THE EUROPEAN ELECTRICITY REGULATION FORUM
FLORENCE
FEBRUARY 5TH AND 6TH, 1998

Introduction and Background

The European Electricity Regulation Forum (EERF) was set up and organised by DG XVII of the European Commission in conjunction with the Robert Schuman Centre (RSC) of the European University Institute (EUI). The objective was to provide a neutral and informal EU level framework for discussion of issues and exchange of experiences concerning the implementation of the EU Electricity Directive (96/921/EC).

The directive sets out the general framework and principles for the introduction of competition in the industry, but, in line with the principle of subsidiarity, leaves much of the technical and practical details of implementation open to national interpretation. The Commission has explained that EU harmonised rules cannot be further defined or set down at any greater lever of detail than that already included in the directive. At the same time, however, DG XVII emphasised the importance of its role in providing a framework for managing co-operation and co-ordination between the Member States in this relatively uncharted area, and that this is a key priority. While a formal structure for official meetings between national authorities is already established in Brussels, the EERF framework in Florence was set up to provide an essential complement to this by providing a platform for more informal discussion and the open exchange of experience. It also allows for broader participation, including representatives from industry, consumers and commercial experts as well as participants from outside the EU.

The first meeting of the forum, chaired by Professor Ehlermann (former Director General, DG IV), was held at the European University Institute in Florence on the 5th and 6th of February 1998. Participants included senior representatives of national regulators or ministries responsible for electricity regulation, the EU Director General for Energy, Pablo Benavides, European Commission officials (DGs XVII and IV), representatives of the electricity industry and of major [illegible] and Norway. The main areas addressed by the forum covered transmission pricing methods and cost accounting, treatment of ancillary services, non-discrimination and unbundling, and treatment of public service obligations and environmental 'costs' in a pro-competitive environment. Discussions and presentations centred on two key, and related challenges for the Member States: (i) implementing an effective, efficient and viable regulatory framework for introducing competition in their diverse national electricity industries; and (ii) ensuring that emerging differences in domestic approaches to this do not create barriers to the establishment of an EU Internal Market in electricity provision.

This meeting concluded with unanimous agreement on the success of the forum and on the importance of its continuation. There was clear consensus that the EUI provided a uniquely appropriate seat for the EERF and that their meetings should be organised in Florence, in conjunction with the RSC, every six months. Suggestions for reforms concerned mainly the need for broader participation (in particular from the industry and their end users) and the advantages of leaving more time for open and informal discussion.

The next meeting of the EERF is scheduled for October 1998.

REPORT OF PROCEEDINGS

The following written account of the two day meeting aims to highlight and summarise the main points and arguments put forward by participants in their presentations and interventions. Since these are synthesised they should, thus, not be regarded as direct quotes (unless explicitly indicated by quotation marks) from the speaker. It should also be mentioned that, as concerns the roundtable discussions, the presentation of the various oral interventions and arguments does not necessarily follow the order in which they actually occurred (thus allowing for a more coherent presentation of the main issues of contention and consensus which emerged, and of the various positions of participants as they relate to each).

If required, more exact wording of participants positions is available (a) by reference to written documentation circulated by most speakers - see list at end of report; and (b) by reference to the tape recording of the meeting (held at the RSC).

Day One

1. Introductions

The meeting commenced with a short welcome from the Director of the Robert Schuman Centre, **Professor Yves Meny**.

The opening address was given by **Mr Pablo Benavides**, Director General DG XVII and **Mr Jonathan Green**, Head of the Electricity Directorate at the Department of Trade and Industry, UK.

Mr Benavides emphasised that, in principle, liberalisation of electricity markets throughout the legislation to open up the market. Yet, we must recognise that the most difficult and challenging work is still ahead. With one year to go (for most Member States) until the deadline for implementation of the EU Electricity Directive (96/92/EC) there is much to be done in terms of both defining and establishing the right regulatory environment for the introduction of competition. Mr Benavides explained that the Directive sets down a framework of general principles in this context but that the practical detail is left to the discretion of the Member States. Indeed, he noted that the Directive provides many "loopholes" for over-restrictive or distortive interpretations. On the other hand, Mr Benavides clarified that further EU legislation in this area would be incompatible with the principle of subsidiarity.

