E.ON's response on CEER call for evidence on Generation Adequacy Treatment in Electricity
(Ref.: C09-ESS-05-03)
19 April 2010

General Remarks

E.ON believes that fully liberalized wholesale markets will set the appropriate market signals for the required investments, and the market will deliver the most cost effective solution. However, pure energy markets can only work if scarcity of capacity is reflected in market prices, and price caps or similar methods of suppressing market prices are avoided. In situations with tight supply, price spikes appear which give stakeholders the correct signal that more generation capacity is needed. A price cap would reduce the income of generators and might not sustain capacity for peak demand. Furthermore, Demand Side Management, increased levels of interconnection and power storage solutions are likely to be needed to counteract the effects of renewable intermittency, which is the cause of much of the current discussion around capacity markets.

The most crucial key element for investors is a robust, predictable and reliable investment framework for the life of the project, which often spans many decades. In particular generation projects which have a long lead and lifetime are especially sensitive to discussions on changing the framework. They might increase the uncertainty for investors and create reluctance to make long-term commitments.

Within the discussion on potential additional instruments for generation adequacy we support CEER's view that any such measure should be considered very carefully in the context of European market integration, an EU level playing field and the EU ETS.

1.) *What are the key elements for ensuring generation adequacy in the competitive electricity market in a given EU MS and the EU as a whole?*

- **<u>Stable and reliable regulatory framework</u>**
  A stable and predictable framework is crucial for investors of infrastructure projects with large investment costs, lead times up to 10 years and lifetimes of about 30-40 years. Although we recognize that it may be necessary to review market arrangements from time to time to ensure they are still fit for purpose, continuous discussions on fundamental shifts in market design, e.g. Ofgem's current proposals on capacity markets and a central buyer in their Project Discovery document, will cause uncertainty in the markets. Consideration of changing market rules should not only focus on the implications for new build capacity. Discrimination against the existing generation portfolio for the benefit of new built would further reduce investors' commitments to cost intensive new build facilities in the future. Investors would anticipate similar action when their new built generation ages and is considered as existing portfolio.

  An example worthy of consideration is the financial regulation reform and potential impacts that may have on energy companies. In particular the proposal made by the European Commission to introduce mandatory clearing for OTC derivatives might imply increased margin requirements and therefore the need of additional cash to hedge against price volatility. An alternative outcome may be that investments will be

hedged on a lower extent and the main consequence to increase risks and thus deter new investments.

- **Grid reinforcements and Congestion management rules**

  Generation Adequacy can't be evaluated 'stand alone'. Grid developments have a high extent of interdependency with effectiveness of new investments to respond to the need of capacity. A sufficient grid infrastructure with appropriate information and communication technology is essential as an enabler to market participation.

  Different countries have experienced different ways of responding to tight margins. Sometimes capacity has been built where feasible and not always where it would have been more efficient taking into consideration location of loads, cooling water and other parameters. Thus this has exacerbated, rather than solved, grid bottlenecks. On the other side, grid reinforcements have been very limited.

  The regulatory framework should also encourage (via robust regulatory instruments) a sound investment climate with further investments in grid reinforcement to overcome current capacity constraints within Member States and on interconnection lines. If grid extension fails to keep pace with the increasing number of decentralized generation facilities, it will force system operators more and more to curtail production for security reasons. The potential curtailment and possible associated re-dispatch costs and their allocation among the market participants will further lead to higher uncertainties for investors. Additionally benefits from market integration would be very limited.

  Finally, we highlight that rules to solve congestions internal to member states should not be altered to favor certain technologies. Congestion management procedures should be harmonized and create a level playing field. Instead we highlight the need to improve the mechanisms to commit TSOs to invest in grid reinforcements.

