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SUMMARY

This paper analyses the various levels at which public decisions are made in the field of energy.

In the last ten years the European level has become predominant with the EU objectives to reduce EU Greenhouse gas emissions (by 20% by 2020, and by 40% by 2030), increase the share of energy coming from renewable sources (to 20% by 2020 and to 27% by 2030) and improve energy efficiency (by 20% by 2020, by 27% by 2030). The implementation of this policy, mostly left to the member states, has been diverse and sometimes very disappointing, leading also to incoherence between various national policies between themselves and with the EU policy.

The national level remains very important with the sovereign decision on energy mix choice, on exploitation of national resources and on energy taxation but also with a great freedom to translate into practice the details of the EU policy objectives set in directives and regulations.

A multinational regional level has emerged as an intermediate step between the national and the European levels to go further in terms of cooperation in various areas such as market coupling, security of supply, infrastructure development etc.

The Energy union project, promoted by the new European Commission presided by Jean-Claude Juncker, seeks to further integrate the internal market, to develop a more common approach to security of supply and to create a genuine solidarity.

Hence, the articulation between the European, regional and national levels represents a major challenge of governance. It requires an in-depth dialogue to be conducted to develop appropriate solutions to the numerous problems facing a fast changing energy sector.

After analysing this context, this paper makes recommendations to enhance the mutual understanding between the EU and national levels as well as their cooperation:

- 1. A peer review of the national policies should be organised every two years by the Commission, involving national experts, assessing the compatibility and complementarities of EU and national policies, and being used for the yearly State of the Energy union.
- 2. Bust the silo mentality affecting the energy sector, it is suggested to reduce progressively the large number of the various existing fora to three horizontal fora dealing with (1) transport & mobility, (2) heating & cooling and (3) electricity, while ensuring a 360° participation to them,
- 3. Create an EU Energy information service to combine all sources of information on the energy sector, in a comprehensive and holistic way,
- 4. Regional cooperation should be used in a flexible way to promote innovative solutions regarding the optimisation of power generation with RES, the development of regional support schemes to RES, real time coordination of TSOs or the creation of regional TSOs as well as for other tools aiming at further integration; under the supervision of ACER.



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INTRODUCTION

een from the European point of view, energy should have always been a catalyst for common actions by the member states. The 1951 Coal and steel treaty, resulting from the Schuman declaration and the 1957 Euratom treaty are there to show that if there was something to govern together, it was energy. Many arguments have been exchanged about this mantra since the late 1950's, when the first idea was suggested to create "une politique de l'énergie communautaire" (i.e. an energy policy for the European community) and the three executive bodies of the three Treaties were asked to come forward with an outline. This failed however due to large differences of opinions and interests between the (then) 6 member states. It took about 50 years before, finally, the EU was able to agree in March 2007 on an "Energy policy for Europe", covering the three basic objectives for energy policy, i.e. supply security, sustainability and competitiveness. This decision was taken at the highest political level and could be considered as a turning point¹.

ENERGY IS A SHARED COMPETENCE TO BE EXERTED AT EU AND NATIONAL LEVELS"

Shortly after that, member states recognised the energy domain as part of the new EU Treaties, confirming however that energy is still a sovereign issue for them, while some aspects have to be governed together, or vice-versa. The fact is now that energy is a shared competence to be exerted at EU and national levels (Article 194 of the Treaty on the functioning of the European Union) with subsidiarity as a general principle. The combination of the two levels is a very complicated one, even more so as several member states and their (often state owned) energy companies are still denying the European dimension, making their national energy markets immune from "foreign" intervention. Therefore energy remains a very politically charged sector, where the prin-

ciples of free movement of goods and services that are at the roots of the common market, are still challenged in potential supply shortfalls. Governance has thus a particular meaning in the field of energy. It therefore needs a clear articulation for effectively managing the energy policy objectives at the European, regional², national and local levels to provide for the energy needs of consumers, and hence the voters, at an affordable price with a clear willingness to reduce the energy's environmental and climate impacts.

The new momentum for the EU Energy union concept, proposed by the European Commission as one of its top priorities³, allows policy-makers and academics to rethink the very controversial challenge of managing the governance of the energy policies in the EU and their articulation between EU and national competences. The more so as the Energy union concept brings in new governance levels by allowing and promoting regional approaches limited to a more or less large group of member states. Implementation of the 2007 policy decision has brought a number of flaws, especially with regard to the balance between the EU-level and the national levels. The more specific policy implementing instruments were developed in a somewhat uncoordinated way leading to a number of inconsistencies. Coordination was not always visible or even fully lacking. The recent example of the 2011 decision by the German government, unilaterally and without any prior consultation of its neighbours/partners, to phase out nuclear power plants at an accelerated pace, highlighted the failure of the EU energy policy governance model. Other member states have also taken unilateral decisions affecting their neighbours without any consultation before and after the 2011 German one, but none with the comparable and direct cross-border impacts. These examples underline the direct contradiction between the national sovereignty on the fuel mix and the development of a single energy market which appeared as a major weakness of and an immediate jeopardy to the internal market.

^{1.} European Council, March 2007 conclusions

Throughout this paper, the word regional will be used in the sense of a region composed by several states, e.g. France, Germany, Belgium, Luxembourg and the Netherlands.
 The need and the potential of regional cooperation between member states have been examined namely by J. de Jong and Ch. Egenhofer in a CEPS report of April 2014 and in the report published by the Jacques Delors Institute, prefaced by Jacques Delors and written by S. Andoura and J.A. Vinois, January 2015, pages 109-112

^{3.} European Commission, "Energy union Package Communication", European Commission, 25 February 2015



The discussion to reconsider the global governance balance deserves a new impetus⁴. In this paper some ideas are offered, with a special focus on the regional approaches. The paper discusses the relation between the four levels (EU, regions - understood as being made of several States -, national, sub-national inter-regional level), globally indicating what really requires decisions and actions by the EU and consequently indicating what should be seen as national competences at this moment. It is understood that the balance between the EU and national levels is likely to continue to evolve depending on events and political will. Who should be governing what at regional levels then will be a relatively new terrain, because of the differences that exist between the various regional approaches. Some are directly coming from and mandated by EU regulation, others are fully bottom-up initiatives from member states themselves. Some are based on clear initiatives from the European Commission, whereas in others the role of the Commission is nothing more than that of a (silent) observer. The paper underlines the necessity that all regional approaches do require some kind of an overall EU oversight.

To make such analysis, we will examine successively the four levels identified: European, regional, national and sub-national inter-regional to assess their respective functions and their articulation.

1. Governing the Energy union from the European level

In the field of energy, the European Council defines the main lines of actions that the European Commission has to translate into legal instruments⁵. However, the role of the Commission is threefold as it is responsible for (1) initiating legislative and non-legislative proposals, (2) ensuring the implementation of legislation and (3) facilitating policy through dialogue, financing etc.