Mr Benavides emphasised that the objective is not simply the liberalisation of 15 national systems, but also the establishment of an Internal Market in electricity: i.e. not just liberalisation but also "internal marketisation". This means that the imperative of subsidiarity co-exists with the need for a certain degree of homogeneous interpretation on the part of the Member States. He recognised that this gives the regulators a "very difficult task" in the coming year; but that it is a challenge which is "manageable" and "will be solved". In this context, he explained, the "cross-fertilisation" of experience between the Member States is extremely useful and important, both now and in the future.

Mr Jonathan Green introduced himself as speaking on behalf of the UK Presidency of the EU Council of Ministers. He welcomed the forum and its aim to take forward the implementation of the EU Directive by focusing an the shared issues and problems arising in this context. Mr Green pointed out that particular national solutions cannot be taken as straight 'blue prints' for other Member States. The situation and structure of the electricity market varies widely across the EU, and, furthermore, mistakes may be made which should be recognised and learned from. The UK, Mr Green explained, has much to offer in terms of practical experience, but should certainly not be regarded as "the solution" for other Member States.

Mr Green introduced the subject of the first session: "transmission pricing and ancillary services" He noted that this was a very complex and "grown-up" topic.

2. Presentations

Mr Roger Urwin, of the UK National Grid Company, was the first speaker. Before speaking of the UK experience he underlined Mr Green's argument about the importance of subsidiarity and recognising the significance of national particularities. He noted, for example, that the structure and development of the UK electricity is strongly affected by the fact that it is an island with very limited connections (interconnection) with the rest of Europe.

Mr Urwin then gave a brief overview of developments in the UK since restructuring of the electricity industry in 1990:

The National Grid Company has a monopoly on high voltage transmission in England and Wales but is now separated from the distribution companies who previously owned it. The 12 distribution companies (RECs) still own and manage the distribution system but do not have a monopoly on supply. There are currently 25 separate generating companies, dominated by the three major operations, and over 30 supplier companies. Mr Urwin said that during this year (1998) the number of suppliers is expected to double and all electricity users should have a choice.

Mr Urwin then went into more detail regarding the rules governing the transmission network system in the UK. He stressed the fundamental role of the transmission system (and the rules which govern it) for the establishment and maintenance of competition in the energy industry as a whole. He explained that the UK White Paper had established the concept of the "transmission company" and set down the statutory duties which are included in its licence. Obligations are based on principles of transparency, open access and non-discrimination. Transmission prices - the actual charges which the generating companies and suppliers pay for use of the transmission network - are controlled by regulation and follow the RPI-X formula. Variations in charges are based on calculations of the (local) imbalance between demand and generation. Rebates on transmission charges are available in order to incite investment in generation in the more remote zones.

Mr Rudiger Winkler (Vereinigung Deutscher Elektrizitatswerke e V) was the second speaker of the morning session. He explained that the German electricity market was not yet opened to competition and that many of the ideas for legislation / regulation were still in draft form. Mr Winkler described the proposed principle that transmission remuneration be based on a two tier system of charges: the major part, covering transmission under a certain threshold of distance (e.g. 100km) would be subject to a flat rate charge (X D-marks per KW). However, for transmission over greater distances the charge would be distance sensitive. Mr Winkler pointed out that this proposal for a distance sensitive component was already the subject of strong criticism.

Following this presentation, **Mr Jan Magnusson** (Svenska Kraftnat grid utility, Sweden) took the floor. He first emphasised what he presented as the "key factors" for successful regulatory reform of national electricity markets, and pointed to the two main examples 'in function': Norway and England/Wales. "Political ambition" was cited as the first key factor. Other factors included: a national grid company / ISO which is "independent", "technically competent" and "a driving force" for competition. Legislation should establish third party access (TPA) without negotiation. There needs to be a nodal tariff for all networks, a neutral "balance service", no network constraints for market players, and an independent "balance settlement". The market place should be "fair, orderly and liquid".

Mr Magnusson went on to prc ide of the backgro levelop ients in the Swedish electricity market:

The grid company, Svenska Kraftnat (SvK), and the separate generator, Vattenfall, were established in 1992, and the national transmission network was opened. Foreign links were opened up in 1993. Between 1992 and 1995 the electricity act and the trading exchange were investigated, resulting, in 1995, in the modified electricity act which established SvK's system responsibility and a "point-of connection" tariff (or nodal tariff) on the national network. The system authority vested in SvK includes two main elements: "Network Operation" (connection agreements at both national and subsystem -company- level to the transmission network) and "Electrical Balance" (balance co-ordination with commercial companies with balance responsibility, governed by balance agreements).

and

As far s generation is concerned Vatenfall held 52% market share in 1996. 50% of Swedish deman (140 TMh/year) is met from hydro power and 50% from nuclear power.

