

European Commission Consultation on Generation Adequacy, Capacity Mechanisms and the Internal Market in Electricity – Energy UK Response

7th February 2013

About Energy UK

Energy UK is the Trade Association for the energy industry. Energy UK has over 70 companies as members that together cover the broad range of energy providers and suppliers and include companies of all sizes working in all forms of gas and electricity supply and energy networks. Energy UK members generate more than 90% of UK electricity, provide light and heat to some 26 million homes and in 2011 invested over £10 billion in the British economy.

Main Points

- Energy UK believes that it is timely to review the interactions between national generation adequacy policies and the single European market in energy.
- If energy markets are to operate successfully, greater coherence of European energy policy is needed and renewable generation needs to be integrated into the market.
- A ~~missing~~ money+ problem has arisen in several national markets as the result of the expansion of variable renewable generation, and the UK faces a particular challenge to replace time-expired plant with low-carbon generation while maintaining supply security.
- There is no unanimous view on capacity mechanisms within Energy UK, but the consensus view of almost all members is that a capacity mechanism is now necessary in the GB market given the changed energy environment.
- Capacity mechanisms should be designed to ensure adequate capacity to meet demand (~~resource~~ adequacy+) rather than to address operational security; flexibility should be promoted through energy market design.
- Care should be taken to ensure that capacity mechanisms cause minimum distortion to cross-border trade and the EU single market.
- Interconnection is a helpful complement to local generation capacity but cannot be viewed as a panacea.
- Energy UK believes that a strategic reserve is only suitable as a last-resort measure and has disadvantages in terms of political risk.
- A ~~one-size-fits-all~~ approach to generation adequacy is not feasible, given the differences in size of system, generation mix and level of interconnection across Europe.
- However, Energy UK believes that regional and EU assessments will become more important as the European market integrates and we would support a common assessment framework to ensure consistency, particularly at regional level.

- Energy UK would also support high-level EU guidelines on generation adequacy, but these should not be over-prescriptive.
- If capacity mechanisms are introduced, they should:
 - o Be market-based and technology neutral;
 - o Provide a level playing field for generation (new and existing), demand response and storage technologies;
 - o Take into account the potential contribution of imports.

General Comments

Energy UK welcomes the opportunity to respond to the Commission's consultation on generation adequacy and capacity mechanisms. Some significant progress towards more integrated EU markets has been made in recent years, while at the same time security of supply has taken on a greater importance for many governments. It is therefore timely to review the interaction between national security of supply policies and the development of the single market.

The Commission's Internal Market Communication expresses frustration with 'award-looking or nationally-inspired policies' which threaten to undermine the European market. Energy UK accepts that there is some justification for this concern and agrees that national governments should pay greater attention to the impact of national policy on other Member States and on the EU market. However, it must be stressed that national measures often respond to a lack of coherence in EU energy policy itself. In particular, there is a conflict between the market-driven approach to energy liberalisation and to EU ETS and the various sectoral targets in renewables, energy efficiency etc being promoted at European level. These conflicts need to be resolved before the Commission proposes a framework for energy and climate policy post-2020.

The Commission's Communication correctly calls for investment to be market-based but does not address the issue that much current investment, particularly in renewables, is based on non-market-based support schemes. This has had an adverse effect on wholesale markets in parts of Europe and has weakened the business case for conventional generation. Conventional capacity will continue to be required for some time both to keep costs down and to act as back-up for renewables, but will in future operate on lower load factors. A priority must therefore be to ensure that renewable generation is integrated into the market. This will allow renewable development to continue, while also ensuring that market liquidity is maintained and that price signals for investment are provided.

1. Do you consider that the current market prices prevent investments in needed generation capacity?

Investment decisions on new generation capacity are made on the basis of several factors, including the anticipated supply/demand balance, expected future prices, likely load factor and the regulatory regime. Current market prices are a factor, but their importance should not be overstated.

The current low market prices in Europe largely reflect the economic recession and indicate that (in much of Europe) little new generation investment is required at present. However, it is important to note that new plant requirements are likely to increase over the next decade, as existing generation reaches the end of its life and has to be replaced by new low-carbon

capacity. The UK in particular is facing unprecedented levels of plant closure, with around 20% (19 GW) of existing capacity expected to close by 2020. Given the rapid development of variable renewable generation in recent years, conventional generation plant faces the prospect of considerably lower load factors than in the past. This means that the business case for new investment in such plant is likely to be less attractive, particularly given the current political and regulatory uncertainties in many Member States

In this light it is not clear that an energy-only market will ensure sufficient investment to decarbonise the electricity sector while ensuring secure supplies at least cost to customers. Well-designed capacity mechanisms could incentivise generation investment by providing a stable income stream for reliable plant, thus reducing uncertainty and volatility of returns.