These roles could result in a number of actions, such as:

- Proposing EU legislation, generally subject to a co-decision by the Council and the European Parliament, wherever and whenever needed, both in terms of nationally to be implemented Directives and directly applicable regulations or mandated decisions. This whole legislative process is usually preceded by various sets of communications or recommendations or other non-binding documents, as well as impact assessments.
- 2. Ensuring compliance with the Treaties and derived legislations: infringement procedures against member states delaying, badly implementing or not implementing directives, State aid and competition cases etc.
- 3. Acting as a facilitator, usually less known, is maybe the most important role of the Commission in order to bring member states and stakeholders together to design common solutions and to enhance their cooperation.

There is today no question anymore about the establishment by the European Council of the main lines and strategies of energy policy for the Union. The "usual' three objectives of sustainability, supply security and competitiveness will have, in whatever order, to find their way in binding EU instruments, be they directives or regulations, the latter becoming more the rules once the details have to be set. The 2020 climate & energy package example is maybe the most recent expression, to be followed by the new 2030 package. These binding instruments may be accompanied by sets of global and general guidelines to member states regarding their national energy policies, including on the fuel mix, energy supply and resource development and on energy efficiency and energy saving. National plans for renewable and for energy efficiency had to be drawn by each member state to comply with the respective directives and to be submitted to the European Commission which could make comments and suggest amendments.

^{4.} See as an example of the present discussion, the conclusions of the Energy Council of October 2015

^{5.} Such process is not particular to the field of energy policy. It is indeed present in other key policy areas, such as eurozone & financial policy with the construction of the EU banking union that started after the June 2012 European Council Conclusions.



The 2020 climate & energy package, adopted in 2007, included the third internal market directives and regulations⁶ setting for instance the Agency for the cooperation of energy regulators (ACER) or giving the European Network of transmission system operators (ENTSO) a major role in drafting the network codes⁷. In addition, the binding Directives on renewable energy sources (RES) deployments and energy-efficiency and the extensive legislation on the Emissions trading scheme (ETS)10 and non-ETS sectors are completing the rather impressive set of legal energy texts to date. The 2010 regulation on security of gas supply, following the 2009 Ukrainian-Russian crisis, the 2012 energy efficiency directive and the 2013 regulation on trans-European energy networks are more or less all resulting from the 2020 climate & energy package. They are in practical terms further supported by the EU rules for competition in the energy market. The October 2014 European Council conclusions on the 2030 package are now translated into new proposals of the Commission in the fields of ETS, renewable and energy efficiency. While the target to reduce EU territorial greenhouse gas emissions by 40% by 2030 is legally binding at both EU and national levels, the target of 27% of renewables in the energy mix by 2030 is legally binding at the EU level but non-binding for the member states, and the energy efficiency target (27% by 2030) is purely indicative. For these two latter targets, the question remains how to ensure that they will be met. While for the 2020 binding national targets, each member state had to set up a national plan to be monitored by the European Commission, the new EU targets require also a new governance between the EU and national levels to ensure that targets will be met.

The Commission has not yet defined the terms of the cooperation to be established but it should come with proposals within the coming months, based on the conclusions of the Energy council of the fall of 2015. In February 2015, in line with the July 2014 programme of its President, the Commission came with the new "Energy union" concept, where energy and climate policies are put in a more global and holistic frame, encompassing climate, environment, foreign trade and relations, industry, agriculture, social, finances, transport, research and innovation etc. But, above all, the Energy union is about pooling all the EU resources to optimise the energy security and the internal market working. The further facilitating and monitoring of the overall consistencies at EU-levels requires an effective overall governance in the decision-making machinery. Discussions and negotiations at Council and European Parliament levels may justify further institutional arrangements and working procedures for the Energy and other Councils and organs via joint meetings and appropriate procedures. The example is already given by the Commission itself as it created a Vice-president responsible for the Energy union, having authority to coordinate several Commissioners such as those in charge of energy and climate, transport, growth and research. The idea is clearly to change the "silo" mentality dominating the energy sector at all levels, like in other sectors.

CREATE A KIND
OF PEER REVIEW OF
THE NATIONAL ENERGY
POLICIES IN RELATION
WITH THE ESTABLISHED EU
OBJECTIVES"

The Energy union is also reflecting the tensions between the EU energy policy and the national sovereignties on the fuel mix choices. When more room is to be "allowed" for the national policy domains (and we will come to that later in this paper), a mechanism of assessing and monitoring national policy developments at EU level is needed. This could be further strengthened when peer reviews between the MSs would be part of this. Lessons could be learnt from other EU policy domains (e.g. the Economic and monetary union's 'European semester') and the energy policy review process in the International energy agency (IEA). The new approach of the European Commission to send the

Vice-president responsible for the Energy union to tour all member states and to make with each of them a SWOT assessment is a novelty, and it should help to establish a more accurate State of the Energy union that the Commission committed itself to deliver every year, starting at the end of 2015. It could be wise, in the near future, to create a kind of peer review of the national energy policies in relation with the established EU objectives, with a team of national experts piloted by the Commission, as part of the State of the Energy union. This would help to create mutual trust and common understanding, as well as to highlight best practices.

^{6.} The third package is made of 2 directives and 3 regulations. Cf. footnote n°19.

^{7.} The network codes are a specific set of rules that aim at harmonizing the European electricity market. Drafted by ENTSO-E for electricity and ENTSO-G for gas, each code is then submitted to the European Commission, and then goes through the so-called 'comitology process', meaning that member states retain the right to veto a code if they so decide.

^{8.} European Union, Directive 2009/28/EC on the promotion of the use of energy from renewable sources.

^{9.} European Union, Directive 2012/27/EU on energy efficiency.

^{10.} European Union, Directive 2009/29/EC to improve and extend the greenhouse gas emission allowance trading scheme of the Community.



Then there is the institutional set-up for the internal energy market which is a particular case for decisions at EU level as well. It's about the role and mandate of ACER and the ENTSOs. When the role of ACER is to be expanded, as is now suggested clearly by the Commission in its July 2015 consultation papers, the governance of ACER needs to be further assessed, questioning the existing role of the National regulatory authorities (NRAs) themselves. ACER's role may also need to be adapted to the growing cross-border activities.

REGIONAL
APPROACHES TO ENERGY
POLICY IMPLEMENTATION
AND ENERGY MARKET
INTEGRATION"

One of the most challenging new element in EU energy policy making appears to be the facilitating and/or promoting of regional approaches to energy policy implementation and energy market integration, especially for gas and electricity. This may require setting general guidelines at EU level in order to maintain and safeguard compliance with the internal market and the global EU policy strategy. A more fundamental discussion would probably be needed to decide which regional approaches and solutions, including specific piloting examples, could develop into an EU-wide target model or should be

accepted as particular stand-alone solutions, such as - maybe - a North Sea energy grid. A flexible approach is required, taking into account the specificities of the case and the objectives pursued.