Mangnusson stressed t o main elements of the Nordic electrici market

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The other was the success of the Nord Pool market. He explained the market functioned by being split into two parts: There is a spot market whereby electricity is sold once a day for the next day. This defines the real time price for electricity within the Nordic system. There is also a system of longer term trading whereby buyers and sellers can secure a price three years ahead. Graphically represented the 2 elements of the market described are manifested as a "classic market cross".

The market is still volatile and immature, Mr Magnusson said, but it is improving rapidly and there is much confidence amongst the main traders. Currently around 20% by volume is traded within Nord Pool with rapid expansion expected in the next year or two He said that co-operation between the national grid and the system operators was crucial to the functioning of the electricity pool and the market as a whole. He also noted the possibility of a merger between the national grids in the Nordic system.

In conclusion Mr Magnusson made the point that Europe does not need such an "exchange" (or "market place") in every EU Member State. For the best functioning of the European market as a whole there should be "a few exchanges" where electricity would be centrally traded. Another important development would be "benchmarking" of prices between national grids

The next speaker was **Mr Tim Russell**, Grid Issues Manager at National Power PLC in the UK His presentation was entitled "Transmission Access: What a Generator Wants - What are the Issues?"

Firstly he addressed the issue of defining the scope of "transmission access" and "transmission pricing", explaining that, depending upon the market under investigation a varied blend of network hardware costs, ancillary services and "energy costs" will appear in the "transmission price". By way of example Mr Russell described the FERC 888 Mandatory list of components to be covered in this price.

Next he addressed the question of what generators want as regards transmission prices: i.e. they should be cheap, predictable, transparent, involve low transaction costs and be non-discriminatory. Mr Russell went on to explain how such demands may be met by the policy framework: He supported the establishment of a de facto published tariff instead of simply a negotiated TPA.

He also argued that transmission access agreements should not tie a particular generating station to a particular customer. There should instead be a system of separate contracts for generators to connect to the systems, distinct from those for demand from the system. This would allow for minimum transaction costs in 'partner swapping" between pairs of eligible customers and independent generators. Separate charges for generation and demand "recognises reality and

As concerns the requirement of non-discrimination, Mr Russell challenged conventional assumptions about the definition of "discrimination" in particular given the (normally accepted) distinction (at least in other sectors) between price and value. While the latter remains constant the former may change greatly according to time or location. "Clearly any different treatment of customers requesting identical services at the same time is discriminatory.. [but outside this] what is and what is not discriminatory is very much a matter of philosophy".

In his discussion of the "fundamental issues" of transmission pricing, Mr Russell pointed out that there are three basic objectives for the mechanism: economic efficiency, revenue recovery (fairness) and equity (political acceptability). He explained why these objectives are so often in conflict but also stressed that "whatever the balance between economic efficiency, fairness and equity... political acceptability is the most important of the hurdles."

In addressing the 'efficiency' issue of promoting long term (location) and transmission (network) investment decisions, Mr Russell questioned whether or not the EU Directive implied an 'obligation to invest' in certain circumstances. While 'lack of capacity' is listed in the directive as an objective reason for refusal of an access request to the transmission system. It also sets down

an obligation on the transmission system operator of 'non-discrimination' between customers and "if necessary investment".

Lastly Mr Russell posed the question 'Does transmission pricing matter?' By presenting an illustrative case study he showed how transmission pricing rules can significantly affect investment decisions involving hundreds of millions of pounds: in particular concerning where power stations are built, when and where they are closed down and whether new transmission lines are established.

At the same time, he also underlined that there is no, single, particular pricing methodology (e.g. postage stamp, contract, MW Mile, Long Run Marginal Pricing etc.) which can be considered the "intrinsically right" solution for all. Every solution must be fitted to its given context. This includes the existing structure of the energy market, geographical constraints and the political framework defining what is considered "acceptable".

Christof Bauer of Degussa AG (Germany) presented "the industrial energy consumer's view" of the German implementation of EU energy directives. His central argument was that, in order to protect consumer interests, development of a fully competitive market from the statue quo of monopolistic structures needs to be achieved in a step by step process. The approach of the German government, to avoid a transitional phase of sector regulation (for transmission access / pricing) and rely immediately upon general antitrust law, was mistaken.