2. Do you consider that support (e.g. direct financial support, priority dispatch or special network fees) for specific energy sources (renewables, coal, nuclear) undermines investments needed to ensure generation adequacy? If yes, how and to what extent?

Yes. Direct support and preferential access arrangements for specific sources have a damaging effect on the single market generally, as well as on potential new investments. Ideally, all technologies and energy sources should compete on a level playing field. Any subsidies for generation technologies should be phased out as they reach market competitiveness.

In recent years several new renewable technologies have been successfully developed and deployed in Europe on the basis of national support schemes. The promotion of renewables has brought benefits in terms of reducing carbon emissions, lowering dependency on fossil fuels and advancing new technologies. However, support schemes have often not been market-based and in parts of Europe this has adversely affected wholesale markets. As further capacity is built to meet the EU renewables targets and the renewable energy share rises to over 30% of total generation, this problem will need to be addressed.

The increasing penetration of renewable energy will exacerbate the 'missing money' problem facing generators in the market today. Low-marginal-cost renewables will increasingly displace conventional plant, making the revenue on which such plant relies to make a return more infrequent and more difficult to predict. This missing money issue masks the signal in the market to invest in generation adequacy. Consequently, a mechanism to address generation adequacy is likely to be necessary in markets with high renewables penetration and weak interconnection.

3. Do you consider that work on the establishment of cross-border day ahead, intra-day and balancing markets will contribute to ensuring security of supply? Within what timeframe do you see this happening?

In discussing 'security of supply' it is important to distinguish between resource adequacy, (i.e. the availability of sufficient capacity to meet demand) and operational security (i.e. the real-time balancing of the system). The short-term energy markets can play an important role in ensuring operational security, but are likely to have less impact on resource adequacy.

Cross-border day ahead, intra-day and balancing markets will contribute to better use of interconnectors and will enhance security of supply on these timescales. Coupling of day-ahead markets in most of the EU market should be achieved in the short term. Intra-day market coupling is also progressing and can be expected to be in place within two or three years. Given

the very different balancing mechanisms in use across Europe and the particular importance of balancing for real-time operation, unified balancing arrangements are likely to take somewhat longer.

Notwithstanding the above comments, it must be remembered that the EU electricity network is not a %copperplate+, as there is relatively little interconnection in parts of Europe. The Great Britain system, for instance, has a peak demand of 60 GW, but only some 4 GW of cross-border capacity to the Continental and All-Island systems. However efficiently interconnection is used, this will have limited impact on security of supply if the connecting infrastructure is not there. Additional interconnectors between GB and the Continent will be built in the coming years, but subsea interconnector projects are capital-intensive and have relatively long lead times. Consequently, for the GB market, interconnection will play a greater role in the longer term, but is unlikely to have much impact in the short to medium term.

4. What additional steps, if any, should be taken at European level to ensure that internal market rules fully contribute to ensuring generation adequacy and security of supply?

Internal market rules could play a significant role in ensuring generation adequacy and enhancing security of supply. However, there is a lack of coherence in EU energy policy itself which needs to be addressed. In particular, there is a conflict between the market-driven approach to energy liberalisation and to EU ETS and the various sectoral targets in renewables, energy efficiency etc being promoted at European level.

A key priority should be to integrate renewable generation more effectively into the market. In practice this means that national support schemes should be compatible with wholesale markets and their design should converge first at regional and then at national level. To mitigate the problems which have arisen in some parts of Europe, e.g. negative wholesale prices and loop flows, balancing, connection and network charges should be the same for renewables as for other plant.

It is also important that the Third Liberalisation Package is fully implemented and that national measures which distort price signals, e.g. regulated retail prices, are removed. Cost-effective interconnection should also be promoted and the Regulation on Energy Infrastructure which has recently been agreed could play an important role in this respect.

5. What additional steps could Member States take to support the effectiveness of the internal market in delivering generation adequacy?

See answer to Q.4 above. Member States should promote competitive markets and ensure that any domestic policy measures minimise distortions to the EU single market.

