

Subject: Regulators' comments on Energy Themes in FP7

Dear Mr Fernández Ruiz

Firstly, I would like to thank you for meeting with CEER on 4 May to discuss the development of the 7th Framework Programme (FP7) and the opportunities for us to present our ideas in particular subject areas. We made an initial contribution in our paper sent to you on 3 February and at our meeting we agreed to offer some further thoughts now that the FP7 themes have been published.

We are very pleased to see that “Energy” is now identified as one of the nine primary FP7 themes. This elevation, compared with FP6, is very appropriate. The challenges facing, in particular, the electricity supply industry as a whole in the coming decades are very significant and without an appropriate level of investment in R&D optimum solutions are unlikely to be found. It is self evident that the focus and resourcing of this RD&D activity deserves very careful attention. This letter provides our further thoughts on behalf of the energy regulator community, focusing on electricity supply.

We note that none of the nine “Energy” activities relate explicitly to the gas supply and delivery industry. While we believe that the challenges facing electricity supply are much more significant than for gas supply it may be appropriate to direct an appropriate level of attention to gas supply as well.

The Challenge

In purely technological terms, the electricity supply industry is entering a new paradigm, driven by two fundamental developments. Firstly, electricity generation technologies are currently being developed that can be connected at every level of the electricity supply chain. Examples that demonstrate this range include domestic photovoltaic systems and ‘traditional’ large scale gas, coal and nuclear plants. Secondly, the prospect of the demand side playing an active role in the operation of the electricity supply chain is now real and as with generation this could be implemented at every voltage level. The combination of these two developments brings many technical challenges but also very real opportunities to optimise the system both in terms of cost and environmental performance.

In parallel with these technological developments, electricity markets are being progressively opened both at national and international levels. Making these markets operate efficiently brings new economic, social, political and technical challenges that will require much fresh thinking and researches. Policy makers are facing new challenges by combining energy market development, new environmental policies and market instruments to incentive competition and investment and to protect consumers.

Implementation of the Electricity Directive 2003/54/EC and the Gas Directive 2003/55/EC - the key European legislation to establish the Internal Market of Electricity and Gas - has shown Member states adopting different regulatory policies which are now difficult to be compared each other. The plurality of political and regulatory objectives make very difficult to find common tools and methods to achieve efficient results. For this reason CEER believes that FP7 program give a very important opportunity to study and promote common methodologies and tools that can be used by different policy makers to achieve a real competitive and efficient European energy market.

The industrial community does of course invest significant resources in electricity and gas supply related RD&D. Products that can be offered competitively in an international market naturally attract RD&D investment. The rapid development of combined-cycle generation in recent years offers a good example here. However, CEER believes that there are some areas, like networks, where normal market forces may not generate sufficient RD&D activity to fully exploit future opportunities for examples, without an appropriate incentive regulatory policy the network sector¹ is not interested in energy efficiency and savings.

For these reasons the resources available under FP7 should be focused on networks, energy efficiency and savings and knowledge for policy makers.

¹ For example, Ofgem, the gas and electricity regulator for Great Britain, has introduced two new incentives to encourage RD&D in the fourteen electricity distribution companies that it regulates. The first is the Innovation Funding Incentive (IFI). It is intended to provide funding for projects focused on the technical development of distribution networks, up to and including 132kV, to deliver value (i.e. financial, supply quality, environmental, safety) to end consumers. IFI projects can embrace any aspect of distribution system asset management from design through to construction, commissioning, operation, maintenance and decommissioning. The second is the Registered Power Zone (RPZ). This is focused specifically on the connection of generation to distribution systems. RPZs are therefore intended to encourage Distribution Network Operators to develop and demonstrate new, more cost effective ways of connecting and operating generation that will deliver specific benefits to new distributed generators and broader benefits to consumers generally.

FP7 Energy Theme Activities

Consistent with our comments above, CEER would like to draw particular attention to three of the nine activities identified under the “Energy” theme as being areas where FP7 support for RD&D could bring significant benefits.

