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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**Progress towards completing the Internal Energy Market**

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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
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**Progress towards completing the Internal Energy Market**

## **1. INTRODUCTION**

Over the last two decades Europe's energy policy has consistently been geared towards achieving three main objectives: energy in the European Union should be affordable and competitively priced, environmentally sustainable and secure for everybody. A well-integrated internal energy market is a fundamental pre-requisite to achieve these objectives in a cost-effective way.

In 2011 the Heads of State or Government recognised the importance of having an internal energy market in place and set a clear deadline for its completion by 2014, underlining that no EU Member State should remain isolated from the European gas and electricity networks after 2015.<sup>1</sup> These targets have often been repeated ever since and explicitly endorsed by all the main stakeholders, from industry associations to consumer organizations.<sup>2</sup> The enormous importance of the energy sector to Europe's competitiveness, welfare and independence means that the EU cannot afford failure.<sup>3</sup>

In November 2012 the Commission reported exhaustively on the state of the internal energy market, taking stock of what had been achieved and looking forward by identifying three main challenges to focus future work on.<sup>4</sup> The challenges and associated actions related firstly to the need to implement, apply and act in accordance with existing legislation, secondly to the need to make our energy systems fit for a low-carbon future and thirdly to put the consumer centre stage as a key enabler of the necessary transition and also as the ultimate beneficiary of liberalisation efforts. It is now time to take stock of the progress made towards meeting these challenges and to identify remaining gaps in this endeavour.

In January 2014, the Commission published a Report on 'Energy prices and costs in Europe' which established that wholesale prices for electricity have dropped significantly in the EU

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<sup>1</sup> Conclusions of the European Council of 4 February 2011, [https://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/trans/119253.pdf](https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/trans/119253.pdf)

<sup>2</sup> See e.g position papers of IFIEC ([http://www.ifieceurope.org/docs/20140225%20IE\\_Manifesto.pdf](http://www.ifieceurope.org/docs/20140225%20IE_Manifesto.pdf)), Eurogas ([http://www.eurogas.org/uploads/media/Internal\\_market\\_13PP011\\_-\\_Eurogas\\_Position\\_Paper\\_on\\_the\\_Internal\\_Energy\\_Market\\_-\\_24.01.13.pdf](http://www.eurogas.org/uploads/media/Internal_market_13PP011_-_Eurogas_Position_Paper_on_the_Internal_Energy_Market_-_24.01.13.pdf)), Eurelectric (<http://www.eurelectric.org/news/2012/achieving-the-internal-energy-market-by-2014-must-remain-key-priority-eurelectric-urges/>) and BEUC ([http://www.beuc.eu/publications/x2013\\_091\\_mgo\\_memorandum-greek\\_presidency.pdf](http://www.beuc.eu/publications/x2013_091_mgo_memorandum-greek_presidency.pdf))

<sup>3</sup> Conclusions of the European Council of 21 March 2014, [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/ec/141749.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/141749.pdf)

<sup>4</sup> Commission's Communication "Making the internal energy market work" of 15 November 2012, [http://ec.europa.eu/energy/gas\\_electricity/doc/20121115\\_iem\\_0663\\_en.pdf](http://ec.europa.eu/energy/gas_electricity/doc/20121115_iem_0663_en.pdf)

and that wholesale gas prices have remained roughly stable since 2008.<sup>5</sup> However, retail energy prices in Europe rose significantly between 2008 and 2012 i.a. as a result of increasing energy taxes and levies which represent a significant part of the retail energy bills.<sup>6</sup> They diverge moreover substantially between Member States, showing the importance of thorough assessment of their interventions and highlighting the potential and the need for more policy co-ordination.<sup>7</sup>

The need for policy co-ordination at an early stage has also been a guiding reason for the Commission to propose in January this year a new climate and energy policy framework until 2030. A competitive and integrated internal energy market is an important component of that framework as it will provide the necessary environment for the achievement of ambitious future energy and climate policy objectives in a cost-efficient manner and thereby help to ensure that energy prices for business and households are not distorted and that necessary investor confidence is retained.

Most recently, the Ukraine crisis with all its risks for security of supply demonstrates once more what the EU stands to gain from well-integrated and well-connected energy markets with diversified supplies and solidarity in the face of crises. We must continue to focus on the diversification of gas supplies, on the construction of missing links to connect isolated areas, on developing our own low-carbon energy resources and ensuring the integration of renewables in a secure and reliable manner, on the creation of liquid trading places and the removal of unnecessary administrative hurdles, on increasing investment in smartening grids, on empowering consumers and on the equal application of common energy law across the Union. Regional cooperation is crucial to achieve these objectives and the recent crises demonstrate that it is no longer an option for the Member States to act in isolation.

This Communication underlines that the EU is moving in the right direction. But whilst we are well underway, it is also clear that the work is not done yet and that clear gaps exist that form obstacles for the market to function smoothly.

