

EC Communication on infrastructure

and

Internet - based Consultation in View of the Revision of the TEN-E Guidelines

Comments by UCTE

September 15, 2003

All participants to the last Regulatory Forum held in June 2003 were invited by the European Commission to prepare further comments to the EC Strategy Paper, especially concerning infrastructure. EC announced to take them forward into a **Commission Communication** which would examine the options for further action. The following comments are concerning infrastructure issues, especially acceleration of new investments and upgrading EU enlargement, the concept of regional markets and security of supply.

In July 2003, upon approval of the liberalisation package, DG TREN invited all stakeholders, including UCTE, to participate in the **Consultation in view of the Revision of the Trans-European Energy Network (TEN-E) Guidelines** by presenting their opinions on the key issues. In addition, they were asked to answer a set of specific questions concerning support measures, incentives for investments, definition of priority axes and projects as well as possible indicators for energy structure.

The present paper consists of two parts:

1. **General UCTE comments on the issue of infrastructure in the EC Strategy Paper**
2. **Internet - based Consultation in View of the Revision of the TEN-E Guidelines**
 - Comments to key issues
 - Answers to the questionnaire

1 UCTE comments on infrastructure

1.1 Speeding up new infrastructure development and renovation

The EC Strategy Paper is especially dedicated to finding an adequate framework for inter-connection projects including procedures to accelerate the decision-making process for new investments.

The recent outages and black-out show that an appropriate infrastructure underlying an efficient electricity transmission system is an essential prerequisite for security of supply.

Moreover, this necessary infrastructure has first to be in place as pre-condition to ensure the security of supply and reliability of the system and, as a consequence, markets will be able to evolve at their own rate.

However, authorisation procedures for infrastructure projects are mostly very lengthy and often protracted by local authorities.

1.1.1 *Reward for new investments*

UCTE thinks that the stability and transparency of the legal framework including a well formulated comprehensive regulatory framework for the rewarding of new infrastructure is a *conditio sine qua non* to speed up the development of new infrastructure and secure the reliable operation of the grid. Without clear rules for remuneration of all costs, investors will hesitate to devote financial means to projects where the recovering of the investment appears to be risky.

Several proposals on the financial reward structure were presented by CEER in its paper "Principles on regulatory control and financial reward for infrastructure". Regulated and non-regulated approaches as well as the merchant approach were described. For projects being part of a meshed system the regulated approach with regulated tariffs would be desirable.

Merchant lines alone do not represent a solution for an effective functioning of the market because, according to the Regulation 1228/03 EC, they will be authorized only in exceptional cases. Nevertheless, the grid operator who has the operating responsibility always has to maintain control over all parts of the meshed system independently of the source of the investment in individual parts of the system.

Speedy approval of rewarding rules is needed to give grid operators the certainty that their long-term investments in grid infrastructure, which are made on the basis of medium-term demand, are reflected in the tariffs.

1.1.2 *Need to facilitate reconstruction and renovation of existing infrastructure*

In the view of the recent events —blackouts in US, Canada and the "load reduction" in several countries in Europe - infrastructure reinforcement and renovation is a topical issue. Sufficient medium and long term financing as well as stability in the day-to-day TSO-business seem to be missing in some cases.

Independence and different priorities of the various stakeholders in the electricity sector (generators, TSOs, consumers) should have led to a sound competition resulting in effectiveness and cost and price reductions. There are however major concerns that in the long run, the optimization targets of the different stakeholders, especially their different financial

policy priorities, could lead to incoherent system development, system incompatibilities and market distortions. Reduction of reliability level and operational security could be the ultimate consequence.

Generators are free in their investment decisions and possible violations of regional balances through production shortages can not be counterbalanced by the grid. However, TSOs, following a thorough economic appraisal, propose infrastructure investments and it is up to the authorities to set the right priorities.

1.2 Regional markets

Regional markets have been defined in the EC Strategy Paper for the transition period on the way towards one European internal market. A precondition for the development of any regional market that is not caused by geographical conditions must be the harmonization of the respective market rules and legal frameworks as well as operational rules and standards, especially when it comes to congestion management.

