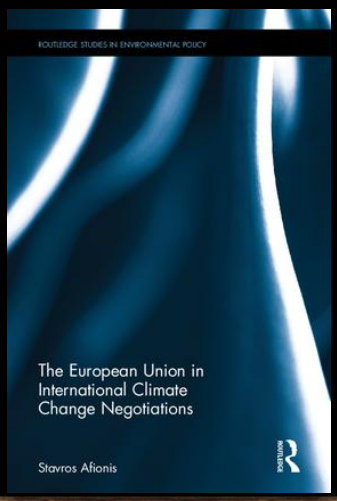
A **ROUTLEDGE** FREEBOOK

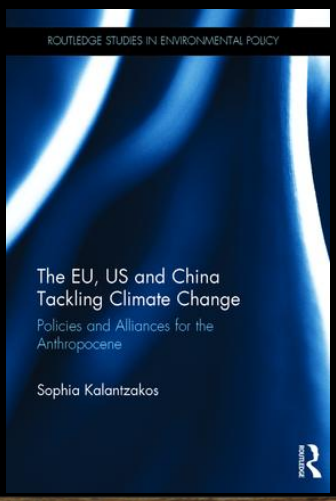
EU Environmental Policy

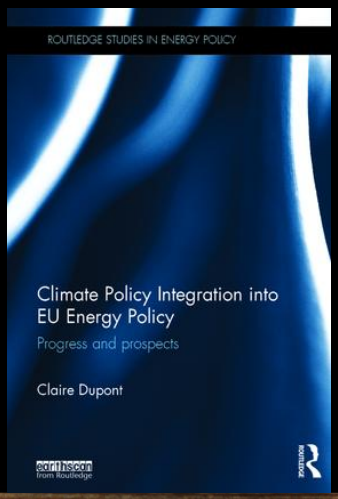
Routledge
Taylor & Francis Group

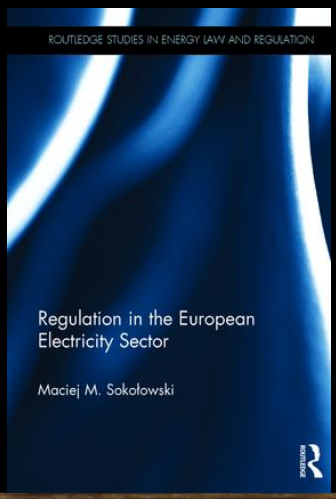
TABLE OF CONTENTS

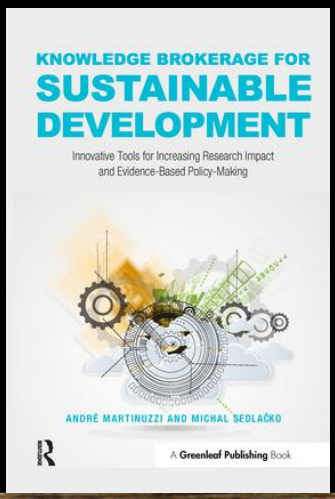
EXPLORE EU ENVIRONMENTAL POLICY FURTHER WITH THESE FEATURED TITLES











DISCOVER MORE FROM ENVIRONMENT AND SUSTAINABILITY ON OUR WEBSITE:
WWW.ROUTLEDGE.COM/SUSTAINABILITY

Introduction

The European Union (EU) has strived during recent decades to position itself as a leader in environmental policy and promote the concept of sustainable development on the global scene. Far from it being just another political aim of the EU, the goal of sustainable development has been enshrined in EU treaties since the late 1990s and has ever since been pursued as a fundamental objective in EU relations with the wider world. Indicatively, EU environmental legislation in a wide range of fields, from recycling and waste management to biosafety and eco-labelling, stands out as among the most advanced and progressive worldwide. Concurrently, the EU has taken a leadership role in the international negotiations on a number of environmental issues. Nowhere else is the EU's adherence to conferring environmental leadership more evident than in the case of the climate change regime.

This FreeBook on EU environmental policy and governance contains a number of chapters that provide a rigorous and in-depth analysis of the EU's efforts to put in place the requisite regulatory and market structures for the transition towards a low-carbon economy, as well as act as the spearhead of world efforts for the development of effective and comprehensive environmental regimes. What is important to note here is that providing environmental leadership has not always been an easy task. While professing their allegiance to the norm of sustainable development, European policymakers have nevertheless been persistently beset by internal and external political pressures.

The Chapter by Afionis (2017) outlines the EU's (then European Community, EC) determination to provide leadership in the field of international climate change policymaking during the run-up to the landmark 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro. Unfortunately for the EC, its attempt to portray itself as a green leader and role model for other state actors was tarnished by internal wrangling over the European Commission's (eventually) unsuccessful proposal to establish an EU-wide carbon/energy tax – a proposal that dominated the internal agenda, generated intense controversy and ultimately compromised the credibility of the EC during the Rio deliberations. The failure to adopt the carbon/energy tax exposed the EC to criticism on the part of the international community of not following up on its rhetoric with strong action. The demise of the carbon/energy tax had effectively meant that during the 1990s the EU was pushing others to adopt ambitious greenhouse gas emissions reduction targets while itself lacking the requisite domestic policies to guide its mitigation planning and

implementation efforts.

It was only during the 2000s that the EU moved from target-setting to implementation (policies and measures). Doing so threw up new challenges for EC policymakers. The chapter by Dupont (2016) explores the integration of long-term climate policy objectives into EU energy policy. It begins by offering a historical account of EU renewable energy policy, before going on to analyse in depth the integration of climate policy objectives into the policy processes of the 2001 renewable electricity Directive (RES-E Directive 2001/77/EC) and the 2009 renewable energy Directive (RE Directive 2009/28/EC). In order to measure the level of climate policy integration, Dupont (2016) examines three elements of the policy process: "the involvement of internal and external pro-climate stakeholders, and the recognition of functional interrelations with long-term climate policy objectives" (p.73). The conclusion reached by the author is that even though the level of climate policy integration in the 2009 Directive was much higher compared to that of its 2001 predecessor, both Directives fall short when it comes to achieving the EU's longer-term climate policy objectives of reducing EU-wide greenhouse gas emissions by between 80 and 95 percent by 2050 of 1990 levels or limiting global temperature increase to 2° Celsius.

All that said, both the Afionis (2017) and Dupont (2016) chapters recognise the efforts made by the EU to improve energy efficiency and increase the share of renewable energy in EU energy consumption. More recently, for example, integrating sustainability measures into energy policy and decarbonising the economy have been underlined as two of the five key dimensions of the Energy Union strategy, along with – *inter alia* – energy security and energy market integration. Launched in 2015, the aforementioned strategy represents the latest attempt to date at harmonising energy networks across EU borders. The chapter by Sokolowski (2016) makes thus for an interesting read in that it provides important background information on the history of attempts to start closer cooperation in energy regulation at the European level. In particular, this chapter looks at the third legislative package for an internal EU gas and electricity market, focusing on the role played by the then-established Agency for the Cooperation of Energy Regulators (ACER) in ensuring effective cooperation between national regulatory authorities and facilitating decision-making on cross-border issues.

All the three chapters outlined thus far have discussed actions taken by the EU in response to its decision to place sustainable development as a cross-cutting guiding principle to be integrated in all EU policies and decision-making. However, as former

Introduction

EU Commissioner for Agriculture (1995-2004) Franz Fischler argues in an interview by Martinuzzi and Sedlacko (2016), far more is needed. In particular, he stresses the need for a new narrative that can inspire the citizens of Europe. Narratives have consistently served as vital communication tools through which the EU has aimed to be recognized, legitimized and achieve influence. Fischler recognises the value of older narratives, such as "Europe as a peace project" or "Europe as a guarantor of prosperity", but posits that their "time has now passed" (p.25). In their place, he suggests the notion of sustainable development could serve as a source of inspiration for EU citizens, breathing a fresh sense of purpose and direction into the European integration project.

Kalantzakos (2017) presents a somewhat similar idea. In particular, she contends that US President Trump's withdrawal from the Paris agreement opens up a gap that close EU-China cooperation could potentially fill. While she acknowledges that the EU-China relationship faces a challenging road ahead, she nevertheless makes an engaging case for the need for China and the EU to formulate a common "grand strategy" (p.132) and exercise joint climate leadership. Pulling their immense resources together could go a long way towards helping the global community move towards a low carbon future and navigate the new challenges of the Anthropocene.

To conclude, challenging times lie ahead for EU climate change policy as a result of US President Trump's decision to pull the US out of the Paris climate agreement and the destabilizing effect of Brexit. The chapters in this FreeBook discuss what the EU has done in the past to respond to the climate change challenge, but also, most importantly, what it needs to do in the future in order to lead the world towards adequate and implementable climate change solutions. These chapters should therefore be of great interest to students and scholars of environmental politics, as well as energy law and policy.

Dr. Stavros Afionis
Keele University

Introduction

About the authors

Stavros Afionis *is a Teaching Fellow in Environmental Politics at the School of Politics, Philosophy, International Relations & Environment (SPIRE), Keele University, UK. Previously, he was a Postdoctoral Research Fellow at the Sustainability Research Institute (SRI) of the School of Earth & Environment, University of Leeds, UK. His doctoral research examined the role played by the European Union in international climate change negotiations. His research interests focus on environmental politics and, in particular, international climate change negotiations and global biofuel policies. He is an associate editor for Environmental Policy and Governance and a member of the UK ESRC Centre for Climate Change Economics and Policy (CCCEP).*

Claire Dupont *is a post-doctoral researcher at the Institute for European Studies and the Political Science department of the Vrije Universiteit Brussel (VUB). She works within the VUB's Strategic Research Programme on 'Evaluating Democratic Governance in Europe (EDGE)'.*

Maciej M. Sokolowski *is a Doctor of Law and a President of the ABC Institute. He was granted the Swiss Government Excellence Scholarship at the University of Basel (Europa Institute), the Swedish Institute Visby Programme Scholarship at the University of Gothenburg (School of Business, Economics and Law), and the Shanghai Municipal Government Scholarship at the Shanghai University.*

Sophia Kalantzakos *is Global Distinguished Professor in Environmental Studies and Public Policy at New York University, USA/Abu Dhabi.*

André Martinuzzi *is Head of the Institute for Managing Sustainability, Associate Professor at Vienna University of Economics and Business*

Michal Sedlacko *is Research and Teaching Fellow at the University of Applied Science FH Campus Wien*

Introduction

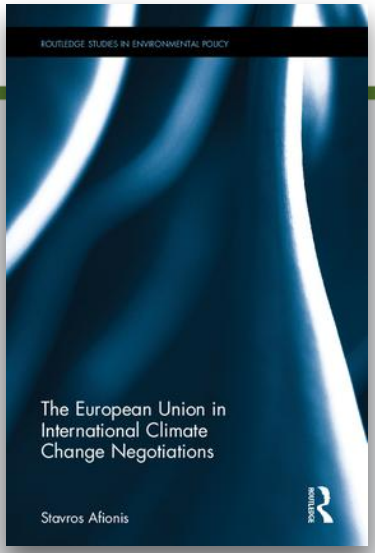
Note to readers:

References from the original chapters have not been included in this text. For a fully-referenced version of each chapter, including footnotes, bibliographies, references and endnotes, please see the published title. Links to purchase each specific title can be found on the first page of each chapter. As you read through this FreeBook you will notice that some excerpts reference previous or following chapters - please note that these are references to the original text and not the FreeBook.

CHAPTER

1

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)



This chapter is excerpted from

The European Union in International Climate Change Negotiations

by Stavros Afionis.

Learn more

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

Excerpted from *The European Union in International Climate Change Negotiations*

It is often stated that prior to 1973 there was no such thing as an EC environmental policy. For Hildebrand (1992), this assessment is, essentially, correct. Little attention was paid worldwide during the 1950s and 1960s to the wider implications of economic development on the environment. Indeed, the Treaty of Rome did not expressly permit the EC to act in the area of environmental protection, as the main priority for European nations was the harmonization of laws to do away with internal trade barriers (Jordan 1998). Until 1973, EC environmental policy 'was incidental to measures to harmonise laws in order to abolish obstacles to trade between the Member States' (McGrory 1990, p. 304).

The period that followed the 1972 Stockholm Declaration gave rise to the development of a true EC environmental programme. For the first time, the environment was brought onto the political stage. While EC leaders realized the importance of environmental protection, they were also keen to avoid anything that would negatively affect their competitiveness, economically speaking. EC actors were well aware that significant differences in national industrial pollution legislation between the Member States could distort competition and allow laggard or 'dirty states' to profit economically (Lodge 1989, p. 320). With West Germany and the Netherlands at the helm, EC environmental protection gained significantly from the Commission's three Programmes of Environmental Action during 1973–86. The legal ground for environmental expansion, however, was relatively weak. It was not an expressed competence of the EEC Treaty. This allowed various 'laggard' Member States, such as the UK, to obstruct EC common environmental policy. As a result, the legislative process for environmental proposals was turned 'into a very undemocratic operation as a kind of bargaining between Member States' governments and Community bureaucracies' (McGrory 1990, p. 305).

A legal basis for EC action on the environment was only provided when the Single European Act (SEA) was passed in 1987. Apart from seeking to augment the EC's competitiveness and attractiveness to third parties through the creation of a single internal market and trading bloc, SEA also gave the Community competences in fields such as the environment, technological research and development, employment and regional policy (McCormick and Olsen 2014; Pinder 2001). In the realm of environmental policy in particular, the effect of the SEA can be said to have been revolutionary. It put economic and ecological objectives within the EC on a more equal footing. The introduction of qualified majority voting (QMV) for

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

most matters of environmental policy was pivotal in this respect. The only exceptions included provisions of a primarily fiscal nature, policies with limited transnational effects, such as town and country planning, as well as measures that 'affect[ed] a Member State's choice between different energy sources and the general structure of its energy supply' (Hildebrand 1992, p. 37).

Because of SEA, environmental policy undoubtedly gained momentum. It allowed the EC to play a more assertive role in international environmental affairs. Initially, however, the EC, because of intra-European divisions, failed to take a proactive role during the 1987 multilateral negotiations on ozone protection in Montreal. A more progressive EC stance was hindered by the protectionist approach adopted by the French and British governments with respect to their chemical industries (Oberthür and Ott 1999). Lagging behind other parties (mainly the US) in the ozone regime-building process, the EC was now underperforming in yet another field – foreign policy. Germany's unilateral diplomatic recognition of Croatia and Slovenia in direct contravention to the preferences of its fellow EC partners, as well as Member State divisions with respect to the US-led response to Iraq's invasion of Kuwait, brought to the fore the EC's inability to adopt a common line on issues of foreign and security policy (McCormick and Olsen 2014; Bretherton and Vogler 2006; Juncos 2005; Crawford 1996).

The aforementioned setbacks led to widespread scepticism in EC circles. European policymakers therefore sought remedial action to reverse this unpleasant situation. A first step was to take a leadership role at the London revision of the Montreal Protocol in 1990, where the EC supported faster reduction schedules with respect to CFCs and halons than the US and Japan (Oberthür and Ott 1999). At the 1992 Copenhagen meeting, the Community went a step further by supporting expedited action with respect to a number of other ozone depleting substances (ODS), such as methyl bromide, hydrobromofluorocarbons (HBFCs) and hydrochlorofluorocarbons (HCFCs). It was climate change, however, a relatively nascent policy area at the time, which was seen as representing a very suitable candidate for EC leadership. With the US being outright against and Japan not particularly enthusiastic about climate policy, the EU sensed a chance to grab a leadership role (Hovi *et al.* 2003; Bergesen 1991). The EC position was thus not only a reflection of concern for an environmental problem, but also a strategic decision to assert itself as a major player in global governance matters (Andresen and Agrawala 2002). The EC's ability to think strategically was reflected in the

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

conclusions of the June 1990 Dublin European Council:

> The Community and its Member States have a special responsibility to encourage and participate in international action to combat global environmental problems. Their capacity to provide leadership in this field is enormous.
>
> (European Council 1990, p. 22)

First phase (1986–90)

In July 1986, the European Parliament became the first EC institution to address climate change as both a policy and scientific topic (Liberatore 1995). Drawing upon the conclusions of the 1985 Villach Conference, the Parliament recognized climate change as a multifaceted problem, with impacts that could take less direct and more multifarious routes. It called on the Commission and the Member States to integrate mitigation measures into agricultural, forestry, energy and industrial policies. Reference was even made to the need for developed countries – as the main culprits for climate change – to give developing nations 'access to the latest technological know-how' (OJ 1986, p. 273). Despite the call for action, the Commission's 1987 Fourth Action Programme on the Environment simply mentioned the fears of 'certain scientists' as to the impacts of climate change and called for further scientific studies in this context (OJ 1987, p. 12).

The Commission only issued its first communication on the subject in November 1988, mainly as a response to that year's Toronto Conference. That communication summarized greenhouse gas-related scientific developments and the outcome of international scientific conferences, such as the one in Toronto. It also outlined a number of possible response options for the energy, forestry and agricultural sectors, ranging from energy efficiency interventions to the promotion of afforestation. Importantly, the communication concluded that reducing greenhouse gas concentrations did not 'seem at that stage a realistic objective, but could be a very long term goal' (European Commission 1988, p. 44; see also Liberatore 1995; Skjaerseth 1994). Even so, Jordan and Rayner (2010) argue that this communication was notable in at least two respects. First, it marked the formal initiation of EU climate policy, as the Commission autonomously decided to launch a study programme to evaluate the feasibility, costs and impacts of possible mitigation measures. Second, it highlighted that the Commission expected to be involved in

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

internal and external negotiations on climate change in the foreseeable future, especially after having 'fought hard' to secure a role in other multilateral environmental fora such as the one on ozone depletion (Jordan and Rayner 2010, p. 55). In its response, the Council agreed to the Commission's request to be involved at both levels, but only in a role supportive of national policymaking, as stipulated by the informal norm of subsidiarity (Jordan and Rayner 2010).

This 'wait-and-see' approach favoured by Member States shows that climate change was not seen as a priority. The 1988 Rhodes European Council helps to confirm this observation. It concluded that effective action on climate change 'require[d] better scientific research and understanding' (European Council 1988, p. 11; see also Caldwell 1990). Less than two years later, the situation was completely reversed. In June 1989 – a few months after the 1989 Hague Summit – the European Council endorsed an international agreement on climate change and requested the Commission to produce a report outlining potential mitigation measures (OJ 1989). The subsequent Noordwijk conference further pinpointed the need for international action and prompted the EC to take an even more active role, pressing other nations to set fi targets and timetables for stabilizing their greenhouse gas emissions. In March 1990, the Commission – now completely at odds to its November 1988 position – stressed 'the urgent need for a clear commitment by industrial countries to stabilize CO_2 emissions' by the year 2000, as well as achieve 'significant reductions' by 2010 (European Commission 1990, pp. 3–4). Compared with the 1988 Communication, the Community 'had taken the step from a rather vague "problem diagnosis" to specific policy recommendations within less than two years' (Skjaerseth 1994, p. 27).

By that point, the Commission's stabilization proposal was in line with evolving Member State preferences, given that following the May 1990 Bergen conference several of them had commenced with tabling CO_2 stabilization and reduction commitments. In an effort to provide leadership, the June 1990 Dublin European Council urged all countries to immediately adopt targets and strategies to limit their greenhouse gas emissions (European Council 1990). In October 1990, on the cusp of the SWCC, and primarily in order to establish an ambitious Community position for that occasion, a Joint Council of Energy and Environment ministers agreed that CO_2 emissions should be stabilized at 1990 levels within the EC *as a whole* by the year 2000, on the proviso though that other countries made similar commitments (Oberthür and Pallemaerts 2010; Wettestad 2001).

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

Excerpted from *The European Union in International Climate Change Negotiations*

Even so, the political commitment to stabilize CO_2 emissions elevated the status of the Community. As explained in Chapter 1, the 'rich and green' EC countries (Denmark, the Netherlands and Germany) had already adopted more ambitious targets, with Germany, the most committed of the three, seeking to reduce its emissions by 25–30 per cent by 2005. Notably, the shift in position by the UK played a major role in facilitating consensus within the EC. Due primarily to pressure from other EC members, the UK's Prime Minister Margaret Thatcher abandoned the obstructionist tactics of 1989 and declared in May 1990 that the UK would stabilize its emissions at 1990 levels by 2005. Apparently unsatisfied, other EC members continued to criticize the UK – this time for not reducing its emissions quickly enough. Yet, this UK shift enabled the Council to constructively discuss climate change during 1990 and progressively build up its image as the main pusher and leader during the nascent phase of the climate regime (Manners 2000). In order for the EC to maintain its leadership role, it was necessary 'to have some policy flesh to put on the bones of the political decision to stabilise CO_2 emissions' (Haigh 1996, p. 164). The EC needed to be able to clearly demonstrate how it would achieve its stabilization goal. Moving from target-setting to implementation (policies and measures) threw up new challenges for EC policymakers.

Second phase (1991–92)

In October 1990, the Council requested anew the Commission to propose new policies to meet the stabilization goal. The deadline became the UNCED in Rio, June 1992. Up to that point, policy within the EU had developed 'remarkably rapidly and smoothly' (Skjaerseth 1994, p. 27). The main explanation, according to Jordan and Rayner (2010), was that most Member States were under the impression that harmonization of targets did not necessarily imply harmonization of policies and measures.

Initially, the Commission was overly optimistic about the EU's mitigation potential. A November 1990 draft communication to the Council noted that emissions could be reduced by as much as 15 per cent in a relatively costeffective fashion (Skjaerseth 1994). Following this, a plethora of draft communications circulated between the Commission's DGs from December 1990 to May 1991, with the Commission appearing to be reaching agreement on the idea of following the acid

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

rain example and allocating different national reduction targets and developing a target-sharing agreement (Manners 2000). This proposal, although, in principle acceptable within the Commission, was rejected by France, Italy and the UK as unfeasible (Wettestad 2000). Other avenues were subsequently explored, and by August 1991, reports indicated that the Community's target could be achieved by energy-saving policies and energy taxes at a relatively low economic cost (Manners 2000). These measures included *inter alia* a carbon tax, various efficiency standards (buildings, water heaters and cookers) and promotion of waste recycling (Collier 1997b).

In late 1991, and with the UNCED deadline looming, the Commission tabled a package of implementation measures, consisting of: (1) a carbon/energy tax; (2) a monitoring mechanism of Community CO_2 and other greenhouse emissions; and (3) measures to improve energy-efficiency and strengthen the development of renewable energy sources, such as the SAVE (on energy efficiency), ALTERNER (on renewable energy), JOULIE (on energy research and development) and THERMIE (on new energy technologies) programmes (Grubb 1995). In the absence of the aforementioned measures, CO_2 emissions were predicted to increase by 12 per cent by 2000 (Grubb 1992). The contribution of each measure to the attainment of the stabilization goal is summarized in Table 2.1.

The proposal for carbon/energy taxes was new and, because of the unanimity-voting rule for fiscal environmental policies, it was clear that it would be contentious (Wettestad 2000). The tax would be implemented in 1993 at a level

Table 2.1 Projected emission reductions from the EC climate change strategy

Proposed measures for stabilization	*Expected CO_2 reduction (%)*
Carbon/energy tax	6.5
SAVE	3.0
THERMIE	1.5
ALTENER	1.0
Total	12.0

Source: Collier (1997b, p. 52).

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

of $3 per barrel of oil equivalent and projected to increase to $10 by 2000 (Jaeger *et al.* 1997). From the outset the proposed tax faced opposition from industry, within the Commission and among the Member States. In fact, the Commission had only been able to present its package proposal in October 1991 after the six most involved DGs had agreed on a compromise according to which 'any measures agreed on must be justifiable on grounds other than those based on CO_2 emissions control (e.g. improving energy security), a principle which was termed a "no regrets" strategy' (Manners 2000, p. 44). The Environment Council (12–13 October 1991) accepted 'in principle' the Commission's plan, but the Energy Council (18 October) voiced its opposition to the EU unilaterally adopting an energy tax that would in essence allow its major trading partners (the US and Japan) to gain a competitive advantage. The Commission, in an effort to accommodate the Energy Council's concerns, altered its proposal by inserting substantial exceptions for energy-intensive industries (Manners 2000). Yet, while these adjustments secured the endorsement of the Commission's package by a joint December 1991 Environment and Energy Council, the downside was that the combined effects of the measures were now no longer adequate to stabilize the EC's emissions (Paterson 1996).

