Internal and External Policy and Legal Challenges in the EU in Achieving a Sustainable, Competitive and Secure Internal Energy Market and the Integration of Electricity from Renewable Energy Sources into the Energy system

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Abstract

This article assesses the internal and external legal and policy challenges that the EU faces in creating a sustainable, competitive and secure internal energy market. It also examines the EU's concrete efforts to integrate electricity from renewable energy sources into the energy system. The internal policy objectives of sustainable development, competitiveness and security of supply are interrelated. In order to take concrete action in the energy policy area, it is important that these objectives are consistently applied. This article also analyses the interrelationship between these three policy objectives, as well as their relationship to the objective of integrating electricity from renewable energy sources. Although there are ambiguities in the relationship between the achievement of an internal energy market based on the three internal policy objectives and the integration of electricity from renewable energy sources into the energy system, there is also a clear positive connection with the integration of electricity from renewable energy sources into the energy system. This is, for instance, displayed by: the potential to reduce the dependence on energy imports from primary conventional a potential energy sources; diversification of the energy mix; and new market entrants. The integration of electricity from renewable energy sources into the energy system has a potential role to play as a long-term policy remedy in the EU's external energy relations and should receive greater focus in the interface

between the internal and the external policy challenges that the EU faces today in establishing a sustainable, competitive and secure internal energy market, since the latter is intended to be consistently applied both internally and externally.

Introduction¹⁷²

The energy sector contributes to the greenhouse effect, with almost 80% of the EU's total greenhouse gas emissions stemming from energy-related emissions. This makes energy and its role within a policy for sustainable energy development one of the biggest challenges that the EU faces today. At present, the EU's energy and climate policy goals are both included in the Europe 2020 strategy for smart, sustainable and inclusive growth and the flagship initiative of a

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¹⁷³ European Commission Communication, *Europe* 2020. A strategy for competitive, sustainable and secure energy, COM (2010) 639 final, 10 November 2010, 2.

¹⁷⁴ European Commission Communication, Energy for the Future: Renewable Sources of Energy, White Paper for a Community Strategy and Action Plan, COM(1997) 599 final, 26 November 1997; European Commission Communication, Europe 2020. A strategy for competitive, sustainable and secure energy, COM (2010) 639 final, 10 November 2010, 2.

'resource-efficient Europe', of which the Energy Roadmap 2050 initiative forms part. One of the urgent tasks under the current policy framework is to agree on tools that can ensure a competitive, secure and sustainable path for Europe. 175 The Renewable Energy Directive 2009/28/EC of 23 April 2009 (hereafter the 'RES Directive'), which establishes a common framework for the promotion of energy from renewable energy sources (RES), mandatory targets for the overall share of energy from RES in the gross final energy consumption.¹⁷⁶ This share is also set by sectoral breakdown. The EU will need to double the share of electricity from renewable energy sources (RES-E) from 16% in 2006 to over 30% and will need to ensure that the share of energy from renewable energy sources in all forms of transport in 2020 is at least 10% of the final consumption of energy in each Member State to reach an overall renewable energy target of 20% by 2020.177 In addition, the Electricity Directive 2009/72/EC of 13 July 2009 (hereafter the '2009 Electricity Directive') integration promotes the of electricity production from RES and fair access to the

network in order to remove barriers preventing access by new market entrants and RES-E. 178 The development and integration of RES have become both legal and political issues because they help to combat climate change and they contribute to the security of the EU's energy supply.¹⁷⁹ The current European economic and social system is based on centralised conventional energy sources, such as oil, coal, natural gas and nuclear energy and their distribution systems.¹⁸⁰ A shift to integrating renewable energy sources into this system will pose challenges.

This article will assess the legal and policy challenges in the creation and development of a sustainable, competitive and secure internal energy market and the integration of energy from RES into the conventional energy system, more specifically the integration of RES-E into the electricity grid. The development of energy from RES is not only relevant in relation to RES-E, but also for the purposes of renewables for heating and cooling (RES-H and RES-C) and renewable transport fuels (RES-T). Although the European Commission and the EU Member States have made a long-term commitment to developing RES in the various different sectors, this article focuses on the integration of RES-E.

¹⁷⁵ European Commission Communication, Europe 2020. A strategy for smart, sustainable and inclusive growth, COM (2010) 2020 final, 3 March 2010; European Commission Communication, Europe 2020. A strategy for competitive, sustainable and secure energy, COM (2010) 639 final, 10 November 2010, 3.

¹⁷⁶ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable energy sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, *Official Journal (OJ)* 5 June 2009, L 140/16.

¹⁷⁷ Article 3 Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable energy sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, *Official Journal (OJ)* 5 June 2009, L 140/16A. JÄGER-WALDAU, M. SZABÓ, N. SCARLAT and F. MONFORTI-FERRARIO, 'Renewable Electricity in Europe', *Renewable and Sustainable Energy Reviews*, vol. 15, no. 8, October 2011, 3704-3705.

¹⁷⁸ Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, *OJ* 14 August 2009, L 211/55; A. JÄGER-WALDAU, M. SZABÓ, N. SCARLAT and F. MONFORTI-FERRARIO, 'Renewable Electricity in Europe', *Renewable and Sustainable Energy Reviews*, vol. 15, no. 8, October 2011, 3706-3707.

¹⁷⁹ European Commission Green Paper, A European Strategy for Sustainable, Competitive and Secure Energy, COM (2006) 105, 8 March 2006, 10; V. OSCHMANN, 'Renewable Energy Sources in European Law: an Overview', Journal for European Environmental & Planning Law (JEEPL), vol. 3, no. 6, 2006, 478.

¹⁸⁰ A. JÄGER-WALDAU, M. SZABÓ, N. SCARLAT, F. MONFORTI-FERRARIO, 'Renewable Electricity in Europe', *Renewable and Sustainable Energy Reviews*, vol. 15, no. 8, October 2011, 3704.

This is mainly because the focus of most Member States has so far primarily been on the development of RES-E, even though there have been some recent developments in policy efforts developing mechanisms to support increased use of RES-T.¹⁸¹

Firstly, this article will give a short overview of the current EU energy legal framework following the adoption of a new energy title in the Treaty on the Functioning of the European Union (TFEU), Title XXI. Not only will the new Article 194 TFEU be analysed, but other new elements that have been introduced with the entry into force of the TFEU and the Treaty on European Union (TEU) with the Lisbon Treaty, such as the 'spirit of solidarity', will also be examined.

Secondly, it will introduce the current EU energy policy framework, which is based on three policy objectives, namely sustainable development, competitiveness and security of supply. These policy objectives form part of the EU's ambition to achieve a sustainable, competitive and secure internal energy market.

Thirdly, it will set out the internal and external challenges that the EU faces in its efforts to create and develop a sustainable, competitive and secure internal energy market and to integrate RES into this market, more specifically the integration of RES-E into the conventional energy system as an example of concrete action under the current EU framework.

As regards the internal legal and policy challenges, the first internal challenge that this article will assess is the interrelationship of the EU's three energy objectives of sustainability, competitiveness and security of supply. 182 The second internal challenge that will be assessed is how these objectives are related to the integration of RES-E into the energy system. This part of the article thus aspires to assess how the EU's policy and legal framework is applied to the EU's internal action in terms of its primary energy objectives, as well as how it is applied in terms of concrete action taken under the current framework (such as the integration of RES-E).

As regards the external challenges, the first challenge that will be discussed relates to the fact that the development of an EU energy legal and policy framework is influenced by the EU's dependence on foreign energy imports. This article analyses how this dependence influences the EU's concerns in relation to security of supply. It not only looks at its influence on the internal energy objectives, but also deals with the externalisation of the EU's internal policy objectives when entering into agreements with third countries. The role of the integration of RES-E into the energy system will also be discussed. The final issue that will be discussed is whether the element of solidarity could provide solutions in times of supply disruptions. In this last part on the EU's external challenges, the interface between the internal legal and policy challenges (which in this article centres on RES) and external legal and policy challenges (which in this article centres on the EU's dependence on energy sources from fossil fuels) that the EU is facing will become clear. In addition, there will be a

¹⁸¹ See also P. CONNOR, V. BÜRGER, L. BEURSKENS, K. ERICSSON, C. EGGER, Overview of RES-H/RES-C Support Options, D4 of WP2 from the RES-H Policy project, a report prepared as part of the IEE project 'Policy development for improving RES-H/C penetration in European Member States (RES-H Policy)', May 2009,

www.res-h-policy.eu/downloads/RES-H_Policy-Options_(D4)_final.pdf (last consulted on 19 November 2011), 7.

¹⁸² See also European Commission Green Paper, *A European Strategy for Sustainable, Competitive and Secure Energy,* COM (2006) 105 final, 8 March 2006.

summary of the various ideas and issues expressed throughout the article.

1. The Legal Basis of the EU's Current Energy Policy

1.1 A New Energy Title in the Treaty on the Functioning of the European Union: A Step Forward?

The original Treaty establishing the European Economic Community¹⁸³ only covered policy areas which were connected to the establishment and functioning of the 'common market'.¹⁸⁴ After the adoption of the Treaty establishing the European Community (TEC), Article 3 thereof also included ancillary Community policy areas.¹⁸⁵

Energy is now listed under Article 4(2)(i) TFEU as a shared competence.¹⁸⁶ Although Article 3(u) TEC mentioned measures in the sphere of energy, it did not confer specific competences to the former 'European Community' to lay down such measures. 187 Hence, its legal initiatives were derived from the competences in the fields research, environment, and infrastructure (more specifically trans-European energy networks), as well as from the internal market

and competition provisions.¹⁸⁸ Since the Lisbon Treaty entered into force, the EU's specific competence in the energy policy area is for the first time¹⁸⁹ formalised in the TFEU. Since the entry into force of this new Energy Title, the EU no longer has to avail itself of a constructed legal basis; it can now take measures by direct reference to Article 194 TFEU.¹⁹⁰

However, although it may have formalised the legal basis of the EU's energy policy, it is questionable whether the introduction of the

¹⁸⁸ Before the adoption of a separate Title on energy in the Lisbon Treaty, the Union could inter alia use Articles 95, 175 and 208 TEC (cfr. B. DELVAUX, A. GUIMARAES-PUROKOSKI, 'Chapter 1: vertical division of competences between the European Community and its Member States in the energy field - some remarks on the evolution of Community energy law and policy', in B. DELVAUX, M. HUNT, K. TALUS (eds.), EU Energy Law and Policy Issues, ELRF Collection, 1st edition, Rixensart, Euroconfidentiel, 2008, 28-29.); A. POINTVOGL, 'Perceptions, realities, concession - What is driving the integration of European energy policies?', Energy Policy, vol. 37, no. 12, 2009, 5704; B. EBERLEIN, 'Regulation by cooperation: the "third way" in making rules for the internal energy market', in P. CAMERON (ed.), Legal aspects of EU energy regulation, Oxford, Oxford

¹⁸⁹ This proposal was already included in the Treaty establishing a Constitution for Europe, but did not enter into force and consequently did not lead to the adoption of a constitution for the EU; see Article III-256 of the Treaty establishing a Constitution for Europe covering energy policy.

University Press, 2005, 63.

The ordinary legislative procedure consists of qualified majority voting in the Council as well as the co-decision procedure between the Parliament and the Council (Article 289 TFEU and Article 294(2) TFEU). As an exception, there is a special legislative procedure requiring unanimity in the Council and consultation of the European Parliament, and this applies to measures primarily of a fiscal nature. Also, Member States may determine the conditions for exploiting their energy resources, the choice between different energy sources and the general structure of their energy supply without prejudice to Article 192(2)(c) (Article 194(2) in fine TFEU); See also J. M. BENEYTO, 'From Nice to the Constitutional Treaty: Eight Theses on the (Future) Constitutionalisation of Europe', in S. GRILLER and J. ZILLER (eds), The Lisbon Treaty, EU constitutionalism without a Constitutional Treaty?, Vienna, Springer, 2008, 6.

¹⁸³ The Treaty establishing the European Economic Community was signed in Rome on 25 March 1957 and entered into force on 1 January 1958. It was amended to establish the European Community by the Treaty on European Union of 7 February 1992.

¹⁸⁴ K. Lenaerts, P. Van Nuffel, *Constitutional Law of the European Union*, 2nd edition, London, Sweet & Maxwell, 2005, 82.

¹⁸⁵ Consolidated version of the Treaty Establishing the European Community, *OJ* 24 December 2002, C 325/33; K. LENAERTS, P. VAN NUFFEL, *Constitutional Law of the European Union*, 2nd edition, London, Sweet & Maxwell, 2005, 82.

¹⁸⁶ Article 4 (2)(i) TFEU.

¹⁸⁷ K. LENAERTS, P. VAN NUFFEL, Constitutional Law of the European Union, 2nd edition, London, Sweet & Maxwell, 2005, 323.

new Energy Title has in fact changed anything substantively.

It could be argued that this formalisation brings a significant change in competence for the EU, but as is stated above, before the introduction of the Energy Title under the TFEU, the EU could de facto take the same measures as long as its action fell within any of the other close competences. 191 Moreover, it has been argued that the fact that Article 194 TFEU refers to the EU's energy policy in the context of 'the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment' not only places the policy area in an environmental perspective but would also entail a limitation of its scope to the internal market. 192 Furthermore, Member States retain the right to determine the conditions for exploiting their energy resources, their choice between different energy sources and the general structure of their energy supply under Article 194(2) in fine TFEU. Thus the question remains whether the adoption of a separate Energy Title has expanded the EU's scope of action as much as was intended.

