

2 TOWARDS GLOBAL ENERGY GOVERNANCE: HOW TO PATCH THE PATCHWORK

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Abstract

Contemporary global energy relations have fundamentally changed, *inter alia*, as a result of dwindling oil and gas reserves, an increase in demand for energy from emerging economies, the need for global climate change action, the impact of renewable and alternative sources of energy, and, linked to all this, the increased politicisation and securitisation of energy.¹

The institutional architecture governing energy relations worldwide has been unable to accommodate these developments. It suffers from fundamental issues of representativeness, a low level of institutionalisation and a lack of compliance enforcement capacity. Today's institutions thus risk becoming unrepresentative and ultimately ineffective unless reform takes place.

Subsequently an analysis is made of the most influential international energy fora and institutions with a particular view to identifying their ability to effectively govern global energy relations, the role of emerging and developing countries within the current architecture, and the potential for these fora and institutions to contribute to an inclusive and effective form of global energy governance.

1. Introduction

The global market in hydrocarbons has undergone radical change in the course of the last 60 years. Today's markets are truly global in scope, with the involvement of a wide range of different actors. This situation was vastly different midway through the twentieth century when a select group of Western oil companies that held concessions in key oil-exporting countries dominated the supply chain through their internal trading schemes. The 'Seven Sisters',²

1 This development has led to what is now commonly known as 'security of supply', or the adequacy of energy supply at a reasonable price.

2 The Seven Sisters at the time consisted of Standard Oil of New Jersey (Esso), Royal Dutch Shell, Anglo-Persian Oil Company, Standard Oil Company of New York (Socony), Standard Oil of California, Gulf Oil and Texaco. Today, after a series of mergers and takeovers, only four of the original seven remain as stand-alone operating companies, namely ExxonMobil, Chevron, Shell and BP.

as they were known, held a firm grip on global oil markets. This picture fundamentally changed in the 1970s as the world bore witness to a series of oil supply disruptions instigated by non-Western supplier countries.³ The interruptions triggered an institutional response by the West in the form of the creation of the International Energy Agency (IEA) in 1974, its principal goal being to counteract disruptions to the oil market through its emergency oil-sharing mechanism (see Section 3).

The 'oil crises' of the 1970s mark a decisive turn in global energy relations as the oil exporters' drive towards nationalisation of production deprived the Seven Sisters of their grip on the world market and simultaneously disrupted the vertical integration of the industry. As a consequence, the newly created national oil companies (NOCs) were deprived of retail outlets and importing markets (Goldthau and Witte, 2010, 4; Jaffe, 2009, 79; Haghighi, 2007, 53). Basically, therefore, the origins of the global oil market as we know it today date back to the crises in the 1970s.

The end of the Cold War caused a drop in crude oil prices and sparked hopes for a global, free, transparent and open oil market bereft of national prerogatives (Van der Linde, Perlot and Hoogeveen, 2006, 5). The dissolution of the Soviet Union prompted the opening up of hitherto more reclusive oil and natural gas markets in Central Asia. Spurred by the need for reliable and affordable energy resources in Western Europe, on the one hand, and for investment in the former Soviet republics, on the other, a process was initiated that led to the European Energy Charter Declaration.⁴ The subsequent development and signing of the Energy Charter Treaty (ECT) (see Section 5) in 1994⁵ marked the first and only intergovernmental energy agreement aimed at investment protection that consists of legally binding rules, is backed up by a dispute settlement mechanism and contains detailed principles on transit (Goldthau and Witte, 2010; Haghighi, 2007, 188–9).

However, much has changed since the early 1990s as many new players have entered the 'global game' and concerns over climate change have risen to the top of the international policy agenda. Such new players include major NOCs, commodity traders and powerful intermediary companies. These developments translated into a surge in global energy demand and speculation, on the one hand, and a growing awareness of the need to adequately incorporate emerging countries within a global climate change agreement, on the other.

On a closer look, these new actors differ in terms of their impact on global energy markets. Traders can worsen price volatility and uncertainty in the market, whereas intermediary companies can serve to reduce overall transparency of transactions. That being said, the 'real impact' is generated by NOCs when taking into account factors such as the level of energy demand and the effects on

3 In 1973 the Arab members of the Organization of the Petroleum Exporting Countries (OPEC) instigated an oil embargo and curbed their exports to the United States (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 ground to a halt.

4 *Energy Charter Treaty* (and related documents), p. 209. Available at http://www.encharter.org/fileadmin/user_upload/document/EN.pdf#page=211. Accessed on 9 June 2010.

5 *Ibid.*, pp. 37–161.

climate change at a global level. The most prominent among these are the NOCs of Brazil, Russia, India and China (BRIC). Russia and Brazil have the additional impact of being major suppliers of gas (Russia) and ethanol (Brazil).

A further factor complicating international cooperation is that the BRIC countries and their NOCs seem to demonstrate a preference for a 'state-centred' approach to energy, characterised by national autonomy and control, as opposed to being anchored in multilateral governance frameworks (Van de Graaf, 2008, 39; Goldthau and Witte, 2010; Perovic, 2008; Chen and Ni, 2008; Daojing, 2006; Baumann, 2010, 85–7).

The aim here is to analyse the strength and ability of the existing international energy architecture to govern global energy relations (specifically in the hydrocarbon sector), focusing on the role of emerging and developing countries. Section 2 makes an assessment of the very notion of energy security and its implications for global energy governance. Sections 3 to 6 analyse the most influential international energy fora and institutions with a particular view to identifying their ability to effectively govern global energy relations, the role of emerging and developing countries within the current architecture, and the potential for these fora and institutions to contribute to an inclusive and effective form of global energy governance. Section 7 provides a critical appraisal of the abilities of these organisations to contribute to global energy governance and proposes recommendations for international energy cooperation.

2. Energy security

Energy security is a concept that has been increasingly translated into a policy priority, as illustrated, *inter alia*, by its inclusion in the European Security Strategy, the 2010 US National Security Strategy and the recent Russian proposal for new rules on international energy cooperation.⁶

It is difficult to provide a universal definition of energy security because it means different things to different people. The aforementioned three strategic documents are illustrative in that regard. Whereas the European Union (EU) and US frame energy security primarily as a response to an unwelcome dependence on external suppliers,⁷ Russia, on the other hand, sees energy security in terms of unconditional state sovereignty over natural

6 Council of the European Union, *A Secure Europe in a Better World: European Security Strategy*, Brussels, 12 December 2003; *National Security Strategy*, Washington: The White House, May 2010; President of Russia, *A Conceptual Approach to the New Legal Framework for Energy Cooperation (Goals and Principles)*, President of Russia, 21 April 2009. Available at <http://eng.kremlin.ru/text/docs/2009/04/215305.shtml>. Accessed on 10 March 2010.

7 The 2003 European Security Strategy reads: 'Energy is a special concern for Europe. Europe is the world's largest importer of oil and gas. Imports account for about 50 per cent of energy consumption today. This will rise to 70 per cent in 2030. Most energy imports come from the Gulf, Russia and North Africa.' See Council of the European Union, *supra* note 6, p. 3. The 2008 report frames energy security in a similar fashion but gives the issue a more central position within the document, illustrative of its rising importance. See Council of the European Union, *Report on the Implementation of the European Security Strategy*, Council Doc. S407/08, Brussels, 11 December 2008. The 2010 US National Security Strategy reads: 'We must transform the way that we use energy, diversifying supplies, investing in innovation and deploying clean energy technologies. By doing so, we will enhance energy security, create jobs and fight climate change.' See *National Security Strategy*, May 2010, p. 10.

resources, reformed transit dispute mechanisms and a guarantee that access to international energy markets is non-discriminatory and competitive.⁸

Next to these differing interpretations between producers and consumers, the meanings attached to energy security are further contested depending on whether a country in question is an exporting, importing or transit state. Furthermore, the way in which a country defines energy security to a large extent hinges on its own 'energy situation', that is the composition of its national energy mix and the extent of dependency on particular suppliers.

2.1. Security of supply

A commonly used term when speaking of energy security is what is known as 'security of supply' (Haghighi, 2007, 14). Energy security in this regard is more about access to sufficient amounts of energy, the affordability thereof and the protection against supply interruptions (Fuerth, 2005, 411 and 413; Yergin, 2006, 70). Some authors are in favour of a more stringent interpretation of 'security', emphasising that energy security should not only be about reliable access to supplies but should also be about protecting its vital infrastructure against external threats, both domestically and internationally (Kalicki and Goldwyn, 2005, 2; Koknar, 2009; Nincic, 2009; Yergin, 2006).⁹

It is clear, however, that such views on energy security primarily originate from a consumer perspective. A supplier state would likely be more concerned about sustained demand and price stability so that its national budget can count on a reliable flow of revenues (Baumann, 2010, 88; Yergin, 2006, 71). In this regard one should not neglect the pressures on exporting nations to comply with domestic supply obligations in light of their own economic expansion and population growth (Luft and Korin, 2009, 6). Similarly, a transit state's primary energy security concerns are more likely to revolve around ensuring a reliable flow of revenues, either from transit fees or through a percentage of gas shipped as a payment in kind. The importance of revenues generated from transit is well reflected in the frequently troublesome negotiations between Belarus, Ukraine and Russia over transit fees for natural gas destined for Europe.¹⁰ A significant part of a transit state's energy security policy is therefore aimed

8 See President of Russia, *supra* note 6. On this proposal see also Bochkarev, A. (2010) 'Redrawing the Global Energy Blueprint', *European Voice*, 12 February 2010. Available at <http://www.europeanvoice.com/article/2010/02/redrawing-the-global-energy-blueprint/67151.aspx>. Accessed on 16 June 2010. See also Belyi, A. (2009) *A Russian Perspective on the Energy Charter Treaty*, Real Instituto Elcano. Available at http://www.kent.ac.uk/politics/carc/research/eag/papers/ARI98-2009_Belyi-Russian-Perspective_Energy_Charter_Treaty.pdf. Accessed on 16 June 2010.

