European Commission consultation on generation adequacy, capacity mechanisms and the internal market in electricity

Response of the Netherlands (Ministry of Economic Affairs)

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

Current relatively low electricity prices are the result of low demand and overcapacity in generation of an increasing amount of renewables with limited marginal costs. Besides that fuel costs (especially gas) are high. This gives a negative outlook for investments in new generation capacity, especially gas fired capacity. In the Netherlands we have a strong competitive environment and low entry barriers. This has lead to a strong increase of investments in generation capacity in the last decade of which several still need to come on-line, which will lead to additional capacity growth in the coming years. Our national TSO (TenneT) concludes in its security of supply report that there is more than enough capacity to (technically) fulfil domestic demand and besides that there is a solid amount of available interconnection capacity. These circumstances currently lead to low new investment decisions in generation capacity in The Netherlands and some development plans have been withdrawn.

We realize that circumstances can be different in other countries and that concerns about sufficient generation investments have emerged in some EU-countries. Investment decisions are usually influenced by a combination of factors, but in most cases the current economic decline and regulatory uncertainty play a significant role. Also, the absence of a credible carbon policy and a lack of proper market functioning cannot be underestimated. In the Netherlands the “energy only”-market functions relatively well. In many other countries, market concentration, regulated prices, the existence of price caps - and more in general, unfinished liberalisation and delayed Third Package implementation - are still prevailing and might hamper new generation investments.

(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?

In a liberalised market in principle the market itself decides whether to invest in new generation capacity or not. Government interventions should be limited to situations where a transition is needed in order to fulfil different policy targets such as the investment in low carbon technologies. One of the fundamentals of the internal market is to seek for optimal locations for generation within the EU. National schemes in order to fulfil a short term need for generation capacity undermine a long term investment security and efficient energy supply. National support schemes for specific energy sources, regardless whether it concerns fossil fuels, nuclear or renewables, are obviously government interventions that influence investment decisions. By doing so, all these support schemes represent a divergence from internal market functioning.

In some of the recent discussions on generation adequacy and security of supply it is considered that support schemes for renewable energy may distort electricity prices and

therefore influence investment decisions in baseload and peak generation capacity. To avoid distortions to the market renewables should become fully competitive. In their design support schemes for renewable energy should take into account the integration in the energy market, e.g. by making support schemes responsive to market signals and by lowering costs through cost effective deployment. Support schemes that are harmful to the market should be gradually phased out.

The extent to which national support schemes for specific energy sources are necessary to achieve policy goals and the extent to which they undermine future generation adequacy can vary between different countries and markets. Eventually, our objective should be that European electricity markets are functional, competitive, liquid and transparent and that all energy sources are exposed to the same market conditions on a level playing field.

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

Yes. The Netherlands is convinced that the development of cross border day ahead, cross border intraday and cross border balancing markets will contribute to an economically efficient energy supply and to ensuring security of supply. It is therefore important to establish the European network codes following from the 3rd energy package, further market integration and market coupling projects. Hopefully the adoption of EU network codes and the implementation of a EU target model can be accomplished during the course of 2014.

Functional cross border intraday and balancing markets will add to security of supply, especially if shorter trading time horizons are included which could improve forecast accuracy and reduced balancing needs. Further development of these markets could certainly reinforce incentives for market based flexibility to deliver security of supply at least cost and to stimulate an efficient cross-border use of current flexible generation facilities.

Another development that could contribute to security of supply is the emergence of ancillary services markets. The EU network code process could be helpful to provide an impetus to this development while reacting to the increase in demand for flexibility. Requirements laid down on generators in the context of network codes should be utilized in a market based way. A market for ancillary services or grid support services could create additional revenues for all generators. This could involve remuneration for services such as maintaining frequency or voltage or emergency response services. Market options for such ancillary services could lead to improved cost-effectiveness. In this regard it should be mentioned that also on the demand side efforts can be intensified. Industry as well as household consumers have a responsibility to fulfil and should take actions which could lead to improving the security of supply situation.