1.2 Member States and Their Energy Resources: A Step Backwards?

Although the introduction of an explicit legal basis for the energy policy area under Article

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194(1) TFEU appears to be a step forward, five factors attenuate this analysis.

Firstly, the wording of Article 194(2) TFEU means there is a limit on the scope of the measures that can be taken in the energy policy area. It provides that the measures that can be taken on the basis of Article 194 TFEU do not affect the Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply.

Secondly, if the EU takes measures on the basis of Article 194 TFEU, as a general rule the ordinary legislative procedure applies, with the reservation that such measures do not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply and without prejudice to Article 192(2)(c). 193 The latter provides for a derogation in relation to environmental policy: measures that significantly affect a Member State's choice between different energy sources and the general structure of its energy supply are adopted by the Council acting unanimously in accordance with a special legislative procedure and after consulting the European Parliament, Economic and Social Committee and the Committee of the Regions.

If the Treaty article which serves as the legal basis for taking a certain measure dictates a procedure of qualified majority voting and co-decision, it sometimes does not give the Member States sufficient assurance that their political preferences will prevail. A Member State can influence its national representatives in the Council, but even if they vote accordingly, they can be in the minority. This is, however, corrected by the co-decision

¹⁹¹ See, for instance, regarding the previous proposal in the Constitutional Treaty J.-C. PIELOW, G. BRUNEKREEFT, E. EHLERS, 'Legal and economic aspects of ownership unbundling in the EU', *Journal of World Energy Law & Business*, vol. 2, no. 2, 2009, 102-103; See also B. DELVAUX, A. GUIMARAES-PUROKOSKI, 'Chapter 1: vertical division of competences between the European Community and its Member States in the energy field – some remarks on the evolution of Community energy law and policy', in B. DELVAUX, M. HUNT, K. TALUS (eds), *EU Energy Law and Policy Issues, ELRF Collection*, 1st Edition, Rixensart, Euroconfidentiel, 2008, 28-29.

¹⁹² H. VEDDER, 'The Treaty of Lisbon and European Environmental Law and Policy', *Journal of Environmental Law*, vol. 22, no. 2, 2010, 291.

¹⁹³ Article 194(2) and (3) TFEU.

procedure with the European Parliament, where the Member State might still have influence. As there is a derogation in relation to a Member State's choice between different energy sources and the general structure of its energy supply (Article 194(2) TFEU *juncto* Article 192(2)(c)), Member States still have the benefit of unanimity voting in the Council in relation to such matters.

However, following the Lisbon Treaty, Article 48(7) TEU contains the much-discussed 'passerelle clause', which has added to the debate about 'creeping competences'. 194 This clause provides that the European Council may adopt a decision authorising the Council to act by qualified majority where the TFEU or Title V TEU provides for the Council to act by unanimity; and where the TFEU provides for legislative acts to be adopted by the Council in accordance with a special legislative procedure to adopt a decision allowing for the adoption of legislative acts in accordance with the ordinary legislative procedure.195 However, not only may national parliaments oppose this within six months of the date of notification to the national parliaments, but the European Council must also act by unanimity and obtain consent from the European Parliament (which needs to a majority consent by of component members). 196 In conclusion, Member States have the chance to intervene before such a step is taken.

Thirdly, measures in the energy policy area do not fall within the exclusive competence of the EU, but are instead a shared competence. ¹⁹⁷

Fourthly, as the energy policy area does not fall within the exclusive competence of the EU, the principle of subsidiarity applies: this serves as a filter and screens the lawfulness of acts adopted in exercise of the EU's competence. 198 This principle was introduced as a reaction to the fact that some Member States were concerned about the exercise of powers by the former 'European Community', and to the fact that majority voting in the Council had created a fear that Member States might be confronted with Community action restraining their freedom in certain policy areas. 199 The Lisbon Treaty has introduced an early warning system, whereby the Member States act as guardians of the principle of subsidiarity since they are granted a right to intervene in relation to legislative proposals which would violate this principle.²⁰⁰

In addition, the principle of proportionality applies, requiring that the means employed must be suitable to attain the objectives of the Treaty and should not go beyond what is necessary to achieve such objectives.²⁰¹

Fifthly, the TEU contains a clause (see Article 4(2) TFEU) safeguarding the Member States' national identities and putting emphasis on safeguarding national security, which in the

¹⁹⁴ See, for instance, M. A. POLLACK, 'The End of Creeping Competence? EU Policy-Making Since Maastricht', *Journal of Common Market Studies*, vol. 38, no. 3, 2000, 519; J. LODGE, 'Federalism and the European Parliament', *Publius*, vol. 26, no. 4, 1996, 63.

¹⁹⁵ Article 48(7) TEU.

¹⁹⁶ Article 48(7) TEU.

¹⁹⁷ Article 4(2) (i) TFEU

¹⁹⁸ Article 5(3) TEU; K. LENAERTS and P. VAN NUFFEL, Constitutional Law of the European Union, 2nd edition, London, Sweet and Maxwell, Thomson Reuters, 2005, 101; P. CRAIG and G. DE BÚRCA, EU Law text, cases and materials, 4th edition, Oxford, Oxford University Press, 2008, 100.

¹⁹⁹ K. Lenaerts and P. Van Nuffel, *Constitutional Law of the European Union*, 2nd edition, London, Sweet and Maxwell, Thomson Reuters, 2005, 101.

²⁰⁰ Article 6 of Protocol (No 2) on the application of the principles of subsidiarity and proportionality, *OJ* 30 March 2010, C 83/206.

²⁰¹ Article 5(4) TEU; see also B.E. OLSEN, 'The subsidiarity principle and its impact on regulation', Chapter 2 in B.E. OLSEN and K. E. SØRENSEN (eds.), *Regulation in the EU*, Copenhagen, Thomson A/S, 2006, 46.

energy field could relate to a Member State's security of supply.

It has been argued that in the energy field, public security translates into security of supply and that there is a connection between the development of the single European energy national security. A more market and integrated EU internal energy market would provide less room for national security measures as it would itself provide greater security for Member States.²⁰² Therefore, Member States that are concerned about controlling energy issues that they consider to be of primary national importance might see their rights in matters of national energy security cut back by the accomplishment of the EU energy market.²⁰³ In the Campus Oil case, the link between an interruption in the supply of petroleum products and public security was clearly made and it allowed Member States to deviate from Treaty obligations in the interests of public security.204 The aim of ensuring a minimum supply of petroleum products was regarded as transcending purely economic considerations and thus capable of constituting an objective covered by the concept of public security, but the scope for deviation has more recently been scrutinised by the European Court of Justice.²⁰⁵ Although in this more recent case law the Court has recognised security of supply as a ground for justification for a limitation on the free movement of capital, it also emphasised that the exigencies of public security must be interpreted strictly and that public security may only be relied on if there is a genuine and sufficiently serious threat to the fundamental interests of society and refers to former case law to that regard.²⁰⁶

In conclusion, the fact that more powers have been conferred on the EU, whether directly by the adoption of Article 194 TFEU or indirectly (e.g. by making qualified majority voting the ordinary legislative procedure and by a 'passerelle clause'), does not prevent the Member States being able to exercise their influence in relation to energy matters. In my opinion, this concern on the part of the Member States that they might lose control over their national political and economical interests in energy matters is, as demonstrated by the above examples, expressed in the Treaty framework, the masters of which are the Member States. Such concern could have implications for the EU's internal and external action in this field, as it is necessary for the EU to act with one voice in its relations with external energy providers, on which it has become so heavily dependent over the years.²⁰⁷

1.3 Energy Solidarity in the EU Treaty Framework: *Quid*?

The Lisbon Treaty reinforces a Europe of rights and values, freedom, solidarity and security

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²⁰² C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?', *Energy Law Journal*, vol. 31, no. 1, 2010, 33 and 35.

²⁰³ See also C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?', *Energy Law Journal*, vol. 31, no. 1, 2010, 33 and 35.

²⁰⁴ Case 72/83, Campus Oil Ltd. and Others v Minister for Industry and Energy and Others [1984] ECR 2727, para. 34; C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?', Energy Law Journal 2010, vol. 31, no. 1, 40.

²⁰⁵ Case C-72/83, Campus Oil Ltd. and Others v Minister for Industry and Energy and Others [1984] ECR 2727,

para. 35; C. Padrós, E.E. Cocciolo, 'Security of energy supply: When could national policy take precedence over European law?', *Energy Law Journal*, vol. 31, no. 1, 2010, 40.

²⁰⁶ Case C-463/00, Commission v Spain [2003] ECR I-4581, para. 72; C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?', Energy Law Journal, vol. 31, no. 1, 2010, 46.

²⁰⁷ Infra 4.1.

and contains new mechanisms of solidarity; solidarity is also emphasised in relation to energy.²⁰⁸ Article 194(1) TFEU lays down that the Member States should achieve the goals stated therein in a 'spirit of solidarity'; however, it is currently unclear what this reference means as there is not a reference to a 'principle of solidarity'. Yet the 'principle of solidarity' is specifically mentioned in relation to other policy areas: border checks, asylum and immigration.²⁰⁹ Moreover, Title V TEU deals with the EU's external action and specific provisions on the Common Foreign and Security Policy. In this regard, Article 21 TEU refers to the requirement of respect for the 'principles of equality and solidarity' in the Union's action on the international scene.²¹⁰

The Lisbon Treaty includes a number of references to the concept of 'solidarity' in a broader sense. Firstly, in relation to Title V TEU regarding general provisions on the Union's external action and specific provisions on the Common Foreign and Security Policy, many references are made to the concept of solidarity. Article 24 TEU includes the provision that the EU's Common Foreign and Security Policy should be based on the development of 'mutual political solidarity' between the Member States and that within the framework of the principles and objectives of the EU's external action, the Member States must support the EU's external and security policy actively in a 'spirit of loyalty and solidarity'.211 Article 31 TEU lays down that decisions made under Chapter 2 (which deals with specific provisions on the Common Foreign and Security Policy) are taken by the European Council and the Council Secondly, Article 3(3) TEU makes an explicit reference to solidarity, stating that the Union must promote solidarity among Member States. Article 3(5) TEU also makes a reference to solidarity, but it is referring to the EU's relations to the wider world rather than just referring to solidarity among Member States.

Thirdly, the Lisbon Treaty has brought in a 'solidarity clause' in Article 222 TFEU, with an explicit requirement that the EU and its Member States 'act jointly in a spirit of solidarity' in the event of terrorist attacks or natural or man-made disasters (although it is not clear as to the legal obligations resulting from the term 'spirit of solidarity').²¹⁵

Bearing in mind that the former pillar structure is no longer in place, the phrase in Article 222(1) TFEU ('The Union and its

on the basis of unanimity and that the adoption of legislative acts is excluded.²¹² It further lays down that a Member State which abstains in a vote must 'in a spirit of mutual solidarity' refrain from any action that is likely to conflict with or impede EU action based on a decision resulting from abstaining in that vote and that other Member States must respect this position.²¹³ Finally, Article 32 TEU includes the provision that in determining a common approach, each Member State must consult its fellow Member States within the European Council or the Council before undertaking any action on the international scene or entering into commitments which could affect the EU's interests. It is explicitly stated that Member States must 'show mutual solidarity'.214

²⁰⁸ See, for instance, 'The Treaty at a glance' at http://europa.eu/lisbon_treaty/glance/index_en.htm (last consulted on 19 November 2011).

²⁰⁹ Article 80 TFEU.

²¹⁰ Article 21 TEU.

²¹¹ Article 24(2) and (3) TEU.

²¹² Article 31(1) TEU.

²¹³ Article 31(1) TEU.

²¹⁴ Article 32 TEU.

²¹⁵ See also Swedish Institute of International Affairs, The European Union's Solidarity Clause: Empty Letter or Effective Tool? An analysis of Article 222 of the Treaty on the Functioning of the European Union, Occasional Uipapers, no. 2, 2010, www.ui.se/upl/files/44241.pdf (last consulted on 19 November 2011).

Member States shall act jointly in a spirit of solidarity') seems to indicate that this is more than an inter-governmental obligation, and rather that it relates to the Member States *and* the EU – which now also has legal personality – together.²¹⁶ However, in Article 222(2) TFEU the Treaty specifically states that 'the other Member States shall assist it'; thus, there the spirit of solidarity seems to be imposed on the Member States alone.²¹⁷

Fourthly, Article 122 TFEU provides that the Council on a proposal of the European Commission may decide, in a 'spirit of solidarity' between the Member States, upon appropriate measures in a particular economic situation (with severe issues in relation to energy supply being particularly targeted).

Finally, in relation to recent developments, the EU's cohesion policy (laid down in Article 3 TEU and Articles 174 until 178 TFEU) and the European Commission's strategy for 'smart, sustainable and inclusive growth' should be mentioned.²¹⁸ In the period 2007-13, cohesion policy programmes have so far allocated over 9 billion euro for the promotion of energy

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efficiency and renewable energies.²¹⁹ During a speech on the political guidelines for the next European Commission on 3 September 2009, Commission President Barroso set out a 'transformational agenda' (i.e. not based on business as usual or routine) and restated the need to review the budget to respond to new priorities.²²⁰ The Commission President urged moving away from a narrow focus on net balances and proposed moving 'towards an approach based on solidarity, burden-sharing and equity which is comprehensive and shared by all'.²²¹

Thus, the element of solidarity in a broader sense has taken different forms, as shown by the above examples. Firstly, solidarity can

²¹⁶ Article 47 and 222 TFEU; Swedish Institute of International Affairs, *The European Union's Solidarity Clause: Empty Letter or Effective Tool? An analysis of Article* 222 of the Treaty on the Functioning of the European Union, Occasional Uipapers 2010, no. 2, www.ui.se/upl/files/44241.pdf (last consulted on 19 November 2011), 6.