9 At the time of writing a Japanese oil tanker carrying over 270,000 tonnes of oil suffered damage due to an explosion in the Strait of Hormuz. Speculation ensued as to whether the explosion was caused by an attack or an accident. In any event the incident again focuses attention on the 'bottleneck' nature of the Strait of Hormuz through which millions of barrels of oil pass each day. See CNN, *Officials: Explosion Damages Japanese Tanker in Strait of Hormuz*, 28 July 2010. Available at <http://edition.cnn.com/2010/WORLD/asiapcf/07/28/uae.tanker.explosion/index.html?iref=allsearch#fbid=UcvafNPBNjZ>. Accessed on 29 July 2010. Others doubt the ability of countries such as Iran to pose a credible threat to the Strait of Hormuz. See Gholz, E. (2009) 'The Strait Dope: Why Iran Can't Cut Off Your Oil', *Foreign Policy*. Available at http://www.foreignpolicy.com/articles/2009/08/12/the_strait_dope. Accessed on 29 July 2010.

10 The negotiations at the end of 2008 did not result in an agreement, prompting Russia to cut off the gas. A detailed discussion of these negotiations is outside the purview of this chapter, however. For a detailed analysis of the dispute and the ability of the EU to handle future supply disruptions see De Jong, Wouters and Sterkx (2010). At the time of writing another crisis broke out, this time between Belarus and Russia as a result of outstanding payments on the part of Belarus. See EUobserver, *Russia to Cut Supplies to Belarus*, 21 June 2010. Available at <http://euobserver.com/9/30328>. Accessed

at the consolidation, enhancement and utilisation of its strategic geographical position in between suppliers and consumers.

Such interpretations set aside, energy security also necessarily possesses a wider dimension given the finite nature of fossil fuels. This prompts consumer, producer and transit states' alike to search for alternative sources of energy.¹¹ Moreover, recent events involving the oil spill in the Gulf of Mexico¹² have illustrated that energy security revolves as much around acquiring stable access to sources of fuel as around its careful and safe handling.

2.2. Securing supply?

The aforementioned interpretations of energy security notwithstanding, one has to note that a large portion of the world population lives on less than USD 1.25 a day¹³ without adequate and reliable access to electricity. With traditional wood, crop residues and animal waste as primary sources of energy, the Least Developed Countries (LDCs) are likely to frame energy security in terms of the availability of clean water and energy for cooking, heating, lighting and public transportation (Luft and Korin, 2009, 5). Moreover, many energy-exporting countries are developing nations and, given their often strong dependence on a single income from the sale of energy, they can be classified as so-called 'rentier states'.¹⁴ Often these states have struggled for decades to overcome their exposure to balance of payments deficits as a result of changes in energy prices (Haghighi, 2007, 381; Yergin, 2006, 71).

In the past some authors have claimed that, where an economy is more diversified and developed, the chances of there being security, prosperity and stability are much higher (Lipset, 1959).¹⁵ Taking into account the fact that an important part of consumer nations' energy security policy is directed at improving the climate for foreign investors in supplier countries, an integral part of such policy should also be the strengthening of essential social and physical infrastructures that allow for such investment – the building blocks of a developed and diversified economy (Haghighi, 2007, 386–7). In other

on 21 June 2010. See also EurActiv, *Russia Orders Belarus Gas Supplies Cut*, 21 June 2010. Available at <http://www.euractiv.com/en/energy/russia-orders-belarus-gas-supplies-cut-news-495439>. Accessed on 22 June 2010. The dispute sent bilateral diplomacy roaring with a quick response on both the Russian and the EU side, careful not to harm ongoing deliveries to the European market. See EUobserver, *Russia Launches EU Gas Communications Blitz*, 21 July 2010. Available at <http://euobserver.com/9/30332>. Accessed on 22 July 2010.

11 In recent years the debate about the finite nature of fossil fuels has been dominated by the 'Peak Oil' theory (Deffeys, 2001; Goodstein, 2004; Minqi, 2007; Roberts, 2005; Ruppert, 2009; Yergin, 2008).

12 On 20 April 2010 an explosion aboard the drilling rig 'Deepwater Horizon' in the Gulf of Mexico caused the largest oil spill in the history of the industry. The rig was at the time under lease by BP.

13 For example, according to the World Bank, 50 per cent of people in Sub-Saharan Africa lived below USD 1.25 a day in the first quarter of 2009. See World Bank, *Regional Brief: Sub-Saharan Africa*. Available at <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/0,,menuPK:258652~pagePK:146732~piPK:146828~theSitePK:258644,00.html>. Accessed on 1 September 2010.

14 The concept of the 'rentier state' is often referred to in connection with the so-called 'resource curse' thesis, or the phenomenon whereby states that are well endowed with natural resources tend to have less economic growth and are generally less developed than countries that possess far fewer of such resources (Collier, 2003; Le Billon, 2006; Friedman, 2006; Karl, 1997).

15 Comanescu, L. (1999) *The Link Between Economics, Security and Stability: The Case of South-Eastern Europe*, p. 36. Available at <http://www.nato.int/docu/colloq/1999/pdf/036-042.pdf>. Accessed on 16 June 2010.

words, when speaking about broader energy security policy, the links with development cooperation should not be overlooked.

2.3. Competition or cooperation?

Overall, the debate about energy security is often viewed as one of competition between states, where one state's security comes at the expense of another. Much of this belief is fuelled by consumer countries' attempts to frame energy security in terms of a heightened vulnerability *vis-à-vis* supplier states.¹⁶ This causes the country in question to be portrayed as if it were at the mercy of the opportunistic behaviour of suppliers. The continued haggling between Belarus, Ukraine and Russia seems to go some way in strengthening this argument – not least from a European point of view. However, such reasoning ignores important interdependencies between supplier and consumer nations in terms of supply and demand. More importantly, it begets the institutional dimension that underpins the relations between suppliers and consumers. One should not forget that market rules and international institutions increasingly structure global energy relations (Goldthau and Witte, 2010, 2).¹⁷

Concerted action aiming to influence global energy relations is too often organised from either a consumer or a producer point of view alone. This has resulted in a fragmented contemporary global energy landscape that contains a patchwork of institutions, organisations and fora, where it proves difficult to unite both sides. Add the rise of the BRIC countries, plus the energy concerns of developing nations, and the picture becomes even more complex.

The question therefore is: to what extent can the existing international architecture contribute to a move away from zero-sum *competition* to positive-sum global energy *cooperation*? To answer that question, the following four sections analyse a selection of key actors within the global energy debate for their ability to effectively govern international energy relations. These include the more institutionalised organisations such as the IEA and the ECT, on the one hand, and the international fora characterised by less stringent cooperation such as the International Energy Forum (IEF), the Group of Eight (G-8), and the Group of 20 (G-20), on the other. While this selection is not exhaustive, it represents organisations and fora that stand out in terms of their impact *on* and prospects *for* global energy governance.

3. The International Energy Agency

The IEA is an intergovernmental organisation attached to the Organisation for Economic Co-operation and Development (OECD) that was founded in the

16 Essentially, such attempts by policy-makers can be labelled 'securitisation' moves. Energy issues are framed as extremely urgent, that is as security threats, and become policy priorities that should be dealt with immediately (and by extraordinary means). It is important to stress that this is (i) a subjective process, since it is the choice of political actors – by means of security discourse – to move policy issues into the realm of security, as well as (ii) an inter-subjective process, since the (successful) securitisation of a policy issue depends on the approval of society at large (Buzan, Waever and De Wilde, 1998, pp. 21–5).