(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?

The Netherlands considers it important to progress with completing the internal energy market. In that light we support many of the proposed actions in the Internal Energy Market Communication. In our view a successful completion of the ongoing process of developing EU network codes and framework guidelines can contribute to avoiding or solving the current

issues in relation to adequacy and security of supply. The EU-network codes promote common rules on the behaviour of and relations between network operators, energy producers and regulators. Important steps must be made to stimulate an efficient cross-border use of current flexible generation facilities, improve intraday market coupling, flow-based capacity calculation and cross border balancing. Furthermore, it is necessary that all generators are required to take responsibility for balancing electricity supply and demand. E.g. the draft network code on "requirements for grid connection applicable to all generators" proposes technical rules that could help renewable generators to stabilize their output. Also, we support the increasing calls for European obligations for renewable generators to become responsible for balancing their production.

It is essential to complete this EU network code process within the next two years. Surely, it will be difficult to find agreement on the network codes between 27 Member States, but the level of ambition of the codes should be high. Agreements that are too much watered down and built on "lowest common denominators" are not acceptable since they will not help further integration of the EU energy market.

Finally, the Netherlands supports the suggestion made in the Commission's consultation paper in relation to integrated regional and European assessments of available supply flexibility (see also our answers to Q7 +Q8).

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

The Netherlands supports the analysis that the transition towards a low carbon energy system puts us to a challenge in terms of security of supply and adequacy in the short and medium term. We believe that in order to achieve EU energy policy ambitions to create a low carbon economy on the basis of competitive markets that guarantee security of supply renewable generators should eventually operate in the energy market on equal terms with other generators. Of course, in the medium to longer term demand-side response, stronger interconnections and electricity storage have the potential to contribute to security of supply and avoid imbalances. In the short term it is important that renewable generators are incentivized to contribute to stabilizing the system, so that they are urged to be more prudent in their forecasts. As 'balancing-responsible' parties they would have to match their production with demand and if they fail to do this, they would have to pay a balancing charge, like other market players. In order to prevent structural losses of renewable output, such a measure should be combined with the development of more liquid intraday markets, where gate closure time (GCT) – the last moment where producers are able to submit their bids – is as close to real time as possible. Bringing GCT closer to real time will lead to more accurate output predictions and a more efficient activation of renewable power assets.

Other steps that should be considered by Member States in support of internal market effectiveness are the removal of peak price restrictions on wholesale markets, the phase out of retail price regulation, and the enhancement of demand side response.

(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?

It is probably true that the willingness to pay for additional security of supply can vary between different groups of consumers. This implies that barriers to energy efficiency solutions and demand side participation exist. The question in the consultation paper seems to suggest that national authorities could consider to integrate "value of lost load" into the regulatory framework so that different consumer preferences can be reflected. We believe this is an important question and it would be valuable to develop solutions of this kind. At the same time this could be a rather challenging task since it would involve considerable changes to the current regulatory framework in most EU member states, including in the Netherlands. A system that would be able to reflect consumer preferences in relation to security of supply seems to require a number of preconditions such as flexibility of tariffs and a high degree of installed smart meters. We are certainly interested in reflections on this by other parties in their reactions to this consultation.

(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

The Netherlands certainly believes that the assessment process of generation adequacy merits careful consideration at all levels. First of all, it is important to remark that the term generation adequacy can be subdivided into "total available capacity", "available flexibility" and "voltage quality". As for the first two categories, i.e. capacity and flexibility we would strongly plea for in-depth assessments at the regional level. For the latter category it seems more sensible to aim for national or - even better - local reviews of the situation, since voltage quality level requirements can vary significantly between different locations or regions.

In particular, given the increasing level of market integration we think that adequacy and security of supply assessments (capacity + flexibility) at a regional level are warranted. In the case of the Northwest European electricity market where markets are coupled and networks highly meshed and interconnected, it seems definitely useful to assess the adequacy situation at a regional level. This would e.g. require thorough market analysis on the basis of currently available generation capacity in the region.[1]In our view the increased market integration also implies that market based use of interconnection capacity should be included in these adequacy assessments.

