
**The Last-ditch Attempt to Build
the Energy Union:**
Three questions for three observations

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Abstract

Nearly one year after the presentation of the Energy Union project, while 2016 promises to be a critical year for its implementation, what is the status of this flagship project of the Juncker Commission?

Analysis of each of the three dimensions of the Energy Union project – strategic, political and economic – leads to scepticism about the ability to re-establish a climate and energy policy which actually works.

Internationally, the Energy Union in its inception like in its ambitions, is marked by the return of geopolitics. It makes a welcome break from the disconnected and idealistic approach to international realities which characterised the climate and energy policy up to now. However, is it a response commensurate with the ongoing geopolitical upheavals? If the very principle of reconnecting with international realities is achieved, sound diagnosis of the upheavals at work is still missing. In particular, the re-emergence of the United States as the sole global energy power, or even the fundamental changes in the oil and gas markets with the emergence of unconventional hydrocarbons would deserve careful monitoring. The adapting and modelling of the impact of geopolitical developments on Europe is still missing.

Politically, the Juncker Commission's ambition must be welcomed for leaving major ideological debates behind and taking action, while maintaining dialogue and promoting support. The proactive approach and the renewed governance of the climate and energy policy are necessary to counterbalance the centrifugal forces at work which put the very principle of an enhanced European energy policy at risk, because who really wants the Energy Union in a Europe which combines a revival of nationalism and urgent crises, tipping the energy issue between the exclusive preserve of the Member States and an afterthought at the major European summits? Moreover, positions are becoming tense in some Member States who are even rejecting the very principle of energy transition. Finally, new irritants are occurring, such as the Nordstream 2 gas pipeline project, without the fundamental differences in the relationship with Russia having been resolved or the objectives of electricity market reform fulfilled.

The Energy Union is ambitious in its economic component, without clarifying its ability to restore confidence among investors and calmness among consumers. The carbon market reform is not convincing, while that of the electricity market will bring up the great

debates between regulation and market, 20 years after the initial directives on liberalising the energy markets in Europe. Yet, while the European Union is struggling with the definition of its market model and risks getting lost in debates, still too often tainted by ideology, *big data* is advancing in all sectors including energy. Where is the digital revolution in the Energy Union? Who will implement it when the large European *utilities* are bled dry, and when the American Internet giants are in a position to choose how they will change the sector completely?

Everybody wants the Energy Union, but everyone can define it according to their interests, as it has a variable geometry. This plan will fail if it is only a war machine against Russia. What Europe needs is a pragmatic project. The European Union must find its own shale gas revolution, that is to say a policy which ensures its energy security, strengthens its economy, and which allows it to play an appropriate role against climate change, without reducing its freedom of action in the world, but rather increasing it. Otherwise, the European Energy Union will be in the world what it was at the COP 21: voiceless and paralysed.

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Introduction

"It is not because things are difficult that we do not dare; it is because we do not dare that they are difficult." Seneca

"I want to reform and reorganise Europe's energy policy into a new European Energy Union."

It was with great ambition for energy in Europe that, just after his appointment, Jean-Claude Juncker laid the foundations for his term of office as Head of the Commission. Nearly one year after the presentation of the Energy Union, and when 2016 promises to be a critical year for its implementation, what is the status of this flagship project of the Juncker Commission?

Since its launch, the European Energy Union project has generated much comment and debate, and even accusations, which at worst, call it political marketing and recycling of existing measures and, at best, give it the benefit of the doubt.

This reception, tainted with scepticism, is explained by the combination of three factors: the state of the European energy policy, the state of Europe, and the very nature of the Energy Union project. The first was in a shambles from the Barroso years, for reasons admittedly related to the international situation, but also largely to political mistakes made in Brussels and in the Member States¹. As for the European project, there is no need to dwell on the general state of the EU at the beginning of 2016 which offers only one certainty to Europe: the challenges of the coming months will at least be as many and acute, or even existential, as those of 2015. Finally, the difficulty in identifying the Energy Union project may give rise to doubt: with its

1. We are referring to our study on the results of the climate and energy policy for the years 2008-2014: Cécile Maisonneuve, "L'Europe et l'énergie, un contrat à refonder d'urgence", *Note de l'Ifri*, May 2014. We highlighted its triple failure, due both to mistakes made by the European bodies and by non-co-operative policies followed by the Member States: the loss of EU competitiveness in terms of energy prices; putting energy security at risk because of a market model no longer returning correct price signals to investors; and a failure to take into account the international realities which pushed Europe to race ahead on environmental issues.

five components – supply security, a fully integrated internal market, energy efficiency, emissions reduction, research and innovation –, the Energy Union is presented as such a broad subject that everyone may find what he seeks there. Who can be opposed to a project which "will enable Europe to have a safe, affordable, climate-friendly energy," according to the official definition²? In other words, everyone is wondering if the plasticity of the Energy Union is not inversely proportional to its effectiveness.