²¹⁷ Swedish Institute of International Affairs, *The European Union's Solidarity Clause: Empty Letter or Effective Tool? An analysis of Article* 222 *of the Treaty on the Functioning of the European Union,* Occasional Uipapers 2010, no. 2, www.ui.se/upl/files/44241.pdf (last consulted on 19 November 2011), 6-7.

²¹⁸ European Commission Communication, Europe 2020. A strategy for smart, sustainable and inclusive growth, COM (2010) 2020 final, 3 March 2010, 21; see also E. M. BASSE, 'Urbanization and Growth Management in Europe', The Urban Lawyer, vol. 42, no. 4/vol. 43, no. 1, A 2020 View of Urban Infrastructure: A Festschrift Symposium in honor of J.C. Juergensmeyer on the occasion of his 45th year of teaching law.

²¹⁹ European Communication, Second Strategic Energy Review, An EU Energy Security and Solidarity Action Plan, COM (2008) 781 final, 13 November 2008, 12.

J. BACHTLER, C. MENDEZ, F. WISHLADE, Challenges, Consultations and Concepts: Preparing for the Cohesion Policy Debate, European Policy Research Paper, no.74, February 2010, European Policies Research Centre, University of Strathclyde, Glasgow,

www.eprc.strath.ac.uk/eprc/documents/PDF_files/EPR P_74_ChallengesConsultationsandConceptsPreparingfo rtheCohesionPolicyDebate.pdf (last consulted on 19 November 2011), 3; J.M. BARROSO, *Political guidelines for the next Commission*, 3 September 2009,

http://ec.europa.eu/commission_2010-

^{2014/}president/pdf/press_20090903_en.pdf (last consulted on 19 November 2011), 36.

²²¹ European Commission Communication, Second Strategic Energy Review, An EU Energy Security and Solidarity Action Plan, COM (2008) 781 final, 13 November 2008, 12; J.M. BARROSO, Political guidelines for the next Commission, 3 September 2009, http://ec.europa.eu/commission_2010-

^{2014/}president/pdf/press_20090903_en.pdf (last consulted on 19 November 2011), 36.

²²¹ J. BACHTLER, C. MENDEZ, F. WISHLADE, Challenges, Consultations and Concepts: Preparing for the Cohesion Policy Debate, European Policy Research Paper, no. 74, February 2010, European Policies Research Centre, University of Strathclyde, Glasgow,

www.eprc.strath.ac.uk/eprc/documents/PDF_files/EPR P_74_ChallengesConsultationsandConceptsPreparingfo rtheCohesionPolicyDebate.pdf (last consulted on 19 November 2011), 3.

entail an obligation from one Member State in relation to another Member State. Secondly, solidarity can entail an obligation from the EU level to Member State level, as a requirement that the institutions help or stand by the Member States in times of need. Thirdly, solidarity can entail an obligation on the Member States to respect duties flowing from their Member State status. Fourthly, solidarity can be an obligation that rests on the EU in its entirety, namely the EU institutions as well as §the Member States, to act in a certain way towards third states.

It should be noted that Member States could still argue that such solidarity obligations encroach on their national procedures (as has, for instance, been mentioned by Advocate General Slynn in relation to protection of the environment in a matter regarding nuclear power stations). ²²² Thus, a balance will need to be struck between solidarity on the one hand and public security on the other. However, the Court has already held that Member States are prohibited ²²³ from upsetting the balance between the benefits and the burdens of their membership of the EU based on a unilateral perception of their national interests. ²²⁴

In conclusion, it is clear from the above assessment that there is a difference between the relatively vague reference to the 'spirit of solidarity' mentioned in Article 194 TFEU and the clear references to a 'principle of solidarity' in other parts of the Treaty framework. The question is what is meant by the statement in Article 194 TFEU that the EU's policy on energy must aim 'in a spirit of solidarity between the Member States' and what obligations it entails. Both the aims of ensuring the functioning of the energy market and of ensuring the security of energy supply are mentioned in the Article. It has been argued that solidarity between Member States is necessary in order to deal with the challenge of energy disruptions.²²⁵ This view will be discussed further in relation to energy supply issues.²²⁶

2. The EU's Energy Legal and Policy Framework for a Sustainable, Competitive and Secure Internal Energy Market

2.1 Sustainable Development

Discussions regarding the concept of 'sustainable development' have resulted in numerous definitions of the term, yet the concept remains rather vague.²²⁷ Following the Brundtland Commission, a development is regarded as sustainable if it meets the needs of the present generations without compromising the ability

²²² Opinion of Advocate General Slynn delivered on 8 June 1988 on Case 187/87, Land de Sarre and Others v Ministre de L'Industrie, des Postes et Télécommunications et du Tourisme and Others [1988] ECR 5013: 'the principles of 'effet utile' [...] and of Community solidarity [...] seem to me to require in the interest of health and safety, efficiency and the protection of the environment, whilst not unduly encroaching on national procedures [...]'.

²²³ Also, dixit Advocate General Poiares Maduro in relation to reform of the Common Agricultural Policy, it also prohibits the older Member States within the Council from arbitrarily upsetting the balance of benefits and burdens established by accession instruments in favour of future Member States (see Opinion delivered on 21 June 2007 on Case C-273/04, Poland v. Council [2007] ECR I-8925, para. 51).

Case 39/72, Commission v. Italy [1973] ECR 101, para.
 Case 128/78, Commission v. United Kingdom [1979] ECR 419, para 12.

²²⁵ See J-M. GLACHANT, F. LÉVÊQUE AND P. RANCI, 'EU Energy security of supply: conclusions', in F. LÉVÊQUE, J-M- GLACHANT, J. BARQUÍN, C. VON HIRSCHHAUSEN, F. HOLZ, W. J. NUTTALL (eds.), *Security of Energy Supply in Europe, Natural Gas, Nuclear and Hydrogen,* Loyola De Palacio Series on European Energy Policy, Cheltenham, Edward Elgar, 2010, 295.

²²⁶ Infra Section 4.2.

²²⁷ U. Steger, W. Achterberg, K. Blok, H. Bode, W. Frenz, C. Gather, G. Hanekamp, D. Imboden, M. Jahnke, M. Kost, R. Kurz, H. G. Nutzinger, T. Ziesemer, Sustainable Development and Innovation in the Energy Sector, Lausanne, Springer, 2010, 27.

of future generations to meet their own needs.²²⁸

Sustainable development encompasses social, economic and environmental aspects, which each lead to further related issues. Following S. Lélé, the concept of sustainable development has by many people been used interchangeably with what he calls 'ecological sustainability'. ²²⁹ But S. Lélé also takes the view that social as well as ecological conditions influence ecological sustainability. ²³⁰ Thus, in broad terms sustainable development aspires to combine a growing concern for environmental issues with socio-economic issues. ²³¹

As U. Steger et al. argue, the concept of sustainability should neither be burdened with specific requirements which fulfil the most stringent ecological criteria, nor should the concept be left so vague that it can mean everything and nothing; they thus argue in favour of a balance between these two extremes and also in favour of making the concept operational.²³² In this article, sustainable

development will be analysed in terms of the role it plays in the achievement of a sustainable, competitive and secure internal energy market and its role as a link to these other policy objectives. To assess this role it needs to be placed in its legal framework.

Under the former EU Treaty framework, sustainable development was mentioned in the preamble to the TEU, in Article 2 of the TEC²³³ as well as in the integration clause of Article 6 TEC²³⁴.

Following the Lisbon Treaty, the preamble to the TEU continues to take the principle of sustainable development into account. However, whereas the former Article 2 TEC referred to sustainable development of economic activities, this is now contained in the current Article 3 TEU. This states that the EU shall establish an internal market and work for the sustainable development of Europe, which is inter alia based on balanced economic growth, stable prices, a high level of protection and improvement of the quality of the environment.235 Thus, the legal framework at least suggests a link between sustainable development and the internal market.²³⁶ It has been argued that this new reference to 'Europe' in Article 3 TEU makes sustainable develop-

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²²⁸ Brundtland Commission, World Commission of Environment and Development (WCED) 1987, Our Common Future, Chapter 5: Towards Sustainable Development, www.un-documents.net/ocf-02.htm#I (Last consulted on 19 November 2011); U. STEGER, W. ACHTERBERG, K. BLOK, H. BODE, W. FRENZ, C. GATHER, G. HANEKAMP, D. IMBODEN, M. JAHNKE, M. KOST, R. KURZ, H. G. NUTZINGER, T. ZIESEMER, Sustainable Development and Innovation in the Energy Sector, Lausanne, Springer, 2010, 27.

²²⁹ S. LÉLÉ, 'Sustainable Development: A Critical Review', *World Development*, vol. 19, no. 6, 1999, 608-609.

²³⁰ S. LÉLÉ, 'Sustainable Development: A Critical Review', *World Development*, vol. 19, no. 6, 1999, 609-610.

²³¹ B. HOPWOOD, M. MELLOR and G. O'BRIEN, 'Sustainable Development: Mapping Different Approaches', *Sustainable Development*, vol. 13, no. 1, 2005, 38-52.

²³² U. Steger, W. Achterberg, K. Blok, H. Bode, W. Frenz, C. Gather, G. Hanekamp, D. Imboden, M. Jahnke, M. Kost, R. Kurz, H. G. Nutzinger, T.

ZIESEMER, Sustainable Development and Innovation in the Energy Sector, Lausanne, Springer, 2010, 27.

²³³ Which states: 'to promote throughout the Community a harmonious, balanced and sustainable development of economic activities'.

²³⁴ Which states: 'Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities referred to in Article 3, in particular with a view to promoting sustainable development'.

Article 3 (3) TEU: 'shall establish an internal market' and 'shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress and a high level of protection and improvement of the quality of the environment.'.

²³⁶ *Infra* Section 3.1

ment a more cross-cutting horizontal objective that not only relates to economic development, but possibly also relates to technological Finally, development.²³⁷ sustain-able development is also covered in the integration clause (new Article 11 TFEU), which states that 'environmental protection requirements must integrated into the definition implementation of the Union's policies and activities, in particular with a view to promoting sustainable development'.238 This means that sustainable development has to be taken into account when the EU takes action in the field of energy policy. Due to its formal central placement in Part One of the TEC on 'principles', it has been argued that the unique position of the 'environmental integration principle' has now changed, as further integration principles (a general integration principle, a sex equality integration principle, employment and social integration principle, a non-discrimination integration principle, a consumer protection integration principle and an environmental and animal welfare integration principle) are placed under a separate Title II of Part One TFEU on 'provisions having general application'.239 Moreover, the question has been raised as to why the cultural integration clause, industrial policy integration clause and the social cohesion integration clause are not adopted under Title II of Part One TFEU, but remain in Part Three TFEU.²⁴⁰ This article later examines the role the integration principle

plays in the interrelationship between the policy objectives of sustainable development, competitiveness and security of supply.241

The first application of sustainable development in this article is thus, following Article 11 TFEU, the requirement of integrating environmental protection requirements into the implementation of EU policies and activities. The requirement that environmental protection must be integrated into the definition and implementation of EU policies and activities also applies to the implementation of activities or policies relating to RES-E integration into the energy system.

Secondly, it has been argued that the different dimensions of sustainable development (legal, social, political, scientific and economic) should be made clear, and further that they must be integrated and cannot be considered in isolation.²⁴² The achievement of development sustainable requires integration of economic, social and environmental considerations.²⁴³ RES and RES-E not only relates to the environmental aspect of sustainability, but also relates to meeting essential human needs, as well as to economic growth and perceived needs such as the patterns of our energy use, which are socially and culturally determined.²⁴⁴

Although this article focuses on sustainable development in the EU energy context, with a

²³⁷ H. VEDDER, 'The Treaty of Lisbon and European Environmental Law and Policy', Environmental Law, vol. 22, no. 2, 2010, 287-288.

²³⁸ Article 11 TFEU.

 $^{^{239}\,\}mathrm{H.}$ Vedder, 'The Treaty of Lisbon and European Environmental Law and Policy', Environmental Law, vol. 22, no. 2, 2010, 289.

²⁴⁰ See Articles 167(4), 173 (3) and 175 TFEU; H. VEDDER, 'The Treaty of Lisbon and European Environmental Law and Policy', Journal of Environmental Law, vol. 22, no. 2, 2010, 290.

²⁴¹ *Infra* Section 3.1.

²⁴² A. RØNNE, 'The Legal Dimension of Sustainable Development with the Emphasis on the Energy Sector', Retfærd, Nordisk Juridisk Tidsskrift, Law and Ecology Special Issue, 1994, 55.

²⁴³ World Commission of Environment Development (WCED), Our Common Future: Report of the World Commission of Environment and Development, www.un-documents.net/ocf-02.htm#IV (last consulted on 19 November 2011).

²⁴⁴ World Commission of Environment and Development (WCED), Our Common Future: Report of the World Commission of Environment and Development, www.undocuments.net/ocf-02.htm#IV (last consulted on 19 November 2011).

focus on the environmental protection aspect of sustainable development, it has demonstrated that also in this context sustainable development cannot be reduced to its environmental meaning alone, but extends inter growth to. alia, economic and technological development.

