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## **ENERGY NETWORKS ASSOCIATION RESPONSE TO ACER GREEN PAPER: “EUROPEAN ENERGY REGULATION: A BRIDGE TO 2025”**

### **ENERGY NETWORKS ASSOCIATION**

Energy Networks Association (ENA) represents the ‘wires and pipes’ transmission and distribution network operators for gas and electricity in the UK and Ireland. Our members control and maintain the critical national infrastructure that delivers these vital services into our homes and businesses.

ENA's overriding goals are to promote the UK and Ireland energy networks ensuring our networks are the safest, most reliable, most efficient and sustainable in the world. We influence decision-makers on issues that are important to our members. These include:

- Regulation and the wider representation in UK, Ireland and the rest of Europe.
- Cost-efficient engineering services and related businesses for the benefit of members.
- Safety, health and environment across the gas and electricity industries.
- The development and deployment of smart technology.

As the voice of the energy networks sector ENA acts as a strategic focus and channel of communication for the industry. We promote the interests and good standing of the industry, and provide a forum of discussion among company members.

### **CONSUMERS, RETAIL MARKETS AND THE ROLE OF THE DSOS**

It is clear that significant changes are coming in at the distribution level, particularly for electricity, as Distribution System Operators (DSOs) become more dynamic, manage smarter networks, and facilitate the more active participation of consumers in energy markets through demand response as active system managers.

ENA is keen to be part of the ongoing dialogue with the regulators and the European Commission on the resulting changes to DSO roles and responsibilities, moving from network operators to system operators.

Developing a European overview of the key elements of demand response, providing some clarification of the roles of DSOs and the interface with Transmission System Operators (TSOs), and considering the appropriate regulatory framework to underpin these changes, are all potentially useful areas of work for the regulators.

## GUARANTEED STANDARDS OF SERVICE

The Council of European Energy Regulators (CEER) Customers and Retail Market WG is developing draft advice for Member States with recommendations for EU level guaranteed standards of DSO service, focusing on connection, disconnection and maintenance.

It is a fact that UK DSOs already work to rigorous levels of Guaranteed Standards of Service set by our regulator Ofgem, so we question whether it is appropriate to establish another set of standards at the European level when so many differences exist in terms of market models and legal frameworks. Particularly when the key is to get the right balance between the standards and their associated costs to the consumer.

ENA's members are very keen to work with the regulators and the European DSO Associations on this important topic.

## ENERGY SECTOR TRENDS – ELECTRICITY WHOLESALE MARKETS

The Green Paper highlights concerns around generation flexibility and adequacy and the requirement for flexible back up generation such as gas CCGTs.

ENA's [Redpoint](#) report commissioned in 2010, highlighted that future scenarios that feature greater use of gas in the energy mix could offer a more cost-effective solution for a low-carbon transition, compared to those that require very high levels of electrification. In future scenarios where gas is plentiful and relatively cheap, for example where there are further breakthroughs in unconventional gas extraction, the analysis indicates potential savings of up to almost £700bn to be made between 2010 and 2050, which equates to £20,000 per household or £10,000 per person.

Aside from possible cost benefits, there are also other advantages in retaining gas within the energy mix. The presence of gas will enhance the diversity of energy supply and will provide additional flexibility when it comes to energy balancing, particularly at times when the output from renewable sources is low.

## ENERGY SECTOR TRENDS – GAS WHOLESALE MARKETS

### i) Uncertain gas demand

The Green Paper suggests that there will be a reduction in gas demand as a result of changes to gas used in the heating sector which will be influenced by improvements in energy efficiency, development of electric heating and the application of gas fired combined heat and power systems (CHP).

ENA Gas members do not believe that there will be any marked reduction in gas demand in the period covered by this consultation. In the UK's Department of Energy and Climate Change (DECC) 2013 report – [The Future of Heating: Meeting the Challenge](#) their analysis indicated that although natural gas use for heat will have to reduce over time if the UK's carbon targets are to be reached, it will still play an essential part in the transition to a low carbon future.