What are the conditions for success for the Energy Union?

The first refers to the soundness of the project: does the Energy Union ask the right questions and does it understand the energy issue correctly? Acknowledging the failure of the policy conducted between 2008 and 2014 is one thing; having a sound analysis of the causes which prompted it is another. Yet the post-mortem autopsy of the energy policy of the Barroso years is not an exercise in style; it is the *sine qua non* condition so that the Juncker project does not carry the seeds of failure in its very design. Even more so by virtue of the bias: registering the Energy Union not in rupture, but as a continuation of the previous policy. In fact, when the purpose is to "reform" and to "reorganise", the Energy Union does not claim to leave the past behind but accepts the legacy. President Juncker's words demonstrate this: it is not a question of re-establishing or changing.

The second condition of success naturally refers to the relevance of measures that it proposes, a concept which both raises the question of the intrinsic coherence of the Energy Union project, but also, if not more so, that of its extrinsic coherence. This question is not insignificant as the global energy scene has been experiencing a succession of profound changes since 2008: re-emergence of the United States as a large energy power; historic crisis in European energy demand; surge of renewables in the entire world; fundamental changes on the oil and gas markets with the emergence of unconventional hydrocarbons; *big data* revolution which is dramatically changing the value chain in the energy sector; structural crisis in the Middle East since the Arab Spring; universal awareness of the climate emergency; questioning of the Chinese development model; and the end of the thirty-year commodity super-cycle.

The last issue is undoubtedly the most complex: does the Energy Union have the right political ecosystem to succeed? Talking of a union effectively comes down to positioning the subject of energy as a political project with strong federalist overtones – the

2. For more information: <http://ec.europa.eu/priorities/energy-union/index_fr.htm>.

reference which comes to mind is obviously that of the United States. Just a few years ago, this question would have been framed in terms of maturity: is Europe mature enough to form an Energy Union? Today, in the context of a Europe exhausted by the financial crisis, the economic crisis, the debt crisis, the Greek crisis, the Ukrainian crisis, and now the refugee crisis, the relevant question is more radical: can Europe still achieve an Energy Union project?

To address these three questions, we will examine each one of the three dimensions of the Energy Union – strategic, political, and economic – by analysing the changes recorded in relation to the previous period and by assessing the relevance, impact, and feasibility of the stated proposals.

The strategic dimension of the Energy Union: reconnecting Europe with the world

2015 may have been the comeback year for geopolitics in Europe. The European Union is rediscovering that "history is tragic" (Raymond Aron). After the Ukrainian crisis broke out in 2014, which it is important to emphasise has not led to a major energy crisis, the refugee crisis is a shock. For a European Union founded on a post-Westphalian concept of international relations where the contract and compromise replace the use of force, it is a harsh awakening.

The Energy Union in its inception like in its ambitions is marked by this return of geopolitics, making a welcome break with the disconnected and idealistic approach to international realities which characterised the climate and energy policy up to now.

A belated but expected connection to the international energy realities

The Energy Union makes a break in relation to the Barroso Commission's climate and energy policy, which stood out through its large disconnect vis-à-vis international energy realities. Under the pretext of being a pioneer and leader in climate issues, the European Union refused to take note of the international upheavals between 2008 and 2014 which completely challenged its approach, whether it was the failure of Copenhagen, the economic crisis, or the American energy revolution under the impact of unconventional hydrocarbons. In accordance with an irenic approach to international relations, the best-in-class European policy, both for climate and for renewable energies, was supposed to bring other major world players in its wake.

The Ukrainian crisis sounded the death knell of this approach, which was already weakened by the economic crisis and the European stalling in terms of price competitiveness in energy. The call for a return to *Realpolitik* came from Poland. When the Polish Prime Minister, Donald Tusk, said in an article published by the

Financial Times on 21 April 2014³, that "the European Union should create an Energy Union with a view to securing gas supply as the current dependence on Russian raw energy materials is weakening Europe," he laid the foundations for the project then taken up by Jean-Claude Juncker.

Doubtlessly the Energy Union presented in February 2015 by the new Commission is far from Donald Tusk's initial proposals, particularly with regard to gas purchasing methods. However, the fact remains that the EU's energy policy is finally considered in its geopolitical dimension, beyond the sole issue of dependency rates. The European Union is no longer presented as an autonomous reality, whose action is only measured by targets and internal objectives, but as an entity whose political choices enhances or weakens it on the world stage. After five years of a short-sightedness on this point, this state of affairs is clearly recognised by the Communication on the State of the Energy Union published on 18 November 2015⁴: "The geopolitical events that occurred in the immediate vicinity of the EU in 2015 warrant that energy remains one of its top priorities."