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[1] In its recent report on capacity mechanisms in Northwest Europe the Clingendael International Energy Programme (CIEP) finds that the sum of the "remaining" capacity in the Northwest European region is positive; http://www.clingendael.nl/publications/2012/20121200_capacity_mechanisms_in_northwest_europe_december.pdf, p. 20

(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?

Yes. An integrated regional (or possibly European) assessment of available supply flexibility as suggested in the Consultation Paper would be recommendable.

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

As a result of possible new European or regional procedures with regard to adequacy evaluation the existing ENTSO-E outlook could be extended. Changes to the adequacy assessments could include refined data collection (e.g. data differentiated for sources: renewables, coal, gas-fired, nuclear) and more detailed national and regional generation adequacy projections.

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

The Electricity Security of Supply Directive (SoS Directive) was adopted seven years ago, and obviously European electricity markets have changed considerably since then. Market liberalisation has moved on, more interconnections have been built and the electricity wholesale markets including electricity trade through energy exchanges have grown extensively. Also, additional European legislation associated to this SoS Directive has been adopted in the past years, most importantly the Third Energy Package. These developments do however not imply that the SoS Directive is outdated and/or inadequate.

As mentioned above, we would plea for a review of national, regional and European adequacy assessment processes. At this stage it is too early to judge whether a revision of the SoS Directive could be justified and/or necessary. In case it is decided at EU level to adopt new or more detailed national or regional adequacy reporting procedures these could be shaped in any form, e.g. a new or revised directive, a recommendation or other instrument. New measures aimed at assessing and safeguarding security of supply and a proper functioning of the internal market for electricity should also be looked at in conjunction with a possible future framework for assessing capacity mechanisms including its conceivable necessity and proportionality criteria.

(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?

The Gas Security of Supply Regulation (994/2010) contains rather detailed provisions on “preventive action plans” and “emergency plans” as well as possible joint action plans at regional level. The Netherlands perceive that the current situation on the European electricity market justifies the serious consideration of comparable instruments for the electricity market. More in general, as explained above, the Netherlands would certainly support the development of an updated mechanism for the assessment of generation adequacy. Such a mechanism needs to be designed carefully. In doing so, we should certainly look at

similarities with the gas market and make use of best practices, especially with regard to its emphasis on regional developments. At the same time we should also be aware that these are different markets, with different levels of integration, different competences, interests and responsibilities. The bottom line is that at both European and regional level a co-ordinated approach of security of supply is necessary. In our opinion this could imply that national authorities commit themselves to new procedures aimed at sharing information on generation adequacy and regional and European coordination. We also realise that this has to be done with due observance to the established national competence and responsibility with regard to security of supply issues.

(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?

Ideally the standard should be set by the market. The harmonisation of adequacy standards across the EU set by public authorities will genuinely be a politically sensitive issue. It remains to be seen from the outcome of these consultations to what extent this is feasible. In the view of the Netherlands we should at least make an attempt to deliver an arrangement that lays down a unified methodology for reporting on generation adequacy. Such an arrangement should include an obligation to Member States to involve market based use of interconnection capacity in their adequacy assessments.

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

Yes. The Netherlands strongly advocates this approach. We consider capacity mechanisms to be a second-best option and an instrument of last resort. The focus should be at enhancing market functioning and at improving the design of “energy only markets” in a way that production and consumption decisions are well considered. In the Netherlands we have seen that this approach has lead to investments and innovations over the last years. Actions could include further regional integration of markets, harmonisation of balancing markets, enhancement of interconnections, well-functioning of intraday markets, investment in storage capacity and development of demand side response. Better integrated policies, regulation and support programs are required to more effectively complement and reinforce incentives for market based flexibility to deliver security of supply at least cost and to stimulate an efficient cross-border use of current flexible generation facilities. Existing policies that aim to promote this should be intensified. It is our strong view that only once these policy options have been depleted governments could consider to apply capacity mechanisms, i.e. as a second best solution to address security of supply concerns on a temporary basis. In that case, European co-ordination is strongly desirable.

