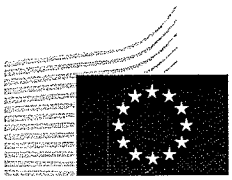

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COMMUNICATION FROM THE COMMISSION

Delivering the internal electricity market:
making the most of public intervention

Energy Roadmap 2050[3]. The Green Paper on a 2030 framework for energy and climate policies[4] points out that moving towards a more sustainable, secure and competitive energy system for the longer term requires review of public intervention. The European Council called on the Commission[5] to provide guidance on mechanisms to support new generation capacities.

The case for reviewing public intervention in the energy market is strong as it has a significant influence on the costs and prices of energy and electricity production is capital intensive. In 2050 total costs of electricity supply is predicted to vary from EUR 100 to EUR 200 per MWh, depending on policy scenarios[6]. In 2011 the various types of support of electricity production in the European Union amounted to far above [EUR 60 billion]. Of this, Member States spent about EUR 26bn for fossil-fuel generation[7], EUR 15bn for energy efficiency and EUR 30bn on renewable energy[8]. Public funding of nuclear energy was estimated to amount to EUR [35]bn[9]. The level of public funding to the various types of measures varies between Member States. Capacity mechanisms can be very costly too. In the EU costs vary from EUR 0.1 per MWh in Sweden to 20 EUR per MWh in Ireland. In the United States the costs of financing a capacity market reach 10% of the wholesale electricity price[10].

Today, retail electricity prices in the EU are generally higher than elsewhere in the world. The end-user prices for energy paid by European companies and households have increased over the last decade in real terms.[11] The main reason for this are high and increasing taxes on the final electricity price, with limited competition and sometimes ineffective public intervention in its planning and implementation, often without reference to the European market and neglecting potential solutions on the demand side of the market (consumers and energy users).

Creating a European internal energy market is not just a European exercise. It requires an adjustment at national and local level as well. Member States must recognize the mutual interdependence that comes with being part of the European market. Through this Communication and its accompanying staff working documents, the Commission proposes ways in which the EU and its Member States can better adapt public intervention, whether political, regulatory or financial, to ensure that the EU-wide electricity market is completed and works smoothly for the benefit of all.

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[3] COM(2011)885 final.
[4] COM(2013)169
[5] Council Conclusions of 22nd of May 2013
[6] KEMA study for levelised cost of electricity over the five scenarios selected
[7] http://www.oecd.org.Without indirect subsidies of conventional fuels in terms of their social and health costs that have been estimated at a further annual EUR40bn for the EU health systems.
[8] International Energy Agency.
[9]
[10] Annex II of the staff working paper on generation adequacy
[11] IEA's index for industry's real end-prices for energy in EU OECD.

upgrading of today's aging electricity system create a number of uncertainties for energy providers. Regulated retail prices and wholesale price caps weaken investment signals and reduce incentives. The economic crisis has also been damaging for new investments and has increased uncertainties over future demand. In this situation of negative and distorted market signals and without large-scale demand-side response measures, concerns about whether there will be enough generation capacity in the future to satisfy demand inadequate have led some Member States to consider new public intervention, such as support schemes for investments in new electricity generation.

Integration of national markets

The EU-wide integration and liberalisation of energy markets have opened up markets to energy suppliers from other Member States and made national markets more interdependent. On the one hand this development makes it possible to exploit the synergies and scale economies of the internal market. On the other hand, where markets are linked in multinational power exchanges, public intervention affects prices not only nationally but also in neighbouring markets. The resulting distortions of the internal market may be short-term, affecting system stability, electricity prices and energy production, but also long-term, crowding out investments in new capacity or diverting them to sub-optimal projects.

III. MAKING PUBLIC INTERVENTION MORE EFFECTIVE AND EFFICIENT

Providing public intervention is justified, well-designed and targeted and temporary in its application, it is possible for governments to intervene without distorting markets beyond what is necessary to achieve the policy objective. In a strongly interlinked and dynamic EU market, national regulatory and financial measures must be properly coordinated between Member States or even within a Member State. The lack of coordination has a number of detrimental effects, such as higher costs for consumers and taxpayers, fewer trade opportunities or subsidy races between Member States or between different policy goals.

Identifying a specific problem and its cause

To justify specific rules or support, it is essential to identify the problem to be addressed and demonstrate that the market alone in unlikely to solve it.

For example, without public intervention, electricity production is likely to be polluting and to create negative spill-overs for society because neither producers nor consumers have to factor fully in the cost of environmental damage. Besides reducing negative effects, public intervention can also create incentives for positive developments where the market fails to do so. This might be the case of developing new renewable energy technologies which are not yet commercial or investments to ensure security of electricity supply. Some investments require coordination by public authorities as they involve long-term commitment of several market players at once. Developing demand-response measures, for instance, requires coordinated action by distribution companies, providers of demand-response services and suppliers of

better matching supply and demand through market mechanisms while offering consumers the possibility to lower their electricity bills.

Encouraging changes in consumer behaviour and consumers' involvement does not need to mean public financial intervention. Implementing the right measures (such as improvements in the use of information technology, roll-out of smart meters and appliances, reform of network tariffs hampering demand response and removal of regulated prices) not only creates opportunities for consumers to lower their bills and strengthens electricity price signals. It also reduces the peak load and the corresponding need for costly new generation and transmission capacity, saving scarce investment funds and public resources while increasing the efficiency of the energy system.

Minimising impacts on electricity systems – ending hidden subsidies

Support for new generation often takes the form of establishing special rules for responsibility for grid balancing, priority dispatching and financial responsibility for network development. Whilst these rules may support the desired growth of generation locally, with the development of the open and competitive electricity markets, such rules lose their justification and are detrimental to the internal market.