## **2. MARKET INTEGRATION IS IN PROGRESS AND DELIVERING CONCRETE RESULTS**

There is little doubt that a well-functioning cross-border energy market is the only realistic tool to maintain a healthy and efficient energy sector in the EU in the future. A recent study

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<sup>5</sup> Competition is an important but not the only factor contributing to this decrease. Increasing renewable sources able to produce at zero marginal costs as well as the economic downturn are also important factors.

<sup>6</sup> Commission's Communication "Energy prices and costs in Europe" of 22 January 2014, [http://ec.europa.eu/energy/doc/2030/20140122\\_communication\\_energy\\_prices.pdf](http://ec.europa.eu/energy/doc/2030/20140122_communication_energy_prices.pdf).

<sup>7</sup> The Commission has addressed this issue most notably with its November 2013 Package on Public Intervention in the energy sector, C(2013) 7243 final.

commissioned by the Commission estimates the net economic benefits from completion of the internal market to be in the range of 16 - 40 billion Euros per year.<sup>8</sup>

## **2.1 An integrated market is a basis for the cost-efficient decarbonisation of our energy systems**

Today 23.5% of the electricity produced in the Union and 14% of final energy consumption over all sectors is from a renewable energy source. This puts the EU on track to reach its target of 20% of our energy consumption being from renewables by 2020, even if further efforts will be necessary to achieve this target. It also provides a strong basis to continue and reach a more ambitious renewables target for 2030.<sup>9</sup> The Commission has proposed to set such an EU-wide target of at least 27%.<sup>10</sup>

As renewable penetration increases, it also raises challenges. The variability and limited predictability of solar and wind power make it more demanding to stabilise the grid. Well-integrated markets are without any doubt best suited to address that challenge.<sup>11</sup> They make it possible to connect areas with complementary energy mixes and hence make the energy system more resilient to swings in demand or supply. A telling example are the coupled German and French electricity markets where the continuous cross border flows enable Germany to keep its system stable in times when wind and sunshine is abundant, and at the same time allowing France to ensure its supplies at peak demand.

Cross-border trade in electricity between most EU countries has increased and so has the use of interconnectors – the share of imports in the total electricity available for final consumption has grown in 23 Member States between 2008 and 2012. However, it is nowhere near its full potential yet. More trade requires strengthening the physical connection of our markets which is still insufficient in many areas of the EU. It also requires that remaining obstacles to cross-border trade are removed, such as remaining restrictions on exports or disproportionate licence requirements.

Well-functioning markets can furthermore promote and reward flexibility and energy efficiency. If prices reflect the balance between supply and demand, and consumers benefit from the possibility to adjust their consumption patterns to price signals (demand response) the total cost of securing energy supplies can be lowered as the need for expensive peak generation and network capacity is reduced.

## **2.2 A well-connected internal energy market is key to secure energy supplies**

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<sup>8</sup> Study "Benefits of an Integrated European Energy Market" by Booz & Company Amsterdam, page 21, [http://ec.europa.eu/energy/infrastructure/studies/doc/20130902\\_energy\\_integration\\_benefits.pdf](http://ec.europa.eu/energy/infrastructure/studies/doc/20130902_energy_integration_benefits.pdf).

<sup>9</sup> Commission's Communication "A policy framework for climate and energy in the period from 2020 to 2030" of 22 January 2014, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0015&from=EN>.

<sup>10</sup> COM(2014)15 final.

<sup>11</sup> Together with a well-functioning market, the introduction of the EU ETS System and the full Europeanization of the carbon market design in 2013 facilitate the transition towards sustainable, low carbon and efficient energy systems.

Europe traditionally enjoys a very high degree of secure electricity supplies compared to other regions of the world, thanks amongst others to the reliability of our grids. As outlined above, maintaining the same level of grid stability becomes a bigger challenge as increasing shares of variable renewables enter the energy mix. Europe's electricity transmission grids need to be better connected to each other and operators need to cooperate more closely to keep the system balanced throughout the day. A bigger connected area will enable variability of renewable sources to be better counterbalanced. In this regard, Europe needs to continue to address the effects of unplanned power flows ("loop flows") on cross-border market integration which still cause problems in parts of Central and Eastern Europe.

For gas, it is even more evident that a competitive and integrated internal market is Europe's key insurance for a high level of security of supply. This year's Ukraine crisis has put energy security and dependence high on the agenda of the EU again. The Commission has come forward with an in-depth study and a comprehensive plan for the reduction of the EU's energy dependence<sup>12</sup> following up on the conclusions from the European Council of 21 March 2014. Ending the isolation of those Member States that today are entirely dependent on a single external supplier remains also in this respect a priority.

The overall gas security of supply situation in Europe has significantly improved over the past five years. The robustness of Europe's security of gas supply has been tested a couple of times in recent years. February 2012 and March 2013 were much colder than predicted, but markets have continued to function well, sending gas to where it was most valued and preventing shortages from occurring anywhere in Europe. Even if a major disruption of gas supply occurred, Europe is today in a much better position than five years ago. As of the adoption of the Security of Supply Regulation<sup>13</sup>, Member States have increased their efforts and invested in more flexible pipelines, more storage capacity, enhanced emergency preparedness and response plans and increased coordination.