Unlike the Energy Council, business interests would prove far more difficult to convince. Indeed, the Commission's proposal found itself subject to the 'most ferocious lobbying ever seen in Brussels' (Hovi *et al.* 2003, p. 9). Carlo Ripa di Meana, then EC Environment Commissioner, described the lobbying as a 'violent assault' and an 'indication of the vigour with which the energy interests pursued their demands' (Newell and Paterson 1998, p. 685). Business interests pushed for the proposal to be withdrawn. They even threatened to move industrial production out of the EC in the event plans for the tax were pushed forward (Collier 1997b). Industry resistance was organized through one of Europe's most powerful business lobby organizations of that period, the Union of Industrial and Employers' Confederations of Europe (UNICE), which dismissed the taxation as running completely counter to the need for concerted international action (Skjaerseth 1994).

By January 1992, it had become apparent that the energy tax would not be a 'no regrets' option (Manners 2000). Consequently, the aforementioned compromise between the six most involved DGs unravelled, as the competiveness concerns of the business sector were now shared by a number of sympathetic DGs, such as DG

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

II for economic analysis, DG III for the Internal Market, and DG XXI for taxation. With respect to energy, these DGs were particularly worried about the competitive advantages the proposed tax implied for US industry, which already enjoyed significantly lower energy taxes and prices.

Unable to withstand the pressure, the forces in favour of the tax (DG XI for environment and DG XVII for energy) yielded. Renewed agreement within the Commission was only secured by making the proposal conditional on comparable action by other OECD countries, as UNICE had also demanded (Haigh 1996). According to Skjaerseth (1994, p. 31), this was a 'clear farewell to the aspiration to leadership by example'. Di Meana, even though firmly opposed to the conditionality principle, decided to accept it in the apparent hope that it represented a temporary hurdle that would be removed before the Rio Summit (Manners 2000). It is worth noting that this conditionality principle was first introduced as it was expected that the US might opt for a harmonized multi lateral approach and introduce an energy tax at a level that could be said to be comparable (Haigh 1996). Hopes for international coordination never materialized, though. The proposed legislation for an energy tax on all fuels presented by President Clinton was defeated in Congress in 1993.

The conditionality principle accommodated to a great extent the concerns of the proposal's opponents in industry and within the Commission. Member States, however, failed to bridge their differences, as France, the less developed Member States (Spain, Portugal, Ireland and Greece) and the UK all opposed the tax. France, in particular, relying at the time on nuclear energy for 73 per cent of its electricity (compared with 22.3 per cent in the US, 27.7 per cent in Japan and 33 per cent in Europe as a whole; see Hammond (1996)), opposed the tax for the following reason:

> The proposed tax was to be shared equally between carbon content and energy content on the grounds that a pure carbon tax would have favoured nuclear energy. For this reason alone the joint carbon energy tax was always opposed by France, which favoured a straight carbon tax.
> (Haigh 1996, p. 165)

The less developed Member States, for their part, perceived the tax as a threat to their economic progress and argued that it was imperative for their economic

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

growth to increase their emissions so as to catch up with the rest of Europe. Only in the case of additional structural funding were they prepared to accept the tax proposal (Lacasta *et al.* 2002; Ikwue and Skea 1994). Finally, the UK was opposed to the use of fiscal mechanisms at EC level as a matter of principle, invoking the subsidiary principle and also arguing that it could meet its own stabilization target without the need for taxation interventions (Collier 1997a; Haigh 1996). Given the aforementioned requirement for fiscal matters to be decided by unanimity, it felt improbable that the tax proposal would be promulgated at all, let alone in time for UNCED (Wettestad 2001). In the course of events, and despite several attempts by the Danish, Belgian and German Presidencies to promote CO_2 taxation, the tax proposal was all but abandoned at the Essen summit of December 1994 (Huber 1997). The UK in particular proved instrumental in ensuring its demise. The summit's final conclusions simply allowed Member States to apply a carbon/energy tax if they so desired (Lacasta *et al.* 2002).

Impact of EU disunity

The internal controversy over the tax proposal dominated the climate policy debate within the EC and effectively prevented it from adopting a more ambitious and proactive stance during the Rio Summit. So intense were the intra-EC disputes in the run-up to Rio that Ripa di Meana, then Environment Commissioner, threatened to boycott it if the Council failed to approve the tax proposal and thus adopt a solid implementation strategy for meeting the EC stabilization target (Zito 2000). The Commissioner did follow through on his threat by declining to attend the June 1992 Rio Summit, resigning from his position soon afterwards (Hovi *et al.* 2003). The inability to adopt the tax proposal meant in practical terms that the EC arrived in Rio without a unified position. Its climate policy consisted simply of a Council-approved political goal of stabilizing CO_2 emissions by the year 2000 at 1990 levels, but an agreement on how to implement this target was sorely lacking. This resulted in finding itself on the defence when insisting on the need for the Convention to include a firm commitment on stabilizing CO_2 emissions. The US seized on the opportunity to dismiss the EC's stabilization target as 'nonsensical', given it was not underpinned by a coherent implementation strategy (Jordan and Rayner 2010, p. 58).

The tax proposal represented a critical test of the EC's resolve to stand forth as a

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

global climate leader. As Underdal (1998, p. 105) notes, by failing to 'adopt strict standards for itself, a government may undermine its credibility as a champion of strict international rules'. By failing to adopt concrete climate mitigation policy instruments, the EC gave political ammunition to its opponents and made itself less than credible in its leadership aspirations. Consequently, this led to uncertainty and mistrust among other parties as to whether the EU was genuinely in a position to bind itself to specific climate policies that displayed commitment and ambition.

Irrespective of its internal divisions, the EC decided to assume a leadership role in the nascent climate regime, which led to the emergence of what Underdal (1998) calls 'process-generated stakes'. As he explains, by entering into negotiations a party enters a game that can have a major impact on its image and reputation. For a leader, therefore, the way in which it is perceived to 'play the game' can be a very important parameter when it comes to international negotiating fora (Underdal 1998, p. 115). Guided by reputational concerns, the EU pushed for a strong Convention that relied on top–down, binding targets and underpinned by scientific evidence.

However, it was proposing what Underdal (1998) points to as a 'politically inadequate solution design model'. This refers to the gap between a scientifically 'appropriate' solution to a problem and a politically 'acceptable' or 'feasible' agreement. As noted in the introductory chapter, for a solution to an environmental problem to qualify as 'good', it needs to meet three main criteria: efficiency, fairness and feasibility. An efficient or 'good' regime is one that is ecologically sound or sustainable. Fairness calls attention to the distribution of costs and benefits, while feasibility refers to political and technical practicability. From the outset, however, the US administration of George H.W. Bush adopted a rather rigid stance, threatening not to attend the Rio Summit and asserting that the 'American lifestyle was not negotiable' (Brown 2002, p. 23).

The EC had thus to confront the US's firm opposition to binding targets, which effectively left it with the following dilemma: push for a strong Convention and take the risk of the US not signing, or strike a compromise which would enable the US to sign while still reflecting the EC's own political commitment (Haigh 1996). A number of Member States were willing to accept a stronger convention without US participation, while others were of the opinion that such a Convention would

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

hardly be worthwhile, since other countries would be given an excuse not to sign. The lack of a unifi EC position on the dimensions of a zone of agreement eventually paved the way for the UK Secretary of State for the Environment, Michael Howard, to forge the rather modest agreement with the US that was outlined in Chapter 1. Could this be regarded as an EC contribution to the framing of the Convention? That is a matter of opinion (Haigh 1996). Formally, no Council decisions were taken that gave the UK the mandate to negotiate on targets and timetables, while a number of Member States were not even informed of the UK initiative. Even more, following the conclusion of the agreement the initial reaction of Ripa di Meana and a number of Member States had been to express their disappointment and frustration (Schunz 2014). Yet, Haigh (1996, p. 182) concludes that had it not been 'for the machinery provided by the EC for discussions between ministers' there might not have been a Convention. Schunz (2014, p. 61) argues that given that the UK lacked the clout to unilaterally strike a deal with the US, its actions 'may be regarded – ex post – as a form of implicit task-sharing within the EU'.

Summing up, the EC's announcement of its stabilization target did help move the INC negotiations forward, but its self-declared leadership role was tarnished because of the failure of its Member States to agree on the question of CO_2 taxation. The EC's negotiating performance was not satisfactory either. In formal terms, the Commission was only an observer at the sessions of the INC, meaning it had no voting rights and was not entitled to engage in formal discussions, unless explicitly asked otherwise (Bretherton and Vogler 2006; Bergesen 1991). In this case, the Commission was actually invited to contribute to INC deliberations, but because of its limited competence in the field of climate change it had to rely on the EC presidency as a spokesman for the Community (Bergesen 1991). That said, Commission officials were pivotal in assisting the various Presidencies provide for unity and consistent representation over the course of the negotiations (Schunz 2014). Note at this point that the EC did sign the Rio Convention alongside its Member States, making use of the Regional Economic Integration Organization (REIO) formula. The REIO formulation was invented within the context of the 1979 Long Range Transboundary Air Pollution (LRTAP) Convention as a means of overcoming USSR objections to full EEC participation in the negotiating table. Hoping that a similar status would be accorded to Comecon, the Soviets finally yielded, thus making the EU the fi and only (as Soviet hopes never materialized) example so far of an REIO (Vogler 1999). An REIO can be party to a convention

THE DEVELOPMENT OF EUROPE'S CLIMATE POLICY (1986-1992)

without or alongside its Member States, but neither can exercise their voting rights at the same time. In short, the EC and its Member States signed the Convention as a 'mixed agreement', and when ratifying it in 1993 they noted that:

> The European Economic Community and its Member States declare that the commitment to limit anthropogenic CO_2 emissions set out in Article 4 (2) of the Convention will be fulfilled in the Community as a whole through action by the Community and its Member States, within the respective competence of each.
> (OJ 1993, p. 28)

Because of its political weight, the Community had a significant impact on the international bargaining outcome, but disagreements among its Member States led to problems and inconsistencies. The lack of a unified position allowed the UK to bypass the Community and negotiate a compromise on its own, while the 'rich and green' countries, which had adopted more ambitions emissions reduction targets, played the role of individual pushers (Andresen and Agrawala 2002). An EC official in Rio, commenting on the lack of a coordinated EC policy, noted: 'There is a feeling that it is each country for itself out there' (Sandler 1992, p. 4).

CHAPTER

2

EU POLICY ON RENEWABLE ENERGY

This chapter is excerpted from

Climate Policy Integration into EU Energy Policy: Progress and Prospects

by Claire Dupont.

Learn more

EU POLICY ON RENEWABLE ENERGY

Excerpted from *Climate Policy Integration into EU Energy Policy*

The empirical analysis opens in this chapter with an examination of the levels of climate policy integration in the policy process and output of EU renewable energy (RE) policy, while also exploring the development of EU RE policy over time. I analyse the 2001 renewable electricity Directive (RES-E Directive 2001/77/EC) and the 2009 renewable energy Directive (RE Directive 2009/28/EC). I begin with a discussion of RE in the EU and historical policy developments to promote RE. I then describe the RES-E and RE Directives and measure CPI in their processes and outputs. The chapter closes with a brief discussion of the future outlook for CPI in RE policy.

Renewable energy in the EU

Renewable sources of energy are defined as renewable non-fossil energy sources that are 'replenished by natural sources at a rate that equals or exceeds' their rate of use (Moomaw *et al.*, 2011: 3). These sources are identified in EU legislation as including wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases (Directive 2001/77/EC Article 2.a; Directive 2009/28/EC Article 2.a). According to data from the European Environment Agency (EEA) and Eurostat, the share of RE in the EU28's final energy consumption increased from about 8.3 per cent in 2004 to 15 per cent in 2013 (EEA, 2014; Eurostat, 2015). Clearly, progress had been made over the two decades from 1990, when the RE share stood at about 4–6 per cent (see Figure 3.1; EEA, 2011; European Commission, 1992). The main increases in the share of RE happened rather in the period from 2005 onwards, when stronger policy instruments were in place and with the effect of the economic and financial crises from 2008 onwards leading to an artificial inflation of the overall 'share' of RE in final energy consumption (as consumption dropped) (EEA, 2011).

Although the share of RE has increased in the EU, this has not happened uniformly across all member states. In 2013, Sweden had the greatest share of RE in its final energy consumption (over 52 per cent, up from nearly 39 per cent in 2004), while Luxembourg had an estimated 3.6 per cent share of RE in its final energy consumption in 2013 (compared to 0.9 per cent in 2004; see Table 3.1 for details of member state RE development). Nevertheless, each member state has increased its share of RE over time, and the EU as a whole is on track to achieve an overarching target of at least 20 per cent share of RE in final energy consumption

EU POLICY ON RENEWABLE ENERGY

in 2020 (EEA, 2014).

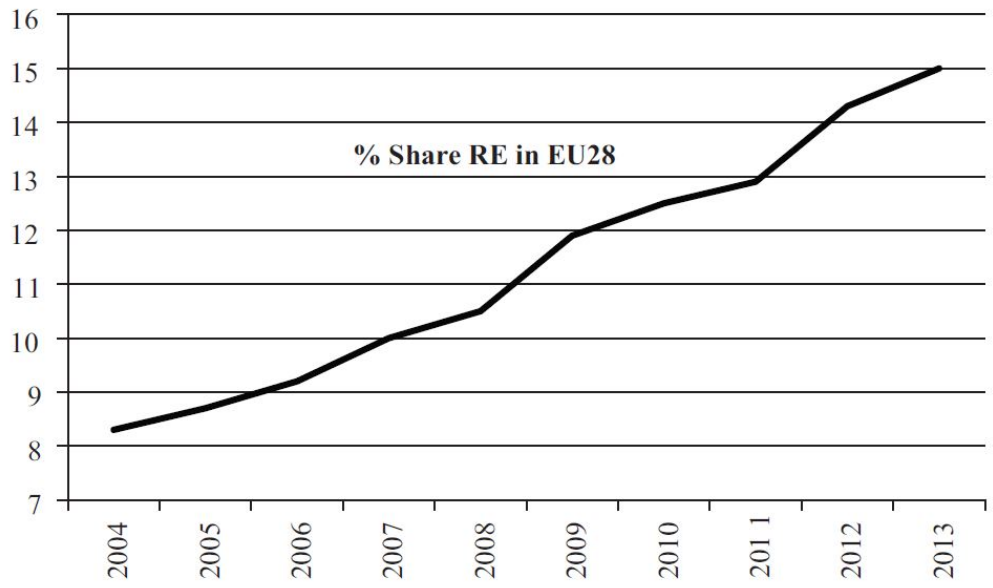


Figure 3.1 Percentage share of renewable energy in final energy consumption in the EU28

Source: Compiled from (EEA, 2014; Eurostat, 2015)

Early policy development

While the increases of the share of RE in the EU is evident especially since 2005, attempts at EU-wide RE policy development began much earlier. The EU began discussing RE policy in the 1980s, based on multiple motivations: responding to environmental and climate concerns, tackling energy security issues and developing an internal energy market.

In the wake of the oil crises in the 1970s, following the Arab-Israeli war and the Iranian revolution, some EU member states began to develop policies to promote RE. These crises imbued a sense of energy security vulnerability. With few EU member states having sufficient proven reserves of fossil fuels, states began to search for alternative energy sources that could increase energy independence (Hildingsson, Stripple and Jordan, 2010: 105). These early policy developments took

EU POLICY ON RENEWABLE ENERGY

place at the level of some member states, and not at the EU level. Denmark, Sweden and Germany, in particular, first developed national RE policies in the 1970s (Nilsson, 2011: 113). By the 1980s, several member states had put in place their own instruments and support mechanisms for RE, resulting in several different approaches across the EU (Lauber, 2001). The member states also favoured different renewable technologies (Denmark supported wind, Sweden favoured bioenergy crops, for example, Nilsson, 2011: 113).

Table 3.1 Percentage share of RE in final energy consumption in the EU28 and in each member state in 2004 and 2013, compared to 2020 target

	2004	*2013*	*2020 target*
EU28	7.9	15	20
Austria	22.7	32.6	34
Belgium	1.9	7.9	13
Bulgaria	9.5	19	16
Croatia	13.2	18	20
Cyprus	3.1	8.1	13
Czech Republic	5.9	12.4	13
Denmark	14.5	27.2	30
Estonia	18.4	25.6	25
Finland	29.2	36.8	38
France	9.4	14.2	23
Germany	5.8	12.4	18
Greece	6.9	15	18
Hungary	4.4	9.8	13
Ireland	2.4	7.8	16
Italy	5.6	16.7	17
Latvia	32.8	37.1	40
Lithuania	17.2	23	23
Luxembourg	0.9	3.6*	11
Malta	0.1	3.8	10
Netherlands	1.9	4.5	14
Poland	6.9	11.3	15
Portugal	19.2	25.7	31
Romania	17	23.9	24
Slovenia	16.1	21.5	25
Slovakia	5.7	9.8	14
Spain	8.3	15.4	20
Sweden	38.7	52.1	49
United Kingdom	1.2	5.1	15

Note: * the figure for Luxembourg for 2013 is estimated.

Source: Compiled from (Eurostat, 2015)

EU POLICY ON RENEWABLE ENERGY

Excerpted from *Climate Policy Integration into EU Energy Policy*

Environmental concerns did begin to rise up the European policy agenda in the 1980s and 1990s (Lenschow, 2002), along with international attention to environmental issues. The problem of climate change began to drive RE policy in the EU, as an add-on to the energy security concerns highlighted during the 1970s. EU policy aimed to improve coordination in achieving an overall increase in the share of renewables in the energy mix of the EU, thus achieving both energy security and environmental objectives. EU RE policy, however, also emerged in response to the push to develop a liberalised internal energy market (Hildingsson *et al.*, 2010: 103 and 106). With the drive towards market liberalisation, in the late 1980s and 1990s, issues arose related to the perceived unequal playing field among RE producers and conventional energy producers (Jansen and Uyterlinde, 2004: 93). The Commission, especially, identified a need for further liberalisation and for the development of EU-level harmonised RE policies (Boasson and Wettestad, 2013).

The Council outlined in its 1986 resolution on Community energy policy objectives that the promotion of RE was one of the EU's energy policy objectives (Council of the European Union, 1986; European Commission, 1997: 6). Yet it was not until 1993 that the EU agreed to implement ALTENER – the first EU-wide initiative to promote RE. The aim of ALTENER was to increase the share of renewables to 8 per cent (doubling the share), to treble the share of renewables in electricity generation and to ensure 5 per cent share of biofuels in transport, all by 2005 (European Commission, 1992: 24). In addition, the stated rationale for EU-level action on RE at this time was the role of the EU in coordinating national efforts, and 'ensuring their convergence towards common objectives'. Setting quantified objectives at EU level, the Commission argued, gives clear indications to consumers, producers and investors (European Commission, 1992: 21).

Beyond the harmonisation logic, climate concerns did begin to play a more significant role in the justification for RE policy development. The EU wished to show through its RE policy that 'the Community and its member states are determined to make a significant contribution to protecting the environment, and in particular reducing CO2 emissions, by exploiting RE sources' (European Commission, 1992: 21). ALTENER was one of the few internal policies at this time that the EU could claim as climate policy. Nevertheless, ALTENER was a weak policy instrument, mostly due to a lack of allocated funds. In an effort to strengthen RE policy, the Commission followed up with a green paper on

EU POLICY ON RENEWABLE ENERGY

renewable energy in 1996 (European Commission, 1996) and in 1997 with a white paper (European Commission, 1997), which paved the way for policies adopted in the 2000s.

Climate policy integration into EU RE policy

Measuring CPI in the policy process and output of EU RE policy requires identifying benchmarks. In the policy process, very high levels of CPI would mean that climate policy objectives gain high priority, and even precedence over other policy objectives. We could thus expect that the most responsible actors in the policy process would be those most in favour of strong action on climate change. Thus, we could see DG Environment as the lead drafters of the policy proposals in the Commission, with the ENVI committee drafting the report for the Parliament's readings, and the environment Council formation negotiating and agreeing the Council's position. We would expect external pro-climate stakeholders (NGOs, RE industry, etc.) to have easy access to provide input to the policy process, and pro-climate arguments would receive general backing in policy circles. Additionally, the main motivation of policymakers to advance RE policy would be to achieve the long-term climate policy objectives. In this respect, the recognition of the functional interrelations between the policy areas in the process would help push for more ambitious policy measures to improve the share of RE in EU final energy consumption (given that increases in the shares of most types of RE can directly displace fossil fuel-generated energy, thus reducing GHG emissions). These expectations represent a qualitative benchmark for very high levels of CPI in the policy process of EU RE policy.

For CPI in the policy output, the distance between the policy output (or the agreed final policy objective) and expected levels of RE shares under long-term climate policy objectives could represent a clear measurement for CPI. Long- term climate policy objectives agreed in the EU are summarised in two overarching goals: first, to ensure that global temperature increases do not exceed 2° Celsius (Council of the European Union, 1996; European Commission, 2007d) and second (and flowing from the first objective) to reduce GHG emissions in the EU by between 80 and 95 per cent by 2050, compared to 1990 levels (European Council, 2009). Thus, understanding the role that RE will play in 2050 can help in understanding whether climate policy objectives are sufficiently integrated into RE policy to

EU POLICY ON RENEWABLE ENERGY

achieve the 2050 goal. In RE policy, very high levels of CPI would imply ambitious policy to increase the share of RE in final energy consumption in the EU. Most sources of RE can displace fossil fuels, and thus reduce GHG emissions. Therefore, it can generally be said that the more ambitious RE policy is, the better this is for achieving climate policy goals.

Many scenarios outlining the road to decarbonisation by 2050 highlight the significant role to be played by RE in the energy mix to achieve the climate goals (ECF, 2010; EREC and Greenpeace, 2010; EREC, 2010; European Commission, 2011a; Heaps, Erickson, Kartha and Kemp-Benedict, 2009), with some scenarios outlining possible pathways to a 100 per cent RE supply (overall or for the power sector) (EREC, 2010; PricewaterhouseCoopers, 2010; WWF, 2011). Other analyses include a range of solutions including CCS technologies, and nuclear energy in their assessments (ECF, 2010; European Commission, 2011a; Odenberger and Johnsson, 2010; Reichardt, Pfluger, Schleich and Marth, 2012). Depending on the assumptions regarding CCS and nuclear energy, most scenarios nevertheless imply an RE share of between 55 and 100 per cent by 2050 as required for decarbonisation. With CCS technologies still commercially risky in 2014 (DG Climate Action, 2014; Reichardt *et al.*, 2012), and nuclear energy continuously facing public opposition for both environmental and safety reasons, I follow here the arguments that a high proportion of RE is required in the overall energy mix for 2050. Scenarios that limit or exclude both nuclear and CCS technology suggest that close to 100 per cent of our energy demands can be supplied by RE sources. Thus, taking the top ranges outlined in studies on decarbonisation to 2050, that limit (or exclude) the role of nuclear energy and CCS, suggests between 80 and 100 per cent of RE share by 2050.

Figure 3.2 shows what a linear trajectory for CPI towards 80 to 100 per cent share of RE in the EU would look like from 2000 to 2050. A linear trajectory for CPI may seem a simplistic tool for measuring the share of RE in final energy consumption to 2050, as early action requires high upfront costs. However, it can also be argued that early action is required to ensure GHG emissions peak early enough to mitigate climate change (IPCC, 2007). Thus, I use a linear trajectory to balance the effort over time. This is compared to business-as-usual (BAU) scenarios from the Commission's 2007 renewable energy roadmap and from the Commission's 2011 energy roadmap (European Commission, 2007a, 2011c). A share of RE of between 80 to 100 per cent by 2050 implies an increase by about 7 to 9

EU POLICY ON RENEWABLE ENERGY

percentage points every five years from 2000. In 2000, the share of RE stood at nearly 8 per cent (European Commission, 2011c), and this increased by just one percentage point to nearly 9 per cent in 2005 (EEA, 2008: 44). The Commission's BAU scenario from 2006 includes the early 2001 RES-E Directive measures, but still only expects increases in the share of RE of about 1 percentage point every five years – hitting about 10 per cent in 2010 and just over 12 per cent in 2020 (European Commission, 2007a: 7). The second (2011) BAU scenario includes measures from the 2009 RE Directive that aim to increase the share of RE in the EU to 20 per cent by 2020 (see below). This BAU scenario outlines the achievement of the 20 per cent goal to 2020, but does not expect increases in the share of RE beyond 2020 of much more than 1 percentage point every five years – reaching just over 25 per cent by 2050 (Dupont and Oberthür, 2012; European Commission, 2011c).