The new German legislation is not yet finalised as regards the electricity market. However, the current draft, as presented by Bauer, sets down only very general rules as regards tariffs and leaves many important technical and administrative aspects of transmission agreements open to negotiation, often between a powerful market player and a much weaker new entrant. Furthermore, there are no rules as regards provision of third party access. Like Russell, Bauer argued that a principle of "negotiated TPA" - with an appeal option where necessary - was not likely to be enough to ensure fair and efficient use of the grid. Pricing rules must be stronger to encourage greatest possible use of the existing transmission system. Otherwise incentives will be created for entrants to invest in bypass of the grid with new, direct lines to the most lucrative customers. Such inefficient use of the grid would not be the interests of most consumers.

electricity prices must be made internationally competitive. Implementation of theoretical and general cost principles - such as proposed in Germany - poses a grave risk of "sky rocketing prices". In comparison, there is solid evidence that more clear and strict rules for transmission pricing, such as have been developed in the US and the UK, have lead to more internationally competitive grid fees.

Bauer proposed the following cost principles as essential

Transparency
Capacity as a basis for price variation i.e. tariffs should be KWHr related
Price independent of distance
Encourage efficient use of grid not investment in new infrastructure

In conclusion Mr Bauer pointed out that industry was not necessarily convinced of the need for strong and heavy regulation as the solution. His point was, rather, that industry is very worried about the shape (and weakness) of the proposed German legislation as it stands.

The next speaker was **Mrs Maria Luisa Huidobro y Areba** from the Spanish Compania Operadora del Mercado Espanola de la Electricitad. The speaker first presented the framework of regulation as set down in Spain's 'New Electricity Act' which was approved in November 1997. The main points of this presentation included the following:

General Liberalisation Framework: Generation and retailing to become fully competitive activities via a phased regulatory process to be implemented over the next 10 years. Access to transmission grids and distribution network to be opened up to generators, retailers and eligible customers. Competition to function through the introduction of a spot market (supply and demand bids), recognition of explicit bilateral contracts and increasing boundaries of consumer eligibility:

Restructuring: (i) legal unbundling of generation and distribution by 2000; (ii) creation of new independent agencies - "the Market operator" (responsible for economic management of the system, matching supply and demand on the bidding market) and the "system operator" (responsible for technical management of the system and maintaining levels of quality and safety); (iii) Grid owner REE designated as system operator in transitory provision.

- Privatisation: reduction of state's role in the electricity sector with progressive sale of state held capital on the Spanish stock market

Generation activity: transactions to be conducted either through electricity pool or bilateral trading. (i) The bidding market - Market Operator matches up bids from the demand and production side of the market. Ancillary service (guaranteeing quality, safety and co-ordination of supply) run by the System Operator (REE). (ii) Bilateral trading - this covers both physical and financial contracts between producers and eligible consumers.

Retail market: Choice of supplier for 'eligible consumers'. Eligibility to be expanded in four stages depending on consumption (1998=>15GWh, 2000=>9GWh, 2002=>5GWh, 2004=>1GWh, 2007=all). A new category of electricity 'retailers' (authorised for specific geographical areas) will be progressively introduced as the competitive market expands. Retailers will buy electricity and "re-sell" it to qualified consumers in competition with the traditional distributors. In the transitional phase (until 2007) the existing distributors will continue to enjoy their monopoly on sales to non-eligible consumers. On the other hand they

needs in their geographical area.

Stranded costs: During the transitional (10 year) period electricity companies will be entitled to payment of "costs of transition to competition". This represents a fixed remuneration (according to maximum threshold fixed for the full 10 year period) and will be financed, not by the market players, but out of the electricity tariffs paid by all consumers.

After presenting this background, Mrs Huidobro focused in on the practical and administrative details of the electric energy production market in Spain. She described the tasks of both the Compania Operada del Mercado S.A. and of the support company for market operation. She explained the daily production market system as concerns offers (generator sales / client purchases), matching (the electronic procedure is adapted to both 'simple offers' and 'complex offers') and result (base generating schedule and hourly marginal price).

Mrs Huidobro also concentrated on their 'state of the art' information system, in particular as regards requirements at and between each 'level' (communications, WEB servers, databases, applications and internal users).

The first speaker of the afternoon session was **Mr David Smol** from ILEX Associates (specialist energy consultancy). He presented the New Zealand case ("Opening the New Zealand wholesale electricity market to competition") to the forum.