This question is not new as it has been raised since 2005 when the regional initiatives driven by the regulators, and now by ACER, were established in execution of the directives on electricity and gas of the second and later the third internal market packages. In addition, since 2013 we have seen a new governance developing to identify projects of common interest (PCIs)¹¹, established by the 2013 infrastructure regulation.¹²

Regional groups were set up to identify the projects, selected from the TYNDP prepared by the ENTSOs, which should be agreed by the member states, the regulators and the TSOs promoting the project. For the first time, PCIs are identified in a multilateral process ensuring the full support of all concerned by each project. This is now a well-organised process, with the second PCI list being expected by the end of 2015. Furthermore mention should be made of the Memoranda of understanding (MoUs) concluded in 2015 between member states themselves (cf. part 2) and between them and the Commission, such as the new BEMIP, South West Europe, and CESEC (see Part II). They reveal the new favour given to voluntary but well framed cooperation in the field of infrastructures and further aspects of energy policy.

In a more general way the organisation and facilitation of stakeholder's inputs in the decision-making process, including the role of the Energy fora (Madrid on gas¹³, Florence on electricity¹⁴, Berlin on fuel mix¹⁵, London on citizens/consumers¹⁶, Prague/Bratislava for nuclear energy¹⁷ and the newly created Copenhagen forum on infrastructure), is also a matter for EU levels, in order to steer European wide debates with all stakeholders including the member states and the national regulatory authorities. Whether these fora should all be maintained or should be consolidated is also a question to be raised as the Energy union is about eliminating the silos. An alternative could be to organise fora to discuss how energy should best serve customers while being climate friendly: we could imagine a forum on transport and mobility, another one on heating and cooling and a last one on electricity. The optimal fuel mix and infrastructure aspects should be integrated in each one of these three fora. Another option could be a single plenary Energy forum working with subgroups on the various issues and reporting to the plenary.

Finally, there is also the need to think about the way developments at the local level are promoted as a tool for decentralised energy projects, where the role of the Covenant of mayors¹⁸, being signed by more than 6000 entities of all sizes committing themselves to the 2020 objectives, should be underlined. Effective

^{11.} Those PCIs are mainly cross-border infrastructure projects concerning at least two member states.

^{12.} European Union, Regulation 347/2013, on guidelines for trans-European energy infrastructure.

^{13.} More information on the Madrid Forum can be find on the European Commission's website.

^{14.} More information on the European Electricity Regulatory Forum can be find on the European University Institute's website.

^{15.} More information on the Berlin Energy Forum can be find on the European Commission's website

^{16.} More information on the London Citizens' Energy Forum can be find on the European Commission's website.

^{17.} More information on the European Nuclear Energy Forum can be find on the European Commission's website.

^{18.} More information on the Covenant of mayors can be found on their website.



policy-exchanges and best practices between regions and decentralised (local) levels should be an important element of these. In other words, the top down approach of the EU and the States and the bottom up initiatives of local authorities and civil society should be able to meet, to produce the best possible results and to reach the objectives of the Energy union.

IT IS NOW UP TO
THE EUROPEAN LEVEL TO
REVIEW AND MONITOR
EUROPEAN ENERGY
MARKETS"

Probably, it is now up to the European level to review and monitor European energy markets, progress towards the objectives set by the European Council, security of supply levels etc., with developing effective tools for assessing them. ACER has already to report yearly on the development of the internal market and the implementation of PCIs but the great number of separate reporting and monitoring reports required by various EU instruments calls for the organisation of a full and independent EU energy information service, following the model of the US Energy information administration model.

In this respect, the State of the Energy union proposed by the Commission to be issued every year is a first step in the direction of a more comprehensive, holistic and authoritative information on progress made.

2. The Regional level: when several member states cooperate

The regional level has traditionally been seen as an interesting intermediate step towards the creation of a single European market. Neighbouring countries have more to share than the European Union as a whole which may seem too abstract. The 2004 EU enlargement has reinforced this trend with Western European countries taking regional initiatives to go faster or further than the *de iure* situation. Clearly central-eastern European countries have also felt the need to work at regional level to address the new challenges coming with their membership of the Union. In this section, we are making a distinction between the regional initiatives mandated by EU legislation, the initiatives from the member states themselves, and the initiatives directly driven by the European Commission.

2.1. Regional cooperation mandated by the EU legislator

Three legal instruments adopted since 2009 mandated, or even obliged, the regional cooperation and are now implemented:

2.1.1. The third internal electricity and gas market package of 200919

Article 6 of the electricity directive 2009/72 and Articles 6 and 7 of the gas directive 2009/73 provided for the promotion of regional cooperation as follows: "member states as well as the regulatory authorities shall cooperate with each other for the purpose of integrating their national markets at one and more regional levels, as a first step towards the creation of a fully liberalised internal market". As a result, regional initiatives that were already driven by the regulators, and later by ACER, received a stronger focus and setting with more or less successful results. Seven electricity regions have been created as well as three gas regions.

^{19.} The Third internal electricity and gas market package is composed by:

European Union, Directive 2009/72/EC, concerning common rules for the internal market in electricity,

European Union, Directive 2009/73/EC, concerning common rules for the internal market in natural gas,

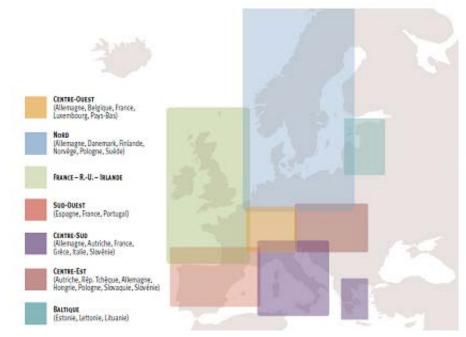
European Union, Regulation 714/2009 on conditions for access to the network for cross-border exchanges in electricity,

European Union, Regulation 715/2009 on conditions for access to the natural gas transmission networks,

European Union, regulation 713/2009 establishing an Agency for the Cooperation of Energy regulators



FIGURE 1 ► The seven electricity regions



Source: Commission de régulation de l'énergie

FIGURE 2 ► The three gas regions



Sources: Commission de régulation de l'énergie

The Commission assessed these regional initiatives in 2010^{20} and suggested some improvements, including a role for national governments, however without a follow-up. ACER is reporting annually on their activities. They are seen more as an opportunity for regulators to enhance their cooperation in the implementation of the third package than as a strong driver of the energy policy, as the member states were not interested to allow regulators to go beyond their current competences.

^{20.} European Commission, The Future Role of Regional Initiatives, COM(2010) 721 final, Brussels.



2.1.2. The EU regulation 994/2010 concerning measures to safeguard security of gas supply 21

This Regulation resulted from the 2009 gas crisis²² and provided for an effective regional cooperation on the risk assessment, the preventive action plans, the emergency plans and the construction of gas infrastructure. The Regulation is based on the voluntary and flexible cooperation of member states but its Annex 4 lists a number of regions which would be particularly suitable for an in-depth cooperation regarding the risk assessment and the plans. An example of such cooperation can be seen with the three Baltic states joining efforts for a common risk assessment and common plans. The assessment of the implementation of this Regulation, made by the Commission in November 2014, suggests a reinforcement of the cooperation process.