2.2 Competitiveness

The notion of competitiveness in this article relates to competitiveness in the context of the EU's energy policy and thus relates to the establishment of an internal competitive energy market. Article 194 TFEU mentions the aim of ensuring 'the functioning of the energy market'. ²⁴⁵

The origin of the notion of an 'internal energy market' in EU primary law is to be found in Article 129b of the 1992 Treaty on the European Union (the Maastricht Treaty), in which the EU was to contribute to the establishment and development of trans-European networks in the areas of transport, telecommunications and energy infrastructures.²⁴⁶

Traditionally, energy services have not been open to competition as in the EU Member States incumbent companies had exclusive rights to provide certain services. From the late 1980s onwards, the European Commission initiated a liberalisation process, whereby the Member States were encouraged to open up their markets and abandon the energy monopolies on the basis of free movement rights derived from the common Treaty framework.²⁴⁷

²⁴⁵ Article 194(1)(a) TFEU.

The EU agreed to liberalise the electricity market in 1996 and the first electricity and gas directives aimed to remove national monopolies and stimulate cross-border trade by introducing third party access and protection against discrimination by vertically integrated utilities.²⁴⁸

This liberalisation process was reinforced by the second energy package, which replaced the gas and electricity directives²⁴⁹ and forced Member States to open their markets by imposing a regulated third party access regime²⁵⁰, by establishing rules regarding ownership unbundling and national regulatory bodies, all of which facilitate competition.²⁵¹ For instance, the Electricity Directive 2003/54/EC of 26 June 2003 (hereafter the '2003 Electricity

ELRF Collection, 1st Edition, Rixensart, Euroconfidentiel, 2008, 33.

²⁴⁶ Article 129b(1) Treaty on European Union, *OJ* 29 July 1992, C 191.

²⁴⁷W. GELDHOF, F. VANDENDRIESSCHE, 'Chapter 1: European Electricity and Gas Market Liberalisation. Background, Status, Developments', in B. DELVAUX, M. HUNT, K. TALUS (eds.), EU Energy Law and Policy Issues,

²⁴⁸ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity, *OJ* 30 January 1997, L27/20; Directive 98/30/EC of the European Parliament and of the Council of 22 June 1998 concerning common rules for the internal market on natural gas, *OJ* 21 July 1998, L204/1.

²⁴⁹ Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC, *OJ* 15 July 2003, L176/37; Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, *OJ* 15 July 2003, L176/57.

²⁵⁰ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network of cross-border exchanges in electricity, *OJ* 15 July 2003, L176/1; Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks, *OJ* 3 November 2005, L289/1.

²⁵¹ U. SCHOLZ AND S. PURPS, 'The application of EC Competition Law in the Energy Sector', *Journal of European Competition Law & Practice*, vol. 1, no. 1, 2010, 37-38.

Directive' 252 had the objective of separating the elements of vertical integration of the electricity undertakings in order to level the playingfield.²⁵³ This objective was designed to achieve a market free from state interference and nonvertically integrated companies competing with each other across borders within the EU by 2005. However, this objective was not achieved, which led to the continuation of market failures, as confirmed by the 2009 Electricity Directive, which states that the rules on legal and functional unbundling provided for in the 2003 Electricity Directive have not led to an effective unbundling of transmission system operators.²⁵⁴

The third EU energy package consists of a new Electricity Directive (i.e. the 2009 Electricity Directive), a new Gas Directive, a Regulation on conditions for access to the natural gas transmission networks, a Regulation on conditions for access to the network for cross-border exchanges in electricity and a Regulation establishing an Agency for the Cooperation of Energy Regulators, to ensure a truly competitive energy market.²⁵⁵ This third package aims to

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prevent discriminatory access to networks and stimulate investment in energy infrastructure; it also includes rules on effective unbundling of electricity and gas networks and offers Transmission System Operators a choice between three models effective for unbundling.²⁵⁶ Such regulation is necessary to prevent uncompetitive behavior, stimulate new market entrants and guarantee discriminatory network access. These aspects will be discussed further on in relation to sustainable development, security of supply and integration of RES-E.257

2.3 Security of Supply

A standard definition of security of supply is a 'flow of energy supply to meet demand in a manner and at a price level that does not disrupt the course of the economy in an environmental sustainable manner'. ²⁵⁸ Security

Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC, OJ 14 August 2009, L 211/94; Regulation (EC) No 713/2009 of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators, OJ 14 August 2009, L 211/1; Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for crossborder exchanges in electricity and repealing Regulation (EC) No 1228/2003, OJ 14 August 2009, L 211/15; Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005, OJ 14 August 2009, L 211/36.

²⁵⁶ European Commission, The entry into force of the EU third energy package,

http://ec.europea.eu/energy/gas_electricity/legislation/doc20110302_entry_into_force_third_package.pdf (last consulted on 19 November 2011); See, for instance, in relation to electricity Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, OJ 14 August 2009, L 211/55.

²⁵² Directive 2003/54/EC concerning common rules for the internal market in electricity and repealing Directive 96/92/EC, *OJ* 26 June 2003, L 76/37.

²⁵³ P. RYAN, 'A Re-energized Approach to a Competitive European Electricity Market', *Journal of Energy & Natural Resources Law*, vol. 27, no. 1, 2009, 48.

²⁵⁴ Recital 10 to Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, *OJ* 14 August 2009, L 211/55; P. RYAN, 'A Re-energized Approach to a Competitive European Electricity Market', *Journal of Energy & Natural Resources Law*, vol. 27, no. 1, 2009, 49. These market failures do not only exist within the EU; see, for instance, D. HELM, 'Energy policy: security of supply, sustainability and competition', *Energy Policy*, vol. 30, no. 3, 2002, 173-184. ²⁵⁵ Directive 2009/72/EC of the European Parliament

Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, *OJ* 14 August 2009, L 211/55;

²⁵⁷ *Infra* Sections 3.1 and 3.2.

²⁵⁸ J.-M. CHEVALIER, 'Security of energy supply for the European Union', European Review of Energy Markets, vol. 1, no.3, November 2006, 2.

of energy supply in broad terms refers to the prospect of energy supply without disruptions.²⁵⁹

It is estimated that production of oil, gas and coal in the EU will decrease in the years to come and that the dependence of the EU on foreign energy sources will increase, which has meant that the issue of energy security has returned to prominence.²⁶⁰ The Commission's Green Paper of 2000 regarding a European strategy for the security of energy supply lays down the core elements for such a long-term energy strategy.²⁶¹ It refers to sustainable development, as enshrined in former Articles 2 and 6 TEU, and the need to respect environmental concerns. Further on in this article the link between sustainable development and security of supply will be discussed.²⁶²

Under the current Treaty framework, ensuring security of supply is one of the aims covered by Article 194 TFEU.²⁶³ Moreover, Directive 2005/89/EC concerning measures to safeguard security of electricity supply aims at safeguarding the security of supply in order to ensure the proper functioning of the internal energy market.²⁶⁴ Security of supply is thus

linked to competitiveness and market liberalisation, which will be examined later in this article.²⁶⁵

Threats relating to energy security vary between the different Member States as they depend on the energy choices made by the Member States as well as their geographical location. The concept of energy security has thus been seen as an elusive concept. The EU's dependence on external energy sources involves the need to readdress the EU's common external action at EU level in the field of energy security, as well as the need to reconsider the concept of energy solidarity. The external challenges of the EU in relation to security of supply, crisis mechanisms and the concept of solidarity will be discussed later in this article. The external challenges of the EU in relation to security of supply, crisis mechanisms and the concept of solidarity will be discussed later in this article.

2.4 Achieving a Sustainable, Competitive and Secure Internal Energy Market: The 'Trinity'

The current EU energy framework is based on a 'trinity' of competitiveness, sustainability and security of supply. 271

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²⁵⁹ See International Energy Agency, Security of Supply in Electricity Markets, Paris, IEA, OECD, 2002, 9.

²⁶⁰ See also M.M. ROGGENKAMP, C. REDGWELL, I. DEL GUAYO, A. RØNNE (eds.), *Energy Law in Europe – National, EU and International Regulation,* second edition, Oxford, Oxford University Press, 2007, 1269; Eurostat, energy production and imports,

http://epp.eurostat.ec.europa.eu/statistics_explained/in dex.php/Energy_production_and_imports (last consulted on 19 November 2011).

²⁶¹ European Commission Green Paper: *Towards a European Strategy for the Security of Energy Supply,* COM (2000) 769 final, 29 November 2000.

²⁶² Infra Section 3.1

²⁶³ Article 194(1)(b).

²⁶⁴ Directive 2005/89EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment, *OJ* 4 February 2006, L 33/22.

²⁶⁵ M.M. ROGGENKAMP, C. REDGWELL, I. DEL GUAYO, A. RØNNE (EDS.), Energy Law in Europe – National, EU and International Regulation, second edition, Oxford, Oxford University Press, 2007, 1269; infra Section 3.1.

²⁶⁶ G. Grevi, CFSP and Energy Security, EU Institute for Security Issues, Paris, 23 October 2006, www.iss.europa.eu/uploads/media/rep06-12.pdf (last consulted on 19 November 2011), 2.

²⁶⁷ G. Grevi, *CFSP and Energy Security*, EU Institute for Security Issues, Paris, 23 October 2006, www.iss.europa.eu/uploads/media/rep06-12.pdf (last consulted on 19 November 2011), 2.

²⁶⁸ M.M. ROGGENKAMP, C. REDGWELL, I. DEL GUAYO, A. RØNNE (EDS.), Energy Law in Europe – National, EU and International Regulation, 2nd edition, Oxford, Oxford University Press, 2007, 196.

²⁶⁹ *Infra* Sections 1.3 and 4.2.

²⁷⁰ A. POINTVOGL, 'Perceptions, realities, concession – What is driving the integration of European energy policies?', *Energy Policy*, vol. 37, no. 12, 2009, 5704.
²⁷¹ The literature mentions these three policy objectives

The literature mentions these three policy objectives together as the three key objectives of the EU's energy policy; see for instance: E. M. BASSE, 'Regulatory

The three policy goals of competition, energy security and environmental protection were for the first time identified as being the most relevant objectives to the energy sector in the Commission's 1995 White Paper on the internal energy market.²⁷² The liberalisation of the electricity market followed from the White Paper. The application of the three policy objectives indicates the relationship between them in establishing an internal competitive, sustainable and secure internal energy market.

The three policy goals stimulate the achievement of the EU's climate and energy goals. More concretely: sustainability will inter alia contribute to the combating of climate change by the promotion of RES and energy efficiency; competitiveness will inter alia establish a truly competitive internal energy market and both improve energy infrastructure and make access to the grid system non-discriminatory; and, finally, security of supply will inter alia guarantee that supply and demand of energy are in balance and will coordinate the flow of energy between Member States and other involved parties.²⁷³

The EU faces internal as well as external legal and policy challenges to achieve this internal energy market, based on the policy

approaches related to renewable energy technologies in the EU and Denmark with solar energy technologies as examples', *Environmental Liability*, vol. 5, 2010, 183; M. BENINI, 'Europe's Electricity Supply Security: Strengthening the Chain', *CEPS Policy Brief*, no. 224, November 2010, 1; K. D. PATLITZIANAS, H. DOUKAS, A. G. KAGIANNAS, J. PSARRAS, 'Sustainable energy policy indicators: Review and recommendations', *Renewable Energy*, vol. 33, no. 5, 2008, 966; K. VERHAEGEN, L. MEEUS, B. DELVAUX, R. BELMANS, 'Electricity produced from renewable energy sources – What target are we aiming for?', *Energy Policy*, vol. 35, no. 11, 2007, 5578.

objectives of sustainable development, competitiveness and security of supply (around which the framework is designed and thus on which the consistency of the framework depends).

3. Internal Challenges of the EU in Integrating RES-E into a Sustainable, Competitive and Secure Internal Energy market

3.1 Interrelationship of the EU's Internal Energy Objectives with Special Regard to Integration of RES-E into the Energy System

In its 1995 White Paper, the Commission stressed that the objectives of overall competitiveness, security of energy supply and environmental protection were considered the most relevant to the energy sector and underlined not only that energy could have an effect on two or sometimes three of these policy objectives but also that these effects might be contradictory.²⁷⁴ According to the 1995 White Paper, energy policy must aim wherever possible to reconcile these objectives while at the same time being consistent; it must also maintain such consistency in the future, despite the fact that the Commission acknowledges that sometimes a choice has to be made as to the relative weight to be given to the various policy objectives.²⁷⁵ Article 7 TFEU lays down that 'The Union shall ensure consistency between its policies and activities, taking all of its objectives into account and in accordance with the principle of conferral of powers'.276 Thus, when the EU takes action in its internal energy market, such action must ensure consistency between its policies and activities.

²⁷² European Commission White Paper, *An energy policy for the European Union*, COM (95) 682 final, 13 December 1995.

²⁷³ P. VOUTILAINEN, 'Developing energy policy for Europe: a Finnish perspective on energy cooperation in the European Union', *Energy Law Journal*, vol. 29, no. 1, 2008, 124-125.

²⁷⁴ European Commission White Paper, *An energy policy for the European Union,* COM (95) 682 final, 13 December 1995, 14

²⁷⁵ European Commission White Paper, *An energy policy for the European Union*, COM (95) 682 final, 13 December 1995, 5 and 14.

²⁷⁶ Article 7 TFEU.