The level of Europe's security of gas supply will further increase for instance thanks to the opening of the Southern Corridor, allowing gas from Azerbaijan to be delivered on European markets, as well as the construction of further missing links and LNG terminals, such as in the Baltic Region and Poland. These investments demonstrate that an integrated market of 500 million consumers and a yearly consumption of 480 bcm, continues to be an attractive place for investors to invest and for producers to sell their gas. However, such investments by themselves are not enough to ensure an appropriate level of security of supply now and in the future. To ensure supplies the EU gas market needs to be a place where market participants can trust that they will be treated fairly on the basis of a transparent and stable legal framework. In order to continue enjoying the high security of supply standards the EU is used

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<sup>12</sup> Commission's Communication, 'European Energy Security Strategy', of 28 May 2014 [http://ec.europa.eu/energy/doc/20140528\\_energy\\_security\\_communication.pdf](http://ec.europa.eu/energy/doc/20140528_energy_security_communication.pdf).

<sup>13</sup> Regulation (EU) No 994/2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, OJ L 295/1.

to and to keep the associated costs in check, Member States need to be serious about the internal market, applying the legal framework<sup>14</sup> and stimulating the right investments.

### **2.3 Competitive markets are ensuring competitive prices and reducing system costs**

The increased competition on the wholesale market has significantly impacted prices. In electricity, wholesale prices have fallen significantly – between 35% and 45% in the period between 2008 and 2012<sup>15</sup> – and they have remained stable for gas. Interconnectors are used more efficiently and better regulation ensures that the most cost-efficient solution is implemented in deciding which power plant should produce at each point in time. Moreover, system costs are substantially lower in an integrated market.<sup>16</sup>

In gas, the diversification of supplies especially in the Western part of the continent has allowed Europe to benefit from low LNG import prices in the period between 2007-2010. Several long term contracts have been partially and to differing extents renegotiated with Europe's traditional suppliers, especially in areas where alternative supply possibilities are available. These renegotiations have in turn led to the reduction of the importance of the outdated oil price link in gas supply contracts.

Even if LNG prices have gone up following the increase in demand in Asia post-Fukushima, prices on Europe's gas hubs have remained in check. And while the key ingredients for a functioning hub have so far been available only in North-Western Europe, the last two years show important positive developments in for instance Italy, Poland and the Czech Republic as well. Well-organised, transparent market places that operate on the same set of simple, harmonised rules across Europe make it much easier for sellers of gas to ship and trade gas across borders.

Hubs and power exchanges do not just facilitate trade, they also provide important information on the value of the traded commodity. Whether in gas or in electricity, the price at the hub or power exchange indicates where demand is high and supply is low or vice versa. In the short term, these price signals make sure that power and gas are dispatched in an economically sensible manner. As a consequence cross-border interconnectors are today used in a much more efficient manner than before and flows in the economically 'wrong' direction hardly occur anymore.<sup>17</sup> In the longer term, these price signals are crucial to indicate where investments in additional infrastructure or generation capacity make sense.<sup>18</sup>

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<sup>14</sup> This includes rules on state aid, environment and the EU commitment to phase out fossil fuel subsidies.

<sup>15</sup> Commission's Communication "Energy prices and costs in Europe" of 29 January 2014, [http://ec.europa.eu/energy/doc/2030/20140122\\_communication\\_energy\\_prices.pdf](http://ec.europa.eu/energy/doc/2030/20140122_communication_energy_prices.pdf)

<sup>16</sup> Study "Benefits of an Integrated European Energy Market" by Booz & Company Amsterdam, page 21, [http://ec.europa.eu/energy/infrastructure/studies/doc/20130902\\_energy\\_integration\\_benefits.pdf](http://ec.europa.eu/energy/infrastructure/studies/doc/20130902_energy_integration_benefits.pdf)

<sup>17</sup> See Figure [26] of the SWD "Trends and developments in European energy markets", as annexed to this Communication, SWD (2014) 310

<sup>18</sup> Where there are concerns about a lack of investment signals in a particular region within a wider price zone (generally corresponding to a Member State) this is either a result of insufficient network strength, or a sign of a fundamental economic divergence between the two parts of the price zone. Once network strength and stability is ensured, the geographical location of generation does not in itself affect security of supply. Indeed this is one

In other words, price signals help optimise the use of existing infrastructure and make sure we invest in the most economically sensible projects for the future, enabling us to keep wholesale prices in check today and at the same time maintain an affordable energy system throughout the process of modernizing and decarbonizing our energy sector further.