6. How should public authorities reflect the preferences of consumers in relation to security of supply? How can they reflect preferences for lower standards on the part of some consumers?

The public authorities generally set a security standard to which the power system is planned and operated. This is done on an administrative basis, as it is difficult to determine customer

preferences for supply security. Moreover, as all customers are supplied via the same network, it is not possible to offer customers a choice of different levels of service.

Energy UK is sceptical about whether the option of lower security standards should be pursued. With the development of computer technology, society is increasingly dependent on electricity and most customers place a high value on reliable supplies, as shown by the public reaction to the rare instances of power failures. Some large consumers are able to reduce electricity demand at times of high prices and thus to benefit from lower charges, e.g. interruptible tariffs. Moreover, the deployment of smart metering should improve the ability of small customers to respond to price signals. However, demand for electricity is inelastic: for most business customers electricity does not form a significantly high part of their cost base to warrant major changes in energy usage and domestic consumption is influenced by a variety of lifestyle factors. For these reasons, future take-up of demand response technologies is uncertain and will need to be monitored as contractual arrangements are developed to facilitate DSR.

7. Do you consider that there is a need for review of how generation adequacy assessments are carried out in the internal market? In particular, is there a need for more in depth generation adequacy reviews at:

a National Level b Regional Level c European Level

National governments have a strong interest in supply security given the political consequences of power failures and we believe that generation adequacy assessments are widely carried out at national level. A review of assessment methodologies could be beneficial in ensuring greater transparency about national policies but should take into account the differences in national and regional markets, e.g. size of system, generation plant mix and level of interconnection.

Regional and EU level assessments are now also being made, e.g. in the ENTSO-E TYNDP, and will take on greater importance as the market becomes more integrated, particularly in the more highly-meshed areas of the European network. Energy UK agrees that such assessments should be undertaken and, as mentioned above, believes that they should factor in the differences between systems.

8. Looking forward, is the generation adequacy outlook produced by ENTSO-E sufficiently detailed? In particular,

a Is there a need for a regional or European assessment of the availability of flexible capacity?

b Are there other areas where this generation adequacy assessment should be made more detailed?

The ENTSO-E outlook has a reasonable level of detail but has a number of limitations. In particular it does not take account of generation plant being retired for economic reasons, which will probably become more frequent as load factors fall. As such the current TYNDP approach is likely to present an unduly positive picture of generation adequacy and it would be appropriate to develop scenarios incorporating economic factors.

It would be sensible for ENTSO-E to assess flexibility of generation and demand at the regional level to complement national studies.

9. Do you consider the Electricity Security of Supply Directive to be adequate? If it should be revised, on which points?

The Directive requires Member States to establish policies to safeguard security of supply within the framework of the single market for energy. This reflects the fact that security of electricity supply is a strong national concern but that there is also a broader dimension, as national policies can affect other Member States and the European market.

Energy UK takes the view that the Directive provides an adequate framework for market-based policies on electricity security. The European electricity system is becoming more integrated and this development is being catered for through the current programme of Network Codes. For instance, the Codes on Operational Security will require TSOs to operate transmission systems in a more coordinated way. Moreover, the Commission has recently established an Electricity Coordination Group (ECG) which provides a forum for discussion of security of supply and other issues.

Energy UK therefore believes that there is no need to revise the Directive, as the detailed issues raised by market integration can be dealt with through the Codes, while general political topics can be handled by the ECG. It is important that more effective stakeholder engagement is ensured both in the Code process and in the ECG: proper security of supply requires close cooperation between transmission and generation operators and both categories of player should be fully represented in EU discussions.

10. Would you support the introduction of mandatory risk assessments or generation adequacy plans at national and regional level similar to those required under the Gas Security of Supply Regulation?

A major focus of the Gas Security of Supply Directive is the fact that Europe is dependent on a relatively small number of external gas suppliers, which has resulted in some supply disruptions linked to political disputes. Cross-border transportation of gas is also more developed than electricity, as resources are not evenly spread throughout Europe.

In electricity, there is a wide range of suppliers, i.e. power stations, and also of energy sources, so that disruptions of this type are unlikely. Security of electricity supply is linked to the long-term issue of investment in generation and network capacity and the short-term issue of real time management of the system, since electricity cannot be stored in bulk.

Given the differences between electricity and gas, Energy UK does not see the need to mandate risk assessment or generation adequacy plans.

