

PIU Project on Energy Policy - Security

Response by London Electricity plc

These are comments by London Electricity plc (LE) on the paper **Security – Initial Scoping Note** posted on the PIU website in August.

General

- London Electricity plc (LE) strongly supports the concept of markets delivering security of supply. Capacity support as practised under the electricity Pool created unnecessary costs for customers and perverse incentives for many generators, without discernibly impacting on security of supply. Unlike California, the UK energy markets have a good record to date of investment and comfortable capacity margins.
- We also believe that an important contributor (though not a solution on its own) for enhanced security is increased diversity between markets, and LE supports the continued opening up of European markets and further interconnection within the European Union (EU).
- Government should have a role in establishing a stable policy framework, but it should be for the market to deliver security of supply. Intervention has to be kept to a bare minimum. If the market expects that government will intervene (for instance to mitigate price or impose price caps), it will be less inclined to invest. Such a hybrid arrangement, combining market philosophy with ad hoc intervention, could well undermine security of supply relative to alternative approaches.
- Under the restructured electricity market, NGC effectively manages short to medium term security through procurement of reserves. There are no limits on how it can use those powers, beyond procurement guidelines provided for in its licence, and there is no reason why these powers cannot be used in the longer term to retain capacity on the system, if this were deemed necessary by some central agency. The pricing impacts of such measures would need to be very carefully considered before this option could be utilised. All purchasing decisions – short and long-term - should be transparent to the market.

Responses to questions raised

- Q1. *What is the appropriate balance between emphasis on short-term physical elements of security and longer-term price elements, bearing in mind that as we look further into the future, security seems increasingly to resemble long-term economic objectives?*

This is a complex matter. A balanced policy response is required that addresses all aspects of energy policy objectives over all timeframes. Government and the energy industries need to monitor and evaluate adequacy of supply and delivery on an on-going basis.

Q2. *Bearing in mind other objectives of energy policy, especially economic (achievement of low costs) and environmental (especially tackling climate change), what priority among policy objectives should be given to the idea of security?*

As the PIU has noted, there is an asymmetry between costs associated with securing a unit of energy and the costs associated with not securing it, which highlights the economic imperative of maintaining security of supply. It follows that security is a critical element of a robust set of energy policies, and will remain so. We believe that an energy policy that focuses on all elements of provision of “secure, diverse and sustainable supplies of energy” is appropriate, but that such a policy statement and description of the mechanisms for delivery and their interrelationship need to be taken to a much lower level of detail.

Q3. *What are the weak links in the supply and delivery chains for the different sources of energy?*

The review should look at all elements of the electricity supply chain from production through to delivery to the end consumer. We believe that, to date, network issues and system security have been comparatively neglected compared with production and strategic security.

Q4. *Security policy is sometimes framed in terms of an insurance analogy: policy may involve the payment of a set of ‘risk premiums’ in order to guard against a range of possible future events. Is this a useful approach to thinking about security?*

We think the answer to this question is “yes”, provided the insurance element can be quantified and applied in such a way as not to distort markets.

In the electricity sector, customers already pay an insurance premium in charges they pay to cover BSUoS charges levied by NGC, which in turn pay for reserves presently held on the system. This framework could be extended in the future in the event of erosion in the capacity margin (for instance by contracting for availability of plant that might otherwise be mothballed). Use of such powers should only be a last resort and would need to be closely monitored.

Q5. *If there is a quantifiable framework in which to gain some idea of the ‘insurance’ benefits of paying a system security insurance premium, but no such framework for making the same calculation in the case of*

strategic security, how can policy-makers reach conclusions about the right balance of effort to give to insuring against strategic rather than against system risks?

The evaluation framework to be developed by the PIU should accommodate strategic as well as system security.

Q6. *Is it (a) practical and (b) desirable for there to be different security standards for different consumers? To what extent should energy suppliers be encouraged to offer a range of products with varying degrees of security?*

It is desirable to allow customers to seek differential levels of security but there remain barriers, many practical (e.g. current metering and control technology), to the realisation of this goal. See also Q14 in our response on networks. Assuming the practical barriers can be addressed, moving towards greater choice and flexibility in this direction should also enable better incentivisation of demand interruption on commercial terms by customers, which can also bring security benefits.

Q7. *Do existing, mostly competitive, energy markets deal adequately with risks to energy security?*

Yes. LE believes that price should continue to be the prime means of clearing energy markets and driving production investment decisions. Intervention in them should be contemplated only as a last resort. Physical system operators should have clearly defined reserve powers of intervention in the event of supply disruption in emergency situation or of severely deteriorating security margins. Both the gas and electricity markets have been structured on this basis, and we see no reason why they should not deal adequately with security risks.

Even with market driven security, the market still requires unbiased, unambiguous and sufficient information on market trends and prices. In this context, the recently announced DTI/Ofgem expert group should have an important informational and monitoring role.

In terms of network security and quality, we have highlighted some concerns on the operation of current economic regulatory structures at A6 of our preliminary response and in our response accompanying this on network issues.

Q8. *Are market failures large enough to suggest that existing markets do not provide the 'right' levels of security?*

No. See our answer to Q7 above.