Smart energy networks – CEER strongly supports the identification of this as a key area for FP7 support. As noted above, this is the only one of the “Energy” activities that involves a monopoly provider and asset owner. There would seem to be a strong case for recognising this situation in developing the projects within this activity. There is evidence that the network companies are reluctant to commit resources to RD&D and it should be an objective of FP7 to recognise and address this. We would argue that there is benefit in explicitly including the effects of regulation under this activity as the action of regulators with respect to monopoly service providers can directly impact these companies’ attitude to investment in RD&D. There is a perception that network companies, which are very often of significant size, have all the resources necessary to fund RD&D independently. There is considerable evidence however that RD&D can easily be a casualty in such companies and that policy making and regulation need to be developed intelligently to avoid this outcome. This issue has been recognised in some markets and there has been a regulatory response to it.

Energy efficiency and savings - Energy efficiency and renewables have become mainstream policy lines over the last few years following the Green paper on energy security. Regulators are working intensively to improve energy efficiency in all end use sectors whilst at the same time increasing the use of renewable energies. CEER recognise that to enhance energy security there exists wider scope for action and research on the demand side, i.e. energy efficiency compared with supply side action. For this reasons Regulators strongly support researches to develop a system of energy production, distribution and consumption that aims being safe, secure cost effective and sustainable.

Knowledge for energy policy making - The creation of a real EU internal Electricity Market is an on going process which is still far from being fully achieved. Its borders are changing during the years as more new members States join the EU and harmonisation of regulation methods and models will be a crucial issue.

CEER strongly support this research area. Development of new models and methods to asses the main economic and social issues related to electricity and gas sectors are necessary to support policy making choice as they give impartial and technical assessment to build upon regulatory decisions.

Promote methodology harmonisation - CEER would be very pleased to discuss with DG Research how the three areas of activity discussed above could be further developed and the type of incentives/projects that ought to be encouraged under them. (The Annex to this letter provides examples of research areas that a number of CEER members strongly support)

In conclusion, we welcome the development of the FP7 themes and activities to date and strongly encourage DG Research to pay particular attention to harmonisation of methods and models for energy research.

ANNEX

Research themes in FP 7

1. SMART ENERGY NETWORKS

CEER identifies some research themes to increase efficiency, safety and reliability of the European electricity and gas systems.

- Operation and Security of Interconnected Systems
 - Harmonization of regulation and operational criteria
 - Methodologies for assessing security of electricity supply
 - Pricing of cross border transit flows
 - New indicators to assess the reliability of the networks
 - Optimising investments in interconnections: methodologies for economic and financial analysis of investments and new methods for incentive regulation evaluation
 - Integrated defence's plans against blackout events at European level
 - Real time monitoring and checking of the networks
 - Scenarios on the further enlargement of the UE network
- Planning and operation of distribution networks
 - New indicators to monitor supply quality
 - New methodologies for evaluation of quality regulation
 - Competition impact of quality regulation
 - New methodologies for costs evaluation under unbundling and decentralized generation

2. ENERGY EFFICIENCY AND SAVINGS

CEER identifies some research themes to support regulatory decisions that are direct to increase efficiency and energy savings.

- Methodologies and technicalities to promote energy efficiency
- Development of demand side management opportunities
- Development of appropriate tools for assessing the impact of distributed generation

3. KNOWLEDGE FOR ENERGY POLICY MAKING

CEER identifies some research projects that are necessary to support policy-making choices as they give impartial and technical assessment to build upon regulatory decisions.

- New methodologies and new indicators to monitor market competition in liberalised sectors

- Development of appropriate tools for assessing the regulation impact on economic and financial companies' performances
- New methodologies and indicators to evaluate incentive based regulation (capacity payments, emission trading) and the effects on investments, cost reduction, quality of services.
- Development of models and methods to ex ante and ex post evaluation of regulation
- New methodologies and indicators to evaluate clients switching and retail competition.
- Market models and energy trading
- Derivative market regulation and risk assessment methodologies.
- New models and methods to construct a common methodology able to compare member state incentive schemes for emission trading