However, while the development of prices on the wholesale markets is encouraging, consumers are not directly experiencing these benefits. An important and growing<sup>19</sup> part of retail energy bills in the EU consist in taxes and surcharges. In most parts of Europe, retail markets are still organised towards a one-way flow of energy from centralised large generation to many individual consumers. But as new technologies, such as smart meters, home automation and small-scale generation become increasingly available to all consumers, an opportunity and a necessity arises to enable consumers to take control of their energy bill, while facilitating the integration of renewables in the distribution grid and increasing its efficiency.<sup>20</sup>

### **3. MARKET INTEGRATION REQUIRES MORE GRIDS AND TRANSPARENT, SIMPLE AND ROBUST RULES**

Whilst significant progress has been made, a lot still remains to be done. In order for gas and power to be traded and transported smoothly across borders, physical wires or pipelines (‘the hardware’) are needed, on the one hand, and a clear, commonly applied regulatory framework (‘the software’) on the other. However, transmission grids as well as regulatory frameworks have grown nationally, with the understandable focus to optimise the national system. These now need to be forged together in regional and EU-wide systems.

#### **3.1 The Hardware: investing in the networks of the future**

Software cannot run without hardware and energy markets can only function when they are well-connected. The last years have witnessed progress in getting investments done, particularly in transmission infrastructure and particularly in countries where a stable regulatory framework is in place<sup>21</sup>. An energy system, in which Member States try to be self-sufficient in their electricity generation and in their gas production or imports, is no longer sensible or efficient.

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of the benefits of the internal electricity market. TSOs should be able to procure system support services for a limited period of time and in a regulatory approved manner while the network is being strengthened; however, a regional capacity mechanism within a single price zone would distort market functioning.<sup>19</sup> Data between 2008 and 2012 show an increase in taxes and levies.

<sup>20</sup> According to Member States' intelligent metering system roll-out plans, based on the obligation of Annex I.2 of Directive 2009/72/EC, by 2020 72% of all electricity consumers will have a smart meter. Solar panels on roofs currently account for around 11,5% in Germany, 5% in Italy of total installed generation capacity; Sources: KEMA (2014) “Integration of Renewable Energy in Europe”, EPIA, pvgrid.eu, Commission.

<sup>21</sup> Staff Working Document on the Implementation of TEN-E, EEPR and PCI Projects, as annexed to this Communication, SWD (2014) 314 and Staff Working Document on Investment Projects in Energy Infrastructure as annexed to this Communication, SWD (2014) 313..

### 3.1.1 Significant progress

Thanks to the rigorous application of the provisions in the Third energy package, including the unbundling rules and those mandating the establishment of ten-year-network development plans, an investment climate now exists that makes sure those lines are being built that are needed most. The Third package has reduced both the incentive and the ability for operators to revert to discriminatory behaviour or withhold the construction of important infrastructure. Today, 96 of approximately 100 transmission system operators in Europe have been certified as compliant with one of the Third energy package's unbundling models.<sup>22</sup> The Commission will continue to monitor the situation and will also remain vigilant to ensure compliance with the EU competition rules.

More investment in strategic energy infrastructure is needed and Europe can help to support important investments both financially and administratively. Therefore, the Commission has proposed, in May 2014, to extend the current 10% interconnection target to 15% by 2030.<sup>23</sup> Currently, the average interconnection level stands at about 8%. Moreover, in October 2013, the Commission adopted the first Union list of 248 projects of common interest ('PCIs') which urgently need to be realised so as to further strengthen the integrated market. Three quarters of these projects should be completed by 2020.

Being qualified as a PCI means that a project can benefit from more efficient permit granting procedures. Moreover, it can obtain financial support from the European Union under the so-called Connecting Europe Facility. €5.85 billion has been dedicated for energy infrastructure<sup>24, 25</sup>.

Already the European Energy Plan for Recovery (EEPR) of 2010 and its implementation have shown how political consensus and targeted Union funding can make a decisive difference in accelerating the construction of critical infrastructure projects and thereby stimulate not only the energy markets but also the economy in general. This programme has delivered several reverse flow projects in Central and Eastern Europe, for instance between Germany and Poland, which has made the European gas system more resilient to potential supply shocks.

Moreover, many missing links have already been completed, such as the electricity cables between Estonia and Finland or between the UK and Ireland. Other vital projects are currently under construction, such as the LNG terminals in Poland and Lithuania, the electricity interconnector between Sweden and Lithuania or the gas interconnector on the Hungarian-Slovak border.

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<sup>22</sup> The most popular unbundling model is the model of full ownership unbundling. The ITO-model is applied by approximately one third of the gas TSOs. In electricity, the ITO model is applied by only six TSOs. The effectiveness of the ITO-model is assessed in a Staff Working Document annexed to this Communication, SWD (2014) 312.

<sup>23</sup> See footnote 12.

<sup>24</sup> Staff Working Document on the Implementation of TEN-E, EEPR and PCI Projects, as annexed to this Communication, SWD (2014) 314.

<sup>25</sup> The European Regional Development Fund can also support investments, mainly in less developed regions.



### *3.1.2 Additional infrastructure needs to be built urgently*

Making our gas and electricity networks fit for the future requires the reinforcement of the existing transmission pipelines and cables within and between market areas. In gas, investments should first and foremost focus on ending the isolation of the Baltic States and the diversification of supply in many Central-Eastern and South-Eastern Member States.