UCTE thinks that regions as defined in the EC Strategy Paper are partly overlapping and their borders should not be seen so strictly. UCTE believes that regionalisation of the European energy market will not result in the decrease of the market integration level achieved till now and will not lead to further market fragmentation and price divergence in the future.

From the point of view of regional markets the EC support is needed not only for new inter-connection infrastructure between markets but also within markets and new intra-state infrastructure. Projects of common interests (TEN E projects) would be then updated along with this regional policy to make the system as effective as possible and avoid possibly emerging bottlenecks.

The actions pursued within the framework of Athens Forum confirm the necessity of a coherent infrastructure development program for Southeast Europe. This program shall make sure that - beyond all efforts towards integrated market design and IEM integration - TSOs in the area are able to fully comply with UCTE standards.

1.3 Support for candidate countries infrastructure

UCTE welcomes the special interest of the EC in the development of the infrastructure in candidate countries. The TEN guidelines approved in June 2003 excluded a lot of inter-connection projects submitted by candidate countries focused on solving bottlenecks between regions as defined in EC Strategy paper. UCTE supports a thorough analysis of these previously excluded and now newly submitted - especially intra-state projects - with a view to reliability and security issues.

The same attention should however be given to all other countries that are candidates for integration in the Internal Electricity Market as envisaged by the European Union.

1.4 Security of supply

First priority for setting up new infrastructure is maintaining the reliability of the grid on both national and international level. However, this **should not lead to a dramatic increase in long distance and bulk power transmissions**. Another priority is an effective sharing of generation capacities i.e. the support of ancillary services trading among countries and regions, and avoiding congestions. UCTE means that this issue strongly distinguishes electricity infrastructure projects from oil and gas pipeline projects.

Proper incentives (e.g. locational signals) for building of generation facilities in appropriate areas appear to be a **crucial point and challenge for future development**.

Furthermore TSOs must be entitled to define high level operational standards to be observed by generators and distributors - under the control of TSOs.

For economic efficiency, planning and investment security are decisive factors both for generators and TSOs. Increased competition, the growing restrictions on the generators' freedom to act due to directives and regulations as well as the contradictory objectives in some of the legal provisions have led to a reduction of new investment and a decrease in investment security for new plants.

The electricity industry partly has to act in a contradictory environment. Aiming at a high supply security at optimal economic and ecological conditions, both the European legislators as well as those responsible for the implementation of EU provisions in national law face the challenge of balancing often conflicting interests and have to proceed with the necessary foresight and perception.

Achieving the environmental targets set will result in costs. It will therefore be important for the efficiency of the electricity industry, which has already made substantial investments in environmental measures, that those costs are fairly divided up among the sectors responsible.

2 Consultation in View of the Revision of the TEN-E Guidelines.

2.1 UCTE Comments to Key Issues

2.1.1 Need for further action:

UCTE welcomes the EU policy to fully integrate the new Member States in these guidelines and lists of projects and recalls that the electricity networks of Slovenia (since its foundation in 1990) and the Czech Republic, Hungary, Poland, Slovakia (since 1995) are already integrated in the main European synchronous system. Nowadays, the TSOs of these countries are full partners within the UCTE synchronous system.

UCTE as the watchdog for global system reliability will proceed with this policy for all other countries requesting to join the UCTE synchronously operated system.

2.1.2 Neighbouring countries policy

UCTE fully agrees with the medium-term objectives of the EC. They are fully in line with one of UCTE's missions i.e. providing a reliable platform for all market developments.

It is a primary goal to synchronously reconnect the first with the second synchronous area, comprising the Southeast European countries. In 2003, Romania and Bulgaria joined in as full members after successful completion of the tests assessing compliance with the reliability standards.