11. Should generation adequacy standards be harmonised across the EU? What should be that standard or how could it be developed taking into account potentially diverging preference regarding security of supply?

Although progress has been made in building cross-border interconnection, there are still major transmission constraints between national systems in many parts of Europe, and also within some national systems. Great Britain has relatively little interconnection at present and, although the situation should improve in the coming years, subsea interconnector projects are capital-intensive and have long lead times. GB will therefore retain some characteristics of an

island system for some time to come. Energy UK does not believe that a ~~one-size-fits-all~~ approach to generation adequacy is feasible, given the major physical differences between the GB, Irish, Nordel and UCTE grids. Island systems, for instance, will generally require higher reserve levels than larger, more integrated systems.

Over time the European network will become more integrated and more interconnected and it would be logical as this process develops to move to a common approach to generation adequacy. As an initial step, efforts could be made to harmonise national methodologies so as to establish a common assessment framework. This would allow national approaches to be more widely understood and debated.

12. Do you consider that capacity mechanisms should be introduced only if and when steps to improve market functioning are clearly insufficient?

This depends on the meaning of ~~clearly~~ insufficient. Given the high value society places on reliable electricity supplies and the lead times for building power stations, the public authorities have to act well before generation adequacy problems emerge. It is clear that the decision to introduce a capacity mechanism should be supported by thorough analysis, but it would not be sensible to require evidence of system stress before action is taken.

The energy-only market in GB has so far been effective in ensuring supply security and has delivered both adequate reserve margins and new generation investment. Energy-only markets also have a good track record elsewhere in Europe and would remain viable in markets governed by economic considerations. However, circumstances have now significantly changed largely as a result of policy and regulatory decisions:

- the UK is set to lose around 20% of its generation capacity by 2020, much of it by 2016 as older fossil plant has to close to comply with the Industrial Emissions Directive;
- The UK has set ambitious carbon targets going beyond the EU commitments both for 2020 and beyond and thus requires major investment in low-carbon generation;
- The EU renewable targets require a major increase in UK renewable capacity, in particular wind and biomass, which will erode the competitive position of much conventional plant. ~~the missing money~~ problem; it is not clear that the very high peak prices which would then be required to remunerate backup plant in an energy-only market would be politically acceptable.

By 2020 some further interconnection to the Continent and to Ireland will have been built and will play a part in meeting the prospective ~~supply gap~~; though it cannot be guaranteed that interconnector flows will be towards GB at peak times. However, considerable additional national generation will still be necessary.

Under these circumstances the UK Government has decided that it needs to make provision for a capacity mechanism. There is no unanimous view within Energy UK on this decision, but the consensus view of almost all members is that an energy-only market is not able to meet all the challenges outlined above and that a capacity mechanism is now needed, given the changed market environment.

Where governments do decide to introduce a capacity mechanism, this should be done in a holistic way, taking into account other national and European policy initiatives. There should be clarity about what each individual mechanism aims to achieve.

13. Under what circumstances would you consider market functioning to be insufficient:

a to ensure that new flexible resources are delivered?

Assuming markets are allowed to function properly, they should be able to deliver flexible resources, which will help deliver operational security. Flexibility can be delivered from a variety of sources, e.g. pumped storage, flexible fossil plant, demand side response and storage. Markets are an efficient means of determining the most cost-effective options, and appropriate design of balancing, intra-day and day-ahead energy markets should therefore ensure the necessary mix of flexible resources.

Price regulation, notably the capping of prices during peak periods, is a threat to proper market operation, as it is likely to prevent flexible resources achieving a reasonable return. It is therefore essential that such regulation should be avoided.

b to ensure sufficient capacity is available to meet demand on the system at times of highest system stress?

Market functioning is likely to be insufficient in situations where policy or regulatory interventions produce major distortions in the market and/or require major change in a short period of time (see response to Q. 12).

As mentioned in the response to Q. 3, a distinction must be made between operational security and resource adequacy. The purpose of a capacity mechanism should be to address resource adequacy, i.e. ensure that sufficient reliable capacity is available to meet demand.

14. In relation to strategic reserves:

a. Do you consider that the introduction of a strategic reserve can support the transition from a fossil fuel based electricity system or during a nuclear phase out?