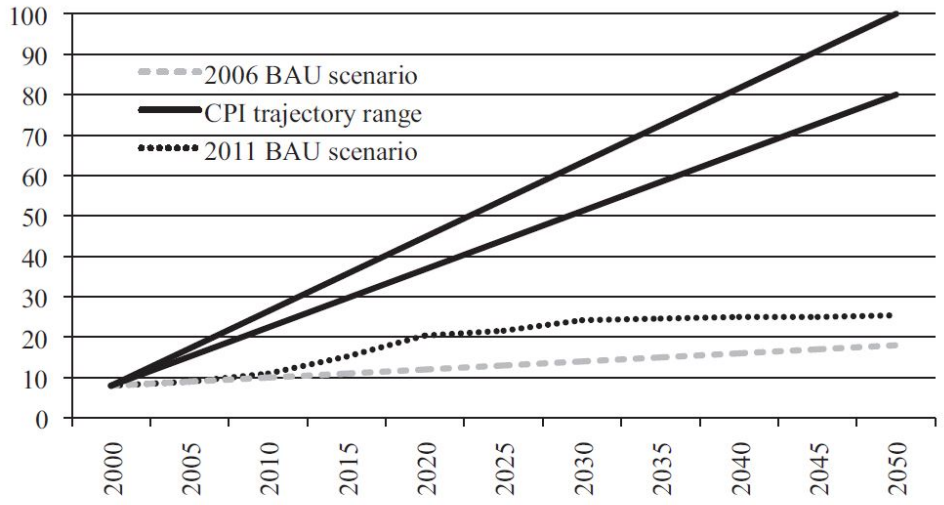


Figure 3.2 Expected very high levels of CPI from 2000–2010, compared to BAU scenarios from 2006 and 2011 (measured as a percentage share of final energy consumption)

Source: Compiled from (European Commission, 2007a, 2007b, 2011a, 2011b, 2011c), own calculations

Based on this linear trajectory, I will be able to provide a broad assessment of the distance between the policy output of the 2001 renewable sources of electricity Directive and the 2009 RE Directive, and the trajectory for achieving very high

EU POLICY ON RENEWABLE ENERGY

levels of CPI.

EU RE policy in the 2000s

In the 2000s, the EU agreed on two main policy instruments for increasing the share of RE in energy consumption – the 2001 Directive on the promotion of electricity from renewable energy (2001/77/EC, called the 'RES-E Directive') and the 2009 Directive on the promotion of the use of energy from renewable sources (2009/28/EC, the 'RE Directive'). The main lines of these two policy instruments grew from debates and discussions in the 1990s.

The weakness of the ALTENER policy instrument agreed in the 1990s led to early calls for new policy development. The Commission published its white paper on 'energy for the future' in 1997, outlining several co-benefits and motivations for future policy development (European Commission, 1997; Howes, 2010: 117). These included the following points:

- RE can reduce energy dependency and increase energy security;
- The development of RE sources can promote job creation;
- RE can help the EU comply with environmental protection requirements and commitments at both EU and international-level;
- The growing energy consumption of developing countries provides (world-leading) EU renewable industries with an opportunity to expand (European Commission, 1997: 4);
- EU-wide RE policy was essential 'to avoid imbalances between members states or distortion of energy markets' (European Commission, 1997: 6–7).

The EU adopted its first Directive on promoting renewable sources of electricity in 2001. The Directive sets out an objective to achieve 22 per cent share of renewable energy sources in electricity in the EU by 2010 (revised to a 21 per cent share with the accession of new member states in 2004 and 2007).

Discussions following the 1997 white paper informed the debate leading up to the proposal and adoption of the 2001 RES-E Directive. Many of the issues of debate in these late years of the 1990s and early years of the 2000s continued to play a role in RE policy development into the future. Among the main points of contention

EU POLICY ON RENEWABLE ENERGY

were questions about whether targets to increase the share of renewables should be binding or not; what sources of energy can fall under the definition of 'renewable'; and whether or not support measures for RE should be harmonised at the EU level (Rowlands, 2005: 966). The Commission favoured harmonised RE certificate trading to support RE development over the (generally successful) national feed-in tariff schemes (a fixed-price payment) in place in, for example, Germany, Denmark and Spain (Boasson and Wettestad, 2013: 82). But in the face of considerable opposition, the Commission eventually put aside its insistence on introducing harmonised support schemes (Jansen and Uyterlinde, 2004: 97).

In the light of these heated debates and discussions, the publication of the proposal for a directive on RE sources in electricity was delayed from the planned date of 1998 and finally published on 10 May 2000 (European Commission, 1997: 34, 2000b). The proposal came after the EU's commitment to reduce its GHG emissions by 8 per cent by 2008–2012 compared to 1990 levels under the Kyoto Protocol (1997) had been agreed. Policy to increase the share of RE in the EU was one of the concrete responses from the EU to achieve this target (Boasson and Wettestad, 2013). At this point in time, RE policy focused on the electricity sector – the heating and cooling sector was not a part of the Commission's proposal and the transport sector was dealt with in the 2003 Biofuels Directive (2003/30/EC). The legal basis for the proposal was Article 95 of the Treaty establishing the European Community (Amsterdam Treaty, TEC), placing the RES-E Directive under the internal market competence of the EU. This reflects the debate within the Commission at the time, especially on the harmonisation of support schemes, and the focus on market integration. As the internal market for energy was developing (after the adoption of the 1996 Electricity Directive 96/92/EC and the 1998 Gas Directive 98/30/EC), the Commission feared that many different national support schemes for RE would represent barriers to fair competition and distort trade (Boasson and Wettestad, 2013; Lauber, 2001: 299; Nilsson, 2011: 115). There was much debate on what system was most effective for promoting RE, with criticism of the Commission's market-oriented approach coming from member states (citing the subsidiarity principle), environmental NGOs and RE industry (arguing that the quota system of the certificates would be ineffective). In the end, the Commission proposed to 'monitor' the national support schemes (European Commission, 2000b: 20).

The Commission's proposed definition of 'renewable energy sources' was

EU POLICY ON RENEWABLE ENERGY

'renewable non-fossil sources (wind, solar, geothermal, wave, tidal, hydroelectric installations with a capacity below 10 MW, and biomass, which means products from agriculture and forestry, vegetable waste from agriculture, forestry and from the food production industry, untreated wood waste and cork waste)' (European Commission, 2000b: 19). The Commission did not propose to make the 12 per cent target legally binding, however, and instead requested five-yearly updates from member states on their plans, with the Commission scrutinising member state progress on an annual basis. In the event that the Commission found a lack of progress in member states, it should be able to present proposals for imposing mandatory targets (pp. 19–20). The proposed indicative targets for the share of RE in electricity production per member state were outlined in the annex to the proposal. The biggest increase was expected from Denmark (with a target of 29 per cent of RES-E in 2010 – an increase from an 8.7 per cent share in 1997). Discussions took place in advance of the publication of the proposal with member state agencies, industry representatives, professional associations and NGOs, and among the Commission services (European Commission, 2000b: 13). In all of these consultations, the focus was on support schemes. Consultation also took place with the electricity supply industry and associations representing the RE industry on issues of administrative barriers and grid reinforcement requirements for integrating more RE into the electricity system.

The Parliament's energy committee (ITRE) was in charge of drafting a first reading response to the RES-E proposal. MEP Mechtild Rothe of the European Socialists political group was the rapporteur. MEP Hans Kronberger (no political group) provided an opinion on behalf of the ENVI committee. The first reading report was adopted by the Parliament on 16 November 2000, in which the Parliament suggested 68 amendments to the Commission's proposal (European Parliament, 2000b). The main substantive changes included the Parliament's disagreement with the Commission's calculations. The Parliament argued that the 12 per cent overall share by 2010 translated into a 23.5 per cent share of RE in electricity generation (as also mentioned in the 1997 white paper; European Commission, 1997), and requested a change in indicative targets in this respect. Additionally, the Parliament called for the national targets to be mandatory. Finally, the Parliament supported national-level support schemes. The rapporteur explained that there was a positive experience with the support schemes, and that they were necessary because of historical support to conventional and nuclear energy production that led to unfair competition for the new RE producers (European Parliament, 2000b).

EU POLICY ON RENEWABLE ENERGY

Generally, the Parliament aimed to strengthen the proposal in favour of renewable electricity and ensure trade and competition concerns did not hamper RE development.

The Commission responded with an amended proposal in December 2000 (European Commission, 2000a). It accepted a number of the Parliament's proposed amendments, but it did not accept Parliament's calculation of 23.5 per cent share in electricity (p. 5). Nor did the Commission take on board amendments making the national targets mandatory, but kept the phrase that the Directive would '... require all member states to set national targets ...' (p. 6). The Commission otherwise accepted much of the wording of the Parliament about evaluating national support schemes.

The Council's common position was the next step in the legislative proposal, and it was published on 23 March 2001 (Council of the European Union, 2001). The Council placed the proposal under the environmental chapter of the Treaty (Article 175.1, TEC), rather than under the internal market, as proposed by the Commission. The Council clarified that the targets should be non-binding, stating 'all member states should be required to set national indicative targets for the consumption of electricity produced from renewable sources' (p. 3). When drawing up their own 'indicative' targets, member states had to 'take account of' the national targets drawn up per member state by the Commission in the annex to the proposal (p. 9). Additionally, the Council removed the limit on hydropower in the definition of renewable energy sources (from a maximum of 10 megawatts), so that even large-scale hydropower could be considered a renewable energy source.

The proposal moved into second reading in the Parliament. The ITRE committee tabled the second reading recommendation in the plenary on 20 June 2001 (European Parliament, 2001). Media predicted a tough battle between Parliament and Council in the second reading, with MEP and rapporteur Mechtild Rothe warning that she would stick to the proposal for legally binding targets (ENDS Europe, 2001b). Informal negotiations between the then Swedish Presidency and the rapporteur resulted in a deal aimed to avoid entering the conciliation procedure (or the third reading) (ENDS Europe, 2001a). The negotiated deal meant that the non-binding targets remained in place in exchange for a commitment to introduce binding targets in future if the indicative approach fails. As amended by the Parliament in its second reading, recital seven of the final Directive reads: 'if

EU POLICY ON RENEWABLE ENERGY

necessary for the achievement of the targets, the Commission should submit proposals to the European Parliament and the Council which may include mandatory targets'. Agreement was also finally reached between Parliament and Council to allow energy produced from waste incineration and hydropower (without any upper capacity limit) to be defined as renewable energy (Art. 2). The final act was signed by Council and Parliament on 27 September 2001.

The Commission reported regularly on the progress in achieving the targets set out in the 2001 RES-E Directive in the years that followed. In its 2006 review, the Commission highlighted less-than-perfect implementation and paved the way for future policy measures. By this time, it had already begun infringement proceedings against six member states (Austria, Cyprus, Greece, Ireland, Italy and Latvia) for reasons of incomplete transposition of the Directive into national law; lack of commitment on the targets; lack of implementation of the guarantees of origin certificate system; lack of transparency in administrative procedures to issue licenses for new renewable electricity plants; and lack of transparency regarding access to grids and regarding rules on grid investment (European Commission, 2006a: 18). As a result of the poor performance in improving the penetration of RE sources of electricity, the Commission announced it would publish a roadmap for RE and propose a new legal framework (p. 19).

The 2009 Directive on increasing the share of renewable energy in the EU's final energy consumption outlined an objective of achieving a 20 per cent share of RE by 2020 in the EU, with specified national targets per member state. These targets are legally binding on member states.

The promised renewable energy roadmap was published in 2007. It aimed to establish a long-term vision for RE in the EU (European Commission, 2007b). It highlighted the unlikelihood of meeting the 2010 target, which constituted a 'policy failure and a result of the inability or the unwillingness to back political declarations by political and economic incentives' (p. 8). Most importantly, the roadmap contained a proposal for a legally binding target of 20 per cent share of RE in the EU's final energy consumption by 2020 – a target that remained throughout the later negotiation process and became part of the final text of the RE Directive 2009/28/EC (p. 3). This target came in response to scenarios and assessments in light of the European Council's call for a target of 15 per cent share of RE by 2015, and the European Parliament's call for a 25 per cent target by 2020

EU POLICY ON RENEWABLE ENERGY

(European Council, 2006: 15; European Parliament, 2006). The roadmap also outlined a departure from earlier legislation by highlighting the need for the future policy framework to cover RE sources in electricity, transport and the heating and cooling sector under one policy instrument (with the RE target then being measured as a share of final energy consumption).

The Commission put forward its proposal for a Directive on the promotion of the use of energy from renewable sources in January 2008 (European Commission, 2008). It was proposed as part of the 'climate and energy package' that also included a proposal for revising the emissions trading system (ETS), a proposal for a decision on reducing GHG emissions in sectors not covered by the ETS, and a proposal for a Directive to support CCS technology (Oberthür and Pallemaerts, 2010a, 2010b). The proposal established a binding 20 per cent RE target for 2020, and a second target to increase the share of biofuels and renewables in transport to 10 per cent by 2020 (European Commission, 2008: 8). It was proposed on the dual legal basis of the environmental chapter, Article 175.1 TEC, and Article 95 TEC on the internal market. The Commission justified this dual legal basis as the proposed articles on biofuels and bioliquids prevent member states from adopting measures that would block trade in biofuels. The rest of the proposed Directive is considered to fall under the objectives of the environment chapter to 'preserve, protect and improve the quality of the environment, protect human health and make prudent and rational use of natural resources' (p. 8).

The consultations leading up to the proposal included public consultations on the 2007 RE roadmap, on the energy green paper (European Commission, 2006b) and on the strategic energy review (European Commission, 2007c) between March and September 2006. In addition, public consultations took place in 2007 with 'member states, citizens, stakeholder groups, civil society organisations, NGOs and consumer organisations' (European Commission, 2008: 5). The major issues touched upon in these public consultations included a review of the promotion of biofuels in new RE legislation; the promotion of heating and cooling from RE; and administrative barriers to the development of RE. The Commission reported general support for stronger policy and long-term goals in RE policy, and also support for sustainability criteria for promoting biofuels.

The process leading to the adoption of the 2009 RE Directive took place in one reading. The negotiations among the institutions began informally early after the

EU POLICY ON RENEWABLE ENERGY

publication of the Commission's proposal. In the Parliament, MEP Claude Turmes (Greens) was the rapporteur for the ITRE committee on the dossier, but the ENVI committee had a special role as an associated committee for the first reading report (meaning it was jointly responsible with the ITRE committee, and did not simply provide an opinion). Anders Wijkman of the EPP group was the rapporteur for the ENVI committee. MEPs highlighted three main issues in the proposal that they would like to see strengthened: the interim targets for member states to meet the 2020 target (including sanctions if such interim targets were not met); sustainability criteria for biofuels in transport, if that target was to remain; and priority access for renewables to the electricity grid (ENDS Europe, 2008j). A fourth issue, that was a sticking point also for Council, was on the renewables trading certificates (ENDS Europe, 2008a, 2008f). While the rapporteur considered the proposed Guarantees of Origin (GO) certificate trading too legally ambiguous, member states (also supported by the Parliament) called instead for more flexibility on renewables trading (ENDS Europe, 2008a; Nilsson, Nilsson and Ericsson, 2009).

Throughout 2008, negotiations between Parliament and Council continued in trialogues. The proposal was discussed in the energy Council formation on 28 February, 6 and 9 June and 8 December 2008. Although the environment Council discussed the climate and energy package on 3 March, 5 June, 20 October and 4 December 2008, it focused on the emissions trading system proposal, the effort-sharing decision and the CCS proposal. These were the three legislative proposals considered within the 'competence' of environment ministers (Council of the European Union, 2008c: 9). The main points of contention for member states in the negotiations on the RE Directive included the strength of the national targets (and the consequences of not meeting the indicative trajectory), the sustainability criteria for the biofuels target and the system of GO trading (Council of the European Union, 2008a, 2008b; ENDS Europe, 2008a).

In September 2008, the ITRE committee insisted in the informal negotiations on mandatory interim targets for member states, with penalties for missing these targets (ENDS Europe, 2008g). The committee was ready to accept Council's proposal for more flexibility in renewables trading and the 10 per cent target for biofuels and renewables in transport. However, the committee included certain criteria for biofuels before they could be considered under the target (that at least two-fifths of the overall share should be from second-generation biofuels or

electric vehicles powered by RE). A further review clause on the biofuels provisions for 2014 was included. The rapporteur praised the inclusion of this review clause as an opportunity to strengthen the Directive later (ENDS Europe, 2008h).

By the end of October 2008, member states had reached an agreement within the Council, and negotiations on the remaining sticking points with Parliament continued. The major remaining issue at this point was the sustainability criteria for biofuels (Council of the European Union, 2008b; ENDS Europe, 2008d). Additionally, a review of all the targets in the Directive for 2014 was pushed for by Council – some member states saw this review clause as an opportunity to reconsider the strength of the targets overall (Council of the European Union, 2008e). Compromise between the Parliament and Council was reached by early December. Interim targets to 2020 remained indicative and no automatic financial sanctions were included for member states that miss their binding 2020 target. Agreement was reached that measures on the indirect land use changes due to biofuel production would be adopted later and the Commission was granted oversight over member state renewable action plans to be submitted after the Directive was adopted. Despite Italian desires to the contrary, the 2014 review clause clarifies that no changes can be made to the RE targets as a result of the review (ENDS Europe, 2008c, 2008i).

With the RE Directive forming part of the climate and energy package, it was negotiated alongside the revised ETS Directive (2009/29/EC), the Directive on CCS (2009/31/EC) and the effort-sharing Decision for emissions not covered by the ETS (Decision 406/2009/EC). On 12 December, in an unusual move under the ordinary legislative procedure, the European Council announced agreement on the entire package of legislative measures (ENDS Europe, 2008e; European Council, 2008a: 8–9). This announcement came before the Parliament adopted its first reading agreement, on 17 December 2008 – although the positions were already aligned, the Parliament had not yet officially adopted its position in plenary. The Commission accepted the text and the Directive was signed into law on 24 April 2009 as Directive 2009/28/EC.

CPI into the policy process of the 2001 RES-E Directive (2001/77/EC)

Having discussed the general outputs and processes leading to the adoption of the

EU POLICY ON RENEWABLE ENERGY

2001 RES-E Directive, I turn now to measuring the level of CPI in the policy process. As discussed above, and in Chapter 2, I examine three elements of the policy process to measure the level of CPI: the involvement of internal and external pro-climate stakeholders in the policy process, and the recognition of functional interrelations with long-term climate policy objectives. Together, these indicators will provide a qualitative assessment of the level of CPI in the process, in line with Table 2.1.

Internal pro-climate stakeholders

In the Commission, DG Transport and Energy ('DG Energy') drafted the proposal for the RES-E Directive. Much of the discussion within the Commission in advance of the (delayed) publication of the proposed Directive centred around the idea of harmonising support schemes (ENDS Europe, 1999b; Jansen and Uyterlinde, 2004). In the end, with member states, RE industry associations, environmental NGOs and MEPs all arguing against harmonising support schemes, the Commission accepted to 'monitor' national support schemes (Boasson and Wettestad, 2013; European Commission, 2000b). There is no clear evidence of the pro-active involvement of DG Environment in the development of the Commission's proposal, but they were certainly involved in the long discussions before the proposal was published.

In some respects, DG Energy itself can be said to have acted as a pro-climate stakeholder in the policy process. There may not have been any further need for the involvement of DG Environment, as the aim of the Commission was to advance RE policy in order to achieve climate objectives, at least in the short- term (under the Kyoto Protocol). In the proposal, the Commission states: 'In view of the substantial contribution RES can make to the implementation of the Community's commitments to reduce greenhouse gases, its expansion in the EU constitutes an essential part of the package of measures needed to comply with the Kyoto Protocol' (European Commission, 2000b: 3). With such a pro-climate stance, even without DG Environment taking the lead, we can assume DG Energy played a pro-climate role internally in the Commission. As suggested in Table 2.1, this involvement of a pro-climate stakeholder internally in the Commission implies a *medium* level of CPI in the policy process.

In the Parliament, although the ITRE committee drafted the report, the ENVI committee provided an opinion for the rapporteur. In this case, some of the ENVI suggestions were taken on board, and overall, it can be said that Parliament was

EU POLICY ON RENEWABLE ENERGY

ambitious in pushing for a policy measure that would make a difference, at least in the first reading. The Parliament pushed for mandatory national targets and highlighted the environmental and climate policy objectives of strong RE policy. The rapporteur's first reading report explained the many advantages of pushing for ambitious RE policy as follows:

> Renewable energies are an integral feature of an effective strategy to protect the climate; they help achieve the Kyoto objectives; they do not waste resources; they reduce emissions of harmful substances into the air; they make it possible to develop a decentralised structure of energy supplies, together with the possibility of sustainable regional development and new employment prospects; they create security of supplies; and, in an international context, they help developing countries solve a variety of problems.

(European Parliament, 2000b: 38)

Here, it is clear that the climate and environmental objectives that can be achieved through increasing RE are of paramount importance for the ITRE committee, with co-benefits for job creation and energy security coming later in the list of benefits. It could thus be said that the rapporteur in this case (MEP Mechtild Rothe) was a pro-climate stakeholder herself, and that the ITRE committee was committed to advancing climate policy through RE policy. The ENVI committee did also have the opportunity to provide an opinion and influence the final ITRE committee report. ENVI's amendments highlighted the role of the RES-E Directive in meeting GHG emission reduction targets under the Kyoto Protocol, which was accepted in the final legislative act. Other proposals, taken on board also by the ITRE committee (such as ensuring binding national targets) did not survive the policy negotiations. In this case, at least for the first reading, the ENVI committee provided several points that were taken on board by the ITRE committee in the drafting of the first reading report. However, negotiations on the second reading agreement took place informally between the rapporteur and the Presidency (ENDS Europe, 2001a). The ENVI committee had no role in these informal negotiations. Even though MEP Mechtild Rothe aimed to keep her strong stance throughout the second reading (ENDS Europe, 2001b), she finally relented and accepted many member state demands for the sake of agreement. In accordance with Table 2.1, the involvement of internal pro-climate stakeholders in the Parliament is *medium*. This is because,

EU POLICY ON RENEWABLE ENERGY

although ENVI provided an opinion in the first reading report, and several of ENVI's proposed amendments were included, ENVI did not participate in the informal negotiations that followed in second reading. While the rapporteur originally claimed she would stick to the objective of making the targets mandatory, she finally compromised with member states in exchange for promises that proposals for mandatory targets could be made in future if the indicative approach failed.

In the Council, negotiations took place within the energy Council formation. There is no apparent interaction with environment ministers (although it is true that negotiations in Council are often behind closed doors). Even though the Council and the European Council supported the objective to increase the share of RE in the EU to 12 per cent by 2010, as outlined in the 1997 white paper (see above), member states were not prepared to agree to mandatory targets. This, and the issue of the definition of sources of renewable energy, seemed to be the main sticking points in the negotiations with Parliament (ENDS Europe, 2000d). The French Presidency hoped to reach rapid agreement (ENDS Europe, 2000b), but these issues delayed agreement until 2001. In early 2000, some member states already raised questions about their shares of the indicative target, calling for them to be reduced. Italy pushed for waste incineration to be included as part of the definition of renewably-sourced electricity – a proposal that Parliament did not accept in the early stages of the negotiations (ENDS Europe, 2000d). Finally, the Council pushed for waste incineration as part of the definition and supported indicative targets. Portugal, Finland and the Netherlands negotiated for lower indicative targets to 2010 as the proposed targets were considered too ambitious (Council of the European Union, 2001; ENDS Europe, 2000a). Unlike in the Parliament and Commission, the absence of pro-climate stakeholders in the policy process that could pressure for high political commitment to strong RE policy may have lowered the level of CPI overall in the policy process in the Council. In this case, (and in line with Table 2.1) there is *very low* evidence of strong involvement of internal pro-climate stakeholders in the policy process.

Taking an aggregate of the *medium* levels of involvement of pro-climate stakeholders in the Commission and Parliament with the *very low* levels in the Council, the overall level of involvement of internal pro-climate stakeholders in the process leading to the agreement on the RES-E Directive is *low to medium*.

External pro-climate stakeholders

EU POLICY ON RENEWABLE ENERGY

Excerpted from *Climate Policy Integration into EU Energy Policy*

The Commission's proposal for the RES-E Directive was published in 2000, before requirements for an impact assessment and open public consultations existed. These became a regular part of the Commission's preparations for policy proposals after 2002, when better regulation and minimum standards for consultation were adopted (European Commission, 2002). No impact assessment procedure or open public consultations leading to the publication of the Commission's proposal were carried out. Nevertheless, there was much discussion among EU institutions, member states and other stakeholders in the aftermath of the publication of the 1997 white paper. The Commission reports that industries, professional associations and NGOs were involved, along with Commission officials and member state representatives, in the discussions (European Commission, 2000b: 13). RE industry representatives were consulted, especially with regard to administrative procedures and grid issues.