2.1.3. The EU regulation 347/2013 on guidelines for trans-European energy infrastructure²³

As already mentioned, this Regulation goes further in setting up Regional groups for each of the priority corridors identified (see article 3 and annex III point 1 of the Regulation). For electricity and gas, the core membership of these groups consists of representatives of member states and the NRAs, project promoters (mainly TSOs) and the Commission. The ENTSOs and ACER are also invited to participate. Other stakeholders may be invited as needed, such as the Energy Community Secretariat for the central-eastern and south-eastern Europe or Norway in the groups covering the Baltic Sea region in gas and the Northern Sea region in electricity. These Regional groups are tasked with the identification of the projects of common interest, which may be a necessary condition to obtain EU financing from the Connecting Europe facility and from other EU instruments. They have to find a consensus on the regional list of projects which is seen as a guarantee that cross-border projects will be supported equally by all countries concerned.

^{21.} European Union, Regulation 994/2010 concerning measures to safeguard security of gas supply.

^{22.} Sami Andoura, 'Energy solidarity in Europe: from independence to interdependence', Jacques Delors Institute, Report n°99, July 2013, p. 37.

^{23.} European Union, Regulation 347/2013 on guidelines for trans-European energy infrastructure.



2.2. Regional cooperation initiated by the member states

2.2.1. The Pentalateral energy forum (PLEF)²⁴

The PLEF is the framework for regional cooperation in central-western Europe (BENELUX-DE-FR-AT-CH) focusing on electricity market integration and security of supply. It is since 2007 a formalized cooperation, including a secretarial support from the Benelux. Governments, TSOs and NRAs are working together. They agreed and implemented successfully various phases of market coupling that became the target model for the whole of the EU market. In June 2015 they agreed on an extended working agenda, further fostering market integration (common capacity calculation, building a cross-border intraday market) and system flexibility (regionally integrated balancing markets, virtually real time trading, increasing demand responsiveness). New issues are coming on security of supply (common vision on addressing adequacy assessment methodologies, regional reliability standards and cross-border participation in capacity mechanisms). They agreed also to improve cooperation between neighbours on main decisions in national energy policies and to identify options for increasing cooperation between the Penta TSOs. The PLEF is also supported by a separate Penta expert panel where think-tanks and academia are involved. So far, the European Commission is only a (silent) observer in the process.



FIGURE 3 - Members of the Pentalateral energy forum

^{24.} More information on the PLEF can be found on the Benelux Union website.



2.2.2. The 8th June 2015 Luxembourg joint declaration for regional cooperation on security of electricity supply (the so-called Baake-group)²⁵

This is a new set-up where Germany and its neighbours are cooperating. Its informal name, Baake-group, derives from the family name of Rainer Baake, the current German Secretary of state for economic affairs and energy. In their 8 June 2015 ministerial declaration (signed by Austria, Belgium, Czech Republic, Denmark, France, Germany, Luxembourg, Netherlands, Poland, Sweden as EU member states plus Switzerland and Norway) these countries, while recognising the national energy mix paradigm, agreed to intensify their regional cooperation towards further EU market integration with a number of common approaches ("no regrets"). These included cooperation on national energy policies with potential transnational effects, a common methodology for generation adequacy assessments, fostering coordinated market integration of Renewable energy sources (RES) with different flexibility options and balancing responsibilities for all sources. In addition they agreed not to restrict cross-border trade in times of high prices reflecting scarcity, nor to introduce price caps. In political terms this would create a further interesting geographical broadening of the already existing PLEF-process. The signatories invite other European states to join this declaration. It now remains to be seen how these "no regrets" approaches will be implemented. The European Commission is not part of this Declaration.

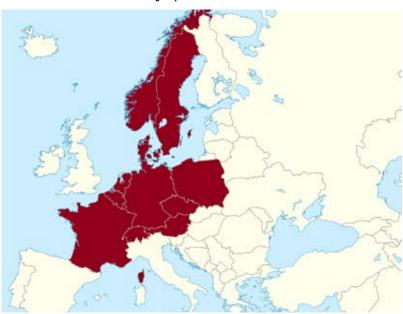


FIGURE 4 - Members of the "Baake-group"

Source : Jacques Delors Institute

^{25.} Its informal name, Baake-group, derives from the family name of Rainer Baake, the current German Secretary of State for Economic Affairs and Energy. More information can be found on the German Federal Ministry for Economic Affairs and Energy's website.



2.2.3. The Nordic action group on climate and energy²⁶

As part of the wider scope of the Nordic cooperation, the Action group is focusing on four main "pillars": the adoption of common (low-carbon) energy policies, the promotion of Nordic market design solutions across the EU, the devising of common incentives for the deployment of low-carbon technologies and the intensified cooperation of the Nordic renewable energy industry. The recent bilateral Swedish-Norwegian mechanism for developing RES is a concrete outcome.

FIGURE 5 - Members of the Nordic action group on climate and energy

^{26.} The Nordic action group on climate and energy was initiated by a Swedish think tank Global utmaning (i.e. "Global Challenge"). More information on the group can be found on Global Utmaning's website.



2.2.4. The Visegrad **4**²⁷

Using an historic framing, this group aims for regional energy policy cooperation and market integration. It emerged from the Russia-Ukraine-EU gas crises of 2006 and 2009, the former affecting Poland and the latter hitting the Czech Republic, Slovakia and Hungary hard. This resulted in discussions about essential gas infrastructure investment in the region and, more broadly, about the need for a Visegrad 4 gas target model (compatible with EU framework legislation). The V4 initiative is unique because it combines a longstanding political cooperation within the V4 with energy market cooperation. It is however lacking concrete implementation. It is also interesting to note that in the recent years Bulgaria and Romania have been invited to participate to energy discussions in a group called V4+.

FIGURE 6 - Members of the Visegrad 4



^{27.} More information can be found on Visegrad 4's road map for a regional gas market.



2.2.5. The North Seas countries offshore grid initiative (NS-COGI)²⁸

Since a political declaration of December 2009, NS-COGI is a regional cooperation of 10 countries (Belgium, Denmark, France, Germany, Ireland, Luxembourg, Netherlands, Sweden and United Kingdom plus Norway) around the North Sea looking for options of a coordinated development of an offshore electricity grid in the greater North Sea area. It seeks to maximize the efficient and economic use of the renewable energy resources as well as infrastructure investments. This cooperation, formalized by a 2010 MoU, supported by the energy ministries, the NRAs, the TSOs and, in this case also, the European Commission. To date the work consists mainly of studies on grid configuration, market and regulatory designs and cost allocations. Concrete decisions have not yet been made, but relevant inputs have been given to the wider EU and ENTSO-E network developing plan processes. A stronger political focus, both at national levels and from the European level, is still lacking, mainly due to different timing and policy perceptions from governments and TSOs. From academic institutions a call is coming for a more specific legal and regulatory system for the North Sea grid as such (see section 2.5 below).

FIGURE 7 - Members of the The North Seas countriesoffshore grid initiative (NS-COGI)

Seas countries offshore grid initiative

^{28.} More information on NS-COGI can be found on the Benelux Union's website.