Since the relationship between sustainable development, competitiveness and security of supply is often presented as a triangle relationship, the internal consistency of such relationship is crucial to maintaining a balance within the internal energy market. The the internal energy interrelationship of objectives will now be examined as part of an assessment of the EU's internal and external challenges in achieving sustainable, competitive and secure internal energy market and integrating RES-E into the energy system and market within the current framework that has been described above.277 In this article, the context of such interrelationship between the policy objectives is the internal energy market; thus the points of connection that will be used to assess the relationship between the policy objectives will stem from concrete measures or situations within the energy market and the current legal and policy framework (i.e. after the third energy package).

As to the interrelationship between sustainable development and competitiveness, three points of connection will be assessed.

As to the first point of connection between sustainable development and competitiveness, an important question under the current energy policy framework is whether there is a link between sustainability and competitiveness in the process of electricity market liberalisation and measures related to levelling the playingfield in the market for RES. As explained above, the electricity markets were traditionally regulated and controlled by the state, under which there were monopolies and consumers did not have a choice of electricity company. Commission European liberalisation process in order to break up monopolies and open the market

competition. Measures were introduced establishing common rules for a competitive internal market in electricity along with a gradual liberalization of the electricity markets.²⁷⁸

As explained above, the rules on legal and functional unbundling as provided for in the 2003 Electricity Directive have not led to an effective unbundling of Transmission System Operators (TSOs).²⁷⁹ Yet such measures for effective separation of generation transmission are crucial to prevent anticompetitive behaviour and ensure nondiscriminatory access to the network for other market entrants.²⁸⁰ Without such measures effectively separating networks from activities generation and supply (effective unbundling), there is an inherent risk of discrimination in the operation of the network as well as a lack of incentives for vertically integrated undertakings to invest adequately in

²⁷⁸ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity, *OJ* 30 January 1997, L 027; G. KÜPPER, E. DELARUE, B. DELVAUX, L. MEEUS, D. BEKAERT, B. WILLEMS, S. PROOST, W. D'HAESELEER, K. DEKETELAERE AND R. BELMANS, 'Does More International Transmission Capacity Increase Competition in the Belgian Electricity Market?', *The Electricity Journal*, vol. 22, no. 1, January-February 2009, 21.

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&</sup>lt;sup>279</sup> Supra Section 2.2; Recital 10 to Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, OJ 14 August 2009, L 211/55; P. RYAN, 'A Re-energized Approach to a Competitive European Electricity Market', Journal of Energy & Natural Resources Law, vol. 27, no. 1, 2009, 49. These market failures do not only exist within the EU; see for instance D. HELM, 'Energy policy: security of supply, sustainability and competition', Energy Policy, vol. 30, no. 3, 2002, 173-184.

²⁸⁰ T. JAMASB, M. POLLITT. 'Electricity Market Reform in the European Union: Review of Progress toward Liberalization and Integration', *The Energy Journal*, vol. 26, European Energy Liberalisation Special Issue, 2005, 13.

²⁷⁷ Supra Section 2.4

their network.²⁸¹ It has been argued that previously incumbent electricity companies are typically vertically integrated and neither wish to lose their market share nor customers, and even after market liberalisation they have a vested interest in discriminating against competitors by controlling network access.²⁸² To prevent a situation in which an incumbent would have an incentive to discriminate against competitors (e.g. by preferential network access to its own supply branch), effective separation ('unbundling') from the commercial activities of incumbents should ensure impartiality in relation to other market participants.²⁸³

As the electricity sector depends on investment, it is difficult for new competitors to enter the market.²⁸⁴ Liberalisation of access to the network is thus crucial for access by RES to the network as it creates a level playing-field for new market entrants.²⁸⁵ Under the third

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energy package, the 2009 Electricity Directive provides for measures to ensure effective unbundling and acknowledges that only the removal of incentives for vertically-integrated undertakings to discriminate against competitors regarding network access and investment can ensure such unbundling.²⁸⁶ Moreover, it is laid down in the RES Directive (2009/28/EC) that priority and guaranteed access for RES-E are important to integrate RES into the internal electricity market (see Article 16(2)(b)) and this will be further discussed in terms of the relationship between competitiveness and the integration of RES-E.²⁸⁷ Thus, the first point of connection shows how a market failure in the electricity market has an impact on the access by renewable electricity producers and how the RES Directive and measures under the third energy package have an effect on both competitiveness and the access of RES to the electricity grid.

As to the second point of connection it is important to consider how the integration principle (Article 11 TFEU) is taken into account in measures relating to competitiveness. Environmental problems which are caused by grey electricity production are dealt with in the EU by applying a number of principles (Article 191(2) TFEU), such as the 'polluter pays' principle, which is designed to internalise environmental the negative externalities economic activity when of designing economic market-based and instruments.²⁸⁸ Thus, one of the legal solutions to make renewable energy production more competitive could be to enforce a legal

²⁸¹ Recital 9 to Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, *OJ* 14 August 2009, L 211/55.

²⁸² E. DZIADYKIEWICZ, 'Refusal to Grant Third-Party Access by an Electricity Transmission System Operator – Overview of Competition Law Issues', *Journal of Energy & Natural Resources Law*, vol. 25, no. 2, 2007, 115-116.

²⁸³ E. DZIADYKIEWICZ, 'Refusal to Grant Third-Party Access by an Electricity Transmission System Operator – Overview of Competition Law Issues', *Journal of Energy & Natural Resources Law*, vol. 25, no. 2, 2007, 116. ²⁸⁴ C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?', *Energy Law Journal*, vol. 31, no. 1, 2010, 32. Note that the question has already been raised as to why cross-border cooperation between independent rather than integrated network operators would be less likely to engage in collusive behaviour: see R. BOSCHECK, 'The EU's Third Internal Energy Market Legislative Package: Victory of Politics over Economic Rationality?', *World Competition*, vol. 32, no. 4, 2009 600.

²⁸⁵ E. DZIADYKIEWICZ, 'Refusal to Grant Third-Party Access by an Electricity Transmission System Operator – Overview of Competition Law Issues', *Journal of Energy & Natural Resources Law*, vol. 25, no. 2, 2007, 115.

²⁸⁶ E.g. Recital 11 to, and Article 9 of, Directive 2009/72/EC.

²⁸⁷ *Infra* Section 3.2.

²⁸⁸ E. M. BASSE, 'Regulatory approaches related to renewable energy technologies in the EU and Denmark with solar energy technologies as examples', *Environmental Liability*, no. 5, 2010, 183.

mechanism internalising the external costs of the polluting energy production. As the costs of the clean-up measures are reflected in the costs of the goods and services generating the pollution through consumption, consumers would also be incentivised to consider the product's effect on the environment under such a model.²⁸⁹ Applying the 'polluter pays' principle could thus be a legal method of achieving an internalisation of external costs.²⁹⁰ It has been argued that one of the reasons for increasing the share of renewable energy was the integration of the 'polluter pays' principle in all policy domains.²⁹¹ However, this article does not examine this issue in depth, as not only are there many disagreements as to whether such internalisation of external costs in the energy sector would have the desired effect on the market in the first place but also this article is only written from a legal perspective. The aim of this article is just to show that there a connection in this regard between sustainability and competitiveness. The second point of connection thus shows how the 'environmental integration principle' (Article 11 TFEU) is related to competitiveness.²⁹²

As to the third point of connection, the place of sustainability under a true internal energy market will be considered. Under a true internal energy market, the consumer has a real

choice of supplier at a fair and competitive price, which often allows that consumer to choose electricity produced from RES.²⁹³ It should be noted that the free choice of supplier has been gradually achieved as part of the liberalization process. Since 11 July 2007 all individuals have the right to choose their supplier. Prior to that date, only non-household consumers could do so.²⁹⁴While producers are mainly concerned with a secure demand of energy at the highest possible price, consumers are mainly concerned with a secure supply of energy at an affordable price.²⁹⁵ A study in the United States showed that allowing energy consumers to choose their means of electricity generation could in fact increase the use of green power sources by 40% for the eight years following the study.²⁹⁶ This demonstrates what could happen in the EU with the introduction of instruments such as the 'guarantees of origin', as provided for under Article 15(2) of the RES Directive. Such instruments provide the consumer with a guarantee that the electricity originates from a green source. The European Commission's third energy package should strengthen this development, as it will in principle guarantee a real choice of supplier for consumers. In addition, obligations on smart metering would make it possible for

²⁸⁹ E. LARSON, 'Why Environmental Regimes in the US, the European Community, and Japan Have Grown Synonymous with the Polluter Pays Principle', *Vanderbilt. Journal of Transnational'Law*, vol. 38, 2005, 541-544.

²⁹⁰ Whether or not a model of internalisation of external costs is a viable solution in economic terms is not dealt with in this article, as this article only covers legal matters. Therefore, in this article only a legal hypothetical solution is proposed.

²⁹¹D. FOUQUET, T.B. JOHANSSON, 'European renewable energy policy at crossroads – focus on electricity support mechanisms', *Energy Policy*, vol. 36, no. 11, 2008, 4080.

²⁹² Supra Section 2.1.

²⁹³ P. VOUTILAINEN, 'Developing energy policy for Europe: a Finnish perspective on energy cooperation in the European Union', *Energy Law Journal*, vol. 29, no. 1, 2008, 123-124.

²⁹⁴ Case T-87/05, *EDP v. Commission* [2005] ECR II-3745, para. 109-110; J. FAULL, A. NIKPAY, *The EC Law of Competition*, 2nd edition, Oxford, Oxford University Press, 2007, 1368.

²⁹⁵ J. PEROVIC, 'Changing markets, politics, and perceptions: dealing with energy (inter-)dependencies', in A. WENGER, R. W. ORTTUNG, J. PEROVIC (eds.), Energy and the Transformation of International Relations. Toward a New Producer-Consumer Framework, Oxford, Oxford University Press, 2009, 40.

²⁹⁶ See 'Consumer choice could increase renewable energy', *Pollution Engineering*, vol. 34, no. 1, 2002, 8.

consumers to obtain information on the source and price of electricity.²⁹⁷ This would thus enhance the relationship between sustainable development and competitiveness and would strengthen a competitive *and* sustainable internal energy market.

These three non-exhaustive points of connection thus show the interrelationship between competitiveness and sustainable development.

As to the interrelationship of the policy objectives of competitiveness and security of supply, the relation of security of supply to fair prices and competition has been referred to as follows: 'greater competition equals greater security', as a vertically-integrated energy company would not have any incentives to increase its network capacity or to expose itself to competitive risk-taking.²⁹⁸ It has been argued that separation of network management from production and distribution activities should enhance competition, making way for new market entrants in the energy market, and this should on its turn enhance security of supply.²⁹⁹ Recital 11 to the 2009 Electricity Directive confirms that ownership unbundling is an effective way of solving an inherent conflict of interest - since it implies the appointment of the network owner as the system operator and its independence from supply and production interests - and ensuring

Moreover, security of supply also relates to the concept of a 'reasonable price' over a continuous period.³⁰⁴ Security of supply thus benefits from a competitive internal energy market with a fair price, but as shown under the relationship between sustainable development and competitiveness, it also benefits from a sustainable internal energy market under which the consumer has a free choice of supplier and can be incentivized – for instance by green certificates or indirectly by measures that would increase the price for grey energy - to choose green electricity over grey electricity.

security of supply. Hence, facilitation of market enlargement and competition should improve security of supply as this should decrease barriers to trade and market entrance.³⁰⁰ On the other hand, if trade decreases so will the usable cross-border interconnection capacity, and if the latter decreases, so does security of supply.³⁰¹ Insufficient interconnection capacity could in addition have negative effects on market power as it could increase market concentration.³⁰² A coherent regulatory policy ought to enhance electricity interconnection, import and export and trade with third countries.³⁰³

²⁹⁷ See, regarding requirements to implement intelligent metering systems, the Electricity Directive 2009/72/EC and the Energy Services Directive 2006/32/EC (note that there is a proposal for a directive on energy efficiency and repealing directives 2004/8/EC and 2006/32/EC, with minimum requirements for metering in Annex VI, COM(2011)370, 22 June 2011.

²⁹⁸ C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?', *Energy Law Journal*, vol. 31, no. 1, 2010, 39.

²⁹⁹ C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?', *Energy Law Journal*, vol. 31, no. 1, 2010, 39.

³⁰⁰ J.M. GLACHANT, F. LÉVÊQUE, P. RANCI, 'Some Guideposts on the Road to Formulating a Coherent Policy on EU Energy Security of Supply', *The Electricity Journal*, vol. 21, no. 10, 2008, 17.

³⁰¹ J.M. GLACHANT, F. LÉVÊQUE, P. RANCI, 'Some Guideposts on the Road to Formulating a Coherent Policy on EU Energy Security of Supply', *The Electricity Journal*, vol. 21, no. 10, 2008, 17.

³⁰² See also R. BOSCHECK, 'The EU's Third Internal Energy Market Legislative Package: Victory of Politics over Economic Rationality?', World Competition, vol. 32, no. 4, 2009, 596.

³⁰³ C. F. ZIMMERMANN, K. TALUS, 'Regulation of Electricity Markets at EU Level', European Energy and Environmental Law Review, vol. 17, no. 1, 2008, 17.

³⁰⁴ J.-M. CHEVALIER, 'Security of energy supply for the European Union', *European Review of Energy Markets*, vol. 1, no.3, November 2006, 3.