Without formal consultation procedures in place, it is difficult to assess the extent to which external pro-climate stakeholders had access to the Commission. One interviewee suggested that in the late 1990s and early 2000s, environmental NGOs, in particular, were less a part of the policy process in general than in the mid- to late-2000s (interview 7). The Commission was not always the first lobbying target for environmental NGOs. The RE industry at this time was focused on ensuring that national support schemes remained in place, and rather worked with the Parliament and through their national governments, than with the Commission (Boasson and Wettestad, 2013; Hildingsson *et al.*, 2010). The German RE industry was particularly strong on pushing the German government not to accept Commission proposals to harmonise support schemes (ENDS Europe, 1999b). A coalition of environmental groups did try to influence the Commission's proposal by calling jointly for a strong RE law and pushing EU member states to agree to a 16 per cent RE share target for 2010 (ENDS Europe, 1999c). The coalition, including Greenpeace and WWF, targeted member states instead of the Commission. Later, the NGOs WWF and Climate Action Network criticised the Commission's low ambition in its proposals (ENDS Europe, 1999a). It seems that the informal lobbying of environmental NGOs in the advance publication of the proposal did little (if anything) to encourage the Commission to propose more ambitious policy.

Thus, the involvement of external pro-climate stakeholders in the policy process with the Commission is *low*. There were no official procedures in place to allow external stakeholders access to the Commission, and consultation seems to have

taken place on an ad hoc basis. The involvement of environmental NGOs is unclear, and the RE industry preferred to lobby their own governments first.

When it comes to the Parliament, environmental NGOs generally agree that they have easy access, and better chances to make their voices heard (interviews 5, 6, 7, 8 and 11). In the early 2000s, environmental NGOs backed up the Parliament's first reading stance on the RES-E proposal: namely, to push for mandatory targets and to ensure that national support schemes continued. At this time, the RE industry was becoming increasingly organised at the EU level in the form of the European Renewable Energy Council, EREC (Boasson and Wettestad, 2013). The Parliament was generally an ally of environmental NGOs and the RE industry, who were reportedly happy with the result of the first reading (ENDS Europe, 2000c). The same external pro-climate stakeholders were, however, generally dissatisfied with the final result of the policy negotiations (Nilsson, 2011). Nevertheless, although Parliamentary actors were overall in favour of pushing for more ambitious policy on RE, there were no official procedures for consultation. The involvement of external pro-climate stakeholders was on an informal basis. While interviewees considered their access to the Parliament as sufficient (interviews 1, 5, 6, 7, 8 and 11), their access to policy-making processes became more limited as the process continued. Informal negotiations in the second reading effectively excluded external pro-climate stakeholders. They could not access the policymaking process and neither could they follow the developments in the process, as negotiations took place behind closed doors (interview 6).

According to Table 2.1, this situation amounts to a *low to medium* level of involvement of external pro-climate stakeholders in the policy process with the Parliament. There were no official procedures in place, but all interviewees reported easy access to the Parliament. However, this ease of access was only in the early stages of the policy process, as informal negotiations between Council and Parliament in the second reading effectively excluded possibilities for external stakeholder involvement.

In the Council, there were few opportunities for external stakeholders to get involved. Many negotiations in the Council take place behind closed doors, and are not transparent (interview 6). Environmental NGOs were particularly limited in this case in their ability to access the Council, which often requires lobbying governments at the member state level. Several NGO interviewees commented

EU POLICY ON RENEWABLE ENERGY

that their own internal resources did not allow them to follow such a strategy (interviews 5, 6 and 7). The RE industry, however, lobbied at both member state and EU level. RE industries were organised at EU level under EREC, but they did not benefit from any special access to the Council. Their push for binding RE targets, for example, did not survive in the Council (Council of the European Union, 2001).

The involvement of external pro-climate stakeholders in the process with the Council can only be considered *low*. While in the early stages, RE industries in some member states could access their national governments and push policy at that level, in later stages of the policy negotiations, there was no access to the Council for external environmental NGOs or RE industry representatives. These stakeholders tried to remain visible throughout the process, but could not access a closed Council.

In summary, the involvement of external pro-climate stakeholders in the policy process leading to the adoption of the 2001 RES-E Directive is generally *low*, although informal access to the Parliament scored *low to medium*.

Recognition of functional interrelations

From the very beginning of the development of RE policy in the EU, policy- makers highlighted the benefits of RE promotion for climate policy. The Commission stated that one of the main objectives of the RES-E Directive was to meet 'the obligation to reduce the emission of greenhouse gases accepted by the EU at Kyoto' (European Commission, 2000b: 2). The Parliament also highlighted, especially, the climate and environmental objectives of increasing the share of RE in the EU, and aimed to strengthen the Commission's proposal (European Parliament, 2000a). The Council and European Council had originally supported the Commission's 1997 white paper on renewable energy, calling for a doubling of the share of RE in the EU to 12 per cent by 2010 as a response to climate commitments. Yet in the negotiations on the RES-E Directive, member states watered-down the proposal to ensure targets were 'indicative' and that waste incineration would be defined as a renewable source of energy (Council of the European Union, 2001).

The synergetic functional interrelations between RE policy objectives (to increase the share of RE in EU energy consumption) and climate policy objectives (to reduce GHG emissions) were certainly recognised by policymakers in the early stages of

EU POLICY ON RENEWABLE ENERGY

the policy process especially. The recognition was rather limited to short-term climate policy objectives (such as the commitments under the Kyoto Protocol for 2008–2012), and there is little mention of long-term climate policy objectives to limit global temperature increase to 2° Celsius. The final Directive does not provide for mandatory targets, and neither can the output (12 per cent RE share by 2010) be considered ambitious from a long-term perspective (see below). Policy negotiations in the later phases pitted the Parliament against the member states. In some respects, the functional interrelations remained a stronger part of the negotiation strategy of the Parliament, yet the rapporteur nevertheless compromised with the Council in informal negotiations in the second reading. Perhaps for the sake of getting agreement, the long-term functional interrelations (which, if recognised, should help push for ambitious RE policy), were rather left aside in the later stages of the policy negotiations.

As outlined in Table 2.1, the recognition of functional interrelations between long-term climate policy objectives and RE policy objectives in the policy process leading to the RES-E Directive is situated close to the *medium* level (functional interrelations recognised and considered by policymakers in the process, but this does not motivate sufficiently strong policy action). The co-benefits of the policy objectives were highlighted from the outset of the policy proposal, yet related more to short- or medium-term climate policy objectives than long-term objectives. The recognition of these functional interrelations turned out to be insufficient to push policy in a more ambitious direction.

Taken together, the *low to medium* levels of involvement of internal pro- climate stakeholders, the *low* levels of involvement of external pro-climate policy stakeholders, and the *medium* recognition of the functional interrelations in the policy process suggests an overall level of CPI in the policy process in the 2001 RES-E Directive of *low to medium*.

CPI in the policy output of the 2001 RES-E Directive

As shown in Figure 3.2, very high levels of CPI for RE policy would see an increase in the share of RE in EU final energy consumption by between 7 and 9 percentage points every five years from 2000 to meet long-term climate objectives by 2050. We can use data recorded on the shares of RE in the EU since 1990 to make

EU POLICY ON RENEWABLE ENERGY

suggestions of what BAU between 1990 and 2010 might have looked like without the RES-E Directive in place. Plotted against the expected BAU scenario, the 12 per cent target as the policy output for the RES-E Directive to 2010 shows the distance covered by this policy instrument towards closing the gap between BAU and very high levels of CPI.

According to the EEA, the share of RE in gross inland energy consumption in the EU27 stood at 4.2 per cent in 1990, rose to 5 per cent in 1995 and to 5.6 per cent in 2000 (see EEA online database: eea.europa.eu). This implies that the share of RE in the EU was on the increase before the 2001 RES-E Directive was agreed, but only by about 0.7 percentage points every five years. Assuming this trend would have continued as BAU between 2000 and 2010, there would have been an increase in RE share in gross inland energy consumption to 6.3 per cent in 2005, and to 7 per cent in 2010 (European Commission, 1996: 15). This is clearly below the 2001 RES-E Directive's target. With RE share of 5.6 per cent in 2000, meeting the 80 to 100 per cent CPI targets suggests a required percentage share of between 21 and 25 per cent share in RE by 2010 (see Figures 3.2 and 3.3). Thus, although the 2001 RES-E Directive's policy output succeeds in closing the gap between BAU and CPI trajectories by 5 percentage points, this is still far from the 2050 trajectory. In other words, the policy output of the 2001 RES-E Directive is between 28 and 36 per cent in line with long-term climate policy objectives to decarbonise by 2050. According to Table 2.2, this implies *low* levels of CPI for the policy output in the 2001 RES-E Directive (see Figure 3.3).

As the targets of the 2001 RES-E Directive were indicative targets for 2010, it is now also possible to examine the actual implementation of the Directive. According to Commission data from 2011, the EU achieved a 9 per cent share of RE in 2010, so the 12 per cent target was not met (European Commission, 2011c). In this case, the actual implementation of the 2001 RES-E Directive increased the share of RE by just 2 percentage points compared to BAU, implying the RES-E Directive closed the gap between BAU and complete CPI by just 11–14 per cent (*very low* levels of CPI, see Table 2.2).

These *very low* levels of CPI in the policy output of the 2001 RES-E Directive could nonetheless also be considered too harsh a measurement. It would be useful to consider the levels of CPI in the policy output in terms of capacity and potential for achieving a speedy increase in the share of RE at the time. In its 1996 green paper

EU POLICY ON RENEWABLE ENERGY

Excerpted from *Climate Policy Integration into EU Energy Policy*

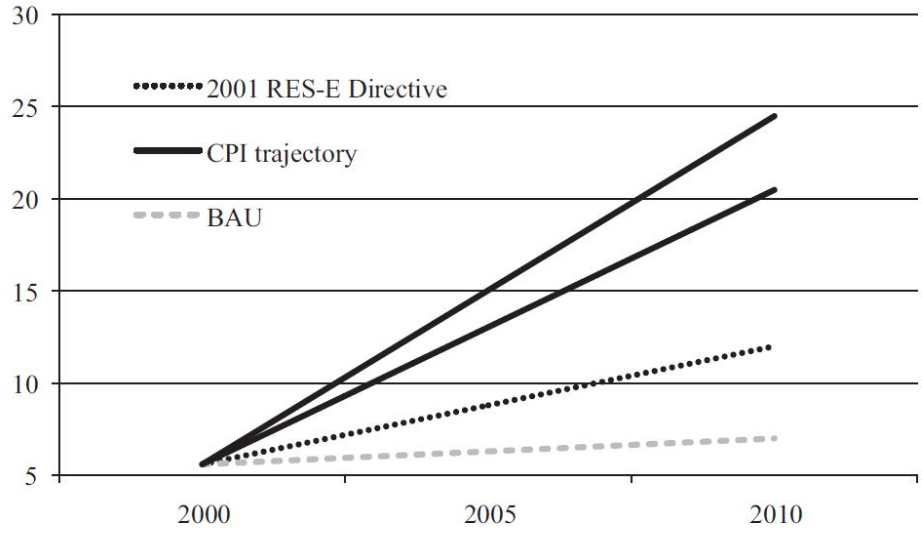


Figure 3.3 Policy output of the 2001 RES-E Directive compared to BAU and to very high levels of CPI (measured as a percentage share of gross inland energy consumption)

Source: EEA database, www.eea.europa.eu; own calculations

on the future of energy, the Commission outlined one scenario that suggested about 13 per cent share of RE in gross inland energy consumption would be possible with strong policies by 2010. Considering that 9 per cent was achieved without mandatory targets (without what could be called strong policy), a 13 per cent share seems rather low. Nevertheless, it is not unrealistic to argue that RE technology was still costly in the early 2000s. Making an assumption that a steeper climb to the 2050 targets would begin after 2010, as costs for RE fall, would provide a different scenario. If the 12 per cent share was achieved in 2010, it would imply between about 9 and 11 percentage points increases every five years from 2010 to meet the 2050 target. This may be considered quite a jump from the 1 to 2 percentage point increases every five years from 1990 to 2010. Taking instead a target, as argued for by the European Parliament of 15 per cent RE share in 2010 would call for between 8 and nearly 11 percentage point increases per five years beyond 2010. A midway point between the very high CPI figures of 21 and 25 per cent RE share by 2010, and the actual 12 per cent target would suggest between about 17 and 19 per cent RE share in 2010 (leaving between 8 to 10 percentage point increases required per 5 years from 2010 to 2050).

EU POLICY ON RENEWABLE ENERGY

Figure 3.4 outlines these midway ranges for CPI to 2010 against the policy output of the 2001 RES-E target and against the BAU scenario. Taking this more tempered benchmark into account, the policy output of the 2001 RES-E Directive closes

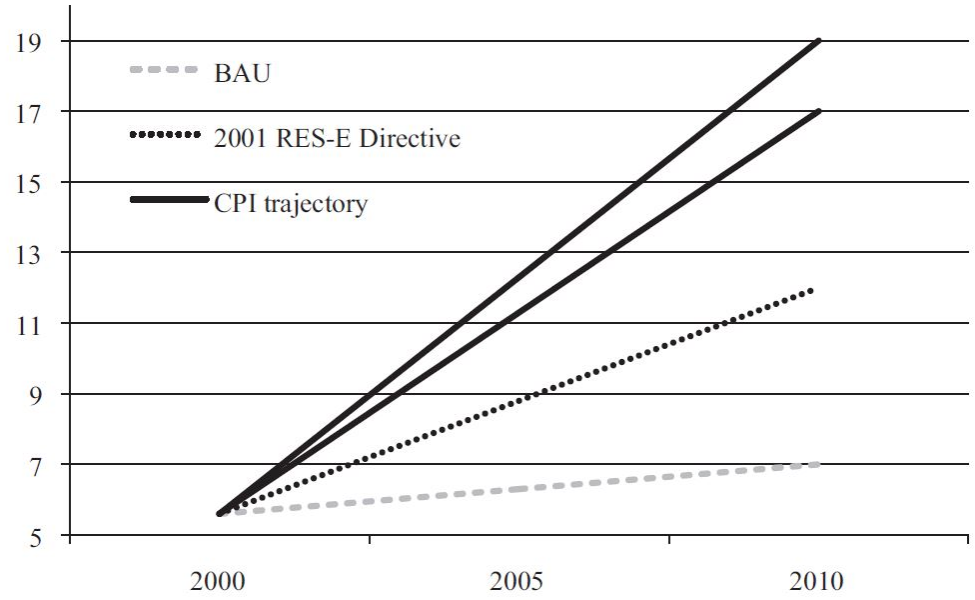


Figure 3.4 CPI in the policy output of the 2001 RES-E Directive, assuming lower advances in RE share between 2000 and 2010 than between 2010 and 2050

Sources: Compiled from (European Commission, 2007b, 2011c), own calculations

the gap between BAU and very high CPI levels by between 42 and 50 per cent. Such a level of CPI in the policy output is *medium*.

However, considering the expected implementation deficit of many pieces of EU legislation, especially when the targets are non-binding (Haverland and Romeijn, 2007; Lampinen and Uusikylä, 1998), and considering the empirical advantage available for the RES-E Directive to assess *ex ante* the performance, even a generous level of *medium* is misleading. The final 9 per cent share of RE in the EU in 2010 closes the gap between BAU (7 per cent share in 2010) and a tempered CPI level (between 17 and 19 per cent share in 2010) by between only 20 and 25 per cent. This level, according to Table 2.2 indicates *low* levels of CPI in the policy output of the 2001 RES-E Directive.

EU POLICY ON RENEWABLE ENERGY

Overall, we can say that the level of CPI in the policy output of the 2001 RES- E Directive is *low*, considering the non-binding nature of the (already insufficient) target, the recognised implementation deficit for EU legislation, and considering the final implementation outcome of the Directive.

CPI into the policy process of the 2009 RE Directive (2009/28/EC)

In this section, I discuss the levels of CPI in the policy process of the 2009 RE Directive, thereby addressing whether or not higher levels of CPI can be found in the later policy developments.

Internal pro-climate stakeholders

As the RE Directive was negotiated under the ordinary legislative procedure, consultation procedures were in place (this means internally within the EU institutions and with external stakeholders through open, public consultations). In the Commission, DG Energy drafted the proposal on the RE Directive. Usual inter-service consultation procedures applied allowing space for DG Environment (and all other DGs) to lend its voice to the drafting. Additionally, the RE Directive was proposed as one part of the climate and energy package in early 2008. Other measures in this package (such as the proposal for a Directive on CCS, and proposal for a revised ETS Directive) were under the responsibility of DG Environment. There was enhanced cooperation between DGs Energy and Environment on the preparation of these draft proposals to publish a coherent package of policy measures in early 2008 (Boasson and Wettestad, 2013: 45). As such, the level of involvement of internal pro-climate stakeholders in the Commission for the 2009 RE Directive is (according to Table 2.1) *medium to high*. This is because DGs Energy and Environment worked closely together in the drafting of the proposals in the climate and energy package, but DG Energy was solely responsible for the RE Directive proposal. However, DG Energy can also be considered to have integrated the idea of promoting RE for the purpose of combating climate change into its own workings. The Commission presented RE policy as a part of the EU's response to climate change.

In the Parliament, the ITRE committee was responsible for drafting the first reading report on the proposal, but the ENVI committee was associated with the

EU POLICY ON RENEWABLE ENERGY

ITRE committee for the drafting procedure. Although ITRE was still the leading committee, the associated committee status for ENVI implies high collaboration between the committees on this particular dossier. The rapporteurs of the ITRE committee (MEP Claude Turmes) and the ENVI committee (MEP Anders Wijkman) worked closely together under the associated committee procedure to finalise a first reading report. Bolstering the internal pro-climate stakeholder involvement in the Parliament further, the rapporteur on this dossier was a member of the Greens political group. MEP Claude Turmes pushed amendments that strengthened the sustainability criteria for meeting the 10 per cent target in transport, and reached a compromise solution with the Council on the review of the Directive scheduled in 2014, so that it would not involve a review to lower the ambition of the targets. With the ENVI committee holding the associated committee status, and with the ITRE committee's rapporteur being a member of the Greens political group, the involvement of internal pro-climate stakeholders in the Parliament is *high* (see Table 2.1).

In the Council, the energy and environment Councils were necessarily linked, given the fact that the RE Directive was proposed as part of the climate and energy package. The package was discussed in both the energy and environment Council meetings throughout 2008, but there was a clear division of labour in the Council, with the energy Council formation being responsible for the RE Directive. It was the energy Council under the French Presidency in the second half of 2008 that negotiated informally with Parliament (Boasson and Wettestad, 2013; Council of the European Union, 2008d; ENDS Europe, 2008k). Although the overall progress of the climate and energy package was reported to both the energy and environment Council formations, the substantive discussions on the RE Directive remained within the remit of the energy Council. In this case, following the distinction outlined in Table 2.1, the involvement of internal pro-climate stakeholders is closer to *low*. Nevertheless, it can still be argued that the energy Council demonstrated some level of CPI in its negotiations on the RE proposal, and that it had internalised some amount of CPI without needing constant involvement from the environment Council. This can especially be seen through the direct involvement of heads of state and government (through the European Council) in the negotiations, which may have pushed energy ministers to agree to the RE Directive earlier. The level of CPI in the Council could thus be regarded as standing closer to *medium* levels than to *low* levels.

EU POLICY ON RENEWABLE ENERGY

As an aggregate, however, the involvement of pro-climate stakeholders in the policy process leading to the adoption of the RE Directive is *medium to high*. The *medium* levels of involvement of the environment formation in the Council on the RE Directive lowers the *medium to high* and *high* levels of involvement in the Commission and the Parliament.

External pro-climate stakeholders

As discussed above, in the lead up to the publication of the proposal for the RE Directive, the Commission had several open and public online consultations related to specific issues around RE policy. NGOs and members of the RE industry were involved and present in these public consultations (interview 5). Procedures were in place to allow them to provide input in the early stages of the drafting of the proposal. In each of the public consultations mentioned above, the proportion of environmental NGOs was generally small, due to large numbers of responses from many interested stakeholders (including member states, citizens, other industries, etc.). For example, the consultation on the Commission's energy green paper in advance of the second strategic energy review attracted 164 written comments, of which 22 were from all types of NGOs (European Commission, 2006c).

In general, pro-climate external stakeholders were most concerned with the biofuels criteria, and with ensuring interim mandatory targets for renewables. There was thus some disappointment that the Commission's proposal did not elaborate on either of these aspects, and that these points were not strengthened in the final output (ENDS Europe, 2008b; ENDS Europe, 2008k). However, the procedures for consultation allowed space for external pro-climate stakeholders to express their opinions. NGOs felt they could have access to the Commission if they wished it. As one interviewee mentioned, she was never refused a meeting with a Commission official to discuss the RE proposals between 2006 and 2008 (interview 7). The fact that the RE proposal was part of the overall climate and energy package meant that the general climate issue was often discussed at stakeholder meetings, and not necessarily with a focus on RE solely. Other RE industrial actors also agreed that, at this time, there were no barriers to access to the Commission. The Commission did not necessarily seek out input of the pro- climate stakeholders, but they were open to any requests for meetings (interviews 5 and 7).

Therefore, the involvement of external pro-climate stakeholders in the policy

EU POLICY ON RENEWABLE ENERGY

process with the Commission leading up to the publication of the RE proposal is *high*. Procedures were in place so that environmental NGOs and the RE industry could provide their opinions to the policy process. There was some limited opposition (from major GHG-emitting industries, reticent member states, for example) to pro-climate stakeholder arguments. In addition, access to members of the Commission on this file was considered relatively easy.

In the Parliament, most interviewees agree that access for external stakeholders was easy (interviews 5, 6, 7, 8, 25 and 26), although this ease of access was linked to personal relationships with MEPs and/or their assistants. In the case of the negotiations around the RE Directive, with Green MEP Claude Turmes acting as rapporteur on this dossier, the Parliament was particularly open to input from pro-climate external stakeholders (Boasson and Wettestad, 2013; interview 7). The rapporteur also created a group of stakeholders, including NGOs and representatives of the RE industry, to facilitate the drafting of the committee's report, with a special focus on the issue of renewables trading (Boasson and Wettestad, 2013: 91). The Parliament was therefore an open institution for external pro-climate stakeholders, with the rapporteur (as a green MEP) being particularly open to opinions of environmental NGOs and the RE industry. Although the negotiations in the policy process (especially in the later stages) involved much informal negotiating behind closed doors, contact between external pro-climate stakeholders and Parliamentary actors was nonetheless considerable (interview 7). In sum, and according to the indicators described in Table 2.1, the level of involvement of external pro-climate stakeholders in the Parliament is *high,* with easy access to the policy process in the Parliament.

In the Council, it is generally noted that access for external pro-climate stakeholders is difficult (Hauser, 2011; interviews 5, 6, 7, 8 and 11). In the case of the RE Directive, however, there were certain member states that were more interested in strong and ambitious policy than others. Environmental NGOs described that they made efforts to target these member states, even in the years before the proposal was published (interview 7). With the Council, some of the conventional power industries had strong lobbies at national level to support a system of tradable certificates that was seen as disadvantageous for RE development by environmental NGOs and the RE industry (Boasson and Wettestad, 2013; interview 7). Pro-climate stakeholders in this case had some success in targeting specific member states that shared their opinions. Nevertheless, except

EU POLICY ON RENEWABLE ENERGY

on the national level and by targeting specific national governments, there was little to no access to the Council for external pro-climate stakeholders. Additionally, with the proposal being agreed in first reading, the process was rapid and much of the negotiating took place informally and behind closed doors. There was no room for external pro-climate stakeholders to take part in such informal negotiations. The level of involvement of external pro-climate stakeholders in the policy process in the Council is thus *low*.

Taken together, the *high* levels of involvement of external pro-climate stakeholders in the Commission and *high* levels in the Parliament and the *low* levels of involvement in the Council point overall to *medium to high* levels of involvement in the policy process overall.

Recognition of functional interrelations

In the case of the policy process leading to the 2009 RE Directive, there are signs that the functional interrelations between climate policy objectives and RE policy were recognised by policymakers. However, the need for highly ambitious RE policy to achieve *long-term* climate policy objectives was less a part of the discussions.

Climate policy and RE policy interrelate harmoniously, as increasing the share of (most sources of) RE in energy consumption directly results in reductions of GHG emissions from energy, which helps achieve climate policy objectives. Since the agreement in March 2007 in the European Council to move to a 20 per cent target for the share of RE in the EU by 2020, RE policy development was specifically linked to meeting climate policy objectives. In 2007, the European Council stated that it: 'reaffirms the Community's long-term commitment to the EU-wide development of renewable energies beyond 2010' and that it endorses 'a binding target of a 20% share of renewable energies in overall EU energy consumption by 2020' (European Council, 2007: 21). In 2008, the European Council linked this target very clearly to its ambitions to provide leadership in the international climate negotiations, when it stated: 'The EU is committed to maintaining international leadership on climate change and energy ... By delivering on all the targets set by the spring 2007 European Council, the EU will make a major contribution to this objective' (European Council, 2008b: 11). The European Council demonstrates *high* recognition of the interrelations between RE and climate policy, thus outlining the political lines for the various Council formations, at least in the demands for binding policy measures in RE to combat climate change (although it

EU POLICY ON RENEWABLE ENERGY

was clear that throughout the policy process, the Council was still the most reticent institutional actor to strengthen policy measures further).