In this regard, the Commission also announced proposals for a review of the regulation on gas supply security and of the decision on the information exchange mechanisms for intergovernmental agreements, as well as a new strategy for liquefied natural gas and for storage for February 2016. The concurrence of these projects with the Dutch presidency, as the Netherlands is experiencing a historic reduction in their gas production⁵, should promote a powerful political momentum around these projects.

Is the Energy Union a response commensurate with the ongoing geopolitical upheavals?

It took unprecedented pressure since 1945 on the eastern and Mediterranean margins of Europe, for it to be remembered that energy systems are global systems and an energy policy blind to international development is doomed to failure. However, is the Energy Union the right instrument to deal with this situation?

Compared to April 2014, at the time when Poland outlined the premises of the Energy Union, and even compared to the actual launch of the Union in February 2015, the international energy scene

3. For more information: <www.ft.com>.

4. Communication de la Commission COM(2015) 572, "État de l'union de l'énergie 2015", p. 2.

5. See Marie-Claire Aoun and Sylvie Cornot-Gandolphe, "L'Europe du gaz à la recherche de son âge d'or?", *Études de l'Ifri*, Paris, Ifri, October 2015.

has changed again. At the beginning of 2016, ten trends are structured around the geopolitics of energy:

- re-emergence of the United States as a large energy power;
- historic crisis of European energy demand;
- massive expansion of renewables all over the world;
- fundamental change in the oil and gas markets with the emergence of unconventional hydrocarbons;
- *big data* revolution which is drastically changing the value chain in the energy sector;
- structural crisis in the Middle East since the Arab Spring;
- universal awareness of the climate emergency, marked by the adoption of the Paris Agreement in December 2015;
- questioning of the Chinese development model based on coal in the area of energy policy;
- questioning about the end of the 30-year commodity super-cycle.

The previous Commission's climate and energy policy lacked resilience against the upheavals of the global energy scene and a failure to understand the impact of the changes of the international energy scene on Europe. Admittedly this connection is established today, however has this diagnosis of the state of the global energy scene really been conducted? Where is the observatory of the global scene ? Where is the analysis of the phenomena at work and their possible impact? Adapting and modelling of the impact of geopolitical developments on Europe is still lacking in the European Union.

Let us consider three of the trends described above:

- ✓ The re-emergence of the United States as a large energy power. The United States, without having become independent in terms of energy as is too often said, has with the shale oil and gas revolution, nevertheless experienced a very sharp fall in their oil-related dependency rates (they are exporters in other areas), which is around 27 %. The development of their domestic oil and gas domestic production has driven energy costs down. Furthermore, they are developing ambitious policies for renewable energy and are continuing to devote substantial budgets to their nuclear industry⁶. The United States is the only political entity to be a global energy power.
What is the consequence of this upheaval on the economic and strategic relationships between the European Union and the United States? How can the competitiveness gap be reduced? To what extent could an "American umbrella" contribute to Europe's gas security, like what exists in the military field? Is it not the case of the eastern European countries, who think of the development of liquefied natural gas as an additional protection against Russia, by analogy with what they have built in the context of NATO?
- ✓ Fundamental change in the oil and gas markets with the emergence of unconventional hydrocarbons. The so-called "shale gas" revolution is still in progress. First described in Europe as a flash in the pan, then as a phenomenon which was not going to withstand the fall in oil prices, it is much more resilient and complex than expected. In particular, the dynamics of the falling costs have been notoriously under-valued. Indeed, the change is structural. As Olivier Appert emphasises, "Nowadays, the paradigm of the oil market has fundamentally changed. The Gulf kingdoms want to maintain their market share, while the global crude supply exceeds demand by 1 - 2 million barrels per day. This new situation is the direct result of the explosion of shale oils in the United States. In recent years, the equivalent of a new Norway has been brought into production in the United States every two years!⁷". Certainly, the oil market is cyclical and will regain its equilibrium. However, everyone senses that the new cycles are longer and that in the meantime, the oil depression will fundamentally restructure the sector, or even, in weak countries that are too dependent on oil revenues, be reflected by social and

6. The 2016 Finance Act provides for a 9 % increase in resources devoted to research and to the nuclear sector regulator, or 986 million dollars.

7. Olivier Appert, "L'OPEP existe-t-elle encore?", *Édito Énergie*, Paris, Ifri, 15 December 2015, available at: <www.ifri.org>.

political crises that may potentially destabilise the regimes in place⁸.

This change of paradigm in the oil markets has not finished producing results, which will necessarily be felt in Europe, being one of the largest import markets of oil and oil products. What do the historically and persistently low oil and gas prices mean for the EU? How do they raise the already massive cost of energy transition?

In a Brussels context, which is experienced as post-modern and therefore post-hydrocarbon, these critical issues are not on the agenda. However, though everyone agrees on the goal of a decarbonised economy, the matter of the path to this goal is crucial.