2.3. Regional cooperation driven by the European Commission

2.3.1. The Baltic energy market interconnection plan (BEMIP)²⁹

The first major initiative, taken at the highest EU level, was the Baltic energy market interconnection plan, launched in 2008 by the European Commission together with Denmark, Sweden, Poland, Finland, Estonia, Latvia, Lithuania and Germany, with Norway as an observer. The MoU required the establishment of a road-map for the Baltic States to implement the internal market rules and the identification of the infrastructures needed to connect them to the rest of the region. Working groups were established for electricity and gas, with the national administrations, the NRAs, the TSOs and with market players as needed, all under high-level political supervision. The BEMIP process has been very fruitful with the participation of the three Baltic States to the NordPool market coupling, the creation of new cross border interconnectors between Finland and Estonia (Estlink 1 and 2), Latvia and Lithuania, Lithuania and Sweden (Nordbalt) and Poland (Litpollink), all being operational by the end of 2015. Gas discussions were however frustrated by the single supplier monopolising the whole Baltic market. The situation may improve with the new LNG terminal now operational in Lithuania, the decision for the new gas-interconnector between Poland and Lithuania (GIPL) and the possible Baltic Connector linking Finland to Estonia. BEMIP has been instrumental in ending the isolation of the region from the EU internal market. Its scope has been revisited in July 2015 to extend it to the wider energy policies, including energy efficiency, renewable etc...³⁰

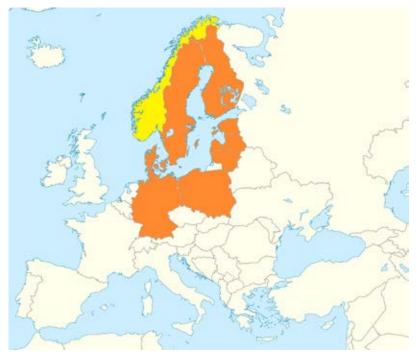


FIGURE 8 - Members and observers of the Baltic energy market interconnection plan

^{29.} More information on the BEMIP can be found on the European Commission's website.

^{30.} See the new MoU, signed on 8 June 2015



2.3.2. The Madrid declaration of 4 March 2015 and the High level group on interconnections for south-west Europe³¹

The relative isolation of the Iberian peninsula from the internal market has always been a major argument for setting interconnection targets at EU-level, such as the 10% electricity interconnection target by 2020. In the past a number of initiatives, including at the EU-level, were taken to promote interconnectors through the Pyrenees mountains. With the new 15% interconnection target as part of the 2030 framework agreement, it was recently decided to come with the highest-level political initiative, leading to the Madrid declaration of 4 March 2015³² by France, Spain and Portugal and the European Commission. The new regional High level group for south-west Europe will have to prepare by December 2015 an Implementation plan³³ for electricity realizing the Biscay bay project and two lines through the Pyrenees, and for gas the Eastern axis allowing bidirectional flows between the Iberian peninsula and the French gas systems (the MIDCAT project) and the third interconnection point between Portugal and Spain. It should be noted that via these high-level initiatives the already existing projects for the creation of a single Iberian market (the Mibel-project) will get a new push..



FIGURE 9 - States part of the Madrid declaration

^{31.} More information on this High Level Group can be found on the European Commission's website.

^{32.} See the text of the Madrid Declaration



2.3.3. The Central and south-eastern European gas connectivity (CESEC) initiative³⁴.

Regional cooperation in south-east Europe was very difficult to materialize. The new CESEC initiative may be seen as a response to the Russian decision (December 2014) to abandon the South stream gas project. The latter painful experience stressed the need to work on cost-effective solutions based on regional cooperation and solidarity in the CESEC region to increase integration and provide real diversification of gas supplies. A High level group was established with 9 member states (Austria, Bulgaria, Croatia, Greece, Hungary, Italy, Romania, Slovakia and Slovenia) leading to a MoU³⁵ and an Action plan signed on 10 July 2015. The MoU was joined by 6 Energy community contracting parties (Albania, Bosnia and Herzegovina, FYROM, Moldova, Serbia and Ukraine) and 2 observers (Montenegro and Kosovo). Cyprus is currently not a member of the CESEC, which is surprising given the gas potential situated in the eastern-mediterranean, close to Cyprus. The Action plan identifies 7 priority projects needed to enable access to three different sources of gas, one of which being LNG, and 3 other projects subject to market developments. It will examine the financing aspects, together with EIB and EBRD, and last but not least address the market integration challenges. It should be noted that this regional initiative, so far focusing on gas only, could give a wider opportunity for expanding energy policy cooperation in the region, including on electricity and renewable energy.



FIGURE 10 - Members of the Central and south eastern gas connectivity initiative

^{34.} More information on the CESEC can be found on the European Commission's website.

^{35.} The MoU can be fond here



TABLE 1 ➤ Table summarizing the key elements of the eight regional cooperations

	PENTALATERAL FORUM	BAAKE-GROUP	NORDIC ACTION GROUP ON CLIMATE AND ENERGY	VISEGRAD 4 GAS FORUM	NORTH SEAS COUNTRIES OFFSHORE GRID INITIATIVE	BALTIC ENERGY MARKET INTERCONNECTION PLAN	HIGH LEVEL GROUP ON INTERCONNECTIONS FOR SOUTH- WEST EUROPE	CENTRAL AND SOUTH EASTERN EUROPEAN GAS CONNECTIVITY
Date of formal creation	2007	2015	2012	2012	2010	2008	2015	2015
Initiator	member states	Germany	Global utmaning (a Swedish Think Tank)	member states	member states, ENTSO-E & TSOs, European Commission	European Commission	member states & European Commission	member states
Role for the European Commission	Silent observer	Absent	Unknown	Absent	Co-initiator	Initiator	Co-initiator	Supporter
Member Countries	AT, BE, CH, DE, FR, LU, NL	AT, BE, CH, CZ, DE, DK, FR, LU, NL, NO, PL, SE	DK, FI, NO, SE	CZ, HU, PL, SK	BE, DE, DK, FR, IE, LU, NL, NO, UK, SE	0E, DK, EE, FI, LT, LV, PL, SE	ES, FR, PT	AL, AT, BA, BG, EL, HR, HU, IT, MD, MK, RO, RS, SI, SK, UA
Topics concerned	Electricity	Electricity	Energy	Gas	Electricity	Electricity & Gas (extended to energy from July 2015)	Electricity & Gas	Gas
Estimated population concerned (millions of inhabitants of participating country)	190	259	26	79	365	155	123	192
Includes non-EU member state	Yes (CH)	Yes (CH & NO)	Yes (NO)	No	Yes (NO)	Only as observer (NO)	N0	Yes (members: AL, BA, MD, MK, RS, UA; observers: ME, XK)



2.4. Scope and limits of these regional initiatives

Apart from Cyprus and Malta, all EU member states are member of at least one of the cooperation we have just analysed. For four of them (i.e. France, Germany, Denemark and Sweden), they are even members of four distinct cooperations.

FIGURE 11 - Membership overlap of the eight analysed regional energy initiatives

Source: Jacques Delors Institute

Legend:

- Grey: member of one cooperation,
- Light Brown: 2 cooperations,
- Bordeau: 3 cooperations,
- Black: 4 cooperations

Against this background, it goes without saying that any regional approach (that is a limited number of member states and other European States acting together in a regional setting), being formalised or not, bottoming-up or topping-down, with or without direct involvement of the European Commission, should develop within the wider and global context of the EU-rules and policy setting. This broad policy base will have to be leading for all of the regional levels. And a flexible and efficient EU governance mechanism should be developed to safeguard this.