In its proposal, the Commission also clearly outlined its recognition of the functional interrelations between climate policy objectives and RE policy objectives. The RE Directive was proposed by the Commission as part of the climate and energy package that aimed to achieve the so-called 20-20-20 targets by 2020. The opening sentence of the Commission's proposal demonstrates this recognition: 'The Community has long recognised the need to further promote renewable energy given that its exploitation contributes to climate change mitigation through the reduction of greenhouse gas emissions' (European Commission, 2008: 2). The Commission, in its proposals, stuck to the Council's agreed 20 per cent target for RE share in 2020, although recognising the long-term requirements for RE on the road to decarbonisation ought perhaps to have increased the level of ambition. The Commission shows *high* recognition of the functional interrelations between RE policy and climate policy objectives, with RE policy proposals aiming to achieve (short- to medium-term) climate policy objectives.

The Parliament also clearly recognised the functional interrelations between achieving the objectives of climate policy and the objectives of RE policy. Of the three institutions, it was the most ambitious, in that it called for a 25 per cent RE share target for 2020 (European Parliament, 2007). When it could not get this target, the Parliament pushed for strong measures in the RE Directive to ensure the 20 per cent target would be achieved. Although, in the end, it compromised on a number of issues with the Council to ensure agreement was reached, the rapporteur linked the RE Directive throughout the negotiations to the credibility of the EU's leadership on climate change internationally to push for the best results possible (ENDS Europe, 2008k). The Parliament demonstrates *high* recognition of the functional interrelations between RE policy and climate policy objectives throughout the policy process leading to the adoption of the 2009 RE Directive.

In line with Table 2.1, the recognition of the functional interrelations between RE policy and climate policy objectives was *high* in that achieving climate policy objectives is one of the main stated goals of RE policy, and this remained a part of the policy discourse throughout the process. The recognition could not be considered *very high,* however, as policymakers did not seek to be as ambitious on

EU POLICY ON RENEWABLE ENERGY

RE policy as long-term climate policy objectives would imply.

In sum, taking the three indicators together, the level of CPI in the policy process can be aggregated as *medium to high*.

CPI in the policy output of the 2009 RE Directive

Figure 3.2 outlines the BAU scenario from 2011 that includes the policy output of the 2009 RE Directive, and compares that to very high levels of CPI on a trajectory from 2000 to 2050. According to this graph, very high levels of CPI in 2020 would see shares of between 37 and 45 per cent of RE in the EU. BAU scenarios from 2006 suggest that the share of RE in the EU was expected to reach about 12 per cent by 2020. Thus, the 2009 RE Directive, with its target to reach a 20 per cent RE share, closes the gap (25 to 33 percentage points) between BAU and very high levels of CPI for 2020 by 8 percentage points. This results in levels of CPI in the policy output of 24 to 32 per cent. According to Table 2.2, this puts the level of CPI in the policy output of the RE Directive at *low* levels.

However, given that the RE Directive was negotiated in 2008, the actual shares of RE in 2005 were known and could form the starting point for a CPI trajectory to 2050 – meaning that the BAU scenario changed between the negotiations on the 2001 RES-E Directive and the 2009 RE Directive, due mainly to deficits in the implementation of previous RE policy. The share of RE in 2005 was close to 9 per cent (EEA, 2008). Starting from 2005 levels, very high levels of CPI in the policy output would reach a share of RE in the EU of between 33 and 40 per cent (see Figure 3.5) in 2020. The 2009 RE Directive can then be considered to close the gap between BAU (12 per cent share in 2020) and very high levels of CPI in 2020 (33 to 40 per cent share), by between 29 and 38 per cent share. This remains at (the higher end of) *low* levels of CPI in the policy output (see Table 2.2).

Finally, the policy output could be measured in a way that tempers the results in the early stages on the path towards decarbonisation. As discussed above on the policy output of the 2001 RES-E Directive, there are some valid arguments to be made about the challenges of developing the RE share in a linear trajectory that makes no distinction between early, costly development, and speedier development in later decades as costs for installing RE fall. Figure 3.4 above suggested a

EU POLICY ON RENEWABLE ENERGY

midway point for a very high CPI target of between 17 and 19 per cent RE share in 2010, which corresponds with 2010 levels in the CPI trajectory in Figure 3.5. Measuring from 2005, this implies an increase in the share of RE to 2050 of between 8 and 10 percentage points every five years. This already seems to be a significant increase, considering the history in the EU of achieving an increase of about 1 percentage point every five years since 1990. Nevertheless, it may be realistic to assume that RE shares to 2020 will increase at a slower pace than by 8 to 10 percentage points every five years, due to relatively high upfront costs for

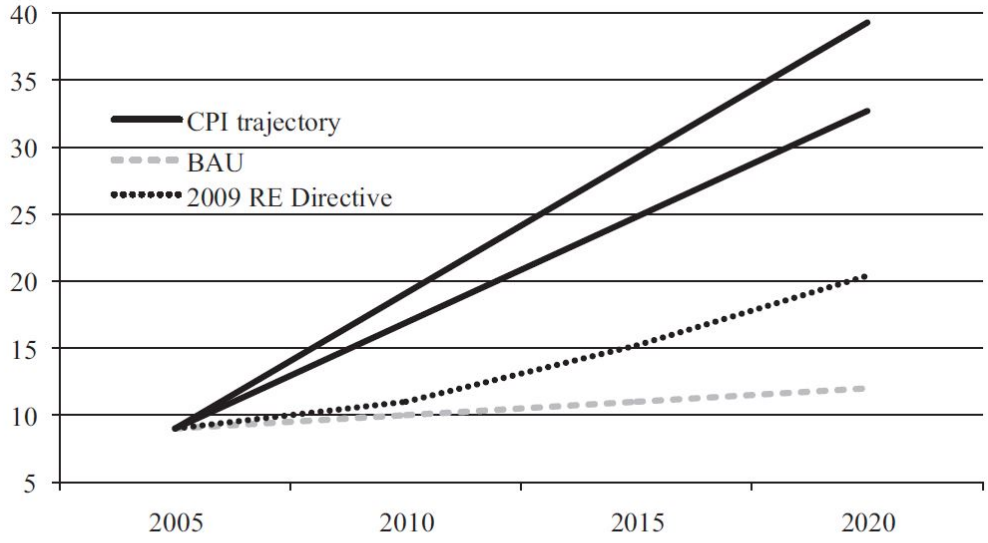


Figure 3.5 CPI in the policy output of the 2009 RE Directive, compared to BAU scenarios and the very high CPI trajectory from 2005 levels

Source: Compiled from (EEA, 2008; European Commission, 2011c), own calculations

expanding RE. An example of reduced early development could rather see between 6 and 7 percentage point increases every 5 years to 2020 – as a direct follow-on from the midway point outlined in Figure 3.4 (with 6 to 7 percentage point increases every five years from 2000 to 2010). Figure 3.6 shows what such a trajectory would look like to 2020 (and beyond to 2050, with steeper RE share development required between 2020 and 2050). Such a scenario suggests that between 9 and 12 percentage point increases in the share of RE would be required every five years from 2020 to 2050.

EU POLICY ON RENEWABLE ENERGY

Excerpted from *Climate Policy Integration into EU Energy Policy*

Following the sort of trajectory outlined in Figure 3.6 implies very high CPI levels of between 27 and 30 per cent RE share by 2020. The output of the RE Directive of a 20 per cent share thus closes the gap between BAU (12 per cent RE share in 2020) and very high levels of CPI by 8 percentage points, with a score of between 44 and 53 per cent. This corresponds to *medium* levels of CPI in the policy output to 2020 for the RE Directive, if we assume that steeper increases of RE in the overall share of EU energy can be more easily achieved after 2020. Such a trajectory does, however, leave a substantial part of the work for the later decades leading to 2050, while climate scientists and scholars argue in favour of policies that ensure that GHG emissions peak as soon as possible (IPCC, 2007, 2013).

Overall, the level of CPI in the policy output of the 2009 RE Directive can be considered *low to medium*, but closer to *low* if it is assumed that linear or early action is required to achieve climate policy objectives.

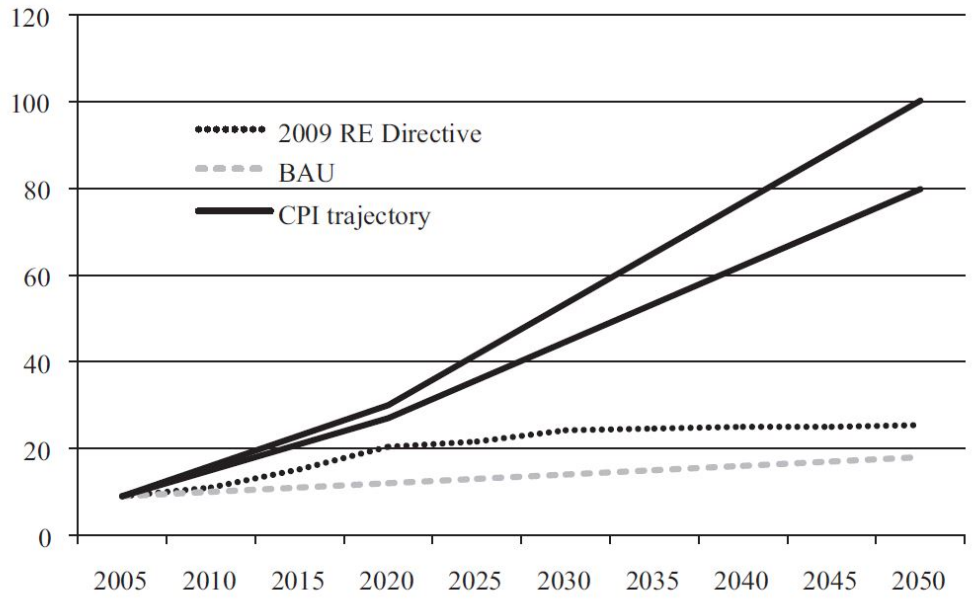


Figure 3.6 CPI trajectory for the RE share to 2050, with lower expectations to 2020

Source: Compiled from (EEA, 2008; European Commission, 2011c), own calculations

EU POLICY ON RENEWABLE ENERGY

Excerpted from *Climate Policy Integration into EU Energy Policy*

Summary and outlook to 2030 and beyond

In this chapter, I examined the level of CPI in the policy output and process of the 2001 RES-E and 2009 RE Directives. The 2001 RES-E Directive aimed to increase the share of RE in EU energy consumption to 12 per cent by 2010 (corresponding to an increase in the share of RE in electricity generation to about 22 per cent by 2010). The targets agreed under the 2001 RES-E Directive were indicative targets, and reports indicate that they were not met (EEA, 2008; European Commission, 2006a, 2011c). The 2001 Directive was proposed with the main motivation of achieving part of the EU's commitment to reduce its GHG emissions under the Kyoto Protocol. The 2009 RE Directive was proposed in 2008 as part of the climate and energy package. It provided the legislative framework for the EU to meet the target of increasing the share of RE in EU energy consumption to 20 per cent by 2020, as endorsed by the European Council in March 2007 (European Council, 2007). The 2009 Directive imposed binding targets on member states to achieve the overall 20 per cent target.

Both the 2001 and 2009 Directives were proposed with part of their aims being the achievement of climate policy objectives. In the case of the 2001 RES- E Directive, this was framed in terms of contributing to achieve the EU's emission reduction commitments under the Kyoto Protocol – to reduce GHG emissions by 8 per cent between 2008 and 2012 compared to 1990 levels. This can be considered a short-term climate policy objective. The longer-term climate policy objectives (to meet the 2050 goals or to limit global temperature increase to 2° Celsius) did not seem to play a major role in policy discussions leading to the adoption of the RES-E Directive. For the 2009 RE Directive, the EU aimed to demonstrate through unilateral action that it was a credible leader on climate change. It agreed the 2009 RE Directive in the first reading, motivated to influence international climate negotiations in 2009. The EU RE policy therefore has been closely linked to policy objectives on climate change between 2000 and 2010. At first glance, then, RE policy can be considered a case of well-integrated climate and energy policy.

As the analysis in this chapter revealed, however, the levels of CPI in EU RE policy are far from ideal in the policy output, when measured against benchmarks that aim to achieve the goals of long-term climate policy. In both the 2001 and 2009 Directives, CPI in the policy output was, at best, *low to medium*. There was limited improvement over the course of the decade, and the poor implementation of the

EU POLICY ON RENEWABLE ENERGY

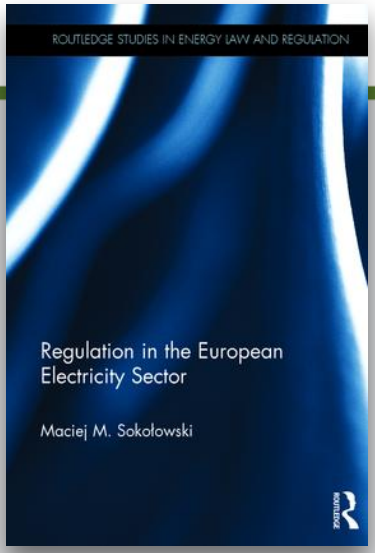
2001 RES-E Directive meant later policy developments were catching-up on potential improvements that did not materialise. The level of CPI in the policy process was *low to medium* in the 2001 Directive, but this level had increased to *medium to high* during the negotiations on the 2009 Directive, with more guarantees through procedures for the involvement of pro-climate stakeholders in the process.

The next stage of EU RE policy development is the 2030 climate and energy framework, under discussion at the time of writing (2014–2015). In October 2014, the European Council accepted a target to increase RE share in the EU28 to at least 27 per cent by 2030, but without agreeing on the need for mandatory member state targets to achieve the overall objective (European Council, 2014: 5). At the time of writing, the Commission has yet to come forward with policy proposals for implementing the agreed 2030 objective, but it is clear that an increase of 7 percentage points in 10 years (between 2020 and 2030) is a lower increase than one could expect from a long-term trajectory to 2050 (see Figure 3.6, for example). As the timeframe to 2050 shortens, the EU has still not succeeded in advancing policy proposals that integrate the long-term climate policy objective to reduce GHG emissions by 80–95 per cent by 2050 (Dupont and Oberthür, 2015).

CHAPTER

3

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU



This chapter is excerpted from

Regulation in the European Electricity Sector

by Maciej M. Sokołowski.

Learn more

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

Excerpted from *Regulation in the European Electricity Sector*

The Third Liberalisation Package enabled the establishment of the entity with which public law regulation exercised in the electricity sector by the national regulators entered into a new dimension. This was done with passing the new element of the Liberalisation Packages. Besides, in the earlier two-sided approach (sectorial directives on electricity and gas) the Third Energy Package brought into EU energy law the new public regulatory measure: the Community body with legal personality, the Agency for the Cooperation of Energy Regulators.

The assumptions in the establishment of ACER derive from needs widely discussed in the previous chapters. Mainly, this was a need to solve the problem of lack of coordination within the energy regulators and a regulatory gap, which occurred at the European level. By this improvement of the EU's regulatory framework, the Agency was identified as "a key measure" introduced to EU law in order to "contribute towards the effective functioning of the internal markets in electricity".

ACEr's position, tasks, and powers

Created as "an independent mechanism for national regulators to cooperate" (Recital 5), the main goal of the Agency's operation was to assist national regulatory authorities "in exercising, at Community level, the regulatory tasks performed in the Member States and, where necessary, to coordinate their action" (Article 1 (2) of Regulation (EC) No 713/2009). Further, the Agency supports European institutions with its expertise by elaborating opinions and recommendations. This activity includes also issuing opinions and recommendations addressed to TSOs and regulatory authorities (see Articles 5 and 4 of Regulation (EC) No 713/2009). The Agency's opinions also concern network codes, or the draft Community-wide network development plan. These opinions are submitted to the ENTSO for Electricity (and to the ENTSO for Gas). Furthermore, under the provisions of Article 6 (4) of Regulation (EC) No 713/2009 in accordance with Article 6 of Regulation (EC) No 714/2009, the Agency participates in the development of mentioned codes for the electricity sector. Where requested, ACER submits a non-binding framework guideline to the Commission (framework guideline) which indicates principles for the development of network codes relating to the areas identified in the priority list (Article 6 (2) of Regulation (EC) No 714/2009). As stated in Article 6 (7) of Regulation (EC) No 714/2009, ACER elaborates a reasoned opinion on the network code and submits it to the ENTSO

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

for Electricity. If asked by the EC, the Agency participates in the process of certifying the TSO, by issuing its opinion on the national regulator's decision (Article 3 (1) of Regulation (EC) No 714/2009).

Another category of the Agency's tasks covers monitoring. This links with activity in the field of network codes, where the Agency, *inter alia*, monitors their implementation, analysing their effects on the Community's energy market (see Article 6 (7) of Regulation (EC) No 713/2009). In accordance with Article 11 of Regulation (EC) No 713/2009, ACER's monitoring of the internal market in electricity includes the retail prices of electricity, access to the network, and compliance with consumer rights. The Agency's monitoring also concerns projects of new interconnector capacity, Community-wide network-development plans, and regional cooperation of TSOs (see Article 6 (7)–(9)). Noteworthy, in the case of identifying inconsistencies between such a plan and its implementation, ACER will investigate their reasons and adopt recommendations for the TSO, national regulatory authorities, or other competent bodies concerned, as provided in Article 6 (8) of Regulation (EC) No 713/2009. Monitoring has to be conducted in close cooperation with the EC, the Member States, and the relevant national authorities (Article 11 (1)). This is complemented by the possibility of informing the European Parliament and the Commission with the use of annual report barriers to the completion of the internal market (see Article 11 (2)–(3)).

Important for the topic of this book, the rules on the Agency are included in the frames of Article 7 of the Regulation on ACER. This Article establishes ACER's tasks regarding regulation. Herein, ACER may adopt individual decisions on technical issues. The basis for these is the relevant provisions of other elements of the Third Liberalisation Package. Thereby, the Agency is authorised to take a binding regulatory decision on granting a new direct current interconnector an exemption from certain provisions on unbundling and TPA of Directive 2009/72/EC and Regulation (EC) No 714/2009. The decision may be adopted in the event of not reaching an agreement by regulators within a timeframe of six months from the date when the exemption was requested before the last of those regulatory authorities, or upon a joint request from the regulatory authorities (Article 17 (5) of Regulation (EC) No 714/2009). On the same principles, ACER may decide upon regulatory issues of cross-border infrastructure on access and operational security belonging to the competence of national regulators. If necessary, the decision may have an interim character (see Article 8 (1) and (3) of Regulation (EC)

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

No 713/2009). In this context, national regulators have to comply with, and implement, any relevant legally binding decisions of the Agency, according to Article 37 (1) (d) of Directive 2009/72/EC.

Under Article 7 (2), ACER may assist regulators and market players in sharing good practices by elaborating its recommendations. The Agency also establishes opinions, if a decision taken by a regulatory authority complies with the Guidelines on the mutual cooperation of regulatory authorities, as well as cooperation with the Agency that the EC may adopt in accordance with Article 38 (5) of Directive 2009/72/EC. In the case of continued non-compliance with the Agency's above-mentioned opinion, ACER shall inform the Commission and the Member State concerned about these circumstances.

Moreover, the Agency provides a framework within which national regulatory authorities can cooperate, at the regional and Community levels. As stated in Article 7 (3) "[w]here the Agency considers that binding rules on such cooperation are required, it shall make the appropriate recommendations to the Commission". Although, it is still a recommendation, it concerns "binding rules" which may be introduced. Nevertheless, a decision by ACER issued pursuant to Article 7 (7) in accordance with Article 8 certainly has a binding character. This decision applies to cross-border infrastructure, and covers the terms and conditions for access to it, as well as its operational security.

In performing its role, ACER has to ensure public access to the results of its work (Article 10 (2) of the Regulation on ACER). For example, the Agency publishes its annual report on the results of monitoring of the internal energy market. A transparency rule in ACER's operation finds also a practical application in consultations carried out during developing framework guidelines in accordance with Article 6 of Regulation (EC) No 714/2009, or proposing amendments of network codes under Article 7 of that Regulation. Pursuant to Article 10 (1) of Regulation (EC) No 713/2009,

> the Agency shall consult extensively and at an early stage with market participants, transmission system operators, consumers, end-users and, where relevant, competition authorities, without prejudice to their respective competence, in an open and transparent manner, in particular when its tasks concern transmission system operators.

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

Excerpted from *Regulation in the European Electricity Sector*

Between coordination and regulation

ACER, being the authority responsible for coordination of European regulatory authorities, in some way fulfils the regulatory space at the European level, where it has to contribute towards a real European internal market for electricity. Although, it is not a classic regulator; it does not perform principal regulatory duties. Nor does it participate in granting licences, or set tariffs, or impose sanctions for energy entities. ACER is aimed at assisting national regulatory authorities in performing their duties (e.g. on sharing good practices by elaborating its recommendations). Further, being responsible for coordination, it has to steer (but in a soft way) actions at the European level, e.g. by providing its guidelines, opinions, and recommendations, as the Agency's expertise serves not only regulators, but also the European Commission. However, this may result in binding action by the EC (see Dyl *et al.* 2011, pp. 576–577). It also includes some of ACER's opinion (e.g. concerning regulators' decisions and their compatibility with the Guidelines on the mutual cooperation of regulatory authorities), where the Agency has to inform the Commission about any non-compliance. This is in line with the Agency's duties on providing a framework within which national regulatory authorities can cooperate. Herein, ACER may inform the EC about the necessity of providing binding rules on this cooperation, and as a result they may be established.

Nevertheless, some of the Agency's duties bring it closer to the duties performed by the national regulators (with the reservation that they are performed on the European level). First, is monitoring exercises by ACER, with respect to network codes, or of the electricity market, as well as projects of new interconnector capacity. Nevertheless, herein the Agency is obliged to cooperate closely with the EC, the Member States, and national authorities.

Second, provisions of the Third Liberalisation Package allow the Agency to take binding, individual decisions. Besides the fact that it involves technical issues, the Agency is authorised to grant exemption from rules on unbundling and TPA, as well as decide on cross-border infrastructure, and on operational security. This is limited to certain situations (lack of regulators' agreement or their joint request), although it does not change the fact that the Agency is entitled to perform strict regulatory action, i.e. undertake a regulatory decision. Seen in this light, the regulators have to comply with, and implement it.

The Agency, aimed at filling the regulatory gap at the European level, performs the

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

role of coordinator of the electricity market and its regulation. This model links two components: transnational and supranational (see Chiti 2009, p. 22). Regulators represent the first one, the Agency is an emanation of the latter. Although, in the timeline, one can see the movement from a transnational model towards a more supranational approach. The previous groups and forums were based on national cooperation and regulatory discourse rather than regulation. Currently, with the establishment of the Agency, some element of supranational authority occurred. Nevertheless, this system is still based on cooperation. However, experience shows that the tendency is to strengthen it.

By not being the energy regulator in a classic sense, ACER requires close collaboration with national regulators. Regulators, which represent concerted measures of regulation in the narrow meaning, have been mentioned in this book repeatedly. To address the issue of European impact on the scope of public law regulation in the electricity sector requires presenting how the European Energy Packages have influenced, on a very pure aspect of public law, regulation with the electricity sector: the national energy regulators.

Legal models of electricity regulation in the EU

Directive 96/92 EC established the very first model of public law regulation within the European Union. In the Commission's opinion it was a rather common market phenomenon that occurred in "almost every sector . . . [to] a certain degree". However, in the electricity sector (and gas as well), there was a "general agreement that [energy] require[s] more intense regulation than most other industries in order to ensure proper functioning of competitive markets, to protect customers and deliver other policy objectives" (European Commission 2001, p. 14). This assumption was justified on the economic ground where enabling access to the grid was more efficient than duplicating existing essential infrastructure, very often owned and operated by the incumbent vertically integrated entity. With the use of regulation and its legal measures, it was possible to enable access to the grid in a more efficient way (European Commission 2001, p. 65). In addition, the threat of the former monopoly incumbent energy companies of maintaining a dominant position, existing "even after the abolition of the former monopoly rights", caused that "certain degree of regulatory oversight and control [which was] necessary to ensure a level playing field for new entrants". Other reasons for

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

regulation derived from the need for a "daily modern life" – electricity is a necessary product that cannot be substituted – or had an environmental background ("primary energy consumption has substantial environmental consequences in terms of emissions") (European Commission 2001, p. 65).