Yet, in the transition period that we have started, hydrocarbons are still the dominant reality of the energy scene and of economic life. Therefore, it is urgent for the EU to develop a geostrategic approach that may enable a more informed management of its actions and projects. This entails a dispassionate and unprejudiced look at the oil markets where innovations at least as important as in the renewables sector are at work. Much work needs to be done in this regard. Reading the Commission's communication from February 2015 presenting the Energy Union project reveals a deep misunderstanding of the phenomena at work: "We must abandon the economic model based on fossil fuels, where the energy issue is based on a centralised approach, centred around supply, **which relies on old technologies and out-of-date business models.**"⁹

This statement is a contradiction. The primary objective of any energy policy consists in maintaining or reclaiming some room for manoeuvre. The United States is admittedly the country of the shale oil and gas revolution, but it is also developing ambitious policies in the renewables and nuclear sectors. Their energy

8. See Marie-Claire Aoun about oil prices and the specificity of the current cycle, "Une nouvelle ère d'abondance pétrolière?", *Politique étrangère*, n° 4/2015, Paris, Ifri, p. 65-76.

9. COM 80 (2015), Paquet Union de l'énergie, "Cadre stratégique pour une Union de l'énergie résiliente, dotée d'une politique clairvoyante en matière de changement climatique", 25 February 2015, p. 2 (we have added the bold text).

transition is really on the move: it is all the more credible as the historic decision taken by Congress in December 2015 to allow crude oil exports will not only provide new outlets for American oil producers, but also enable the country to benefit from a windfall to fund support for renewables, which was decided at the same time by Congress. Carbon dioxide emissions from the electricity generation sector reached their lowest level in the United States for 27 years in April 2015, the first month in the country's history where more gas-based than coal-based electricity was produced¹⁰. "Compared to April 1988, the month when the last lower limit for emissions was measured, the quantities of electricity generated were 44 % higher, but the emissions have only increased by 4 %, reflecting the development of the electricity mix, explains the EIA (Energy Information Administration). Gas consumption has tripled since then, that of RES has doubled and that of the nuclear sector has increased by 47 %. Coal consumption has declined by 17 %."

The United States reminds us of the obvious: a resilient energy policy is a policy based on diversifying the sources of supply.... and production. Would Europe, in all its diversity, not benefit from taking inspiration from another union which has succeeded?

10. *Enerpresse* n° 11467, 29 December 2015.

The political dimension of the Energy Union: recreating a fresh impetus

Jean-Claude Juncker's stated ambition to "reform" and "reorganise" the European energy policy barely conceals a double questioning of the results and governance of the previous Commission's climate and energy policy. Above all, the Energy Union is no revolution or overhaul of the European energy policy, but rather a political instrument, a method of governance which intends to restore coherence to a disparate group.

The political will is indeed present on the Commission's side, but is it shared by the Member States? Who wants the Energy Union in Europe in 2016?

A political instrument for renewed governance

The revolution of the European energy policy may not take place. The Energy Union is not a disruptive project, but is intended as the project of a Commission which supports and guides the transition, rather than an omnipotent Commission which knows and imposes. The objective is really to resume dialogue between the parties involved according to a partnership approach, in line with the treaty which makes energy a shared jurisdiction.

For evidence of this approach in continuity, the following points, announced both in February 2015 during the "Energy Union" package presentation, as in November on the occasion of the initial Communication on the State of the Energy Union: the objective is first to implement and uphold the existing. It is not the time for major ideological debates but action. Hence, the emphasis is put on the need for the Member States to contribute more to market integration.

It is in the project governance that the innovative approach of the Juncker Commission on energy and climate fits best. The embodiment of the Energy Union at a high political level represented a message in itself, even before the publication of

the project's contents. The years 2008-2014 saw the unproductive infightings between General Directorates brought to their head, especially because of the split between the Climate Action DG and the Energy DG. The merger of these two Directorates, as well as the appointment of a Vice-President to the Energy Union under the President of the Commission, now clearly positions the Energy Union. It is not an Energy DG project, but an approach by the Commission as a whole, at the very highest level and intended to be deployed throughout President Juncker's entire term of office. This embodiment of the project, together with the educational approach adopted by Vice-President Sefcovic, who has promoted the project in all the European capitals, is clever. It was necessary to show the Commission's willingness to re-inject the political vision in a subject which could seem monopolised by technicians without strategic vision. It was necessary to re-align European policy with national policies. This has now been done.

The approach of reconnection between the Commission and the Member States also involves establishing a shared grammar and language. The Annexes to the Communication on the State of the Energy Union of November 2015, including the construction of the monitoring indicators framework, represents real progress in this direction. Similarly, the recurrent practice of publishing a State of the Energy Union reflects the desire to find the right speed for reforms, to pace the action, to "re-create an impetus" and to make all Member States move forward at the same pace in dialogue and transparency.