ENERGY IS CLEARLY
AN AREA WHERE A LOT HAS
TO BE SET AT EUROPEAN
LEVEL"

Flexible and efficient, that is almost self-evident. But this does not have to mean that any regional model always will have to fit in a broader EU-model, should it exist. Within the global EU policy context, regional models should be allowed to differ, as the various examples mentioned above demonstrate. Market conditions and supply options, RES- possibilities and infrastructures, demand characteristics and climate and geography may be quite different throughout the European Union which has wide varieties of condi-

tions, cultures and history, which includes both the good and the less good understanding between neighbours. The fact that the Penta-model for electricity market coupling is becoming the European target model may be more an exception than a rule. When the policy conditions and principles are the same, the implementing devices could and should be allowed to be different, in accordance with the subsidiarity principle of the Treaty.



It may be useful to remind that this principle means that "in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the member states, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at the Union level." (Article 5.3 first paragraph of the Treaty on the European Union). While being a shared competence between EU and the member states, energy is clearly an area where a lot has to be set at European level to ensure the free movement of electricity and gas and to facilitate their transmission as well as to optimise the resources and infrastructures available for the benefits of all. Cross-border issues are numerous and have to be framed at European level while a lot of issues related to the implementation fall on the national, regional and local levels. And the balance between all these levels remains a permanent challenge for any regulator and surely for the European legislator being the Council and the European Parliament acting in co-decision. The more the market will be integrated at the European level and the more the competence will fall with the EU level, with the need to redefine the balance between the various levels. In other words, the frontiers between the European and the other levels will vary continuously.

REGIONAL
APPROACHES UNDER
FLEXIBLE AND EFFICIENT
EU-OVERSIGHT COULD
FORM THE BASIS FOR THE
GOVERNANCE MODEL"

For instance, it could mean that some regions, made of several countries, may continue to opt for a bottom-up approach, minimising the role of the European level, whereas other regions might only make headway with a strong top-down model and a more or less leading role from the European Commission. And within these two "extremes", any in-between solution could be a sensible one as well. In any case, one thing is sure: the rules set by the EU legislator have to be complied with and the Commission as guardian of the Treaty has to ensure that this is the case. Ensuring a level playing field for all participants to the market is a key principle of the European Union. Free riding and spe-

cific national solutions designed for the national champions are not allowed. Therefore, regional approaches under flexible and efficient EU-oversight with a menu of ex-ante and ex-post assessments could form the basis for the governance model of the Energy union philosophy. The question remains whether such a model should be translated in an EU Regulation in order to set the rules and limits clear. Depending on the subject matters themselves, an expanded mandate for ACER could also be part of this model. The impact assessment of such a Regulation might however be politically very difficult and complex to undertake.

Market designs and (detailed) region-specific regulation in a cross-border context, both at policy and regulatory levels in order to facilitate seamless trade-patterns in energy-products and services, is one example of regional rules that would require some kind of (ex-ante) oversight from the EU. Assessing common generation and system adequacies and developing measures to correct inadequacies wherever necessary may be another one. The necessary regional cross-border specific regulatory designs may also fall in this category as they would need some kind of regional regulatory governance, preferably to be organised by ACER with even ACER setting the "regional rules".

On the other hand, more voluntary approaches between (bordering) MSs to discuss and coordinate national policy implementations would less require some form of EU-oversight and that this could be organised on an ex-post basis. They could include regional approaches on RES-planning, maybe with regional (indicative?) targets and monitoring , joint/regional support schemes (including with cross-border access), cross-border RES projects, using the PCI- model with some kind of cross-border CBAs³⁶.

And then finally in this context, the more political idea of coordinating national energy policies and fuel-mix options should be mentioned, to be based on ex ante info-sharing of new policy approaches and instruments. The Baake-group approach could be such a mechanism, with possibilities for further harmonising policies and instruments if politically desired and feasible. What is probably the most important is that member states are speaking to each other more systematically and are willing to act together on common issues. Up to now, it is the lack of dialogue at the political level and the resulting lack of mutual trust which have led to detrimental national initiatives in the European market.

^{36.} Ecofys, Driving regional cooperation forward in a 2030 renewable energy framework, 15 September 2015



2.5. The North Sea as a "casus aparte"?

North Sea energy is a long standing story in the field of oil and gas where a number of interconnectors and infrastructures are crossing the North Sea, each one with its own relevant policy and regulatory design, usually based on bilateral relations of countries concerned. Harvesting the wind potential brings a new challenge, especially since the increasing generating capacities that are projected or anticipated could be approached on an integrated basis, including connecting generators directly to existing or newly built interconnectors, instead of a single one-by-one on-shore connection.

Infrastructure interconnection models could also play a role in the further on-shore market integration developments, connecting the whole NS-area with the NW-EU power market. This would give the whole area also a strategic policy dimension that goes beyond the harvesting of wind energy only. This element could bring another political dimension to the NS-COGI process.

NS-COGI to date is still more an intergovernmental study-group from the member states, the NRAs and the TSOs than a common action group. Several pleas are made to give the whole process a wider political setting and focus. Some would argue that the different regulatory designs and support schemes of the NS-countries, including the EU regulatory framework, are a barrier for enhancing this wider cooperation. It may be useful to explore the possibility to set up a separate legal instrument, allowing specific solutions and arrangements. This could make the NS-energy development a "casus aparte", allowing efficient harvesting of the large off-shore wind energy potential, that will be critical for meeting the EUs ambitious energy policy objectives. The North Sea could well be a laboratory for innovative regional solutions or enhanced co-operations aiming at solving very specific problems like the creation of an integrated regional grid serving a dozen of countries. The time is ripe to raise the level of ambitions and to champion such a regional cooperation. Whether a specific structure like a Joint Undertaking (foreseen by the Treaty on the Functioning of the European Union in its article 187 to facilitate technological development) is required or whether it would be sufficient for the European Commission to be the facilitator of an in-depth cooperation of all parties concerned remains an open question today. But at the end an international binding agreement might be necessary to frame legally the project.

3. The National and subnational levels

The development of the internal market means in principle a lesser role for the national level. However, in the field of energy, it remains very significant, with some remains of the long-standing "prérogative régalienne" which is the privilege of sovereign states. On the other hand, one should realise that the developping internal energy market will make national policy initiatives more effective.

3.1. The reserved areas

Public and/or private ownership issues in energy-networks or the energy-industry is a national prerogative³⁷, of course always within the general rules of the EU-treaty (non-discrimination and competition policy).

Energy taxation is a de facto national prerogative, at least as long as unanimity is required to adopt any EU legislation. This may gradually change, however, because there are a number of compelling arguments to use energy taxation more as an instrument for energy policy and less for budgetary reasons, meaning that an energy legal basis using qualified majority voting could be used, instead of the taxation legal basis that requires unanimity.