Critical areas where electricity transmission capacity is scarce inside a market area are Germany and the intra-Baltic connections. Linking the electricity grids of the Iberian Peninsula, the Baltic region and Ireland and the United Kingdom better with the continent also remains a priority. The construction of an integrated offshore grid in the Northern Seas as well as electricity highways that will allow cost-optimal integration of the EU's significant offshore and onshore renewables generation in the power system is another important challenge. Moreover, ensuring electricity grids that can deal with the challenges of tomorrow means that they need to be smartened. In particular at distribution level investments in smart meters and local generation need to be accompanied by investments that enable DSOs to manage the grid in a smarter and more efficient way. Smart grids also offer a unique opportunity for industry to develop engineering solutions and innovative products that automate the grid or the home: This is something that EU companies have traditionally been good at.

As the lion's share of the grid investments will not come from public money, the investment climate needs to be further improved. Consequently access to finance remains a continuing problem for infrastructure development in the EU. Investments in energy infrastructure are capital intensive projects that require stable and predictable regulatory conditions. While investors are still risk averse, the lack of a stable regulatory framework can shake investors' confidence. Ongoing work on common EU-wide rules for setting transmission tariffs in gas as well as the practice developed by NRAs and the Commission in setting tailor-made regulatory regimes for important new individual projects (such as TAP or Eleclink) are steps in the right direction which need to be built upon further.

Member States need to implement the TEN-E Regulation, in order to identify and complete the most important Projects of Common Interest. Current delays in the implementation, such as in the designation of single points of contacts for permit granting, are unacceptable. In addition to building new infrastructure, it needs to be ensured that existing infrastructure is used efficiently and to the benefit of secure supplies. In that context, the Commission is aware that utilization rates for LNG terminals have dropped in recent years and months, putting pressure on the industry. Also the commercial use of gas storage facilities seems to be on a downward trend, even if storage levels in August 2014 are at record highs. Market uncertainties certainly expose LNG and storage operators to increased commercial risks. An assessment is necessary as regards the potential impacts of this development on the security of supply in the long run.

## **3.2 The Software: the need for transparent, simple and robust rules**

With wholesale gas and electricity markets becoming larger than national and with energy companies spreading their footprint beyond their home-market, market integration should not

be held back by regulation and regulatory oversight that remains nationally focussed. The patchwork of national regulatory regimes, and the frequency of changes in the regulatory framework in some Member States have created unnecessary administrative and transaction costs thus failing to provide a solid basis for needed investments.

The Third energy package foresees the development of a harmonised legal framework at European level. Thanks to the cooperative efforts at European level of national administrations, the energy regulators (under the umbrella of the Agency for the Cooperation of Energy Regulators ('ACER')) and the network operators (associated in the European networks of transmission system operators for gas and electricity ('ENTSOs')) it has started to take solid shape.

These binding European rules, referred to as Network Codes, are being developed, adopted and increasingly applied in the day-to-day practical functioning of the gas and electricity wholesale markets. Their impacts may not be as immediately tangible as those of a new interconnector, but they represent true progress that is fundamental to foster cross-border trade in gas and electricity. However, progress diverges between the electricity and the gas sector as well as between regions and new challenges have become apparent.

### *3.2.1 Significant progress to date and remaining challenges*

For the market to take off, a first prerequisite is ensuring that all market participants can make use of the existing gas and electricity infrastructure in a non-discriminatory way and at a fair price. Priority has hence been given to capacity allocation and congestion management of the networks and in particular interconnectors. Pilot projects and early implementation at regional level have shown the way.

A prime example of such regional cooperation was the establishment in February 2014, by grid operators and power exchanges from fourteen Member States<sup>26</sup>, of the so-called 'day-ahead market coupling', a mechanism that manages cross-border electricity flows in an optimal way, smoothing out price differences from the Baltic States to the Iberian peninsula.<sup>27</sup> Since May 2014, also the South-West European Market, i.e. Spain and Portugal, are coupled with North-Western Europe. Hungary, Slovakia and the Czech Republic have also implemented as a first step the coupling of their markets, with the ambition to couple that market with the larger market in the west. A market design that better reflects actual physical bottlenecks would further improve investment signals and operational efficiency. In gas, an example of the achievement of similar impact is the establishment of the PRISMA-platform in 2013, where interconnection capacity for the networks of 28 TSOs responsible for transporting 70% of Europe's gas is auctioned in a transparent and uniform manner.<sup>28</sup>

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<sup>26</sup> Belgium, Denmark, Estonia, Finland, France, Germany, Austria, UK, Latvia, Lithuania, Luxembourg, the Netherlands, Poland and Sweden. Norway also joined as non-EU Member State.

<sup>27</sup> Commission's Press Release entitled "Progress towards the Internal Energy Market 2014: Pilot project for EU wide electricity trade starts today" of 4 February 2014, [http://europa.eu/rapid/press-release\\_MEX-14-0204\\_en.htm](http://europa.eu/rapid/press-release_MEX-14-0204_en.htm)

<sup>28</sup> Other examples of early implementation of the gas network code on capacity allocation are the Polish GSA-platform and the Hungarian-Romanian RBP.