UCTE is dedicated to reaching a common clear perspective on future arrangements for the electricity markets in the enlarged EU and CIS and Baltic countries. In this respect, UCTE recently investigated the impact of additional transits, caused by an extension of the synchronous area to the CIS and Baltic countries. The results showed that additional East-West transits would be strongly limited due to the already existing congestions from East to West inside the UCTE area (e.g. between Poland and Germany). For this reason, an import of 32

TWh per year from Russia to Central Europe as indicated by the 1999 TACIS study would be by far not achievable.

In May 2003, UCTE decided to launch a broader technical feasibility study, taking also into account the necessary organizational measures in the electricity industry to ensure compliance, and their contractual basis.

Concerning the Mediterranean area, UCTE is in the process of investigating several interconnection scenarios.

In order to adequately fulfill one of its tasks, i.e. being also the facilitator of market development, UCTE has applied for Community funding to make sure that after interconnection of third countries the reliable operation of the grid can still be guaranteed from the point of view of stability and congestion management.

2.1.3 Sustainable development

UCTE fully supports the community objective concerning the development of electricity from RES and welcomes the awareness of the Union for the need of important investments in infrastructure, in the network, in the control systems and in the complementary generation units required for balancing the stochastic power output of the wind generators. Several projects regarding renewable energies will necessitate the development of new transmission infrastructure, for which the authorization procedures may prove to be problematic. Lack of harmonization of the market models supporting green energy may put increased strain on the interconnectors at the expense of commercial “commodity-priced” electricity exchanges and even to the detriment of system security.

Just to illustrate UCTE’s ongoing concern about the security of the system we would like to point out that already today UCTE security margins are dimensioned for an outage of 3.000 MW in maximum. Taking just Germany as an example, we might be already today confronted with a situation where out of 12.000 MW of installed capacity of wind power some 9.000 MW might disappear within a short period of time due to meteorological and technical reasons. In these cases additional reserve and transmission capacity is needed to make up for the missing wind energy.

2.1.4 Expected impacts

Since the beginning of interconnection in Europe, UCTE activities have been steadily focusing on the reliability issue, both within the operational time frame relating to reliability rules and within the time frame for investment decision relating to the analysis of medium and long term system adequacy. Increasing flows and their growing unpredictability lead to situations in which blackouts cannot be ruled out for Europe.

2.2 Priority Axes and TEN-E Projects

2.2.1 Introduction

UCTE welcomes the EC’s view on the need to uniformly apply measures imposed by the environmental legislation and especially the remarks on wind parks. Otherwise, different measures supporting green energy would put much strain on interconnectors.

2.2.2 Horizontal actions for Electricity Networks:

UCTE is very much aware of the importance of forecasting and in-time modelling. UCTE has successfully introduced a “Day Ahead Congestion Forecast - DACF” methodology to prevent

congestions at the interconnectors. Nowadays, all UCTE countries participate in the procedure, with the aim of providing real-time network modelling UCTE-wide in the future. Recently, this methodology enabled the TSOs concerned to take operational measures that prevented large disturbances in the UCTE system. Beyond this TSO initiative, due input has to come from all parties involved, especially from the generation side by means of schedules, revision plans, decommissioning plans, etc. Here authorities are called for to provide for the necessary supporting regulative framework.

Further remarks

On the one hand, UCTE has implemented for more than 50 years step-by-step extensions of the synchronous system. In 2003, the UCTE system borders to the East to the Russia - Kaliningrad region, Lithuania, Byelorussia, Ukraine, Moldova and Turkey. Most recently, the assessment of the feasibility of a synchronous interconnection of Turkey with UCTE has been launched.

On the other hand, the requested possible synchronous connection of UCTE and IPS/UPS/Baltic systems would mean a project of an unprecedented scale worldwide; it would imply the definition of a different approach for this project leading to an inter-area agreement based not only on technical feasibility but also on contractual/legal and organizational conditions.

2.3 Answers to questions within the Consultation

UCTE views and opinions are formulated also in answers to questions within the Internet - based Consultation in View of the Revision of the TEN-E Guidelines.