Like previous speakers, his presentation started by emphasising the importance of the specific "country context" to finding the right policy solutions for electricity market reform. He noted, for example, the remoteness of New Zealand, and that much of its generation is remote from load Countries also have their own particular regulatory history to be taken into account. Most importantly in the NZ case this is defined by the government's particular enthusiasm (starting in 1984) to implement widespread, radical deregulation of all sections of the economy. This broad reform was based on a strong belief in the economic advantages of allowing only the most light-handed regulation and recourse to general anti-trust principles to influence the functioning of markets and competition . .

Mr Smol went on to describe the restructuring of the electricity industry between 1986 and 1997 which involved partial privatisation; separation of generation from transmission, distribution and supply functions; and the establishment of a wholesale market. As concerns open access and competition Mr Smol explained that connection contracts (for both generator and distributor/supplier) are made with the grid operator, Transpower, while bids are accepted and organised by NZEM which is responsible for pricing settlement. Transpower is state-owned but does not enjoy a statutory monopoly.

Mr Smol then discussed specific details of key aspects of this framework, such as set valuation, transmission pricing, connection contracts and technical access issues, the working of the wholesale electricity market (bids, pricing, scheduling and dispatch) and ancillary services.

Finally Mr Smol presented a critical analysis of the New Zealand case, judging its success against the government's own objectives. He concluded, on the positive side, that security of supply was being maintained, new entry is being achieved, costs and prices are down, there is competition and choice in the contracts market and locational signals for investment appear to be efficient. On the negative side, however, he noted that there were problems of excess capacity, insufficient competition in generation, and barriers to supply.

* There are two key steps to reform: (i) separation of transmission fror generation and supply and (ii) establishment of open and transparent wholesale trading arrang nents.

ıe transmission and the energy ıarket should be integrated

* T pricing and contracts m ıt be transparent

The last presentation of the day was given by **Mr James Barker** of US law firm, Barker, Dunn & Rossi Inc He spoke about the US experience in reform of electricity markets. He argued that the EU states, at a relatively early stage in developing the structures and principles of such market regulation could learn much from identifying the various advantages and disadvantages of the existing US framework and should consider carefully how to avoid its failures and pick the elements of success.

His main ıriticisms of the US system were concerned with the complexity, inflexibility and 'heavines of the US regulatory framework. While based on legitimate principles, the emphasis on proce and legal procedure is excessive and creates barriers to efficient communication

between markets and their regulators. On the other hand, Mr Barker suggested that the EU could benefit from following those states who had successfully lowered consumer prices, and introduced effective competition. A critical element in such achievement, he argued, was to allow the regulator to establish transparent and standard tranmission prices.

Mr Barker started off by explaining the particular constitutional and jurisdictional problems in the US. There is a patchwork of different rules in the 51 states as regards retail regulation. Meanwhile, at the federal level the Federal Energy Regulatory Commission (FERC) addresses wholesale regulation. Mr Barker emphasised the tensions and overlaps between the jurisdictions, the extreme diversity between different states, and between the states and the federal level, as concerns the ways to encourage open access markets, treatment of "stranded investment" and timing and methods for introduction of both retail and wholesale competition. He suggested that, given the complexity, overlaps and risk of inefficiency inherent in two tier regulation of markets, two-tier structures should be avoided as much as possible in the EU, or at least "handled with extreme care".

He then went on to describe and explain some of the key problems concerning the nature and structure of industry itself in the US context: the majority of the electricity utilities are both vertically integrated and privately owned. This creates the dilemma that the players neither want to divest nor can they easily be forced to divest without risking breach of the US constitution concerning confiscation of private property. This leads, argued Mr Barker, to the fundamental conundrum "how to create perfectly competitive markets with vertically integrated utilities?" FERC requires open access for wholesale trading but divestiture is not required and obligations as regards functional unbundling are limited.

Another industry problem discussed was "stranded investments" (risk of non recovery of investments made by privately owned utilities due to tough pro-competitive regulation of access). There are also other important legal problems concerning aspects such as pre-existing contracts and transmission rights for municipalities. Indeed, Mr Barker described the area of electricity reform as a "lawyers paradise".