No. A strategic reserve is only suitable as a last-resort measure for maintaining supply security and thus not as an enduring solution. Decarbonisation of the power sector will require much investment in low-carbon generation, network reinforcement and demand-side measures including energy efficiency. However, a strategic reserve will not facilitate the participation of demand-side response, storage or interconnectors. In fact it will be extremely difficult to integrate these types of capacity. For example a storage or interconnector investor would not want to limit their ability to use their asset to only a few hours a year. A strategic reserve would therefore not bring forward new investment, though it could maintain some older plant on the system for a limited time in order to provide peaking power and backup.

A strategic reserve, if used only in exceptional and clearly-defined circumstances, should not distort the market. However, if used more extensively it can cause considerable damage to the wholesale market by eroding the competitive position of other generation (reducing wholesale prices and running hours). This would then require additional arrangements to maintain security of supply, as a further tranche of generation would become uneconomic. Strategic reserves should therefore only be used as a last resort when no other generation is available to prevent the lights going out. Even then, there is a significant risk of governments intervening to use the

strategic reserve more frequently, with a view to keeping prices down. This could add additional political risk, exacerbating the capacity problem rather than resolving it.

b. What risks, if any, to effective competition and the functioning of the internal market do you consider being associated with the introduction of strategic reserves?

See response to Q.14a above.

15. In relation to capacity markets and/or payments:

a. Which models of capacity market and /or payments do you consider to be most and least distortionary and most compatible with the effective competition and the functioning of the internal market, and why?

Capacity mechanisms may to some extent distort the power market if introduced in an uncoordinated fashion. However, it must be borne in mind that there are already major (and arguably increasing) distortions in the single electricity market due to European and national energy policies, regulatory interventions, non-implementation of the Third Package etc. Consequently, the question is not whether capacity markets introduce a degree of distortion but whether they are necessary to ensure generation adequacy in the light of the less-than-perfect market arrangements which currently exist.

Because the challenges facing different regions of the EU market vary, Energy UK believes that the detailed design of capacity mechanisms is also likely to vary, but should align with a number of principles. In particular such mechanisms should:

- be designed specifically to ensure adequate supplies at peak times and backup capacity for variable renewables;
- be subject to detailed analysis before implementation at national or regional level;
- be market-based and technology-neutral;
- ensure that all capacities contributing to security of supply receive the same remuneration for the same service and reliability;
- provide a level playing field for generation, demand and storage;
- maximise transparency and liquidity in the energy markets;
- take into account the potential contribution of imports and seek to minimise distortions to cross-border trade; and
- complement the energy market and not replicate it (mechanisms should remunerate plant availability rather than energy output).

b. Which models of capacity market and /or payments do you consider to be most compatible with ensuring flexibility in a low carbon electricity system?

Flexibility should be dealt with through the design of the short-term energy and balancing markets (see response to Q. 17).

c. Are there any models of capacity mechanism the introduction of which would be irreversible, or reversible only with great difficulty?

One of the benefits of a market-based approach, e.g. an auction, is that costs are likely to reduce as more capacity is attracted into the market. This will limit the impact both on customers and the market generally. It must nevertheless be stressed that retroactive changes should not be made because of the adverse impact on investor confidence.

16. Which models of capacity mechanisms do you consider to have the least impact on costs for final consumers?

The costs of a capacity mechanism have to be assessed in relation to the benefits in terms of enhancing capacity margins and security of supply. Although a targeted capacity scheme or strategic reserve might have lower direct costs than an industry-wide mechanism, either could well erode the position of existing generation outside the scheme. The result is likely to be either increased risks to generation adequacy as further plant closes, or else an increased requirement for new investment. This would not necessarily be beneficial for customers.

If properly designed, a capacity mechanism should reduce the risks of investment in thermal generation by providing a level of revenue certainty, against a backdrop of volatile commodity markets and reduced load factors. This should promote greater confidence in the investor community and reduce cost burdens on customers. Moreover, it is important to consider the overall system costs, since a capacity mechanism will generally lower the energy cost.

A market-based mechanism is likely to have lower total costs for customers and to fit more effectively with general energy market design. Technology neutrality and a level playing field between generation and demand are also important factors.

17. To what extent do you consider capacity mechanisms could build on balancing market regimes to encourage flexibility in all its forms?

Flexibility should be handled through energy market design. In particular, balancing and imbalance arrangements should be effective, all market parties should be balance-responsible and price caps should be avoided. Europe should continue to develop liquid intra-day markets.