The rules have now been formalised in the first legally binding network codes for gas. For electricity, we are on track for the adoption of the first set of codes later this year. The next step will be to focus on facilitating short term trading and developing ancillary services markets to allow participation by new actors, including renewable energy producers. As our energy systems need to become more flexible with the integration of variable wind and solar power, it is important to develop short term markets which allow buyers and sellers to adjust their gas and power purchases on a continuous, real-time basis during the day, buying at short notice or selling unforeseen surpluses. This needs to take into account the changing interaction between TSOs and DSOs, as grids become smarter. Cross-border balancing markets are also key, to allow balancing resources to be effectively shared between countries enhancing security of supply and reducing balancing costs for the system. In gas, a binding network code has been adopted harmonizing at EU level the responsibilities and rights of various actors and enabling trades in so-called balancing markets. In electricity, a first set of minimal rules to align the patchwork of national balancing regimes is under way.

The operational rules for gas and electricity networks are being improved, standardising protocols for TSOs to interact with each other, under regular circumstances as well as in cases of system stress and emergency. The aim is to simplify processes and make them more robust. When the system works, it will mean more security for consumers and more certainty for investors. An important, but often underestimated challenge in ensuring the long-term safe and secure use of gas by EU citizens and industries relates to the fact that gas qualities are changing as a result of new suppliers and varying flow patterns. Member States should continue to carefully assess and communicate changing gas qualities.

Finally, transparency has been improved substantially and in many ways. Regulatory oversight to ensure market integrity and avoid market abuses has been tightened thanks to the application of the rules laid down in the 2011 REMIT Regulation.<sup>29</sup> A central information transparency platform for the publication of data in electricity markets will be established by ENTSO-E by early 2015.<sup>30</sup> Market operators and investors need these data to base their short term trading and long term investment decisions on. It is of the utmost importance that regulators and ACER keep a close eye on the trading activities, because consumers and policy makers need to trust that prices are not manipulated to the advantage of some but detriment of consumers. In the UK the investigation announced by energy regulator Ofgem is a good example.<sup>31</sup> It is important that ACER and NRAs dispose of the necessary resources to carry out these significant new tasks effectively, in close cooperation with financial market supervisors and competition authorities.

### *3.2.2 Adoption of further network codes and better implementation are needed*

The work on ensuring a framework of efficient use and development of capacities in gas pipelines and electricity grids needs to be continued and complemented.

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<sup>29</sup> Regulation (EU) No 1227/2011 on wholesale energy market integrity and transparency, OJ L 326/1.

<sup>30</sup> As defined in Commission Regulation (EU) No 543/2013.

<sup>31</sup> Ofgem's Press Release of 27 March 2014.

Network tariffs are a sensitive issue in both gas and electricity. The composition of tariffs should be transparent and should build on clear common European rules, so that network users can be sure that they will be paying a fair price no matter in what country they are active. Tariffs also have an important distributional effect: between producers/suppliers and customers, across borders. The internal energy market will not be complete if this remains a purely national matter, where cross-border impact is not fully taken on board. The relevant network codes are currently in the early stages of their development, but will need to be completed and adopted in the next two years.

Once the agreement among stakeholders and policy makers on the most urgently needed market rules is reached, the focus needs to be redirected to the implementation and strict application in practice. This requires first and foremost the full cooperation of all the actors involved. The ENTSOs should actively play their role of monitoring implementation of the network codes, a task they have been entrusted with under the Third energy package, but which so far they have been reluctant to take up. ACER is encouraged to put emphasis on implementation as well, as it has started to do with the congestion management report in gas published in March 2014 and in their annual market monitoring reports.

### *3.2.3 Smart grids need to be beneficial for the energy system as well as for households and SMEs*

Getting the most out of new technologies means breaking down the barriers between wholesale market and retail markets. If consumers of all sizes, including households and SMEs, are to benefit from adjusting consumption and production according to wholesale market price signals, they need to be able to offer their flexibility on the market, directly or indirectly, but always with the freedom of choice.<sup>32</sup> In Sweden this is already a reality, and retail consumers are increasingly opting for dynamically priced electricity contracts.<sup>33</sup>

The job of operating distribution systems will begin to incorporate some of the complexities which only transmission system operators had to face in the past. It means that DSOs would need to invest intelligently, not just in wires, and to deal with local network constraints through markets where flexibility is traded in a transparent way with a level-playing field for all who offer it. It also means that DSOs need to get adequate incentives through tariff Regulation.<sup>34</sup>

Data traffic will increase dramatically in smart grids. Consumers are already legally entitled to decide who has access to their metering data<sup>35</sup>, but the NRA or the Member State needs to define clear data management processes to ensure privacy, security and non-discriminatory access. Smart meters will produce detailed and verified consumption data to be used for billing the final consumer. Real-time consumption data from the house, the smart appliance or

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<sup>32</sup> Article 15.8 of the Energy Efficiency Directive requires that demand response service providers have access to organised markets at equal terms to suppliers.