(13) Under what circumstances would you consider market functioning to be insufficient:
a. to ensure that new *flexible* resources are delivered?
b. to ensure *sufficient* capacity is available to meet demand on the system at times of highest system stress?

Apparently, in some countries market functioning is insufficient to ensure flexibility and/or enough capacity. In many of these cases market functioning seems to be disturbed either by government intervention, a lack of market transparency or uncompleted implementation of the

EU liberalisation packages. In many countries flexibility on the supply side is insufficiently rewarded by the market. In some countries a more specific hurdle to securing sufficient (flexible) capacity during peak periods is the existence of price caps. Uncertainty about the introduction and future level of price caps could have serious consequences on the profitability of power plants, in particular for (flexible) peaking plants. An additional reason for security of supply concerns might be that the transmission network lacks the capacity to transport the electricity - available in other regions - in order to timely meet demand.
More in general, we must realize that the EU electricity market is currently in transition towards a low-carbon electricity system. This leads to uncertainties. It is clear that policy and regulatory risks add to this uncertainties and, especially in times of an economic recession, may act as a deterrent for the investments in generation capacity needed to ensure security of supply. If the situation of uncertainty persists, there maybe a risk that competitive electricity markets do not deliver timely and sufficient investments. Under such circumstances we find that emergency measures maybe necessary in case other alternatives have failed. In particular in case of insufficient capacity and a clear threat of a “black out” situation, it is imaginable that governments consider to implement measures to secure generation adequacy in the short term. Such measures should be temporary, proportionate, sufficiently effective, non-discriminatory, and compatible with the internal energy market rules, .

(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?
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?

Note: The Netherlands prefers not to enter into a discussion on the pros and cons of the different types of capacity mechanisms. For this reason we will not provide detailed answers to questions 14, 15 and 16 of this consultation. Foremost it is our position that the introduction of capacity mechanisms should be avoided. We will confine ourselves to referring to the valuable research done on different types of capacity mechanisms as part of a recent report by the Clingendael International Energy Programme (CIEP) on capacity mechanisms in Northwest Europe.
http://www.clingendael.nl/publications/2012/20121200_capacity_mechanisms_in_northwest_europe_december.pdf

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

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

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

The Netherlands considers it important to develop balancing market regimes to encourage flexibility and to promote market based valuation of flexible generation capacity. This could include the introduction of cross border balancing markets, that could deliver efficiency improvements and operation savings. Also new flexibility services could be defined, such as ramping up and ramping down, and fast response ramping. All technologies should be able to participate in the market for such services, i.e. renewable generation, conventional generation and storage facilities. Such initiatives should be worked out before further regulatory interventions in the form of capacity mechanisms are considered.

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

The Netherlands believes it is premature to consider a blueprint for an EU-wide mechanism. As argued above, our focus should be at avoiding capacity mechanisms and developing adequacy assessment mechanisms and possible standards and criteria for the assessment of capacity mechanisms that are considered by EU-Member States.

(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. The Netherlands supports this idea.

(20) Do you consider the detailed criteria set out above to be appropriate?
a. Should any criteria be added to this list?
b. Which, if any, criteria should be given most weight?

The Netherlands very much welcomes the first results of the efforts by the Commission to formulate draft criteria for the necessity, effectiveness, duration, proportionality and cost allocation of capacity mechanisms. Designing an efficient national capacity mechanism is a very challenging task. When drafting such EU-wide criteria the focus should be on the distortive effects and the cross border dimension of (national) capacity mechanisms, i.e. their spill-over effects to neighbouring markets, both in the short run and long run. We are willing and available to work closely together with the Commission and other Member States in case we decide to embark on drafting such EU-wide criteria.