17 Al-Faisal, Prince T. (2009) 'Don't Be Crude: Why Barack Obama's Energy Dependence Talk is Just Demagoguery', *Foreign Policy*, p. 2. Available at http://www.foreignpolicy.com/articles/2009/08/17/dont_be_crude. Accessed on 29 June 2010.

wake of the 1973–74 oil crisis. The IEA's initial role was to 'repair' severe disruptions in the global oil market through coordinated release of strategic oil stocks.¹⁸ The IEA has since broadened its scope¹⁹ to include the promotion of energy security, environmental protection, economic growth through stable energy supplies and free markets, and global engagement with non-member countries through its Global Energy Dialogue.²⁰

The IEA regularly issues publications and statistical analyses and is widely recognised as an authority on energy market projections, thus functioning as a kind of agenda-setter for governments and the private energy sector, reaching beyond IEA member countries alone (Florini and Sovacool, 2009; Baumann, 2010, 80). In 1993 the IEA established what is known as its Global Energy Dialogue, which aims to reach out to non-member countries. China, India and Russia have been given particular attention and bilateral agreements with each of them have been concluded (Bamberger, 2004). In addition, the IEA has engaged non-member countries in its 'Implementing Agreements', which are operational networks that allow interested member and non-member governments to pool resources and to stimulate the research of particular energy technologies (Van de Graaf and Lesage, 2009, 299).

Its broader scope notwithstanding, the core of the IEA still revolves around the emergency oil-sharing mechanism, which obliges IEA member countries to hold oil stocks equivalent to at least 90 days of net oil imports.²¹ So far a coordinated release of oil stocks has occurred only twice. The first instance was shortly before the outbreak of the Gulf War in 1991 to dampen fears over shortages in the market. The second time was in 2005 in the aftermath of the hurricanes in the Gulf of Mexico that had destroyed much of the oil infrastructure in the region.²²

Since its inception the IEA has seen a steady rise in its number of members, reaching its current total of 28 member countries in 2008.²³ At the time of the IEA's creation the combined share of its members constituted the bulk of global oil consumption, thus providing the organisation with a sufficient counterweight to a supply interruption. With that balance having since shifted more towards the BRIC countries, the IEA's ability to respond to market distortions has come under stress. This shift has profound consequences for the effectiveness of the IEA's oil-sharing mechanism because the decline in the relative share of world oil consumption entails that, in the event that a coordinated release of oil stocks is deemed necessary, its effect shall be undermined as the IEA's share of world oil consumption has fallen relative to other major players, notably China and India (Bamberger, 2004, 154–5; Florini and Sovacool, 2009; Kohl, 2010, 204; Kalicki, and Goldwyn, 2005; Colgan, 2009, 7; Harks, 2010, 249; Yergin, 2006, 75).

18 *Decision of the Council of the Organisation for Economic Co-operation and Development Establishing an International Energy Agency of the Organisation*, 15 November 1974. Available at <http://www.iea.org/about/docs/apendx4.pdf>. Accessed on 29 June 2010.

19 *About the IEA*. Available at <http://www.iea.org/about/docs/iea2010.pdf>. Accessed on 19 July 2010.

20 *Agreement on an International Energy Program* (as amended on 25 September 2008). Available at <http://www.iea.org/about/docs/IEP.PDF>. Accessed on 29 June 2010.

21 *About IEA Emergency Response*, p. 3. Available at http://www.iea.org/textbase/nppdf/free/response_system.pdf. Accessed on 19 July 2010.

22 *Ibid.*, p. 11.

23 Currently all OECD countries are members of the IEA, except for Mexico and Iceland.

Changing this situation is not a clear-cut affair. First, membership of the IEA is limited to OECD countries, which means that, in order to join the IEA, BRIC countries must first join the OECD – negotiations that are likely to be cumbersome, given the requirement for applicants to conform to the principles of representative democracy and a free market economy.²⁴ Second, the requirement to hold oil stocks equivalent to 90 days of net imports is an expensive endeavour and BRIC countries China and India fall well short of this obligation (Kohl, 2010, 205–6; Van de Graaf, 2008, 45; Van de Graaf and Lesage, 2009, 299; Colgan, 2009, 11; Harks, 2010, 248). Third, it is not necessarily in the interest of the said countries to join the IEA as the current system allows them to enjoy the benefits without necessarily making the required investments (Van de Graaf, 2008, 46; Van de Graaf and Lesage, 2009, 299; Colgan, 2009, 10; Florini and Sovacool, 2009). Finally, the vote weight allocation system within the IEA Governing Board is partially based on the oil consumption shares of 1973 and is thus disadvantageous to the BRIC countries (Van de Graaf 2008, 46; Van de Graaf and Lesage, 2009, 306).

In order for the emergency oil-sharing mechanism to remain effective, reform is needed. But this is not without implications for the vested powers within the IEA as new members are likely to seek voting rights in line with their respective shares of world oil consumption (Colgan, 2009, 10; Van de Graaf, 2008).

However, the IEA Executive Director has repeatedly recognised the need to ultimately incorporate China and India as members. Moreover, US Secretary of State Hillary Clinton suggested during her confirmation hearing at the Senate Foreign Relations Committee in January 2009 that the IEA should start investigating ways for Chinese and Indian membership and that the State Department would support its efforts (Florini and Sovacool, 2009; Colgan, 2009, 10).

In spite of these hopeful signs, redistributing the votes would ultimately boil down to a zero-sum game, where one country's gain constitutes another country's loss. Powerful states benefit from the existing arrangements and there thus seems little incentive for them to change the current system (Colgan, 2009, 8). Therefore, such reform seems unlikely for the moment, which means alternative paths should be sought to achieve results. Other fora such as the IEF, the G-8 and the G-20 can have a role to play in this regard. The following section discusses the role of the G-8 and the G-20 and their partnership with the IEA in more detail, whereas Section 6 focuses on the IEF.

4. The G-8 and the G-20

The G-8 represents a forum which allows for informal dialogue and discussion between heads of state and government of the world's major industrial democracies on a broad range of current international economic and political

²⁴ *About OECD*. Available at http://www.oecd.org/pages/0,3417,en_36734052_36734103_1_1_1_1_1,00.html. Accessed on 26 July 2010.

issues. Its members are Canada, France, Germany, Italy, Japan, Russia, the United Kingdom (UK), and the US. The EU is a full participant in the G-8 summits, but it does not chair or host them. Early summits of the G-8 devoted relatively little attention to energy issues, but this changed significantly after the 2005 Gleneagles summit, chaired by then UK Prime Minister Tony Blair.

The Gleneagles summit made numerous strong commitments to climate change, clean energy and sustainable development and for the first time explicitly recognised human-induced climate change (Florini and Sovacool, 2009; Lesage, Van de Graaf and Westphal, 2009, 265). According to Kirton and Kokotsis, there were a total of 63 commitment statements in the climate change and energy area listed in the Gleneagles Plan of Action²⁵ aimed at the reduction of greenhouse gas (GHG) and the promotion of a low-carbon economy that was released after the summit.²⁶ The Gleneagles summit marked a decisive moment for cooperation between the G-8 and other institutions. The IEA was given a major role as adviser on the implementation of the Plan of Action and asked to look into alternative energy scenarios, whereas the World Bank was requested to develop a new Clean Energy for Development Investment Framework.²⁷

The IEA published its study in 2008, calling for, *inter alia*: the urgent pooling and implementation of the energy efficiency targets and energy technology programmes of the world's major economies; the improvement of energy efficiency statistics to allow future policies to advance on the basis of sound data and analysis; the promotion of commonality and ambition in measures and standards to accelerate the efficiency of energy-using appliances and equipment; the enhancement of global coal power stations' efficiency; the international coordination and deployment of carbon capture and storage initiatives; and the expansion of both the scope and scale of government and private-sector research and development (R&D) efforts to bring forward low-carbon transport options (IEA, 2008, 6–7).

The World Bank's Investment Framework for Clean Energy and Development was set up in 2007 and constitutes a comprehensive analysis of existing and possible public and private financing mechanisms. It aims to increase access to energy in developing countries, particularly Sub-Saharan Africa, to accelerate the transition to a low-carbon economy and to adapt to climate variability and change (Lesage, Van de Graaf and Westphal, 2009, 271; Kohl, 2010, 204; World Bank, 2007a,b, 8–22). The establishment of the Framework was followed by the launch of its associated Action Plan in April 2007, which was expected to provide total energy support in excess of USD 10 billion for the three-year period since the Framework's inception, up from USD 7 billion in the preceding three years (World Bank, 2007b, 1). After the Framework's inception the World Bank achieved a 40 per cent share of its total energy lending for

25 G-8 (2005) *Gleneagles Plan of Action: Climate Change, Clean Energy and Sustainable Development*. Available at http://www.mofa.go.jp/policy/economy/summit/2005/ccc_a.pdf. Accessed on 30 June 2010.

26 Kirton, J. and E. Kokotsis (2005) *Gleneagles Performance: Number of Documents, Words and Commitments*. Available at <http://www.g7.utoronto.ca/evaluations/2005gleneagles/2005commitments.html>. Accessed on 29 July 2010.

