European Union and Central Asia: Strategy for a New Partnership, *supra* note 134, p. 8.

<sup>&</sup>lt;sup>385</sup> R. Youngs, (2009), *supra* note 16, p.112; Friedrich Ebert Stiftung, (2008). 'Partnership with Russia in Europe A Strategy for a Win-Win Situaton?'. 6<sup>th</sup> Roundtable Discussion. Morozovka, 3-5 February, 2008, p. 11; S. Wood, (2009a), *supra* note 221, pp. 612 and 620; BBC News, 'EU dreams of central asian gas', 27 March 2007. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/6500943.stm">http://news.bbc.co.uk/2/hi/europe/6500943.stm</a>. Accessed on 23 December 2010.

<sup>&</sup>lt;sup>386</sup> European Parliament resolution of 20 February 2008 on an EU Strategy for Central Asia, P6 TA(2008)0059, point 19.

<sup>&</sup>lt;sup>387</sup> H. Wegener, (2007), 'Central Asia: At last Europe may be getting its act together', *Europe's World Spring 2007*.

Available at:

http://www.europesworld.eu/NewEnglish/Home old/Article/tabid/191/ArticleType/ArticleView/ArticleID/21108/language/en-US/Default.aspx. Accessed on 23 December 2010; S. Wood, (2009a), *supra* note 221, p. 615.

<sup>&</sup>lt;sup>388</sup> S. Wood, (2009a), *supra* note 221, p. 622 and 624.

human rights dialogues seem to be an elitist process, only targeted at high-level officials, thereby largely excluding Central Asian civil society.<sup>389</sup>

Some argue that if the EU manages to conclude reliable and substantial agreements with Central Asian hydrocarbon producers on energy infrastructure, exploration, supply, and pipelines which bypass Russia, even though this means tolerating the detrimental human rights record of these countries in the short to medium term, the Union is more likely to succeed in reducing Russian clout in the region, and thus improves its own energy security and long term prospects for political change in the region.<sup>390</sup> Energy anxiety and dependence is thus seen as 'clearing' and motivating such an approach (see also *infra*, 5 concluding remarks).<sup>391</sup>

Turkmenistan provides for a good rationale for such an approach. It took – for good reasons – over a decade to ratify the Interim Trade Agreement with Ashgabat.<sup>392</sup> Since first proposed, the status and importance of Turkmenistan's hydrocarbon reserves have greatly risen. This has not only been noticed in Brussels, but also in Moscow and Beijing. If the EU is serious about its attempts to secure Turkmen gas supplies – or any other alternative source for that matter; 2011 will be a crucial year (see *supra*, 4.3). An approach whereby priority in the short to medium term is given to engagement through hydrocarbon cooperation gains increased legitimacy through the argument that Russia and China do not obey by the same rules as does the EU, thus granting them an unfair 'advantage'.<sup>393</sup>

Indeed, this thought is shared by some EU Member States who hinted that if the Union is hesitant to do business with Central Asian producers over their bad human rights record, Moscow and Beijing will have no difficulties to do so instead – not hampered by substantial concerns over democracy.<sup>394</sup> In this respect, it should be noted that bilaterally, China and Russia already dwarf the Union in terms of their overall trade volume with Central Asia.<sup>395</sup> Should they further succeed in doing so,

<sup>&</sup>lt;sup>389</sup> C. Graubner, (2008), 'EU Strategy on Central Asia: Realpolitik After All', *Central Asia-Caucasus Institute Analyst*, May 14 2008. Available at: <a href="http://www.cacianalyst.org/?q=node/4859">http://www.cacianalyst.org/?q=node/4859</a>. Accessed on 28 December 2010; J. Boonstra and J. Hale, (2010), *supra* note 19, pp. 12-14; and N. Melvin and J. Boonstra, (2008), *supra* note 136, p.3.

<sup>&</sup>lt;sup>390</sup> S. Wood, (2009a), *supra* note 221, p. 617; Z. Baran, (2007), 'EU Energy Security: Time to End Russian Leverage', *Washington Quarterly 30*(4), pp. 133, 135 and 137.

<sup>&</sup>lt;sup>391</sup> S. Wood, (2009a), *supra* note 221, p. 621.

<sup>&</sup>lt;sup>392</sup> See European Parliament resolution on the Interim Trade Agreement with Turkmenistan, *supra* note 105; EUobserver, 'EU normalises relations with Turkmenistan', *supra* note 105; and EUobserver, 'EU presidency defends credentials after Turkmenistan move', *supra* note 105.

<sup>&</sup>lt;sup>393</sup> S. Wood, (2009a), *supra* note 221, p. 622.

<sup>&</sup>lt;sup>394</sup> Interview with officials from Permanent Representation of Slovakia, the UK, and Germany to the EU, 20 May, 10 June and 2 July 2010.

<sup>&</sup>lt;sup>395</sup> In 2007, Russia and China dominated the foreign economic relations with Central Asian States, with trade worth \$21 billion with Moscow and \$14 billion with Beijing, whilst Germany - Central Asia's main European trading partner – came to less than €7 billion for the same year. See S. Peyrouse, (2009a), *supra* note 104, p. 5.

the EU is left with limited options to press for democratic reform in Turkmenistan<sup>396</sup>, and in need of searching for different alternatives to supplement Azeri gas for Nabucco.

It seems a 'catch 22' situation in which, on the one hand, a tough stance on human rights does not provide the desired results as Central Asian producer countries seem uninterested to instigate reforms up front, and rather do business with Russia and China instead. On the other hand, the EU cannot simply mimic the approach used by Moscow and Beijing, as doing away with its emphasis on human rights and democratic reform altogether implies moving against some of the fundamental principles that underpin the Union's existence. So, what does that leave Brussels with?

In order to harmonise energy security goals with principles on human rights and democracy building, the EU must engage in some kind of partnership with the Central Asian countries. It must be borne in mind however that any such partnership is most likely to be an uneasy one, including paying lip-service to marginally visible signs of democracy after elections, and issuing compliments for incremental reform processes of which the results are unclear.<sup>397</sup>

This is a delicate path, where the Union should act carefully as not to drift too far from its core values. It is important therefore, that the EU defines clearly from the outset what positive incentives there are for the Central Asian States to engage with Brussels. In fact, Azerbaijan hinted at what such advantages may entail by stating it wants to supply Nabucco only when it simultaneously acquires the right to sell its gas to the nearest markets (see *supra*, 4.3). Russia understands the impacts of this kind of 'optionality' very well however, which is why it continues to push hard to tie East European and Central Asian countries to its own pipeline networks.<sup>398</sup> It is precisely this kind of logic that the EU should endeavour to use to its own advantage, which could over time increase the Union's options to foster democratic change and improvements in the human rights situation in the region (see *infra*, 5 concluding remarks).

As mentioned in this paragraph, countries such as China pay little to no attention to the human rights situation when doing business in Central Asia. At China's current energy demand level and given its successfully brokered deals, it is difficult for the EU to persuade Beijing to change its approach. A more promising path therefore, is to shift attention to stimulating the Chinese

<sup>&</sup>lt;sup>396</sup> Z. Baran, (2007), *supra* note 390, p. 137.

<sup>&</sup>lt;sup>397</sup> G. Askarov, (2010), 'How Do You Deal with An Autocratic and Energy-Rich Ally like Azerbaijan? Azerbaijan: Democracy Maters', *The German Marshall Fund of the United States On Wider Europe,* June 25 2010, pp. 8-9.

<sup>&</sup>lt;sup>398</sup> K. Barysch, (2010), *supra* note 137, p. 5.

renewable energy market instead. The next paragraph analyses this booming industry in greater detail.

# 4.5.1: The Chinese Renewable Energy Market

Since the introduction of the Renewable Energy Law (REL) in 2005 (see *supra*, 3.3.1), a number of important supporting regulations and guidelines have been put in place to implement the Law and stimulate the creation of a Chinese renewable energy market.<sup>399</sup> The REL set up guaranteed grid access which obliges power grid companies to acquire all the electricity generated from renewable projects that are within the vicinity and coverage of their grids when sufficient power demand exists.<sup>400</sup> Moreover, as the costs of renewable energy are often higher than of conventional energy, the law stipulates that the cost difference is ultimately levied on the end user.<sup>401</sup>

Next to grid access and cost sharing, the law provided for the establishment of a government sponsored special 'Renewable Energy Public Fund'. The fund was primarily set up in order to grant financial support to projects that stimulate renewable energy generation and development such as wind, solar and oceanic energy, rural clean energy projects and independent power systems construction in remote areas and outlying islands.<sup>402</sup> Additionally however, it has another important priority, namely to support scientific research on energy sources that have the capacity to replace oil, and stimulate the use of renewable energies for the heating and cooling systems of buildings. Money can be issued as a grant, or used to subsidise the loan of eligible renewable projects.<sup>403</sup> Other stimulation measures include customs duty exemption to imported renewable energy power generation equipment and high-tech parts, and tax benefits to eligible renewable energy projects. Such tax benefits would often take the form of credits on value-added tax (VAT) and income tax.<sup>404</sup>

Since the adoption of the REL and its associated measures, the Chinese renewable energy market has grown tremendously. Total renewable energy capacity in China reached 226 Gigawatt (GW) in

<sup>&</sup>lt;sup>399</sup> F. Wang, et al., (2009), *supra* note 202, p. 1872; Q. Wang, (2009), *supra* note 202, p. 706.

<sup>&</sup>lt;sup>400</sup> *Ibid.*, p. 1873; J.H. Su, S.S. Hui, and H. Tsen, (2010), 'China Rationalizes Its Renewable Energy Policy', *The Electricity Journal 23*(3), p. 28; L. Mastny (ed.) (2010). Renewable Energy and Energy Efficiency in China: Current Status and Prospects for 2020. Worldwatch Institute. October 2010, p. 28; E. Martinot and L. Junfeng, (2010), *supra* note 188, p. 3.

<sup>&</sup>lt;sup>401</sup> J.H. Su et al., (2010), *supra* note 400, p. 32.

<sup>&</sup>lt;sup>402</sup> F. Wang et al., (2009), *supra* note 202, p. 1874; J.H. Su et al., (2010), *supra* note 400, p. 32.

<sup>&</sup>lt;sup>403</sup> F. Wang et al, (2009), *supra* note 202,p. 1874.

<sup>&</sup>lt;sup>404</sup> *Ibid.*, pp. 1874-1875; Q. Wang, (2009), *supra* note 202, p. 1996); X. Zhang et al., (2009), *supra* note 199, p. 4934.

2009. This number is composed of 197GW of hydropower, 25.8GW of wind, 3.2 GW of biomass and 0.4 GW of grid-connected solar photovoltaic power (PV). Combined, renewable energy capacity made up more than 25% of China's total installed power capacity of 860GW.<sup>405</sup> In terms of annual energy use, renewable energy accounted for about 250 million tons of coal equivalent (tce) and renewables made up a 9% share of the country's total primary energy use by the end of 2008, compared to 7.5% in 2005. Hydropower is the largest contributor (180 million tce), followed by solar, wind and modern biogas energy (70 million tce).<sup>406</sup> When it comes to renewable electricity generation, the share of total electricity generated by renewable sources was 16% in 2009.<sup>407</sup> Given the continued growth of the Chinese renewable sector in 2010, wind energy in particular, China seems to have few difficulties to stay on course for reaching its target of 10% of primary energy from renewables (see *supra*, 3.3.1 on the 11th Five-Year Plan).

China's many rivers endow the country with an impressive potential for hydroelectric power generation. Based on a review conducted in 2005, the technically exploitable capacity is 542GW, with an annual power generation capacity of 2474 Terawatt hour (TWh). These impressive figures make China rank number one in the world among hydroelectric producers. The goal set within the Mid- and Long-Term Plan for Renewable Energy Development (MLTPRED) of reaching 50 GW of installed small hydro capacity by 2010 was already accomplished as early as 2008.

Since 2005, China's newly added wind power capacity doubled for four consecutive years.<sup>411</sup> By as early as 2007, cumulative wind power installations in China exceeded 5 GW – a goal originally set for 2010 by the MLTPRED. This achievement caused the Chinese government to adjust the goal to 10 GW for 2010. The development of wind power in China proceeded at such an enormous rate however that already by 2008 wind power installed capacity had reached 12.15 GW.<sup>412</sup> By the end of 2009, total installed capacity was 26 GW, surpassing that of Germany and trailing only to the United States.<sup>413</sup>

<sup>&</sup>lt;sup>405</sup> E. Martinot and L. Junfeng, (2010), *supra* note 188.

<sup>&</sup>lt;sup>406</sup> REN21, (2009). Recommendations for Improving the Effectiveness of Renewable Energy Policies in China. October 2009, p. 7.

<sup>&</sup>lt;sup>407</sup> L. Mastny (ed.) (2010), *supra* note 400, p.26.

<sup>&</sup>lt;sup>408</sup> W. Liu, H. Lund, B.V. Mathiesen, and X. Zhang, (2010), 'Potential of renewable energy systems in China', *Applied Energy 88*(2), p. 519; L. Mastny (ed.) (2010), *supra* note 400, p. 26.

<sup>&</sup>lt;sup>409</sup> Installations below 50 Megawatt (MW) in capacity.

<sup>&</sup>lt;sup>410</sup> L. Mastny (ed.) (2010), *supra* note 400, p. 27.

<sup>&</sup>lt;sup>411</sup> *Ibid.*, p. 28.

<sup>&</sup>lt;sup>412</sup> Q. Wang, (2009), *supra* note 202, p. 703; W. Liu et al., (2010), *supra* note 408, p.521.

<sup>&</sup>lt;sup>413</sup> L. Mastny (ed.) (2010), *supra* note 400, p. 28.

China receives a great amount of sunshine per year. More than 96% of China receives more than 1050 Kilowatt hour (KWh) of solar radiation per M<sup>2</sup> and over two thirds of the country receives radiation in excess of 5000 Megajoule (MJ) per M<sup>2</sup> a year and more than 2200hrs of sunshine.<sup>414</sup> The solar PV industry in China is growing fast. In 2004, China had a production capacity of 100 MW of PV, roughly one twelfth of global production capacity at the time.<sup>415</sup> From 2004 onwards, the production of solar cells increased twentyfold to 2.6 GW in 2008. This feat has made China the largest producer of solar PV cells, the majority of which is exported.<sup>416</sup>

Biomass energy technology in China is of a mature level and the country is home to many biomass boiler manufacturers.<sup>417</sup> Biomass gasification has developed strongly, with gasifiers of up to 6 MW in capacity, and system efficiencies reaching 28%.<sup>418</sup> China's total power generation capacity stemming from biomass was 2 GW in 2005.<sup>419</sup> By 2008, this number had increased to 3 GW. Annual biomass resources amount to 500 million tce per year, with yearly consumption being around half of this amount, primarily used for traditional fuel. Around 220 million tce of biomass energy is available for rural household energy purposes, but actual consumption is said to lie much lower (see *infra*, this paragraph).<sup>420</sup>

However – notwithstanding these impressive growth figures – there are still a number of substantial barriers which impede the further development of the Chinese renewable energy market. More generally applicable issues include a lack of funds and technology, innovation, an underdeveloped industrial structure and a shortage on development experience. Furthermore, most of the currently applied renewable energy technologies are either within the R&D or demonstration stages of development, or are only in the stages of early commercialisation. Few technologies are fully commercialised and able to compete equally – in terms of both price *and* quality – with western technology; hydropower and biogas being the exception. 422

<sup>&</sup>lt;sup>414</sup> *Ibid.*, pp. 29-30; W. Liu et al., (2010), *supra* note 408, p. 521.

<sup>&</sup>lt;sup>415</sup> X. Zhang et al., (2009), *supra* note 199, p. 4395.

<sup>&</sup>lt;sup>416</sup> L. Mastny (ed.) (2010), *supra* note 400, p. 30; B. Buijs, (2009), *supra* note 198, p. 38.

<sup>&</sup>lt;sup>417</sup> X. Zhang et al., (2009), *supra* note 199, p. 4395.

<sup>&</sup>lt;sup>418</sup> *Ibid.*, p. 4396.

<sup>&</sup>lt;sup>419</sup> *Ibid.* 

<sup>&</sup>lt;sup>420</sup> L. Mastny (ed.) (2010), *supra* note 400, pp. 32.

<sup>&</sup>lt;sup>421</sup> Z.Y. Zhao, et al., (2010), *supra* note 198, p. 1105.

<sup>&</sup>lt;sup>422</sup> X. Zhang et al., (2009), *supra* note 199, p. 4395; Z.Y. Zhao, et al., (2010), *supra* note 198, p. 1107.

According to some, the quality of Chinese renewable energy technology – photovoltaic in particular – is underpriced and does not correspond to EU standards.<sup>423</sup> Greater financial contributions are necessary to improve this situation. However, the high cost of the most efficient technologies hinders their deployment.<sup>424</sup> Moreover, often private companies are reluctant to invest during the earlier stages due to the low economic return, the risk of free-rider behaviour and intellectual property theft.<sup>425</sup> Conversely, Chinese stakeholders frequently complain that companies in developed countries are able to monopolise access to clean technology and limit its transfer for private interests (see also *infra*, 5 concluding remarks).<sup>426</sup>

However, a more immediate issue in terms of actual renewable electricity provision is the difficulty to feed renewable energy – wind in particular – into the Chinese grid as legally required by the REL. Whereas China's generation capacity has grown tremendously, there are real concerns that not all power is being fed into the grid.<sup>427</sup> The main problem is reluctance on part of grid enterprises to build and expand grids to connect producers of wind energy. The reason is that many wind energy producers are located in remote areas, where generation circumstances are most optimal. Connecting these operators to the grid requires a significant financial investment.<sup>428</sup> Moreover, grid operators feel that given renewable energy's modest share of total electricity generation and its higher cost per KWh, it is too risky to invest in innovation in this area.<sup>429</sup> The problem of grid

<sup>&</sup>lt;sup>423</sup> Interview with officials from Permanent Representations of Slovenia and Slovakia to the EU, 23 April and 20 May 2010. Zhao et al., similarly remark that there is a lack of an adequate accreditation system for scientific technology and the quality of PV products. See Z.Y. Zhao, et al., (2010), *supra* note 198, p. 1108.

<sup>424</sup> Q. Wang, (2009), *supra* note 202, p.710; Z.Y. Zhao, et al., (2010), *supra* note 198, p. 1108.

<sup>425</sup> Interviewees confirmed that there is a lot of bad experience in European industry in this regard. Interview with research fellow of the Oxford Institute for Energy Studies in the margin of the EU-China Energy Conference, Shanghai, 9 July 2010; interview with officials from European Commission DG Research, 8 June 2010; interview with official from European Commission DG External Relations, 23 June 2010. See also X. Zhang et al., (2009), *supra* note 199, pp. 4397-4398; B. Buijs, (2009), *supra* note 198, p. 33; J. Holslag, (2010), *supra* note 181, p. 122; EU-China CDM Facilitation Project. Key Findings and Recommendations, p. 4. Available

at:

http://www.euchina-cdm.org/media/docs/EU-China%20CDM%20Policy%20Brief%20Aug%2009.pdf; EUobserver, 'China catching EU on innovation, amid industrial espionage scandals', 2 February 2011. Available at: http://euobserver.com/9/31733. Both

accessed on 2 February 2011. <sup>426</sup> EU-China CDM Facilitation Project. Key Findings and Recommendations, *supra* note 425, p.4; J. Holslag, (2010), *supra* note 181, p. 122.

<sup>&</sup>lt;sup>427</sup> It is reported that up to one-third of wind energy generation capacity is not connected to the grid and thus remains idle. See S. Schuman, (2010), 'China Renews Its Commitment to Renewable Energy', *National Resources Defense Council Staff Blog*, 1 February 2010, p. 1. Available at: <a href="http://switchboard.nrdc.org/blogs/bfinamore/china renews its commitment to.html">http://switchboard.nrdc.org/blogs/bfinamore/china renews its commitment to.html</a>. Accessed on 17 January 2011; and F. Wang et al., (2009), *supra* note 202, p. 1875

<sup>&</sup>lt;sup>428</sup> F. Wang et al., (2009), *supra* note 202, pp. 1875-1876; J.H. Su et al., (2010), *supra* note 400, p.30; Q. Wang, (2009), *supra* note 202, p. 708; W. Liu et al., (2010), *supra* note 408, p. 520; S. Schuman, (2010), *supra* note 427, p. 2; B. Buijs, (2009), *supra* note 198, p. 37.

<sup>&</sup>lt;sup>429</sup> REN21, (2009), *supra* note 406, p. 26.

connectivity is exacerbated by the fact that the Chinese market is dominated by a few large state owned companies who simultaneously own the energy infrastructure, making it harder for new players to enter the market (see also *infra*, 5 concluding remarks).<sup>430</sup> A further compounding factor is the Chinese renewable electricity sector's low operating efficiency, compared to other producers, such as the US.<sup>431</sup>

In an attempt to amend some of the above issues, China decided to revise the REL in 2009. When drafting the law, the Chinese consulted the European Commission on a number of occasions – a feat which European officials labelled as 'promising' for future bilateral relations.<sup>432</sup> The updated law took effect on 1 April 2010.

First, in order for grid development to keep pace with renewable energy growth, one of the amendments provides for closer coordination of renewable energy with overall power sector development, transmission planning, as well as between local- (provincial-) level development and national development plans.<sup>433</sup>

Second, the amendments strengthened provisions which guarantee the purchase of all generated renewable energy. Companies are now obliged to meet a target with respect to the proportion of renewable power relative to overall power generation under all circumstances, yet are allowed to transfer the power to the national grid company for use elsewhere. No precise amounts are mentioned, however government agencies are directed to set the targets and enforce them; financial penalties are issued upon non-compliance.<sup>434</sup> This enforcement capability makes the Chinese system move in the direction of a kind of 'Renewable Portfolio Standards' system<sup>435</sup>, similar to the one used in the US (see also *infra*, 5 concluding remarks).<sup>436</sup>

<sup>&</sup>lt;sup>430</sup> X. Zhang et al., (2009), *supra* note 199, p. 4398.

<sup>&</sup>lt;sup>431</sup> According to Wang et al., in 2007 1MW of Chinese renewable electricity capacity generated 955MWh, compared to 1433 MWh in the US. See F. Wang et al., (2009), *supra* note 202, p. 1875.

<sup>&</sup>lt;sup>432</sup> The fact that China consulted the Commission whilst drafting the law was said to be 'unusual'. In comparison, the European Commission conducts a stakeholder consultation via the internet, but does not seek advice of other States. It was heralded as a significant step in bilateral relations. Interview with official of the European Commission DG Energy, 9 November 2010.

<sup>433</sup> E. Martinot and L. Junfeng, (2010), *supra* note 188, p. 2; Su et al., (2010), *supra* note 400, p. 30.

<sup>&</sup>lt;sup>434</sup> E. Martinot and L. Junfeng, (2010), *supra* note 188, p. 3; S. Schuman, (2010), *supra* note 427, p. 2.

<sup>&</sup>lt;sup>435</sup> The Renewable Portfolio Standards system is a regulation which places an obligation on electricity supply companies to produce a specified fraction of their electricity from renewable energy sources.

<sup>&</sup>lt;sup>436</sup> S. Schuman, (2010), *supra* note 427, p. 2; F. Wang et al., (2009), *supra* note 202, p. 1876.

A third important change has to do with China's Renewable Energy Public Fund. Under prior conditions, the fund collected a surcharge on electricity which was sold to final consumers.<sup>437</sup> Now, instead of the companies collecting the surcharge, the customer pays the charge directly into the fund. After these charges have been pooled together, the grid companies can then seek compensation for the additional cost of purchasing renewable energy and the costs associated with their integration. What makes this change important is that, when pooled together, it allows the Chinese government to use the money to invest in renewable energy projects and R&D. Similarly, it allows the charges collected in China's wealthier eastern provinces, to be invested in its less developed western region which is most well-endowed with renewable energy resources (see also *infra*, 5 concluding remarks).<sup>438</sup>

The amendments provide for some important and much needed changes. Some issues remain unresolved however. With respect to renewable energy's modest share of total electricity generation it should be noted that, as renewable electricity will only make up around 20% of primary energy consumption by 2020, there is a clear need for a strong strategy on non-electric renewable energy sources, such as biofuels, biogas, rural fuel wood and agricultural waste heating.<sup>439</sup> In August 2009, the biomass tariff was adjusted upwards from US \$ 0,037/KWh to US \$ 0,052/KWh.<sup>440</sup> However, the current scale of development and use is said to be still relatively small, causing China to have difficulties to reach its capacity target of 5000 MW for 2010 and 30GW for 2020. Biofuel is an alternative to oil and thus potentially interesting. However, China restricted biofuel production from food feedstocks in 2007.<sup>441</sup> The reason is that, as it does not possess enough crops and arable land for it to sufficiently feed its own population, China views getting involved in the biofuels debate as potentially treacherous. Naturally, Beijing would be interested in purchasing biofuels from elsewhere if doing so reduces its use *of* and dependence *on* fossil fuels. However, because of the aforementioned reason, it is wary to get actively and visibly involved in this debate, let alone support domestic production (see also *infra*, 5 concluding remarks).<sup>442</sup>

\_

<sup>&</sup>lt;sup>437</sup> E. Martinot and L. Junfeng, (2010), *supra* note 188, p. 3.

<sup>&</sup>lt;sup>438</sup> S. Schuman, (2010), *supra* note 427, p. 3; Reuters, 'China legislators seen mulling renewables fund', 24 August 2009. Available at: <a href="http://www.reuters.com/article/idUSTRE57N26720090824">http://www.reuters.com/article/idUSTRE57N26720090824</a>. Accessed on 20 January 2011.

<sup>&</sup>lt;sup>439</sup> Interview with official from the Sino-Danish Renewable Energy Development Programme in the context of the July 2010 EU-China Energy Conference, Shanghai, 27 July 2010. See also U. Weber, (2010). 'Achieving China's Non-Fossil Fuel Target: Beyond the Electricity Sector'. Available at: <a href="http://dcbf.dk/Latest/From+DCBF/ca40/newsid/19804">http://dcbf.dk/Latest/From+DCBF/ca40/newsid/19804</a>. Accessed on 20 January 2011.