The EU is harmonising market rules including network access rules (network codes) for electricity suppliers putting competitors from different Member States on the same footing regarding the costs of use of the cross-border networks and cross-border responsibilities for balancing. In addition Member States should ensure that national rules which are not harmonised are non-discriminatory and applied in a transparent and technology-neutral manner. Once these rules are in place interventions can be more equitable, without hidden subsidies to some producers and additional costs for the others.

Keeping costs low: auctions, technological neutrality and exploiting efficiencies at EU level

In defining any public intervention, Member States should ensure that the intervention is proportionate to the objective it is going to achieve. It should not discriminate against any particular technologies unless duly justified for example to achieve the objective of phasing out fossil fuel subsidies. In case of support schemes, tendering processes can help minimise the necessary level of support. Schemes based on required volumes instead of guaranteed revenues for production may raise risk premiums but are more effective to introduce cost competition between different technologies, thus driving dynamic efficiency and innovation.

As a general rule, support mechanisms should, so far as it is possible, allow competition between different qualifying technologies. Competition can be further strengthened by opening the support schemes to companies from other Member States.

The costs and benefits of national measures should take into account the EU market. Unilateral intervention conducted by a single Member State can harm companies in

Public authorities at EU and national level should first and foremost let the market forces work to carry out the appropriate investments. If there are doubts that the market can deliver generation adequacy and security, an objective, facts-based, assessment of the generation adequacy situation is a prerequisite to any intervention.

Consideration should be given to whether alternative measures such as investment in transmission infrastructure, including interconnectors, or more demand-side involvement can alleviate the concerns. The situation should be avoided where inefficient plants are kept in operation through public support or disproportionate support is granted in response to a temporary difficulty, for example, the economic recession.

The causes of generation inadequacy must be properly identified and removed, including regulatory failures such as wholesale and retail price regulation, negative impacts on investment decisions of existing generation support schemes for fossil and nuclear generation. For renewable energy, alongside public intervention, effective intraday, balancing and ancillary services markets must evolve.

If generation inadequacy is a serious problem, a strategic reserve, a credibly one-off tendering procedure or an EU market-wide capacity mechanism are possible responses. Whatever mechanism is chosen, several elements should mitigate potentially harmful effects, in particular, the tendering for new capacity in an open, transparent and technology neutral manner, including demand-side response operators and operators from other Member States to the greatest extent possible (e.g. up to the maximum import capacity). The scope should reflect technical performance and the implications for CO2 emissions from the lock-in effect of new generation capacity should be considered.

In case of capacity mechanisms, in order to minimise distortions on the internal market there should be no export charges or procedures to reserve electricity for the domestic market. There should be also no bidding restrictions or export restrictions. Adverse effects on the operation of market coupling should be avoided.

Interventions should be designed so that they are automatically withdrawn as soon as the capacity problem identified recedes (for example by expansion of interconnector capacity or development of demand side participation).

Best practice for renewable energy support schemes

The EU Member States are committed to promoting new and renewable energy forms of energy, under the EU Treaty. However, energy markets are unlikely to deliver socially or (broadly) economically desirable levels of renewable energy in the near future. To support "infant industry" and overcome specific market failures, governments must intervene.

The Commission has called for government intervention to create stable conditions for renewable energy investment and encourage the integration of renewable energy into the energy market. Support scheme reforms should not harm investor confidence. The Commission recommends supporting renewable energy in a stable, transparent,

energy system and the market more flexible, being through energy efficiency solutions, local renewable generation and demand response. This requires the necessary market opening and supporting technologies accessible to the consumer.

To that end, it is necessary to vigorously implement the demand response framework provided in the Electricity Directive[16], in the Energy Efficiency Directive[17] and elaborated in the network codes and regulations. If adequately implemented, this framework and in particular the recent Energy Efficiency Directive[18] enables and promotes voluntary aggregation of individual consumers and opens up the market to exploit the potential of demand response, putting demand side resources on equal footing with supply. It similarly requires removing existing tariff elements that hamper the development of demand response and it promotes the development of dynamic pricing for demand response solutions.

Further policy and regulatory work may be necessary at the Member States and the EU level to support the legislative framework in place. This includes supporting appropriate tariff design and making sure that dynamic intraday tariffs are available to end-user customers, which should facilitate billing consumers based on wholesale prices and not on consumption profiles. It is necessary to remove price controls, strengthen the price signals and develop further rules for coordination and interaction of different actors in the market, including in particular the role of distribution companies in local balancing as part of a more active distribution network. In this context, the access and exchange of data must remain safe and limited to the necessary but open, and it must be determined by the consumer.

In parallel to the application of this framework, it is essential to bring the enabling technology into the market through the roll-out of smart metering systems with the appropriate functionalities and together with the creation of the necessary framework for the broad introduction of smart appliances and control systems under Ecodesign, Energy Labelling and standardisation. Such smart technologies and solutions must be deployed urgently whilst respecting legal considerations on data security and protection, consumer privacy, and the protection from harmful intrusion.

V. CONCLUSIONS AND WAY FORWARD

The internal market is an important tool of European energy policy to ensure an affordable, secure and sustainable energy supply in the future. To preserve its role, it is necessary to ensure that national responses to deal with energy challenges do not undermine the process of completing the internal energy market and making it work smoothly. Making use of European measures, programmes or rules may in some cases remove the need for national government intervention. Where a Member State decides to intervene, whether legally or financially, directly or indirectly, long term or short term, on the supply side or the demand side, any actions should take account not just

[16] Directive 2009/72/EC
[17] Directive 2012/27/EU
[18] Article 15