2.3.1 Support Measures

a) concerning administrative support (e.g. authorisation)

TSOs are promoting the dialogue with local stakeholders to achieve consensus on infrastructure projects. Authorisation procedures for infrastructure projects remain mostly lengthy and often protracted by local authorities. It would be welcome to speed up authorisation procedures generally and secure that excessive environmental oppositions will not slow down or even stop new infrastructure projects. Projects that have been declared of "common European interest" should also be prioritized at national level. Here it has to be pointed out that also economic optimization is seen as being in the common interest of European Union.

b) concerning financial support

Long term pay back periods (mostly more than 10 years) make electricity infrastructure projects less attractive than projects in other business, if a stable and binding regulatory framework, covering a sufficient large period, is lacking. These "less attractive projects" (from the point of cash flow or net present value analyses) are **vital projects** (from the point of the system security view) and have to be supported by special means that do not distort fair and transparent access to network.

c) concerning the scope of the Trans European Energy networks

The scope of TEN should be focused not only on interconnectors between states but also on intra-state lines supporting interconnectors due to avoiding future congestions. So it is an absolute must that internal lines have to be considered as projects of common interest.

2.3.2 Triggering investments

Guidelines for new investments rewarding and renovations are essential for triggering investments. Stability and transparency of the legal framework including a well formulated comprehensive regulatory framework for new infrastructure rewarding is a necessary prerequisite for speeding up new infrastructure development to secure reliable operation of the grid. Without clear rules for remuneration of all costs investors will hesitate to devote financial means to those projects.

Several proposals on financial reward structure have been presented by CEER in the “Principles on regulatory control and financial reward for infrastructure” paper. Regulated and non-regulated approaches as well as merchant approach have been described. For those projects that are part of the meshed system (including TEN projects) the regulated approach with regulated tariffs would be desirable.

Approval of rewarding rules in a short time is needed because for grid operators it is decisive whether long-term investments in grid infrastructure and grid extension, which are made on the basis of medium-term demand, are reflected in tariffs.

There are concerns that from the long-term point of view, different stakeholders' optimisation targets, especially their different financial policy priorities could lead to the incoherent system development and cause system incompatibilities and deeper distortions. Reduction of reliability requirements and operation security could finally follow this.

A harmonisation of priorities, goals and interests among stakeholders is seen as of high importance for an appropriate and timely infrastructure renovation and development.

2.3.3 Priority projects

Due to some bottlenecks detected in Central Europe it would be useful to enlarged the list of priority axes adding the axes EL.8: Interconnection across Central - Eastern Europe (Germany - Poland - Czech Republic - Slovakia - Austria - Hungary - Slovenia: increasing electricity interconnection capacity) together with relevant inter-state infrastructure. Furthermore the Mediterranean ring will remain an important issue to be developed

UCTE appreciates that the TEN projects list - Axes for priority projects as defined in Article 7 EL.2 and EL.7 contains interconnection capacity for integration of offshore wind energy.

2.3.4 Oil pipelines

(not relevant)

2.3.5 Results of lack of appropriate energy supply

Recently, no consolidated quantitative evaluation of non-delivered MWh has been published: instead, only some qualitative information stating that a non-delivered MWh would be many times “costlier” (direct and non-direct losses on the side of customers) as well as some na-

tional evaluations of economic damages caused by disturbances at national level. Unfortunately, consistency and comparability of such information is poor.

So it would be useful to initiate a benchmarking study among Member states to quantify real values of electricity breakdown and rolling blackout impacts on all stakeholders.

2.3.6 Indicators

Energy infrastructure differs a lot from country to country strongly depending on natural and geographical conditions often regardless of the economy conditions. Indicators would provide us with similarities and/or differences.

Standard indicators of energy infrastructure could be: total length of transmission line, total cross-border capacity, exports, imports, etc. Although the link between these values and economic performance in terms of GDP, employment etc. could be interesting, a real message resulting from this comparison would have to be analysed very carefully to avoid misunderstandings and confusions.