The speaker identified two key requirements as regards the effective management of competitive electricity markets: (i) Independent Governance and adequate Market Surveillance; and (ii)

Mr Barker then proceeded to explain and identify the difficult problems which emerge to protect the legitimacy of the process by which regulators and their markets may communicate. IN general, he argued, and with the opportunity of the benefit of hindsight The EU should regard the US regulatory experience as an extremely interesting and positive model as concerns the key principles and objectives which they recognised long before Europe, as the essential bedrock of fair and effective procompetitve regulatory oversight of certain market sectors,are needed to underly pro-competitive regard the US attempts to create unprecedented regulatory, legal and instutional frameworks to support new ideas about markets and competition, as courageous but (understandably) leadin to mechanisms and instruments which are often inefficent and, in the extreme, simply mistaken. The regulatory failures are execcerbated by the lack of flexibility built into the bulk of system so that many rules and process are becoming outmoded, or even anachronisticin order to respect the newly articulated principles of independent, neutral regulators and strict transparency of process concerning interactions between commercial power and public authority contained man actually resulted in

For example, he described the US problem of over emphasis on "due process". Any proposals for improvements and reforms - however urgent - need to pass through an existing heavy regulatory

framework with its set structure of strict rules of process. Established some time ago this process is often accused of being anachronistic. It also tends to be unnecessarily time consuming and expensive, and makes it extremely difficult for policy and regulations to adapt appropriately to the dynamics of a competitive market. In this context Mr Barker stressed that the EU should make the most of the benefit of having a relatively 'clean as concerns the establishment of institutions, structures and rules of process for pro-competitive market regulation or oversight of its newly liberalised markets.

He proposed that while regulatory reform in the EU should seek to avoid the pitfalls and disadvantages of the US regulatory framework, it should also recognise the critical factors underpinning the successful aspects and advantages of the US model. For example, in order to establish effective regulatory oversight for the introduction of competition their electricity markets, the EU MS need to introduce stronger principles and mechanisms of independent governance - an essential characteristic of US regulatory agencies.

Mr Barker also emphasised that the EU should recognise that there were generally good reasons behind the initiatives to establish the set of rules of legal process and the myriad institutional safeguards. They were set up to protect the essential principle of 'independent' governance in market regulation,but unfortunately the resulting safeguards have become unnecessarilt pedantic.

An immediate problem in this context, and one which needs to be urgently addressed within the MS regulatory reform framework, concerns the dilemma of how the regulatory body can maintain both adequate information flow from such a complex market at the same time as ensuring independence from the market players. Mr Barker explained the basic conundrum: If an institution charged with market surveillance is sufficiently separated from the market as to ensure its independence from the market players it will become extremely difficult for it to maintain the necessary flow of knowledge and expertise to keep up with market developments. If, on the other hand, the regulator depends too heavily on the market operators themselves for such information this poses a risk of 'regulatory capture', whereby the most influential market players may gain inappropriate influence over the regulatory decisions which affect them.

In the US, the reaction to this dilemma concerning information flow and relations between the 'regulators' and the 'regulated' has, unfortunately, resulted in the excessive growth of a huge safeguards. The process of communication between the market and its regulator involves an various steps and many professional "intermediaries". The process has become so drawn out and complicated that it often results in diluting or distorting the substance of both the problem being communicated and of the effectiveness of the regulatory reaction..

While Mr Barker stressed the importance of establishing maximum transparency of information and process in relations between market players and the authorities, he argued that this could be achieved much more efficiently and without introducing such an unnecessarily cumbersome system of safeguards as now burdens the US policy process. It is critical that the EU Member States recognise the importance of the new frameworks and processes which are developing which will structure the relations and information flow between, on the one hand, those authorities aiming to establish the fair and efficient regulatory conditions for a competitive electricity market, and, on the other, the electricity industry players whose commercial interests and investments are significantly put at stake by their policy decisions. He urged the EU to take advantage of this short window of opportunity to be innovative and flexible in developing new solutions to the dilemma (up until now considered almost exclusively in the US) of the 'right' relationship between the regulators and the regulated.

Mr Barker suggested, for example, a two tier solution. The first tier would be based on the principle of "stakeholder participation" (i.e. involvement of the industry) in the development and modification of market operational rules which concern their commercial interests. Proposals for reforms or changes would be put to a second tier with final authority for policy decisions. This would be a separate, and fully independent board which would be advised by 'neutral' experts from the Independent Service Operator and Market Administrator.

The key point Mr Barker emphasised is that MS states are in a position to direct elements of thei own reforms towards the successful aspects of the US regulatory model, while learning from its failures. In particular, Mr Barker stressed that effective market regulation can be achieved without the disadvantages of a heavy and complex regulatory framework.