Who wants the Energy Union?

The proactive approach and the renewed governance of the climate and energy policy are not only clever; they are necessary to counterbalance the centrifugal forces at work, which put the very principle of an enhanced European energy policy at risk.

2015 alone was enough to lay the foundations of the problem. Nearly a year was needed to promote the project and define the programme, both in its content and its timing, as the Energy Union is an ambitious programme¹¹. In the best case, the entire term will hardly be sufficient to implement the planned measures, including the key measures – reforming the emission permit market, also scheduled to only take effect in 2019, reforming the electricity market model and upgrading the eastern European gas market. Time is the enemy of the Energy Union project and its ambition is its weakness.

11. See the third part of this paper, p. 19.

Since, apart from the non-alignment of the Member States on background issues, the context is unfavourable for carrying out an ambitious project, which cannot succeed without President Juncker's personal political involvement.

The political arena of the Energy Union is firstly restricted by the growing influence of nationalist governments in the EU, where the energy issue is certainly, with that of borders, the most likely to feed tensions and deadlocks as they are closely related to sovereignty.

It is then eroded by the increase in urgent crises which the European Union faces. If the climate and energy policy conducted under the Barroso Commission has failed, it is also because, from European summit to European summit, energy has continuously been referred to the second rank of priorities. At a time when the financial and the Greek crisis were the main emergencies, the issue of the competitiveness gap between Europe and the United States because of energy prices did not appear as a top priority. In 2016, which opens with the double emergency of the refugee crisis and terrorist risks, which are weakening the fundamental achievement of European integration relying on the free movement of people, there is a little doubt that the Energy Union will take second place. Not to mention the shock that "Brexit" would represent. When the very essence of the European project is at risk, negotiating about complex and often technical issues governing the construction of Europe's Energy Union, is not attractive to governments seeking to maximise the political capital they have.

The political arena conducive to conducting the Energy Union project is moreover threatened by the concurrent deployment of national energy transition policies in a certain number of countries, starting with the main ones – France, Germany, and the United Kingdom. Yet, firstly none of them were designed in a European context; secondly they are absorbing significant financial resources. This lack of co-ordination of energy transitions is weakening the European institutions. The only way to remedy it involves the introduction of consistent price signals and a network infrastructure favouring the integration of national policies – at least the first two of these conditions is far from being achieved¹².

Finally, some large countries in the EU are adopting increasingly tense stances against the very principle of energy transition. Even though it promoted the Energy Union because of its concerns about supply security, nonetheless Poland's hackles rise when it is a question of the EU's decarbonisation targets policy.

12. See the third part of this paper, p. 20.

Interestingly this hardening not only involves the national politicians, but even affects Polish politicians at European level, including at the highest level. Recent statements by Jerzy Buzek, – Polish – President of the Committee on Industry, Research, and Energy at the European Parliament, Prime Minister of Poland from 1997 to 2001 and then President of the European Parliament from 2009 to 2012, are indicative of this hardening. Emphasising, at the heart of the negotiation of what is nowadays the Paris Agreement that "Poland should use coal, because it is a resource we have plenty of"¹³, was clearly far from the EU's objective of appearing as a leader in the fight against climate change... Some things kept quiet for a long time are now being said officially.

The fact that a part of the Polish political personnel are clearly laying their cards on the table on energy matters says a lot about what is left unsaid and the ambiguities surrounding the Energy Union project.

If Poland is clear and transparent on this topic nowadays, it is certainly for reasons of domestic politics. It is also because it has the political and diplomatic arena to do so. Firstly, because in recent years it has won its place among the large countries in the Union, and now appears to be strengthening its position in Brussels: both the European elections and the Ukrainian crisis have confirmed the strength of its European position. Then, because by showing favourable positions and policy towards both coal and nuclear power, the country is highlighting quite a few of things left unsaid.

The first thing left unsaid concerns the role of coal as a sustainable cornerstone of the energy transition of quite a few European countries, starting with the largest of them, Germany. By defending the role of coal, Poland is therefore serving the cause of its large neighbour as much as its own – a large neighbour which currently remains discreet about this issue which is a source of heated debate, while it is becoming clear that the coal and lignite power stations are *bridge technologies* to the post-carbon economy which Germany aspires to build¹⁴... The second thing left unsaid concerns nuclear energy. In this regard, it is France which is expressing interest in the Polish pro-nuclear speech.

13. "Let's Not Be Hypocrites About Coal", Interview with Jerzy Buzek, Euractiv, 7 December 2015, available at: <www.euractiv.com>.

14. Hence, according to the German Energy Suppliers' Associations and Economic Institutes' group, AGEnergiebilanzen, energy consumption should increase by 1.3 % in 2015. In terms of CO₂ emissions, 2015 should be contrasted with 2014, which saw German emissions fall for the first time in three years, helped by a substantial reduction in energy consumption. Electricity generation from gas should also fall by 7 % in 2015. Coal consumption for electricity generation purposes will only fall by 0.8 % As for lignite, it remains stable.