^{37.} Article 345 of the Treaty on the Functioning of the European Union



THE IDEA OF A NATIONAL FUEL MIX POLICY WILL MORE AND MORE LOOSE ITS MEANING"

National sovereignty is unchallenged concerning the decision to explore and exploit, and at what pace, national energy resources. This does not prevent the exploitation of national energy resources, once decided, to fall under EU rules (licensing, environmental rules etc.). For instance, any EU member states is free to authorize or ban the exploitation of shale gas, but if an EU member states decides to exploit shale gas, then it needs to respect EU rules regarding, for instance, environmental protection in terms of water pollution. The issue of ban of export of such national resources, in the name of security

of supply, remains an interesting debate in some countries, although once exploited such resources should be subject to freedom of movement.

The most sensitive national policy domain in energy remains the decision on the national energy mix. This is rather surprising as all energy sources, be they fossil or renewable, are one way or the other part of EU energy policies. There is one exception which seems to justify this rule and that is the "nuclear issue". The Euratom treaty, part of the "acquis communautaire", commits the member states to promote nuclear energy for peaceful purposes, but as long as member states, that are using the nuclear option or not using it, are confronting each other for political reasons, a rational discussion at EU level on the energy mix is one "dead-on-arrival". But here again, one should be aware of the impact of cross-border developments, both physically and economically, leading to a diminishing effectiveness of national policies on the overall fuel mix. When cross-border markets and industries are integrating and EU-policies regarding the roles of individual energy-sources are further developing, including their potential regional implications, a "national fuel mix policy" will more and more lose its meaning. In practice, the present flows of electricity throughout Europe occurs without consideration for the energy sources and this is a physical law that human-made law may not amend, unless all electricity connections between EU member states are entirely shut down.

3.2. The gas and electricity retail markets

The question is today open whether the subsidiarity principle mentioned above could and should lead to limiting the EU's role in regulating energy retail markets and leave it as a national policy issue, even more so as retail markets do not generally have the cross-border characteristics and importance that wholesale markets have, as long as the retail prices are not regulated. The reality is that regulated prices is the rule in many member states today, with the non-innocent effect of protecting the incumbents against new entrants and of removing any price signal allowing for a more efficient use of energy or for future investments to be made.



This is in itself already an issue requiring amending national retail tariff structures. The question is whether it is sufficient to have an EU Directive requiring that all consumers have the right to choose their supplier anywhere in the EU and that they need to have effective arrangements for consumer protection, supply switching procedures, mechanisms for dispute settlement and complaints and for vulnerable consumers. Among consumers, there are the business customers and new service providers like aggregators willing to act cross-

borders. Then, to the question is to know to what extent should the detailed 'how and what' be left to national regulation and be subject to the effective supervision by the NRA's, provided their independence and sufficient resources to do so are guaranteed. The scope of the EU regulation needs to be redefined in the light of the most recent developments regarding demand side management or flexibility. If the rules are clear it does not mean that if there is a bordering issue in bordering regions, it could not be effectively settled between the bordering national or even subnational authorities. And when markets are facing barriers for new entrants (from inside or outside the country), there must be a robust remedy system to apply directly the EU market rules as well as the general competition rules. The first recourse there is the national regulator, and then the national courts. Should a need of interpretation of EU rules arise, it should be referred to the European Court of Justice which can deliver a preliminary ruling. It does make sense however to compare, monitor, discuss and learn from NRAs best practices. This is the now usual task of the Council of european energy regulators (CEER) that



has already in its mission statement to empower all consumers and to foster competition. And ACER has to report yearly on the implementation of the market rules in all member states based on the NRA's reports. While they have been largely left outside the third internal market package, the retail markets remain a sensitive point of further discussion. The recent consultation paper of the Commission on the market design and on a new deal for energy consumers identifies many issues related to the retail market which seem to require a European framework against which the retail markets should develop.

FIGURE 12 - Overview of regulated electricity prices in the EU (in 2013)

	Households	% households with regulated price	% of households with social tariffs***	SMEs
AT	No		-	No
BE	Yes*	8.4%	8.4%	No
BG	Yes	100.0%	0.0%	No
CR			-	
CZ	No		-	No
CY	Yes	100.0%	3.4%	Yes
DK	Yes	80.0%	0.0%	No
EE	Yes	100.0%	0.0%	Yes
FI	No	-	-	No
FR	Yes	93.0%	3.9%	Yes
DE	No		-	No
UK	Yes**	89.8%**	0.0%**	Yes**
EL	Yes	99.9%	4.4%	Yes
HU	Yes	98.3%	0.0%	Yes
IE	No	-	-	No
IT	Yes	80.0%	3.3%	Yes
LT	Yes	100.0%	0.0%	No
LV	Yes	97.3%	9.7%	No
LU	No	-	-	No
MT	Yes	100.0%	12.4%	Yes
NL	No		-	No
PL	Yes	99.5%	0.0%	No
PT	Yes	90.2%	1.4%	No
RO	Yes	100.0%	13.3%	Yes
SK	Yes	100.0%	0.0%	Yes
SI	No		-	No
ES	Yes	59.4%	9.5%	Yes
SE	No		-	No

^{*} BE: household with special needs only have regulated prices; ** UK: prices are regulated for households (90%) and SMEs in the Northern Ireland only; *** Households with social tariffs are part of the regulated segment. The definition of households with special needs varies across Member States.

Source: ACER/CEER (2013); European Commission services

Source: Asa J. Linden and all., 'Electricity Tariff Deficit', European Commission Economic Papers, n°534, October 2014

3.3. The decentralised energy production

Policy development and implementation with regard to local and decentralized sustainable energy supply options always have site-specific elements. Heat-markets and smart energy services require tailor-made solutions. They are all areas for national and subnational policy, subject to the general framework and objectives set at EU level, as expressed by the European Council and translated into binding instruments, such as the reduction of GHG, the promotion of renewable and energy efficiency. Introducing, for instance, real-time pricing in order to expedite the increasing shares of variable RES in the systems and the netting and/or banking of individually or collectively produced renewable sources of electricity are part of that. From decentralised



perspectives, discussions will have to follow on where to put the balance between the regulated and non-regulated segments in the value chain, including issues on system reliability and generation adequacy. Enhancing the roles of the Distribution System Operators (DSOs), in accordance with the general EU market rules, including the possibility of specific well-defined pilots with exemptions do not need a more specific EU regulation. Where cross-border issues are at stake, a regional approach (again) could well be the best way out, be it a cooperation between national or subnational authorities.

3.4. Infrastructure development

Energy infrastructure development, planning, regulating and financing, both at TSO- and DSO-levels, are generally taking place in a national context, even if the 2013 Infrastructure Regulation prescribes specific processes and deadlines for acting. This includes siting, licensing and NRA-decision-making. When cross-border issues are at stake, which is usually the case for interconnecting TSO-developments, the general EU framing with the ENTSOs and the PCIs, will prevail, where in a number of cases regional approaches are leading. However, experience shows that agreeing on cross-border issues may be facilitated if there is a remedy in case of disagreement. This is for instance one of the competences of ACER, which could be reinforced in some cases.