Mr Barker also underlined the point (introduced previously by Mr Russell) that, as concerns the substantive and institional details of the rules concerning competitve pricing and other terms of access, there is no universal "right answer". Electricity is a complex market where many critical requirements of successful pro-competitive regulation are deeply embedded in the pre-existing and historical local context. Diverse political, geographical and economic conditions affect the current structure of the industry and aoconstrains the ways it can be reformed . This assertion leads to two important points:

This is a complex market. It was repeatedly emphasised that there are no universal requirements defining the 'right' regulatory solution for implementing a pro-competitive policy in the electricity sector. They will vary significantly and profoundly across the MS of the EU. Constraints on the viability of certain regulatory solutions as well as those influencing their actual effectiveness are inherently embedded in particular domestic characteristics. Most importantly the specific political, legal and geographic context as well as, naturally, the existing structure of the electricity industry.

While ost seemed to agree with the argument, it ultimately posed a central dilemma to the forum

On the one hand, this assertion highlighted the necessity of respecting the subsidiarity principle in the context of implementing the EU electricity directive. It implies that a certain threshold - corresponding to a level of detail in the actual substance of the rules adopted and the institutional

Memb States, should be considered ot o possible a but als aken one.

On the other hand, a large number of participants were also concerned that the EU directive left too much open to national discretion and that the resulting regulatory diversity between the Member States represented a threat to the central goal of the directive. That is, the creation of an EU Internal Market in competitive electricity provision. In this context it was argued that stronger harmonisation between regulatory frameworks was needed in those areas which effect cross border trade and market entry. Certain regulatory asymmetries, already evident from the presentations of the developing regulatory framework in various Member States, were identified as likely to result in distortion of competition between certain Member States and/or representing cross-border barriers to entry. Alongside worries about the effects of regulatory divergence, there were concerns that, in order to allow for the creation of pan-European networks there was a clear need for greater commitments between the Member States as regards co-ordination and co-operation to establish clearer, more coherent principles concerning a range of unsolved technical and legal issues which currently block the development of competitive cross-border electricity transmissions and services.

There is clearly a point of tension between the argument which stresses the context specific requirements of the 'right' regulatory solution, and that which emphasises the risks of regulatory asymmetries between Member States as regards cross border competition and the single market goal. Most participants would probably agree that both points are important and that they need not necessarily be seen as contradictory. Rather than opposing each other, the two concerns might be treated as legitimate priorities which need to be appropriately balanced in any consideration of disputes which are likely to come up in this context.

A central issue of contention will concern the identification of those elements of regulatory reforms which will inevitably vary across Member States according to the demands of diverse national contexts, and those elements of regulatory symmetry which are not dictated by immutable domestic constraints and represent barriers to trade.

Further, he emphasised that the optimal regulatory solution will vary not only across space but also over time. Thus, the speaker advised, policy makers should be "humble" in their decision making, and ensure that flexibility is built into the regulatory process.

In presentation and discussion of diverse 'models' or experiences in dealing with these challenges Mr Barker drew on examples from California, Alberta, New England (NEPOOL), Pennsylvania-New Jersey-Maryland, New York as well as Canada, England and Wales, New Zealand and Australia.

Regulators Round Table Discussion

Chaired by Mr Claus Dieter Ehlermann with Mr Garribba (Italy), Mr Vasconcelos (Portugal), Mr Ferdanez Ordonez (Spain), Ms Gabrielson (Sweden), Mr Rajala (Finland), Mr Kragelund (Denmark), Mr Moen (Norway), Mr Kelly (US) and speakers.

The main focus of discussion was Transmission Pricing. The main issues raised were concerned with the inevitability of diversity in domestic regulatory frameworks on the one hand, and the demands of an EU wide internal market, on the other.

1. How, and how much, should transmission pricing be regulated ?

The first priority is to establish greater transparency, clarity and knowledge (Spain).

There is no winning model (Italy).

Once a competitive market is achieved there should be no need for regulation set down in advance as concerns pricing. But special transitional rules will be needed for a period of around 5 years, in particular to protect the consumer (Sweden).

National particularities such as geography and political commitment to environmental goals are important. In Denmark there is a critical bottleneck between East and West. It is geographical position, not distance, which direct the level of the transmission tariff. There is also a high public service obligation and environmental tariff (Denmark).

The Norwegian system is a success story. It is where the rest of the EU is moving. Membership of Norpool is in demand. It is a modern exchange - efficient and transparent. Transmission and distribution prices are listed on the web. There are no transaction costs for the consumer in changing supplier. The main challenges which need to be addressed by energy policy in all Member States concerns dealing with congestion and managing risk (Norway).