It is essential that both demand and generation face the right incentives at the right times. For instance, appropriate peak prices should be passed on to customers. A capacity mechanism should not dampen peak prices, as this is likely to encourage too much peak demand.

18. Should the Commission set out to provide the blueprint for an EU-wide capacity mechanism?

No. The European market is not yet sufficiently integrated for an EU-wide scheme to be appropriate - different regions of the European market face different challenges.

Capacity mechanisms are likely to reflect national willingness to pay and will depend on a variety of factors including generation mix, age of existing plant, level of environmental and renewable targets and amount of interconnection. Consequently, a one-size-fits-all approach is unlikely to work.

19. Do you consider that the European Commission should develop detailed criteria to assess the compatibility of capacity mechanisms with the internal energy market?

Yes. It is important that capacity mechanisms do not act as a barrier to integration of the EU market and that market-based approaches are encouraged as far as possible. The Commission nevertheless needs to consider the different characteristics of national and regional systems across Europe and the overall policy framework, much of which is not market-oriented. Given that the scale of the problem varies across Europe, any Guidelines on capacity mechanisms should avoid being over-prescriptive and should allow some flexibility for Member States to deal with their own specific issues.

20. Do you consider the detailed criteria set out above to be appropriate?

- 1. The necessity for a capacity mechanisms should be clearly established in the context of:**
 - a. The potential of the identified needs being met in the normal operation of the internal energy market, in particular:**
 - i. increased interconnection and in particular the completion of identified projects of Common interest.**
 - ii. steps to encourage effective competition by addressing the position of dominant undertakings.**

Yes. However, it must be borne in mind that interconnection and generation capacity are two discrete parts of the electricity supply chain and are not alternatives . both are needed to ensure reliable and competitive supplies. Interconnection can both promote competition and reduce the need for reserve, but interconnector projects tend to be capital-intensive and to have long lead-times. It can also be more economically efficient to build generation near to demand.

We do not see capacity mechanisms as relevant to the issue of dominant undertakings. The Commission has extensive anti-trust powers to address abuse of a dominant position. The Third Package contains many measures aimed at ensuring a level playing field, e.g. the unbundling of network businesses, and a specific market integrity framework has recently been introduced at European level (REMIT).

- b. Alternative, less distortionary measures, which could be taken, for example steps to improve energy efficiency or reduce electricity demand.***

Demand should be treated on an equal footing to generation. It should be remembered that energy efficiency policies may result in more rather than less consumption of electricity, as the use of electric vehicles, heat pumps etc is generally more efficient and less carbon-intensive than fossil-fuel alternatives.

- c. Removing barriers to the effective participation of demand in the electricity market.***

Demand response is an important means of reducing electricity peaks. It is essential that any price caps are removed, to ensure that demand faces appropriate price signals at peak times.

- 2. The effectiveness of the capacity mechanism addressing the identified market failure should be demonstrated and that it is additional to what would have occurred under normal market rules.***

Capacity mechanisms should be shown to address the issue of generation adequacy. However, it is extremely difficult to show that their impact is additional to the normal operation of the market, since this can never be known in advance.

- 3. The duration of the application of the capacity mechanism should be clearly limited and clearly specified,***

The duration of a capacity mechanism should not necessarily be time-limited but should depend on its success in ensuring generation adequacy. Variable renewable capacity is a major factor behind the introduction of capacity mechanisms and as more such plant will come onto the European system, it is not clear that the justification for capacity mechanisms will diminish. At all events, generation investments require a stable long-term framework.

- a. The impact on the market of the introduction of capacity mechanisms should not make it difficult to reverse that decision in the future.***

A market-based system should mean that capacity remuneration falls when sufficient capacity is available to ensure generation adequacy. This will reduce the overall impact of the mechanism and should avoid the need to reverse the decision. At all events, care should be taken to avoid retroactive changes to capacity mechanisms and political interference, given the damaging impact on investor confidence.

- b. The necessity of retaining reinstating a capacity mechanism should be subject to review.***

Capacity mechanisms should be kept under review (but see our comment on retroactivity in the paragraph above).

- 4. Any capacity mechanism should be open to electricity undertakings operating in other Member States, to the extent they are able to make the electricity available in markets to which the capacity mechanism is established.**

Yes in principle. However, it must be borne in mind that some practical problems are associated with giving capacity in other national or regional markets access to a capacity mechanism. In particular, it has to be ensured that the capacity is able to flow power across an interconnector at peak times and that plant availability and metering can be verified in the market purchasing the power. Moreover, the capacity in question should not receive double remuneration, i.e. payment for participating in from another CRM.