Finally, as to the interrelationship of the policy objectives of sustainable development and security of supply, renewable energy sources would increase the diversification of energy sources in the energy mix. An increase in energy diversification leads to an increase in the security of supply, which follows from the above considerations. This relates to the discussion that will follow on the relationship between the policy objectives of the internal energy market and the integration of RES-E into the energy system. The integration of RES-E into the energy system has proven to be crucial for security of supply because diversification of the energy supply - by integration of renewable sources - is likely to ensure improved handling of short-term energy supply disruptions.³⁰⁵

Thus, the objectives of achieving a sustainable, competitive and secure internal energy market are interrelated in efforts to achieve a true internal energy market, under which there is clean, affordable and secure energy and a real choice of supplier for energy consumers, strengthened by the legal framework (such as the RES Directive; the 2009 Electricity Directive and other measures under the third energy package).

3.2 Relationship of the EU's Internal Energy Objectives to the Integration of RES-E into the **Energy System**

As it has been shown that the energy objectives of achieving a sustainable, competitive and secure internal energy market are interrelated, this article will now consider how this relates to the concrete integration of RES-E into the gridsystem and broader conventional energy system.

Firstly, regarding the relationship between a sustainable energy market and the integration of RES-E into the energy system, the objective of sustainable development does not always have a consistent outcome when applied to the integration of RES-E into the energy system. For instance, the establishment of offshore electricity interconnectors is in line with the policy objective of sustainable development and might contribute to a future increase in the integration of renewable electricity into the grid- and energy system. However, permitting and licensing procedure for the establishment of submarine cables may for instance be held back by the Natura 2000 framework, which protects natural habitats.³⁰⁶ The latter is nonetheless also part of the EU's sustainability objective as it is designed to protect and preserve nature, which forms an integral part of the environmental protection policy under Article 11 TFEU. This shows how policy objectives could conflict in their application, for example in electricity infrastructure and future RES-E integration into the energy system. However, as stated earlier, Article 7 TFEU contains a 'general integration principle', requiring the EU to consistency between all policies and activities.³⁰⁷ In the energy sector, the principle of integration not only has the potential to resolve contradictions (e.g. as explained above

 $^{^{305}\,\}mathrm{T}.$ Hagenbuch, 'Establishing an Aggressive Legal Framework for the Future of Wind Energy in Europe', Vanderbilt Journal of Transnational Law, vol. 42, 2009, 1603.

³⁰⁶ Habitats Directive 92/43/EEC, *OJ* 22 July 1992, L 206/7 and Birds Directive 2009/147/EC. OJ 26 January 2010, L 20/7. See also the Ramsar Convention: 'considering the fundamental ecological functions of wetlands as regulators of water regimes and as habitats supporting a characteristic flora and fauna, especially waterfowl', Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar, Iran, 2 Feburary 1971, www.ramsar.org/cda/en/ramsardocuments-texts/main/ramsar/1-31-38_4000_0 (last consulted on 19 November 2011).

³⁰⁷ Article 7 TFEU; see also H. VEDDER, 'The Treaty of Lisbon and European Environmental Law and Policy', Journal of Environmental Law, vol. 22, no. 2, 2010, 287.

in Section 3.1 in the event that the principle of integration was applied to the internalisation of negative environmental externalities or the 'polluter pays' principle so that the negative effects on the environment of carbon intensive activities would be taken into account), but it is sometimes itself the source of contradictions. Infrastructure development, which is necessary to connect certain energy sources to the electricity grid (e.g. offshore wind farms), and the application of nature protection laws have already caused academic disagreement as to consistency.³⁰⁸ In conclusion, integration principle shows how sustainable development and integration of RES-E into the energy system are interrelated and how their relationship can be ambiguous: the integration principle might on the one hand assist sustainable development and RES-E integration into the energy system, but they could equally conflict when being applied (even if Article 7 TFEU requires that there should be consistency between the EU's policy of protecting the environment and the activity of RES-E integration into the energy system). Thus, the relationship between sustainable development and integration of RES-E into the energy system is somewhat ambiguous.

Secondly, regarding the relationship between a competitive internal energy market and the integration of RES-E into the energy system, a competitive internal energy market would

³⁰⁸ H. LECHELER, expert opinion, 'Harmonisation of the European legislative framework for the construction of transmission lines and environmental protection. Proposal for improving the relevant secondary legislation in the simplest and most efficient way possible', Annex II to European Coordinator's Third Annual Report of Georg Wilhelm Adamowitsch, projects of European interests, 'Connection to offshore wind power in Northern Europe (North Sea-Baltic Sea)' & 'Salzach neu (AT) – Tauern (AT) Line', December 2009 to October 2010, 15 November 2010, http://ec.europa..eu/energy/infrastructure/tent_e/doc/of f_shore_wind/2010_annual_report_annex2_en.pdf (last consulted on 19 November 2011).

contribute to the integration of RES-E into the energy system. As discussed above, measures such as effective separation of networks prevent discrimination by incumbent companies and are designed to level the market playing-field for other entrants to the network and to guarantee non-discriminatory access. the RES Article 16(2)(a)Directive (2009/28/EC) states that Member States should ensure that TSOs and Distribution System Operators (DSOs) guarantee the transmission and distribution of electricity produced from RES and Article 16(2)(b) further states that Member States must provide for priority or guaranteed access to the grid-system of electricity produced from RES. Thus, even though such priority or guaranteed access might at first be seen as an ambiguity working against the intended fair and nondiscriminatory access, it does in fact ensure impartiality of the network operators versus other market participants; it has been argued that without such measures the incumbent might discriminate by granting preferential access to the network to its own supply branch.309

Thus, there is a relationship between measures increasing competitiveness and integration of RES-E into the energy system, as competition in the current regulatory framework stimulates the integration of RES-E into the energy system. Not only does the RES Directive contain such interface between competitiveness and RES-E integration into the energy system, but in addition the 2009 Electricity Directive facilitates access to the network and removes barriers preventing access by new market entrants and RES-E as well as promoting the integration of production

³⁰⁹ E. DZIADYKIEWICZ, 'Refusal to Grant Third-Party Access by an Electricity Transmission System Operator – Overview of Competition Law Issues', *Journal of Energy & Natural Resources Law*, vol. 25, no. 2, 2007, 116.

of RES-E.310 Recital 6 to the latter Directive states that a well-functioning internal market in electricity should provide producers with the proper incentives to invest in new power generation and confirms that this includes RES-E.311 The Directive moreover includes a provision regarding the general objectives of the regulatory authority which includes helping to achieve the development of secure, reliable and non-discriminatory systems in line with general energy policy objectives, energy efficiency as well as the integration of largeand small-scale production of electricity from RES and distributed generation in transmission and distribution networks.³¹² The current legal framework implementing the objective of competitiveness thus has an effect on RES-E integration into the energy system.

In its turn, the legal framework of RES-E production as such also influences competitiveness as it enables new market entrants which focus on renewable energy production. In addition, the legal framework promoting the use of RES might stimulate consumers to choose electricity from RES-E above electricity from other energy sources after the introduction of a real choice of supplier and also the system of guarantees of origin under Article 15 of the RES Directive, as it provides in its second paragraph that Member States ensure the issuing of a guarantee of origin in response to a

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request from a producer. The latter might have an effect on the position of the producer in question if the Member State decides not to grant its support.

Thirdly, regarding the relationship between a secure internal energy market and the integration of RES-E into the energy system, the future of our energy supply will depend on energy from RES, which indicates the need for policies supporting the integration of RES-E into the energy system.313 It has been claimed that the integration of RES-E into the energy system would strengthen security of supply because a long-term policy remedy for supply shortages could be a greater diversification of primary sources in the generation of energy.³¹⁴ This is because diversification of the energy supply could mean better handling of shortterm energy supply disruptions.315 However, this depends which risk aspects of security of supply are targeted.³¹⁶ In this context it would for example reduce the risks of dependence on primary energy imports. However, integration of RES-E into the grid might pose new challenges linked grid connection, management of the networks or problems regarding storage.

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³¹⁰ A. JÄGER-WALDAU, M. SZABÓ, N. SCARLAT, F. MONFORTI-FERRARIO, 'Renewable Electricity in Europe', *Renewable and Sustainable Energy Reviews*, vol. 15, no. 8, October 2011, 3706-3707.

³¹¹ Recital 6 to Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, *OJ* 14 August 2009, L 211/55.

Article 36(d) Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, *OJ* 14 August 2009, L 211/55.

³¹³ T. HAGENBUCH, 'Establishing an Aggressive Legal Framework for the Future of Wind Energy in Europe', *Vanderbilt Journal of Transnational Law*, vol. 42, 2009, 1599; P. DEL RIO, 'A European-Wide Harmonized Tradable Green Certificate Scheme for Renewable Energy: Is it Really So Beneficial?', *Energy Policy*, vol. 33, no. 10, 2005, 1239.

³¹⁴ M. Benini, Europe's Electricity Supply Security: Strengthening the Chain, CEPS Policy Brief, no. 224, November 2010.

³¹⁵ T. HAGENBUCH, 'Establishing an Aggressive Legal Framework for the Future of Wind Energy in Europe', *Vanderbilt Journal of Transnational Law*, vol. 42, 2009, 1603.

³¹⁶ See, in relation to other aspects of security of supply, J.-M. GLACHANT, F. LÉVÊQUE and P. RANCI, 'Some Guideposts on the Road to Formulating a Coherent Policy on EU Energy Security of Supply', *The Electricity Journal*, vol. 21, no. 10, 2008, 13-18.

In conclusion, the achievement of a competitive and secure energy promotes integration of RES-E into the energy system, but the relationship between a sustainable energy market and the integration of RES-E into the energy system is in need of further clarification. As shown, the policy sustainability objective is, however, interrelated to both the achievement of a competitive internal energy market (e.g. energy prices and consumer choice) and security of supply. It has been shown above that the integration of RES-E into the energy system is likely to positively affect competitiveness and security of supply as measures to achieve such integration level the playing-field for new market entrants (and specifically for RES-E due to priority access) and have a positive impact on the diversification of the energy mix. However, even though the integration principle requires that environmental protection requirements are taken into account and Article 7 TFEU states that the EU must ensure consistency between its policies and activities, the integration of RES-E and its relationship to sustainable development and environmental protection is ambiguous and not consistent in its application.

4 External Challenges of the EU in the Creation of a Sustainable, Competitive and Secure Internal Energy Market and the Role of Energy from Renewable Energy Sources

4.1 The EU's Energy Dependence and Security of Supply

This part of the article will first show how dependent the EU has become on energy sources located in third countries and how this affects the EU's internal and external policy objective of security of supply and will secondly assess what role the integration of

RES-E into the energy system could play in relation to this situation.

Although this part of the article does not focus on RES-E, but rather on the EU's dependence on energy from fossil fuels, it does demonstrate the interface between the EU's internal and external objectives in creating an internal energy market.

In relation to the EU's action at international level, a consistent framework for sustainability, competitiveness and security of supply is just as important as internally within the EU, since the EU depends on external energy partners for the energy supply, which puts security of supply at the core of the EU's external energy agenda. In its external energy policy the EU is focused on ensuring the security of the EU's energy supply, support for international efforts to combat climate change and the promotion of worldwide EU access to energy.317 This part of the article relates to integration of RES as it raises the question of whether such integration could play a role in decreasing some of the supply risks.

The dependence of the EU on third countries over the period 1997-2007 is documented by a rise in dependency on external suppliers from 45,0 % to 53,1 %.³¹⁸ This dependence will only increase as according to a 2007 report by the European Commission, the EU's energy dependence will jump from 50 % of the total EU energy consumption to 65 % by 2030.³¹⁹ The EU's energy dependence on third

³¹⁷ European Commission Communication, *An Energy Policy For Europe*, COM (2007) 1 final, 10 January 2007; H. PRANGE-GSTÖHL, 'Enlarging the EU's internal energy market: Why would third countries accept EU rule export?', *Energy Policy*, vol. 37, no. 12, 2009, 5296.

³¹⁸ European Economic and Social Committee, Opinion on 'Energy supply: what kind of neighbourhood policy do we need to ensure security of supply for the EU?', TEN/443, 15 March 2011, 2.4.1; Eurostat, Energy, transport and environment indicators, 2009 edition.

³¹⁹ European Commission Communication, *An Energy Policy for Europe* COM (2007) 1 final, 10 January 2007.

countries underlines the strategic nature of energy and the influence it has on the EU's geopolitical interest in countries outside the EU.320 The EU is dependent on cooperation with developed and developing countries, energy producers and consumers, and transit countries.321 Moreover, some of the energy producers are located in unstable regions or countries that have difficult relations with the EU and in any future assessment of its cooperation with other regions, the EU may need to reassess the prioritisation of its foreign policy objectives.322 An understanding of the EU's geopolitical interest in third countries is necessary to ensure the security of the energy flowing to the EU and to formulate a common response to supply disruptions.³²³

The dependence of the EU on third country suppliers could explain the EU's engagement in external action and the need to bind third countries to its internal policy goals.³²⁴ The EU's external action in energy matters is not only influenced by the energy dependence of the EU as a whole, but is in addition affected by the geopolitical security preferences of the Member States individually.³²⁵ Different energy

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The Commission's 2006 Green Paper looks at the question of whether there should be a common external policy on energy in the EU.³²⁸ The Green Paper states that 'the effectiveness and coherence of the EU's external energy policy is dependent upon the progress with internal policies and, in particular, the creation of the internal market of energy'.³²⁹ There has been a development whereby internal energy objectives are being externalised and over the last few years non-Member States have begun to participate in pursuing the EU's internal policy goals even though those states remain

priorities between the Member States could

give rise to more bilateral agreements between Member States and third countries.³²⁶ This

gives rise to different 'webs of relations'

between the Member States and third countries,

which could hamper developments in the EU's

outsiders to the internal EU structure.330 It has

been argued that a new generation of 'energy

developed in agreements with third country

provisions

should

interdependence'

producers.331

³²⁰ C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?', *Energy Law Journal*, vol. 31, no. 1, 2010, 33.