DECC's "RESOM" modelling shows that there would be little or no change to the current levels of natural gas used for domestic heating until at least the middle of the next decade with a steady decline over the longer term out to 2050. Furthermore the modelling suggests that there could still be a role for natural gas in 2050 to help to meet peaks in heat demand on the coldest days of the year.

The DECC modelling also suggests that continued use of gas could be more cost effective than the alternative of full electrification of the peak seasonal heat demand, with the consequent need for large amounts of additional generation capacity to meet only occasional use. It suggests a more cost-effective solution could be to maintain some gas in buildings for use by gas absorption heat pumps, or in hybrid systems where gas appliances operate alongside an electric heat pump, for example.

ii) [Gas grid charges](#)

The Green Paper asserts that, as gas usage declines, there is a likelihood that grid charges will increase as there will be less end users from which to recover the infrastructure and operating costs of the networks.

In fact, the UK's gas network charges are likely to remain broadly flat in real terms until at least 2021, and this is likely to continue in to the next regulatory price control (RIIO GD2) which will be set in 2021 until 2029. Also, under the RIIO price control there is an annual sharing mechanism that ensures any cost outperformance is shared with consumers through the gas shippers' bills.

ENA Gas distribution members are also connecting up to 100,000 new gas customers a year with gas particularly being used to address domestic fuel poverty, and, as previously stated, the UK Government see a consistent role for gas used for domestic heating continuing well in to the next decade and beyond.

iii) [Indigenous Gas Production](#)

The Green Paper focuses on the decline in indigenous production in many Member States and therefore the need for further reliance on imports which brings risks of greater political uncertainty especially, given recent geopolitical events. In order to mitigate some of this risk, it is important that new and unconventional sources of domestic EU gas production, such as biomethane injection to the grid and shale gas are supported in any changes to regulation. By 2020 it is expected that there will be well over 100 biomethane plants connected to the GB Gas Networks and it is envisaged that, further into the future, biomethane could provide around 20% of the UK's domestic gas demand.

iv) [Uncertainty impacts on investment decisions](#)

The Paper looks at uncertainty impacts on investment decisions hampering the development of market integration. We agree. The networks, for both gas and for electricity, need regulatory stability and a clear "direction of travel" to reduce these levels of uncertainty.

v) [Injection of gas in to the distribution system](#)

The Agency for Cooperation of Energy Regulators (ACER) Paper implies that the injection of biogas in to the distribution system may have impacts on gas quality and the normal operation of the grid and consumer safety. This is not the case, at least not in the UK. Under UK regulatory rules, all gas entered in to the system must meet Gas Safety Management Regulation (GS(M)R) standards, and producers and network companies have worked together to ensure the upgrading facilities and measurement equipment used at biomethane plants mitigates any risk of failure to meet those standards.

It is also important to note that these strict requirements on producers have not resulted in any reticence to enter this market; in fact the UK biomethane industry continues to grow at a pace with 20 or more new biomethane projects expected to be completed in the next year. Indeed it is expected that by 2020 there will be well over 100 biomethane sites connected to the GB gas distribution network, and further into the future could provide around 20% of the UK's domestic gas demand.

In the UK, the DSOs facilitate the injection of biomethane into the system, but remain commercially neutral to it – indeed there are no incentives under the RIIO GD1 price control to increase the number of biomethane injection plants, and yet, the GDNs are actively working with the producers to connect plants to the system as neutral market facilitators.

## ENA VIEWS ON PRIORITY AREAS FOR FUTURE REGULATORY ACTION

### 1. Future role of DSOs including appropriate degree of unbundling

ENA fully supports the Green Paper statement that the DSOs role should be as “neutral market facilitators”, responsible for distribution network systems and, in most Member States, for data management. We feel that the full implementation of the unbundling rules as required under the Third Package should be pursued across all Member States and the relationships between DSOs, other service providers and consumers should be clarified.

However we do not see the proposed review of DSO unbundling as a priority area of work for the regulators. Responses to the European Commission’s recent consultation on retail market design confirmed that EU stakeholders across the board do not see the current DSO unbundling arrangements as unsatisfactory or a barrier to the operation of the internal energy market.