<sup>&</sup>lt;sup>440</sup> E. Martinot and L. Junfeng, (2010), *supra* note 188, pp. 3-4.

<sup>&</sup>lt;sup>441</sup> L. Mastny (ed.) (2010), *supra* note 400, p. 33.

<sup>&</sup>lt;sup>442</sup> Interview with official of the European Commission DG Energy, 25 May 2010.

Particularly in the wind power sector – China's fastest growing renewable energy source – several fundamental issues continue to exist. First, China remains to a large extent dependent on other countries' knowledge and expertise with respect to turbine manufacturing, wind farm maintenance and management. Manufacturing is well developed, however when it comes to the fabrication of the software controls and refined technical components, the Chinese are – yet – unable to adequately duplicate Western technology. However, China is catching up fast.

Second, since 2003 investors and developers of wind power projects (those of more than 50 MW in capacity) are selected through a concession bidding process whereby the winning bid is conditioned on the extent of 'local content' involved and the price offered per KWh. Up until recently, local content had to represent 70% of the final product in terms of the value of incorporated materials and components. This precondition clearly aided the Chinese to build up a strong domestic wind industry as foreign companies were forced to set up subsidiaries in China in order to meet the criterion. 447 By 2010, this requirement was dropped and considered no longer necessary. 448

Only a few months before, in August 2009, the Chinese government had decided to amend the feed-in tariffs for wind energy. The wind energy market was basically divided into four different geographical regions, each with its own tariff. The price offered depended on the ability of the region to generate wind power energy. The best endowed region provides the lowest tariff (US \$ 0,075/KWh) which then gradually increases up to US \$ 0,09/KWh for the least endowed region. Tariffs correspond with prices offered by prior projects which were accepted in the past three years.<sup>449</sup>

As much as this approach has the appeal of being market based, the reality is still somewhat different. This is because in practice the prices do not truly correspond to the 'market'. Prior experience has shown that out of the two criteria, local content often mattered much less compared

Interview with research fellow of the Oxford Institute for Energy Studies in the margin of the EU-China Energy Conference, Shanghai, 9 July 2010; W. Liu et al., (2010), *supra* note 408, p.520.

<sup>&</sup>lt;sup>444</sup> EUobserver, 'China catching EU on innovation...', *supra* note 425.

<sup>&</sup>lt;sup>445</sup> Materials and components used which come from China.

<sup>&</sup>lt;sup>446</sup> Q. Wang, (2009), *supra* note 202, pp. 705-706.

<sup>&</sup>lt;sup>447</sup> B. Buijs, (2009), *supra* note 198, p. 37.

<sup>&</sup>lt;sup>448</sup> E. Martinot and L. Junfeng, (2010), *supra* note 188.

<sup>&</sup>lt;sup>449</sup> E. Martinot and L. Junfeng, (2010), *supra* note 188, pp. 3-4; Renewable Energy Focus, 'China launches differentiated wind energy tariffs', 7 September 2009. Available at: <a href="http://www.renewableenergyfocus.com/view/3817/china-launches-differentiated-wind-energy-tariffs/">http://www.renewableenergyfocus.com/view/3817/china-launches-differentiated-wind-energy-tariffs/</a>. Accessed on 20 January 2011.

to price per KWh when it came to winning a bid. This practice results in a fierce price competition among bidders. A phenomenon which subsequently occurs is that large (mostly state-owned) corporations, who possess profitable coal-fired, hydropower- or nuclear power stations, undercut competing bidders by setting their prices so low that the project could actually be considered economically undevelopable. Market size and financial power allows these companies to sustain such a (small) loss for a period of time, if by doing so, they gain a foothold in this emerging industry. The possibility for market entrants or smaller companies to make a successful bid however is thereby significantly reduced. Similarly, under such conditions the incentives for firms to invest in research and development which could improve the competitiveness of renewables are lower than they should be (see also *infra*, 5 concluding remarks). 451

A third (related) issue has to do with the financial benefits for wind power projects to acquire Clean Development Mechanism (CDM) status. The costs of CDM wind power projects are lower compared to those without CDM backing, as the latter cannot benefit from Annex I Certified Emission Reductions (CER).<sup>452</sup> However, in order to be eligible for CDM status a wind park must be for 51% owned by a Chinese company. Foreign investors argue that with such a restriction it is difficult for them to manage a company efficiently. The consequence is that given the nature of the bidding process – lowest price per KWh usually wins – it becomes impossible for foreign companies to factor in CDM income and hence get a decent chance at acquiring the concession (see also *infra*, 5 concluding remarks).<sup>453</sup>

The extent to which these fundamental issues can be resolved, hinges both on the extent and quality of international cooperation, as well as the future direction of Chinese national policy. With regard to the latter much depends on the 12<sup>th</sup> Five-Year-Plan, which is due to be released in the first quarter of 2011. A preliminary version of the plan details that China aims to nurture and develop seven new strategic industries with favourable policies in the next five years. These include new-

<sup>&</sup>lt;sup>450</sup> Q. Wang, (2009), *supra* note 202, pp. 706-707; B. Buijs, (2009), *supra* note 198, p. 37; Q. Wang and Y. Chen, (2010), 'Barriers and opportunities of using the clean development mechanism to advance renewable energy development in China', *Renewable and Sustainable Energy Review* 14(7), p. 1997.

<sup>&</sup>lt;sup>451</sup> Interview with official from the Sino-Danish Renewable Energy Development Programme in the context of the July 2010 EU-China Energy Conference, Shanghai, 27 July 2010; F. Wang et al., (2009), *supra* note 202, p. 1876.

<sup>&</sup>lt;sup>452</sup> Certified Emission Reductions (CER) are so-called 'Carbon Credits' which are issued by the Clean Development Mechanism Executive Board. CERs can be used by the Annex I parties – the industrialised countries – under the Kyoto Protocol in order to comply with their emission limitation targets.

<sup>&</sup>lt;sup>453</sup> Interview with research fellow of the Oxford Institute for Energy Studies in the margin of the EU-China Energy Conference, Shanghai, 9 July 2010; B. Müller, D. Robinson, and Z. Xiliang (eds.), (2010). 'Addressing Large Developing Country Emissions'. Oxford, Oxford Institute for Energy Studies, pp. 27 and 46; EU-China CDM Facilitation Project. Key Findings and Recommendations, *supra* note 425, p. 5.

generation information technology, energy-saving and environment protection, new energy, biology, high-end equipment manufacturing, new materials and new-energy cars. Fiscal, tax and financial benefit can be expected in order to boost science and technology development.<sup>454</sup>

Furthermore, the plan sets a number of clear objectives. Coal is to stay China's dominant form of energy, whilst production of hydro-, wind-, biomass-, solar-, and nuclear power is to be enhanced. Hydropower is to be the 'backbone' of renewable energy with installed capacity forecasted to reach 280 TW by 2015. Similarly, wind power capacity is set at 90 TW, biomass at 1.3MW, nuclear at 30TW and solar at 5TW – all by 2015. In total, renewable energy will rise to a share of 11,4% of primary energy consumption. Energy consumption per unit of GDP will decrease by 16% and CO<sup>2</sup> emissions per unit of GDP is to be cut by 17%. Emissions of Chemical Oxygen Demand (COD) and sulphur dioxide are to be reduced by 8%, and ammonia nitrogen and nitrogen oxide by 10%.

Ultimately, the plan is to direct China from a net importer of fossil fuels towards an exporter of renewable energy and energy efficiency technologies. The plan places emphasis on efficiency as a source for business, and aims to move towards smaller, distributed energy generation; away from large central hubs. The idea is to stimulate development of regional-scale energy enterprises across China. What is important in this respect is that the plan appears to allow private capital to get involved in what hitherto were state-controlled monopolies and industries. This could increase competition and raise the incentive for research and development (see also *infra*, 5 concluding remarks).

The above analysis has shown the enormous growth and potential of the Chinese renewable energy market. The progress that was recorded in the past decade can be hailed as an outstanding achievement which surpassed all initial expectations. However, it is equally clear that significant barriers to the development and application of renewable energy technology in China remain that need to be resolved in order for renewable energy to adequately compete with conventional power.

<sup>&</sup>lt;sup>454</sup> China Daily, 'China to nurture 7 new strategic industries in 2011-15', 28 October 2010. Available at: <a href="http://www.chinadaily.com.cn/business/greenchina/2010-10/28/content\_11470638.htm">http://www.chinadaily.com.cn/business/greenchina/2010-10/28/content\_11470638.htm</a>. Accessed on 21 January 2011.

<sup>&</sup>lt;sup>455</sup> Delegation of the European Union in China, (2011), 'Full Translation 5yr Plan 2011-2015', pp. 3-4. Available at: <a href="http://cbi.typepad.com/china\_direct/2011/05/chinas-twelfth-five-new-plan-the-full-english-version.html">http://cbi.typepad.com/china\_direct/2011/05/chinas-twelfth-five-new-plan-the-full-english-version.html</a>; Caijing, 'China Mapped out Energy Program During 12<sup>th</sup> Five-Year Plan', 22 October 2010. Available at: <a href="http://english.caijing.com.cn/2010-10-22/110549828.html">http://english.caijing.com.cn/2010-10-22/110549828.html</a>. Both accessed on 17 May 2011.

<sup>456</sup> Global Fund Exchange Investing in the Future of Energy Blog, 'China's 12<sup>th</sup> Five-Year Plan Emphasizes Clean Energy Exports', 10 January 2011. Available at: <a href="http://www.globalfundexchange.com/?p=3250&option=com\_wordpress&Itemid=267">http://www.globalfundexchange.com/?p=3250&option=com\_wordpress&Itemid=267</a>. Accessed on 21 January 2011.

The development of a renewable energy market set aside; there is still much room for improvement with respect to the efficiency and 'cleanliness' of conventional power generation in China. Carbon Capture and Storage (CCS) technology in particular shows the potential for reducing emissions, as well as turning CO<sup>2</sup> into a valuable and tradable by-product. Therefore, the next paragraph analyses the current status and potential of CCS technology in China in greater detail, based on the activities under the EU-China Partnership on Climate Change.

# 4.5.2: EU-China Cooperation on Carbon Capture and Storage

Five years after the adoption of the Partnership and the 11<sup>th</sup> Five-Year Plan (5YP); the question is where does China stand? With respect to the latter, Beijing was within reach of the goals of the 5YP by late 2009 (see also supra, 3.3.1). Chemical Oxygen Demand (COD) and sulphur emissions had dropped significantly and were expected to fall further in the course of 2010, meaning the COD target was likely met.<sup>457</sup> Similarly, despite getting off to a slow start, Beijing had managed to make substantial progress towards its goal of achieving a 20% reduction in energy intensity and it is likely that this target was met, or nearly so.<sup>458</sup> It was around this time also that China announced a new goal of reducing the carbon intensity of its GDP by 40-45% by 2020, relative to 2005 levels. Since China has historically chosen to address energy intensity individually as part of its energy efficiency improvement plans, the carbon intensity target was seen as a variation and aggregation of its existing energy intensity targets.<sup>459</sup>

In October 2006, the EU and China agreed on a detailed Work Plan in the framework of the Partnership. The Work Plan is dedicated to, *inter alia*, energy efficiency and energy conservation; new and renewable energy; methane recovery and use; hydrogen energy and fuel cells; and capacity building. Next to such measures, the Plan clearly reiterates the goal to develop and demonstrate near-zero emissions coal (NZEC) technology as a priority area of cooperation.<sup>460</sup>

<sup>&</sup>lt;sup>457</sup> COD emissions are said to have dropped by 9.66% and sulphur emissions by 13.14% in 2009. Additional savings were expected in the course of 2010. See P. Pennay, (2010), 'The 11<sup>th</sup> Five-Year-Plan – A Report Card', *Economic Observer News Department*, 24 November 2010. Available at: <a href="http://www.eeo.com.cn/ens/feature/2010/11/24/187148.shtml">http://www.eeo.com.cn/ens/feature/2010/11/24/187148.shtml</a>. Accessed on 11 January 2011.

<sup>&</sup>lt;sup>458</sup> M.D. Levine, L. Price, N. Zhou, D. Fridley, N. Aden, H. Lu, M. McNeil, N. Zheng and Q. Yining, (2010), Assessment of China's Energy-Saving and Emission-Reduction Accomplishments and Opportunities During the 11<sup>th</sup> Five Year Plan, (Berkeley: Ernest Orlando Lawrence Berkeley National Laboratory), p. 90; The World Bank, (2008), supra note 197, p. 43.

<sup>&</sup>lt;sup>459</sup> E. Martinot and L. Junfeng, (2010), *supra* note 188.

<sup>&</sup>lt;sup>460</sup> Other elements of the Work Plan include, *inter alia*, energy efficiency and energy conservation; new and renewable energy; methane recovery and use; hydrogen energy and fuel cells; power generation, transmission and distribution; and capacity building. See Ministry of Foreign Affairs of the People's Republic

Some eight months later, China launched its own National Climate Change Programme. The Programme offered little in new targets to reduce greenhouse gas emissions, but outlined how China intended to meet the goals it had already set itself. The document emphasises the need for more wind, nuclear and hydro energy, as well as increasing the efficiency of coal-fired power plants. Clearly however, the main priority lay with sustainable development and poverty eradication.<sup>461</sup>

The Chinese Programme was initiated shortly after the Partnership had decided to launch two feasibility studies to mark phase one of the NZEC project. The first of these two studies is the Cooperation Action with CCS China-EU (COACH) project. Started in late 2006, it had as its objective to coordinate the activities under the MoU, prepare the ground for large scale implementation of clean coal energy facilities by 2020, and enhance knowledge sharing and capacity building.<sup>462</sup> COACH consisted of twenty participants, of which eight were Chinese.<sup>463</sup>

The technique researched in the COACH study is that of an Integrated Gasification Combined Cycle (IGCC) thermal power plant.<sup>464</sup> This type of plant has a higher development potential and the gasification process allows for the generation of electricity and methanol in the same unit; or 'polygeneration'. China takes a keen interest in this technology as the creation of methanol has the added potential for lowering the country's dependence on imported hydrocarbons.<sup>465</sup>

CCS is a promising technology, but at current development rates it is still far from commercialisation however. Partly this is due to the fact that the market in developing/emerging economies fails to reflect the real cost to society of the use of fossil fuels to generate electricity. $^{466}$  In any event,  $CO^2$  capture and storage reduces overall process efficiency and increases the amount of

of China, 'China-EU Partnership on Climate Change Rolling Work Plan'. Available at: <a href="http://www.mfa.gov.cn/eng/wib/zzig/tyfls/tfsxw/t283051.htm">http://www.mfa.gov.cn/eng/wib/zzig/tyfls/tfsxw/t283051.htm</a>. Accessed on 31 January 2011.

<sup>&</sup>lt;sup>461</sup> National Development and Reform Commission People's Republic of China, (2007), *supra* note 201, pp. 3, 7 and 9; BBC News, 'China unveils climate change plan', 4 June 2007. Available at: http://news.bbc.co.uk/2/hi/6717671.stm. Accessed on 1 February 2011.

<sup>&</sup>lt;sup>462</sup> European Commission DG Climate Action, 'China-EU Near Zero Emission Coal Information Dossier'. Available at: <a href="http://ec.europa.eu/clima/dossiers/nzec/index en.htm">http://ec.europa.eu/clima/dossiers/nzec/index en.htm</a>. Accessed on 27 January 2011.

<sup>&</sup>lt;sup>463</sup> W. Chen and R. Xu, (2009), 'Clean coal technology development in China', *Energy Policy 38*(5), p. 2129.

<sup>&</sup>lt;sup>464</sup> An IGCC thermal power plant turns coal into gas. The plant removes impurities from the coal before it combusts in an attempt to turn any pollutants into usable by-products. Sulphur dioxide, particulates and mercury emissions of such a plant are lower compared to traditional coal-fired power plants. The excess heat from the primary combustion and generation process is also used to power a steam cycle which results in improved efficiency in comparison with conventional pulverised coal plants.

<sup>&</sup>lt;sup>465</sup> COACH Cooperation Action within CCS China-EU Executive Report, pp. 11-12; W. Chen and R. Xu, (2009), *supra* note 463, p. 2128.

<sup>&</sup>lt;sup>466</sup> COM(2009) 284 final of 25 June 2009, p. 5.

fossil fuels used to achieve a given power generation output.<sup>467</sup> Given the fact that more fuel is consumed, experts fear that the focus on CO<sup>2</sup> capture technologies will lead attention away from much needed energy efficiency improvements and renewable energy development. Neglecting the importance of energy efficiency and renewables, they say can ultimately threaten energy security and the environment.<sup>468</sup> Moreover, others assert that flue gas desulphurisation equipment – an often used technique<sup>469</sup> – causes a 4 to 8% reduction in production efficiency, thereby raising the final price. Consequently, even when Chinese operators possess the equipment, they often do not turn it on in order to save money.<sup>470</sup> It should be noted here that this phenomenon is part of a broader lack of implementation and enforcement of regulations; a topic which cross-cuts every theme in EU-China cooperation and is not limited to environmental regulation (see also *infra*, 5 concluding remarks).<sup>471</sup>

When compared to an IGCC plant which is not equipped with CCS technology, the net Cost of Electricity (COE) produced by a CCS equipped IGCC plant is 44% higher.<sup>472</sup> In this case, the cost of capturing one ton of  $CO^2$  amounts to roughly  $18 \in$ , and the cost of the  $CO^2$  avoided stands slightly higher at around  $22,50 \in$  per ton. The costs of transporting the captured  $CO^2$  to a storage site were estimated at 0,55 per tonne per 100 miles.<sup>473</sup> Inevitably, such electricity is uncompetitive compared to the standard electricity sold on the Chinese market, unless an adequate regulatory framework is in place which favours types of electricity that emit less greenhouse gases (see also *infra*, 5 concluding remarks).<sup>474</sup>

\_

<sup>&</sup>lt;sup>467</sup> China-UK Near Zero Emissions Coal (NZEC) Initiative Summary Report, pp.8-9; L. Dapeng and W. Weiwei, (2009), 'Barriers and incentives of CCS deployment in China: Results from semi-structured interviews', *Energy Policy 37*(6), p. 2423; COM(2009) 284 final, *supra* note 466, p. 5.

<sup>&</sup>lt;sup>468</sup> L. Dapeng and W. Weiwei, (2009), *supra* note 467, p. 2424

 $<sup>^{469}</sup>$  A technology used to remove sulphur dioxide from the exhaust flue gases of fossil fuel power plants through the use of a chemical solvent which scrubs off the flue gas stream.

<sup>&</sup>lt;sup>470</sup> B. Buijs, (2009), *supra* note 198, pp. 71-72.

<sup>&</sup>lt;sup>471</sup> Interview with official from European Commission DG Energy, 9 November 2010; interview with officials from European Commission DG Research, 8 June 2010; interview with official from European Commission DG External Relations, 23 June 2010; B. Buijs, (2009), *supra* note 198, p. 33. See also 'China Strategy Paper 2007-2013', *supra* note 185, pp. 25-26.

<sup>&</sup>lt;sup>472</sup> The analysis is based on the assumption that both type of plants run 7000 operating hours per year. See COACH Report, *supra* note 465, p. 30.

<sup>&</sup>lt;sup>473</sup> The transportation costs were calculated based on the following assumptions. The CO<sup>2</sup> flowrate was estimated at 3 million tonnes per year with a pipeline diameter of 300mm. The facility's lifetime was set at 20 years, with the pipeline's capital expenditure estimated at € 21,500 per mile and its operational expenditures at €3450 per mile per year. See COACH Report, *supra* note 465, pp. 30-31.

<sup>&</sup>lt;sup>474</sup> COACH Report, *supra* note 465, pp. 11, 13-14 and 30; L. Dapeng and W. Weiwei, (2009), *supra* note 467, p. 2425; H. Duan, (2010), 'The public perspective of carbon capture and storage for CO<sup>2</sup> emission reductions in China', *Energy Policy 38*(9), pp. 5821-5822; COM(2009) 284 final, *supra* note 466, p. 5.

The price difference set aside; there is much uncertainty over the possible capacity for CO<sup>2</sup> storage in China. According to a 2005 study, storage capacity is limited at roughly four times the country's annual CO<sup>2</sup> output.<sup>475</sup> The COACH project researched a number of oilfields, saline aquifers and unmineable coal beds in eastern China for their CO<sup>2</sup> storage potential. The considered sites were the Dagang oilfield province in the Tianjin municipality, the Shengli oilfield province (Shandong), the Kailuan mining area (Hebei province), and the deep saline aquifers in the Jiyang Depression in Shandong province.<sup>476</sup>

The results are highly mixed. The Dagang oil province is estimated at 22 Megatonne (Mt) of CO<sup>2</sup> storage capacity. Given this limited size it was deemed ineligible for large-scale storage. It does however exert potential for Enhanced Oil Recovery (EOR)<sup>477</sup> pilots. The Shengli field shows more potential in this respect with estimates ranging from 463 Mt to 472 Mt. In the Kailuan mining area, geological barriers were found to inhibit large-scale storage as some of the coal is likely to be mined in the future and other formations have a too low degree of permeability. Finally, within the Jiyang Depression, the Huimin sub-basin's CO<sup>2</sup> storage capacity was found to be enormous at an estimated 22 Gigatonnes (Gt).<sup>478</sup> However, many uncertainties exist given the limited data availability due to a general lack of commercial interest in deep saline aquifers.<sup>479</sup> In addition, there are concerns that large-scale CO<sup>2</sup> storage in deep saline aquifers results in acidity, which in turn can cause geological corrosion.<sup>480</sup>

The second of the studies conducted under the Partnership is the UK-China NZEC initiative, jointly led by the Chinese Ministry of Science and Technology (MOST) and the UK Department of Energy and Climate Change (DECC).<sup>481</sup> Started in November 2007, the project's objectives included, *inter alia*, knowledge sharing and capacity building; and the performance of case studies for CO<sup>2</sup> capture and storage potential. The project modelled a number of energy scenarios, using projections of energy demand and assessments of potential energy supply technologies.<sup>482</sup>

The analysis showed that in a carbon constrained scenario under the assumption of continued domination of coal; limited availability of renewable energy and no CCS; emission reductions would

<sup>&</sup>lt;sup>475</sup> L. Dapeng and W. Weiwei, (2009), *supra* note 467, p. 2423

<sup>&</sup>lt;sup>476</sup> COACH Report, *supra* note 465, p. 17.

<sup>&</sup>lt;sup>477</sup> See *supra* note 189.

<sup>&</sup>lt;sup>478</sup> COACH Report, *supra* note 465, pp. 17-19; and 28-30.

<sup>&</sup>lt;sup>479</sup> China-UK Near Zero Emissions Coal, *supra* note 467, pp.7-8 and 21.

<sup>&</sup>lt;sup>480</sup> L. Dapeng and W. Weiwei, (2009), *supra* note 467, p. 2424.

<sup>&</sup>lt;sup>481</sup> In total, the NZEC project involves twenty Chinese partner organisations.

<sup>&</sup>lt;sup>482</sup> China-UK Near Zero Emissions Coal , *supra* note 467, p 10; W. Chen and R. Xu, (2009), *supra* note 463, pp.2129-2130.

strongly depend on the instalment of nuclear capacity. If deeper emission cuts are needed, it would be necessary to create up to 1000 GigaWatt equivalent (GWe) of nuclear power. In addition, over 400GWe of coal-fired plants equipped with CCS technology would be required by 2050 as part of a portfolio of measures to achieve the greatest amount of CO<sup>2</sup> emission cuts.<sup>483</sup> Next to the obvious issues of public acceptance, site selection, safety and waste disposal, considerable other doubts exist with regard to such enormous nuclear expansion. Some experts view this as a negative factor for CCS deployment, given that large-scale growth in nuclear capacity could lead attention away from CCS technology and consequently slow the development of this important technology.<sup>484</sup>

In support of the above analysis, the project performed a case-study in China's Jilin Province to judge its CCS potential. The study equally found that coal-fired power plants continue to play a major role in the future with up to 28,000 Megawatt equivalent (MWe) in use by 2030, which would account for at least 51% of Jilin's total installed capacity. The model used suggested that up to 480 Mt of  $\rm CO^2$  could be captured, depending the availability of  $\rm CO^2$  storage as indicated by the COACH project.<sup>485</sup>

A further eight case-studies were performed on options for CO<sup>2</sup> capture in coal-fired power stations, the bulk of which focused on the incorporation of CCS as part of the design of new plants or retrofitting existing ones. Some however, also investigated the option of polygeneration.<sup>486</sup> The analysis concluded that solvents needed for post-combustion capture<sup>487</sup> are currently established in other applications and have been demonstrated at smaller scale, which means the technology is readily applicable to commercial power plants. Pre-combustion capture<sup>488</sup> on the other hand requires a wide deployment of IGCC power plants. Provided these are to be deployed in the required quantity, the technique could be an attractive way to capture CO<sup>2</sup>, but at this stage it remains speculative whether such expansion will in fact take place. Finally, oxyfuel combustion<sup>489</sup> was seen as a technique which is still in development. It thus remains to be seen how it could contribute effectively in the future. Across the board, it was concluded that for all technique,

<sup>&</sup>lt;sup>483</sup> China-UK Near Zero Emissions Coal, supra note 467, pp. 12-13.

<sup>&</sup>lt;sup>484</sup> L. Dapeng and W. Weiwei, (2009), *supra* note 467, p. 2425.

<sup>&</sup>lt;sup>485</sup> China-UK Near Zero Emissions Coal, supra note 467, p. 15.

<sup>&</sup>lt;sup>486</sup> *Ibid.* 

<sup>&</sup>lt;sup>487</sup> See *supra* note 469.

<sup>&</sup>lt;sup>488</sup> Pre-combustion capture involves removal of CO<sup>2</sup> prior to combustion, to produce hydrogen. Hydrogen combustion produces no CO<sup>2</sup> emissions, with water vapour being the main by-product.