- **Reliable environmental policies**

  Carbon targets till and beyond 2020

  Certainty around the long term carbon reduction targets to 2020 and beyond, to underpin the EU ETS, is a prerequisite to enable investors to select the appropriate technology for new built generation units to meet longer-term CO_2 reduction targets. In the absence of any legally binding European carbon targets beyond 2020, investors do not have the certainty needed to invest in low carbon, high capex technologies such as nuclear and CCS. Given this uncertainty, investors will either be reluctant to make investment decisions until the European framework is set.

  Another regulatory risk may arise from increasing emission control by setting technical emission standard performances without reflecting if the required investments to meet these targets can be delivered. On the European level the Industrial Emission Directive is currently passing through the EP. Although E.ON welcomes the COM's moves to try and bring a number of EU environmental policies under the same roof, the IED must be flexible enough to ensure that security of supply is not jeopardized in any EU MS. On a more general note, continuous discussion and re-negotiation of Directives on both national and EU level creates uncertainty for investors and undermines the authority of the EU ETS Our general position is that

wherever possible the EU ETS should be used to steer the EU power markets, rather than Directives or Regulations.

Support schemes for RES

Certainty about EU Energy policy for RES and the aligned support schemes for RES is of outmost interest for the generation adequacy. It is important that the targets for 2020 and onwards are clearly communicated and that the support schemes are harmonized as much as possible to create a competitive level playing field for RES within EU. A major prerequisite is an interconnected "Super-Grid" to enable the integration of a large amount of RES from different locations in Europe without risking the generation adequacy. Both the EWIS report and the TYNDP consulted by ENTSO-E point out a number of required measures.

Therefore, once again, a key element to ensure generation adequacy is, with high urgency, to undertake the reinforcements in the European Grid.

- **Liquid markets - level playing field**

  Open, transparent and liberalized markets with good liquidity are a prerequisite to create a level playing field and ensure generation adequacy. A pre-condition to promote liquid markets is to remove regulated tariffs.

  Some of the key elements mentioned above to ensure generation adequacy can only be delivered by fully open and liberalized markets. Therefore, any regulation in end-consumer prices negatively affects the efficiency and sustainability of the price system, European climate objectives as well as the functioning of energy markets and security of supply.

  Retail prices which are below market prices will prevent further market opening and a pro investment fair business environment, in addition to triggering negative sentiment and decision arguments for investments in generation as well as in infrastructure. The resulting tariff deficit will put financial risks and uncertainties on Member States, generation, supply, new generation development and network companies as well as on specific end-consumer groups.

  Regulated prices may be an obstacle to EU security of supply objectives, because:
  Market entry barriers (such as regulated prices at a very low level) for alternative suppliers threaten directly the security of supply for the Member State, do not support competition and deter investments in environmentally sound technologies as it hinders new investments in generation capacities and in infrastructure.
  - If regulated prices do not properly reflect costs / price signals, it might be difficult to incorporate the cost of carbon and efficiently recover the cost of investments.
  - Market participants including end consumers would not receive reliable price signals to invest e.g. in energy efficiency, as regulated prices may not reflect actual incurred costs especially if they are not based on a competitive process.
  - Artificially low, regulated prices might lead to an increase of energy consumption. Low regulated prices would reduce the potential for domestic and small business customers to take advantage of opportunities offered by smart meters to respond to security of supply issues.

We share the opinion of ERGEG (European Regulators for Electricity and Gas) that the **acceptance of price spikes and price volatility in tight supply situations** are needed to generate the required income for peak generation facilities which only run during these tight situations.

We share also CEER's view that **price risk management** is a key issue for generation projects. Liquid markets are thus important to offer market solutions to manage risks. Nevertheless measures to increase liquidity and provide effective risk management tools shall be sought within market based mechanisms.

Demand Side Management (DSM), storage possibilities through e-storage or e-vehicles are, together with enhanced interconnections and acceptance of price volatility, important means of managing the effects of wind intermittency on wholesale power markets. Active DSM will also give confidence to stakeholders that price spikes are reflective of competitive market conditions and that energy markets can efficiently meet security of supply.