The Commission also depicted the most important features of an effective regulatory framework. These were dealing with disputes in a quick way and without undue costs (e.g. legal costs). The EC also noted a "fundamental difference . . . in the extent of regulation required". A factor that determined the amount of regulation was a form of existing unbundling. When ownership unbundling was applied, regulation was less intensive. On the other hand, without unbundling, it was more severe (European Commission 2001, p. 15). Furthermore, as the Commission reviewed, the model of *ex-ante* regulated TPA resulted in fewer disputes (e.g. on access tariffs, most of them concerned connection). The regulatory body solved them in the phase of setting tariffs, or publishing fixed tariffs. Ownership unbundling had the same impact on the number of disputes (fewer complaints on the grounds of less discrimination) (European Commission 2001, p. 15).

By 2001, 14 Member States established a regulatory authority responsible for energy matters. The only one exception was Germany where a regulator was not setup. Some countries indicated more than one regulator (e.g. two regulators in the UK, one for Great Britain and one for Northern Ireland) or decided to separate the federal level and regional (Belgium) (European Commission 2001, p. 65). Not only were these conditions varying, the regulatory authorities differed in their legal position, independence, resources, and staff. In particular, former – the legal position in the system of law attracted the Commission's attention. In the majority of countries, the competent ministry and therefore the government had responsibility "for certain regulatory issues, including network access conditions in some cases". At that time, the only exceptions were Sweden and Northern Ireland. There, regulators were responsible for all regulatory issues (European Commission 2001, pp. 65–66).

In general, among the mentioned issues were decisions on licences necessary for constructing power plants, generating electricity, building, supplying, and operating the grid. In this respect, in most cases, the competent minister undertook decisions. Regarding final decisions, in most cases they were also undertaken by

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

the competent minister (except the UK, Ireland, and Finland where it was the regulator's responsibility) (European Commission 2001, p. 66). On the other hand, with respect to grid access tariffs in the majority of Member States, the regulators played a more active role. Only in France, Luxembourg, Spain, and Greece was it the minister who decided whether to take into account the regulator's proposal (European Commission 2001, p. 66). In reference to timing, in the procedure for electricity grid access tarification, two approaches were considered. First, was an *ex ante* ("open book") control of TSOs' and DSOs' turnover and profits, as well as approving a methodology for tariffs (overseeing "the whole process of deciding tariffs and conditions for network access") (European Commission 2001, p. 15). Second, was an *ex post* system of regulation. In this approach, operators notify tariffs to the regulator, which accepts or rejects them. This model was implemented in the situation of the existence of ownership unbundling, "where discrimination in favour of related suppliers is not an issue" (European Commission 2001, p. 15). In 2001 this was adopted by the Scandinavian countries, Denmark, Finland, and Sweden. Besides licences and network access (as well as dispute settlement), the energy regulators had other competences and responsibilities.

The minister-model was assessed by the Commission, as one that might "dilute the effectiveness of regulation" (European Commission 2001, p. 15). However, the regulators were not subordinated to governmental instructions concerning individual decisions (e.g. in the Netherlands it was possible). Nevertheless, the government shaped "general policy objectives of regulators" (European Commission 2001, p. 67). In certain Member States, a competent minister could overrule some regulators' decisions. This is linked to the fact that in the majority of Member States the president of the regulator, or members of its board, were appointed by the government. In some cases heads of state (Italy, Luxembourg), or jointly several entities (France) were responsible for this appointment. In general, regulators had a specified term, however in Finland it was not specified (European Commission 2001, p. 67).

Finally, apart from the legal position, methods of appointment, independence and influence of the government, responsibilities, and role in disputes, regulatory authorities differed in terms of resources (budget) and staff. With this in mind, shows Table 9.1, a juxtaposition of regulatory authorities in the European Union (2001).

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

Excerpted from *Regulation in the European Electricity Sector*

Table 9.1 Competences and resources of regulators in the EU-15 (2001)

Member State	*Regulation*	*Grid access*	*Dispute settlement*	*Licences issued by*	*Annual budget 2001 (€m)*	*Staff*
Austria	*ex ante*	R	R	Minister	7.0	37
Belgium	*ex ante*	R	R	Minister	9.4	40
Denmark	*ex post*	R	R	Minister	2.5	30
Finland	*ex post*	R	R	Minister	1.2	15
France	*ex ante*	M	R	Minister	9.1	65
Germany	n.a.	N	C	Minister	n.a.	n.a.
Greece	*ex ante*	M	R	Minister	4.4	10
Ireland	*ex ante*	R	R	Minister/Regulator	5.0	27
Italy	*ex ante*	R	R	Minister	18.0	63
Luxemburg	*ex ante*	M	M	Minister	n.a.	1
Netherlands	*ex ante*	R	R	Minister	4.0	33
Portugal	*ex ante*	R	R	Minister	4.5	46
Spain	*ex ante*	M	R/Regional government	Minister	16.8	140
Sweden	*ex post*	R	R	Regulator	3.4	33
UK	*ex ante*	R	R	Minister/Regulator	103.0	340

Source: European Commission (2001, p. 69).

Notes
R – regulator responsible, M – minister responsible, C – competition authority, N – not regulated, n.a. – not applicable.

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

The listed findings clearly show that that regulators' budgets ranged from Q1 million (Finland) to more than Q1 million (the UK). Regarding employment, the scale of difference was similarly huge: one as a minimum (Luxembourg) and 300 the maximum of staff employed (UK). The United Kingdom significantly overstated the total results. An average for EU-14 (without the UK) ranged from around a few/several million euros with respect to budget, and tens of workers when it came to staff.

As a rule, in Nordic countries the *ex post* model linked with ownership unbundling prevailed (European Commission 2003, p. 12). Differences in the regulator's powers also covered collection and scrutiny of information. The Commission (2003, p. 12) emphasised that insufficient powers in this area were "likely to leave it over-dependent on the industry and damage its effectiveness". Further, in the 2000s, in reference to the regulatory legal structure, the EC noticed some cases of a minister's influence over a regulatory authority's decision (e.g. decisions on network tariffs). This gave a reflection that in certain Member States regulators were still in the process of establishment (European Commission 2003, p. 12).

In the second phase of liberalisation of the EU's electricity sector, shaped by the provision of the Second Electricity Directive, the structure of national regulatory authorities for the EU-25 was shown in Table 9.2.

The vast majority of Member States chose the *ex ante* model of regulation. With respect to grid access and dispute settlement, an option for a regulator decision was established as a rule. Other possibilities (where a minister or a competition authority was responsible for these matters) were an exception. At this stage of liberalisation almost all European regulators had a strong position with regard to information powers (apart from Slovakia, and Germany where separate regulatory authority was not established by that time).

Although, except regulators' staff and budget which, as indicated in the previous period, varied greatly, the significant differences existed in the field of a minister's involvement in regulation conducted by the regulatory authorities. Herein, such situations might be distinguished: a general subordination to the minister, obligation to obey general guidelines or instructions passed by the minister, as well as being under ministerial supervision, or approving tariff by the minister. Besides them, certain Member States granted their regulator an independent position at that time. Further, some Member States had plans to strengthen their

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

role (DG TREN 2004, p. 5).

As already presented, adopted in 2009 the Third Energy Package broadened national regulators' powers and enhanced their independence. In the CEER's opinion (2009, p. 11) this energy legislation was "essential to ensure that regulatory decisions are removed from political and economic interests, which is necessary to create a stable and predictable investment climate". It provided a firm basis for national regulatory authorities' autonomous decisions (independent from any political influence), as well as budget allocations (independence in field disposal of adequate human and financial resources) (CEER 2010, p. 57). To demonstrate this influence of European legislation on public law regulation within EU countries, remarks on the situation of Member States are necessary. Thereby, in the next section the regulatory framework of certain EU countries is reviewed.

Regulatory review of selected EU Member States

A deeper examination of regulatory authorities requires separation of general remarks and presenting them as individual examples of a national regulator. This enables highlighting of specific characteristics of regulatory bodies and provides a practical analysis on the range of European Union's impact on public law regulation in national legal systems.

As institutionalisation of regulation is one of the main elements of public law regulation, I propose to conduct a review of some the EU's Member States. The review covers the following countries: Denmark, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden, and the United Kingdom. It is aimed to show the influence of Energy Packages and how selected Member States implemented packages' provisions. The analysis covers Western European countries because their long-term European integration and membership in the European Union correlates with uniting their activity on the internal energy market. This allows demonstration of the impact of Energy Packages on these Member States and how it influenced their legislative process.

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

Excerpted from *Regulation in the European Electricity Sector*

Table 9.2 Competences and resources of regulators in the EU-25 (2003)

Member State	*Regulation*	*Grid access*	*Dispute settlement*	*Minister's involvement*	*Information powers*	*Annual budget 2003 (€m)*	*Staff*
Austria	*ex ante*	R	R	General guidelines	Strong	8.0	60
Belgium	*ex ante*	R	R	No	Strong	17.0	99
Cyprus	*ex ante*	R	R	Instructions	Strong	0.5	7
Czech Republic	*ex ante*	R	R	No	Strong	3.8	88
Denmark	*ex post*	R	R	Yes	Strong	2.5	30
Estonia	*ex ante*	R	R	n.k.	n.k.	0.3	111
Finland	*ex post*	R	R	No	Strong	1.25	16
France	*ex ante*	M	R	Tariff approval	Strong	12.0	96
Germany	n.a.	N	C	n.a.	n.a.	n.a.	n.a.
Greece	*ex ante*	M	R	Tariff approval	Strong	4.4	40
Hungary	*ex ante*	M	R	Tariff approval	Strong	6.2	95
Ireland	*ex ante*	R	R	No	Strong	10.0	39
Italy	*ex ante*	R	R	General guidelines	Strong	18.6	104
Latvia	*ex ante*	R	R	No	Strong	1.7	68
Lithuania	*ex ante*	R	R	Instruction	Strong	0.6	50
Luxemburg	*ex ante*	M	M	n.k.	Strong	0.3	2
Malta	–	R	R	n.a.	–	0.3	15
Netherlands	*ex ante*	R	C	Instructions	Strong	7.0	55
Poland	*ex ante*	R	R	Supervision	Strong	6.7	258
Portugal	*ex ante*	R	R	No	Strong	6.4	53
Slovakia	*ex ante*	R	R	No	Limited	1.5	57
Slovenia	*ex ante*	R	R	n.a.	Strong	1.5	22
Spain	*ex ante*	M	R	Yes	Strong	21.0	187
Sweden	*ex post*	R	R	No	Strong	3.0	42
UK	*ex ante*	R	R	No	Strong	57	302

Source: DG TREN (2004, p. 14).

Note
R – regulator responsible, M – minister responsible, C – competition authority, N – not regulated, n.a. – not applicable, n.k. – not known.

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

Excerpted from *Regulation in the European Electricity Sector*

Denmark

In the 1990s the Danish electricity sector was based on two unconnected, vertically integrated systems (Western operated by *Eltra*, linked with Norway, Sweden, and Germany; and Eastern operated by *Elkraft*, with Sweden and Germany); the Great Belt was the line of division (European Commission 1998, p. 9). However, in 2005, the new Danish TSO, owned by the state, was established (*Energinet.dk*) (European Commission 2005, p. 44). In 2012 Energinet.dk was certified for electricity (as well as for natural gas) after the rules for ownership unbundling. Subsequently Energinet.dk bought or merged with ten regional transmission grid companies (Danish Energy Regulatory Authority n.d.b, p. 4).

In 1996 Denmark amended the Electricity Supply Act, although in 1998 there were still some gaps in the legislation and provisions, which were not in line with Directive 96/92/EC (European Commission 1998). In 2003, the Danish electricity market was fully opened, however in 2001 this was almost done (openness reaching 90 per cent) (European Commission 2001, p. 75). By October 2015 regulated end-user prices in electricity sector will be phased out. This will be done with the establishment of a supplier centric model for the electricity retail market (European Commission 2014a, p. 54).

In the first stage of market liberalisation in Denmark, there were approximately 100 companies in distribution, and eight companies in generation (European Commission 1998). In 2011, there were 77 DSOs (European Commission 2011a, pp. 1–2). At the generation level, the largest electricity producers kept their position. The largest electricity generators in Denmark are Dong Energy and Vattenfall. Together they account for about 57 per cent of total generation capacity (European Commission 2014a, p. 56).

With respect to regulatory framework, in Denmark the Danish Energy Regulatory Agency (*Energitilsynet*, DERA) has always been an independent body. Nevertheless, until 2011, its secretariat had been provided by the Danish Competition Authority. This was done with implementation of the Third Energy Package (Danish Energy Regulatory Authority n.d.a, p. 1). Currently, DERA is responsible for monitoring and regulating prices as well as terms and conditions for customers within the electricity sector. It lays down annual efficiency requirements for electricity grid companies, or monitors and regulates Energinet. dk to ensure that only necessary costs are included in its prices (Danish Energy Regulatory Authority 2012, p. 3).

DERA (2012, p. 3) also monitors the price for electricity and the supply obligation, as well as monitoring wholesale markets for electricity. Additionally, it provides specialised analyses of the electricity market.

Finland

In the first stage of liberalisation, the system in Finland mainly consisted of two companies IVO (public) and PVO (private). In total, they produced 80 per cent of electricity. *Fingrid* was responsible for the transmission grid (fully separated from other activities with unbundled accounts), and at the level of distribution there were more than 100 local and regional distribution companies (European Commission 1998). What is worth noting is the fact that as early as 1995 Finland liberalised the electricity sector and all customers were qualified as eligible. With regards to generation, the country established the authorisation system, and in the field of grid access the regulated TPA, with published tariffs that followed "the postage stamp system" (European Commission 1998).

In order to fulfil the requirements of the Third Energy Package, in June 2013 Finland passed legislation that covered amendments to electricity law. It included changes in the field of ownership structure of *Fingrid*. Two main electricity generators, *Fortum Oyj* and *Pohjolan Voima Oy*, sold their shares to the state. As a result of this acquisition, the state of Finland acquired the majority shares in its TSO (Energy Market Authority 2013, p. 4). At the level of Finnish distribution, in July 2013 there were 83 DSOs. Approximately two-thirds of them were legally unbundled (52 of 83 operators) (Energy Market Authority 2013, p. 8). Legal unbundling does not require any special legal form. However, separate companies cannot both be public utilities, otherwise they would be part of the same legal entity (Energy Market Authority 2013, p. 20).

In Finland the Energy Market Authority was responsible for regulating distribution network operators, regional network operators, and Transmission System Operators. Since the end of 2004, under provisions of the Second Electricity Directive, for network pricing Finland has applied *ex ante* regulation. The first regulatory phase of price regulation in the electricity network covered the years 2005–2007. The second phase included 2008–2011. The third regulatory phase that began in 2012 finishes in 2015 (Energy Market Authority 2013, p. 14). During these periods, the

regulatory model used is the revenue cap model. Its aim is to initiate "more innovations and investments in the networks in order to ensure viability of the networks" (Energy Market Authority 2013, p. 14). The Authority also supervised fulfilment of the unbundling requirements. It could oblige companies to correct mistakes or omissions. In cases of infringements it imposed fines or cancelled the network licence of the electricity company (Energy Market Authority 2013, pp. 21–22). Moreover, public law regulation covered public obligations imposed on operators. These included obligation to develop the electricity network, to connect, and to transmit electricity (Energy Market Authority 2013, pp. 24–25).

In the beginning of 2014 the Energy Market Authority was renamed the "Energy Authority". It was related to the introduction of new regulator roles. They cover, *inter alia*, promoting energy efficiency, counselling and communication, ecological design, as well as energy labelling (European Commission 2014a, p. 72).

France

The French energy market in the 1990s had typical monopoly characteristics. The state-owned EdF's market dominance was evident (95 per cent in generation, active role in distribution and transmission of energy). Certainly it did not remain without effect on the liberalisation process, which in 1998 was in a very early stage and the options provided in Directive 96/92/EC were deliberated by the major stakeholders (European Commission 1998). A similar, limited approach was applied in the case of market opening. In 2001, it reached only 30 per cent. The EdF's domination continued in the following years. For example, in 2005 EdF had a market share of about 87 per cent of generation capacity (European Commission 2007a, p. 63) and in 2011 EdF possessed 91 per cent of the installed capacity (European Commission 2011b, p. 2).

In 2000, the French energy regulatory authority, *Commission de Régulation de l'Énergie* (CRE) was established (European Commission 2011b, p. 1). Its duties and powers increased with the implementation of the 2010 act introducing a New Organisation of the Electricity Market and of the 2011 transposition act of the Third Energy Package (CRE 2013, p. 1). On this basis CRE guarantees the right of access to the public electricity grid, under transparent and non-discriminatory conditions. The authority proposes tariffs to the Minister of Energy and the

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

Minister of Economy for the use of public electricity grids and related services provided under the monopoly of the system operators of these networks. Under French law the decision is deemed established unless there is opposition from one of the ministers within two months of receipt of the proposal form CRE (CRE n.d.). CRE, which has to ensure the correct operation of the electricity market (to ensure the development of competition to benefit consumers), provides dispute settlement (*inter alia*, on interpretation or enforcement of agreements and protocols for grid access), may impose sanctions (in case of a breach of system operators' duties), issues opinions (e.g. on the decisions of other authorities), ensures the independence of system operators, as well as informs energy consumers about their rights on the energy market (CRE n.d.). Additionally, CRE is involved in regulation of nuclear power. It passes an opinion (*inter alia*, based on development of competition) on the overall maximum volume of electricity produced in nuclear sources that can be sold, or sets the volume of electricity generated in nuclear sources sold to each supplier sub-annually (CRE n.d.).

Germany

In the 1990s the German electricity sector consisted of about 1000 energy companies. Nine "supra-regional transmission companies" operated the transmission grid (European Commission 1998). By 2011, this amount increased to four TSOs: *Tennet*, *Amprion*, *50Hertz*, and *TransnetBW*. At the distribution level, there are more than 50 regional utilities and over 800 municipal distributors (European Commission 2011c, p. 2). Generation is dominated by four large private companies: E.ON, RWE, EnBW, and *Vattenfall* (European Commission 2011c, p. 2).

At the beginning of the twenty-first century, Germany was the only Member State without a sector energy regulator. This role was performed by the federal competent minister responsible for energy issues (e.g. granting licences, settling disputes on "an unjustified refusal of network access or discriminatory conditions and tariffs") (European Commission 2001, p. 79). It changed in 2005 when the German Federal Network Agency (*Bundesnetzagentur*) was established to regulate all network industries, including electricity, gas, telecommunication, postal, and, since January 2006, railway markets (IEA 2007, p. 31).

Bundesnetzagentur operates in the energy sector as a regulatory authority under

provisions of the Energy Act (EnWG) and the Grid Expansion Acceleration Act (NABEG). It provides "energy regulation", i.e. the supervision of operators of energy supply networks and federal state regulatory bodies (Bundesnetzagentur 2013). The aim of *Bundesnetzagentur*'s regulation is to strengthen competition in the energy market (generation, trade, and supply). For this purpose, *Bundesnetzagentur* (2013) has power to approve grid fees for electricity transit, to prevent and remove barriers in access to the energy grid, standardises processes for switching supplier, as well as to improve the conditions for connecting new power plants to the grid. Apart from competition within the energy market, since 2011, *Bundesnetzagentur* has been given certain duties regarding expanding the electricity grid infrastructure (Bundesnetzagentur 2013).

Italy

For a very long time ENEL has had the Italian state monopoly and generally covered every sub-sector of electricity: production, transmission, distribution imports, and exports. Some exceptions were in distribution (local utilities), and in generation (autoproducers) (European Commission 1998, p. 10). Pro-competition steps taken by the Italian government at the turn of the century resulted in a weakening of its position (see Soda & Carlone 2013, pp. 33–34). This was done by separating the Transmission System Operator (*Terna*) from its assets, as well as selling the distribution infrastructure in certain Italian cities (see ENEL n.d.). The liberalisation of the Italian electricity market was conducted gradually. In 2001 the electricity market was opened at 35 per cent. In 2002, this level increased by 5 per cent to 40 per cent. By 2006, only households were not yet able to choose their electricity supplier (European Commission 2007a, p. 76). Since July 2007, all Italian electricity consumers can change supplier (OECD n.d.). With regard to capacity installed, at the end of 2012 three operators held market shares greater than 5 per cent. These were ENEL (31.1 per cent), *Edipower* (6.5 per cent), and *Edison* (5.5 per cent) (AEEG 2013, p. 7). The institution responsible for regulation in the Italian electricity sector is the Regulatory Authority for Electricity and Gas (*Autorità per l'Energia Elettrica e il Gas*, AEEG). It aims to "protect the interests of [energy] users and consumers, promote competition and ensure efficient, cost-effective and profitable nationwide services with satisfactory quality levels" (AEEG n.d.). Thus, AEEG sets basic tariffs for regulated sectors, establishes guidelines for production

and distribution of services, as well as standards, monitors conditions under which services in regulated sectors are provided, conducts inspections and applies sanctions, assesses complaints and appeals or publishes information on market conditions (Bianco 2011, pp. 101–102). In addition the Authority performs an advisory role to the government and parliament. It also elaborates reports and its recommendations concerning regulated sectors (Bianco 2011, p. 100).

The Netherlands

The early structure of the electricity system in the Netherlands (1990s) was based on 33 distribution companies. They owned four generation companies, which themselves owned *Samenwerkende elektriciteitsproductiebedrijven* (SEP) – the former Dutch entity responsible for the transmission grid (European Commission 1998, pp. 10–11). In 1998, SEP was replaced by *TenneT* which became a new Transmission System Operator (TenneT 2015). At that time the market opening was estimated on 32 per cent (European Commission 1998, p. 11). By 2002 this level doubled and reached 66 per cent (European Commission 2007a, p. 93). Since July 2004, the Dutch electricity market has been fully open to competition (European Commission 2011g, p. 1). Currently, there are four main electricity generators on the market (Eurostat 2015) and eight distribution system operators (Spitzley *et al.* 2011, p. 16). Market concentration in the Netherlands at retail level is high. The three largest companies covered 80.3 per cent of the retail market at the end of 2010 (European Commission 2011f, p. 3).

In the Netherlands, energy regulation is provided by the Authority for Consumers & Markets (*Autoriteit Consument & Markt*, ACM). It is the new market authority, established in 2013 as a result of consolidation of the Netherlands Consumer Authority, the Netherlands Independent Post and Telecommunication Authority, and the Netherlands Competition Authority (ACM 2013, p. 3). The ACM sets tariffs for TSOs and DSOs, it monitors wholesale and retail markets, as well as ensures compliance of operators and power companies with national legislation on energy. The ACM is aimed at creating more transparency for energy users by streamlining tariff structures and improving information on the market. Further, the Authority supervises the implementation of new market models in retail (one of its objectives is to provide better services for consumers), as well as elaborating information codes (ACM n.d.).

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

Spain

In the first stage of liberalisation in Spain, the generation market mainly consisted of three companies: *Endesa* (state-owned company), and *Iberdrola* and *Union Fenosa* (two private entities). They were the main players in the distribution sector as well (*Endesa* group 43 per cent, *Iberdrola* 35 per cent, *Union Fenosa* 14 per cent) (European Commission 1998, pp. 10–11). In the first phase of market opening, consumers with a consumption of 15 GWh per year were qualified as eligible (30 per cent of total electricity consumption) (European Commission 1998, pp. 11–12). In 2001, liberalisation of the market was more than 50 per cent and in 2003 it reached full opening (European Commission 2007a, p. 77). In 2010 there were five major groups competing in the market at the generation level: *Iberdrola* (24.3 per cent), *Endesa* (19.6 per cent), *Gas Natural Fenosa* (15 per cent), EDP-*Hidrocantábrico* (5.3 per cent) and E.ON (3.5 per cent) (European Commission 2011d, p. 2). The transmission of electricity is provided by *Red Eléctrica de España* (founded in 1985). In 2012, the three main Spanish DSOs were *Endesa Distribución* (42 per cent), *Iberdrola Distribución* (34 per cent), and *Gas Natural Unión Fenosa Distribución* (16 per cent) (Sonvilla *et al.* 2012, p. 16).

In March 2012, the new Spanish law on electricity that implemented the Third Energy Package was passed (CNE 2013, p. 5). On this basis the National Regulatory Authority (*Comisión Nacional de Energía*, CNE) was designated as the authority at the national level in the field of electricity (regardless of the national competition authority's responsibilities) (CNE 2013, p. 7). Under the new legislation duties the powers of CNE has been broadened and enhanced. This was done by strengthening the competitive functioning of energy markets, as well as fostering development of the internal energy market and competitive regional markets. Particularly, powers attributed to CNE cover: approval of methodologies concerning transmission and distribution access tariffs, balancing services, access to interconnection infrastructures, capacity allocation and congestion management procedures, law enforcement with the possibility of imposing penalties, and protection of consumers (CNE 2013, p. 7).