 $<sup>^{489}</sup>$  Oxyfuel combustion involves burning fossil fuels in pure oxygen as opposed to air resulting in a more complete combustion. This results in an exhaust stream which consists of almost pure  $CO^2$  (typically 90%) and water vapour, which can be easily separated from the  $CO^2$  by condensation.

improving efficiency remains a key-challenge in order to be competitive (see also *infra*, 5 concluding remarks).<sup>490</sup>

Apart from the issues related to the competitiveness of CCS generated electricity; the availability of sufficient storage capacity; and the lack of an adequate and effective regulatory system, two additional barriers to the successful development and implementation of CCS technology in China exist. The first of these problems is that China's state-owned enterprises still dominate the transmission, distribution and sales of electricity. The current system's uneven distribution of profits makes it difficult to deploy CCS in China. Under current practice, the price on the grid is determined by competition and the final selling price by the grid companies. Should CCS technology be used therefore, this causes most profits to reside with the grid companies, whereas electricity companies are faced with rising costs of power generation without an equal adjustment in profits (see *infra*, 5 concluding remarks).<sup>491</sup>

Second, when it comes to clean coal technologies, there is a general lack of coherence between EU operations and actions at Member State level. According to several interviewees there is no real inclusion, nor coordination with EU Member States on policy actions towards China.<sup>492</sup> This is further exacerbated by the fact that China views Europe as constituting 27 markets, rather than one.<sup>493</sup> Chinese representatives understand that at European level the dominant view is that environmental and commercial objectives are well balanced, however they frequently complain that countries such as for example Germany and the Netherlands do not wish to share their knowhow over fears of intellectual property theft (see *infra*, 5 concluding remarks).<sup>494</sup>

Phase two of the NZEC project commenced in late 2009 and will run until 2012 and will continue the work done on storage and capture options, taking into account the relevant technical, economical, legal and socio-economic aspects.<sup>495</sup> The above analysis demonstrates there is a definite potential for CCS technology development and implementation in China. The continuation

<sup>&</sup>lt;sup>490</sup> China-UK Near Zero Emissions Coal, *supra* note 467, p. 19.

<sup>&</sup>lt;sup>491</sup> L. Dapeng and W. Weiwei, (2009), *supra* note 467, pp. 2429-2430.

 $<sup>^{492}</sup>$  Interview with official from European Commission DG Energy, 9 November 2010; interview with officials from European Commission DG Research, 8 June 2010.

<sup>&</sup>lt;sup>493</sup> Interview with Director-General of the European Commission DG Energy in the margin of the EU-China Energy Conference, Shanghai, 7 July 2010.

<sup>&</sup>lt;sup>494</sup> J. Holslag, (2010), *supra* note 181, p.123.

<sup>&</sup>lt;sup>495</sup> Memorandum of Understanding between the European Commission and the Ministry of Science and Technology of the People's Republic of China on Cooperation on Near Zero Emissions Coal (NZEC) Power Generation Technology through Carbon Dioxide Capture and Storage (CCS), Nanjing, 30 November 2009, p.2.

of the project is therefore sufficiently justified. However, it should also be borne in mind that several significant barriers remain in the way of effective implementation.

One barrier in particular deserves further attention given its strong relation to the other two cases in this study. It should be stressed that the EU's ability to exert real influence in its external energy relations in the long term is only as strong as the combined weight of its Member States and Institutions. However, precisely this *coherence* in external relations has proven a stumbling block for the Union's external energy policy to succeed. This issue is a major inhibiting factor in the EU's energy relations with Russia and Central Asia. With respect to China, coherence in external relations is a disturbing factor as well as was indicated by interviewees and prior research. However, the issue is less pronounced than in the other two cases. For this reason, the next paragraph analyses this issue in greater detail based on examples of the Union's relations with Russia and Central Asia.

# **4.6: Coherence in External Energy Relations**

As the analysis in paragraph 4.3 showed, some of the difficulties in sourcing alternative gas supplies stem from, on the one hand, a hesitation on part of private companies to bear the commercial risks associated with the required investments, and internal competition among European pipeline projects on the other. Although perfectly legitimate, these issues ultimately serve to hamper the EU's ability to reach its diversification goals. Similarly, the range of energy disruptions, the difficulties with regard to acquiring equal market access and the protracted negotiations on a new EU-Russia agreement seem to make a case that the Union would have much to gain from presenting a united front to Russia (see *supra*, 4.1 and 4.2).<sup>496</sup>

However, many of the difficulties the EU has faced in engaging both Russia and Central Asia stem from a different order of priorities within Europe itself. Indeed, for a variety of reasons, including, EU Member States' national preferences over their energy mix, historical ties, and relative energy market position, there is a certain asymmetry in the way EU Member States would like to approach these two on energy matters.<sup>497</sup>

Despite manifold statements which point out the advantages of multi-actor institutionalism, EU Member States have not always used their linkages and combined resources to effectively apply a greater combined weight.<sup>498</sup> Some state that this multiplicity of voices is the main reason as to why the EU has largely failed to develop a coherent and strategic approach to the reality of its dependence on Russian natural gas.<sup>499</sup> This paragraph analyses the issue of coherence in external relations based on a number of high-profile cases where critics and interviewees alike have claimed this unity was largely absent.

The main question for the EU in this respect is how to rationalise energy policy, enabling the Union to be the central actor, as opposed to a set of disparate actors, *i.e.* EU Member States. There is a need for an overarching view on what the EU should be doing externally, transferable from one area to another, so that it has a coherent international energy policy which is largely independent of the

<sup>&</sup>lt;sup>496</sup> K. Rosner, (2009), *supra* note 74, p. 166.

<sup>&</sup>lt;sup>497</sup> R. Alcaro and E. Alessandri, (2010), *supra* note 74, p. 196; E. Kirchner and C. Berk, (2010), *supra* note 74, pp. 867-877; S. Wood, (2009a), *supra* note 221, p. 619 interviews with officials from Permanent Representations of Estonia, the Czech Republic and Slovakia to the EU, 7 June, 19 April and 20 May 2010.

<sup>&</sup>lt;sup>498</sup> S. Wood, (2009a), *supra* note 221, p. 619.

<sup>&</sup>lt;sup>499</sup> R. Leal-Arcas, (2009), *supra* note 13, p. 351.

specific country in which the Union acts.<sup>500</sup> In this regard, the European Commission is keen to point out in its 2020 Energy Strategy that, in practice, national initiatives do not leverage the strength of the size of the EU market and could better express the EU interest.<sup>501</sup>

Developing a coherent external energy policy hinges to a great deal on the extent to which institutions follow general rules as opposed to individual barter deals. The former is preferred by the European Commission and various Member States, whereas some of the larger Member States tend to prefer the latter (see *infra*, this paragraph).<sup>502</sup> Pursuing individual barter deals, however, inadvertently creates possibilities for elites in supplier countries to pursue their own 'reciprocity rules', *i.e.* not limiting demands to capital, arguing more substantial trade-offs are necessary in order to get things done, such as asset swaps (see *supra*, 4.1). The monopolistic and quasi-statist character of such energy markets thus remains unchanged – potentially creating a vicious circle which is hard to break.<sup>503</sup> Moreover, the myriad of individual Member State actions often blur the view of third countries on what the EU really wants to pursue in its external energy policy.<sup>504</sup>

A range of energy initiatives which were put forward since the early 2000s, and especially since 2006, to overcome this problem did not prosper in the end.<sup>505</sup> Such proposals included for the European Commission to be vested with institutional competences over external energy issues;<sup>506</sup>

<sup>&</sup>lt;sup>500</sup> Interview with official from European Commission DG Energy, 11 March 2010; interview with official from European Commission DG External Relations, 30 September 2010. See also European Parliament, Report on towards a common European foreign policy on energy, *supra* note 51, point 26.

<sup>&</sup>lt;sup>501</sup> COM(2010) 639 final, *supra* note 89, p. 17.

<sup>&</sup>lt;sup>502</sup> S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 9, p. 518.

<sup>&</sup>lt;sup>503</sup> See J. Grätz, (2009), *supra* note 10, p. 69; K. Hóber, (2009), *supra* note 13, p. 423; and R. Youngs, (2009), *supra* note 61, pp. 82-84, 86-87, 91 and 96. See also O. Geden et al., (2006), 'Perspectives for the European Union's External Energy Policy. Discourse, Ideas, and Interests in Germany, the UK, Poland and France'. Working Paper FG1. Berlin: SWP; T. Romanova, (2008), *supra* note 12, p. 227; and A. Checchi, A. Behrens, C. Egenhofer, (2009), 'Long-Term Energy Security Risks for Europe: A Sector Specific Approach'. CEPS Working Document No. 309/January 2009. Brussels: Centre for European Policy Studies; Interviews with officials from Permanent Representations of the Czech Republic and Latvia to the EU 19 April and 23 April 2010; and interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010.

<sup>&</sup>lt;sup>504</sup> Interview with official from Embassy of Azerbaijan in Brussels, 13 September 2010. See also S. Peyrouse, (2009a), *supra* note 104, p. 11; Euractiv, 'Nabucco grapples with communication issues', 9 June 2011. Available at: <a href="http://www.euractiv.com/en/energy/nabucco-grapples-communication-issues-news-505457?utm">http://www.euractiv.com/en/energy/nabucco-grapples-communication-issues-news-505457?utm</a> source=EurActiv+Newsletter&utm campaign=13cdae2d2f-

my google analytics key&utm medium=email; and EUobserver, 'Turkmenistan: We're not sure why Barroso is coming', 10 January 2011. Available at: <a href="http://euobserver.com/?aid=31616">http://euobserver.com/?aid=31616</a>. Both accessed on 14 July 2011. 505 R. Youngs, (2009), *supra* note 16, p. 27.

<sup>&</sup>lt;sup>506</sup> European Parliament, Report on towards a common European foreign policy on energy, *supra* note 163, point 29.

for a mandatory 'energy security clause' to be inserted into third country agreements;<sup>507</sup> and for the application of 'enhanced cooperation', to create a so-called 'energy Schengen' (see also *infra*, 4.7).<sup>508</sup>

The absence in practice of said proposals, leads the European Parliament to acknowledge there is still a lack of 'critical awareness' within the Union that an EU-led approach (former Community approach) is the way forward.<sup>509</sup> For the EU it is important that – in order to overcome this practice – it formalises the principle whereby Member States act in the benefit of the EU as a whole in bilateral energy relations with key partners, including, and in particular, Russia.<sup>510</sup>

Asked about whether the European Commission could play a larger role in terms of coordination, some Member States are swift to point to the lack of competences over energy at EU level, claiming foreign policy is a Member State responsibility.<sup>511</sup> Others merely refer to the split in competences between the Commission and Member State level and the extent to which Member States are (un)willing to confer theirs – leaving the Commission sometimes unable to deliver on its promises.<sup>512</sup>

Currently, some of the bigger EU Member States are still not convinced that a truly common energy policy is in their interests. Different energy exposures are largely seen as preventing a strengthened commitment to energy's external dimension.<sup>513</sup> Whereas some of the EU's Central and Eastern Member States are positive towards a larger role for the European Commission<sup>514</sup>, countries such

<sup>&</sup>lt;sup>507</sup> Such a clause would lay down a code of conduct and prohibition of disruption due to commercial disputes, and explicitly outline measures to be taken in the event of unilateral disruption, or any change in the terms of the contract or in the terms of supply by one of the partners. See European Parliament, non-legislative resolution, 3 February 2009, INI/2008/2239; European Parliament, Report on towards a common European foreign policy on energy, *supra* note 51, point 31.

<sup>&</sup>lt;sup>508</sup>President of the European Parliament, 'The future of European energy policy' – address by President Jerzy Buzek at the Stakeholder Conference on preparation of Energy Strategy 2011-2020. Available at: <a href="http://www.europarl.europa.eu/president/view/en/press/speeches/sp-2010/sp-2010-">http://www.europarl.europa.eu/president/view/en/press/speeches/sp-2010/sp-2010-</a>

<sup>&</sup>lt;u>September/speeches-2010-September-3.html</u>. Accessed on 9 December 2010; S. Andoura, L. Hancher and M. van der Woude, (2010), *supra* note 83, p. 105.

<sup>&</sup>lt;sup>509</sup> European Parliament, Report on towards a common European foreign policy on energy, *supra* note 51; interviews with officials from European Parliament Directorate-General Internal Policies, 30 March 2010; interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010; R. Youngs, (2009), *supra* note 16, p. 27.

<sup>&</sup>lt;sup>510</sup> COM(2010) 639 final, *supra* note 155, p. 17.

<sup>&</sup>lt;sup>511</sup> Interviews with officials from Permanent Representations of the UK and Italy to the EU, 10 and 24 June 2010.

<sup>&</sup>lt;sup>512</sup> Interviews with officials from Permanent Representations of Slovenia and the Czech Republic to the EU, 23 and 19 April 2010; interview with official from European Commission DG Energy, 26 March 2010.

<sup>&</sup>lt;sup>513</sup> Interview with official from European Commission DG Energy, 26 March 2010. See also A. Macintosh, (2010), 'Security of Europe's Gas Supply: EU Vulnerability'. CEPS Policy Brief No. 222, November 2010; and R. Youngs, (2009), *supra* note 61, p. 34.

<sup>&</sup>lt;sup>514</sup> Interview with official from Permanent Representation of the UK to the EU, 10 June 2010.

as France, Germany, the UK, Italy and the Netherlands<sup>515</sup> – are not too eager on having their sovereignty limited as they view their market size and power as a sufficient defence against any threat posed by external dependency.<sup>516</sup> It seems that therefore that the Central and Eastern European Member States feel they need the support of the European Commission to keep up on par with the bigger Member States (including the Netherlands) when it comes to energy.<sup>517</sup>

Such intra-EU divergences have led to several Member States forging deals with Russia for the creation of gas pipeline projects, in spite of the fact that the Union's overall goal is diversification. In fact, the signing of bilateral energy contracts with suppliers such as Gazprom is repeatedly mentioned as the single biggest undermining factor of a coherent external energy policy.<sup>518</sup>

The event which arguably caused most consternation within the EU was the deal struck between Gazprom and German E-ON-Ruhrgas and BASF in 2006 to build a pipeline that links Russia and Germany via the Baltic Sea.<sup>519</sup> Construction on the 'Nord Stream' project as it is called began on 9 April 2010.<sup>520</sup> Many countries – mostly Central and Eastern European States – within the EU viewed the project as a flagrant example of quick bilateral geopolitics, lacking any form of solidarity, where discussions at EU level had largely been absent.<sup>521</sup> The pipeline is seen by some as a move by Russia and Germany to deliberately pursue a more expensive subsea option at the expense of a cheaper

<sup>&</sup>lt;sup>515</sup> One must note however that, as a small EU country, the Netherlands does not pose the same market size and power as do Germany, France, the UK and Italy. However, as a natural gas exporting country, it is keen to keep this position and prefers good relations with Moscow. Increased supranational involvement in external energy policy is seen as negatively affecting this relationship. Interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010; interviews with officials from Permanent Representations of Poland and Lithuania to the EU, 13 May and 5 May 2010. See also K. Barysch, (2010), *supra* note 137, p. 4.

<sup>&</sup>lt;sup>516</sup> E. Kirchner and C. Berk, (2010), *supra* note 43, p. 868; K. Barysch, (2010), *supra* note 137, p. 4; interviews with officials from European Parliament Directorate-General Internal Policies, 30 March 2010; interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010; interview with official from Permanent Representation of Lithuania to the EU, 5 May 2010

<sup>&</sup>lt;sup>517</sup> Interviews with officials from European Commission DG Energy, 11 and 26 March 2010.

<sup>&</sup>lt;sup>518</sup> Interviews with officials from Permanent Representations of Romania, Lithuania, Poland, the Czech republic, Latvia, Slovakia and Bulgaria to the EU, 12 May, 5 May, 13 May, 19 April, 23 April, 20 May, and 19 April 2010; interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010; interview with several officials from European Parliament Directorate-General External Policies, 5 March 2010. See also, K. Barysch, (2010), *supra* note 137, p. 5.

<sup>519</sup> EUobserver, 'Russia pledges future gas supplies to Europe', 13 February 2006. Available at: <a href="http://euobserver.com/?aid=2088">http://euobserver.com/?aid=2088</a>. The project is characterised by high-level political visibility as shown by the personal participation of former German Chancellor Gerhard Schröder and Russian Prime Minister Putin. See EUobserver, 'EU needs Baltic Sea gas pipe, German ex-leader says', 8 February 2007. Available at: <a href="http://euobserver.com/?aid=23448">http://euobserver.com/?aid=23448</a>. Both accessed on 9 December 2010.

<sup>&</sup>lt;sup>520</sup> Its main proponents are Gazprom, German BASF/Wintershall Holding AG, German E-ON Ruhrgas AG and Dutch NV Nederlandse Gasunie. Recently French GDF Suez joined the project.

<sup>&</sup>lt;sup>521</sup> Interviews with officials from Permanent Representations of Latvia, Poland, Estonia, Slovenia and the Czech Republic to the EU, 23 April, 13 May, 7 June, 23 April and 19 April 2010.

overland route to bypass 'traditional' transit countries such as Ukraine, Belarus and Poland, which are seen as an 'unreliable link in the chain'.<sup>522</sup> Conversely, Germany and Italy rather see Nord Stream as a purely industry driven project between commercial undertakings which should not necessarily be discussed at Council level.<sup>523</sup> Solidarity in this respect should be understood as something that applies *between* EU countries, yet not necessarily in relation to decisions involving third countries on a bilateral commercial basis.<sup>524</sup> Russia seems to take a more pragmatic stance, claiming it does not think the sea route means Poland and the Baltic States can not benefit from the pipeline; either in terms of construction, job creation, or the purchase of gas.<sup>525</sup>

Similarly, after 2006 Gazprom had negotiated deals with energy companies in nearly all EU Member States, with particularly noteworthy agreements signed with Bulgaria, Hungary and Austria to roll out its South Stream project (see also *supra*, 4.1 on South Stream). Under these deals Gazprom acquired greater market access in return for maintaining supplies to these countries on a bilateral basis.<sup>526</sup> By late 2010, Austria, Bulgaria, Hungary, Greece, and Slovenia had all signed up to cooperate on South Stream.<sup>527</sup> The fact that Gazprom has managed to sign up almost all of Nabucco's participants has led some to conclude that Russia is winning the 'pipeline race'.<sup>528</sup>

\_

<sup>522</sup> Interviews with officials from Permanent Representations of Poland, Latvia and Slovenia to the EU, 13 May , and 23 April 2010. See also A. Cohen, (2006), 'The North European Gas Pipeline Threatens Europe's Energy Security', Backgrounder (Heritage Foundation) No. 1980; G. Feller, (2007), 'Nord Stream Pipeline Project Controversy', Pipeline Iournal. Stokes Gas Available http://findarticles.com/p/articles/mi m3251/is 3 234/ai n25003671/. Accessed on 9 December 2010; T. De Wachter, (2007), 'The Russian export of gas/oil and the Baltic: A political dependency?', Globaal 15(1), p. 9; J. M. Godzimirski, (2009), supra note 13, p. 3; and K. Hóber, (2009), supra note 13, p. 430. Increasingly, the Central and Eastern European States are trying to diminish their disadvantaged situation. Recently, Poland and Slovakia announced a feasibility study for a "North-South" pipeline between the two countries. Such an interconnector could give Central European customers access to LNG from the terminal under construction at Swinoujscie in Poland. See Euractiv, 'Slovakia, Poland look into 'Visegrad pipeline', 17 January 2011. Available http://www.euractiv.com/en/energy/slovakia-poland-look-visegrad-pipeline-news-501292?utm source=EurActiv+Newsletter&utm campaign=573ea3cca9my google analytics key&utm medium=email. Accessed on 17 January 2011.

<sup>&</sup>lt;sup>523</sup> Interviews with officials from Permanent Representations of Germany and Italy to the EU, 2 July and 24 June 2010.

<sup>&</sup>lt;sup>524</sup> Interviews with officials from Permanent Representations of Italy and the UK to the EU, 24 June and 10 June 2010.

<sup>&</sup>lt;sup>525</sup> Interview with official from Permanent Mission Russian mission to the European Union, 26 May 2010.

<sup>&</sup>lt;sup>526</sup> A. Cohen, (2009b), *supra* note 42, p. 94; R. Youngs, (2009), *supra* note 16, p. 82.

<sup>&</sup>lt;sup>527</sup> See South Stream: Cooperation. Available at: <a href="http://south-stream.info/index.php?id=4&L=1">http://south-stream.info/index.php?id=4&L=1</a>. Accessed on 20 December 2010. See also R. Youngs, (2009), *supra* note 16, pp. 89 and 110; A. Goldthau, (2010), *supra* note 27, p. 33

<sup>&</sup>lt;sup>528</sup> K. Barysch, (2010), *supra* note 137, p. 10; J. Bush, (2009), 'Russia's South Stream Project Gets a Boost', 19 May 2009. Available at: <a href="http://www.spiegel.de/international/business/0,1518,625697,00.html">http://www.spiegel.de/international/business/0,1518,625697,00.html</a>; P. Escobar, (2008), 'Relax and float south stream', 14 March 2008. Available at: <a href="http://www.atimes.com/atimes/Central Asia/JC14Ag01.html">http://www.atimes.com/atimes/Central Asia/JC14Ag01.html</a>. Both accessed on 20 December 2010.

Others however contend that Gazprom's focus on complex and expensive infrastructure projects such as these<sup>529</sup> render its realisation doubtful and view it more as a way of exerting political pressure on rival projects such as Nabucco.<sup>530</sup> Moreover, gas demand has dropped in Europe as a result of the economic crisis. Rather than cutting its losses, Gazprom responded by doubling the stakes; the planned capacity of South Stream went from 30 to 64bcm. The costs however were not adjusted accordingly. This uncertainty seems to have made ENI – Gazprom's Italian partner company – nervous and afraid of cost overruns.<sup>531</sup> Nevertheless, Gazprom sticks to the 64bcm capacity.<sup>532</sup> Should South Stream become a reality, it is unclear whether Russia is able to shore up the necessary gas and how it intends to create a unified legal transit regime along its entire route (analogous to the Nabucco Intergovernmental Agreement). Moreover, the huge costs associated with the project may have to be borne at the expense of other investment priorities such as Russia's giant Siberian gas fields.<sup>533</sup>

Whether or not South Stream will be built in the end, the fact that EU Member States signed individual cooperation agreements with Gazprom put pressure on Nabucco and undermined the Union's diversification efforts. In an attempt to increase Nabucco's chances and close ranks on individual Member State efforts, the European Commission proposed to examine the feasibility of a block purchasing mechanism that would buy Caspian gas from potential Nabucco suppliers such as Turkmenistan.<sup>534</sup> Dubbed the 'Caspian Development Corporation' (CDC or 'Corporation'), it would aim to ensure that all players along the value chain respect the rules that maintain the value of the resource to the producer State.<sup>535</sup> The reason behind this is that diverging signals from consumers and transit States may be difficult to interpret for a producer country such as Turkmenistan, which basically aims for security of demand.<sup>536</sup> The CDC would be a way of consolidating demand in order

\_

<sup>&</sup>lt;sup>529</sup> The price for South Stream is estimated at around \$30 billion, making it the most expensive energy infrastructure project ever undertaken.

from Permanent Representation of the UK to the EU, 10 June 2010. See also WTG News, 'Is South Stream losing steam?', 9 August 2010. Available at: <a href="http://www.wtgnews.com/2010/08/is-south-stream-losing-steam/">http://www.wtgnews.com/2010/08/is-south-stream-losing-steam/</a>. Accessed on 20 December 2010.

<sup>&</sup>lt;sup>531</sup> WTG News, *supra* note 530; P.K. Baev and I. Øverland, (2010), *supra* note 231, p. 1084; Euractiv, 'Italy's ENI wants rival gas pipelines to collaborate', 11 March 2010. Available at: <a href="http://www.euractiv.com/en/energy/italy-s-eni-wants-rival-gas-pipelines-collaborate-news-327050">http://www.euractiv.com/en/energy/italy-s-eni-wants-rival-gas-pipelines-collaborate-news-327050</a>. Accessed on 2 December 2010.

<sup>&</sup>lt;sup>532</sup> P.K. Baev and I. Øverland, (2010), *supra* note 231, p. 1084; K. Barysch, (2010), *supra* note 137, p. 10.

<sup>&</sup>lt;sup>533</sup> K. Barysch, (2010), *supra* note 137, p. 10; WTG News, *supra* note 530.

<sup>&</sup>lt;sup>534</sup> COM(2008) 781 final, *supra* note 6, p. 3.

<sup>&</sup>lt;sup>535</sup> J. Van Aartsen, (2009). Activity Report September 2007-February 2009 Project of European Interest No NG3. Brussels, 4 February 2009, p. 8. <sup>536</sup> *Ibid*.

to reassure suppliers that Nabucco would be a safe investment option. Simultaneously, it would reduce competition *between* European energy companies, as all would be grouped together in one entity, with a single voice.<sup>537</sup>

In a preliminary reaction, Eurogas<sup>538</sup> emphasised that whichever tools are identified to pursue the objectives of the CDC, the non-exclusive, case-specific and temporary character of the Corporation must be a necessary prerequisite. Any proposed measure should be compatible with an undistorted market functioning. Moreover, it stated that a coordinated purchasing approach<sup>539</sup> should at all times ensure that the companies involved have the full capacity and responsibility for the development of the commercial processes – including supply contracts – they engage in.<sup>540</sup>

A draft legal study on the CDC that was released in December 2010 seems to have incorporated these demands. It proposes a model whereby the CDC would be a single, financially strong company owner by European companies in proportion to their interest in the long-term purchase of Turkmen gas. There are some serious challenges to its realisation however, such as for the CDC to comply with EU competition rules, risks associated with gas development and delivery from a new supplier, the construction of new pipeline sections including a TransCaspian link, the risk of participation of companies of weak credit and of non-performance of either CDC members or external pipeline companies, and the challenge to establish an intergovernmental agreement between Azerbaijan, Georgia and Turkmenistan to guarantee the latter's future transit rights.<sup>541</sup>

The persistent lack of coherence in the Union's external energy policy and its perceived inability to form a "united front" against third country suppliers, has led some to believe that a new Treaty was necessary on which energy policy ought to be based. The entering into force of the Treaty of Lisbon sparked much debate on the future of EU energy policy and has caused others to put forward

<sup>&</sup>lt;sup>537</sup> The Quaker Council for European Affairs, (2009), *supra* note 148, p.7.