27 G-8 (2005) *The Gleneagles Communiqué* (points 11a and 11b). Available at <http://www.g7.utoronto.ca/summit/2005gleneagles/communique.pdf>. Accessed on 29 July 2010.

renewable energy and energy efficiency in the period 2007–09²⁸ and saw its lending activity in energy and mining increase to USD 6,267.4 million, up from USD 1,784 million in fiscal year 2007 (World Bank, 2009, 57). However, as impressive as these results may sound, a closer look at the World Bank's renewable portfolio shows that for fiscal year 2009 more than half relates to fossil energy efficiency and the majority of its renewable energy programmes are funded by specific donor funds and are therefore not a structural part of World Bank energy lending.²⁹

The 2006 G-8 summit in St Petersburg that followed gave less pronounced attention to climate change, clean energy and sustainable development and focused more specifically on energy security – most likely inspired by the gas dispute between Russia and Ukraine in January 2006. The summit released a comprehensive statement which made reference to the so-called 'Global Energy Security Principles'.³⁰ The summit also put forward the St Petersburg Plan of Action on Global Energy Security, calling for, *inter alia*: increased transparency, predictability and stability in global energy markets; the improvement of the investment climate in the energy sector; the enhancement of energy efficiency and energy saving; the diversification of countries' energy mix; ensuring the physical security of critical energy infrastructure; the reduction of energy poverty; and addressing climate change and sustainable development.³¹

The focus on sustainable development, clean energy and climate change was prioritised again a year later as, prior to the 2007 summit in Heiligendamm, the European Commission had put forward a proposal to create an international framework agreement on energy efficiency which contained quantitative targets.³² However, this proposal was considered too far-reaching by the participants that were in favour of a looser form of cooperation. This culminated in the creation of the International Partnership for Energy Efficiency Cooperation (IPEEC) which was formally set up a year later.³³ The goals of the IPEEC are to facilitate those actions that yield high energy efficiency gains, to compile best practices, to exchange information, to promote joint R&D and to develop public–private partnerships. IPEEC members choose to take action in the areas of their interest on a voluntary basis.³⁴

28 Government of the Netherlands (2010) *Position Paper of the Netherlands on Promoting World Bank Investments in Renewable Energy*, The Hague, July 2010, p. 1. Available at http://siteresources.worldbank.org/EXTESC/Resources/NL_Position_Paper_WB_RE_2010_July.pdf. Accessed on 1 September 2010.

29 Government of the Netherlands (2010), *supra* note 28.

30 The Principles mention, *inter alia*, the importance of transparent and competitive markets and the need for investment in all stages of the energy supply chain, safeguarded by an effective legal and regulatory framework. The document further calls for enhanced dialogue between stakeholders, diversification, the promotion of energy saving and efficiency measures both nationally and at international level, the environmentally sound development and use of energy, the deployment and transfer of clean energy technologies to tackle climate change, the safeguarding of critical infrastructure, and the addressing of the energy challenges of the poorest populations in developing countries.

31 G-8 (2006) *St Petersburg Plan of Action on Global Energy Security*, 16 July 2006. Available at <http://en.g8russia.ru/docs/11.html>. Accessed on 30 July 2010.

32 European Commission (2006) *Communication from the Commission on an Action Plan for Energy Efficiency: Raising the Potential*, COM(2006) 545 final of 19 October 2006, p. 16.

33 *Declaration of the International Partnership for Energy Efficiency Cooperation*. Available at <http://www.g7.utoronto.ca/energy/080608ipeec.pdf>. Accessed on 1 July 2010.

34 *Ibid.* The IPEEC's members include the energy ministers from the G-8 and those from China, India and Korea. The EU joined in January 2010. See IEA, *EU Joins International Partnership for Energy Efficiency Cooperation*. Available at <http://www.iea.org/journalists/latestinformation.asp?offset=100>. Accessed on 16 September 2010.

The 2007 summit also established what became known as the ‘Heiligendamm Process’. This constituted an effort to intensify the dialogue with China, India, Brazil, Mexico and South Africa on several topics, including energy efficiency over a period of two years from 2007 to 2009 (Lesage, Van de Graaf and Westphal, 2009, 264; 2010).³⁵ The Process was organised around four working groups dealing with investment promotion and corporate social responsibility, development and Africa, innovation and intellectual property rights, and energy efficiency (Lesage, Van de Graaf and Westphal, 2010).

In 2008 the G-8 endorsed the cutting of GHG emissions by 50 per cent by 2050.³⁶ Prior to the summit the IEA had put together 25 recommendations on energy efficiency, which were promised implementation by the G-8.³⁷ Equally, the IEA was asked to develop a roadmap for innovative technologies and to cooperate on carbon capture and storage.³⁸ One month earlier a special energy ministers’ meeting had been held in Aomori (Japan), which formally established the IPEEC.³⁹ With its secretariat hosted by the IEA, the IPEEC represents a world first whereby the major powers have agreed to establish cooperation on energy efficiency through a coherent policy framework (Lesage, Van de Graaf and Westphal, 2009, 266).

Since its inception IPEEC members have contributed over USD 1.6 million in funding in support of six initiatives that support energy efficiency. These initiatives include: efforts to help share best practices for energy efficiency through on-site training workshops and online materials; the provision of intelligent building solutions through connecting numerous building efficiency organisations; research into how energy efficiency efforts can better leverage financing from domestic sources such as commercial banks; the creation of a forum for policy-makers and industry leaders to share best practices for managing and reporting industrial energy consumption; the acceleration of efforts to develop and implement methods for energy efficiency indicators that measure and report energy performance; and a global initiative to collaborate on test methods to measure appliance efficiency and coordinate incentives for manufacturers to provide more efficient equipment and appliances.⁴⁰

Notwithstanding the positive impetus that these projects generate, one cannot help but feel that with USD 1.6 million they are hopelessly underfunded with respect to their aims. Furthermore, throughout its existence the G-8 has been roundly criticised for its exclusive character and therefore largely

35 *Joint Statement by the German G-8 Presidency and the Heads of State and/or Government of Brazil, China, India, Mexico and South Africa*, on the occasion of the G-8 Summit in Heiligendamm, Germany, 8 June 2007, p. 3. Available at http://www.g-8.de/Content/EN/Artikel/___g8-summit/anlagen/o5-erklaerung-en,templateId=raw,property=publicationFile.pdf/o5-erklaerung-en.pdf. Accessed on 1 July 2010.

36 G-8 *Hokkaido Toyako Summit Leaders Declaration*, Hokkaido Toyako, 8 July 2008, point 23. Available at http://www.mofa.go.jp/policy/economy/summit/2008/doc/doc080714__en.html. Accessed on 1 July 2010.

37 *Ibid.*, point 26. These recommendations pertained, *inter alia*, to promoting energy efficiency in buildings, appliances, lighting, transport, industry, power utilities and cross-sectoral areas.

38 *Ibid.*, point 31.

39 *Declaration of the International Partnership for Energy Efficiency Cooperation*, 8 June 2008. Available at http://ec.europa.eu/dgs/energy_transport/international/int/g8/doc/2008_06_07_ipeec_declaration_en.pdf. Accessed on 16 July 2009.

40 Each of these initiatives is led by a specific member of the IPEEC. For more information see US Department of Energy, *Global Leaders Meet to Collaborate on Energy Efficiency Goals*, 11 May 2010. Available at <http://www.energy.gov/news/8962.htm>. Accessed on 16 September 2010.

illegitimate nature when it comes to global governance (Florini and Sovacool, 2009; Cooper, 2010, 753–4; Payne, 2010, 729, 733 and 738).

In contrast, the G-20 stands out in having a far broader membership that spans the full range of major (emerging) economies worldwide. Established in the wake of the 1999 Asian financial crisis, in an attempt to stabilise global financial markets, the G-20 saw its role as an economic forum strengthened during the recent financial crisis. With respect to energy, however, the G-20 is a relatively new actor on the stage. The 2009 Pittsburgh summit reiterated earlier G-8 commitments to the promotion of renewable, clean and affordable energy for developing countries and LDCs and included a specific paragraph on energy security and climate change which reconfirmed the commitment to the St Petersburg Global Energy Security Principles.⁴¹

The Toronto summit of June 2010 reaffirmed the G-20's commitment to the Copenhagen Accord on climate change and welcomed the report prepared by the IEA, OPEC, OECD and the World Bank on energy subsidies.⁴² In this regard, G-20 members heralded the work done by finance and energy ministers on delivering nationally appropriate strategies and timeframes, for the rationalisation and for the medium-term phasing out of inefficient fossil fuel subsidies that encourage wasteful consumption, while taking into account vulnerable groups and their development needs.⁴³ Given this context, India announced that it would deregulate retail petrol prices and raise the prices for diesel, kerosene and liquid petroleum gases, with a further commitment to phase out the diesel subsidy over time. Similarly, in Mexico the government began phasing out motor fuel subsidies while conducting a household-level census of fuel consumption to allow for targeted compensation of low-income households.⁴⁴ In order to thoroughly phase out these energy subsidies, however, some call for more stringent action in the form of country-specific research and data analysis to identify what subsidies governments are providing, their scale, impacts and the measures necessary to overcome challenges to reform.⁴⁵

Overall, the references and acknowledgements to agreements reached at earlier G-8 summits seem to indicate that there is some policy continuity within the G-20. Nevertheless, at this stage it is difficult to say how the G-20's role in energy governance will materialise because much depends on the interplay between the major powers. When compared, the G-8 has a much stronger and longer-standing profile in energy than does the G-20, but its results are somewhat mixed due to a lack of concrete targets, the non-binding

41 *G-20 Leaders' Statement, The Pittsburgh Summit*, 24–25 September 2009, points 23–25 of the Preamble and points 28–33 on Energy Security and Climate Change. Available at http://www.g20.org/Documents/pittsburgh_summit_leaders_statement_250909.pdf. Accessed on 1 July 2010.