Sweden

In Sweden in the 1990s there were approximately 300 energy companies,

although, eight of them generated almost 95 per cent of total electricity (European Commission 1998, p. 12). In 2012, three main entities: *Vattenfall*, *Fortum*, and E. ON were responsible for almost 80 per cent of total electricity production in Sweden (Ei 2013b, p. 32). In 2010, there were more than 120 electricity suppliers (European Commission 2011e, p. 2). In Sweden distribution is carried out at the local level by 170 companies (Pobłocka *et al.* 2011, p. 14), and transmission is conducted by the state entity *Svenska Kraftnät* (established in 1992). In terms of market openness, Sweden liberalised its market in the beginning of 1996 selecting all energy customers as eligible (European Commission 1998, p. 12).

Swedish regulatory policy is provided by the Energy Markets Inspectorate (*Energimarknadsinspektionen*, Ei) in cooperation with other public agencies (e.g. the Swedish Competition Authority is responsible for ensuring that competition regulations are adhered to, or the Swedish Consumer Agency ensures that energy consumers are offered fair contractual terms) (Ei 2013b, p. 6). However it is Ei (2013b, p. 6) that has collective responsibility for regulation and supervision of the Swedish electricity market and the implementation of the Electricity Act. Ei operates within four areas: supervision and consideration, customer information, monitoring and analysis, and international cooperation. It supervises compliance with laws and regulations in the energy markets sector (Ei 2013a, p. 6). For example, the Energy Markets Inspectorate determines whether the charges to connect to the electricity grids are reasonable. It also analyses developments in the energy markets as well as conducting investigations on behalf of the government. Where necessary, Ei proposes legislative changes (Ei 2013a, p. 6). It monitors supply quality, as well as considering and issuing concessions for electricity (Ei 2013a, p. 10). Among its regulatory duties Ei sets electricity network companies' fees in advance (from 2012). In the Swedish regulatory model the Energy Markets Inspectorate decides on the scale of companies' revenue in a four-year period. The first regulatory period runs from 2012 to 2015 (Ei 2013a, p. 5).

The UK

The electricity system in England and Wales was restructured and fully legally unbundled as early as 1990. An independent TSO was established on the market (European Commission 1998, pp. 12–13). Access to the network was based on an electricity pool (a type of regulated TPA), where all generators sold exclusively

energy and final consumers could choose between suppliers at the distribution level (European Commission 1998, p. 12). In terms of liberalisation, in 1998, market opening in the United Kingdom reached 42 per cent. By the beginning of the twenty-first century the British energy sector was fully opened (European Commission 2007a, p. 98).

Currently, the British transmission system is operated by the National Grid Electricity Transmission (NGET), which performs the role of single System Operator. Being also the Transmission Operator for England and Wales, it cooperates with two other Transmission Operators: Scottish Power Transmission (southern Scotland) and Scottish Hydro Electric Transmission (northern Scotland and the Scottish islands) (OFGEM n.d.d). At the level of distribution within the six regional distribution services areas there are 14 licensed distribution network operators, owned by six different energy groups (OFGEM n.d.c). In terms of electricity generation, at the end of 2012, there were 33 major power producers operating in Great Britain (some of the producers were joint ventures) (Department of Energy & Climate Change 2013, p. 123).

The Office of Gas and Electricity Markets (OFGEM) is responsible for regulation within the United Kingdom. In this regard, OFGEM's first priority is protection of consumers. It monitors energy markets for any signs of anti-competitive behaviour or agreements. The Office conducts investigations into the conduct of companies that may be breaching licence conditions (which OFGEM issues) or consumers' protection law as well as acting against competition (OFGEM 2012, p. 1). In such a situation, OFGEM (2012, p. 1) has the power to impose financial penalties (up to 10 per cent of the company's turnover). To ensure compliance with licence conditions it also issues enforcement orders (OFGEM n.d.b). In case of infringments of UK or EU competition law, it may (through its bodies) accept binding commitments or issue directions to stop the behaviour (OFGEM n.d.b). Decisions about enforcement action are taken by the Gas and Electricity Markets Authority which is OFGEM's governing body (OFGEM n.d.b). Further, as the regulator, the Offi sets price controls for the companies that operate the British electricity networks. In addition, OFGEM, *inter alia*, supports the government with its expertise (e.g. on smart metering) (OFGEM 2013a, p. 12), as well as informing energy consumers about their powers in the market (see OFGEM n.d.a).

The frame of this work requires that the review stop at this point. Another possible

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

area of future research would be to investigate the regulatory framework of all 28 Member States. Notwithstanding these limitations, let us conclude the above remarks. Presented in this chapter overview the newest Energy Package made it possible to start closer cooperation in energy regulation at the European level. The Agency, aimed at solving the problem of the regulatory gap, is assessed as the main driver of the real internal energy market.

Nevertheless, ACER is not the classic regulatory authority. Currently it coordinates rather than regulates, recommends rather than decides, etc. Although, as proved, there are some exceptions and areas in which ACER is approaching regulatory functions. This implies speculation and makes it possible to deliberate about its future characteristics. Besides this discussion, ACER is clear evidence of institutionalisation and Europeanisation that occur in the EU's regulatory framework. Driven by public law gathered in the European Energy Packages they influence national legislation, intensifying integration and harmonisation.

This affects the position of the national regulatory authorities. Each Package steadily endeavours to guarantee regulators an independent position with respect to domestic powers, i.e. government. It is evident that the legislative path, chosen in 1990s, involving public law regulation, with every step towards the internal energy market, intensified the European impact on Member States to make the necessary changes in the competence and powers of national regulators. The field of national action with respect to government influence narrowed while the position of national regulatory authorities strengthened. Especially significant are here in the provisions of the Third Package.

The influence of European legislation can be discerned on the grounds of national regulatory frames. First, it involved the need to establish regulatory bodies. Under the influence of the EU's Packages Member States have established regulatory institutions. Second, once the institutions have been incorporated into their legal systems, the discussion on harmonisation of their duties started. As a consequence, the main scope of national regulators' responsibilities and powers was unified, by setting the minimal requirements. Although, implementation of it has demonstrated shortcomings, resulting from the transposition's timing, its accuracy (e.g. regarding regulators' independence, i.e. methods of appointment, term, and its renewal), as well as ensuring regulators' necessary resources (financial and human).

Nevertheless, the adopted legislation provided grounds for the Commission to

INSTITUTIONAL REGULATORY MODEL OF THE ELECTRICITY SECTOR IN THE EU

require the correct implementation including guaranteeing that national regulatory authorities have effective regulatory powers and are independent. In light of the Energy Packages, regulators have to be autonomous in their decisions. They must act for the needs of the internal energy market and regulatory goals stemming from the European Energy Packages. This is because public law regulation performed by national regulators is not only a goal in itself. It served specific goals inscribed into the policy agenda of the common electricity market in the EU. This raises questions about the European regulatory approach, which I seek to answer in the next chapter.

CHAPTER

4

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

This chapter is excerpted from

The EU, US and China Tackling Climate Change: Polices and Alliances for the Anthropocene

by Sophia Kalantzakos.

Learn more

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

Excerpted from *The EU, US and China Tackling Climate Change*

> A truly wise man is apt at seizing opportunities rather than simply working out plans.

Old Chinese saying quoted by PM Jiabao in 2004

Though China and the European Union (EU) do not share close geographic proximity, they are not strangers to one another. They have shared a long and mixed history of interaction through trade and empire. Europe's involvement in the construction of the post-Second World War order and the rapid impacts of globalization make engagement with China a top priority for the EU. While trade and economic exchanges have been an important focal point for the burgeoning relationship, they are not the sole reason the Sino–European partnership presents great potential. China and Europe are not in direct confrontation with each other, neither rhetorically nor literally. In contrast to the United States (US), Europe does not see itself as a Pacific power. Moreover, both the EU and China present themselves as "emerging" powers that do not have underlying conflicts of national interest. The European view of a rising China, in contrast to that of the US, has not been shaped by the same intense anxiety over a looming political rivalry. By the same token, China and the EU exhibit a preference for multilateral diplomacy and actively partake in the workings of international institutions. With the exception of isolated incidents which have occasionally dampened their enthusiasm for robust rapprochement, their relations are more stable, more mature and more productive than Sino–US relations and have not been subject to the same ups and downs.

China's official relationship with the European Commission (EC, preceding the EU) began in 1975 and laid the legal foundations for the building of its ties with European Community member states. This was followed by a series of important steps in a process aimed at bringing the two actors closer for the purpose of solidifying cooperation. In 1978, they agreed to offer each other "most- favored nation status." They signed an economic and trade agreement in 1985 and exchanged diplomatic missions in 1988. Sino–European relations, however, were set back in 1989 because the EU imposed sanctions and an arms embargo on China after the bloody crackdown against demonstrators in Tiananmen Square. In 1994, the EU launched its Strategic Framework for Enhanced Partnerships with Asian countries along with its long-term policy plans for its relations with China. A dialogue on human rights was initiated in 1996 and in 1998 a Leaders' Summit was established. In 2001, China gained entrance into the World Trade Organization

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

(WTO) with the strong support of the EU which had insisted that the organization would not be a truly global one without China's participation. That same year, the cooperative partnership was renamed a "comprehensive partnership." In 2003, moreover, the partnership's status was further upgraded to "comprehensive strategic partnership." This constituted a turning point in EU– China relations and both sides held high expectations.

This relationship of "strategic closeness" went through a number of phases during its first ten years: the honeymoon phase, the restoration period and the progressive evolution of the partnership. At the outset both the EU and China issued policy papers outlining their respective understanding of what kind of relationship they sought to build, stating their objectives and contextualizing their partnership within the wider global picture. Both sides underscored particular facets of the relationship that enabled them to be truly cooperative, less adversarial and accorded recognition to the fact that both had a significant role to play in regional and global affairs.

Although disagreements on some issues continued to exist, it was clear to both sides that there were no lurking threats or fundamental conflicts of interest that could hamper a successful progression of their partnership. The Chinese in particular made these points abundantly clear by specifically underscoring that,

> given their differences in historical background, cultural heritage, political system and economic development level, it is natural that the two sides have different views or even disagree on some issues. Nevertheless China-EU relations of mutual trust and mutual benefit cannot and will not be affected if the two sides address their disagreements in a spirit of equality and mutual respect.

In that first honeymoon period, high-level visits between the EU and China became noticeably more frequent. Premier Wen Jiabao visited Brussels to attend the China–EU Investment and Trade Forum on May 6, 2004 and discussed the meaning and importance of the strategic partnership that the two powers sought to build. In Prime Minister Jiabao's own words,

> By 'comprehensive,' it means that the cooperation should be all-dimensional, wide-ranging and multi-layered. It covers economic, scientific, technological, political and cultural fields, contains both bilateral and multilateral levels, and

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

is conducted by both governments and non-governmental groups. By 'strategic,' it means that the cooperation should be long-term and stable, bearing on the larger picture of China-EU relations. It transcends the differences in ideology and social system and is not subjected to the impacts of individual events that occur from time to time. By 'partnership,' it means that the cooperation should be equal-footed, mutually beneficial and win-win.

The relationship appeared to be on track and to be moving forward by a momentum that found support on both sides.

Despite Premier Wen Jiabao's earnest advocacy for EU–China cooperation and hopes that the two powers would be able to create a strategic axis, things would quickly change. David Shambaugh argues that, "... like all marriages, the more the two interacted, the more differences and frictions inevitably surfaced. After a decade of rosy rhetoric and expanding ties, relations turned sour between 2006 and 2010." One problem was that the Chinese may have been looking for a partner to help end US unilateralism and interventionism of the sort that had led to the second Iraq war.

The US's looming shadow significantly impacted the relationship between the two powers. The bonds that Europe and the US share have been among the strongest in the international arena, having become particularly important after the Second World War. The closeness of this relationship has been based on shared values such as democracy and human rights, cultural connections, a strong economic and trade relationship, joint participation in institution building, and particularly during the Cold War years, shared foes. There has been a trust and maturity in their relationship that has endured through more recent divergences of opinion and agendas. As European states came closer together by launching a single currency and strengthening their political bonds, the EU began to perhaps come out of the US's shadow to champion a belief of a multipolar world system that does not rely on superpower politics and agendas. Still, Europe's commitments in the North Atlantic Treaty Organizaiton (NATO) have limited some of its flexibility, for example, in resuming weapon sales to China after the initial boycott following events at Tiananmen. This attachment to the US could perhaps be construed as Europe's Achilles' heel, especially from the perspective of the Chinese who had hoped that it would provide an alternative leadership paradigm to the more interventionist model of US power projection.

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

Excerpted from *The EU, US and China Tackling Climate Change*

It seemed that China's expectations on this front were being dashed, even though over the last two decades US commitment toward Europe has begun to waver. The disagreement over the second Iraq war and the growing political isolationist mood in Washington, D.C. have been responsible for cracks in the deep-rooted conviction that Europe and the US were bound to each other above and beyond the economic and strategic. In fact, at times it seemed that the two chief allies were quasi-estranged. Although the Obama administration tried to repair the growing chasm, his vociferous pivot toward Asia and the push for the establishment of the Trans-Pacific Partnership (TPP) constituted clear indications that the US was shifting priorities and resources toward Asia while trying to disentangle itself from the Middle East and loosening its bonds to Europe. Even though this decision speaks more to the fact that the US seems incapable or unwilling to multitask, however much globalization demands that it do so, the power and military shifts toward Asia have left European policymakers with a bitter aftertaste.

The US was not the only factor that impacted the EU–China relationship. The closer relations became, the more the EU began to wonder about the breakneck speed of China's rise both economically and politically. Friction ensued over trade issues, such as the granting of market status to China ahead of 2016. On the EU side as well, there were concerns over intellectual property and technology transfer, as well as other issues pertaining to market access into China. Furthermore, the Iranian nuclear program became a point of contention. Human-rights issues were pushed to prominence by some critics of China's record, and heads of state in the UK, France and Germany met with the Dalai Lama, provoking China to postpone the 11th China–EU summit scheduled to take place in Lyon France in 2008.

Global events also took away from the luster of this partnership, particularly the global financial crisis from which the world has yet to fully recover. While the world economy scrambled to find its footing, China found itself heavily impacted by the contagion which provoked a host of domestic reactions. For some policy makers in China, this was the moment that showed that the reign of the West (and particularly the US) was coming to an end and that China should use this opportunity to take a more assertive stance. China, after all, held vast amounts of US debt (over a $1 trillion). Chinese statements at the highest level reflected both apprehension over the contagion, but also a growing desire to influence US policy through financial statecraft. This produced mixed results. The crisis, however,

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

signaled a new normal, pointing to the extent of economic/financial interdependence of all the major economies.

European economies were hard-hit as a result, and while they took brave measures to boost the real economy, protect jobs and contain the damage, the crisis was taking place in real time, and it was difficult for them to act as a union, given the range of interests of different member–states. In the height of the financial meltdown, China proved its commitment to Europe and to global financial stability by buying Eurozone government bonds and also bonds by the European Financial Stability Facility. Still, the crisis was the first serious challenge to the euro and raised questions about its durability and design. The repercussions in the Eurozone amongst some of its members have been such that they have brought into question the level of solidarity among member-states. As a result of these outcomes, Europe's status as an important global actor was put into question and raised concerns about whether the EU could continue to speak in one voice. Moreover, the shock of the Brexit vote in 2016, the wave of migrants and refugees arriving starting in the summer of 2015, and terrorist attacks have all put European unity to the test.

While the partnership was meant to be multidimensional, the emphasis was overwhelmingly in the economic sector, followed by the political-diplomatic sector, then security, rule of law and finally the environment. According to research conducted by Jonathan Holslag, data from joint statements made after each annual Sino–European summit from 2001–2007 indicated that identified interests (needs or necessities) were low compared to dialogues and exchanges that were viewed as necessary. Although the prioritization of the economy was to be expected, during the period for which the aforementioned data provides some insight, the environment at least was already on the table for discussion, although it still ranked low in the declared priorities of defined common interests.

The partnership that Europe and China had claimed to be building was from the outset heavily focused on trade. They had seen each other as providing lucrative markets in which their goods could find an outlet. In 2014, they had become leading trading partners, trading well over €1 billion per day. In 2015, trade had risen to €520,812 billion. According to EU data, the EU imports industrial and consumer goods from China such as machinery and equipment, footwear and clothing, furniture and lamps, and toys. European exports to China are

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

concentrated on machinery and equipment, motor vehicles, aircraft and chemicals. Service trade accounts for only one-tenth of the total trade of goods. Investment flows were rising but still accounted for 2 to 3 percent of overall European investments abroad. Chinese investment in Europe started from a lower base but continues to rise. The EU is now China's top trading partner, and China is Europe's second largest trading partner.

Chinese investment has been a source of both relief and angst because the trade deficit between them remains high, giving rise to protests and opposition by European industries such as textiles and steel that have met with overwhelming competition. The trade deficit in 2015, for instance, stood at approximately €180,060 billion. China too has its own grievances such as the continued arms embargo (not lifted at the time of writing) and the denial of market economy status (not yet granted at the time of writing). These issues continue to weigh negatively on China's assessment of what their relationship with Europe truly means. While both sides acknowledge the importance and breadth of their association, much of the literature tends to see the glass as half empty rather than half full, pointing out obstacles and arguing that the "comprehensive strategic partnership" lacks the "comprehensive and strategic" character that is implied in its name. Scholars and analysts are not alone in their assessments. It appears that the actors themselves, while trying hard to achieve such a partnership, are hampered by constraints. They have largely missed the core opportunity that presents itself in the form of needed global leadership for the Anthropocene. The real but limited priorities which both put forth as pre-requisites for a meaningful "comprehensive strategic partnership" may possibly never be met. The EU can neither ignore its domestic populations nor will it be able to completely overlook issues of human rights and democracy. They are the values that the Continent safeguards as a result of its long historical procession through revolution and the Enlightenment. Europe, moreover, cannot and does not want to break its relationship with the US, which it does not view as a global rival but as an ally it traditionally can count on. Although the Cold War is over, there are new threats facing the Europeans both internal and external that are a result of an aging population, mass migration, terrorism, economic stagnation and an unpredictable and increasingly aggressive Russia. For these reasons, they continue to value their relationship with their partner across the Atlantic.

For China, the problem, perhaps, lies in the fact that the economy has been the

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

primary goal for the Chinese government outside its declared and evolving core interests, which include national re-unification with Taiwan, continued territorial integrity, maintaining national security, the preservation of its political system and claims in the South and East China Seas. China's pre-occupation with internal stability and growth often conflates domestic and international priorities, merging them under the rubric of economic opportunity, investment and trade. Such an outlook dates back to the years of Deng Xiaoping who saw "economics" as the strategic path by which China would develop swiftly and would gain both military and international leverage and influence. In 1975, Deng Xiaoping had declared that,

> The whole Party must now give serious thought to our country's overall interest ... The first stage is to build an independent and relatively comprehensive industrial and economic system by 1980. The second will be to turn China into a powerful socialist country with modern agriculture, industry, national defense and science and technology by the end of this century, that is, within the next 25 years ... This constitutes the overall national interest.

Deng Xiaoping understood full well that in order to achieve his goal, China needed to emerge from isolation and work with other powers, especially those that could help with economic transformation. In a speech before the Central Committee in 1983, he expressed the urgency of building ties with Western Europe to achieve the strategic goal of economic rebirth,

> We should open our country wider to the outside world. Now that the West European countries are beset with economic difficulties, we should lose no time in seeking their cooperation, so as to speed up our technological transformation ... China provides a huge market, so many countries wish to develop cooperation or do business with us. We should seize this opportunity. It is a matter of strategic importance.

At present, the single-mindedness governing Chinese transformation both internally and externally may have reached its limit. The overwhelming emphasis of international cooperation through trade and development may also have reached its limit. Although global trade continues to grow, so does the backlash against it. New trade deals are facing more public scrutiny and opposition. The Transatlantic Trade and Investment Partnership (TTIP) and the TPP both seem to have been derailed by opposition. The EU–Canadian Agreement was initially

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

vetoed by the French-speaking Wallonia region of Belgium with just 3.6 million people, shocking both the EU and Canada. In the end, the agreement was signed, but such is the climate surrounding new free trade agreements. Trade deals are now being vilified and branded as being responsible for the growing economic malaise of many Organization for Economic Cooperation and Development (OECD) countries. They are seen as prompting unfair competition that threatens a lifestyle that has come to be expected. China has predominantly built its image of ascendancy on its growing economic strength. This often works against its interests over time, because populations feel that there is an unclear agenda behind the PRC's generosity and that its heavy-handed promotion of its exports threatens their livelihoods.

According to the Pew Report of 2014, confidence in President Xi to do the right thing in world affairs was a resounding no in Spain at 72 percent, in Germany at 62 percent, in Italy at 64 percent, in Greece at 60 percent and in Poland at 63 percent. In answering a question about whether the growing Chinese economy is good for their country 53 percent of those polled in France responded that it wasn't, and in Italy the number was a staggering 75 percent. In a 2015 PEW poll, when asked whether China will/has replaced the US as a superpower, 66 percent of the French say it had, along with 59 percent of Germans, 60 percent of the Spanish and 57 percent of the Italians. Ratings of favorability toward China are also informative, with 60 percent of Germans giving China unfavorable ratings, along with 57 percent of Italians, 44 percent of Poles, 49 percent of the French and 37 percent of the British. These numbers reflect the apprehension that China will overtake Europe economically, altering the standard of living on the continent. Basing so much of its prestige as a rising nation on its dramatic economic achievements may be more of a vulnerability than the PRC had banked on. Moreover, the slow-down in growth rates within China, the dramatic stock market collapse in 2016 and recent moves in the South China Sea have tainted their image of invulnerability and given rise to a discourse of paper tigers.

These constraints notwithstanding, the EU and China continue to work on enriching their contacts and deepening their cooperation. President Xi Jinping's trip to Europe in 2014 was meant to revitalize the relationship.

> We need to build four bridges for peace, growth, reform and the progress of civilization, so that the China-EU comprehensive strategic partnership will take

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

> on even greater global significance ... We must uphold the open market, speed up negotiations on the investment agreement, actively explore the possibility of a free trade area, and strive to achieve the ambitious goal of bringing two-way trade to $1 trillion by 2020,

President Xi told dignitaries in Belgium. The message that he sought to convey was that through the Silk Road economic belt, Asia and Europe could be integrated to transform themselves into the "twin engines" of economic growth. However upbeat Xi's message strove to be, continued constraints often result in frustration, disappointment and distrust and run the danger of stifling meaningful cooperation.

Yet, I submit that there is one key area of global importance that provides China and Europe a tangible goal for a transformative strategic partnership. A full-blown partnership for the Anthropocene with climate action at its core gives the world its best chance for confronting the coming crisis. While such a partnership enables China and Europe to achieve their economic and investment objectives and build their technological cooperation, it more importantly fashions a common vision that allows them to bypass the pitfalls of US–style realpolitik.

Fortunately, many crucial structures for such a partnership are already in place. In 2005, the EU–China Partnership on Climate Change was launched and a climate change action plan drafted. By 2007, green growth and clean energy had become a new frontier for collaboration. As a result, the climate crisis became a vehicle for more meaningful and robust cooperation. The reasons for the convergence of interests in this area are manifold. For the EU, public awareness and activism with respect to the climate crisis pushed political elites to make the climate crisis a mainstream concern for all political parties. Furthermore, the Stern Review in 2005 opened the door to the realization of the heavy economic burden that rising temperatures would entail, transforming climate change into a priority for action. Moreover, renewables offered an attractive new possibility for growth in a continent whose economy was stagnating and did not have adequate fossil fuel resources. By the same token, the sheer urgency of transitioning to a low carbon economy called for investment in research and development and technology development.

China, too, embraced the idea of collaborating with Europe on climate action for a series of reasons. Its environmental challenges, as we have seen in chapter four, had become enormous, and public pressure for action was mounting. In the 10th

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

Five-Year Plan (FYP) (2001–2005), the government offered some acknowledgement of the crisis, pointing to the need to diversify its energy mix and promote a less intensive model of industrialization. It addressed environmental protection and public health and set out to reverse some of the damage done by extensive deforestation and the lax handling of pollutants. Moreover, renewable energy production was a win–win for China, allowing it more energy independence from coal and mostly imported oil. Renewables could boost its energy capacity in response to its ever-growing needs. Renewables, furthermore, helped create a new market for the production and export of renewable energy source (RES) applications and provided the possibility for reducing the atmospheric pollution that was chocking its cities. Europe had much to offer China in this domain both through technology transfer and extensive expertise in energy efficiency and more sustainable urban planning.