<sup>&</sup>lt;sup>538</sup> Eurogas promotes, *inter alia*, the interests of its membership, companies, national federations and associations involved in the European gas trade.

<sup>539</sup> According to Eurogas the suggested approach is defined as the creation of a "gas purchasing company combined with an obligation to sell to others at 'pass through' or other prices". See Eurogas, (2009). Caspian Development Corporation (CDC) Eurogas Preliminary Remarks. Brussels, 30 June 2009, p. 2. Availabe at: <a href="http://www.eurogas.org/uploaded/2009%20-June%20-%2009PP370%20-%20CDC%20-%20Eurogas%20Preliminary%20Remarks.pdf">http://www.eurogas.org/uploaded/2009%20-June%20-%2009PP370%20-%20CDC%20-%20Eurogas%20Preliminary%20Remarks.pdf</a>. Accessed on 21 December 2010.

<sup>&</sup>lt;sup>540</sup> *Ibid.* This view was shared several interviewees. Interviews with officials from Permanent Representations of Germany, Italy and UK to the EU, 2 July, 10 June and 24 June 2010.

thtp://ec.europa.eu/energy/infrastructure/studies/doc/2010 12 report cdc final implementation.pdf. Accessed on 27 May 2011. This view was confirmed by several interviewees. Interviews with officials from Permanent Representations of Germany, Italy and UK to the EU, 2 July, 10 June and 24 June 2010.

elaborate proposals in the direction of a more institutionalised external energy policy. The next paragraph discusses the implications of the Lisbon Treaty and other initiatives in more detail.

# 4.7: An External Energy Policy Treaty?

A recent proposal put forward by former Commission President Jacques Delors – in collaboration with European Parliament President Jerzy Buzek – firmly criticises the EU's inability to reconcile on a common energy policy, despite a dramatic increase in regulatory activity designed to establish a broad European energy market and fight climate change. The proposal makes the case for an 'EU energy community' based on a new treaty. The proposal includes such measures as an EU energy fund, and 'purchasing groups' of countries in order to give them greater negotiation leverage in relations with suppliers like Russia – an idea similar to that of the CDC. The proposal deems the new energy Title under the Lisbon Treaty unlikely to offer prospects of radical change from the present situation (see *infra*, this paragraph). Alternatively, it sets out two different paths: (i) enhanced cooperation, or the pooling together of countries who want the same things and gradually attract more members; and (ii) via a new European energy treaty altogether in order to accommodate all elements of the menu in one single legal instrument.

Initially, such enhanced cooperation could take the form of pragmatic and voluntary cooperation among some Member States concerning specific issues, such as the creation of a joint trading platform, the adoption of common technical standards, the pooling of R&D funds and/or the coordination of investments – a sort of 'Schengen for energy'.<sup>547</sup> When asked about the proposal's implications, Italy claimed the Council 'took note' of its release, aware of the political aim to create a common energy policy and the possibility for it to have some unifying value, but that Member States were careful not to 'over-regulate' matters.<sup>548</sup>

<sup>&</sup>lt;sup>542</sup> S. Andoura, L. Hancher and M. van der Woude, (2010), *supra* note 83, foreword by Jacques Delors. See also EUobserver, 'Delors tables energy community plan, slams EU leaders', 5 May 2010. Available at: <a href="http://euobserver.com/?aid=30017">http://euobserver.com/?aid=30017</a>; Euractiv, 'Delors advocates new EU treaty', 6 May 2010. Available at: <a href="http://www.euractiv.com/en/priorities/delors-advocates-new-eu-treaty-news-493800">http://www.euractiv.com/en/priorities/delors-advocates-new-eu-treaty-news-493800</a>. Both accessed on 9 December 2010.

<sup>&</sup>lt;sup>543</sup> *Ibid.*, pp. 110-115.

<sup>&</sup>lt;sup>544</sup> Title XXI, 'Energy', of Part Three, 'Union policies and internal actions', Treaty on the Functioning of the European Union (TFEU).

<sup>&</sup>lt;sup>545</sup> S. Andoura, L. Hancher and M. van der Woude, (2010), *supra* note 83, p. 99.

<sup>&</sup>lt;sup>546</sup> *Ibid.*, pp. 100-105.

<sup>&</sup>lt;sup>547</sup> Ibid., p. 106.

<sup>&</sup>lt;sup>548</sup> Interview with official from Permanent Representation of Italy to the EU, 24 June 2010;

In spite of the Delors group's claim that the Lisbon Treaty is unlikely to provide for radical change, increased coherence in external relations is one of the central aims underpinning the Treaty.<sup>549</sup> Some argue therefore that the Lisbon Treaty's creation of an energy Title may strengthen the Union's self-perception as an energy actor and gradually turn European energy politics into a more *natural* undertaking, as Member States that are traditionally 'wary' of increased 'europeanisation' in this field could become more convinced of the possible added value of European energy policy.<sup>550</sup> But such a chain of events is by no means certain. It presupposes both increased concerted external action in the energy field and that the benefits of such actions outweigh those taken at Member State level. At this stage, it remains speculative whether the application of the provisions of the Lisbon Treaty will effectively lead to this (ideal-type) situation.<sup>551</sup> Others were more outspoken on the unlikely possibility that such a development would take place, agreeing largely with the Delors group's judgment.<sup>552</sup>

One of Lisbon's novelties that warrants specific attention is the solidarity mechanism laid down in Art. 122(1) Treaty on the Functioning of the European Union (TFEU)<sup>553</sup> and touching in particular on energy:

"Without prejudice to any other procedures provided for in the Treaties, the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between Member States, upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy."

During the January 2009 crisis between Russia and Ukraine (see *supra*, 3.1.1) the Council made repeated references to solidarity in its endeavours to resolve the crisis. This could be seen as a 'test' of Member States' dedication *to* and concrete implementation *of* the Lisbon Treaty's solidarity provision, pending the latter's entry into force. However, for various reasons the measures did not

<sup>&</sup>lt;sup>549</sup> S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, p. 530.

<sup>&</sup>lt;sup>550</sup> S. Fischer, (2009), 'Energie- und Klimapolitik im Vertrag von Lissabon: Legitimationsverweiterung für wachsende Herausforderungen', *Integration 1*, p. 58; interviews with officials from Permanent Representations of the Czech Republic, Bulgaria, Romania and Lithuania to the EU, 19 April, 12 May and 5 May 2010.

<sup>&</sup>lt;sup>551</sup> S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, p. 531; interview with official from European Commission Directorate-General (DG) Energy, 8 October 2010; interview with official from European Commission DG External Relations, 30 September 2010; interviews with officials from Permanent Representations of Poland and Belgium to the EU, 13 May and 22 April 2010.

<sup>&</sup>lt;sup>552</sup> Interviews with officials from Permanent Representations of Germany, Italy and UK to the EU, 2 July, 24 June and 10 June 2010; interview with official from European Commission DG Energy, 11 March 2010.

<sup>553</sup> Art. 122(1) TFEU is the former Art. 100(1) Treaty Establishing the European Community (TEC).

deliver their full intended effects.<sup>554</sup> Partly this stems from the equivocal nature of the concept of 'solidarity' itself. As it is not a quantifiable notion, and once activated, its financial implications are unclear and cannot be derived from the Treaty; solidarity is thus subject to Member States' interpretation on how much weight is given to it in times of crisis.<sup>555</sup>

Lisbon's explicit mention of energy in connection with supply interruptions creates a legal basis which could enable the Union to intervene more actively in the future.<sup>556</sup> In this light, the solidarity clause will undoubtedly play a role with respect to measures taken to ensure the security of supply at a time of crisis.<sup>557</sup> It is however necessary here to point to some limitations. According to Art. 194(2) second para. TFEU measures necessary to achieve the objectives of Art. 194(1) TFEU:

"...shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply, without prejudice to Article 192(2)(c) TFEU." 558

Although the extent to which Art. 194(2) second para. TFEU impacts on the ability for the EU to act is as of yet unclear, possible tensions exist between this provision and solidarity measures necessary in the event of an interruption in energy supply based on Art. 122(1) TFEU. 559

Looking at Lisbon's main constitutional changes, it seems the creation of a new High Representative/Vice President (HR/VP), who is both part of the Council<sup>560</sup> as well as the

<sup>&</sup>lt;sup>554</sup> For a full account of the crisis and the impact of the EU's interventions, see S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 9, pp. 525-530.

<sup>&</sup>lt;sup>555</sup> Interviews with officials from Permanent Representations of Bulgaria, the Czech Republic, Latvia, Slovenia, UK, Italy, Estonia and Germany to the EU, 19, 22, and 23 April, 24, 7 and 10 June, and 2 July 2010; interview with official from the European Commission Directorate-General for Energy on 11 March 2010.

<sup>&</sup>lt;sup>556</sup> S. Fischer, (2009), *supra* note 14, p. 57.

<sup>&</sup>lt;sup>557</sup> Yet, in line with the reference to the 'spirit of solidarity' in Art. 194(1) TFEU, it may also do so in promoting the interconnection of energy networks, as part of solidarity measures limiting a (future) crisis' impact. See also U. Ericke and D. Hackländer, (2008), *supra* note 14, p. 595.

legislative procedure when the Council adopts 'measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply'. The Council then has to decide unanimously after consulting the European Parliament, the Economic and Social Committee and the Committee of the Regions. See also Declaration No 35 attached to the Lisbon Treaty, stating that the (Intergovernmental) 'Conference beliefs that Article 194 does not affect the right of the Member States to take the necessary measures to ensure their energy supply under the conditions provided for in Article 347'. Art. 347 TFEU contains the age-old clause that 'Member States shall consult each other with a view to taking together the steps needed to prevent the functioning of the internal market being affected by measures which a Member State may be called upon to take in the event of serious internal disturbances affecting the maintenance of law and order, in the event of war, serious international tension constituting a threat of war, or in order to carry out obligations it has accepted for the purpose of maintaining peace and international security'.

<sup>&</sup>lt;sup>559</sup> S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 9, p. 533.

Commission<sup>561</sup>, assisted by the Union's own diplomatic corps, the European External Action Service (EEAS)<sup>562</sup>, was inspired to tackle precisely the challenge of coherence in external relations.<sup>563</sup> In fact, the HR/VP's 'double hat' was coined in order to bridge the Union's external economic and political relations. With regard to the creation of the EEAS, this caused some authors to question whether its reach should extend to all aspects of external relations, or rather be confined to external political relations.<sup>564</sup> Although energy has a clear external dimension, the discussion on the establishment of the EEAS has focused on the Directorate Generals of the Commission dealing specifically with external relations (DGs Relex and Development) and the Policy Unit, the European Security and Defence Policy (ESDP)<sup>565</sup> and crisis management structures, and directorates of DG-E of the Council Secretariat, letting it hang in the balance whether (elements) of energy policy will be part of the EEAS from the outset.<sup>566</sup>

Under 'normal circumstances' (*i.e.* in a situation of uninterrupted energy supply) it seems clear that the HR/VP and the EEAS do not have direct authority over EU external energy policy.<sup>567</sup> However,

<sup>&</sup>lt;sup>560</sup> Pursuant to Art. 18(3) TEU the HR presides over the Foreign Affairs Council.

<sup>&</sup>lt;sup>561</sup> Pursuant to Art. 18(4) TEU the HR is one of the Vice-Presidents of the Commission and shall ensure the consistency of the Union's external action. The HR shall be responsible within the Commission for responsibilities incumbent on it in external relations and for coordinating other aspects of the Union's external action. The HR thereby effectively took over the portfolio of hitherto External Relations Commissioner.

<sup>&</sup>lt;sup>562</sup> Pursuant to Art. 27(3) TEU '[i]n fulfilling his mandate, the High Representative shall be assisted by a European External Action Service. This service shall work in cooperation with the diplomatic services of the Member States and shall comprise officials from relevant departments of the General Secretariat of the Council and of the Commission as well as staff seconded from national diplomatic services of the Member States'.

<sup>&</sup>lt;sup>563</sup> S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 9, p. 534.

<sup>&</sup>lt;sup>564</sup> G. Grevi and F. Cameron, (2005), 'Towards an EU Foreign Service'. Issue Paper 29. Brussels: European Policy Centre (EPC), p. 3.

<sup>&</sup>lt;sup>565</sup> Note that after the enter into force of the Treaty of Lisbon, ESDP was named Common Security and Defence Policy (CSDP).

<sup>566</sup> Council Decision establishing the organisation and functioning of the European External Action Service, Council Doc. 11665/1/10 REV 1, Brussels 20 July 2010, ANNEX, pp. 1-6; S. Vanhoonacker and N. Reslow, (2010), 'The European External Action Service: Living Forwards by Understanding Backwards', European Foreign Affairs Review 15(1), pp. 7-8; S. Duke, (2009), 'Providing for European-Level Diplomacy after Lisbon: The Case of the European External Action Service', The Hague Journal of Diplomacy 4, pp. 218-219; J. Lieb and A. Maurer, (2007), 'The 'how' of the EEAS: variables, priorities and timelines', in: G. Avery et al., (2007). 'The EU Foreign Service: how to build a more effective common policy'. Working Paper No. 28. Brussels: EPC, p. 67; A. Centioni and J. Rawlinson, 'External Action Service: where are we?' The Euros, 22 March 2010, p.2. Available at: <a href="http://www.theeuros.eu/External-Action-Service-where-are,3597?lang=en">http://www.theeuros.eu/External-Action-Service-where-are,3597?lang=en</a>. Accessed on 6 April 2010.

<sup>&</sup>lt;sup>567</sup> S. Andoura, L. Hancher and M. van der Woude, (2010), *supra* note 149, p. 13; interviews with officials of Permanent Representations of Belgium, Bulgaria, Slovenia, Germany, Italy, and UK to the EU on 22, 19 and 23 April, 2 July and 24 and 10 June 2010; interview with official. The respondent from the Czech Republic remarked in this regard that "...[A]s long as we don't regard external energy policy as part of energy policy of the Union and split it under foreign policy aspects and energy aspects, there will always be a division".

other EU Member States do envisage a role for the HR/VP and the Union's diplomatic corps when it comes to external energy matters.<sup>568</sup> Indeed, there is reason to believe that this could change under 'abnormal circumstances', such as in the event of a severe supply interruption like in January 2009, especially when such circumstances carry foreign and security policy implications.<sup>569</sup>

The Council Decision establishing the organisation and functioning of the European External Action Service reads in Article 2(1) that the EEAS shall support the HR/VP

"in fulfilling his mandates as outlined, notably, in Articles 18 and 27 TEU:

- in fulfilling his mandate to conduct the Common Foreign and Security Policy ("CFSP") of the European Union, including the Common Security and Defence Policy ("CSDP"), to contribute by his proposals to the development of that policy, which he shall carry out as mandated by the Council and to ensure the consistency of the Union's external action;
- in his capacity as President of the Foreign Affairs Council, without prejudice to the normal tasks of the General Secretariat of the Council;
- in his capacity as Vice-President of the Commission for fulfilling within the Commission the responsibilities incumbent on it in external relations, and in coordinating other aspects of the Union's external action, without prejudice to the normal tasks of the services of the Commission."<sup>570</sup>

The broad formulation of this provision seems to imply that energy (or parts of thereof) may well fall under the remit of the HR/VP and the EEAS. This is definitely the case insofar it constitutes a CFSP matter, thus falling under the responsibility of the HR/VP, a situation quite likely if an energy supply interruption contains not purely economic, but also political and security elements. Furthermore, in her role as Vice-President of the Commission, the HR/VP is responsible for

Interview with official from Permanent Representation of the Czech Republic, 19 April 2010. The respondent from the Russian Mission to the EU noted that he believes the Commission and the Energy Commissioner will continue to play a vital role in determining the context of energy policy towards third countries, claiming "competition" between institutional actors is not beneficial. Interview with official from Permanent Mission Russian mission to the European Union, 26 May 2010.

<sup>&</sup>lt;sup>568</sup> Interviews with officials from Permanent Representations of Lithuania, Romania, and Poland, 5, 12 and 13 May 2010; interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010.

<sup>&</sup>lt;sup>569</sup> S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 9, p. 535.

<sup>&</sup>lt;sup>570</sup> Council Decision establishing the organisation and functioning of the European External Action Service, *supra* note 332.

'coordinating other aspects of the Union's external action'<sup>571</sup>, which ultimately also includes energy.<sup>572</sup>

The EEAS is expected to support and work in cooperation with the General Secretariat of the Council, the Commission services, as well as with the diplomatic services of the Member States in order to ensure consistency between the different areas of EU external action and between these and its other policies.<sup>573</sup> Furthermore, both the EEAS and the Commission are to 'consult each other on all matters relating to the external action of the Union in the exercise of their respective functions'.<sup>574</sup> This implies that the EEAS could have staff which is responsible for following up external energy policy, either as part of a geographic desk, or a thematic desk under the department of 'Global and Multilateral Issues' within the EEAS' central administration.<sup>575</sup>

With respect to external representation, the extent to which an issue is dominated by either security or technical / market aspects, is likely to determine whether the President of the European Council (at the highest political level), the HR/VP, supported by the EEAS and aided by the Union delegations abroad, or the Commission takes the lead. Close cooperation between both the HR/VP and the Commissioner is crucial here.<sup>576</sup> During the negotiations on the new Gas Regulation (see *supra*, 3.3.1), the European Parliament seemed to be an advocate of this position:

"[w]here the Commission is notified by the Competent Authority that an early warning level has been declared in a Member State or where a threat of disruption of gas supplies might have a clear geopolitical dimension, the Union, represented at the highest level, shall take appropriate diplomatic actions having regard to the special role given by the Lisbon Treaty to the Vice-President/High Representative." 577

<sup>&</sup>lt;sup>571</sup> See also Art. 18(4) TEU.

<sup>&</sup>lt;sup>572</sup> S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, p. 535.

<sup>&</sup>lt;sup>573</sup> Art. 3(1) EEAS Decision, *supra* note 566.

<sup>&</sup>lt;sup>574</sup> Art. 3(2) EEAS Decision, *supra* note 566, excepting from this obligation the CSDP.

<sup>&</sup>lt;sup>575</sup> See Art. 4(3)(a), first indent, EEAS Decision, *supra* note 566; ; interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010; interview with official from Permanent Representation of Poland to the EU, 13 May 2010; European External Action Service Provisional organisational chart.

<sup>&</sup>lt;sup>576</sup> Interviews with officials from Permanent Representations of the Czech Republic, Belgium, and Germany to the EU, 19 and 22 April and 2 July 2010; interview with official from Permanent Mission Russian mission to the European Union, 26 May 2010; and interview with official from cabinet of Jacek Saryusz-Wolski, MEP, 26 April 2010.

<sup>&</sup>lt;sup>577</sup> Council of the European Union. Note from General Secretariat of the Council to Delegations on the Proposal for a Regulation of the European Parliament and of the Council concerning measures to safeguard security of gas supply and repealing Directive 2004/67/EC 11892/09 ENER 253 CODEC 963. Council Doc. 8304/4/10/REV 4. EP Amendment 86 paragraph 4a (new), pp. 70-71.

The wording 'at the highest level' indicates that it is the task of the President of the European Council – without prejudice to the powers of the HR/VP – to represent the Union in case such diplomatic actions take place at the level of Heads of State and Government.<sup>578</sup>

However, the decision between what constitute 'security' and 'technical or market' elements has been subject to a fierce interinstitutional debate, as the creation of the EEAS prompted the Commission to worry that its role could be (partly) relegated to providing technical assistance, whereas the Council worried over a loss of influence of Member States over EU foreign policy.<sup>579</sup> In any event, it is expected that negotiations on establishing Memoranda of Understanding on external energy cooperation will continue to be led by the Commissioner for energy and its staff. However, in times of a supply interruption carrying both economic, political and security consequences, it is likely that the HR/VP – supported by the EEAS – will take up a more prominent role in diplomatic efforts aimed at resolving a dispute, with the Commission providing assistance where appropriate. Similarly, when diplomatic action at the level of foreign heads of State or government is required, the President of the European Council will come into play.<sup>580</sup>

Nevertheless, the new system still needs to be tested in practice. Future crises and opportunities and the EU's actions to address them will tell us what roles will exactly be played by the President of the European Council, the HR/VP and EEAS and the Commission, and where the line between elements pertaining to CFSP and those which do not will be drawn.<sup>581</sup>

### 5: Conclusions and Recommendations

In this final section, we condense the findings from the analyses in section four and put forward several recommendations on how the EU's external energy relations could progress in a constructive manner. This section follows the same order as the previous one and focuses its recommendations, in succession, on the issues analysed in section four.

<sup>&</sup>lt;sup>578</sup> Pursuant to Art. 15(6) second para. TEU '[t]he President of the European Council shall, at his level and in that capacity, ensure the external representation of the Union on issues concerning its common foreign and security policy, without prejudice to the powers of the High Representative of the Union for Foreign Affairs and Security Policy'. Interview with official from Permanent Representation of Belgium, UK and Germany to the EU, 22 April, 10 June and 2 July 2010

<sup>&</sup>lt;sup>579</sup> See G. Avery, (2009), 'Europe's foreign service: from design to delivery'. Policy Brief November 2009. Brussels: EPC, p. 3; A. Centioni and J. Rawlinson, *supra* note 566, p. 2; S. Vanhoonacker and N. Reslow, (2010), *supra* note 566, p. 7.

<sup>&</sup>lt;sup>580</sup> S. de Jong, J. Wouters, and S. Sterkx, (2010), *supra* note 10, pp. 536-537.

<sup>&</sup>lt;sup>581</sup> Ibid., p. 537.

In the energy relations between the EU and **Russia**, **reciprocal market access** remains one of the thorniest issues. However, the fact that Europe is concerned about a lack of upstream access to Russian hydrocarbons and in exchange limits Moscow's participation within its internal market insofar as such participation is not in line with ownership unbundling rights, should not necessarily result in stalemate where each party is afraid to make the first move. From our analysis, it is fair to assume that hitherto Brussels has had little leverage in Moscow to 'persuade' Russia to change its position on the matter. Moreover, any such attempts were undermined by the dividedness between 'old' and 'new' Europe and the former's preference for doing business bilaterally, rather than in a concerted effort. Therefore, rather than trying to influence the Russian position and be hampered by internal dividedness, **it is more worthwhile for the Union to look into its own market structure instead.** 

Looking back, it becomes clear the European Commission was already well aware of this when it tabled its Third Legislative Market Package (see *supra*, 4.1). Resistance from Germany and France in particular prevented the EU from moving towards a system of full ownership unbundling however. This has led to a situation where currently exceptions to full ownership unbundling are allowed of which Europe's larger energy corporations such as French GDF/Suez' and German E-ON-Ruhrgas and RWE are seen as profiting. Not surprisingly, when at the same time strong restrictions are in place against potential 'vertically integrated' third country entrants, Moscow perceives this policy as unfair and constituting a double standard. As long as this situation persists, Russia is unlikely to move on reciprocity. However, by granting access to competing firms, full ownership unbundling would all but rule out market abuse by big, vertically integrated companies; both EU ones, as well as Gazprom.<sup>582</sup> Therefore, in the longer term **it seems more advantageous for the Union to instigate a new attempt at across-the-board' unbundling**, rather than granting continued existence to current compromise measures.

A more immediate problem however is the **need to work towards an encompassing new bilateral EU-Russia agreement and find a solution to the future role of the Energy Charter Treaty (ECT).** Next to key substantive issues such as a the legal nature of a new Partnership and Cooperation Agreement (PCA) and the EU's status as a Regional Economic Integration Organisation (REIO) in the ECT, it seems that part of Russia's disquiet stems from that it perceives its concerns are not taken seriously enough by the EU. However, there seems little chance for Russia that the Union will change its position on the legal nature of such an agreement, or that it will abandon the

<sup>&</sup>lt;sup>582</sup> K. Barysch, (2007), *supra* note 137.

rules of the ECT altogether. Taking this into account, a first step in rapprochement will have to be found in less controversial, but therefore no less important issues.

As a start, one such matter could be an attempt at **solving the broader issue of contractual mismatch** between long term supply contracts, and (often) shorter term transit contracts. The current discussions within the Energy Charter on an alternative transit allocation system whereby a party who requests transit is placed on a waiting list after a non-discriminatory review of its application, could potentially remedy this problem and avoid 'transit conflicts' such as the ones in January 2006 and 2009. This would be a great improvement in European energy security, as well as a boost for Russia's tainted image as an energy supplier. Such a system could possibly assure the EU that its rules on competition are respected, and convince Russia that its concerns are heard, incumbents are treated equally, and construction of new transit capacity is not ruled out *a priori*.

Moreover, given that it is unlikely for Russian President Medvedev's proposal on an international energy treaty to replace the ECT to serve as a credible alternative, reaching a solution on the above issue could boost the Energy Charter's stature and potentially re-engage Russia in the process. In the longer term, it remains to be seen how such incremental 'victories' could aid both parties to increase mutual trust and reduce mutual anxieties to work on the more controversial matters related to a new PCA and the role of the ECT therein.

With respect to **Central Asia**, the analysis in paragraph 4.3 made clear that the EU's aim of **diversification** is faced with significant obstacles. Great difficulties exist in acquiring gas from either Turkmenistan or Northern Iraq. Moreover, Iran is not an option in the foreseeable future due to political circumstances. Therefore, currently Azerbaijan's Shah Deniz II field represents the only readily available source of gas for Nabucco.

Given that the decision on the allocation of the 10bcm per year contract will be taken in late 2011, and neither Northern Iraq, nor Turkmenistan can be realistically expected to guarantee supply contracts before that date, it is unlikely that Nabucco succeeds in sourcing an alternative to Azeri supplies anytime soon. Taking into account Azerbaijan's concerns with regard to Nabucco running at less than half its capacity, it is more likely that the final decision will be in favour of either the Italy-Turkey-Greece Interconnector (ITGI) or the TransAdriatic Pipeline (TAP). Yet, such a scenario does not need to be to put an end to Nabucco, nor Europe's aims for diversification in the long term.