3.5. Energy efficiency



Energy efficiency, energy saving, energy intensity, and energy conservation are policy headings that will always be an important part of national energy policy, although it does not mean that member states should not be actively seeking an improvement of their national situation. Indeed, the most recent debates on energy efficiency at EU level highlighted the need to act to moderate demand as it would enhance the security of supply of everyone and the EU as a whole. Applying the spirit of solidarity to this action means that should you count on your neighbours in case of scarcity, it supposes that you are not com-

placent with your own obligations. Solidarity is not free riding. In this respect the level of energy efficiency within the EU varies considerably and requires each member state to address seriously the issue. Member states have all their different approaches, based on the different energy demand structures. Sometimes quantitative targets are used as a policy-focus, with complex statistical calculations and interpretations which are far from being harmonised at EU level. Global energy demand or energy efficiency targeting at national levels remains difficult to monitor and assess, a reason too often invoked to refuse any common EU discipline. National approaches could be effective, where energy-intensity or energy productivity is used as a relevant indicator, even allowing some cross-border elements.

The internal market as a leading paradigm justifies fully setting harmonised energy efficiency norms and standards for all sorts of tradable appliances at the wide EU-level. The Ecodesign-model³⁸ is a successful example for this. In contrast with this market, the building stocks are not traded, including houses, apartment-buildings and all other sorts of estate and fixed assets, industrial installations, also when they are generating steam and electricity or processing fuels, setting energy efficiency standards and policies in these domains seems more efficient if it is done at national levels. However, setting energy performance benchmarks for buildings at EU level, as it has been decided in 2010³⁹, is also meaningful not only to improve the quality of construction materials EU-wide but also to make everyone aware of the importance of energy efficient buildings, as buildings represent more than 40% of the EU energy consumption. It makes sense in addition to organise at EU-level a process of sharing information and best practices, even helping and facilitating national capitals to make the relevant choices. And EU has been particularly active in the recent years to promote new financing

^{38.} European Union, Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products

^{39.} European Union, Directive 2010/31/EU on the energy performance of buildings



means to accelerate the process of modernisation of buildings and of financing efficiency. Structural funds, specific funds and EIB are spending more and more to this effect.

Energy efficiency should also be part of the agenda discussed at the Interreg-levels such as the Covenant of mayors and their Smart cities projects. Considering also that the wider civil societies and all sorts of local communities and cooperatives are becoming directly involved in decentralised energy and electricity, policy-making and policy-governance will become more and more important. This process could potentially lead to a fundamental shift in the prevailing business models in the energy sector, and is therefore in line with the fundamental transformation of the energy sector that is also mentioned as a policy objective in the Energy union. Careful and effective monitoring and assessing these developments at EU-level is therefore a relevant feature and could also be part of the independent EU Energy Information Service, mentioned earlier in this paper.

3.6. The sub-national inter-regional levels

At the level of sub-national regions, cities and local communities, many things are happening as they also wish to develop their own sustainability agendas. Some of these regions are also extending in a cross-border context, where borders are not physical geographical barriers. Some instances of cooperation are well known: the DE/NL/B area around Maastricht, the FR/DE Alsace-Rhine region, the NL/DE Eems area etc. Agenda setting and developing in these areas is based on the respective national instruments and their possible extensions to the wider regional levels. Sub-national Inter-regional-levels could further require tailor-made solutions and approaches. Exchanges of information and best practices should take place. The existing platform of the Covenant of mayors is one example, but others may be developed as well. The European Commission may facilitate these exchanges, even helping and promoting specific and detailed sub-national interregional cross-border solutions and support, allowing also free-zone pilots where necessary. These could include specific RES-projects, energy-saving and heat-infrastructures, setting up specific funding, managing and governance models, including for inter-DSO projects. This is particularly the task of the regional development policy of the EU which provides for several instruments including financial ones, to steer such inter-regional cooperation.



CONCLUSIONS

he energy sector is evolving fast, with a new definition of the roles for all the players and particularly the customers, and with the technological development in the form of new sources of energy and intelligent devices at all levels.

The old paradigm of a supplier driving the whole supply chain to the customer is being replaced by a multiplication of suppliers, infrastructure managers at multinational, national and regional levels and customers who are also becoming producers.

Between centralisation and decentralisation of production, new players are coming in the market to provide new services helping to make the best possible use of energy.

Matching supply and demand in real time remains the rule of the game but the process is changing.

COMBINING THE
STRENGTHS OF EACH AND
EVERY MEMBER STATE IS THE
BEST WAY TO MITIGATE THE
WEAKNESSES OF EACH ONE
AND TO REINFORCE ALL"

Security of supply is not anymore a narrow national concept justifying all kinds of short-term measures and denying the European reality which is one of interdependence as the increase of cross-border flows of electricity and gas demonstrates.

WEAKNESSES OF EACH ONE In addition combining the strengths of each and every member state is the best way to mitigate the weaknesses of each one and to reinforce all. This is where citizens may expect the word "solidarity" to be meaningful.

Finally, climate objectives which are common to all of us are putting more constraints on the energy sector which has to cope with its modernisation and the objectives set at higher level. These changes and constraints are also offering loads of opportunities to the economy.

More than ever, the role of each level, European, national, regional and local is being questioned to assess the most effective way to regulate and accompany the process of modernisation of the energy sector with a forward looking climate policy.

This paper discussed the various elements to be taken into account, in the light of the last ten years development of the EU energy and climate policy and it analysed the most recent trends as expressed under the Energy union project launched by the European Commission in February 2015.

This paper was particularly inspired by the numerous initiatives taken in 2015 by groups of member states with or without the involvement of the Commission to address common issues, usually in the field of cross-border and regional infrastructures development or even in the more controversial area of energy policy definition, including energy mix. These initiatives can only be welcomed as they express the new awareness of the member states to act together and to share common solutions to common problems. These initiatives have to respect the EU rules but should not be prevented to go beyond the existing rules and to design and test new solutions, provided they remain in line with the EU framework. For instance, defining common methodologies for the generation adequacy or for energy efficiency assessment can only be beneficial for all the other member states. Inter-governmental arrangements can serve as pilots for further integration of the energy policies and become models for further binding EU rules, should they prove helpful. The Community method, that



implies a key role given to the Commission, the member states (via the Council) and the European Parliament, should of course remain the rule when designing rules for the whole EU.

Articulating the European, regional, national, and local levels in the field of energy is a crucial undertaking which requires that the right channels of information between these levels are used to ensure the best possible exchange of information and mutually reinforcing measures. EU is there to create a coherent regulatory framework, setting the scene within which the regional, national and local levels may implement the most appropriate policies and measures according to their specificities.

To achieve our energy and climate objectives, which are now set by the European Council, requires the mobilisation of all political authorities, at all levels, together with all the players including the citizens/consumers. The task is sufficiently important and ambitious to be as exciting as challenging. It is more than ever time to work all together in the same direction, in a pragmatic and efficient way.

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ENERGY TRANSITION BY 2050: A MULTIFACETED CHALLENGE FOR EUROPE

Sami Andoura & Clémentine d'Oultremont, Policy Paper, Notre Europe - Jacques Delors Institute, May 2012

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