42 *Analysis of the Scope of Energy Subsidies and Suggestions for the G-20 Initiative, 2010*. IEA, OPEC, OECD, World Bank Joint Report, prepared for submission to the G-20 Summit Meeting, Toronto (Canada), 26–27 June 2010. Available at http://siteresources.worldbank.org/EXTENERGY2/Resources/G20_Subsidy_Joint_Report.pdf. Accessed on 1 September 2010.

43 *G-20 (2010) Toronto Summit Declaration*, 26–27 June 2010, points 41–42. Available at: http://www.g20.org/Documents/g20_declaration_en.pdf. Accessed on 30 July 2010.

44 The White House, *The G-20 Summit in Toronto: Acting on Our Global Energy and Climate Change Challenges*, 27 June 2010. Available at <http://www.whitehouse.gov/the-press-office/g-20-summit-toronto-acting-our-global-energy-and-climate-change-challenges>. Accessed on 16 September 2010.

45 The Global Subsidies Initiative Policy Brief, June 2010. *Delivering on the G-20 Commitment to Reform Fossil-Fuel Subsidies: Essential Outcomes from Toronto*. Available at http://www.globalsubsidies.org/files/assets/ffs_pb6_delivering.pdf. Accessed on 16 September 2010.

nature of its commitments and overall problems with compliance (Lesage, Van de Graaf and Westphal, 2010). This being said, however, the fact that the G-8's commitments are non-binding should not necessarily be qualified as a problem *per se*, given that governments are more easily willing to commit to more ambitious courses of action through non-binding agreements.

In fact, the G-8's 'loose' set-up allows the organisation to act as a kind of 'policy entrepreneur', able to foster high-level political engagement among its members, including towards the countries involved in the Heiligendamm Process. The G-8 is small enough to provide space for effective discussions, yet large enough to include powerful leaders that can exert significant influence on global problems through coordination of their national policies. Moreover, because meetings take place at the levels of heads of state and government, the proceedings are not hampered by an internal bureaucracy that would raise questions of accountability (Florini and Sovacool, 2009). The frequency of G-8 meetings also enables it to keep a close eye on the development of its previous agreements and commitments and capitalise on the engagement of its members. Cooperation with other organisations such as the IEA is useful in this regard as it provides the working group with quick expertise that not only aids the decision-making process but could also increase the engagement on the part of the Heiligendamm countries (Lesage, Van de Graaf and Westphal, 2009, 269; Florini and Sovacool, 2009).

In the long term, however, engagement of the Heiligendamm countries in the framework of the G-8 ultimately falls short of their full integration. Therefore, in order for the organisations' legitimacy to be upheld, a gradual transfer of the G-8's expertise in global energy matters to the more inclusive G-20 level is the preferred course of action in the long term.

5. The Energy Charter

The ECT and the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects were signed in December 1994 and entered into force in April 1998.⁴⁶ The Energy Charter represents a legally binding multilateral energy 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 to mitigate risks associated with energy-related investment and trade. The Energy Charter is the only multilateral investment treaty in the field of energy that has legally binding rules and is backed up by a dispute settlement mechanism. The ECT provides extensive protection, arguably the most important of which is that against expropriation through, for example, nationalisation of industries – a feat not uncommon in the energy world.⁴⁷

The ECT is open for signature to all countries; producer, consumer and transit states, industrialised, emerging and developing nations alike can all become parties to it. Indeed, countries that have already signed include

46 Energy Charter Treaty (and related documents). Available at http://www.encharter.org/fileadmin/user_upload/document/EN.pdf. Accessed on 29 June 2010.

47 Art. 13, ECT.

important Central Asian producer and transit states such as Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan (Selivanova, 2010, 62). Issues regarding the effectiveness of the ECT's dispute resolution mechanism and the representativeness of its member base remain, however.

Its 'open character' notwithstanding, the ECT is primarily a European creation, which is to some extent reflected by the emphasis placed on issues that could be seen as primarily important to consumer nations, which include, apart from the aforementioned protection against expropriation, a strong emphasis on non-discriminatory practices concerning investment by other contracting parties and ensuring that transit is free from interruptions. ECT members are obliged to refrain from discriminatory practices concerning foreign investments by other contracting parties to the ECT.⁴⁸ This provision, however, only grants such protection to investments already made. In other words, regarding the process of making investments, there is only a 'best endeavours' requirement to grant non-discriminatory treatment (Selivanova, 2010, 64; Haghighi, 2007, 195).⁴⁹ The ECT prescribes detailed rules on the subject of transit, obliging its members to take the necessary measures to facilitate the transit of energy, consistent with the principle of uninterrupted transit, and to secure established energy flows.⁵⁰ Pursuant to the said principle, ECT members are under an obligation not to let transit be interrupted as a result of a conflict with another member.⁵¹

The ECT's Transit Protocol,⁵² which is currently still under review, would significantly boost the regulatory oversight of energy transit within Eurasia. However, transit is a delicate issue between producer and consumer countries, causing negotiations to be long and inconclusive. In recent years Russia, one of the Protocol's main critics, has increasingly voiced its concerns over the protection of producer countries' interests under the ECT in spite of the recognition of sovereignty over energy resources,⁵³ ultimately leading to Russia's refusal to ratify the ECT (De Jong, Wouters and Sterkx, 2010). The ECT was, however, applied provisionally, until on 20 August 2009 Russia officially stated that it intended to terminate provisional application.⁵⁴ Russia's refusal stemmed mainly from opposition to opening up its network to lower-cost gas from Central Asian countries, a lack of access to the European market and

48 Art. 10(1), ECT.

49 Art. 10(2), ECT. Negotiations on a supplementary treaty concerning protection at the pre-investment stage were initiated in 1995, which ultimately led to the formulation of a text for such an agreement. In the end political issues within the Charter prevented the conclusion of the agreement (Selivanova, 2010, p. 64; Haghighi, 2007, p. 195).

50 Art. 7(1), ECT.

51 *Ibid.* Art. 7(5), ECT, obliges ECT members to 'secure established flows of energy materials and products to, from or between the areas of other contracting parties'. A core element of this principle is to prevent non-transit-related issues (commercial issues) from having a negative impact on transit volumes.

52 *Final Act of the Energy Charter Conference with Respect to the Energy Charter Protocol on Transit (Draft) of 31 October 2003*. Available at http://www.encharter.org/fileadmin/user_upload/document/CC251.pdf. Accessed on 22 July 2010.

53 The Treaty states that the contracting parties 'recognise State sovereignty and sovereign rights over energy resources. They reaffirm that these must be exercised in accordance with and subject to the rules of international law.' See Art. 18(1), ECT. Art. 18(4) ECT nuances this provision slightly by stating that 'the contracting parties undertake to facilitate access to energy resources, *inter alia*, by allocating in a non-discriminatory manner on the basis of published criteria authorisations, licenses, concessions and contracts to prospect and explore for or to exploit or extract energy resources'.

54 The Energy Charter Secretariat was notified on 20 August 2009 of Russia's desire to terminate provisional application. See <http://www.encharter.org/index.php?id=414>. Accessed on 22 July 2010.

the fact that the ECT's Transit Protocol would not apply between European countries (the EU being defined as a single economic space), which Russia saw as a discriminatory practice (Haghighi, 2007, 348; Bordachev, 2003, 88; Youngs, 2009, 80–1). Doubts have since risen over the ECT's ability to quell supply interruptions, in particular after the January 2009 gas dispute between Russia and Ukraine.⁵⁵

Other concerns relate to the ECT's member base. A closer look reveals its Eurasian dominance, with virtually every European country having joined. Important transit nations such as Ukraine and Belarus,⁵⁶ as well as Turkey and several Central Asian producer and transit nations, are also parties to the ECT. What stands out, however, is that some of the world's larger consumer nations such as the US,⁵⁷ China and Canada are not members, the exceptions being Australia⁵⁸ and Japan. Nevertheless, more crucial for the functioning of the Energy Charter is the absence of most of the world's key producer nations.⁵⁹ Furthermore, with virtually no LDCs being parties to the ECT, serious concerns exist over the ability of the Energy Charter to effectively contribute to global energy governance.

Legally, the ECT has incorporated the 1979 General Agreement on Tariffs and Trade (GATT)⁶⁰ decision on developing countries, referring to what is known as the 'Enabling Clause', which addressed the role of developed countries in the economic progress of developing countries (Energy Charter Secretariat, 2001, 66). It became known as the 'permanent legal basis' for 'Special and Differential Treatment' and the continuation of GATT's Generalised System of Preferences (GSP).⁶¹ However, there are no other exceptions specifically designed to favour developing countries incorporated in the ECT. That suggests that developing countries are bound by the same rules as developed countries (Haghighi, 2007, 254–60).