Indeed, the Polish positions really have a political value which exceeds the country's borders...

As for the ambiguities, they are coming to light: where the central and eastern European states, which are most exposed to the risk of a disruption in the supply of Russian gas, see a safety shield in the Energy Union, the Commission, like the Member States, is making it an overall project in line with the climate and energy policy.

In other words, everybody wants the Energy Union, but everyone can define it according to their interests, as long as it has a variable geometry. To be honest, perhaps the EU's plasticity is the only way to move forward in this minefield. After all, what is the regional co-operation, particularly between regulators, advocated by the Juncker Commission in the Energy Union project, if not a way of acknowledging that the European countries are not at the same level of maturity and cannot move forward at a single pace...

In such a context, a power struggle is inevitable. You only have to refer to the report published on 15 December 2015 by the EU Court of Auditors. It reiterates that the European Union's objective in realising the internal energy market for 2014 was not achieved and that additional efforts are required to improve energy security. The Court's conclusion is clear: the first of its recommendations suggests that the Commission initiates infringement proceedings, if necessary, against the Member States before the end of 2016.

The pessimists may even consider that the Energy Union is already largely stillborn, at least in its component dedicated to energy security, even though it is the origin of the project. Indeed, 2015 showed that the union does not have the ability to play a significant role in the matter. The combination between, on one hand, announcements by the Commission and Council about energy diplomacy, and on the other, the announcement of Nordstream 2¹⁵ sound like a cruel reminder of this reality: energy security remains the preserve of the Member States.

Moreover, this announcement is opening up deep divides between the Member States: Slovakia and the Czech Republic, already worried about the loss of royalties related to gas transit, are bypassed, like Ukraine. Italy is challenging the "double standards" which would exist, while it was forced by the European Commission to cancel a similar agreement - South Stream – because of sanctions taken against Russia after the crisis in Ukraine. Though he cannot be biased in his role as President of the Council, the instigator of the Energy Union, Donald Tusk, has pointed out that "it is difficult to explain to the southern countries why South Stream is not possible

15. An agreement signed on 4 September 2015 at the Vladivostok Forum between the major European companies - E.ON, BASF via its subsidiary Wintershall, Royal Dutch Shell, OMV and Engie - and Gazprom to increase the gas transport capacity between Russia and Germany via the Baltic Sea.

and Nord Stream 2 is." Clearly, this episode will continue to create a stir in 2016. Italy and the central and eastern European countries are in the process of building a united front to ask the European Commission to carefully check the acceptability of the Nord Stream 2 project compared to what was zealously applied by Brussels in the case of South Stream.

The economic dimension of the Energy Union: restoring confidence

The years 2008-2014 have left the European energy companies drained. 2015 further accentuated this trend with a historic fall in electricity, gas, oil and coal prices. Combined with the state of the demand and its forecasts, the state of the European energy markets with excessive capacity, has *de facto* a simple consequence: no investment is profitable today in the European market. Only projects supported by governments can be implemented.

This observation is worrying. It is companies which will invest in the energy transition. The internal energy market was also intended to establish major transnational actors. Therefore, their weakness is not good news when major investments are needed to transform the EU's energy system.

This concern is present in the Energy Union project, which in substance is meant to be like a realistic project, capable of getting a failing policy back on track. Does it have the means to restore confidence among investors to enable them to build the energy world of tomorrow?

Awareness of the emergency: an ambitious programme

The reformist ambition of the Energy Union is great: no less than 43 legislative measures form the project roadmap by 2019.

In 2016, three measures should represent 90 % of the legislative programme.

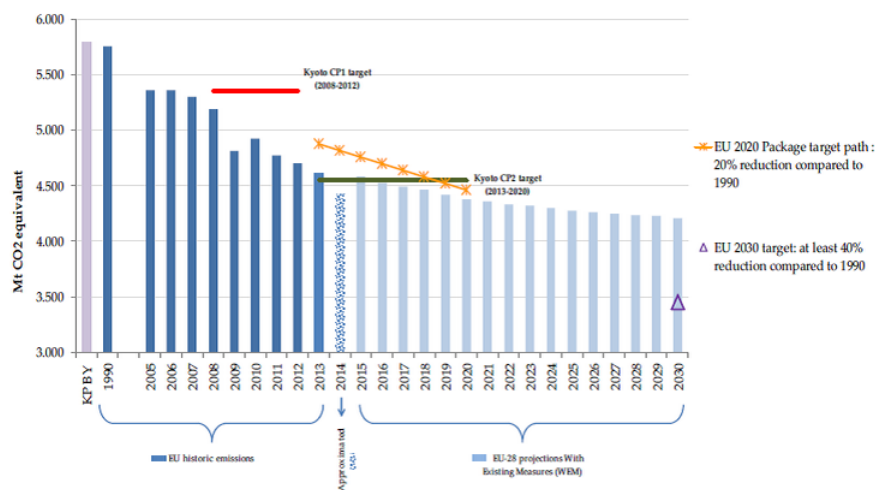
The first package which should be published in February 2016 affects gas. Revision of the regulation on gas supply security, on liquefied natural gas strategy and a new decision on the intergovernmental supply agreements: the objective of reducing dependence on Russian gas is stated, supported particularly by an infrastructure development programme, intended to diversify supply routes.