What is important for the EU however is **to be ready for such an outcome** and that it puts it weight behind the best alternative project. As mentioned in paragraph 4.3, both the TAP and the ITGI project can serve as a first step for the eventual construction of Nabucco. However, if diversification is the ultimate goal, what should matter first is a pipeline's capacity, followed by the costs of its construction. On both points TAP has a leading edge over ITGI. Specifically, as the TAP project can be expanded over time to transport 20bcm per year, this means that – when constructed – Nabucco could transport an additional 10bcm annually onwards to Italy. With ITGI running at a maximum annual capacity of 12bcm, this leaves a mere 2bcm surplus capacity.

Therefore, although it is unlikely for Nabucco to be granted the Shah Deniz II contract in the short term, it does not mean it cannot profit from the construction of other pipelines along its route over the longer term. As Nabucco's capacity exceeds both that of TAP and ITGI, Nabucco would benefit most from a pipeline along its route through which it could ship larger quantities of gas, should more sources come available over time. It would therefore be in the Union's best interest to push for the realisation of the TAP project, rather than ITGI.

When it comes to the debate on **energy interests versus human rights and democracy promotion**, it seems almost as if these issues are irreconcilable. However, this need not be the case in the long term, provided a change in approach is made. As the above analysis in paragraph 4.3 indicated, the Central Asian countries are interested in diversifying their export routes. China is pushing hard to become one of Central Asia's major clients and has had success in securing energy supplies from Turkmenistan. Meanwhile, Russia – aware of the consequences for its own dominant position – tries equally hard to bind East European and Central Asian countries to its own pipeline networks in an attempt to remain the dominant market player in the region.

This is a game the EU can play too however. In other words, if (part of) a Southern Corridor gets built and the Union succeeds in becoming a substantial consumer of Central Asian hydrocarbons over time, Brussels' 'weight' in these countries' foreign relations will subsequently increase. Alternative export routes and the right to sell gas onwards within the European gas market, compared to shipping supplies either to Russia and/or China is something which these countries might well regard as positive over the longer term.<sup>583</sup> With this increased weight, comes additional leverage on part of the Union in its dealings with its Central Asian counterparts. A different kind of conditionality could thus takes shape whereby **the EU utilises its market weight and offers** 

<sup>&</sup>lt;sup>583</sup> Interview with official from Permanent Representation of Germany to the EU, 2 July 2010; interview with official from European Commission DG Energy, 11 March 2010.

**increased downstream access, in exchange for concessions** on part of the Central Asian States concerning human rights, legal and democratic reforms, rather than the other way around.

With respect to **China**, the analyses (see *supra*, 4.5.1 and 4.5.2) demonstrated that one of the main obstacles is the **monopolistic character** of the Chinese energy market. Given the dominance by a few large state owned companies who simultaneously own the energy infrastructure, their reluctance to expand the grid to producers of 'competing energy' is reinforced. The announcement of the 12<sup>th</sup> Five Year Plan to allow private capital go get involved in these industries is hopeful in this regard as it could (i) increase competition; (ii) stimulate companies to invest more in research and development as a result of this competition; and (iii) discourage large companies from undercutting break-even prices on wind power concessions to crowd out competitors. However, such a development could take a long time. Therefore, as a first step, the Chinese State could **use money from the Renewable Energy Public Fund** to extend favourable loans to renewable energy producers in remote regions to allow them to (partially) finance the necessary grid expansions.

The current obligation for Chinese power companies to buy a given amount of renewable electricity relative to total electricity purchased proves a very useful feat in order to raise the competitiveness of renewables. However, in the long term it is preferred that China introduces a kind of **Renewable Portfolio Standard system**, comparable to the one used in the US. However, given that by 2020 renewable *electricity* will only make up around 20% of primary energy consumption, it is recommended that such a system incorporates **clear targets for non-electric renewable energy sources**, such as biofuels, biogas, rural fuel wood and agricultural waste heating. Should implementation of such a regulation prove too sensitive domestically, it is worth exploring possibilities for the larg(er) scale purchase of such fuels from abroad.

Specifically with regard to **wind energy**, it has been made clear that minimal requirements placed on Chinese ownership of wind parks render it practically impossible for foreign companies to factor in Clean Development Mechanism income, and thus successfully bid for a concession. A recent study by the Oxford Institute for Energy Studies (OIES) however provides suggestions which could increase EU-China cooperation on wind park siting, development, and operations; grid

development and extension; and the systems required to integrate and back up the generated power.<sup>584</sup>

The idea would be for China and the EU to engage in a **Joint Commitment Framework Agreement (JCFA)**. Under, such a JCFA the EU would commit itself to financial, technical and policy support for wind park development in China, either through carbon offsets or Nationally Appropriate Mitigation Actions (NAMAs). The wind parks will reduce CO<sup>2</sup> emissions coming from China; the 'amount' of which is subsequently purchased by the EU in the form of Certified Emission Reduction credits. In return, the Chinese commit themselves to adapt the 51% rule;<sup>585</sup> thus improving foreign investors' abilities to manage the companies efficiently.

With respect to cooperation on **CCS** and clean coal technology various inhibiting factors were identified. One of the most pressing issues, which is not limited to CCS alone, is **the lack of a proper enforcement of regulations and follow-up** on bilateral cooperation in China.<sup>586</sup> The cause of the problems stems partly from the fact that both the EU and China possess an intricate bureaucratic apparatus which is responsible for conducting dialogue and to follow up on bilateral cooperation. This causes multiple departments on both sides to work on a given issue, which at times can cause overlap, inefficiencies, or delays due to insufficient coordination.<sup>587</sup> On the EU side, it was therefore suggested to create a **more efficient dialogue structure**; one which would allow the various projects to run on time and exert a higher level of discipline. The basic idea would be to incorporate future projects into **one single operating framework**, with a clearer hierarchy. It is important for such a framework to possess a disciplined reporting line which allows for a stronger form of accountability and for projects to stay on track.<sup>588</sup>

Furthermore, an effective regulatory framework concerning CCS and related technology was found to be still missing at the moment. As CCS generated electricity requires more energy and is ultimately more expensive, there is a clear need for **a regulatory system which 'rewards' electricity that exhaust less CO<sup>2</sup>**. One possible way of achieving this is to introduce a 'Carbon tax'

<sup>&</sup>lt;sup>584</sup> B. Müller, D. Robinson, and Z. Xiliang (eds.), (2010), *supra* note 453, p. ii; interview with research fellow of the Oxford Institute for Energy Studies in the margin of the EU-China Energy Conference, Shanghai, 9 July 2010.

<sup>&</sup>lt;sup>585</sup> *Ibid.* 

<sup>&</sup>lt;sup>586</sup> Interview with officials from European Commission DG Research, 8 June 2010; interview with official from European Commission DG Energy, 9 November 2010.

<sup>&</sup>lt;sup>587</sup> Interview with official of the European Commission DG External Relations, 23 June 2010.

<sup>&</sup>lt;sup>588</sup> *Ibid.* 

on electricity which exceeds a given amount of CO<sup>2</sup> output during the generation process.<sup>589</sup> Such fiscal measures could benefit CCS generated power and allow it to more effectively compete with both conventional and renewable electricity. Over time such taxes and subsidies can be phased out when CCS technology becomes more efficient, and hence more competitive. Furthermore, power generation should at the same time **move away from treating CO<sup>2</sup> as a 'waste product'**, towards viewing it as a useful by-product of electricity generation. The current industrial use of CO<sup>2</sup> is very limited. The stimulation of industry to utilise CO<sup>2</sup> for specific purposes, such as Enhanced Oil Recovery, could boost demand for CCS and help develop the value chain of CCS technology.<sup>590</sup>

Finally, it should be reminded that the Union's collective efforts risk being undermined if there is a **lack of coherence** between the actions of EU capitals on the one hand and those of Brussels on the other. The recent proposal as put forward by the Delors' group (see *supra*, 4.7) for Member States willing to cooperate more strongly on energy to engage in **'enhanced cooperation'** has a certain value in terms of improving this coherence. As the analysis in paragraph 4.6 showed, there seems a split between some of the Union's 'old' and 'new' Member States on how to engage third country suppliers like Russia. For that matter, it is unlikely to expect a change from the status quo – of dealing largely bilaterally with third country suppliers – to come from countries such as Germany, France, Italy, the Netherlands or the UK.

Drafting a new energy treaty altogether is likely not going to receive the necessary support of the above mentioned Member States. Therefore, in the medium to long term, it would be more worthwhile for **those Member States who have the most to benefit from more concerted action at EU level** – including Poland, Latvia, Lithuania, Estonia, Hungary, Slovakia, Slovenia, Czech Republic, Bulgaria and Romania – **to engage in pragmatic and voluntary cooperation along the lines of a 'Schengen for energy'**. If, over time, this could develop into a more institutionalised practice, it could potentially attract other countries along the way and strengthen its presence within the EU system.

Furthermore, it is to be expected that in case the idea of a Caspian Development Corporation (CDC) is further developed, the European Commission shall be faced with fierce resistance from Europe's larger energy corporations such as French GDF/Suez and German E-ON-Ruhrgas and RWE. A situation whereby the CDC becomes the central vehicle for European diversification efforts in the

<sup>&</sup>lt;sup>589</sup> L. Dapeng and W. Weiwei, (2009), *supra* note 467, pp. 2426-2427.

<sup>&</sup>lt;sup>590</sup> *Ibid.*, pp. 2429 and 2431.

region – something to which the above mentioned companies object – is therefore unrealistic and would likely also be in violation of EU competition rules.

Nevertheless, the concept has a certain political value which should not be shot down a priori. In the longer term – after parts of a Southern Corridor have been constructed – it might well be necessary to utilise a concept such as the CDC to gather the necessary political clout to persuade suppliers like Turkmenistan into exporting to Europe; something from which all countries would benefit.

In the end, if coherence in external energy relations is not to be reduced to an 'empty phrase' which is continuously repeated, yet not acted upon, it is of great importance that the **Lisbon Treaty will be utilised to its full potential**. It is imperative in this regard that energy becomes a central element in the work of both the HR/VP, as well as the EEAS. For, ultimately it is only good cooperation between the HR/VP, EEAS and the Commissioner for Energy on the one hand, coupled with *coherent* Member State action on the other that can improve the current situation.

## **Bibliography**

Agreement on Partnership and Cooperation Establishing a Partnership between the European Communities and Their Member States, of the One Part, and the Russian Federation, of the Other Part, OJ L 327/3 of 28 Nov. 1997.

Agreement for Scientific and Technological Cooperation between the European Community and the Government of the People's Republic of China, OJ L 6/40 of 11 January 2000.

Alcaro R., and Alessandri, E. (2010), 'Engaging Russia: Prospects for a Long-Term European Security Compact', *European Foreign Affairs Review 15*(1), pp. 191-207.

Andoura, S., Hancher, L., and van der Woude, M. (2010), 'Towards a European Energy Community: A Policy Proposal'. Paris: Notre Europe.

Askarov, G. (2010), 'How Do You Deal with An Autocratic and Energy-Rich Ally like Azerbaijan? Azerbaijan: Democracy Maters', *The German Marshall Fund of the United States On Wider Europe,* June 25 2010.

Avery, G. (2009), 'Europe's foreign service: from design to delivery'. Policy Brief November 2009. Brussels: European Policy Centre.

Baev, P.K., and Øverland, I. (2010), 'The South Stream versus Nabucco pipeline race: geopolitical and political stakes in mega-projects', *International Affairs* 86(5), pp. 1075-1090.

Baghat, G. (2006), 'Europe's energy security: challenges and opportunities', *International Affairs* 82(5), pp. 961-975.

Baran, Z. (2007), 'EU Energy Security: Time to End Russian Leverage', Washington Quarterly 30(4), pp. 131-144.

Barnett, J., and Adger, W.N. (2007), 'Climate change, human security and violent conflict, *Political Geography 26*, pp. 639-655.

Barroso, J.M., President of the European Commission. (2009). Signature of the Nabucco Intergovernmental Agreement'. Ankara, 13 July 2009. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/339">http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/339</a>.

Barroso, J.M., President of the European Commission. (2009). Statement of President Barroso on the resolution of the Ukraine-Russia Gas Dispute. Press Point, Doc. SPEECH/09/12. Brussels, 20 January 2009. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/12&format=HTML&aged=0&language=EN&guiLanguage=en">http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/12&format=HTML&aged=0&language=EN&guiLanguage=en</a>.

Barysch, K. (2010), 'Should the Nabucco pipeline project be shelved?'. Centre for European Reform Policy Brief. May 2010.

Barysch, K. (2007), 'Reciprocity will not secure Europe's energy'. CER Bulletin 55. Available at: http://www.cer.org.uk/articles/55 barysch.html.

Barysch, K. (2006), 'Report from the 4th Friedrich-Ebert Stiftung and Foundation for Unity for Russia Roundtable'. Available at: <a href="http://www.cer.org.uk/pdf/partnership">http://www.cer.org.uk/pdf/partnership</a> with russia barysch dec06.pdf.

BBC News, 'China overtakes Japan as world's second-biggest economy', 14 February 2011. Available at: http://www.bbc.co.uk/news/business-12427321.

BBC News, 'Nouri Maliki starts work on forming Iraq government', 25 November 2010. Available at: http://www.bbc.co.uk/news/world-middle-east-11836484.

BBC News, 'Ukraine extends Russia's Black Sea Fleet lease', 21 April 2010. Available at: <a href="http://news.bbc.co.uk/2/hi/8635345.stm">http://news.bbc.co.uk/2/hi/8635345.stm</a>.

BBC News, 'Ukraine's Yanukovych signals shift over Russia fleet', 5 March 2010. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/8550969.stm">http://news.bbc.co.uk/2/hi/europe/8550969.stm</a>.

BBC News, 'Russia agrees to ease Ukraine gas supply terms', 20 November 2009. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/8369705.stm">http://news.bbc.co.uk/2/hi/europe/8369705.stm</a>.

BBC News, 'Putin in new Ukraine gas warning', 30 October 2009. Available at: <a href="http://news.bbc.co.uk/2/hi/business/8335041.stm">http://news.bbc.co.uk/2/hi/business/8335041.stm</a>.

BBC News, 'Europe gas pipeline deal agreed', 13 July 2009. Available at: <a href="http://news.bbc.co.uk/2/hi/business/8147053.stm">http://news.bbc.co.uk/2/hi/business/8147053.stm</a>.

BBC News, 'Russia shuts off gas to Ukraine', 1 January 2009. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/7806870.stm">http://news.bbc.co.uk/2/hi/europe/7806870.stm</a>.

BBC News, 'Russia-Ukraine gas row heats up', 31 December 2008. Available at: <a href="http://news.bbc.co.uk/2/hi/7805770.stm">http://news.bbc.co.uk/2/hi/7805770.stm</a>.

BBC News, 'Russia may cut off Ukraine's gas', 24 December 2008. Available at: <a href="http://news.bbc.co.uk/2/hi/7799321.stm">http://news.bbc.co.uk/2/hi/7799321.stm</a>.

BBC News, 'Russia's energy giant flexes its muscles', 24 February 2008. Available at: http://news.bbc.co.uk/2/hi/business/7259407.stm.

BBC News, 'China unveils climate change plan', 4 June 2007. Available at: <a href="http://news.bbc.co.uk/2/hi/6717671.stm">http://news.bbc.co.uk/2/hi/6717671.stm</a>.

BBC News, 'EU dreams of central asian gas', 27 March 2007. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/6500943.stm">http://news.bbc.co.uk/2/hi/europe/6500943.stm</a>.

BBC News, 'Russia oil row hits Europe Supply', 7 January 2007. Available at: <a href="http://news.bbc.co.uk/2/hi/6240473.stm">http://news.bbc.co.uk/2/hi/6240473.stm</a>.

BBC News, 'Ukraine and Russia reach gas deal', 4 January 2006. Available at: <a href="http://news.bbc.co.uk/2/hi/europe/4579648.stm">http://news.bbc.co.uk/2/hi/europe/4579648.stm</a>.

BBC News, 'Russia cuts Ukraine gas supplies', 1 January 2006. Available at: <a href="http://news.bbc.co.uk/2/hi/4572712.stm">http://news.bbc.co.uk/2/hi/4572712.stm</a>.

BBC News, 'Russian gas cut 'will not hit EU", 30 December 2005. Available at: http://news.bbc.co.uk/2/hi/business/4568288.stm.

BBC News, 'Putin admits Ukraine gas 'crisis', 29 December 2005. Available at: http://news.bbc.co.uk/2/hi/business/4567270.stm.

BBC News, 'Ukraine ups ante over Russian Gas', 28 December 2005. Available at: <a href="http://news.bbc.co.uk/2/hi/business/4564228.stm">http://news.bbc.co.uk/2/hi/business/4564228.stm</a>.

BBC News, 'Russia threatens Ukraine gas cut', 13 December 2005. Available at: <a href="http://news.bbc.co.uk/2/hi/business/4526138.stm">http://news.bbc.co.uk/2/hi/business/4526138.stm</a>.

Belyi, A. (2009), 'Reciprocity as a factor of the energy investment regimes in the EU-Russia energy relations', *Journal of World Energy Law & Business 2*(2), pp. 117-128.

Blanchard, C.M. (2009), *Iraq: Oil and Gas Legislation, Revenue Sharing, and U.S. Policy,* (Washington D.C: Congressional Research Service).

Bloomberg, 'EU Seeks Gas Accords With Ex-Soviet States, Commissioner Says', 9 March 2009. Available at: <a href="http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ao0N0rcc\_3ZY">http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ao0N0rcc\_3ZY</a>.

Bochkarev, A. 2010. Redrawing the global energy blueprint. European Voice, 12 February 2010. Available at: <a href="http://www.europeanvoice.com/article/2010/02/redrawing-the-global-energy-blueprint/67151.aspx">http://www.europeanvoice.com/article/2010/02/redrawing-the-global-energy-blueprint/67151.aspx</a>.

Boonstra, J. (2010). 'The EU-Turkmenistan energy relationship: difficulty or opportunity?'. EDC 2020 Policy Brief.

Boonstra, J., and Hale, J. (2010), 'EU Assistance to Central Asia: Back to the Drawing Board?'. EUCAM Working Paper 08.

BP Statistical Review of World Energy June 2010. Available at: <a href="http://www.bp.com/liveassets/bp internet/globalbp/globalbp uk english/reports and publications/statistical energy review 2008/STAGING/local assets/2010 downloads/statistical review of world energy full report 2010.pdf.</a>

Bradsher, K. (2010), 'China Leading Global Race to Make Clean Energy', *New York Times*, 30 January 2010. Available at: <a href="http://www.nytimes.com/2010/01/31/business/energy-environment/31renew.html">http://www.nytimes.com/2010/01/31/business/energy-environment/31renew.html</a>.

Buijs, B. (2009), *China, Copenhagen and Beyond: The Global Necessity of a Sustainable Energy Future for China*, (the Hague: Netherlands Institute of International Relations, Clingendael).

Bush, J. (2009), 'Russia's South Stream Project Gets a Boost', 19 May 2009. Available at: <a href="http://www.spiegel.de/international/business/0,1518,625697,00.html">http://www.spiegel.de/international/business/0,1518,625697,00.html</a>.

Caijing, 'China Mapped out Energy Program During 12<sup>th</sup> Five-Year Plan', 22 October 2010. Available at: <a href="http://english.caijing.com.cn/2010-10-22/110549828.html">http://english.caijing.com.cn/2010-10-22/110549828.html</a>.

Centioni, A. and Rawlinson, J. (2010). 'External Action Service: where are we?' *The Euros*, 22 March 2010. Available at: <a href="http://www.theeuros.eu/External-Action-Service-where-are,3597?lang=en">http://www.theeuros.eu/External-Action-Service-where-are,3597?lang=en</a>.

Checchi, A., Behrens, A., and Egenhofer, C. (2009), 'Long-Term Energy Security Risks for Europe: A Sector Specific Approach'. CEPS Working Document No. 309/January 2009. Brussels: Centre for European Policy Studies.

Chen, W., and Xu, R. (2009), 'Clean coal technology development in China', *Energy Policy 38*(5), pp. 2123-2130.

Chen, M.E. (2007), 'Chinese National Oil Companies and Human Rights', *Foreign Policy Research Institute 51*, pp. 41-54.

China Daily, 'China to nurture 7 new strategic industries in 2011-15', 28 October 2010. Available at: <a href="http://www.chinadaily.com.cn/business/greenchina/2010-10/28/content">http://www.chinadaily.com.cn/business/greenchina/2010-10/28/content</a> 11470638.htm.

China Daily, 'EU-China energy and environment program launched', 4 November 2004. Available at: <a href="http://www.chinadaily.com.cn/english/doc/2004-11/04/content\_388294.htm">http://www.chinadaily.com.cn/english/doc/2004-11/04/content\_388294.htm</a>.

China-UK Near Zero Emissions Coal (NZEC) Initiative. Summary Report. September 2009.

Chinese Government Official Web Portal. Facts and Figures: China's main targets for 2006-2010. Available at: <a href="http://english.gov.cn/2006-03/06/content\_219504.htm">http://english.gov.cn/2006-03/06/content\_219504.htm</a>.

Chinese Government's Official Web Portal, 'The 10<sup>th</sup> Five-Year Plan (2001-2005). Available at: <a href="http://www.gov.cn/english/2006-04/05/content">http://www.gov.cn/english/2006-04/05/content</a> 245624.htm.

Christoffersen, G. (2004). 'Angarsk as a Challenge for the East Asian Energy Community'. Paper presented at the conference on 'Northeastern Asian Security: Traditional and Untraditional Issues'. Renmin University of China, 2-4 April 2004.

Clifford Chance. (2009). 'Russian oil and gas'. Client Briefing April 2009.

COACH Cooperation Action within CCS China-EU. Project N° 038966. Executive Report.

Cohen, A. (2009a), 'Energy Security in the Caspian Basin' in G. Luft and A. Korin (eds.), *Energy Security Challenges for the 21st Century*, (Santa Barbara CA: ABC-CLIO, LLC), pp. 109-127.

Cohen, A. (2009b), 'Russia: The Flawed Energy Superpower' in G. Luft and A. Korin (eds.), *Energy Security Challenges for the 21st Century*, (Santa Barbara CA: ABC-CLIO, LLC), pp. 91-108.

Cohen, A. (2006), 'The North European Gas Pipeline Threatens Europe's Energy Security', *Backgrounder (Heritage Foundation)* No. 1980.

Comfort, N. (2010), 'RWE Says Nabucco Won't Need Turkmen Gas If Azeri, Iraq Supplies Secured', 18 October 2010. Available at: <a href="http://www.bloomberg.com/news/2010-10-18/rwe-says-nabucco-won-t-need-turkmenistan-gas-if-supplies-materialize-.html">http://www.bloomberg.com/news/2010-10-18/rwe-says-nabucco-won-t-need-turkmenistan-gas-if-supplies-materialize-.html</a>.

Conclusions of the Ministerial Conference on Energy Co-operation between the EU, the Caspian Littoral States and their neighbouring countries. Available at: <a href="http://ec.europa.eu/dgs/energy transport/international/regional/caspian/doc/final energy conclusions en.pdf">http://ec.europa.eu/dgs/energy transport/international/regional/caspian/doc/final energy conclusions en.pdf</a>.

Cooley, A. (2008), 'Principles in the pipeline: managing transatlantic values and interests in Central Asia', *International Affairs* 84(6), pp. 1173-1188.

Cooperation Framework on Energy Performance and Quality in the Construction Sector between the Directorate-General for Enterprise and Industry and the Directorate-General for Energy and Transport of the European Commission and the Ministry of Housing and Urban-Rural Development of the People's Republic of China, November 2009. Available at: <a href="http://ec.europa.eu/energy/international/bilateral\_cooperation/china/doc/summit/2009\_30\_11\_signed\_mou.pdf">http://ec.europa.eu/energy/international/bilateral\_cooperation/china/doc/summit/2009\_30\_11\_signed\_mou.pdf</a>.

Cornell, S.E and Nilsson, N. (eds.), (2008), *Europe's Energy Security: Gazprom's Dominance and Caspian Supply Alternatives*, (Washington D.C.: Johns Hopkins University-SAIS).

Coskun, O. (2008), 'Turkey opposes GDF in Nabucco', Reuters, 6 February 2008. Available at: http://in.reuters.com/article/idINL0630081720080206.

Council of the European Union. (2010). 'Council Decision establishing the organisation and functioning of the European External Action Service'. Council Doc. 11665/1/10 REV 1. Brussels, 20 July 2010.

Council of the European Union. (2010). 'Joint Statement on the Partnership for Modernisation'. EU-Russia Summit 31 May-1 June 2010. Rostov on Don, 1 June 2010.

Council of the European Union. (2009). 'Joint Statement of the 12th EU-China Summit'. Nanjing, China, 30 November 2009.

Council of the European Union. (2009). 'Joint Press Communiqué, 11th EU-China Summit'. Prague, 20 May 2009.

Council of the European Union. (2009). 'Declaration, Prague Summit, Southern Corridor'. Prague, 8 May 2009.

Council of the European Union. (2009). 'Extraordinary Council meeting Transport, Telecommunications and Energy – Council Conclusions'. Brussels, 12 January 2009.

Council of the European Union. (2009). 'EU Declaration on the Russia/Ukraine problem and energy security'. Brussels, 8 January 2009.

Council of the European Union.(2008). 'Report on the Implementation of the European Security Strategy – Providing Security in a Changing World'. Council Doc. S407/08. Brussels, 11 December 2008.

Council of the European Union. (2008). 'Report du Sommet UE/Chine, Déclaration de L'Union Européenne. Bruxelles, le 26 November 2008.

Council of the European Union. (2008). 'Chair's Statement of the Seventh Asia-Europe Meeting. Declaration II: Climate Change and Energy Security'. Beijing, 24-25 October 2008.