We support the **transparency initiative** led by the COM on fundamental data and ex-post trading information as required in the 3rd package. Data requirements should be harmonized and implemented synchronously across the EU to ensure a level-playing field. This data combined with long term scenarios, e.g. coming from the TYNDP, would give stakeholders a good overview on price developments and facilitate their decision-making.

- **Efficient and short authorization procedure and political support**
  For investments in large generation projects an efficient and short authorization procedure is needed. The complex authorization procedure, the local opposition against large infrastructure projects and the low political support currently present large barriers to investment. The same is true for grid investments required for removing capacity constraints at cross-border points, dealing with the increasing amount of renewable in-feed and to establish an intelligent load management.

2.) *Do you observe any barriers for investing in new generation capacity? If yes, please list and explain them.*

- **Unstable and unreliable regulatory framework**
  In some European markets the current market rules are under discussion on the basis that current rules may not deliver climate change and security of supply concerns. However, the change of market rules and the evolving discussions on them increases market uncertainty and hampers the business case for new generation facilities, in particular those with long lead times. One example is the current discussion on congestion management procedures in the Netherlands. The proposal foresees that the future re-dispatch costs evoked by increasing in-feed from renewables should be allocated only to the fossil generators within the congested area. That would lead to a distortion of the wholesale market to the disadvantage of the generators within the congested area compared to generators outside the congested area.

- **Unstable environmental policies**

  No carbon targets beyond 2020
  Additional burden arises as a result of national discussions on further instruments to incentivize low carbon investment in the absence of long-term carbon targets set by the EU ETS beyond 2020.

  One example is the recent discussion on carbon tax in France or Ofgem's consideration of the case for a central buyer or capacity tenders.

  Support scheme for RES
  Uncertainty about environmental policies, no alignment with support schemes for RES, no harmonization between MS concerning support schemes and not enough reinforcements in the European grid will be an obstacle to generation adequacy.

- **Obstacles to develop liquid wholesale markets**

  We share the views of ERGEG (European Regulators for Electricity and Gas) and of the EU Commission that open, competitive and efficient markets cannot coexist with regulated end-user energy prices. However, today more than half of the European household customers face regulated tariffs. Fully open markets with well-functioning competition present crucial preconditions towards this objective.

  Any intervention into the existing market rules of exchanges, e.g. as discussed in UK or France, may endanger further market stability and market integration.

- **Complex authorization procedure / Strong local opposition**
  The authorization procedures continue to be complex and long lasting will create a barrier to new investments and is therefore not supporting generation adequacy.

  Strong local opposition combined with a complex and a lengthy authorization procedure is also a threat to generation adequacy. One example we face today in this context is the coal-fired power plant in Datteln in Germany which shows the major risks of large infrastructure projects.

3.) *In case of additional measures for ensuring generation adequacy, what would be the key issues to take into account?*

We believe that fully liberalized markets will deliver the appropriate market signal for an adequate generation capacity level without any additional measures, provided prices are not prevented from rising to the levels necessary to incentivize new capacity. Investment in additional interconnection, e-storages and an active Demand Side Management will also help the market manage tight supply situations. Where additional measures are being considered for introduction to the market we fully agree with CEER's view that "*any additional mechanism (e.g. capacity requirements and capacity markets) must be introduced after a careful consideration of barriers to investment and possible adverse effects of such additional mechanisms"*

Any mechanism should be judged against the following high-level criteria:

- Strong commitment towards open, transparent and competitive wholesale European energy market through market integration (e.g. market coupling)
- Effectiveness in incentivizing the required investment
- Consistency with the EU ETS (by allowing the EU ETS to continue to function as an important means of incentivizing low carbon investment)
- Technology neutrality – in the sense that Government should not seek to pick technology winners or to second-guess the market. There may nonetheless be a case for specific support (e.g. banding) for new and untried or immature technologies or where more learning is needed, to achieve a long-term societal benefit.
- No discrimination against existing generation capacity in favor of new build. This could further distort the market.
- Collateral policies (i.e. financial regulation reform) should not deter investment decisions.