ENA’s view is that the existing unbundling rules from the 2<sup>nd</sup> and 3<sup>rd</sup> energy packages are comprehensive, in force, and being actively monitored by national regulators to ensure the non discriminatory behaviour of the DSOs as neutral market facilitators. The main focus for regulators and the Commission should therefore be on the full implementation of these rules, across Europe, before any decisions are taken to introduce new business separation requirements, with the risk of ‘unintended consequences’.

We note that ACER considers ‘ownership unbundling’ as the preferred solution for DSOs in the future. We are strongly opposed to this suggestion and would caution against developing a “one size fits all” approach. In the UK, comprehensive business separation provisions - as part of an open and transparent energy sector overseen by a strong independent national regulator - ensure effective separation and actively promote competition. These are long standing arrangements which work well for customers.

Fundamental changes to the ownership structures of DSOs, when there is no evidence that current structures are acting to the detriment of customers, could be an unnecessary distraction. Where DSOs are in private ownership, as in the UK, this would raise significant issues around property rights and the value of deployed equity. In particular, this could put at risk important investments, and also constrain the future development of the DSO role. Furthermore we note that nothing in the existing structure restricts DSOs from carrying out the roles proposed in the consultation, indeed many of the roles are already carried out by DSOs in the UK and we expect DSOs to expand further into these areas in the future.

### 2. Demand Response

Flexibility mechanisms, including smarter demand side and the development of smart grids, clearly have great potential to reduce, but not eliminate, the costs associated with network reinforcement – also providing benefits to the market as a whole with the avoided costs of generation. However, there will always be a need for some traditional reinforcement and replacement of ageing networks infrastructure.

We therefore agree with ACER that the mapping out of an EU framework for demand response covering commercial, regulatory and standardisation aspects could be helpful. However, it is essential that steps taken to support smart grid developments are suitable for individual Member States. There are risks that a 'pan European' approach could be over prescriptive, and, rather than supporting and invigorating progress could have the opposite effect, inhibiting national solutions and imposing higher costs than are necessary. Given the very different nature and functions of DSOs in the UK, compared to some other European DSOs, ENA would fully support the proposal for an EU 'menu' of (consistent) options for the regulation of DSOs based on some high level principles.

Facilitating the wider use of demand response will be an evolutionary process. The solutions themselves will also often be sufficiently complex that putting them in place could mean significant lead times, significant costs associated with their regulatory development and system and process changes for industry participants. These changes and their costs are likely to increase substantially with increased levels of intervention.

### **3. DSO- TSO co-operation**

We support the recognition that the remit of DSOs is perhaps changing faster than any other single actor in the energy sector and ENA is committed as an organisation, that counts amongst its members all UK DSOs and TSOs, to ensure that the interface between sectors and across fuels is carefully managed and that provision is made for efficient information exchange, co-ordinated congestion management and integrated planning.

It is very important for the NRAs and ACER to work with DSOs and TSOs across all Member States to help clearly define the respective roles as the industry changes over the next decade. This should ensure that the DSOs are able to managing their evolving networks in a transparent and reliable way, whilst still providing excellent service to customers and supplying system services to the TSOs.

In the UK, ENA's electricity DSO and TSO members are in the early stages of developing a framework for a TSO-DSO Demand Side Response (DSR) Service Sharing Model, where both the costs and the operational benefits of a common demand response service can be shared.

There are a range of issues to be addressed if DSOs are to share services with other market participants.

For example:

- Customer awareness of the potential to sell DSR is currently quite low, although this is starting to change.
- A significant amount of flexibility is often unavailable to DSOs, as it has already been contracted to other market participants.
- Typically a DSOs' requirement is for relatively short total hours of usage, likely to be concentrated around a network's peak annual loads - potentially less expensive alternatives would often be other smart grid service options, or even traditional network reinforcement.
- Bilateral contracts can attract significant transaction costs.

i) [TSO-DSO cooperation – network codes](#)

Network code development should be considered carefully in terms of unintended consequences. For example, with the gas day changes proposed in the Capacity Allocation Mechanisms code (CAM). Gas DSO were explicitly from the CAM Code developments, however, the changes to the Gas Day were repeated in the Balancing code, thereby potentially imposing significant costs on the Gas DSOs and on upstream parties, with no obvious benefit for UK consumers or the UK economy.