Council of the European Union. (2008). 'Joint Statement of the EU-Russia Summit on the launch of negotiations for a new EU-Russia agreement'. Khanty-Mansiysk, 27 June 2008.

Council of the European Union. (2008). 'Climate Change and International Security. Paper from the High Representative and the European Commission to the European Council'. Council Doc. S113/08. Brussels,14 March 2008.

Council of the European Union. (2007). 'Joint Statement 10<sup>th</sup> EU-China Summit'. Beijing, 28 November 2007.

Council of the European Union. (2007). 'European Union and Central Asia: Strategy for a New Partnership'. Brussels, October 2007.

Council of the European Union. (2006). 'Chairman's Statement of the Sixth Asia-Europe Meeting'. Helsinki, 10 and 11 September 2006.

Council of the European Union. (2006). 'Joint Statement Ninth EU-China Summit'. Helsinki, 9 September 2006.

Council of the European Union. (2006). '2717<sup>th</sup> Transport, Telecommunications and Energy Council Meeting'. Brussels, 14 March 2006.

Council of the European Union. (2005). 'Joint Declaration on Climate Change between China and the European Union'. Brussels, 7 September 2005.

Council of the European Union. (2004). '2590th General Affairs and External Relations Council', Luxembourg, 14 June 2004.

Council of the European Union. (2003). 'Fifth Meeting of the Cooperation Councils Between the European Union, Armenia, Azerbaijan and Georgia'. Brussels, 30 September 2003.

Council of the European Union. (2003). 'Fifth Meeting of the Cooperation Council Between the European Union and Kazakhstan'. Brussels, 22 July 2003.

Council of the European Union. (2002). 'Joint Press Statement Fifth EU-China Summit'. Copenhagen, 24 September 2002.

Council of the European Union. (2003). 'Fourth Meeting of the Cooperation Council Between the European Union and Uzbekistan'. Brussels, 27 January 2003.

Council of the European Union. (2003). 'A Secure Europe in a Better World – European Security Strategy'. Brussels, 12 December, 2003.

Council of the European Union. (2001). '2397<sup>th</sup> General Affairs Council. Central Asia – Conclusions'. Brussels, 10 December 2001.

Council of the European Union. (2001). 'Council Conclusions of 17 October 2001 – Action by the European Union following the attacks in the United States of America'. Brussels, 17 October 2001.

Council of the European Union. (2001). 'Joint Statement'. EU-Russia Summit. Brussels, 3 October 2001.

Council of the European Union. (2000). 'Joint Declaration'. EU-Russia Summit. Paris, 30 October 2000.

Council of the European Union. (2000). 'Chairman's Statement of the Third Asia-Europe Meeting'. Seoul, 20-21 October 2000.

Council on Foreign Relations, 'The Business and Politics Behind the Russia-Ukraine Gas Dispute'.

Available at:

http://www.cfr.org/publication/18178/business and politics behind the russiaukraine gas dispute.html.

Council Regulation (EEC) No 2616/85 of 16 September 1985 concerning the conclusion of a Trade and Economic Cooperation Agreement between the European Economic Community and the People's Republic of China.

Dapeng, L., and Weiwei, W. (2009), 'Barriers and incentives of CCS deployment in China: Results from semi-structured interviews', *Energy Policy* 37(6), pp. 2421-2432.

De Jong, S., (2011), 'Towards Global Energy Governance: How to Patch the Patchwork' in Carbonnier, G. (ed.), *International Development Policy: Energy and Development*, (Geneva/Houndmills | The Graduate Institute/Palgrave Macmillan), pp. 21-43.

De Jong, S. (2011), 'The Nabucco Pipeline: Turkey and Europe's Drive towards Diversification', *REVOLVE Magazine* Summer Issue, Turkey Special Report, pp. 26-29.

De Jong, S., Wouters, J., and Sterkx, S. (2010), 'The 2009 Russian-Ukrainian Gas Dispute: Lessons for European Energy Crisis Management after Lisbon', *European Foreign Affairs Review 15*(4), pp. 511-538.

De Wachter, T. (2007), 'The Russian export of gas/oil and the Baltic: A political dependency?', *Globaal 15*(1), pp. 6-11.

Delegation of the European Union in China, (2011), 'Full Translation 5yr Plan 2011-2015', pp. 3-4. Available at: <a href="http://cbi.typepad.com/china\_direct/2011/05/chinas-twelfth-five-new-plan-the-full-english-version.html">http://cbi.typepad.com/china\_direct/2011/05/chinas-twelfth-five-new-plan-the-full-english-version.html</a>.

Denison, M. (2009), 'The EU and Central Asia: Commercialising the Energy Relationship'. EUCAM Working Paper 02.

Deutsche Welle, 'European Union Extends Sanctions Against Uzbekistan', 13 November 2006. Available at: <a href="http://www.dw-world.de/dw/article/0,,2235204,00.html">http://www.dw-world.de/dw/article/0,,2235204,00.html</a>.

Duan, H. (2010), 'The public perspective of carbon capture and storage for  $CO^2$  emission reductions in China', *Energy Policy 38*(9), pp. 5281-5289.

Duke, S. (2009), 'Providing for European-Level Diplomacy after Lisbon: The Case of the European External Action Service', *The Hague Journal of Diplomacy* 4(2), pp. 211-233.

Emerson M., Boonstra, J., (eds.) (2010), *Into Eurasia Monitoring the EU's Central Asia Strategy*, (Brussels/Madrid: Centre for European Policy Studies/Fundación para las Relaciones Internacionales el Diálogo.Exterior).

Energy Intelligence, (2010), 'Energy Compass Iraq: Oil Under the New Government', 26 November 2010. Available at: <a href="http://www.energyintel.com/DocumentDetail.asp?document\_id=696273">http://www.energyintel.com/DocumentDetail.asp?document\_id=696273</a>.

Ericke U., and Hackländer, D. (2008), 'Europäische Energiepolitik auf der Grundlage der neuen Bestimmungen des Vertrags von Lissabon', *Zeitschrift für Europarechtliche Studien 11*(4), pp. 580-600.

Ernst & Young, (2010), Renewable energy country attractiveness indices, May 2010 Issue 25.

Escobar, P. (2008), 'Relax and float south stream', 14 March 2008. Available at: http://www.atimes.com/atimes/Central Asia/JC14Ag01.html.

EU/Azerbaijan Action Plan. Available at: <a href="http://ec.europa.eu/environment/enlarg/pdf/enp">http://ec.europa.eu/environment/enlarg/pdf/enp</a> action plan azerbaijan.pdf.

EU-China CDM Facilitation Project – Final Report.

EU-China CDM Facilitation Project. Key Findings and Recommendations.

EU China Energy and Environment Program, 'About EEP'. Available at: <a href="http://www.offshore-wind.de/page/fileadmin/offshore/Kurznachrichten/2009/070109EU-China EEPgeneral.pdf">http://www.offshore-wind.de/page/fileadmin/offshore/Kurznachrichten/2009/070109EU-China EEPgeneral.pdf</a>.

EUobserver, 'China catching EU on innovation, amid industrial espionage scandals', 2 February 2011. Available at: http://euobserver.com/9/31733.

EUobserver, 'EU human-rights dialogues exposed as 'soft talk", 24 January 2011. Available at: http://euobserver.com/9/31692.

EUobserver, 'Uzbek massacre hangs over Barroso-Karimov meeting', 18 January 2011. Available at: <a href="http://euobserver.com/24/31662">http://euobserver.com/24/31662</a>. Accessed on 25 January 2011.

EUobserver, 'Turkmenistan: We're not sure why Barroso is coming', 10 January 2011. Available at: <a href="http://euobserver.com/?aid=31616">http://euobserver.com/?aid=31616</a>.

EUobserver, 'EU and Russia to sign trade memo amid US mockery', 7 December 2010. Available at: http://euobserver.com/9/31442.

EUobserver, 'Russia inches closer to WTO membership after EU deal', 25 November 2010. Available at: http://euobserver.com/?aid=31352.

WAZ.EUobserver, 'Putin leaves Bulgaria with a gas deal and a new puppy', 15 November 2010. Available at: <a href="http://waz.euobserver.com/887/31264">http://waz.euobserver.com/887/31264</a>.

EUobserver, 'Poland and Russia finalise major gas deal', 27 October 2010. Available at: <a href="http://euobserver.com/9/31138">http://euobserver.com/9/31138</a>.

EUobserver, 'Russia to cut supplies to Belarus', 21 June 2010. Available at: <a href="http://euobserver.com/9/30328">http://euobserver.com/9/30328</a>.

EUobserver, 'EU banks throw their weight behind Nabucco pipeline', 6 September 2010. Available at: <a href="http://euobserver.com/880/30739">http://euobserver.com/880/30739</a>.

EUobserver, 'Delors tables energy community plan, slams EU leaders', 5 May 2010. Available at: <a href="http://euobserver.com/?aid=30017">http://euobserver.com/?aid=30017</a>.

EUobserver, 'France and Russia forge alliance with gas, warship deals', 2 March 2010. Available at: http://euobserver.com/9/29587.

EUobserver, 'China beats EU in race for Turkmen gas', 15 December 2009. Available at: <a href="http://euobserver.com/884/29158">http://euobserver.com/884/29158</a>.

EUobserver, 'Investors call for tough EU-Russia energy treaty', 2 December 2009. Available at: <a href="http://euobserver.com/?aid=29084">http://euobserver.com/?aid=29084</a>.

Euobserver, 'EU risks winter gas crunch despite Russia pact', 17 November 2009. Available at: <a href="http://euobserver.com/9/28999">http://euobserver.com/9/28999</a>.

EUobserver, 'EU presidency defends credentials after Turkmenistan move', 30 July 2009. Available at: <a href="http://euobserver.com/?aid=28510">http://euobserver.com/?aid=28510</a>.

EUobserver, 'EU-Russia summit ends with prickly exchange over energy', 23 May 2009. Available at: http://euobserver.com/?aid=28173.

EUobserver, 'EU normalises relations with Turkmenistan', 22 April 2009. Available at: http://euobserver.com/?aid=27985.

EUobserver, 'MEPs approve softer version of energy law', 22 April 2009. Available at: http://euobserver.com/863/27981.

EUobserver, 'Russia invites Europe to join new energy charter', 21 April 2009. Available at: <a href="http://euobserver.com/?aid=27970">http://euobserver.com/?aid=27970</a>.

EUobserver, 'Czechs finalise line-up for EU energy summit', 21 April 2009. Available at: <a href="http://euobserver.com/?aid=27975">http://euobserver.com/?aid=27975</a>.

EUobserver, 'EU cannot trust Russia or Ukraine, Barroso says', 20 January 2009. Available at: <a href="http://euobserver.com/?aid=27442">http://euobserver.com/?aid=27442</a>.

EUobserver, 'Energy and Kosovo tension sets tone for EU-Russia summit', 25 October 2007. Available at: <a href="http://euobserver.com/?aid=25040">http://euobserver.com/?aid=25040</a>.

Euobserver, 'EU weakens 'Gazprom clause' on foreign energy investors', 13 October 2008. Available at: <a href="http://euobserver.com/9/26914">http://euobserver.com/9/26914</a>.

EUobserver, 'Human rights take back seat at EU-Central Asia talks', 19 September 2008. Available at: <a href="http://euobserver.com/9/26778">http://euobserver.com/9/26778</a>.

EUobserver, 'Parliament rejects full gas company unbundling', 10 July 2008. Available at: http://euobserver.com/?aid=26472.

EUobserver, 'EU energy giants escape forced break up', 9 June 2008. Available at: <a href="http://euobserver.com/?aid=26287">http://euobserver.com/?aid=26287</a>.

EUobserver, '[FOCUS] Energy liberalisation battle reaches critical stage', 19 May 2008. Available at: <a href="http://euobserver.com/9/26136/?rk=1">http://euobserver.com/9/26136/?rk=1</a>.

EUobserver, 'Energy liberalisation critics suffer blow in EU parliament', 7 may 2008. Available at: <a href="http://euobserver.com/?aid=26090">http://euobserver.com/?aid=26090</a>.

EUobserver, 'Eight member states criticise EU energy liberalisation plans', 31 January 2008. Available at: <a href="http://euobserver.com/9/25570">http://euobserver.com/9/25570</a>.

EUobserver, 'France and Germany push ahead with own energy liberalisation plans', 17 January 2008. Available at: <a href="http://euobserver.com/?aid=25480">http://euobserver.com/?aid=25480</a>.

EUobserver, 'EU energy liberalisation plans run into opposition', 3 December 2007. Available at: <a href="http://euobserver.com/?aid=25260">http://euobserver.com/?aid=25260</a>.

EUobserver, 'Experts to lock horns over EU energy market reform', 16 October 2007. Available at: <a href="http://euobserver.com/877/24980">http://euobserver.com/877/24980</a>.

EUobserver, 'Piebalgs brushes off criticism of energy package', 24 September 2007. Available at: <a href="http://euobserver.com/?aid=24818">http://euobserver.com/?aid=24818</a>.

EUobserver, 'Germany highly critical of EU energy package', 19 September 2007. Available at: <a href="http://euobserver.com/?aid=24797">http://euobserver.com/?aid=24797</a>.

Euobserver, 'EU needs Baltic Sea gas pipe, German ex-leader says', 8 February 2007. Available at: <a href="http://euobserver.com/?aid=23448">http://euobserver.com/?aid=23448</a>.

EUobserver, 'EU to beef up diplomatic corps in Central Asia', 6 February 2007. Available at: <a href="http://euobserver.com/?aid=23430">http://euobserver.com/?aid=23430</a>.

EUobserver, 'EU hopes Turkmen leader's death will bring change', 21 December 2006. Available at: http://euobserver.com/?aid=23162.

EUobserver, 'EU must save energy to offset import risks, Barroso says', 10 October 2006. Available at: http://euobserver.com/?aid=22609.

EUobserver, 'EU reaches out to Uzbek regime', 10 November 2006. Available at: <a href="http://euobserver.com/?aid=22833">http://euobserver.com/?aid=22833</a>.

EUobserver, 'Russia snubs European firms in Arctic gas project', 9 October 2006. Available at: <a href="http://euobserver.com/?aid=22597">http://euobserver.com/?aid=22597</a>.

EUobserver, 'EU gives wary backing to G8's 'new global energy order', 16 July 2006. Available at: <a href="http://euobserver.com/?aid=22101">http://euobserver.com/?aid=22101</a>.

EUobserver, 'Russia pledges future gas supplies to Europe', 13 February 2006. Available at: <a href="http://euobserver.com/?aid=2088">http://euobserver.com/?aid=2088</a>.

Euractiv, 'Nabucco grapples with communication issues', 9 June 2011. Available at: <a href="http://www.euractiv.com/en/energy/nabucco-grapples-communication-issues-news-505457?utm-source=EurActiv+Newsletter&utm-campaign=13cdae2d2f-my-google-analytics-key&utm-medium=email.">http://www.euractiv.com/en/energy/nabucco-grapples-communication-issues-news-505457?utm-source=EurActiv+Newsletter&utm-campaign=13cdae2d2f-my-google-analytics-key&utm-medium=email.</a>

Euractiv, 'Human rights concerns overshadow EU-Uzbek summit', 24 January 2011. Available at: <a href="http://www.euractiv.com/en/east-mediterranean/human-rights-concerns-overshadow-eu-uzbek-summit-news-501532?utm-source=EurActiv+Newsletter&utm-campaign=8454e5cd63-my-google\_analytics\_key&utm\_medium=email.">http://www.euractiv.com/en/east-mediterranean/human-rights-concerns-overshadow-eu-uzbek-summit-news-501532?utm-source=EurActiv+Newsletter&utm-campaign=8454e5cd63-my-google\_analytics\_key&utm-medium=email.</a>

Euractiv, 'Russia-Belarus dispute cuts EU diesel supplies', 18 January 2011. Available at: <a href="http://www.euractiv.com/en/energy/russia-belarus-dispute-cuts-eu-diesel-supplies-news-501371?utm-source=EurActiv+Newsletter&utm-campaign=6e86cec7d3-my-google-analytics-key&utm-medium=email.">http://www.euractiv.com/en/energy/russia-belarus-dispute-cuts-eu-diesel-supplies-news-501371?utm-source=EurActiv+Newsletter&utm-campaign=6e86cec7d3-my-google-analytics-key&utm-medium=email.</a>

Euractiv, 'Slovakia, Poland look into 'Visegrad pipeline', 17 January 2011. Available at: <a href="http://www.euractiv.com/en/energy/slovakia-poland-look-visegrad-pipeline-news-501292?utm-source=EurActiv+Newsletter&utm-campaign=573ea3cca9-my-google-analytics-key&utm-medium=email.">http://www.euractiv.com/en/energy/slovakia-poland-look-visegrad-pipeline-news-501292?utm-source=EurActiv+Newsletter&utm-campaign=573ea3cca9-my-google-analytics-key&utm-medium=email.</a>

Euractiv, 'Barroso tops Azeri gas deal with visa facilitation', 14 January 2011. Available at: <a href="http://www.euractiv.com/en/energy/barroso-tops-azeri-gas-deal-visa-facilitation-news-501255?utm-source=EurActiv+Newsletter&utm-campaign=f2468c6a81-my-google\_analytics\_key&utm\_medium=email.">http://www.euractiv.com/en/energy/barroso-tops-azeri-gas-deal-visa-facilitation-news-501255?utm-source=EurActiv+Newsletter&utm-campaign=f2468c6a81-my-google\_analytics\_key&utm\_medium=email.</a>

Euractiv, 'Nabucco in 'David vs. Goliath' battle for Azeri gas', 10 December 2010. Available at: <a href="http://www.euractiv.com/en/energy/nabucco-david-vs-goliath-battle-azeri-gas-news-500465?utm-source=EurActiv+Newsletter&utm-campaign=aae3b0133b-my-google\_analytics\_key&utm\_medium=email.">http://www.euractiv.com/en/energy/nabucco-david-vs-goliath-battle-azeri-gas-news-500465?utm\_source=EurActiv+Newsletter&utm\_campaign=aae3b0133b-my-google\_analytics\_key&utm\_medium=email.</a>

Euractiv, 'EU backs Russia's WTO bid at 'best ever summit', 8 December 2010. Available at: <a href="http://www.euractiv.com/en/global-europe/eu-backs-russias-wto-bid-best-ever-summit-news-500397">http://www.euractiv.com/en/global-europe/eu-backs-russias-wto-bid-best-ever-summit-news-500397</a>.

Euractiv, 'Gazprom warns EU it could turn to China', 15 October 2010. Available at: <a href="http://www.euractiv.com/en/energy/gazprom-warns-eu-it-could-turn-china-news-498822">http://www.euractiv.com/en/energy/gazprom-warns-eu-it-could-turn-china-news-498822</a>.

Euractiv, 'Putin warns EU energy laws hurt business', 26 November 2010. Available at: http://www.euractiv.com/en/energy/putin-warns-eu-energy-laws-hurt-business-news-500036.

Euractiv, 'Political pipelines are not 'cost-effective', 24 November 2010. Available at: http://www.euractiv.com/en/energy/political-pipelines-not-cost-effective-news-499978.

Euractiv, 'Commission urges Bulgaria to change Gazprom clause', 15 November 2010. Available at: <a href="http://www.euractiv.com/en/energy/commission-urges-bulgaria-change-gazprom-clause-news-499737">http://www.euractiv.com/en/energy/commission-urges-bulgaria-change-gazprom-clause-news-499737</a>.

Euractiv, 'Polish-Russian gas treaty receives EU blessing', 4 November 2010. Available at: <a href="http://www.euractiv.com/en/energy/polish-russian-gas-treaty-receives-eu-blessing-news-499415">http://www.euractiv.com/en/energy/polish-russian-gas-treaty-receives-eu-blessing-news-499415</a>.

Euractiv, 'Nabucco delayed as Azerbaijan talks drag on', 8 October 2010. Available at: <a href="http://www.euractiv.com/en/energy/nabucco-delayed-azerbaijan-talks-drag-news-498621">http://www.euractiv.com/en/energy/nabucco-delayed-azerbaijan-talks-drag-news-498621</a>.

Euractiv, 'Turkmenistan claims 'huge gas reserves' to supply Europe, 1 October 2010. Available at: <a href="http://www.euractiv.com/en/energy/turkmenistan-claims-huge-gas-reserves-supply-europe-news-498347">http://www.euractiv.com/en/energy/turkmenistan-claims-huge-gas-reserves-supply-europe-news-498347</a>.

Euractiv, 'Parliament approves rules to secure gas supply', 22 September 2010. Available at: <a href="http://www.euractiv.com/en/energy/parliament-approves-rules-secure-gas-supply-news-497983">http://www.euractiv.com/en/energy/parliament-approves-rules-secure-gas-supply-news-497983</a>. Accessed on 19 November 2010.

Euractiv, 'Adriatic pipeline to tap into Azeri gas', 15 September 2010. Available at: <a href="http://www.euractiv.com/en/energy/adriatic-pipeline-tap-azeri-gas-news-497811">http://www.euractiv.com/en/energy/adriatic-pipeline-tap-azeri-gas-news-497811</a>.

Euractiv, 'Commission slams Poland over 'Gazprom clause', 15 July 2010. Available at: <a href="http://www.euractiv.com/en/energy/commission-slams-poland-over-gazprom-clause-news-496352">http://www.euractiv.com/en/energy/commission-slams-poland-over-gazprom-clause-news-496352</a>.

Euractiv, 'Russia-Belarus gas row leaves bitter aftertaste', 25 June 2010. Available at: <a href="http://www.euractiv.com/en/russia-belarus-gas-row-leaves-bitter-aftertaste-news-495592">http://www.euractiv.com/en/russia-belarus-gas-row-leaves-bitter-aftertaste-news-495592</a>.

Euractiv, 'Turkey brokers key gas supply deals for Nabucco', 8 June 2010. Available at: <a href="http://www.euractiv.com/en/energy/turkey-brokers-key-gas-supply-deals-nabucco-news-494988">http://www.euractiv.com/en/energy/turkey-brokers-key-gas-supply-deals-nabucco-news-494988</a>.

Euractiv, 'EU 'southern gas corridor' getting crowded', 21 May 2010. Available at: <a href="http://www.euractiv.com/en/energy/eu-southern-gas-corridor-getting-crowded-news-494430">http://www.euractiv.com/en/energy/eu-southern-gas-corridor-getting-crowded-news-494430</a>.

Euractiv, 'Expert: Turkmenistan is unreliable partner for Nabucco', 19 May 2010. Available at: <a href="http://www.euractiv.com/en/energy/expert-turkmenistan-unreliable-partner-nabucco-interview-494342">http://www.euractiv.com/en/energy/expert-turkmenistan-unreliable-partner-nabucco-interview-494342</a>.

Euractiv, 'Turkey's gas deal with Azerbaijan fuels hopes in EU', 17 May 2010. Available at: <a href="http://www.euractiv.com/en/energy/turkey-s-gas-deal-azerbaijan-fuels-hopes-eu-news-494198">http://www.euractiv.com/en/energy/turkey-s-gas-deal-azerbaijan-fuels-hopes-eu-news-494198</a>.

Euractiv, 'Italy's Edison promotes cheaper version of Nabucco', 27 April 2010. Available at: <a href="http://www.euractiv.com/en/energy/italy-s-edison-promotes-cheaper-version-nabucco-news-485149">http://www.euractiv.com/en/energy/italy-s-edison-promotes-cheaper-version-nabucco-news-485149</a>.

Euractiv, 'Italy's ENI wants rival gas pipelines to collaborate', 11 March 2010. Available at: <a href="http://www.euractiv.com/en/energy/italy-s-eni-wants-rival-gas-pipelines-collaborate-news-327050">http://www.euractiv.com/en/energy/italy-s-eni-wants-rival-gas-pipelines-collaborate-news-327050</a>.

Euractiv, 'Russian oil flowing to EU despite Belarus dispute', 5 January 2010. Available at: <a href="http://www.euractiv.com/en/energy/russian-oil-flowing-eu-despite-belarus-dispute/article-188545">http://www.euractiv.com/en/energy/russian-oil-flowing-eu-despite-belarus-dispute/article-188545</a>.

Euractiv, 'Court rules against Russia in Yukos case', 1 December 2009. Available at: <a href="http://www.euractiv.com/en/energy/court-rules-russia-yukos-case/article-187869">http://www.euractiv.com/en/energy/court-rules-russia-yukos-case/article-187869</a>.

Euractiv, 'France joins South Stream gas pipeline', 1 December 2009. Available at: <a href="http://www.euractiv.com/en/energy/france-joins-south-stream-gas-pipeline/article-187830">http://www.euractiv.com/en/energy/france-joins-south-stream-gas-pipeline/article-187830</a>.

Euractiv, 'Putin says Ukraine gas deals ensure supplies', 20 November 2009. Available at: <a href="http://www.euractiv.com/en/energy/putin-ukraine-gas-deals-ensure-supplies/article-187532?Ref=RSS">http://www.euractiv.com/en/energy/putin-ukraine-gas-deals-ensure-supplies/article-187532?Ref=RSS</a>.

Euractiv, 'Bulgaria fears new winter gas crisis', 18 November 2009. Available at: <a href="http://www.euractiv.com/en/energy/bulgaria-fears-new-winter-gas-crisis/article-187411?Ref=RSS">http://www.euractiv.com/en/energy/bulgaria-fears-new-winter-gas-crisis/article-187411?Ref=RSS</a>.

Euractiv, 'Russia and EU agree on supply alert mechanism', 16 November 2009. Available at: <a href="http://www.euractiv.com/en/energy/russia-eu-agree-gas-supply-alert-mechanism/article-187360?Ref=RSS">http://www.euractiv.com/en/energy/russia-eu-agree-gas-supply-alert-mechanism/article-187360?Ref=RSS</a>.

Euractiv, 'Russia adds final pieces to 'South Stream' puzzle', 25 May 2009. Available at: <a href="http://www.euractiv.com/en/energy/russia-adds-final-pieces-south-stream-puzzle/article-182594">http://www.euractiv.com/en/energy/russia-adds-final-pieces-south-stream-puzzle/article-182594</a>.