Of particular relevance in this context is the often used practice of energy exporters (many of which are developing countries) to handle a system of 'dual pricing' whereby higher prices are charged for products destined for export and lower ones if meant for domestic consumption, or vice versa, the goal being to stimulate either domestic production and consumption or exports (Haghighi, 2007, 274). It is argued that such pricing is a 'hidden subsidy'. Nevertheless, Art. 27(2)(b) of the relevant WTO agreement, while recognising the role that subsidies play in the economic development of a country, permits their use with regard to developing nations for a period of eight years from

55 For a detailed analysis of the January 2009 dispute and the efforts to resolve it by the parties concerned see De Jong, Wouters and Sterkx (2010).

56 Ratification of the Treaty is still pending in Belarus. Provisional application takes place in accordance with Art. 45, ECT, which states that even without ratification the Treaty is provisionally applicable, provided that it does not contradict existing domestic legislation.

57 For a detailed analysis of the objections of the US with respect to the rules of the ECT see Fox (1996), p. 194.

58 In Australia the Treaty is also applied provisionally, pending ratification.

59 Algeria, Egypt, Indonesia, Iran, Kuwait, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela are all observers to the ECT.

60 GATT was replaced by the current World Trade Organization (WTO) in 1995.

61 The GSP was designed in 1971 to allow developed countries to grant preferential treatment to developing countries. It is considered the key undertaking on behalf of developed countries to provide preferences for developing country access to their markets.

the date of entry into force of the WTO agreement.⁶² Moreover, if a developing country considers it necessary to extend this period based on what it sees as a legitimate development ground,⁶³ it can enter into consultation with the WTO Subsidies Committee which will determine whether this is justified based on the economic, financial and development needs of the country in question.

However, apart from the possibility of providing tariff reductions to developing countries for imports of natural gas or oil, the ECT does not allow for any other exception listed in the WTO for developing nations on development grounds (Haghighi, 2007, 285–6). The inability of the Energy Charter to allow for such exceptions for development reasons is an impediment for developing nations (many of which are important energy-exporting nations) to become parties to the ECT.

As a counterweight to the Energy Charter's consumer orientation, as well as its subsequent inability to take producer countries' concerns adequately into account, the IEF potentially provides some room for manoeuvre.

6. The International Energy Forum

Whereas the IEA and the ECT were created against the backdrop of concerns stemming from consumer countries, the IEF aims to bring both producers and consumers together on one platform. The IEF represents the world's largest biennial gathering of energy ministers with membership open to all countries that wish to participate. Meetings are attended by all major oil market nations, and BRIC countries Russia, India and China are among the IEF Executive Board members.⁶⁴ The IEF was created in the early 1990s, primarily in an attempt to increase transparency and reduce transaction costs between consumers and producers in order to dampen volatility in international oil markets (Goldthau and Witte, 2010, 8).⁶⁵

Oil prices dropped below USD 10 per barrel in the 1990s and rose to over USD 150 per barrel in 2008, only to plummet again when the economic crisis set in.⁶⁶ This volatility causes consumer countries to make expensive adaptations in their consumption patterns as price changes cause the industry to opt for a different allocation of energy products and more energy-efficient capital goods are bought by individual users. For producer countries it means that national budgets dependent on oil revenues are rendered unpredictable, swinging between surplus and deficit, which hampers long-term macro-economic policy (Harks, 2010, 252).

This dramatic price increase is of course partly explained by the surge in demand coming from Asia. However, it seems that more structural reasons

62 Art. 27(2)(b), *WTO Agreement on Subsidies and Countervailing Measures*.

63 Such grounds would include regional growth, technological R&D funding and production diversification. See WTO (2001), point 10.2, p. 6.

64 Other members include Algeria, Egypt, France, Germany, Iran, Italy, Japan, Kuwait, Mexico, Netherlands, Norway, Qatar, Saudi Arabia, Turkey, UK, Venezuela, and the IEA and OPEC Secretariats.

65 International Energy Forum, *Energy Security Through Dialogue*, p. 2. Available at <http://www.ief.org/Documents/International%20Energy%20Forum%20brochure.pdf>. Accessed on 30 June 2010.

66 For more insights into volatile oil prices see BBC News, *Q&A: Volatile Oil Prices*, 5 June 2009. Available at <http://news.bbc.co.uk/2/hi/business/7425489.stm>. Accessed on 27 July 2010.

are at play here too. First, a lack of reliable and up-to-date information on production and consumption levels, as well as on the state of imports, exports and oil stocks is said to be one of the key causes underpinning the volatility of the market, with only a handful of countries producing timely and accurate information (Yergin, 2006, 76).⁶⁷ Acquiring such information is an expensive affair, undermined by a continuous incentive for ‘free-riding’ on the part of those countries that do not wish to disclose their data (Harks, 2010, 249–50). Second, the erosion of spare production and refining capacity as a result of rising demand causes neither spare capacity nor additional wells to be available as mitigation measures in the event of a supply crisis. Moreover, any additional oil that might still be produced cannot be easily sold because its quality is below par for usage in the world’s refineries. Finally, these issues are further compounded by a surge in speculation on the oil spot and paper markets (Yergin, 2006, 72–3; Harks, 2010, 254).⁶⁸

The IEF was born out of the desire to reduce this volatility and to raise the level of transparency of the market by bringing producers’ and consumers’ interests together.⁶⁹ The first IEF meeting took place in Paris in 1991, shortly after the Gulf War had stirred up the international oil market. Since then, a ministerial meeting involving the world’s leading producers and consumers has been held biennially. Since 2004 the meeting has been preceded by a business forum for top-level executives of leading energy companies and related industries (Harks, 2010, 256).

In spite of the fact that the IEF has had a permanent secretariat in Riyadh since 2003, the organisation is a form of ‘soft’ cooperation whereby proceedings take place in a less institutionalised manner outside a formal operating structure. Discussions are informal and the agenda does not follow an established procedure. This constitutes both a weakness and a strength. The weakness lies in the fact that the lack of institutionalisation does not allow the IEF to rely on formal tools, instruments and procedures to guide the discussions. Moreover, the informal nature prevents the IEF from having binding decision authority or the ability to settle disputes. Hence, compliance with its decisions remains subject to the ‘good faith’ of its members. This being said, the advantages of such a structure lie in the fact that the IEF’s open character allows for the participation of producer, consumer, industrialised, BRIC and developing countries, thus creating a unique and truly global platform. Indeed, it is safe to say that the lack of a formal operating structure, well-established rules and procedures is the sole reason that the said countries are all willing to participate in the first place.

Arguably, the IEF’s most tangible milestone has been the creation of the Joint Oil Data Initiative (JODI), an oil market data collection initiative comprised

67 Currently only OECD member countries provide timely and accurate data on the state of their oil markets. This implies that for non-OECD countries – which constitute the bulk of the world’s market in oil products – acquiring such information is necessarily based on estimations.

68 See also De Rato y Figaredo, R. (2007) *Dialogue – An Absolute Necessity: Promoting Energy Security Through a More Stable Oil Market*. Available at <http://www.ief.org/Articles/Pages/DIALOGUE-AnAbsoluteNecessity.aspx>. Accessed on 28 July 2010. See also G-8 (2005), *Gleneagles Summit: Global Economy and Oil*, point 6. Available at <http://www.mofa.go.jp/policy/economy/summit/2005/economy.pdf>. Accessed on 29 July 2010.

69 See IEF (2008) *Ultimate Goal is Full Transparency of Agendas*. Available at <http://www2.iefs.org.sa/Ministers/Pages/UltimateGoalisFullTransparencyofAgendas.aspx>. Accessed on 28 July 2010.

of six international organisations⁷⁰ under the coordination of the IEF.⁷¹ JODI collects data from over 90 member countries, representing around 90 per cent of global oil supply and demand.⁷² The data are publicly available, and, in spite of limitations in terms of quality and comparability, they boost an impressive range of information on various energy products⁷³ and flows.⁷⁴ Provided that JODI manages to overcome its limitations and expand its range of data available, it has the potential to significantly address the lack of information available on the global oil market.