<sup>33</sup> According to the Swedish NRA the number of variable price contracts has increased from 4% to 38% between 2004 and 2014. Source: EI, 17 April 2014.

<sup>34</sup> As defined in Article 37.8 of Directive 2009/72/EC.

<sup>35</sup> As defined in Annex I.1(h) of Directive 2009/72/EC.

the electric car do not require verification by the DSO: to create a competitive market for innovative energy services these should be directly accessible to the consumer or any party upon the consumer's agreement.<sup>36</sup>

Different pilot projects give a mixed picture on the interest of consumers in innovative services, and the price reduction of solar panels or batteries is difficult to predict, but it is clear that the integration of renewables and the focus on energy efficiency will transform the way in which electricity is produced, transmitted and consumed. The regulatory framework needs to accommodate the transformation and ensure that it allows consumers to take control over their energy bills in a way that enhances the energy efficiency of the whole system.

#### **4. IMPLEMENTATION AND DEEPER INTEGRATION BASED ON REGIONAL INTEGRATION**

Following the agreement by European Heads of State or Government on the importance of completing the internal energy market in 2014, the Commission published an Action Plan for the completion of the internal energy market containing 22 concrete actions to be undertaken, related to the enforcement of existing legislation, the functioning of the retail market and the transition of the energy systems.<sup>37</sup>

##### *4.1 Progress in ensuring enforcement and well-designed public intervention*

As to enforcement, the infringement cases for partial transposition of the Third energy package Directives which the Commission pursued since 2011 have borne fruit in urging Member States to put in place the national legislation transposing fully the Directives.<sup>38</sup> The Commission now turns its attention to non-conformity checks in order to verify whether the notified measures by the Member States correctly transpose the Third Package.

Progress has also been made in addressing the threat of uncoordinated and counter-effective national measures damaging the internal market. In the aforementioned Communication on public intervention and in the State aid guidelines for energy and environment the Commission provided guidance to Member States to ensure that their interventions are necessary and proportionate pointing at their pivotal role in making the internal market a success rather than intentionally or unintentionally damaging it. Where justifications for interventions exist, such as for the promotion of renewables, they should be designed to facilitate market integration.

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<sup>36</sup> Article 4.12 of Directive 2014/94/EU on the Deployment of Alternative Fuels Infrastructure requires that consumers are able to contract electricity for an electric car separately. This enables new business models to sell cars with an electricity 'subscription'. When it is possible for a car it is also possible for any appliance in the house.

<sup>37</sup> This was part of the November 2012 IEM Communication. Nine of these actions were specifically targeted at making the retail market work in the various Member States.

<sup>38</sup> As of 22 September 2014 such infringement cases for partial transposition remain pending only against 2 Member States, one of which has recently adopted further legislation, under assessment by the Commission.

Those Member States who already have capacity mechanism in place (e.g. Greece and Ireland) are now beginning to change them to bring them into line with the Guidance provided by the Commission. Cooperation between the Commission, Member States governments, regulators and transmission system operators will continue to be important on this complex matter particularly in assessing how the gains from an integrated approach can be best achieved. Currently several Member States, including France and Italy, are planning to implement capacity mechanisms, while others, such as Germany, are actively considering developing fall-back mechanisms. Whereas well designed measures can offer a proportionate and effective solution to real generation adequacy shortcomings, badly designed schemes will unnecessarily burden consumer bills and may undermine investments in energy efficiency and new interconnectors and impact our decarbonisation policy.

In its guidance documents, the Commission has underlined the importance of a thorough and objective analysis looking into all possible causes of and all potential remedies for security of supply concerns. Regional cooperation is crucial in this respect in order not to forget possible cross border solutions which may be more effective and less costly. The Commission notes that neighbouring Member States such as France and Spain, the United Kingdom and Ireland, Belgium and the Netherlands, or the Baltic States often have complementary energy mixes with excess capacity in one country and potential deficits in the other. Integrating such markets better and finding common solutions could be cheaper and benefit all. Political commitment in the countries concerned is however a prerequisite to make such common solutions work.

As a minimum requirement, the Commission asks for capacity mechanisms to be open to capacity abroad which can effectively contribute to meeting the required security of supply standards in the Member State concerned. A second requirement is that the capacity mechanisms must promote and reward demand side solutions to the same extent as generation solutions. Flexibility of production and demand must be encouraged so that capacity mechanisms complement in this respect the incentive stemming from variable electricity prices in the day-ahead, intraday and balancing market.

The Commission is undertaking detailed studies on the development of a European generation and system adequacy assessment. These will help identify the adequacy standards which are appropriate in an effectively functioning internal energy market. This work will involve ENTSO-E, ACER and the Member States' authorities, including through the Electricity Coordination Group. The outcome of these studies will provide an objective evidence base for future work by the Commission.