Euractiv, 'Climate change, trade top agenda at EU-China summit', 20 May 2009. Available at: <a href="http://www.euractiv.com/en/foreign-affairs/climate-change-trade-top-agenda-eu-china-summit/article-182507">http://www.euractiv.com/en/foreign-affairs/climate-change-trade-top-agenda-eu-china-summit/article-182507</a>.

Euractiv, 'Putin and Berlusconi seal 'South Stream' pipeline deal, 18 May 2009. Available at: <a href="http://www.euractiv.com/en/energy/putin-berlusconi-seal-south-stream-pipeline-deal/article-182435">http://www.euractiv.com/en/energy/putin-berlusconi-seal-south-stream-pipeline-deal/article-182435</a>.

Euractiv, 'Russia unveils new global energy treaty blueprint', 22 April 2009. Available at: <a href="http://www.euractiv.com/en/energy/russia-unveils-new-global-energy-treaty-blueprint/article-181505">http://www.euractiv.com/en/energy/russia-unveils-new-global-energy-treaty-blueprint/article-181505</a>.

Euractiv, 'Russia wins Hungary's support for South Stream pipeline', 11 March 2009. Available at: <a href="http://www.euractiv.com/en/energy/russia-wins-hungary-support-south-stream-pipeline/article-180126">http://www.euractiv.com/en/energy/russia-wins-hungary-support-south-stream-pipeline/article-180126</a>.

Euractiv, "Gazprom Clause' issues Russia ultimatum for energy co-operation', 20 September 2007. Available at: <a href="http://www.euractiv.com/en/energy/gazprom-clause-issues-russia-ultimatum-energy-operation/article-166888">http://www.euractiv.com/en/energy/gazprom-clause-issues-russia-ultimatum-energy-operation/article-166888</a>.

Euractiv, 'EU may restrict foreign access to energy assets', 30 August 2007. Available at: <a href="http://www.euractiv.com/en/energy/eu-may-restrict-foreign-access-energy-assets/article-166303">http://www.euractiv.com/en/energy/eu-may-restrict-foreign-access-energy-assets/article-166303</a>.

Euractiv, 'EU outlines new Central Asia Strategy', 24 April 2007. Available at: <a href="http://www.euractiv.com/en/enlargement/eu-outlines-new-central-asia-strategy/article-163327">http://www.euractiv.com/en/enlargement/eu-outlines-new-central-asia-strategy/article-163327</a>.

Euractiv, 'Europe Caught in Middle of Russian-Belarus Oil Dispute, 9 Jan. 2007'. Available at: <a href="http://www.euractiv.com/en/energy/europe-caught-middle-russia-belarus-oil-dispute/article-160725">http://www.euractiv.com/en/energy/europe-caught-middle-russia-belarus-oil-dispute/article-160725</a>.

Eurogas, (2009). Caspian Development Corporation (CDC) Eurogas Preliminary Remarks. Brussels, 30 June 2009.

Europa Rapid Press Release, 'Russia-Belarus gas dispute: Commission strongly concerned about gas cuts in Lithuania, Brussels, 23 June 2010. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/797&format=HTML&aged=0&la">http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/797&format=HTML&aged=0&la</a> nguage=EN&guiLanguage=en.

Europa Rapid Press Release, 'The EU and Russia reinforce the Early Warning Mechanism to improve prevention and management in case of an energy crisis', Brussels, 16 November 2009. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1718">http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1718</a>.

European Commission. (2010). 'Energy infrastructure priorities for 2020 and beyond - A Blueprint for an integrated European energy network'. COM(2010) 677 final. Brussels, 17 November 2010.

European Commission. (2010). 'Energy 2020 A strategy for competitive, sustainable and secure energy'. COM(2010) 639 final. Brussels, 10 November 2010.

European Commission. (2010). 'Stock taking document Towards a new Energy Strategy for Europe 2011-2020'.

European Commission. (2010). 'A Strategy for Smart, Sustainable and Inclusive Growth'. COM(2010)2020 final. Brussels 3 March 2010.

European Commission. (2009). 'Proposal for a Regulation of the European Parliament and of the Council concerning measures to safeguard security of gas supply and repealing Directive 2004/67/EC'. COM(2009) 363 final. Brussels, 16 July 2009.

European Commission. (2009).\_'Demonstrating Carbon Capture and Geological Storage (CCS) in emerging developing countries: financing the EU-China Near Zero Emissions Coal Plant project'. COM(2009) 284 final. Brussels, 25 June 2009.

European Commission. (2008). 'Second Strategic Energy Review An EU Energy Security and Solidarity Action Plan'. COM(2008) 781 final. Brussels, 13 November 2008.

European Commission. (2008). 'Review of EU-Russia relations'. COM(2008) 740 final. Brussels, 5 November 2008.

European Commission. (2007). 'Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/55/EC concerning common rules for the internal market in natural gas'. COM(2007) 529 final. Brussels, 19 September 2007.

European Commission and the Secretary General of the Council of the European Union/High Representative for Common Foreign and Security Policy. (2006). 'An External Policy to Serve Europe's Energy Interests'.

European Commission. (2006). 'External energy relations – from principles to action'. COM(2006) 590 final. Brussels, 12 October 2006.

European Commission. (2006). 'Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy'. COM(2006) 105 final. Brussels, 8 March 2006.

European Commission. (2004). 'European Neighbourhood Policy Strategy Paper'. COM(2004) 373 final. Brussels, 12 May 2004.

European Commission. (2004). 'On Relations with Russia'. COM(2004) 106 final. Brussels, 10 February 2004.

European Commission. (2003). 'A maturing partnership - shared interests and challenges in EU-China relations - (Updating the European Commission's Communications on EU-China relations of 1998 and 2001)'. COM(2003) 533 final. Brussels, 10 September 2003.

European Commission. (2003). 'On the development of energy policy for the enlarged European Union, its neighbours and partner countries'. COM(2003) 262 final/2. Brussels, 26 May 2003.

European Commission. (2003). 'Wider Europe – Neighbourhood: A New Framework for Relations with our Eastern and Southern Neighbours. COM(2003) 104 final. Brussels, 11 March 2003.

European Commission. (2001). 'Commission Working Document: Country Strategy Paper on China 2002-2006'.

European Commission. (2001). 'EU Strategy towards China - Implementation of the 1998 Communication and Future Steps for a more Effective EU Policy'. COM(2001) 265 final. Brussels, 15 May 2001.

European Commission. (2000).'Green Paper: Towards a European strategy for the security of energy supply'. COM(2000) 769 final. Brussels, 29 November 2000.

European Commission. (2000). 'The Implementation of the Communication Building a Comprehensive Partnership with China'. COM(2000) 552 final. Brussels, 8 September 2000.

European Commission. (1998). 'Building a Comprehensive Partnership with China'. COM(98) 181 final. Brussels, 25 March 1998.

European Commission. (1997). 'Proposal for a Council and Commission Decision on the conclusion of the Partnership and Cooperation Agreement between the European Communities and their Member States and Turkmenistan'. COM(97) 693 final. Brussels, 6 February 1998.

European Commission. (1997). 'The Energy Dimension of Climate Change'. COM(97) 196 final. Brussels,15 May 1997.

European Commission. (1996). 'Energy for the Future: Renewable Sources of Energy – Green Paper for a Community Strategy'. COM(96) 576 final. Brussels, 20 November 1996.

European Commission. (1995). 'White Paper – An Energy Policy for the European Union'. COM(1995) 682 final. Brussels, 13 December 1995.

European Commission. (1995). 'Towards a European Union for Strategy for Relations with the Independent States of Central Asia'. COM(95) 206 final. Brussels, 10 October 1995.

European Commission. (1995). 'Communication from the Commission to the Council and the European Parliament concerning a multiannual programme to promote international cooperation in the energy sector - SYNERGY programme. Proposal for a Council Regulation (EC) adopting a multiannual programme to promote international cooperation in the energy sector - SYNERGY programme'. COM(95) 197 final. Brussels, 6 September 1995.

European Commission. (1995). 'A Long Term Policy for China-Europe Relations'. COM(95) 279 final. Brussels, 5 July 1995.

European Commission. (1995). 'The European Union and Russia: The Future Relationship'. COM(95) 223 final. Brussels, 31 May 1995.

European Commission. (1995). 'Report from the Commission: TACIS 1993 Annual Report'. COM(95) 57 final of 23 March 1995.

European Commission. (1995). 'For a European Union Energy Policy'. COM(94) 659 final. Brussels, 23 February 1995.

European Commission. (1993). 'TACIS (Technical Assistance Programme to the former republics of the Soviet Union) Annual Report from the Commission – 1991 and 1992 –'. COM(93) 362 final of 28 July 1993.

European Commission DG Climate Action, 'China-EU Near Zero Emission Coal Information Dossier'. Available at: <a href="http://ec.europa.eu/clima/dossiers/nzec/index-en.htm">http://ec.europa.eu/clima/dossiers/nzec/index-en.htm</a>.

European Council. (2007). Presidency Conclusions. Brussels European Council, 21-22 June 2007.

European Council. (2007). Presidency Conclusions. Brussels European Council, 2 May 2007.

European Council. (2007). Presidency Conclusions. 'ANNEX I: European Council Action Plan (2007-2009) – Energy Policy for Europe (EPE)'. Brussels European Council, 8-9 March 2007.

European Council. (2006). Presidency Conclusions. Brussels European Council, 23-24 March 2006.

European Dialogue, 'Caspian States' Leaders Seal Security Deal', 22 November 2010. Available at: <a href="http://eurodialogue.org/energy-security/Caspian-States-Leaders-Seal-Security-Deal">http://eurodialogue.org/energy-security/Caspian-States-Leaders-Seal-Security-Deal</a>.

European Dialogue, "Turkmenistan postpones signing agreement on gas supply to Nabucco', 7 May 2010. Available at: <a href="http://eurodialogue.org/energy-security/Turkmenistan-postpones-signing-agreement-on-gas-supply-to-Nabucco">http://eurodialogue.org/energy-security/Turkmenistan-postpones-signing-agreement-on-gas-supply-to-Nabucco</a>.

European External Action Service. (2009). 'Joint Statement ASEM Ministerial Conference on Energy Security'. Brussels, 17-18 June 2009.

European External Action Service. (2008). 'Joint Progress Report by the Council and the European Commission to the European Council on the implementation of the EU Central Asia Strategy'. Brussels, 24 June 2008.

European External Action Service. (2006). 'China Strategy Paper 2007-2013'.

European External Action Service. (2002). EC Strategy Paper 2002-2006 and Indicative Programme 2002-2004 for Central Asia. Brussels, 30 October 2002.

European External Action Service. (2001). 'Country Strategy Paper 2002-2006 and National Indicative Programme 2002-2003 Russian Federation'. Brussels, 27 December 2001.

European Parliament. (2010). 'Report on Towards a new Energy Strategy for Europe 2011-2020'. Brussels, 8 November 2010.

European Parliament Resolution of 17 June 2010 on the conclusion of the EU/Russia summit (31 May-1 June 2010, P7\_TA-PROV(2010)0234.

European Parliament Resolution of 22 April 2009 on the Interim Trade Agreement with Turkmenistan. P6\_TA(2009)0252. OJ C 184 E/20 of 8 July 2010.

European Parliament resolution of 5 February 2009 on Trade and Economic Relations with China (2008/2171(INI)).

European Parliament resolution of 20 February 2008 on an EU Strategy for Central Asia, P6\_TA(2008)0059.

European Parliament. (2007). Report on towards a common European foreign policy on energy. Brussels, 11 September 2007.

European Parliament resolution of 26 October 2006 on Uzbekistan, P6\_TA(2006)0467.

European Parliament Resolution of 7 September 2006 on EU-China Relations (2005/2161(INI)).

Eurostat Energy Statistics. Available at <a href="http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/main\_tables">http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/main\_tables</a>.

EU-Russia Energy Dialogue. (2009). 'The Tenth Progress Report'. Moscow, November 2009.

EU-Russia Energy Dialogue. (2007). 'Eighth Progress Report'. Brussels/Moscow, October 2007.

Feller, G. (2007), 'Nord Stream Pipeline Project Stokes Controversy', *Pipeline & Gas Journal*. Available at: <a href="http://findarticles.com/p/articles/mim3251/is3234/ain25003671/">http://findarticles.com/p/articles/mim3251/is3234/ain25003671/</a>.

Ferrero-Waldner, B. European Commissioner for External Relations and European Neighbourhood Policy. 'European External Relations and Energy Policy: Towards an international energy strategy'. EWI/F.A.Z. - Energy conference, Cologne, 11. September 2007. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/517&type=HTML&aged=0&language=EN&guiLanguage=en">http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/517&type=HTML&aged=0&language=EN&guiLanguage=en</a>.

Ferrero-Waldner, B., European Commissioner for External Relations and European Neighbourhood Policy. 'Opening Address Conference: Towards an EU External Energy Policy to Assure a High Level of Supply Security' Brussels, 20 November 2006. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/710&format=HTML&aged=0&language=EN">http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/710&format=HTML&aged=0&language=EN</a>.

Ferrero-Waldner, B. (2006), 'Guest Editorial: The European Neighbourhood Policy: The EU's Newest Foreign Policy Instrument', *European Foreign Affairs Review 11*(2), pp. 139-142.

Fischer, S. (2009), 'Energie- und Klimapolitik im Vertrag von Lissabon: Legitimationsverweiterung für wachsende Herausforderungen', *Integration 1*, pp. 50-62.

Follath, E. and Neef, C. (2010), 'Who's Afraid of the Ruler of the Silk Road?', *Spiegel Online International*, 29 October 2010. Available at: <a href="http://www.spiegel.de/international/world/0,1518,724471-3,00.html">http://www.spiegel.de/international/world/0,1518,724471-3,00.html</a>.

Forexyard, 'Russia-Belarus dispute cuts diesel export to Europe-Update 1', 17 January 2011. Available at: <a href="http://www.forexyard.com/en/news/Russia-Belarus-dispute-cuts-diesel-export-to-Europe-2011-01-17T190314Z-UPDATE-1">http://www.forexyard.com/en/news/Russia-Belarus-dispute-cuts-diesel-export-to-Europe-2011-01-17T190314Z-UPDATE-1</a>.

France 24, 'Putin says compromise gas deal reached with Ukraine', 20 November 2009. Available at: <a href="http://www.france24.com/en/20091120-russia-ukraine-putin-compromise-gas-deal-reached-energy-oil">http://www.france24.com/en/20091120-russia-ukraine-putin-compromise-gas-deal-reached-energy-oil</a>.

Freedom House. (2010). Freedom in the World 2010. Worst of the Worst. Available at: <a href="http://www.freedomhouse.org/uploads/WoW/2010/WorstOfTheWorst2010.pdf">http://www.freedomhouse.org/uploads/WoW/2010/WorstOfTheWorst2010.pdf</a>.

Friedrich Ebert Stiftung, (2008). 'Partnership with Russia in Europe A Strategy for a Win-Win Situaton?'. 6th Roundtable Discussion. Morozovka, 3-5 February, 2008.

Geden, O., Marcelis, C., and Maurer, A. (2006), 'Perspectives for the European Union's External Energy Policy. Discourse, Ideas, and Interests in Germany, the UK, Poland and France'. Working Paper FG1. Berlin: Stiftung Wissenschaft und Politik.

German Advisory Council on Global Change (WBGU) (2008), *World in Transition - Climate Change as a Security Risk. Report by the German Advisory Council on Global Change*, (London: Earthscan).

Geropoulos, K. (2010), 'Nabucco, ITGI, TAP: In the end there can be only one', 10 October 2010. Available at: <a href="http://www.neurope.eu/articles/Nabucco-ITGI-TAP-In-the-end-there-can-be-only-one-/103085.php">http://www.neurope.eu/articles/Nabucco-ITGI-TAP-In-the-end-there-can-be-only-one-/103085.php</a>.

Global Fund Exchange Investing in the Future of Energy Blog, 'China's 12<sup>th</sup> Five-Year Plan Emphasizes Clean Energy Exports', 10 January 2011. Available at: <a href="http://www.globalfundexchange.com/?p=3250&option=com\_wordpress&Itemid=267">http://www.globalfundexchange.com/?p=3250&option=com\_wordpress&Itemid=267</a>.

Godzimirski, J.M. (2009), 'The Northern Dimension of the Russian Gas Strategy', *Russian Analytical Digest 58*, pp. 2-4.

Goldthau, A. (2010), 'Energy Diplomacy in Trade and Investment of Oil and Gas' in A. Goldthau and J. M. Witte (eds.), *Global Energy Governance: The New Rules of the Game*, (Washington D.C.: Brookings Institution Press), pp. 25-47.

Government of Russia. (2009). 'Energy Strategy of Russia for the Period up to 2030, Approved by Decree No 1715-r of the Government of the Russian Federation'. Moscow, 13 November 2009.

Grätz, J. (2009), 'Energy Relations with Russia and Gas Market Liberalization', *Internationale Politik und Gesellschaft 3*, pp. 66-80.

Graubner, C. (2008), 'EU Strategy on Central Asia: Realpolitik After All', *Central Asia-Caucasus Institute Analyst*, May 14 2008. Available at: <a href="http://www.cacianalyst.org/?q=node/4859">http://www.cacianalyst.org/?q=node/4859</a>.

Grevi, G., and Cameron, F. (2005), 'Towards an EU Foreign Service'. Issue Paper 29. Brussels: European Policy Centre.

Hadfield, A. (2008), 'EU-Russia Energy Relations: Aggregation and Aggravation', *Journal of Contemporary European Studies* 16(2), pp. 231-248.

Haghighi, S. (2007), Energy Security: The External Legal Relations of the European Union with Major Oil and Gas Supplying Countries (Oxford: Hart Publishing).

Hanks, R. R. (2009), 'Multi-vector politics' and Kazakhstan's emerging role as a geo-strategic player in Central Asia', *Journal of Balkan and Near Eastern Studies* 11(3), pp.257-267.

Heinrich, A. (2006), 'Gazprom – A Reliable Partner for Europe's Energy Supply?', *Russian Analytical Digest* 1/06, pp. 2-6.

Hendrix, C.S., and Glaser, S.M. (2007), 'Trends and triggers: Climate, climate change and civil conflict in Sub-Saharan Africa', *Political Geography 26*, pp. 695-715.

Hóber, K. (2009), 'Law and Policy in the Russian Oil and Gas Sector', *Journal of Energy & Natural Resources Law 27*(3), pp. 420-444.

Holslag, J. (2010), 'China's Scepticism of Clean Energy Champion Europe', *The International Spectator 45*, pp. 115-130.

Howell, S. (2009), 'Jia You! (Add Oil!): Chinese Energy Security Strategy', in G. Luft and A. Korin (eds.), *Energy Security Challenges for the 21st Century*, (Santa Barbara CA: ABC-CLIO, LLC), pp.191-218

Hoyos, C. (2009), 'Nabucco hopes grow after \$8bn Iraqi gas deal', 18 May 2009. Available at: http://www.ft.com/cms/s/0/f19c0f76-4341-11de-b793-00144feabdc0.html#axzz18YuNmij1.

Human Rights Watch, (2011), World Report 2011: Events of 2010, (New York: Human Rights Watch).

IHS CERA, (2010), 'Caspian Development Corporation – Final Implementation Report', pp. 4-6. Available

http://ec.europa.eu/energy/infrastructure/studies/doc/2010 12 report cdc final implementation .pdf.

Institute for War and Peace Reporting, 'EU Easing of Uzbek Sanctions "Absurd"', 30 October 2007. Available at: <a href="http://iwpr.net/report-news/eu-easing-uzbek-sanctions-web2%80%9Cabsurd%E2%80%9D">http://iwpr.net/report-news/eu-easing-uzbek-sanctions-web2%80%9Cabsurd%E2%80%9D</a>.

International Crisis Group. 'Central Asia's Energy Risks'. Asia Report No. 133.

International Crisis Group Asia Briefing 60. Bishkek/Brussels, 12 February 2007.

International Crisis Group, 'Uzbekistan: Europe's Sanctions Matter', 6 November 2006. Available at: <a href="http://www.crisisgroup.org/en/publication-type/media-releases/2006/asia/uzbekistan-europes-sanctions-matter.aspx">http://www.crisisgroup.org/en/publication-type/media-releases/2006/asia/uzbekistan-europes-sanctions-matter.aspx</a>.

International Energy Agency. (2010). *Technology Roadmap: Nuclear Energy*. (Vienna: International Energy Agency).

International Energy Agency. (2009). *Technology Roadmap: Wind energy*. (Vienna: International Energy Agency).

International Energy Agency. (2009). 'How the Energy Sector can Deliver on a Climate Agreement in Copenhagen'. Special Early Excerpt of the World Energy Outlook 2009 for the Bangkok UNFCCC Meeting.

Available at:
<a href="http://www.worldenergyoutlook.org/docs/weo2009/climate change excerpt.pdf">http://www.worldenergyoutlook.org/docs/weo2009/climate change excerpt.pdf</a>.

International Herald Tribune, 'Medvedev makes nice with the EU', 27 June 2008. Available at: <a href="http://www.nytimes.com/2008/06/27/world/europe/27iht-union.4.14050408.html?r=1">http://www.nytimes.com/2008/06/27/world/europe/27iht-union.4.14050408.html?r=1</a>.

International Herald Tribune, 'Shell cedes control of Sakhalin-2 to Gazprom', 21 December 2006. Available at: <a href="http://www.nytimes.com/2006/12/21/business/worldbusiness/21iht-shell.3981718.html">http://www.nytimes.com/2006/12/21/business/worldbusiness/21iht-shell.3981718.html</a>.

Interstate Oil and Gas Pipeline Management, Final Report. Available at: <a href="http://www.inogate.org/inogate-programme/about-inogate-projects/interstate-oil-gas-pipeline-management">http://www.inogate.org/inogate-projects/interstate-oil-gas-pipeline-management</a>.

Interview of Russian Deputy Minister of Foreign Affairs Alexander Grushko on Relations Between Russia, and the EU and US, Granted to Interfax News Agency on November 10, 2008. Available at: <a href="http://www.russianembassy.org.za/statements/text/nov08//relations.html">http://www.russianembassy.org.za/statements/text/nov08//relations.html</a>.

Ipek, P. (2009), 'Azerbaijan's Foreign Policy and Challenges for Energy Security', *Middle East Journal* 63(2), pp. 227-239.

Jonavicius, L. (2008). 'The Democracy Promotion Policies of Central and Eastern European States'. FRIDE Working Paper .55.

Jozwiak, R. (2009), 'Chances of Russia ratifying energy charter are 'minimal''. European Voice, 4 February 2009. Available at: <a href="http://www.europeanvoice.com/article/2009/02/chances-of-russia-ratifying-energy-charter-are-minimal-/63821.aspx">http://www.europeanvoice.com/article/2009/02/chances-of-russia-ratifying-energy-charter-are-minimal-/63821.aspx</a>.

Kassenova, N. (2009). 'Kazakhstan and the South Caucasus corridor in the wake of the Georgia-Russia War'. EUCAM Policy Brief No. 3.

Kefferpütz, R. (2009), 'Gazprom's Changing Fortunes'. CEPS Commentary. Brussels: Centre for European Policy Studies.

Kirchner, E. and Berk, C. (2010), 'European Energy Security Co-operation: Between Amity and Enmity', *Journal of Common Market Studies 48*(4), pp. 859-880.

Konoplyanik, A. (2009a), 'A Common Russia-EU Energy Space: The New EU-Russia Partnership Agreement, Acquis Communautaire and the Energy Charter', *Oil Gas and Energy Law Journal 27*(2), pp. 258-291.

Konoplyanik, A. (2009b), 'Gas Transit in Eurasia: Transit Issues between Russia and the European Union and the Role of the Energy Charter', *Journal of Energy and Natural Resources Law 27*(3), pp. 445-486.

Konoplyanik, A. (2009c), 'Russia: don't oppose the Energy Charter, help to adapt it', *Petroleum Economist*, July 2009. Available at: <a href="http://www.konoplyanik.ru/ru/publications/articles/090618-PE-ECT-final.pdf">http://www.konoplyanik.ru/ru/publications/articles/090618-PE-ECT-final.pdf</a>.

Kremlin. (2006). 'Responses to questions from Russian journalists following the Russia-EU Summit and Press Conference'. Sochi, 25 May 2006. Available at: http://archive.kremlin.ru/eng/speeches/2006/05/25/2359 type82915 106123.shtml.

Kulhánek, J. (2010), 'EU and Russia in search of a new modus operandi: Time is running out'. Association for International Affairs, 12 April 2010. Available at: <a href="http://www.amo.cz/publications/eu-and-russia-in-search-of-a-new-modus-operandi-time-is-running-out.html?lang=en">http://www.amo.cz/publications/eu-and-russia-in-search-of-a-new-modus-operandi-time-is-running-out.html?lang=en</a>.

Lanteigne, M. (2007), 'China's Energy Security and Eurasian Diplomacy: The Case of Turkmenistan', *Politics 27*(3), pp. 147-155.

Law No. 57-FZ "On the Procedure for Contributing Foreign Investments in Legal Entities which are of Strategic Importance for the Defence of the Country and Security of the State" ('Law on Foreign Investments in Strategic Companies'). Available at: <a href="http://www.russland.no/filestore/57FZ.27.html">http://www.russland.no/filestore/57FZ.27.html</a>.

Leal-Arcas, R. (2009), 'The EU and Russia as Energy Trading Partners: Friends or Foes?', *European Foreign Affairs Review*, 14(3), pp. 337-366.

Levine, M.D., Price, L., Zhou, N., Fridley, D., Aden, N., Lu, H., McNeil, M., Zheng, N., and Yining, Q. (2010), Assessment of China's Energy-Saving and Emission-Reduction Accomplishments and Opportunities During the 11<sup>th</sup> Five Year Plan, (Berkeley: Ernest Orlando Lawrence Berkeley National Laboratory.

Lieb, J., and Maurer, A. (2007), 'The 'how' of the EEAS: variables, priorities and timelines', in: G. Avery et al., (2007). 'The EU Foreign Service: how to build a more effective common policy'. Working Paper No. 28. Brussels: European Policy Centre.