- 5. Any capacity mechanism should not act as a barrier to cross border trade or competition in the internal market by:**

- a. artificially altering trade flows or the location of production, in particular by:**

- i. restricting the ability of electricity undertakings in the Member State to sell their electricity to customers elsewhere in the internal market, (i.e. capacity physically located in a Member State should not be reserved for that Member State**

Yes. We agree that distortions to cross-border trade should be minimized and that capacity should not be reserved for the particular Member State.

- ii. distorting the commercial behaviour of generators in the day ahead and intraday markets.**

Yes. Capacity mechanisms should not interfere with the energy markets. Capacity mechanisms are generally designed to reward availability rather than energy delivered and thus should not cut across the energy market.

- iii. Distorting investment signals in the internal market leading to inefficient locational choices.**
iv. Distorting investment signals in the internal market leading to the displacement of new investment from one Member State to another.

Yes. Many factors influence investment decisions and we do not believe that a correctly-designed capacity mechanism will distort investment signals.

- b. distorting dynamic incentives/crowding out;**

- i. The incentive on consumers or generators to respond to high prices at periods of scarce capacity should not be diminished.**

Yes. The scarcity signals in the energy market should remain as these are important for discouraging demand at peak times.

- ii. The mechanism should not undermine incentives on the electricity market to deploy new techniques for demand reduction or electricity storage and generation.**

Yes. Generation, demand response and storage should be treated on an equal footing. Markets are an appropriate means of determining which options are most cost-effective.

c. creating market power or exclusionary practices;

Yes

- i. The mechanism should not strengthen or maintain the market power of incumbent firms.**

Yes, but market power should be dealt with through other means.

- ii. The mechanism should not act to maintain inefficient market structures or undertakings, acting to deter new entry.**

Yes. New and existing capacity should be treated on an equal footing.

6. To be non-discriminatory a capacity mechanisms should

a. be allocated after an open competitive bidding process.

Not necessarily. Provided that capacity remuneration is determined in accordance with a stable and transparency methodology, there need not be a competitive bidding process. This is particularly true for mechanisms where participation is mandatory.

b. allow demand response and energy efficiency solutions to bid into capacity markets on an equal basis to generation.

Energy UK agrees that demand response should be allowed to bid into the capacity mechanism. This is on the basis that it provides the same service (is always available to reduce demand) and is exposed to the same penalties. Energy UK does not support the participation of energy efficiency in the capacity mechanism. Energy efficiency requires a permanent reduction in demand and so cannot respond to demand shortfalls on a day to day basis.

7. Not be confined to any particular generation technology, i.e. being tech. Neutral (insofar as the mechanism is directed towards security of supply concerns – this may not apply if other objectives are also being pursued)

Yes. This is necessary to ensure a level playing field in the generation market.

8. Capacity mechanism should be at least cost:

- a. The direct costs imposed on suppliers or other electricity undertakings must be kept to the minimum necessary.**

Yes. The costs need to be set against the benefits of a capacity mechanism, bearing in mind that most customers place a high value on reliable supplies of electricity. The cost impact should also be seen from a system perspective, i.e. a capacity mechanism will generally reduce the energy element of the wholesale price.

- b. Persons providing capacity under the obligation must not be overcompensated.**

Yes, however all capacity providers should be paid the same for providing the same level of service.

- c. Any selection process in the mechanism should be conducted in a transparent, open and non-discriminatory way which is market based.**

Yes. Transparency of the arrangements is an important element in ensuring investor confidence.

- d. The duration of any compensation to generators under the mechanism should be clearly justified.**

Yes. The mechanism must provide stability and predictability.

- 9. Costs associated with capacity mechanisms should be allocated to the beneficiaries of secure energy supply with different classes of consumers being treated in a non-discriminatory way.**

Yes. Costs should be equitably allocated across all customers who benefit.

20 a. Should any criteria be added to this list?

No. The list is comprehensive.

20 b. Which, if any, criteria should be given most weight?

Capacity mechanisms should be market-based and should treat different types of capacity and different technologies equally. Criterion 5, which addresses the distortion of cross-border trade, is particularly important, since the impact of incorrectly-formed market prices poses the greatest risk to wholesale prices and hence consumer welfare.