³²¹ P. VOUTILAINEN, 'Developing energy policy for Europe: a Finnish perspective on energy cooperation in the European Union', *Energy Law Journal*, vol. 29, no. 1, 2008, 124-125.

³²² S. KEUKELEIRE AND J. MACNAUGHTAN, *The Foreign Policy of the European Union*, Hampshire, Palgrave Macmillan, 2008, 241 and 244.

³²³ D. TRIANTAPHYLLOU, 'Energy Security and Common Foreign and Security Policy (CFSP): The Wider Black Sea Area Context', *Southeast European and Black Sea Studies*, vol. 7, no. 2, June 2007, 290.

³²⁴ S. LAVENEX, 'EU external governance in "wider Europe", *Journal of European Public Policy*, vol. 11, no. 4, 2004, 681 and 694.

³²⁵ See also M.M. ROGGENKAMP, C. REDGWELL, I. DEL GUAYO, A. RØNNE (eds.), Energy Law in Europe –

National, EU and International Regulation, Oxford, Oxford University Press, 2007, 196.

³²⁶ I. DIMITROVA, 'EU-Russia Energy Diplomacy: 2010 and Beyond?', Connections, The Quarterly Journal of the PfP Consortium, vol. 9, no. 4, 2010, 8.

³²⁷ E. KUŞKU, 'Enforceability of a common energy supply security policy in the EU: an intergovernmentalist assessment', Caucasian Review of International Affairs, Vol. 4, no. 2, Spring 2010, 145.

³²⁸ Commission Green Paper, A European Strategy for Sustainable, Competitive and Secure Energy, COM (2006) 105 final, 8 March 2006, 5.

³²⁹ Commission Green Paper, A European Strategy for Sustainable, Competitive and Secure Energy, COM (2006) 105 final, 8 March 2006, 14.

³³⁰ See, for instance, P.J. CARDWELL, 'EuroMed, European Neighbourhood Policy and the Union for the Mediterranean: Overlapping Policy Frames in the EU's Governance of the Mediterranean', *Journal of Common Market Studies*, vol. 49, no. 2, 2011, 220-222.

³³¹ European Commission Communication, Second Strategic Energy Review. An EU Energy Security and

The EU has developed 'circles' or 'rings of energy cooperation' around its internal energy market.³³²

According to the analysis of H. Prange-Gstöhl, the first circle built around the EU internal energy market consists of those who the Energy already signatories to Community Treaty, and have EU membership perspective.333 This Energy Community binds the EU and contracting parties to the rules of a common energy market. This is supported by the Energy Community Treaty, establishing an internal market in electricity and gas, not only within the EU Member States, but including Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia and UNMIK, as well as Moldova and Ukraine after their accession in 2009.334 In addition, Georgia, Norway and Turkey have observer status.³³⁵ Thus, for this cooperation circle the EU has established a binding legal framework between itself and the other Energy Community members with a supporting policy framework, including the Black Sea Synergy and the Baku Initiative, which includes non-EU members in the establishment of a common energy market.³³⁶

The Energy Community is a community between the EU and the contracting parties and extends the EU's internal energy market with the aim of creating a stable regulatory and market framework to attract investment, create an integrated energy market and enhance security of supply and competition.³³⁷ The Treaty establishing the Energy Community enforces legally binding rules.³³⁸ The contracting parties give their legal commitment

Solidarity Action Plan, COM (2008) 781 final, 13 November 2008, 8.

www.ceeisaconf.uni.wroc.pl/wordy/papers%201%20ses sion/Prange.doc (last consulted on 19 November 2011); H. PRANGE-GSTÖHL, 'Enlarging the EU's internal energy market: Why would third countries accept EU rule export?', *Energy Policy*, vol. 37, no. 12, 2009, 5298.

³³³ H. PRANGE, 'A ring of friends...'? EU external energy policy and regulatory boundary shifting towards its eastern neighbourhood, paper prepared for the 6th CEEISA Convention 'Global and Regional Governance – European Perspectives and Beyond', panel on 'Energy Security and EU's Eastern Neighborhood', 24-26 May 2007, Wroclaw, Poland,

http://www.ceeisaconf.uni.wroc.pl/wordy/papers%201%20session/Prange.doc, 6 (last consulted on 19 November 2011)

2009/03/MC-EnC on the accession of the Republic of Moldova to the Energy Community Treaty of 22 December 2009; Energy Community Ministerial Council Decision 2009/04/MC-EnC on the accession of Ukraine to the Energy Community Treaty of 22 December 2009.

www.ceeisaconf.uni.wroc.pl/wordy/papers%201%20ses sion/Prange.doc, 6 (last consulted on 19 November 2011).

337 See Energy Community and the Treaty establishing the Energy Community, http://www.energy-community.org/pls/portal/docs/808177.PDF; European Commission, Report under Article 7 of Decision 2006/500/EC, COM (2011) 105 final, 2, 10 March 2011.

and Regional Governance – European Perspectives and Beyond', panel on 'Energy Security and EU's Eastern Neighborhood', 24-26 May 2007, Wroclaw, Poland, available at

³³⁴ Council Decision 2006/500/EC of 29 May 2006 on the conclusion by the European Community of the Energy Community Treaty, *OJ* L 198, 20 July 2006, 15-17; Energy Community Ministerial Council Decision

³³⁵ European Commission, Report under Article 7 of Decision 2006/500/EC, COM (2011) 105 final, 2, 10 March 2011.

Synergy – A New Regional Cooperation Initiative, COM (2007) 160 final, 11 April 2007; H. PRANGE, A ring of friends...'? EU external energy policy and regulatory boundary shifting towards its eastern neighbourhood, paper prepared for the 6th CEEISA Convention 'Global and Regional Governance – European Perspectives and Beyond', panel on 'Energy Security and EU's Eastern Neighborhood', 24-26 May 2007, Wroclaw, Poland,

³³⁸ The Treaty establishing the Energy Community was signed in Athens on 25 October 2005 and entered into force on 1 July 2006, www.energy-community.org/portal/page/portal/ENC_HOME/ENER GY_COMMUNITY/Legal/Treaty (last consulted on 11 September 2011).

to formally adopt the EU rules which are relevant and to apply and enforce them. For contracting parties that reach EU candidate status or potential candidate status, the level of such implementation is one of the decisive elements in the negotiations for accession to the EU.339 The rules within this Energy Community are similar to the EU's internal energy market rules and include competition rules, provisions relating to renewables, environmental safeguards, etc.340 This circle thus includes countries without official Member State status (but with the potential to become Member States) that are nonetheless signatories to the Energy Community Treaty.341 This results in a 'sectoral internal market'342 that includes non-Member States.

According to the analysis of H. Prange-Gstöhl, the second circle consists of neighbour-hood countries (European Neighbourhood countries officially without EU membership perspective) 'willing' to engage in the reform process and adopt EU internal market principles so as to become members of the Energy Community in the near future.³⁴³

According to the analysis of Prange-Gstöhl, the third circle consists of 'countries in the neighbourhood of the neighbourhood' (countries lying beyond the immediate 'neighbourhood').344 These countries are neither EU Member States nor do they have the perspective of becoming Member States, but they could in the future become members of the Energy Community.³⁴⁵ In the Commission's 2010 Communication, the integration of energy markets and regulatory frameworks with the EU's neighbours is one of the suggested actions under the priority to strengthen the external dimension of the EU energy market.346 In relation to such action, the Communication states that the Energy Community Treaty should be implemented and extended to all EU's neighbours that are willing to adopt the EU's market model.347

Indeed, under this structure the EU is gradually expanding its governance beyond the circle of its Member States, which S. Lavenex refers to as 'external governance'; this occurs as the institutional or legal boundary is moved beyond the circle of Member States. In case of the Energy Community, such boundaries of EU rules and authority are moved by adopting the former *acquis* of the internal energy market rules in the Energy Community, but keeping its institutional boundary closed to states that reach beyond the immediate 'neighbour-

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³³⁹ European Commission, Report under Article 7 of Decision 2006/500/EC, COM (2011) 105 final, 2, 10 March 2011, 7-8.

³⁴⁰ A. Piebalgs, ;External projection of the EU internal energy market', SPEECH/06/712, Brussels, 20 November 2006.

³⁴¹ H. PRANGE-GSTÖHL, 'Enlarging the EU's internal energy market: Why would third countries accept EU rule export?', *Energy Policy*, vol. 37, no. 12, 2009, 5298.

³⁴² H. Prange-Gstöhl, 'Enlarging the EU's internal energy market: Why would third countries accept EU rule export?', *Energy Policy*, vol. 37, no. 12, 2009, 5299.

³⁴³ A. Piebalgs, 'External projection of the EU internal energy market', SPEECH/06/712, Brussels, 20 November 2006; H. Prange-Gstöhl, 'Enlarging the EU's internal energy market: Why would third countries accept EU rule export?', *Energy Policy*, vol. 37, no. 12, 2009, 5298.

³⁴⁴ A. PIEBALGS, 'External projection of the EU internal energy market', SPEECH/06/712, Brussels, 20 November 2006; H. PRANGE-GSTÖHL, 'Enlarging the EU's internal energy market: Why would third countries accept EU rule export?', *Energy Policy*, vol. 37, no. 12, 2009, 5298.

³⁴⁵ H. PRANGE-GSTÖHL, 'Enlarging the EU's internal energy market: Why would third countries accept EU rule export?', *Energy Policy*, vol. 37, no. 12, 2009, 5298.

³⁴⁶ European Commission Communication, *Energy 2020* . *A strategy for competitive, sustainable and secure energy,* COM (2010) 639, 10 November 2010, 18.

³⁴⁷ European Commission Communication, *Energy 2020* . *A strategy for competitive, sustainable and secure energy,* COM (2010) 639, 10 November 2010, 18.

³⁴⁸ S. LAVENEX, 'EU external governance in "wider Europe", *Journal of European Public Policy*, vol. 11, no. 4, 2004, 683.

hood'.³⁴⁹ Thus it does indeed seem that the EU is moving towards 'politics of inclusion'.³⁵⁰

In my opinion, a perception of interdependence is very relevant in the EU's pursuit of internal and external energy objectives and the growing concern for security of supply and national security. In this context, the policy of security of supply is designed to limit exposure of national or regional economies to fluctuating energy prices and is concerned with ensuring available energy resources in order to cope with a shortage of capacity.³⁵¹

Possible threats in supply disruptions from third country suppliers are detrimental to the EU's internal energy market and it is therefore in the EU's interest to diversify its supply of oil and gas through multiple sources. The diversification of the energy supply was not only put forward at EU level in the RES-E Directive 2001/77/EC (which was repealed by the RES Directive) as a reason to give priority to the promotion of RES-E, but has also been used as an argument at Member State level in favour of implementing national production targets in relation to the need for diversification of the national domestic energy generation mix. 353

The diversification of the energy supply is motivated by the desire for resources, and such diversification might also have an impact on the fees for transporting the energy.³⁵⁴ The diversification of the national energy mix can be used to compare Member States within the EU; for instance, in some countries there is complete dependence on energy imports. This point can be further illustrated by the dependence on Russian gas supplies of the Member States which joined the EU in or after 2004.355 A heavy dependence of the EU on energy from conventional energy sources located outside the EU could gradually be decreased by diversifying the energy mix within the EU.

In this context, recital 5 to Directive 2005/89/EC concerning measures to safeguard security of electricity supply mentions the need to ensure availability of back-up capacity in promoting electricity from RES and in addition emphasises the need to take into account the long-term effects of the growth of electricity demand in order to meet the Community's environmental commitments and reduce

³⁴⁹ S. LAVENEX, 'EU external governance in "wider Europe", *Journal of European Public Policy*, vol. 11, no. 4, 2004, 681, 683 and 694.

³⁵⁰ T. CHRISTIANSEN, F. PETITO, B. TONRA, 'Fuzzy politics around fuzzy borders: the European Union's "near abroad"', *Cooperation and Conflict*, vol. 35, no. 4, 2000; 389; S. LAVENEX, 'EU external governance in "wider Europe"', *Journal of European Public Policy*, vol. 11, no. 4, 2004, 681-682.

³⁵¹ E.g. France's energy independence and the security of supply; cfr. S. MERITET, 'French perspectives in the emerging European Union energy policy', *Energy Policy*, vol. 35, no. 10, 2007, 4769.

³⁵² E. Kuṣku, 'Enforceability of a common energy supply security policy in the EU: an intergovernmentalist assessment', *Caucasian Review of International Affairs*, vol. 4, no. 2, Spring 2010, 148.

³⁵³ Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market, *OJ* 27

October 2001, L 283/33 repealed by Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable energy sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ 5 June 2009, L 140/16; K. VERHAEGEN, L. MEEUS, B. DELVAUX, R. BELMANS, 'Electricity produced from renewable energy sources – What target are we aiming for?', Energy Policy, vol. 35, no. 11, 2007, 5578.

³⁵⁴ I. DIMITROVA, 'EU-Russia Energy Diplomacy: 2010 and Beyond?', *Connections, The Quarterly Journal of the PfP Consortium*, vol. 9, no. 4, 2010, 2. Note that the dependence of the EU on Russian imports also has the opposite effect, namely that Russia is dependent on its natural resources to maintain its strategic position; see, for instance, D. G. HAGLUND and F. MÉRAND, 'Translantic relations in the new strategic landscape: implications for Canada', *International Journal*, vol. 66, no. 1, Winter 2010-11, 30.