The second package, which should be presented in the summer, concerns the reduction targets in greenhouse gas emissions and particularly their distribution per Member State. They will be set according to the national energy mix and the efforts already achieved in the context of the "3x20" policy.

Finally, in the Autumn the Commission should present its proposals for the electricity market model and a renewables directive, particularly given the set target of 27 % of energy produced from renewable energy in 2030 by all of the European Union.

It will be recalled that in 2015, the reform of another fundamental section of the European climate and energy policy was initiated. In July 2015, the Commission presented its proposed reform of the EU emission trading scheme, which will be effective in 2019. The European Union has to get this right: indeed if it has significantly succeeded in decoupling the growth of its GDP (+ 46 %) from that of its emissions (- 23 %) since 1990, the most difficult thing remains to be done.

Path and CO₂ emission reduction targets in the European Union from 2005 to 2030



Source: European Commission and European Environment Agency (EEA).

Does the Energy Union have the means to prepare for the energy world of tomorrow?

All the economists agree on the need to introduce price signals in order to properly carry out the energy transition. This is precisely what the Commission means when it points out in its Communication of November 2015 that the EU emissions trading scheme is the "main European instrument for achieving the reduction target of greenhouse gas emissions by 2030."

The Paris Agreement does not provide answers on the subject, even though a number of heads of governments and business leaders have reiterated the need to give carbon a price and several states have committed to ambitious policies for carbon markets or carbon pricing. Unfortunately, since the signing of the Agreement on 12 December 2015, the prices of the main carbon market, the EU's ETS, have been falling. The fact that these commitments made by the Member States affect post-2020 certainly explains this apparently paradoxical reaction.

This new drop in the carbon prices is all the more worrying as it casts doubt on the effectiveness of the ETS reform proposed last July by the Commission. In fact, the conditions governing the success of this reform are far from being met: what will happen to growth in 2019-2020 when the permits withdrawn from the market in 2014-2015 will be reinjected? *What* about the impact of a long-term reduction in oil prices? In order to make this mechanism play the pivotal role that the Commission has assigned to it, an even higher carbon price will be required than the fall in hydrocarbon prices will last for. Finally, how will the economic actors adapt to this change of rules along the way? We will only note that between July 2014 and September 2015, the reduction of approximately 700 million tonnes of volumes auctioned off has increased the price from 6 € to 8 € per tonne, which has since fallen again.

In view of all these questions, it is not unreasonable to question the coherence of the system, which is not a real market instrument or a system of an assumed administrative character. For the time being, "like most policy makers, the Commission is succumbing to the "temptation of the regulated market": the prices shaped by the market do not meet policy makers' expectations, and they try to subject it to their idea through a clever combination of injections and purges. Most often, the new rules no longer fulfil the objective and have to be modified¹⁶ ." The problem is that faced with rules that are "constantly changing, investors stop investing. This

16. Claude Crampes and Thomas-Olivier Léautier, "Un succès incompris: le marché européen du carbone", *TSE Debate*, 18 December 2015, available at: <<http://debate.tse-fr.eu>>.

effect partly explains the difficulties in financing new power stations in Great Britain despite the implementation of a capacity mechanism."

Consequently, beware of the unexpected interactions between the tools of the climate and energy policy, for which the years 2008-2014 showed the harmful effects. This lesson should particularly be remembered, as a major reform of the electricity market model has been announced, which is vital for the EU's electricity security.

The European Union already enjoys an enviable situation in terms of electricity generation. As is stated in the Communication on the State of the Energy Union, it "is one of only three major global economic entities which produce more than half of their electricity without greenhouse gas emissions," along with Brazil and Canada. And this considering that unlike those two states, the European Union does not benefit from the favourable conditions and natural resources allowing them to produce decarbonised electricity on a large scale, in the form of hydroelectricity (around 60 % of Canadian electricity and 82 - 84 % of Brazilian electricity). Yet it has succeeded in generating a large part of decarbonised electricity and keeps on doing so, at the price of technological research and massive investment for three decades in nuclear energy, hydroelectricity to a lesser extent, and more recently renewable energies. According to Eurelectric, 27 % of the electricity produced in the EU comes from nuclear energy, which was used extensively from 1980-1990, and 28 % from renewable energy sources, of which 12 % is from hydroelectricity.