Q9. *If these market failures are large enough, can we be confident that Government interventions to correct for the failures will generally have the desired results, especially bearing in mind the difficulties of measuring the risk reduction/cost trade-off?*

Again our response to Q7 above is relevant. Assuming the market infrastructure has been properly established, there should be only a modest informational role for government.

Q10. *To what extent should we be concerned about importing a proportion of our energy needs? Where there is concern about security of supply from a particular set of overseas suppliers, how far should we be concerned with market power (limited number of suppliers) or with political unreliability, or are the two inextricably linked in the cases of, say, gas supply and Middle East OPEC oil supply?*

The “bottom line” is that even an expanded Europe will remain import dependent. Market power and political risk will be factors that need to be explicitly taken into account in assessing future energy policy options at both the UK and EU levels.

UK import dependency itself is not so problematic, provided there is regional diversity of supply sources. As we commented in our preliminary response, EU policy resolution is directly relevant to policy formulation in the UK on this matter. Development of EU energy markets is also likely to bring about enhanced diversity between Member States, and increased interconnection will be an important means of accessing this diversity.

Q11. *Is the current regulatory regime for electricity and gas networks, led by OFGEM, adequate to minimise risks of power or gas shortfalls due to inadequate production capacity or network inadequacy?*

LE is firmly of the view that the answer to this question is “no” with regard to network adequacy. Again, see section A6 of our preliminary response and the answers to the networks scoping note especially Q15.

Q12. *How far are generic ideas like diversity, robustness and flexibility a useful starting point for analysis of the risks against which security policies are designed to protect?*

The risk analysis should take all these properties into account. Other factors such as durability, sustainability and price also need to be considered.

Q13. *What is the appropriate balance between market-based and more ‘political’ approaches to security?*

As we indicate in our response to Q7 above, we believe security of supply should be market-driven.

Q14. *What is the appropriate balance between instruments and approaches on the supply side and the demand side?*

It is not possible to quantify this balance but the potential contribution of the demand side has to date been neglected. The prospects for effective two-sided energy markets remain distant. See section A12 of our preliminary response and the specific comments made in response to Q3 on the energy efficiency/CHP initial scoping notes about the need to better capture demand side dynamics.

Q15. *Among all the instruments described, which are the most appropriate in the UK's situation?*

The resource productivity analysis already carried out by the PIU should assist development of a better understanding of the choices and their relative effectiveness, at least with regard to renewables, provided it takes into account security and diversity benefits. The analysis should be extended to other current support programmes (e.g. energy efficiency) and other possible policy support options as part of the current energy policy review.

Q16. *Is there a risk that government measures to improve security would undermine provision of security by the market, perhaps in the way that insurance might reduce the incentive to avoid risks?*

Yes. For the market to deliver security, government intervention has to be minimised, and where permitted it must be predictable. If the market feels government might intervene (for instance, to mitigate price or impose price caps), the industry will be less inclined to invest.

Security of supply problems experienced in other markets, especially in the United States, have raised renewed concern in the minds of policy makers around the world. Unfortunately, there is much misinformation about what has actually happened in these markets. In this context, there is some interesting work by Paul Joskow on California. This work shows that wholesale electricity prices experienced in California were broadly in line with demand/supply fundamentals but that regulatory interventions in the form of wholesale price caps and retail price limitations distorted the market and meant that these prices were not able to feed through to the customer. In turn, this interference with prices undermined the ability of demand to respond to price at times of system stress. The *expectation of political intervention* was also one of several reasons why an investment blight occurred to 2000. The problems arising from unstructured intervention are also well illustrated by recent experiences in the Australian electricity market. We can provide papers to the PIU on both situations if requested.

Q17. *What sort of government measures are most likely to add to the security that the market would otherwise have provided?*

As we have explained above, the government's role should primarily be informational. Other action by government should be directed at removing any remaining distortions to the proper operation of the market. Governments and regulators also have an essential role to play in sustaining a stable investment environment including through the mitigation of unnecessary change.

Q18. *How far is it true that pursuit of security and of environmental objectives are synergistic?*

Security and environmental objectives can be synergistic where environmental programmes lead to increased diversity in supply and demand side options and opportunities. However, pursuit of one does not automatically lead to the other.

Q19. *Should we only use security policies that harmonise with environmental objectives compared to those which do not?*

No, but the evaluation framework for policy assessment and selection being developed by the PIU should be able to give appropriate (i.e. greater) weighting to those that do.

Q20. *In these three areas [markets leading to lowest costs solutions; RPI vs investment; security impacts of distributed generation], is the net result of market developments to lead to greater or lesser security, or is it impossible to judge?*

There are complexities inherent in all three areas, but LE generally believes:

- properly functioning markets that drive down costs are not inconsistent with greater security of supply but the issue is a complex one as it depends on relative price levels between supply options, the supply mix and how supplies are sourced. However, if one technology becomes abundant because it is cheap at the expense of others, security can be undermined.
- RPI-X style regulation as it is presently applied in the UK to networks gives insufficient weighting to quality and security considerations; and
- the institutional framework for distributed generation does not properly reflect the potential security benefits *and* costs that can arise from application of such technology.

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