#### **4. [Regulatory Framework](#)**

A stable, predictable and appropriate regulatory regime, supported by sufficient incentives for investors to fund the necessary networks updating, is essential.

Properly designed tariff schemes, based on adequate rates of return, should ensure that both DSOs and TSOs have sufficient resources to maintain, update and replace their assets when needed and also manage the additional risks associated with the newer 'smart' technologies. The benefits from these investments will accrue throughout the entire supply chain from generators, suppliers and customers to society as a whole.

Innovation will be the key. In Great Britain, regulator Ofgem was an early mover with its £500m Low Carbon Network Fund for electricity DSOs, and now with the Network Innovation Allowance (NIA) and Network Innovation Competition (NIC) which are incentivising increased levels of innovation in electricity and gas distribution and transmission. We know that our networks colleagues in other parts of Europe are urgently seeking similar funding support from their regulators, but appropriate to their own market needs, which will allow them to strongly commit to innovation and RD&D, as ENA members have.

The Green Paper positively references dynamic network pricing, and in particular time of use tariffs or locational distribution network tariffs as potentially being very helpful in managing load. ENA agrees, but this is a complex area which will require more work to determine the costs associated with the different changes in consumption patterns.

#### **5. [Governance issues](#)**

i) [EU network codes](#)

ENA believes that robust, fit for purpose and transparent governance is key to achieving the single energy market, to assist in the decision making process and to achieve a consistent approach across Europe given the growing integration of markets.

The gas and electricity networks codes, as brought about by the Third Energy package, provide the cornerstone of the future of European energy markets and, as such, speedy, robust and fit for purpose processes towards their implementation need to be ensured and where necessary improved. We fully support ACER's push for the terms, conditions and methodology of these codes to be elaborated in a co-ordinated manner by the TSOs under the umbrella of both European Network of Transmission System Operators (ENTSOs).

The assessment of change to these networks codes going forward also needs to be carefully



managed and a clear baseline for the need for change should be established from the outset to avoid the unpicking of the good work already achieved. As such, a set of “Relevant Objectives” should be established to ensure that any modifications to the codes remain coherent and consistent, take into account the technological, environmental, political and societal developments that may occur, and ensure that the codes remain true to the visions of the European Market Models. In the UK we have tried and tested industry code models that have developed over time and function in a fair and equitable manner for the benefit of the industry and consumers alike.

ii) ENTSOs

We would support ACER’s decision to assess the current regulatory and governance arrangements for both of the ENTSOs, especially with a view to ensuring full Member State active participation and that the EU wide dimension of their responsibilities prevails over the specific interests of individual members.

## **CONCLUSION**

ENA is keen to be part of the ongoing Green Paper dialogue with the regulators and the European Commission on the changes foreseen to DSO roles and responsibilities.

We agree that the mapping out of an EU framework for demand response covering commercial, regulatory and standardisation aspects could be helpful, but it is essential that the steps taken to support smart grid developments are suitable for the individual Member States. Given the very different nature and functions of DSOs, ENA would support the ACER suggestion of an EU 'menu' of (consistent) options for Member States for the regulation of DSOs, based on high level principles.

The Green Paper suggests that there will be a reduction in gas demand as a result of changes to gas used in the heating sector for a variety of reasons. This impact is unlikely to be marked in the period covered by the consultation. In the UK's Department of Energy and Climate Change (DECC) 2013 report – [The Future of Heating: Meeting the Challenge](#) their analysis indicated that although natural gas use for heat will have to reduce over time if the UK's carbon targets are to be reached, it will still play an essential part in the transition to a low carbon future. Maintaining the UK's extensive gas network will not lock-in carbon emissions but will provide the flexibility for increasing levels of biogas and also the potential for power to gas.

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