There was initial enthusiasm about building up this industrial exchange in renewable applications. For Europeans the exchange would lower costs of production, making RES more affordable and widespread. This would make it possible to help fulfill its ambitious goals to decarbonize the economy. China too recognized the opportunity to build up a new industry, acquire technological knowledge that it lacked and boost its energy security. Producing energy locally had the added bonus of not having its energy supplies vulnerable to disruption given that the US "controlled" the seas by which the majority of China's fossil fuels were being transported. Clean energy, furthermore, could help reduce China's dependence on coal that was responsible for the staggering pollution of large cities. As these exchanges deepened, they produced tangible results. China's turn to renewables, for example, produced a significant decline in coal use in 2015. Li Junfeng, Director General at the National Climate Change Research and International Cooperation Center, noted that,

> This trend may continue for 3–5 years or even longer … Today's figures are sending the strong signal of the clear acceleration of China's energy transition. I think thermal [coal] power generation will continue to drop with an annual speed of 2–4% and the non-fossil power generation will stay in a high growth rate of 20%.

The early stage of optimism was tempered by the disappointment that followed Copenhagen in 2009. There was a worry that in the end the technological

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

exchanges and the close working relations on tackling the climate crisis failed to alter China's position on the multilateral climate change talks. In Copenhagen, China "firmly upheld the principle of "common but differentiated responsibilities", steadfastly defended the development rights and interests of the vast number of developing countries and unswervingly safeguarded their unity and coordination." Wen Jiabao himself defended China's position on climate change in his address at the Climate Summit:

> The principle of 'common but differentiated responsibilities' represents the core and bedrock of international cooperation on climate change and it must never be compromised ... It is totally unjustified to ask them [developing countries] to undertake emission reduction targets beyond their due obligations and capabilities in disregard of historical responsibilities, per capita emissions and different levels of development ... emissions from developing countries are primarily survival emissions and international transfer emissions ...
>
> Developed countries must take the lead.

In searching for a party to blame, both the US but especially China were accused of dragging their feet. "It was obvious that the US and China didn't want more than we achieved at Copenhagen," commented Andreas Carlgren the Environment Minister of Sweden, the country that had been holding the rotating EU presidency at the time.

Europeans began to grow more apprehensive, as well, of China's low cost production of renewables. In 2012, following complaints lodged by the renewables industry, the EC conducted two parallel investigations concerning imports of solar panels from China, an anti-dumping investigation and an anti-subsidy investigation. The duties that were subsequently imposed were on average 47.7 percent, for those exporters who cooperated with the investigation and for the others who accounted for less than 20 percent of imports, they were set at 64.9 percent. The rationale behind the Commission's decision to impose duties was that the renewable energy industry was vital for Europe to be able to achieve its climate goals. Unfair trade practices did not contribute to the health of the global solar industry. The debate over whether or not to scrap duties on Chinese solar imports continues, although there is a divergence of opinions within European industry itself. There are those who believe that the barriers set up to protect

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

Europe's solar industry are impacting the deployment of solar technology because they maintain costs artificially high, resulting in the loss of jobs and a decrease in solar installation across the EU area. Others believe that if they are scrapped, then Chinese overcapacity will send the market crashing.

Bilateral cooperation continued, nonetheless, in a number of policy areas such as domestic emissions reduction policies, low-carbon cities, carbon capture and storage (CCS), greenhouse gas (GHG) emissions from the aviation and maritime industries, and hydrofluorocarbons (HFC). There has also been extensive collaboration over carbon markets. More recently, and following a successful pilot launch of China's first carbon market, with the collaboration of the EU, the two actors are working toward the launching of a national carbon market in China in 2017. According to the EU announcement, more than

> 1500 Chinese carbon market experts have received training on emissions trading under an EU funded project, which started in 2014. The successful results of the roll-out of the seven regional pilot system led the Commission to double its funding for cooperation on carbon markets and is making 10 million euros – more than 70 million yuan - available under the EU's Foreign Partnership Instrument for a new three year co-operation project starting in 2017.

Europe's experience in launching the European Union Emission Trading System (EU ETS) has proven a significant asset. Bringing China on board with a national carbon ETS mechanism will contribute to finally putting a price on carbon, proving that the two powers can achieve concrete and measureable outcomes in the fight against climate change when they collaborate. Miguel Arias Cañete, Commissioner for Climate Action and Energy said:

> This is an exciting time as China prepares to launch the biggest emissions trading system in the world. The Chinese ETS will play an important role in China's development towards a low-carbon economy. I look forward to continuing our excellent cooperation and to supporting China as it takes this ambitious step. Cooperation between the world's two largest emission trading systems represents a strong and promising signal for the development of future carbon markets worldwide.

The disappointment of Copenhagen lingered for quite some time. It may have been

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

too early for the world to accept the full impact of the climate crisis and the role of nations in stopping its accelerating speed, especially given the fact that it impacted both developed and developing countries indiscriminately. Without the deep disappointment of Copenhagen, and the unwavering leadership of the EU that kept up the momentum even when worldwide pessimism had taken over, the outcome of COP 21 in Paris may not have been possible. The question that begs for an answer is whether today it is merely enough to pursue joint cooperation for emission reductions, deployment of renewable energy applications and adaptation and mitigation. Does the response to the climate crisis necessitate only a logistical framework of dos and don'ts encompassed in a plan, or does it necessitate something more to mobilize global society quickly and effectively? I contend that it needs a narrative that transcends mere planning and a functional logic of engagement. Climate change action and leadership in the Anthropocene should become important components of a grand strategy. There are contending views on what might constitute "grand strategy." In this context, a plausible analogy is provided by Paul Kennedy who claims that the

> crux of grand strategy lies … in policy, that is in the capacity for the nation's leaders to bring together all of the elements [of national power], both military and non-military, for the preservation and enhancement of the nation's long-term (i.e. in wartime and peacetime) best interests."

Such a grand strategy informs Xi Jinping's attempt to define China's vision with notions of national rejuvenation, the launch of a Chinese Dream and by the Asia–Pacific Dream. Included in his vision was the creation of a global network of partners, the use of soft power and a new type of great power relations that would promote win–win cooperation. Of course, the fact that President Xi has broken from the low profile that Deng Xiaoping had advocated is drawing attention to China's possible underlying "true" intentions. While these words sound noble to Chinese ears, they often have the opposite effect on their audience. National rejuvenation in itself raises warning flags for neighboring South East Asian countries that are fearful of China's rise. Japan is increasingly feeling vulnerable and nationalistic, while incidents in the South China Sea have led the parties in the dispute to worry about a China that is increasingly intransigent over what it perceives as its interests. Soft power may not be enough to alleviate these fears, even though China has been employing it abundantly across its region and throughout the globe. As a result, the US, Japan and South Korea have responded

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

by strengthening their alliance.

Sensing that climate change is an area where political legacies will be made in the future, President Obama in the last half of his second term, made a final push to bring the US back into the climate conversation. Indeed, by jointly making statements about the climate with Xi, first in 2014 and then again in announcing the ratification of the Paris Agreement in 2016, the US was hailed in the media for its leadership. Experts and activists alike expressed optimism that with the two largest emitters on board, now there would be greater global effort to respond to the climate crisis. Obama announced to the world that

> Where there is a will and there is a vision and where countries like China and the United States are prepared to show leadership and to lead by example, it is possible for us to create a world that is more secure, more prosperous and more free than the one that was left for us.

President Xi, in turn, declared: "Our response to climate change bears on the future of our people and the well-being of mankind." Indeed, the two presidents may have even sounded visionary. Even so, Obama framed US–China cooperation as a decision to put aside rivalries and work together on this particular issue. Unfortunately, while his political instincts were correct about the importance of such a leadership paradigm, he did not have the domestic political support to commit the US in following through.

The immediate reaction of the US Congress expressed by Senate Environment and Public Works Chairman Jim Inhofe (R-Okla.) was that "History already shows that this Paris Agreement will fail." He added that, "This latest announcement is the president attempting to once again give the international community the appearance that he can go around Congress in order to achieve his unpopular and widely rejected climate agenda for his legacy." His sentiments were echoed by Sen. John Barrasso (R-Wyo.) who added that, "This questionable unilateral action by the president can and should be struck down as soon as possible." Obama was sharply criticized by his opponents for abusing his executive authority to promote an agenda that will be too costly on the US economy. What these "historic" declarations did prove, however, was that much of the rest of the world desired ambitious leadership for climate action. Obama himself lamented that his rallying cry has not galvanized the US public.

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

Excerpted from *The EU, US and China Tackling Climate Change*

Strikingly absent from the Obama publicity bonanza was any mention of Europe's key contribution to international climate action. For a time, it seemed that Europe had been sidelined. Nonetheless, the EU ratified the Paris Agreement, quietly showing consistency and resolve in its pursuit of concrete action *vis-à-vis* the climate crisis. In contrast to its own previous declarations, however, the EU sounded more subdued and seemed left out of the loop by the world's hegemon and the rising superpower. There was a sense that although Europe continued to actively pursue its climate agenda, internal divisions between members on a number of other issues were distracting it from its commitment and its potential for leadership. Miguel Arias Cañete, the EU Commissioner for Climate Action and Energy sought to rectify this impression:

> They said Europe is too complicated to agree quickly. They said we had too many hoops to jump through. They said we were all talk. Today's decision shows what Europe is all about: unity and solidarity as Member States take a European approach, just as we did in Paris. We are reaching a critical period for decisive climate action. And when the going gets tough, Europe gets going.

Moreover, Jean-Claude Juncker, EC President, who is a fervent believer in European integration, sounded more upbeat when he declared that this

> decision shows that the European Union delivers on promises made. It demonstrates that the Member States can find common ground when it is clear that acting together, as part of the European Union, their impact is bigger than the mere sum of its parts. I am happy to see that today the Member States decided to make history together and bring closer the entry into force of the first ever universally binding climate change agreement. We must and we can hand over to future generations a world that is more stable, a healthier planet, fairer societies and more prosperous economies. This is not a dream. This is a reality and it is within our reach. Today we are closer to it.

Juncker's statement highlighted what the US president could not bring to the table, public consensus supporting climate action. The Commissioner's tone, furthermore, served to contextualize the importance of the Paris agreement's ratification and underscored that international collaboration was no longer a dream but a growing reality.

Given the outcome of the US presidential election of November 2016, Obama's

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

cameo appearance with China on the climate stage no longer seems pertinent. This leaves Europe and China to fulfill the kind of global hopes expressed by Juncker. Even those who are skeptical about the achievement of the Paris agreement must acknowledge that it sparked new life into the push toward a low carbon future. How much progress nations make will be assessed in the near future, but there is a growing global acceptance that the climate crisis is both real and worsening. Technological innovation and the considerable decrease of prices for the deployment of renewables have already made the case for energy mix diversification. Even while fossil fuel prices have remained low, data shows a steady worldwide increase in the use of renewables. Global extreme weather events have not passed unnoticed and are increasingly worrying states across the globe. Warnings about the acceleration of melting glaciers and the rise of sea levels are also raising alarms. Global mass migration is increasing as a result of the climate crisis. As governments in the developed world are getting a taste of the future, those in the developing world are feeling the brunt of increased population displacements. Although developing nations continue to feel that the developed countries need to do more, they too now are coming to the realization that this is a global problem which impacts every country apart from their particular past contribution in generating the crisis.

While it is too early to discuss in concrete terms future changes in US policy *vis-à-vis* international climate negotiations, it is abundantly clear that the kind of leadership that Obama sought in dealing with the climate crisis will not be in the offing from Donald Trump. With the US becoming once again more of a problem than a solution, China need not find itself alone at the helm nor shy away from its global responsibility. Moreover, it already has a strategic partner that is engaged and has an admirable track record of commitment to both the process of international climate talks and to its objectives.

Paris and later Marrakesh (COP 22) demonstrated that the world is ready to embrace change that the climate crisis necessitates. It does, however, need a more concerted push. Here is where the EU and China have a pivotal role to play. Through their vast network of friends and allies in the developing world, and with their soft power and network diplomacy, they can reach out to offer support, cajole nations to follow up with their pledges and encourage them to become more ambitious. As Xi Jinping said at the opening ceremony of COP 21 in Paris in 2015,

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

Excerpted from *The EU, US and China Tackling Climate Change*

> China … takes an active part in international cooperation on climate change … China announced in September the establishment of an RMB 20 billion South-South Climate Cooperation Fund. Next year, China will launch cooperation projects to set up 10 pilot low-carbon industrial parks and start 100 mitigation and adaptation programs in other developing countries and provide them with 1,000 training opportunities on climate change … China will also help other developing countries to increase their financing capacity.

Europe, too, has taken action on this front and is the largest contributor of climate finance to developing countries and the world's biggest aid donor, collectively providing more than half of global official development assistance (ODA). Moreover, the broader EU development strategy has increasingly been integrating climate change. The EU has committed to spend at least 20 percent of its budget by 2020 on climate action. At least €14 billion will support activities in developing countries between 2014 and 2020.

Opting to partner more closely on this issue with the EU, moreover, would demonstrate China's commitment to multilateral diplomacy that has won it many friends in the developing world. It shows consistency with the ideals of the revolution and China's newly evolving grand strategy of win–win cooperation. Furthermore, because the EU has not overtly sought to express its own strength in terms of superpower status, it can partner with China without the baggage of an imbedded competition for supremacy. Such a partnership provides China a way to move beyond relationships driven solely by commercial interests. It would, moreover, enable China to translate economic power into an assertion of ideas and norms in a way that is closer to its own designs instead of preconceived US recipes of how a "responsible stakeholder" is expected to engage internationally.

The climate crisis and the overarching challenges of the Anthropocene are multi-tiered, multi-layered and increasingly complex. As a consequence, they give rise to problems of resource competition, food security, water scarcity, changes in agricultural production, production management, environmental protection, mass population movements, global health, and the design of smart cities. The wide range of challenges and areas ripe for action offer China more flexibility in setting an international agenda that it might prefer to foster in the coming decades. For Europe, a leadership role in the Anthropocene will provide a new narrative for European unity in the face of a global crisis. It will certainly maximize the win–win

WHAT MAKES EU-CHINA COLLABORATION A BETTER FIT FOR THE ANTHROPOCENE

cooperation with a giant like China and empower the relationship with much more than just an appreciation for each other's long civilization and the benefits of their economic give-and-take. Ultimately, both Europe and China need to decide if they want to be a leaders or mere spectators in the global politics of the Anthropocene.

CHAPTER

5

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

This chapter is excerpted from

Knowledge Brokerage for Sustainable Development: Innovative Tools for Increasing Research Impact and Evidence-Based Policy-Making

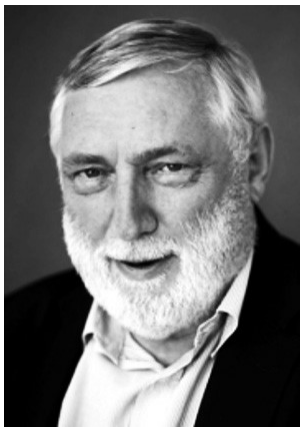
by André Martinuzzi and Michal Sedlacko.

Learn more

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

Excerpted from *Knowledge Brokerage for Sustainable Development*



Franz Fischler is an Austrian politician and the former European Union's Commissioner for Agriculture, Rural Development and Fisheries (1995–2004), where he served for two consecutive terms. Franz Fischler has started his career in science and earned his doctorate in agricultural sciences before joining politics. Before becoming the EU Commissioner he also served as the Federal Minister for Agriculture and Forestry where he played a key role in the preparation of the Austrian agriculture and forestry sector to join the EU and in the negotiations on the EU Membership Treaty. Currently he is the President of European Forum Alpbach—an interdisciplinary global forum for science, politics and culture taking place every year in the Austrian Alps.

Which challenges does the issue of "sustainability" in Europe face?

Franz Fischler: I am convinced that we are in need of a new narrative for Europe. The previous narratives were "Europe as a peace project", "Europe as a guarantor of prosperity" and "Europe as irreversibility of the Western system". These narratives were good, but their time has now passed. They can no longer inspire the citizens of Europe. This raises the question of what could constitute a new narrative that could remain relevant for the coming decades. In my opinion, the notion of sustainable development could be this new narrative. Sustainability is a term often abused as a buzzword that leads to false conclusions. The underlying problematic of creating a robust balance between environmental, economic and social needs is the central challenge that Europe faces today. Facing this challenge together could be the new narrative that unites citizens in support of further integration of Europe.

What does this mean specifically?

FF: We need make quality of life the central aim of economic activity. We need to

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

foster innovation that can act as the basis for sustainable economic development in the future. We also have to ask ourselves how we organize our society. Europe constitutes 7% of the world's population, 27% of the world's gross domestic product and 50% of global social expenditure. On the one hand, our aim is to preserve this, but on the other hand we also need to be aware of the fact that it is necessary to re-evaluate the systems that make this possible. In the future it will therefore be vital to understand complex systems and communicate this complexity to the citizens of Europe. This is an issue that cannot be left to technocrats alone. It is no coincidence that philosophers such as Habermas and Sloterdijke are highly vocal in this regard. Similarly, this issue calls for a strong link between science and policy.

How did you experience the interface between science and policy as European Commissioner?

FF: At the EU level the willingness to base decisions on scientific evidence is more pronounced than at the Member State level. This is the case why especially in the EU Commission political ideologies play a marginal role and policy-makers need to justify their policy decisions in negotiations with Member States, interest groups and NGOs. If you want to be successful in such a complex political environment you need a clear strategy and credible arguments. Scientific findings are of uttermost importance here. As a Commissioner, I have always tried to establish a close contact with the sciences. I have built up a strategic planning unit in both, the Directorate-General for Agriculture and Rural Development and Maritime Affairs and Fisheries, which established and maintained direct contact with scientific institutions and universities. When I started as a Commissioner, this unit employed 15 people, when I left 80 people were employed there. Although this is still a small number compared to the Strategic Unit in the US, this rise in number was particularly important for me. Moreover, we have tried to repeatedly direct policy-relevant questions at scientific institutions to gain scientifically sound answers.

Impact assessments are another important form of cooperation between policy-makers and scientists, especially in the planning process of major reforms. This is nowadays a standard procedure at EU level, because it allows to investigate not

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

only intended effects, but also unintended side effects. It has been my intention to maintain an open relationship with the sciences as a policy-maker and refrain from always working with the same people. When the policy-relevant questions are clear, the process that calls for proposals should be transparent and show who is most qualified to fulfil the task at hand.

What are the differences between the EU level and the individual Member States in terms of cooperation between science and policy-making?

FF: There are formidable cultural differences. Roughly speaking, policy-making in Anglo-Saxon and Scandinavian countries is much more science-driven than in the rest of Europe. In these countries policy-makers are much more open for scientific arguments and built long-term and sustainable networks with the scientific community. Moreover, it is more common to organize neutral platforms of exchange, such as Chatham House, in which issues can be openly discussed without the risk of political disadvantages for the individual. Simply put, there is a different culture of discussion.

In contrast, in Romance-speaking countries politics is primarily understood as a question of power. In these countries, ideologies are of much greater importance than scientific arguments. In debates concerning ethical values, ideologies are naturally very important. In other cases, however, they become a bias that prevents policy-makers from coming to an informed, optimal decision. The new EU Member States, in turn, are not a homogenous group. There are some among them that highly skewed to the Anglo-Saxon culture, such as the Czech Republic or the Baltic States. And there are also others in which ideologies are of higher importance, such as Slovenia, Hungary or Romania. Precisely because these different cultures exist within Europe it is important that we agree on common criteria at the EU level. Science can play a significant role by supplying facts that are above dispute and thus facilitating the building of a majority.

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

Excerpted from *Knowledge Brokerage for Sustainable Development*

How do policy-makers deal with situations where the scientific community holds conflicting views and presents different recommendations? Does evidence-based policy-making become policy-based evidence picking?

FF: Policy-makers are not immune to selective perception. If several scientific positions exist the policy-maker will chose the one that fits to his political position most closely. Cherry-picking exists. The selection of experts alone can already determine the direction of the scientific results obtained. But at the EU level the market of different scientific opinions is simply much bigger, multifaceted and more open. In the European institutions—the Council and the European Parliament—biased and one-sided positions would be questioned and scrutinized immediately.

As policy-makers we must be able to rely on science. But it makes it very difficult if different scientific statements are competing with each other. Scientific institutions are called upon to balance varied approaches in an objective manner and develop clear positions. These cases bring the entire science–policy system to its limits. Politics will tend to assume mainstream positions, which are not necessarily very forward-looking. Thus policy-making will in principle always involve some degree of risk.

Do policy-makers tend to delegate critical decisions to science to signal "this is not about our interests, but we face practical constraints"?

FF: In crisis situations and when it comes to new scientific advances and insights this is sometimes the only way. I have experiences being a Commissioner during the BSE crisis (Bovine spongiform encephalopathy [BSE], commonly known as mad cow disease). In such cases it is of particular importance to base decisions on scientific evidence. But what to do if the scientific insights were not advanced enough to derive concrete actions from them. In March 1996 I received a call from the British Minister of Agriculture to inform me that the position that BSE was not transferable to humans was being officially abandoned. Of course, this caused an

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

incredible stir. Subsequently, I tried to locate experts in this scientific domain. I could only find one in Europe. This made it clear that sufficient scientific expertise was simply not available. Therefore, we first asked the question which scientific insights would be needed to enable us to make informed decisions. After two weeks we received a list of possible studies of which the shortest would still have required five years of research. At the same time we, as policy-makers, we were pressured to act immediately and had to make decisions.

Does this suggest that, in general, science and politics have different speeds?

FF: It is not only a question of speed, but also of different time horizons. Politics often only reacts to pressure—and then something has to happen quickly. In the case of science we would expect that a longer-term view is taken and greater foresight is employed.

How do you differentiate between interest-based lobbying and scientific knowledge as a policy-maker?

FF: Every good lobbyist will use scientific studies to strengthen his arguments or even send a scientist to argue on his behalf. There, it was particularly important for me as a policy-maker to build my own strategic networkin order to avoid any dependence on the expertise of lobbyists.

What should scientist be aware of in these cases?

FF: It is of uttermost importance for scientist to preserve his autonomy and to not let themselves be exploited to support a particular agenda. Every scientific inquiry is always at risk of asking certain questions while leaving out others that could lead to different conclusions. A reputable scientist has to investigate both types of questions and compare the results.

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

Excerpted from *Knowledge Brokerage for Sustainable Development*

This brings us to the topic of scientific agenda-setting. How does politics influence the subjects of scientific inquiry?

FF: The influence is mainly indirect. On the one side there is, of course, the influence of the Service Centres and Directorate Generals. The EU Commission announces the general direction of research and the type of innovations they want to promote by setting priorities through the Research Framework Programmes. In addition, suggestions for further scientific research can be the outcome of science-policy discussion forums, if these are well organized.

What characterizes a good discussion forum? How can policy-makers be encouraged to take an active part in these scientific events?

FF: It is not always possible to encourage the top politicians—a member of cabinet or a senior policy adviser—to take part. They can give important contributions to such a knowledge exchange. A good politician uses his network of employees and advisers in this way. However, this is again to some degree a question of political culture. While a strong culture of open debate and a large number of think-tanks exist in some countries, this is almost absent in others.

What are the success factors of such think-tanks?

FF: Think-tanks act as a catalyst and provide substantial benefits for science and policy-making. On the one hand, a think-tank translates scientific knowledge into a political language that then enables policy-makers to comprehend it better. On the other hand, think-tanks also derive scientific questions from policy challenges. To be successful, a think-tank should focus on formulating the right questions and jointly develop proposals and positions to answer them. These proposals should address a particular individual or institution, for example, the heads of government, the European Parliament or the United Nations (UN). Subsequently, there is the

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

need of setting clear goals and professional moderation in order to work together efficiently. On the EU level the Centre for European Policy Studies and Friends of Europe are the most important at think-tanks as they have the widest networks of scientists.

What three tips would you give a young scientist that wants to achieve a higher impact?

FF: First, (s)he needs to create an awareness of his existence, his research themes and its implications. Therefore, (s)he should try to publish his research results in academic journals, as well as actively promote his results to the relevant policy-makers. Top scientific journals act as a form of quality control, while other forms of dissemination spread scientific insights beyond academic circles.

(S)he should also be aware of future trends and in his work refer to topics that will be politically relevant in the coming years. Rather than solely pursuing personal interests, the young scientist should also consider which issues will become more relevant for political and social reasons.

My third tip concerns public relations. Someone who wants to have impact as a scientist should try to be continuously present in public debates and provide interesting points of discussion. This is about creating and maintaining your own brand.

And what three tips would you give policy-makers?

FF: In all cases where there are indisputable scientific facts given, policy-makers should make decisions based on scientific research, rather than be satisfied with discussing different opinions.

Every policy-maker should therefore surround himself with a qualified and well-connected staff and advisers that promote a scientific sound, forward-looking and strategic perspective on policy. Here again science can play a significant role.

A NEW NARRATIVE FOR EUROPE

AN INTERVIEW WITH FRANZ FISCHLER

Excerpted from *Knowledge Brokerage for Sustainable Development*

Finally, policy-makers should actively approach the scientific community and provide the means for scientific work.