This European achievement must be strengthened by the reform of the electricity market, whose current shortcomings put security at risk. This reform should only have one objective: directing financial flows towards the most competitive low-carbon investments at sufficient levels to guarantee the security of supply for market players.

This reform should be a new test for the EU, particularly regarding its ability to leave ideology behind. As for the ETS market, the issue is one of choice between a real market and a regulated system. While we will be celebrating 20 years of opening up of the energy markets in 2016, this choice is not only just a mere formality.

Pioneers of deregulation in the 1990s, and inspiration for the current market model, will the British be again the source of re-regulation this time? The introduction of the *Electricity Market Reform* in the United Kingdom in 2013 indeed marks nothing less than a return to regulation of the electricity market in order to guarantee investment in decarbonised means of production required by the British government.

The alternative to the re-regulation method is found in Scandinavia, which is a model for energy transition. However, it is not transposable everywhere. Indeed, its success results from the combination of three factors: a higher carbon tax (120 euros/tonne of CO₂ in Sweden), sufficient interconnections which enable coupling of the *day-ahead* market and, on top of renewable capacities, an access

to less expensive, decarbonised-based means (hydroelectricity and nuclear) in order to ensure storage and security. Today, 90 % of their electricity generated is traded against 37% in Germany and 10 % in France.

The debates about the reform of the electricity market should be fierce and bring out deep divides between the Member States. Indeed, the needs are different between neighbouring countries: whereas the British need a system enabling investments in decarbonised-based means of production, the Germans must at all costs promote a model which integrates the value of flexibility. As for France, it has already set the pace with the development of its capacity market, which is also the subject of a comprehensive investigation launched by the Commission on 13 November, whose purpose is to find out whether the French system complies with the European Union's rules in terms of state support. The Commission "is still not convinced that France is currently facing a production capacity adequacy problem," and casts "doubt over whether the mechanism is necessary at this time." As can be seen, reforming the electricity market will bring out deep divides, not between large Member States and with different concerns, but at the very heart of the European apparatus.

Though it has not been achieved, the success of these different reforms is crucial for the proper functioning of the Energy Union, but also for the adaptation of the energy sector to technological innovations. Indeed, while the European Union is struggling with the definition of its market model and is getting lost in debates too often tainted by ideology about the market and regulations, *big data* is advancing in all sectors, including in energy. But, where is the digital revolution in the Energy Union? Where is the link with the digital strategy supported by the former Energy Commissioner, G. Oettinger, nowadays responsible for the digital economy and society?

Barely mentioned in the November Communication, this point is however crucial in international competition. Nowadays, the European Union is ahead in terms of the share of

public expenditure on R&D and patents on low-carbon technologies compared to the United States. However, the leading companies in *big data* are in the United States. The discussion on support for technological innovations sounds hollow if we miss the major innovation that digitalisation of the energy sector represents.

The risk is not only of missing out on technological progress, but it also lies in the weakening of European energy groups. The continent's electricity producers are on their knees: it is worrying to report the weakened state of European utility companies in light of the challenge posed by the transformation of the value chain implied the emergence of the *big data* in the energy sector. Adapting the European regulations on the right to privacy in the *big data* revolution is essential in this regard. There will be no energy security without powerful European companies, and they will only be so as long as they are stakeholders in the digital revolution. They will in this instance have to compete with or ally with the American Internet giants/ yet their financial power is huge and they are clearly in a monopoly situation, so far without anyone having spoken to them in terms of "*unbundling*"¹⁷.

Therefore, the Commission must absolutely add the digital dimension to the Energy Union in order to keep up on a revolution and to prepare the energy strategy for the 2020s, and not that of the 2010s.

17. Could ongoing investigations at Brussels against Google for abuse of market power not result in the Commission considering separating the monopolistic activities that have virtually become of public interest (search engine) and the other services provided?

Conclusion

The Energy Union project is a response to the failure of the climate and energy policy conducted under the Barroso commission, but, it meets the challenges of 2014, not those of 2015, and much less of 2016: Europe is struggling with enormous geostrategic and geo-economic risks which may undermine its very existence.

The project will fail if it is only a war machine against Russia, because what Europe needs is a pragmatic project, bringing the best practices and players together who wish to move forwards. The objective is not only to put the climate and energy policy back on track, but should be to make it a policy which strengthens the European Union on the world stage. We are not there yet. The European Union must find its shale gas revolution on its own, that is to say a policy which ensures its energy security, strengthens its economy, and which allows it to play an appropriate role in the fight against climate change, without influencing its freedom of action in the world, but potentially increasing it.

Otherwise, the European energy project will be in the world what it was at the COP 21. This other state of the Union showed that the major international climate negotiation is indicative of the actual situation of the climate and energy issues in the European Union: a divided Europe, voiceless and paralysed.