³⁵⁵ S. MERITET, 'French perspectives in the emerging European Union energy policy', *Energy Policy*, vol. 35, no. 10, 2007, 4768.

dependence on imported energy.356 Moreover, Article 3(c) of the Directive states that, in implementing measures in the first paragraph (i.e. that Member States must ensure a high level of security of electricity supply by necessary measures to facilitate a stable investment climate and by defining roles and responsibilities of competent authorities and all relevant market actors and publishing information thereon), Member States may also account of the adoption of new technologies, in particular renewable energy technologies.³⁵⁷ Moreover, Article 5(2)(a) of the Directive refers to additional measures that the Member States could take in terms of facilitating new generation capacity and the entry of new generation companies in the market. The latter emphasises the connection to the interrelationship of competitiveness and integration of RES-E into the market.³⁵⁸ The Directive is additionally important in relation to smart metering (see for instance Article 5(d)) and grids, promoting the use of RES-E.

The development of RES is a great potential source of indigenous energy in the EU and the integration of RES into the internal energy market and thus the EU's energy consumption has a role to play. It would increase the security of supply as it would provide opportunities to diversify the EU's

energy mix; it could therefore gradually reduce the EU's current energy dependence. In addition, it could loosen the Member States' control over supply management in terms of national security measures. The potential for development of RES the to decrease dependence has also been suggested by the European Economic and Social Committee, which has proposed reducing the EU's dependence by adopting more binding policies on, inter alia, renewable energies.359 As stated above, the relationship between integrating RES-E into the conventional electricity system market (and thus also electricity and consumption) and the policy objectives of sustainability, competitiveness and security of supply could be part of a long-term policy remedy for supply shortages and it has the potential slowly to decrease dependence on primary sources located outside the EU. This underlines the interface between the EU's internal and external legal and policy challenges. However, it should be noted that even under the scenario of moving towards a European 'SuperSmart Grid', involving an integrated grid with 100% of electricity generation from RES by 2050, the EU would be partially dependent on importing renewable

power from North Africa.360

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³⁵⁶ Recital 5 to Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment, *OJ* 4 February 2006, L 33/22.

³⁵⁷ Article 3(3)(c) Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment, *OJ* 4 February 2006, L 33/22.

³⁵⁸ Article 5(2)(a) Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment, *OJ* 4 February 2006, L 33/22; *supra* Section 3.2.

Strategic Energy Review. An EU Energy Security and Solidarity Action Plan, COM (2008) 781 final, 13 November 2008, 13; European Economic and Social Committee, Opinion on 'Energy supply: what kind of neighbourhood policy do we need to ensure security of supply for the EU?', TEN/443, 15 March 2011, Conclusion 1.1.11.

³⁶⁰ PricewaterhouseCoopers, 100 % Renewable Electricity. A Roadmap to 2050 for Europe and North Africa, www.supersmartgrid.net/wp-

content/uploads/2010/03/100-renewable_electricity-roadmap.pdf (last consulted on 19 November 2011)

4.2 Disruptions in Supply Streams and Solidarity Mechanisms

After the oil shock in 1973, the European Commission warned the Member States about failure of certain supply emphasising that sources should be sufficiently diversified and that none of those sources should be too exclusively concentrated.³⁶¹ However, Member States were reluctant to cede any of their sovereignty in this area and responded separately to the Commission's recommendations, despite the fact that they could be exposed to pressure from energy providers.362 It should be noted that the European Commission's 1995 White Paper went on to underline that as the Community was to move towards an integrated and more competitive energy market, there would be a need for increased solidarity on energy matters.363

Some years later, the EU has for instance taken action by means of Directive 2005/89/EC concerning measures to safeguard security of electricity supply and infrastructure investment.³⁶⁴ This measure was taken on the basis of the old Article 95 TEC (new Article 114 TFEU), i.e. the approximation of laws which have as their object the establishment and functioning

. 61 . . of the internal market. Besides the Directive on the security of electricity supply, the EU has also taken measures with regard to natural gas, strategic oil stocks and stocks of crude oil and petroleum products.³⁶⁵ The latter measures are for instance taken on the basis of the old Article 100 TEC (new Article 122 TFEU), relating to economic policy and supply issues.

Although the EU has certain measures in place in order to guarantee security of supply, the Member States' powers in relation to their energy sources and the management of their energy supply could hamper the development new measures creating solidarity mechanisms for the Member States to cooperate if, for example, major gas disruptions occur.³⁶⁶ Although energy security and solidarity are often mentioned in one breath³⁶⁷, at present Member States are still mainly concerned with pursuing individual production targets.³⁶⁸ It has been noted by I. Dimitrova, that 'the "single player' attitude of the member states might challenge the Lisbon Treaty's solidarity clause, and could even threaten the EU's unity'.369

³⁶¹ K. FISCHER, 'A Meeting of Blood and Oil: the Balkan Factor in Western Energy Security', *Journal of Southern Europe & the Balkans*, vol. 4, no.1, 2002, 77.

³⁶² E. KUŞKU, 'Enforceability of a Common Energy Supply Security Policy in the EU: An Intergovernmentalist Assessment', Caucasian Review of International Affairs, vol. 4, no. 2, 2010, 146.

³⁶³ European Commission White Paper, *An energy policy for the European Union*, COM (95) 682 final, 13 December 1995, 2.

³⁶⁴ Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, *OJ* 12 November 2010, L 295/1; Directive 2005/89/EC of the European Parliament and the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment, *OJ* 4 February 2006, L 33/22.

³⁶⁵ Council Directive 2006/67/EC of 24 July 2006 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products, *OJ* 8 August 2006, L 217/8; Council Directive 2009/119/EC of 14 September 2009 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products, *OJ* 9 October 2009, L 265/9.

³⁶⁶ See also I. DIMITROVA, 'EU-Russia Energy Diplomacy: 2010 and Beyond?', Connections, The Quarterly Journal of the PfP Consortium, vol. 9, no. 4, 2010, 11.

³⁶⁷ See, for instance, the energy security and solidarity action plan, European Commission, *Second Strategic Energy Review – An EU Energy Security and Solidarity Action Plan*, COM (2008) 744 final.

³⁶⁸ K. Verhaegen, L. Meeus, B. Delvaux, R. Belmans, 'Electricity produced from renewable energy sources – What target are we aiming for?', *Energy Policy*, vol. 35, no. 11, 2007, 5579.

³⁶⁹ I. DIMITROVA, 'EU-Russia Energy Diplomacy: 2010 and Beyond?', Connections, Quarterly Journal of the PfP Consortium, vol. 9, no. 4, 2010, 2.

Concerns regarding the EU's security of supply call into question the scope of the Union's solidarity in the internal energy market.³⁷⁰ The adoption of the 'spirit of solidarity' in the Treaty framework is a necessary step forward to creating a true internal energy market in the EU.³⁷¹

The concept of 'solidarity' in the Lisbon Treaty could possibly be used to tackle supply stream issues. This mechanism could, for instance, guarantee the pooling of resources in the event of a need for emergency access to gas reserves.³⁷² It should be noted that, as the European Economic and Social Committee reported, there have been advances on for instance strategic gas reserves and the use of a solidarity commitment.³⁷³ In Regulation No. 994/2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, it is mentioned that it is necessary to provide for solidarity and coordination in response to supply crises concerning preventive action as well as a reaction to concrete supply disruptions and that Member States should devise measures to exercise solidarity in order to strengthen the solidarity between Member States in the event of a Union emergency and in particular to support Member States exposed to less favourable geological or geographical conditions.³⁷⁴ Regulation No. 994/2010 determines that it provides for transparent mechanisms 'in a spirit of solidarity' in the event of emergency at Member State, regional and Union levels and throughout the Regulation makes several references to the concept of solidarity.³⁷⁵ This Regulation is part of the framework of the Second Strategic Energy Review – Securing our Energy Future of the European Commission of July 2009.³⁷⁶

The question is whether the provisions in relation to which the 'spirit of solidarity' applies can trigger more action to broaden cooperation in the energy field. It should be noted that Regulation No. 994/2010 concerning measures to safeguard security of gas supply was adopted on the basis of Article 194(2) TFEU, which seems to point in the right direction. The European Economic and Social Committee still calls for efforts by the EU institutions to tackle the issues related to security of supply on the basis of solidarity.³⁷⁷ The provisions of the Lisbon Treaty could represent the legal basis that is needed to implement measures on the basis of the principle of solidarity referred to in the EU

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³⁷⁰ H. BJØRNEBYE, Investing in EU energy security: exploring the regulatory approach to tomorrow's electricity production, in Energy and Environmental Law Series, Alphen aan den Rijn, Kluwer Law International, 2010, 71-72.

³⁷¹ C. PADRÓS, E.E. COCCIOLO, 'Security of energy supply: When could national policy take precedence over European law?", *Energy Law Journal*, vol. 31, no. 1, 2010, 53.

³⁷² J.M. GLACHANT, F. LÉVÊQUE, P. RANCI, 'Some Guideposts on the Road to Formulating a Coherent Policy on EU Energy Security of Supply', *The Electricity Journal*, vol. 21, no. 10, 2008, 14.

³⁷³ European Economic and Social Committee, Opinion on 'Energy supply: what kind of neighbourhood policy do we need to ensure security of supply for the EU?', TEN/443, 15 March 2011, 4.3.

³⁷⁴ Recitals 5 and 36 to Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, *OJ* 12 November 2010, L 295/1.

³⁷⁵ Article 1 of Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, *OJ* 12 November 2010, L 295/1.

³⁷⁶ Available at

http://ec.europa.eu/energy/strategies/2009/2009_07_ser2_en.htm (last consulted on 19 November 2011).

³⁷⁷ European Economic and Social Committee, Opinion on 'Energy supply: what kind of neighbourhood policy do we need to ensure security of supply for the EU?', TEN/443, 15 March 2011, Conclusion 1.1.13.

Treaty framework.³⁷⁸ However, it is questionable whether the Member States are ready for the enforcement of a 'principle of solidarity'.

Conclusion

This article has assessed some of the internal and external legal and policy challenges that the EU faces in the creation of a sustainable, competitive and secure internal energy market, and its efforts to integrate RES-E into the energy system (and more broadly into the energy market), as well as the surrounding policy and legal framework.

The current legal framework after the Lisbon Treaty includes a specific legal basis for measures in the energy policy area: Article 194 TFEU. However, such action is still heavily restrained by the Member States' rights in relation to their energy resources, their structure of supply and their national security. This could cause problems externally, as Member States still hold on to bilateral relationships with third countries inter alia based on their national security concerns and strategic partnerships. Yet a solid common external energy policy and response is necessary in order gradually to decrease the EU's dependence on external energy importers by focusing on strengthening its policies on energy efficiency, its diversification of the energy mix and its development of RES. The further development of such a common response to energy issues faced by the EU at international level could grow further out of a notion of 'solidarity', but it remains a fact that the Lisbon Treaty refers to a 'spirit of solidarity' rather than a 'principle of solidarity' (with the latter term used in relation to other issues such

as border checks, asylum and immigration in Article 80 TFEU).³⁷⁹ These choices should not be overlooked and it should be kept in mind that Member States remain masters of the Treaty. For the EU to uphold a solid external energy policy - dealing with its disadvantage of dependence on third countries - it should first and foremost have a solid internal energy policy framework. Therefore, a consistent application of its internal energy objectives in terms of concrete action is crucial, paying particular attention to the EU's role in the Energy Community, where it is gradually externalising its internal objectives. Under the current internal energy policy framework, sustainable development, competitiveness and security of supply are heavily interrelated in the attempt to achieve a sustainable, competitive and secure internal energy market. A threat to one of these objectives thus possibly threatens the potential to achieve a fully sustainable, competitive and secure internal energy market. As to concrete action within this framework, the integration of RES-E into the energy system would provide for opportunities to strengthen the sustainable, competitive and secure internal energy market, such as a diversification of the energy mix, as well as increased security of supply, more new market entrants and increased competitiveness. However, the integration of RES-E into the current framework is still hampered by market failures, as well as by failures in regulation.³⁸⁰ As has been shown above, the EU does not always consistently apply its internal objectives when taking concrete action in the energy field; and it has been aware of this risk since the European Commission's 1995 Communication. For instance, in integrating RES-E into the

³⁷⁸ A. BIAVA, 'The impact of the Russia-Ukraine Gas Disputes on the European Union Gas Market: The Energy Solidarity Issue' in B. DELVAUX, M. HUNT EN K. TALUS, *EU Energy Law and Policy Issues*, ELRF collection, 2nd Edition, Rixensart, Euroconfidentiel, 2010, 30.

³⁷⁹ Article 194(1) TFEU.

³⁸⁰ See also D. Helm, 'Energy policy, security of supply, sustainability and competition', *Energy Policy*, vol. 30, no. 3, February 2002, 175.

energy system, the application of sustainable development and environmental protection through the integration principle is ambiguous. Thus there is room for improvement as to the consistency of the internal framework, as this consistency becomes even more urgent in relation to the EU's ambitions in the external sphere. There should therefore not only be more focus on the consistency of the internal framework, but also on the interface between the internal consistency of the energy policy framework and the external action and the

potential role for RES-E integration into the energy system. Such integration of RES-E into the energy system does indeed provide some long-term remedies for some of the internal and external challenges referred to above, but it will in its turn introduce new challenges, as even in an integrated 'SuperSmart Grid', the EU would depend on renewable sources from North Africa. Therefore, the need for back-up capacity when promoting electricity from RES remains acute.