Liu, W., Lund, H., Mathiesen, B.V., and Zhang, X. (2010), 'Potential of renewable energy systems in China', *Applied Energy 88*(2), pp. 518-525.

Lukyanov, F. (2008), 'Russia-EU: The Partnership That Went Astray', *Europe-Asia Studies 60*(6), pp. 1107-1119.

Macintosh, A. (2010), 'Security of Europe's Gas Supply: EU Vulnerability'. CEPS Policy Brief No. 222, November 2010. Brussels: Centre for European Policy Studies.

Maican, O.H. (2009), 'Some Legal Aspects of Energy Security in the Relations Between EU and Russia', *Romanian Journal of European Affairs* 9(4), pp. 29-47.

Marcois, B.W. (2005), 'China, U.S. interests conflict', *The Washington Times* March 24, 2005. Available at: <a href="http://www.washingtontimes.com/news/2005/mar/24/20050324-075950-4488r/?page=1">http://www.washingtontimes.com/news/2005/mar/24/20050324-075950-4488r/?page=1</a>.

Martinot, E., and Junfeng, L. (2010), 'Renewable Energy Policy Update For China', *Renewableenergyworld.com*, 21 July 2010. Available at: <a href="http://www.renewableenergyworld.com/rea/news/article/2010/07/renewable-energy-policy-update-for-china">http://www.renewableenergyworld.com/rea/news/article/2010/07/renewable-energy-policy-update-for-china</a>.

Mastny, L. (ed.) (2010). Renewable Energy and Energy Efficiency in China: Current Status and Prospects for 2020. Worldwatch Institute. October 2010.

Melvin, N., and Boonstra, J. (2008), 'The EU Strategy for Central Asia @ Year One'. EUCAM Policy Brief 1.

Memorandum of Understanding on a strategic partnership between the European Union and the Republic of Azerbaijan in the field of energy. Available at: <a href="http://ec.europa.eu/energy/international/international cooperation/doc/mou azerbaijan en.pdf">http://ec.europa.eu/energy/international/international cooperation/doc/mou azerbaijan en.pdf</a>.

Memorandum of Understanding Between The Ministry of Science and Technology of the People's Republic of China And The European Commission On Cooperation on Near-zero Emissions Power Generation Technology through Carbon Dioxide Capture and Storage. Available at: <a href="http://ec.europa.eu/clima/documentation/international/docs/nzec\_mou\_en.pdf">http://ec.europa.eu/clima/documentation/international/docs/nzec\_mou\_en.pdf</a>.

Memorandum of Understanding Between the Government of Iraq and the European Union on Strategic Partnership in Energy. Available at: <a href="http://ec.europa.eu/energy/international/bilateral cooperation/doc/iraq/2010\_01\_18\_iraq\_mou\_en.pdf">http://ec.europa.eu/energy/international/bilateral cooperation/doc/iraq/2010\_01\_18\_iraq\_mou\_en.pdf</a>.

Memorandum of Understanding on co-operation in the field of energy between the European Union and the Republic of Kazakhstan. Available at: http://ec.europa.eu/energy/international/international cooperation/doc/mou kazakshtan en.pdf.

Memorandum of Understanding between the European Commission and the Ministry of Science and Technology of the People's Republic of China on Cooperation on Near Zero Emissions Coal (NZEC) Power Generation Technology through Carbon Dioxide Capture and Storage (CCS). Nanjing, 30 November 2009.

Memorandum of Understanding and Co-operation in the field of Energy between the European Union and Turkmenistan. Available at: <a href="http://ec.europa.eu/energy/international/international cooperation/doc/mou turkmenistan.pdf">http://ec.europa.eu/energy/international/international cooperation/doc/mou turkmenistan.pdf</a>.

Memorandum of Understanding on Cooperation in the field of Energy between the European Union and the Republic of Uzbekistan. Available at: <a href="http://ec.europa.eu/energy/international/international cooperation/doc/2011\_01\_24\_uzbekistantmou.pdf">http://ec.europa.eu/energy/international/international cooperation/doc/2011\_01\_24\_uzbekistantmou.pdf</a>.

Ministry of Foreign Affairs of the People's Republic of China, 'China-EU Partnership on Climate Change Rolling Work Plan'. Available at: <a href="http://www.mfa.gov.cn/eng/wjb/zzjg/tyfls/tfsxw/t283051.htm">http://www.mfa.gov.cn/eng/wjb/zzjg/tyfls/tfsxw/t283051.htm</a>.

Mo, (2009), 'Securing China's oil supply: from Saudi Arabia to Sudan', *International Institute for Asian Studies Newsletter 51*, p. 20.

Müller, B., Robinson, D. and Xiliang, Z. (eds.), (2010). 'Addressing Large Developing Country Emissions'. Oxford, Oxford Institute for Energy Studies.

Nappert, S. (2010), 'EU-Russia Relations in the Energy Field: The Continuing Role of International Law'. *International Association for Energy Economics*, Third Quarter 2010, pp. 10-14.

National Development and Reform Commission People's Republic of China, (2007). 'China's National Climate Change Programme'. Beijing, June 2007.

Nordas, R., and Gleditsch, N.P. (2007), 'Climate change and conflict', *Political Geography 26*, pp. 627-638.

Offshoreenergytoday.com, 'Trans Adriatic Pipeline Reconfirms Shah Deniz II (Azerbaijan) as the initial Gas Source for the Pipeline'. Available at: <a href="http://www.offshoreenergytoday.com/trans-adriatic-pipeline-reconfirms-shah-deniz-ii-azerbaijan-as-the-initial-gas-source-for-the-pipeline/">http://www.offshoreenergytoday.com/trans-adriatic-pipeline-reconfirms-shah-deniz-ii-azerbaijan-as-the-initial-gas-source-for-the-pipeline/</a>.

Oil and Gas Insight, 'Diesel Exports Halted As Russian Crude Tax Dispute Drags On', January 2011. Available at: <a href="http://www.oilandgasinsight.com/file/95531/diesel-exports-halted-as-russian-crude-tax-dispute-drags-on.html">http://www.oilandgasinsight.com/file/95531/diesel-exports-halted-as-russian-crude-tax-dispute-drags-on.html</a>.

Partnership and Cooperation Agreement establishing a partnership between the European Communities and their Member States, of the one part, and the Republic of Tajikistan, of the other part, OJ L 350/3 of 29 December 2009.

Partnership and Cooperation Agreement establishing a partnership between the European Communities and their Member States, of the one part, and the Republic of Uzbekistan, of the other part, OJ L 229 of 31 August 1999.

Partnership and Cooperation Agreement between the European Communities and their Member States and the Republic of Kazakhstan, OJ L 196/3 of 28 July 1999.

Partnership and Cooperation Agreement establishing a partnership between the European Communities and their Member States, of the one part, and the Kyrgyz Republic, of the other part, OJ L 196/48 of 28 July 1999.

Paul, A. (2010), 'How Do You Deal with An Autocratic and Energy-Rich Ally like Azerbaijan? Why We Need to Engage Azerbaijan – and Treat It as More than Just a Gas Station', *The German Marshall Fund of the United States On Wider Europe*, June 25 2010.

PBL Netherlands Environmental Assessment Agency. 'Global CO<sup>2</sup> emissions: increase continued in 2007'.

Available at:

http://www.pbl.nl/en/publications/2008/GlobalCO2emissionsthrough2007.html.

Pennay, P. (2010), 'The 11th Five-Year-Plan – A Report Card', *Economic Observer News Department*, 24 November 2010. Available at: http://www.eeo.com.cn/ens/feature/2010/11/24/187148.shtml.

Perovic, J. (2008), 'Russian Energy Power Abroad', Russian Analytical Digest 33, pp. 2-4.

Perovic J., & Orttung, R. (2007), 'Russia's Energy Policy: Should Europe Worry?, *Russian Analytical Digest 18*, pp. 2-7.

Petersen, A. (2009), 'The Caspian Comes to Europe', 12 October 2009. Available at: <a href="http://blogs.euobserver.com/petersen/2009/10/12/the-caspian-comes-to-europe/">http://blogs.euobserver.com/petersen/2009/10/12/the-caspian-comes-to-europe/</a>.

Peyrouse, S. (2009a), 'Business and Trade Relationships between the EU and Central Asia'. EUCAM Working Paper 1.

Peyrouse, S. (2009b). 'Central Asia's growing partnership with China'. EUCAM Working Paper 4.

Piebalgs, A. (2006). EU Energy Commissioner Speaking Notes welcoming the agreement between Gazprom and Naftogaz. Joint Press Conference with Mr. Bartenstein, Austrian Federal Minister for the Economy and Labour. Brussels, 4 January 2006. Available at: <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/1&format=HTML&aged=0">http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/1&format=HTML&aged=0</a> &language=EN&guiLanguage=en.

Portela, C. (2007). 'Community Policies with a Security Agenda: The Worldview of Benita Ferrerro-Waldner'. European University Institute Working Paper 2007/10.

Premier Zhu Rongji's Explanation of 10th Five-Year Plan Drafting. Available at <a href="http://chinagate.cn/english/e-plan/index.htm">http://chinagate.cn/english/e-plan/index.htm</a>.

President of the European Parliament. (2010). 'The future of European energy policy – address by President Jerzy Buzek at the Stakeholder Conference on preparation of Energy Strategy 2011-2020'. Available at: <a href="http://www.europarl.europa.eu/president/view/en/press/speeches/speeches/speeches/speeches/speeches-2010/sp-2010-September/speeches-2010-September-3.html">http://www.europarl.europa.eu/president/view/en/press/speeches/speeches/speeches-2010-September-3.html</a>.

President of the European Parliament. (2010). 'The Buzek and Delors Declaration on the creation of a European Energy Community'. Available at: <a href="http://www.europarl.europa.eu/president/view/en/press/press release/2010/2010-">http://www.europarl.europa.eu/president/view/en/press/press release/2010/2010-</a> <a href="http://www.europarl.europa.eu/president/view/en/press/press release/2010/2010-">http://www.europarl.europa.eu/president/view/en/press/press release/2010/2010-</a> <a href="http://www.europarl.europa.eu/president/view/en/press/press release/2010/2010-">http://www.europarl.europa.eu/president/view/en/press/press release/2010/2010-</a> <a href="http://www.europarl.europa.eu/president/view/en/press/press">http://www.europarl.europa.eu/president/view/en/press/press release/2010/2010-</a> <a href="http://www.europarl.europa.eu/press/press">http://www.europarl.europa.eu/press/press</a> release-2010-May-4.html.

President of Russia, Conceptual Approach to the New Legal Framework for Energy Cooperation (Goals and Principles), 21 April 2009. Available at <a href="http://archive.kremlin.ru/eng/text/docs/2009/04/215305.shtml">http://archive.kremlin.ru/eng/text/docs/2009/04/215305.shtml</a>.

President Vladimir Putin, Speech at the Munich Conference on Security Policy, 11 February 2007. Available at: <a href="http://www.globalresearch.ca/index.php?context=va&aid=4741">http://www.globalresearch.ca/index.php?context=va&aid=4741</a>.

Radio Free Europe, 'The EU is Tough on Minsk, But Easy On Baku', 19 January 2011. Available at: <a href="http://www.rferl.org/content/eu azerbaijan aliyev barroso\_commentary/2281186.html">http://www.rferl.org/content/eu azerbaijan aliyev barroso\_commentary/2281186.html</a>.

Radio Free Europe, 'Central Asia: Turkmenistan-China Pipeline Project Has Far-Reaching Implications', 10 April 2006. Available at: <a href="http://www.rferl.org/content/article/1067535.html">http://www.rferl.org/content/article/1067535.html</a>.

Raleigh, C., and Urdal, H. (2007), 'Climate change, environmental degradation and armed conflict', *Political Geography 26*, pp. 674-694.

Rapier, R. (2010), 'How The Kurdistan Problem Could Torpedo The Iraq Energy Comeback', 15 January 2010. Available at: <a href="http://www.businessinsider.com/how-the-kurdistan-problem-could-torpedo-the-iraq-energy-comeback-2010-1">http://www.businessinsider.com/how-the-kurdistan-problem-could-torpedo-the-iraq-energy-comeback-2010-1</a>.

Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, OJ L 295 of 12 November 2010.

REN21. (2009). Recommendations for Improving the Effectiveness of Renewable Energy Policies in China. October 2009.

Renewable Energy Focus, 'China launches differentiated wind energy tariffs', 7 September 2009. Available at: <a href="http://www.renewableenergyfocus.com/view/3817/china-launches-differentiated-wind-energy-tariffs/">http://www.renewableenergyfocus.com/view/3817/china-launches-differentiated-wind-energy-tariffs/</a>.

Reuters, 'Europe Distillates-Diesel prices up on Belarus export problems', 17 January 2011. Available at: <a href="http://af.reuters.com/article/energyOilNews/idAFLDE70G20U20110117">http://af.reuters.com/article/energyOilNews/idAFLDE70G20U20110117</a>.

Reuters, 'RWE signs Nabucco cooperation deal with Iraq Kurds', 27 August 2010. Available at: <a href="http://uk.reuters.com/article/idUKLDE67Q12H20100827">http://uk.reuters.com/article/idUKLDE67Q12H20100827</a>.

Reuters, 'Update 1-Russian oil flows to Belarus despite talks failure', 10 January 2010. Available at: <a href="http://www.reuters.com/article/idUSLDE60904020100110">http://www.reuters.com/article/idUSLDE60904020100110</a>.

Reuters, 'China legislators seen mulling renewables fund', 24 August 2009. Available at: <a href="http://www.reuters.com/article/idUSTRE57N26720090824">http://www.reuters.com/article/idUSTRE57N26720090824</a>.

Reuveny, R. (2007), 'Climate change-induced migration and violent conflict', *Political Geography 26*, pp. 656-673.

RiaNovosti, 'Putin to attend EU-Russia Summit in Portugal', 19 October 2007. Available at: <a href="http://en.rian.ru/russia/20071019/84574250.html">http://en.rian.ru/russia/20071019/84574250.html</a>.

Romanova, T. (2008), 'The Russian Perspective on the Energy Dialogue', *Journal of Contemporary European Studies 16*(2), pp. 219-230.

Rosner, K. (2009), 'The European Union: On Energy, Disunity' in G. Luft and A. Korin (eds.), *Energy Security Challenges for the 21st Century*, (Santa Barbara CA: ABC-CLIO, LLC), pp. 160-175.

Rosner, K. (2008), 'Russia's Financial Market Meltdown: Energy Security Implications', *Journal of Energy Security*. Available at: <a href="http://www.ensec.org/index.php?option=com">http://www.ensec.org/index.php?option=com</a> content&view=article&id=168:russias-financial-market-meltdown-energy-security-

implications&catid=90:energysecuritydecember08&Itemid=334.

Russiatoday, 'Europe needs new Energy Charter – Medvedev', 1 March 2009. Available at: <a href="http://rt.com/news/europe-needs-new-energy-charter-medvedev/">http://rt.com/news/europe-needs-new-energy-charter-medvedev/</a>.

Salehyan, I. (2008), 'From Climate Change to Conflict? No Consensus Yet', *Journal of Peace Research* 45(3), pp. 315-326.

Schuman, S. (2010), 'China Renews Its Commitment to Renewable Energy', *National Resources Defense Council Staff Blog*, 1 February 2010, p. 1. Available at: <a href="http://switchboard.nrdc.org/blogs/bfinamore/china\_renews\_its\_commitment\_to.html">http://switchboard.nrdc.org/blogs/bfinamore/china\_renews\_its\_commitment\_to.html</a>.

Selivanova, Y. (2010), 'Managing the Patchwork of Agreements in Trade and Investment', in A. Goldthau and J. M. Witte (eds.), *Global Energy Governance: The New Rules of the Game*, (Washington D.C.: Brookings Institution Press), pp. 49-72.

Seliverstov, S. (2009), 'Energy Security of Russia and the EU: Current Legal Problems'. Note de L'Institut Français des Relations Internationales (IFRI). April 2009.

Sherr, J. (2010), 'The Russia-EU Energy Relationship: Getting It Right', *The International Spectator*, 45(2), pp. 55-68.

Shtilkind, T.I. (2005), 'Energy Charter Treaty: A critical Russian perspective', *Oil Gas & Energy Law* 3(1).

Slovenian Presidency of the EU 2008, 'EU Council of Ministers approves mandate for negotiating new framework agreement with Russian Federation', 26 May 2008. Available at: <a href="http://www.eu2008.si/en/News\_and\_Documents/Press\_Releases/May/0526MZZ\_GAERC\_Rusija.h">http://www.eu2008.si/en/News\_and\_Documents/Press\_Releases/May/0526MZZ\_GAERC\_Rusija.h</a> tml.

Sobczyk M. and Kruk, M. (2010), 'Gazprom Keeps Grip on Polish Pipeline', October 27. The Wall Street Journal Blogs. Available at: <a href="http://blogs.wsj.com/new-europe/2010/10/27/gazprom-keeps-grip-on-polish-pipeline/">http://blogs.wsj.com/new-europe/2010/10/27/gazprom-keeps-grip-on-polish-pipeline/</a>.

Stern, J. (2006), *The Russian-Ukrainian Gas Crisis of January 2006*, (Oxford: Oxford Institute for Energy Studies).

Su, J.H., Hui, S.S., and Tsen, H. (2010), 'China Rationalizes Its Renewable Energy Policy', *The Electricity Journal 23*(3), pp. 26-34.

Swartz, S. (2009), 'Turkmenistan Awards Giant Gas Deal', 31 December 2009. Available at: <a href="http://online.wsj.com/article/SB10001424052748704152804574627691852612668.html">http://online.wsj.com/article/SB10001424052748704152804574627691852612668.html</a>.

Ten Hoedt, R. (2010), 'We do not Want to Depend on Only One Pipeline', 15 November 2010, p. 2. Available at: <a href="http://www.europeanenergyreview.eu/index.php?id=2528">http://www.europeanenergyreview.eu/index.php?id=2528</a>.

The Economist Intelligence Unit, (2008), 'Lithuania: Holding EU-Russia talks hostage'. Economist Country Monitor, 28 April 2008.

The Guardian, 'Centrica bidders aim to thwart Gazprom', 17 June 2007. Available at: <a href="http://www.guardian.co.uk/business/2007/jun/17/utilities.observerbusiness">http://www.guardian.co.uk/business/2007/jun/17/utilities.observerbusiness</a>.

The Guardian, 'Kremlin attack dog vows to take on Shell in the battle of Sakhalin', 4 October 2006. Available at: <a href="http://www.guardian.co.uk/business/2006/oct/04/russia.oilandpetrol">http://www.guardian.co.uk/business/2006/oct/04/russia.oilandpetrol</a>.

The Renewable Energy Law of the People's Republic of China. Available at: <a href="http://www.frankhaugwitz.info/doks/policy/2005\_07\_25\_China\_RE\_Law\_Beijing\_Review.pdf">http://www.frankhaugwitz.info/doks/policy/2005\_07\_25\_China\_RE\_Law\_Beijing\_Review.pdf</a>.

The Wall Street Journal, 'Putin Speaks at Davos', 28 January 2009. Available at: <a href="http://online.wsj.com/article/SB123317069332125243.html">http://online.wsj.com/article/SB123317069332125243.html</a>.

The World Bank, (2008), 'Mid-term Evaluation of China's 11<sup>th</sup> Five Year Plan'. Poverty Reduction and Economic Management Unit East Asia and Pacific Region, 18 December 2008.

The Quaker Council for European Affairs, (2009), *The Nabucco Gas Pipeline: A chance for the EU to push for change in Turkmenistan*, (Quaker Council for European Affairs: Brussels).

Tsakiris, T. (2010), 'Turkmenistan Tilts towards the West As It Considers Strategic Rapprochement with Azerbaijan', 6 December 2010. Available at: <a href="http://www.ekemeuroenergy.org/en/index.php?option=com\_content&view=article&id=136:turkmenistan-tilts-towards-the-west-as-it-considers-strategic-rapprochement-with-azerbaijan&catid=35:analyses&Itemid=57.</a>

Umbach, F. (2009), 'EU-China energy relations and geopolitics: Challenges for cooperation', *International Institute for Asian Studies Newsletter 51*, p. 27.

US Department of Energy National Renewable Energy Laboratory, (2004), 'Renewable Energy in China: China's Plan for Renewable Energy'. Available at: <a href="http://www.nrel.gov/docs/fy04osti/35787.pdf">http://www.nrel.gov/docs/fy04osti/35787.pdf</a>.

US Energy Information Administration, (2010), Country Analysis/Briefs: Iraq. Available at: <a href="http://www.eia.doe.gov/cabs/iraq/NaturalGas.html">http://www.eia.doe.gov/cabs/iraq/NaturalGas.html</a>.

Van Aartsen, J. (2009). Activity Report September 2007-February 2009 Project of European Interest No NG3. Brussels, 4 February 2009.

Vanhoonacker, S., and Reslow, N. (2010), 'The European External Action Service: Living Forwards by Understanding Backwards', *European Foreign Affairs Review 15*(1), pp. 1-18.

Vermeulen, B. (2009), 'Pijpleiding Nabucco blijft leeg ondanks politieke wil', *NRC Handelsblad*, 13 July 2009. Available at: <a href="http://www.nrc.nl/economie/article2299086.ece/Pijpleiding Nabucco blijft leeg ondanks politie">http://www.nrc.nl/economie/article2299086.ece/Pijpleiding Nabucco blijft leeg ondanks politie ke wil.</a>

Van der Meulen, E.F. (2009), 'Gas Supply and EU-Russia Relations', *Europe-Asia Studies 61*(5), pp. 833-856.

Vogel, T. (2009) 'Turkey to sign up to Nabucco', European Voice, 3 July 2009. Available at: <a href="http://www.europeanvoice.com/article/2009/07/turkey-to-sign-up-to-nabucco/65411.aspx">http://www.europeanvoice.com/article/2009/07/turkey-to-sign-up-to-nabucco/65411.aspx</a>.

Wang, F., Yin, H., and Li, S. (2009), 'China's renewable energy policy: Commitments and challenges', *Energy Policy* 38(4), pp. 1872-1878.

Wang Q., and Chen, Y. (2010), 'Barriers and opportunities of using the clean development mechanism to advance renewable energy development in China', *Renewable and Sustainable Energy Review 14*(7), pp. 1989-1998.

Wang, Q. (2009), 'Effective policies for renewable energy – the example of China's wind power – lessons for China's photovoltaic power', *Renewable and Sustainable Energy Reviews* 14(2), pp. 702-712.

Warkotsch, A. (2009), 'The European Union's Democracy Promotion Approach in Central Asia: On the Right Track?', *European Foreign Affairs Review 14*(2), pp. 249-269.

Weber, U. (2010). 'Achieving China's Non-Fossil Fuel Target: Beyond the Electricity Sector'. Available at: <a href="http://dcbf.dk/Latest/From+DCBF/ca40/newsid/19804">http://dcbf.dk/Latest/From+DCBF/ca40/newsid/19804</a>.

Wegener, H. (2007), 'Central Asia: At last Europe may be getting its act together', *Europe's World Spring*2007. Available at: <a href="http://www.europesworld.eu/NewEnglish/Home\_old/Article/tabid/191/ArticleType/ArticleView/ArticleID/21108/language/en-US/Default.aspx">http://www.europesworld.eu/NewEnglish/Home\_old/Article/tabid/191/ArticleType/ArticleView/ArticleID/21108/language/en-US/Default.aspx</a>.

Wood, S. (2009a), 'Energy Security, Normative Dilemmas, and Institutional Camouflage: Europe's Pragmatism', *Politics and Policy 37*(3), pp. 611-635.

Wood, S. (2009b), 'The European Union: A Normative or Normal Power?', *European Foreign Affairs Review* 14, pp. 113-128.

WTG News, 'Is South Stream losing steam?', 9 August 2010. Available at: <a href="http://www.wtgnews.com/2010/08/is-south-stream-losing-steam/">http://www.wtgnews.com/2010/08/is-south-stream-losing-steam/</a>.

Xuetang, G. (2006), 'The Energy Security in Central Eurasia: the Geopolitical Implications to China's Energy Strategy', *China and Eurasia Forum Quarterly 4*(4), pp. 117-137.

Youngs, R. (2009), Energy Security: Europe's New Foreign Policy Challenge. (Abingdon: Routledge).

Youngs, R. (2004), 'Normative Dynamics and Strategic Interests in the EU's External Identity', *Journal of Common Market Studies 42*(2), pp. 415-435.

Zhang, X., Ruoshui, W., Molin, H., and Martinot, E. (2009), 'A study of the role played by renewable energies in China's sustainable energy supply', *Energy 35*(11), pp. 4392-4399.

Zhao, Z.Y., Zuo, J., Feng, T.T., and Zillante, G. (2010), 'International cooperation on renewable energy development in China – A critical analysis', *Renewable Energy 36*(3), pp. 1105-1110.

Zweig, D., and Jianhai, B. (2005), 'China's Global Hunt for Energy', Foreign Affairs 84(5), pp. 25-38.

## **THE AUTHORS**

Sijbren de Jong is research fellow and PhD candidate at the Leuven Centre for Global Governance Studies; Jan Wouters is Jean Monnet Chair, Professor of International Law and International Organisations, President of the Flemish Foreign Affairs Council, and Director of the Leuven Centre for Global Governance Studies.

## **EU-GRASP**

Changing Multilateralism: the EU as a Global-regional Actor in Security and Peace, or EU-GRASP in short, is an EU funded FP7 Programme. EU-GRASP aims to contribute to the analysis and articulation of the current and future role of the EU as a global actor in multilateral security governance, in a context of challenged multilateralism, where the EU aims at "effective multilateralism". This project therefore examines the notion and practice of multilateralism in order to provide the required theoretical background for assessing the linkages between the EU's current security activities with multi-polarism, international law, regional integration processes and the United Nations system.

EU-GRASP Deliverables Contact: EU-GRASP Coordination Team 72 Poterierei – B-8000 – Bruges – Belgium www.eugrasp.eu