Similarly there are already indications that better cooperation and data exchange alone may not be sufficient to resolve regional congestions or to respond to wider system disturbances in real time. The voluntary regional TSO initiatives that have emerged in response will be a valuable source of information about the effectiveness of regional control centers with well-defined decision making powers of specific operational matters.

#### *4.2 The need for a regional approach*

ACER and the ENTSOs have played a key role in the progress towards a functioning internal energy market. The Commission has recently made an evaluation on the first years of functioning of ACER and has concluded that the agency has become a credible and respected institution playing a prominent role in the EU regulatory arena and focusing on the right priorities.<sup>39</sup> But cooperation of and between ACER and the ENTSOs will have to deepen as the integration of markets goes further and regulatory questions are more often of a cross-border nature. The institutional framework needs to be fit to effectively deal with practical regulatory questions that come up.

For ACER and the ENTSOs to function effectively, the active participation of its members is essential. A large majority of the national regulators take part and lead ACER's working groups. The Commission is concerned about the cutting of staff and budgets of the regulators of several Member States, especially as they have seen their tasks being widened over the past years. Whilst the implementation of budgetary policy recommendations under the Stability and Growth Pact must not be compromised, in some countries the regulators appear to be structurally under-resourced<sup>40</sup>. It is equally worrisome that in a limited number of countries the independence of regulators and the required allocation of powers are still not fully in place.

A regional approach has been and will also in the future be decisive for the integration of the European energy market. It allows for immediate results and can stimulate cross-border exchanges, increase security of supply and facilitate the integration of renewables. Often cooperation in a smaller group than the entire EU can go faster and can be better suited to address the particular challenges of the region concerned.<sup>41</sup>

Regional initiatives provide a solid basis for delivering the internal energy market through concrete results that are directly visible. This can take the form of expansion of cross-border network infrastructure, such as the North Seas Countries' Offshore Grid Initiative, which seeks to develop an interconnected high voltage transmission network in the North Seas that will link markets better and facilitate the integration of off-shore wind parks in a secure manner. Another example is the Baltic Energy Market Interconnection Plan (BEMIP) which seeks to end the isolation of the Baltic Region and to integrate it fully into the EU energy markets thus increasing security of gas supplies. Co-operation in Central and South-East Europe is likewise important to create wider options for sourcing gas in the region and reducing dependence on a single source of supply. Co-operation between Greece, Italy and Albania, supported by the Commission, has for example been effective in putting in place an appropriate regulatory framework for the TAP which will bring additional sources of gas from the Caspian region to the EU market.

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<sup>39</sup> [http://ec.europa.eu/energy/gas\\_electricity/acer/doc/20140122\\_acer\\_com\\_evaluation.pdf](http://ec.europa.eu/energy/gas_electricity/acer/doc/20140122_acer_com_evaluation.pdf)

<sup>40</sup> See country reports attached to this Communication.

<sup>41</sup> Regional integration has been successful so far. The Nordic countries have shown the way in the electricity sector with an early integration of their markets into NordPool. Likewise, the Pentilateral Forum in the West has initiated ground breaking integration projects in both the electricity and the gas sector.

Regional initiatives are also proving their concrete value in the (early) implementation of network codes. This is demonstrated by the examples mentioned in paragraph 3.2.1 on the market coupling initiative in electricity and the PRISMA auctioning platform for pipeline capacity in gas. Market integration is thus developing from the North to the South and from the West to the East, based on concrete projects initiated at regional level.

Going forward, regional market integration should continue as a decisive step towards the ultimate consolidation of a single energy market across the EU.<sup>42</sup> Significant attention should therefore be paid to enhance coordination of the different regional processes to ensure its ultimate convergence and integration.

#### *4.3 Stepping up our efforts*

As Chapter 3 of this Communication has demonstrated, the progress on the completion of the regulatory framework underpinning the market is significant, but efforts need to be stepped up especially in finalizing the electricity network codes and in overseeing their timely and correct implementation throughout the EU.

Most of the 2012 Action Plan has been implemented or is well on track, taking the EU a long way towards the completion of the internal energy market as envisaged at the time of the adoption of the Third energy package. By no means, however, can we rest on our laurels. Even when all rules will be in place, monitoring and ensuring their enforcement and the respect of the level playing field for all actors will be an ongoing effort for authorities at national and EU-level. A consistent and correct application of the rules applicable to the distribution grid, in particular the Third energy package and the Energy Efficiency Directive, taking into account technological developments, is required to ensure that increased smartness brings benefits to consumers and the energy system as a whole.

Going beyond the 2012 Action Plan, it is the Commission's view that additional benefits could be gained by deepening the integration of the internal energy market. The Commission's proposal for a new climate and energy policy framework until 2030 as well as the European Energy Security Strategy makes it clear that further integration of energy markets will be a prerequisite for meeting our medium- to long-term objectives.

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<sup>42</sup> The EU promotes regional integration in energy also in the context of its Macro-Regional Strategies as well as in the framework of the European Territorial Cooperation ('ETC').