In recent years the most pressing theme discussed at IEF meetings has been the price of oil. Soaring prices were a source of much concern among IEF member countries and the topic dominated meetings throughout 2008: so much so that a joint statement was released after the June 2008 Jeddah meeting (Harks, 2010, 258). In the statement the participants recognised spare capacity's vital role for stability in the oil market, the need to exercise better financial regulation, the need to intensify development assistance to alleviate the pressure of higher oil prices on LDCs and called for immediate collaboration between the IEA and OPEC Secretariats, together with the IEF, on preparing shared oil market analyses.⁷⁵

By the time of the next meeting in December 2008 in London the situation could not have been more different. The economic crisis had caused a drop in oil price of around 70 per cent compared to July 2008, wreaking havoc for budgetary planning and investment decision-making.⁷⁶ In light of the gravity of the situation, participants emphasised the importance of consumer-producer dialogue and agreed to establish an expert group to provide recommendations for strengthening the IEF's institutional architecture.⁷⁷

In spite of this noteworthy convergence that took place between producers and consumers as a result of the extreme price volatility in oil markets in recent years, one cannot help but feel that the IEF constitutes more a kind of 'talk shop' rather than a place where important decisions are made.⁷⁸ It is true that JODI represents an important step towards increased transparency. But as the IEF's only tangible outcome, JODI's overall record is somewhat disappointing. The announcement of a group of experts to work on strengthening the IEF's

70 The participating organisations are Asia-Pacific Economic Cooperation (APEC), the Statistical Office of the European Communities (Eurostat), the IEA, the Latin American Energy Organization (OLADE), OPEC and the United Nations Statistics Division (UNSD).

71 JODI was originally launched in 2001 under the name of Joint Oil Data Exercise. In 2005 the IEF secretariat took over the coordination of JODI.

72 For a list of participating countries see <http://www.jodidata.org/pc.shtm>. Accessed on 28 July 2010.

73 Data are available for crude oil, liquefied petroleum gas, gasoline, kerosene, gas/diesel oil, heavy fuel oil and total oil.

74 Data are available for production, imports/exports, closing stock, stock change, refinery intake, refinery output and demand flows.

75 *Joint Statement by the Kingdom of Saudi Arabia and the Secretariats of the International Energy Agency, International Energy Forum and Organization of the Petroleum Exporting Countries*. Jeddah Energy Meeting, 22 June 2008. Available at <http://www.ief.org/whatsnew/Documents/Final%20statement%2022%20june%202008.pdf>. Accessed on 28 July 2010.

76 *International Energy Forum: London Meeting Chair's Report*, December 2008, p. 1. Available at <http://www.ief.org/whatsnew/Documents/UK%20Chairs%20report%20London%20Energy%20Meeting.pdf>. Accessed on 28 July 2010.

77 *Ibid.*, p. 3.

78 Bochkarev and Austin refer to the IEF in this regard as an organisation lacking a firm structure and a clear mission statement. See Bochkarev, D. and G. Austin (2007) 'Energy Sovereignty and Security: Restoring Confidence in a Cooperative International System', *EastWest Institute Policy Paper*, No. 1, p. 6. Available at <http://www.ewi.info/energy-sovereignty-and-security-restoring-confidence-cooperative-international-system>. Accessed on 29 July 2010.

institutional architecture seems a step forward towards increasing the IEF's abilities. However, it is unlikely that far-reaching changes can be expected because IEF members prefer to keep the level of institutionalisation low, which prohibits the IEF from being able to take binding decisions. In this regard the stated desire of IEF members for immediate collaboration with the IEA and OPEC Secretariats on preparing shared oil market analyses is welcome and could possibly strengthen cooperation within the framework of JODI, without necessarily changing the IEF's inclusive institutional set-up.

7. Critical appraisal

It is apparent from the above discussion that the contemporary global energy architecture represents an embroidery in need of patching. The vast range of organisations and fora all differ in terms of their aims, degree of visibility, extent of institutionalisation and level of inclusion. It seems fair to assert therefore that no single institution or forum is best equipped to handle the complex challenges underpinning global energy governance. Rather, a pooled combination of 'best practices' and key strengths may provide an answer to some of the issues identified above. Ultimately, the key is to find the right combination of institutionalisation, representativeness and enforceability of compliance. In addition, such a combination of 'best practices' should entail decision-making on the basis of solid statistical and market information.

In terms of institutionalisation, the aforementioned organisations and fora can be placed along a continuum which runs from a low to a high level of institutionalisation. At one end of Figure 2.1 there are the G-8, the G-20 and the IEF which have a low level of institutionalisation, whereas at the other end there are the Energy Charter, the IEA and the World Bank which are highly institutionalised organisations.

Similarly, in terms of representativeness, Figure 2.2 posits a continuum which runs from exclusive to inclusive. At one end there is the G-8 with its exclusive character, whereas at the other end it lists the G-20 and the IEF. The Energy Charter, the IEA, the World Bank take up a more 'middle of the road' position, albeit tending more towards exclusive rather than inclusive.

With respect to the enforceability of compliance, a continuum would run from a general weak ability to do so within the G-8, the G-20 and the IEF, according to Figure 2.3, to a strong enforceability of compliance through the legally binding Energy Charter. The World Bank and the IEA take up a more 'middle of the road position' in this regard.

So, what is the optimal combination? A look at the figures seems to suggest that global energy governance suffers from a classic 'standoff' as, although strong enforcement and institutionalisation are desired, they come at the expense of the required inclusiveness, and vice versa. An organisation such as the Energy Charter, in spite of having the (legal) means to wield considerable power in the energy field, is ultimately undermined by its Eurocentric view and the lack of participation by developing nations and key producer and consumer states. Moreover, the challenges of global energy governance are such that the focus of any *leading* organisation in this field should be top-down

Figure 2.1 – Level of institutionalisation

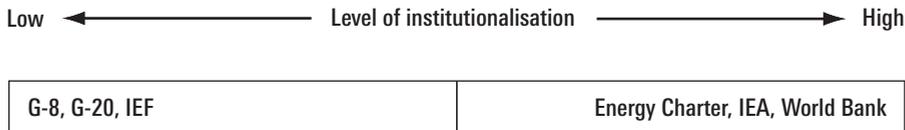


Figure 2.2 – Level of representativeness

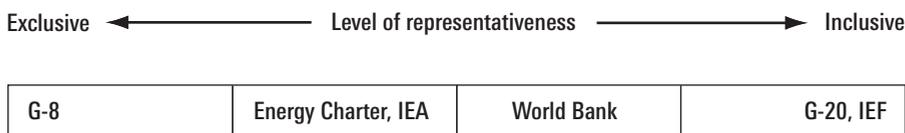
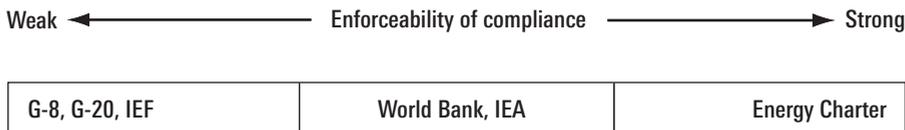


Figure 2.3 – Enforceability of compliance



from the level of heads of state and government, given that a lower level is unlikely to generate results – at least not of the magnitude required. An initial *flexing* of enforcement capability therefore seems justified.

Judging from the analysis of the respective organisations, it seems that the only two institutions capable of capturing political engagement at the highest level are the G-8 and G-20. In terms of representativeness, however, the G-8 is troubled by its exclusivity, whereas the G-20 has a comparatively modest track record when it comes to energy matters. On the other hand, the G-8’s exclusivity does mean that its member base is more homogeneous, potentially limiting the occurrence of opposing interests. Wright claims in this regard that placing a priority on broader participation and inclusion – for example, making the G-20 the main vehicle of global energy governance – will likely increase deadlock, weakening the architecture of cooperation rather than strengthening it (Wright, 2009, 164).

The G-20 will undoubtedly find it harder to overcome such opposing interests, but this does not mean that it should not be attempted. Moreover, the G-20 is by no means comparable to the United Nations (UN) and represents only a fraction of its members. Also, the G-20’s members share a common feature as the world’s major economies, all of whom are likely interested in keeping this status in the long term. Furthermore, the G-20 can potentially brush up its limited track record on energy if it is allowed to benefit from a gradual transfer of G-8 expertise to the G-20 level.

In order to compensate for the lack of institutionalisation and to supply the required technical know-how, it is important to turn towards other organisations for support. The legacy of cooperation between the G-8 and

institutions such as the IEA and the World Bank could be of great benefit to the G-20 in this regard. Simultaneously, such cooperation would encourage the further integration of the BRIC countries within the structures of the IEA. Equally, the IEA and the IEF can feed valuable statistical and market information into G-20 negotiations to ensure that decisions are made on the basis of sound data analysis.

Finally, in order to increase the enforcement of compliance capacity within the G-20, collaboration with the aforementioned organisations should preferably take place subject to the review of both the IEA and the World Bank to safeguard careful implementation and follow-up at subsequent G-20 summits.

8. Conclusion

The analysis here demonstrates that, for the moment, a true global energy governance ‘steering mechanism’ at the international level is largely missing. This is not to say that such a vehicle cannot be created, given that the instruments for its inception are largely available through the present international architecture. The greatest potential seems to be for the G-20 to take up this role in careful collaboration with the existing organisations and fora. Ultimately, whether this happens depends to a great extent on the degree to which the experiences of the G-8 in the field of energy are transferred to the G-20 level and on whether the G-20 succeeds in effectively harmonising any opposing interests among its members. In the long run, however, if the haphazard embroidery in need of patching, that is global energy governance today, is to progress to the status of a carefully woven fabric, it is highly recommended for the world’s leaders to embark on such a path.

REFERENCES

- Bamberger, C. (2004) *IEA, the First Thirty Years: The History of the International Energy Agency, 1974–2004* (Paris: IEA/OECD).
- Baumann, F. (2010) ‘Europe’s Way to Energy Security: The Outer Dimension of Energy Security, from Power Politics to Energy Governance’, *European Foreign Affairs Review*, 15, pp. 77–95.
- Bordachev, T. (2003) ‘Europe’s Russia Problem: Immediate Concerns and Long-Term Prerequisites’, in Kempe, I. (ed.) *Prospects and Risks Beyond EU Enlargement, Eastern Europe: Challenges of a Pan-European Policy* (Opladen: Leske & Budrich), pp. 77–106.
- Buzan, B., O. Waever and J. De Wilde (1998) *Security: A New Framework for Analysis* (Boulder/London: Lynne Rienner Publishers).
- Chen, F. and J. Ni (2008) ‘Asian Energy Security: The Role of China and India’, *Strategic Analysis*, 32, pp. 41–55.
- Colgan, J. (2009) ‘The International Energy Agency: Challenges for the 21st Century’, *GPPI Policy Paper Series*, 6, pp. 1–20.
- Collier, P. (2003) *Natural Resources, Development and Conflict: Channels of Causation and Policy Interventions* (Washington: World Bank).
- Cooper, A.F. (2010) ‘The G-20 as an Improvised Crisis Committee and/or a Contested “Steering

International Development Policy

- Committee" for the World', *International Affairs*, 86, pp. 741–57.
- Daojing, Z. (2006) 'China's Energy Security: Domestic and International Issues', *Survival*, 48, pp. 179–90.
- Deffeyes, K.S. (2001) *Hubbert's Peak: The Impending World Oil Shortage* (Princeton/Oxford: Princeton University Press).
- De Jong, S., 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. 511–38.
- Energy Charter Secretariat (2001) *Trade in Energy: WTO Rules Applying under the Energy Charter Treaty* (Brussels: Energy Charter Secretariat).
- Florini, A. and B.K. Sovacool (2009) 'Who Governs Energy? The Challenges Facing Global Energy Governance', *Energy Policy*, 37(2), pp. 5239–48.
- Fox, W. (1996) 'The United States and the Energy Charter Treaty: Misgivings and Misperceptions', in Wälde, T. (ed.) *Energy Charter Treaty: An East-West Gateway for Investment and Trade* (London: Kluwer Law International).
- Friedman, T.L. (2006) 'The First Law of Petropolitics', *Foreign Policy*, May–June 2006.
- Fuerth, L. (2005) 'Energy, Homeland and National Security', in Kalicki, J. and D. Goldwyn (eds) *Energy and Security: Toward a New Foreign Policy Strategy* (Washington: Woodrow Wilson Center Press), pp. 411–25.
- Goldthau, A. and J.M. Witte (2010) 'Rules and Institutions in Global Energy', in Goldthau, A. and J.M. Witte (eds) *Global Energy Governance: The New Rules of the Game* (Washington: Brookings Institution Press), pp. 1–21.
- Goodstein, D. (2004) *Out of Gas: The End of the Age of Oil* (New York: Norton & Company).
- Haghighi, S. (2007) *Energy Security: The External Legal Relations of the European Union with Major Oil and Gas Supplying Countries* (Oxford: Hart Publishing).
- Harks, E. (2010) 'The International Energy Forum and the Mitigation of Oil Market Risks', in Goldthau, A. and J.M. Witte (eds) *Global Energy Governance: The New Rules of the Game* (Washington: Brookings Institution Press), pp. 247–67.
- IEA (2008) *Towards a Sustainable Energy Future: IEA Programme of Work on Climate Change, Clean Energy and Sustainable Development* (Paris: IEA).
- Jaffe, A.M. (2009) 'OPEC: An Anatomy of a Cartel', in Luft, G. and A. Korin (eds) *Energy Security Challenges for the 21st Century: A Reference Handbook* (Santa Barbara: ABC-CLIO LLC).
- Kalicki, J. and D. Goldwyn (2005) 'Introduction: The Need to Integrate Energy and Foreign Policy', in Kalicki, J. and D. Goldwyn (eds) *Energy and Security: Toward a New Foreign Policy Strategy* (Washington: Woodrow Wilson Center Press), pp. 1–15.
- Karl, T. (1997) *The Paradox of Plenty: Oil Booms and Petro-States* (Berkeley: University of California Press).
- Kohl, W.L. (2010) 'Consumer Country Energy Cooperation: The International Energy Agency and the Global Energy Order', in Goldthau, A. and J.M. Witte (eds) *Global Energy Governance: The New Rules of the Game* (Washington: Brookings Institution Press), pp. 195–220.
- Koknar, A. (2009) 'The Epidemic of Energy Terrorism', in Luft, G. and A. Korin (eds) *Energy Security Challenges for the 21st Century: A Reference Handbook* (Santa Barbara: ABC-CLIO LLC).
- Le Billon, P. (2006) 'Fuelling War: Natural Resources and Armed Conflicts', *Adelphi Paper*, 357 (Oxford/London: Oxford University Press/International Institute for Strategic Studies).
- Lesage, D., T. Van de Graaf and K. Westphal (2009) 'The G-8's Role in Global Energy Governance since the 2005 Gleneagles Summit', *Global Governance*, 15, pp. 259–77.
- Lesage, D., T. Van de Graaf and K. Westphal (2010) 'G-8 + 5 Collaboration on Energy Efficiency and IPEEC: Shortcut to a Sustainable Future?', *Energy Policy*, 38(11), pp. 6419–27.
- Lipset, S.M. (1959) 'Some Social Requisites of Democracy: Economic Development and Political Legitimacy', *American Political Science Review*, 53, pp. 69–105.
- Luft, G. and A. Korin (2009) 'Energy Security: In the Eyes of the Beholder', in Luft, G. and A. Korin (eds) *Energy Security Challenges for the 21st Century: A Reference Handbook* (Santa Barbara: ABC-CLIO LLC).
- Minqi, L. (2007) 'Peak Oil, the Rise of China and India, and the Global Energy Crisis', *Journal of Contemporary Asia*, 37, pp. 449–71.
- Nincic, D.J. (2009) 'Troubled Waters: Energy Security as Maritime Security', in Luft, G. and A. Korin (eds) *Energy Security Challenges for the 21st Century: A Reference Handbook* (Santa Barbara: ABC-CLIO LLC).
- Payne, A. (2010) 'How many G's are there in "Global Governance" after the Crisis? The Perspectives of the "Marginal Majority" of the World's States', *International Affairs*, 86, pp. 729–40.
- Perovic, J. (2008) 'Russian Energy Power Abroad', *Russian Analytical Digest*, 33, pp. 2–5.
- Roberts, P. (2005) *The End of Oil: On the Edge of a Perilous New World* (Boston/New York: Houghton Mifflin Company).

- Ruppert, M.C. (2009) *Confronting Collapse: The Crisis of Energy and Money in a Post-Peak Oil World* (White River Junction: Chelsea Green Publishing).
- Selivanova, Y. (2010) 'Managing the Patchwork of Agreements in Trade and Investment', in Goldthau, A. and J.M. Witte (eds) *Global Energy Governance: The New Rules of the Game* (Washington: Brookings Institution Press), pp. 49–72.
- Van de Graaf, T. and D. Lesage (2009) 'The International Energy Agency after 35 Years: Reform Needs and Institutional Adaptability', *Review of International Organizations*, 4, pp. 293–317.
- Van de Graaf, T. (2008) 'Old Rules, New Players? Integrating the BRICs in Global Energy Governance', in Spetchinsky, L. and T. Struye (eds) *La gouvernance de l'énergie en Europe et dans le monde* (Louvain-la-Neuve: Presses universitaires de Louvain), pp. 33–51.
- Van der Linde, C., W. Perlot and F. Hoogeveen (2006) 'Tomorrow's Mores: The Future Geopolitical System and the Structure of the International Oil Market', *Politica Exterior*, 20, pp. 1–11.
- World Bank (2007a) *An Investment Framework for Clean Energy and Development* (Washington: World Bank).
- World Bank (2007b) *Clean Energy for Development Investment Framework: The World Bank Group Action Plan (DC2007-0002)* (Washington: World Bank).
- World Bank (2009) *The World Bank Annual Report 2009: Year in Review* (Washington: World Bank).
- Wright, T. (2009) 'Toward Effective Multilateralism: Why Bigger May Not Be Better', *The Washington Quarterly*, 32(3), pp. 163–80.
- WTO (2001) *Ministerial Conference, Fourth Session, Doha, 9–14 November 2001, Implementation-Related Issues and Concerns: Decision of 14 November 2001*.
- Yergin, D. (2006) 'Ensuring Energy Security', *Foreign Affairs*, 85, pp. 69–82.
- Yergin, D. (2008) *The Prize: The Epic Quest for Oil, Money and Power* (New York/London/Toronto/Sydney: Free Press).
- Youngs, R. (2009) *Energy Security: Europe's New Foreign Policy Challenge* (Abingdon: Routledge).