The main controversies regarding transmission pricing concern congestion cost pricing and access fees. As concerns the latter contention is focused on the question of whether fees should be uniform or variable; and, if variable, on what basis should they vary? This is inherently connected with the question of defining discrimination. FERC favours full uniform access fees. (Kelly, US).

Germany is particularly uneasy about over emphasis on 'regulation' in reforming energy markets. The need for strong ex-ante rules concerning, inter alia, transmission prices, depends on the existing structure of the industry. In a country such as Germany where there are thousands of grid operations it is more appropriate to implement reforms based on negotiated third party access than ex-ante regulations. The German energy law is based simply on competition principles such as right of entry to the market and non-discrimination as regards transmission access. In the case of break down of negotiations or anti-competitive conduct, appeals or complaints may be made to the competition institutions for a regulatory decision. The new German law also grants the possibility of stronger regulatory intervention should this prove to be necessary. History will show whether our « hands off » approach will work. We hope that stronger regulation will not be called for (Leyser, Germany).

Arguments raised in reaction to Leyer's support of the 'hands off' approach, included the following:

A transition period is essential before reliance only on basic competition principles. If implemented too early a system of commercially negotiated TPA will simply break down (Sweden).

System of ex-post appeals to the Cartel Office will not be effective without a clear deadline for the ruling. A regulatory environment based on ex-post appeal to competition principles must recognise that timing is crucial to the weaker party (Russell, UK).

Mr Leyser responded, stressing that, while the first couple of cases (precedent setters) may be lengthy and complex, it was expected expect that further cases should be settled much more rapidly.

confidentiality and variation in terms and conditions) and that of "non discrimination" is confusing. (Bauer, Degussa)

There is perhaps a more general need to address and clarify the relationship between transparency and non-discrimination on the one hand and principle of negotiated access on the other. We need to question whether the principle of commercial 'negotiation' is compatible with the principles of transparency and non-discrimination. (Ehlermann, Chairman)

The theoretical debate about the rights and wrongs of over regulation and under regulation is certainly important but one should not lose sight of the concrete facts and evidence at our disposal. In North America it is apparent that the effect of enforcing a standard and published tariff for transmission is to increase trading and decrease prices for consumers. In this context the commitment to standardisation of transmission pricing is much more significant than the attempt to calculate exactly the right level of the price. (Kelly, USA)

Transparent methodology as regards cost pricing is (however) an important safeguard against the risk of governmental interests in using access tariffs to raise funds for broader political objectives as concerns domestic energy policy. It is also important to take into account the extent to which

the level of the access tariff effects incentives for new players to invest in new and more decentralised network infrastructure, such as direct lines for large users or for regional groups Higher transmission prices will mean less use of the national grid (Netherlands)

One should not lose sight of the need for effective regulatory oversight in such a complex market The electricity market needs compensation Certainly regulatory agencies, in particular those in the US which have perhaps been too influential in defining the image of « market regulation », are problematic and in need of profound reform However, it is important, in this context, to separate out the issue of 'regulatory function' (what needs to be done?) from that of the nature of the institution which carries it out (who should do it?). The institution may, for example, be an independent board of experts or a neutral commercial consultancy. It is not necessarily the exclusive remit of government, government agency or even any 'public' body. The solution may be a private or commercial service, sol long as it is sufficiently neutral (Kelly, US).

2. *Is there a demand for more guidance from the « the centre » (i.e. at EU level) and or greater co-ordination between Member States as regards the regulation of transmission pricing ?*

Most Member States recognised both the importance of accepting diversity and flexibility to reflect the varied national contexts (in terms of geography, market structure and political acceptability) as well as the aim of lowering regulatory barriers to achieving effective competition between suppliers and distributors in different Member States – i.e. the internal market objective.

Diverse treatment of elements such as stranded costs, ancillary services as well as, more generally the approach to regulation of access agreements may cause problems as concerns intercountry connections. In this regard transparency and close monitoring of policy developments in the Member States is crucial. In particular it is important that we seek to clearly identify the barriers to inter MS trade in electricity which may threaten the establishment of an effective European wholesale market. Treatment of the public service obligation (PSO) is, for example, a possible constraint on open access between Member States which needs to be addressed. In this context it would be useful to identify and agree upon a list of legitimate PSO elements (Italy).

National governments may include costs of elements of their broader domestic energy policy

this is reasonable as concerns transmission tariffs levied on non-domestic market players.(Greece)

Both stranded costs and PSO costs (however they are defined) should be distinct and separate from the transmission tariff. (Spain)

The EU directive lacks definitions. We need to co-co-operate in order to agree common definitions concerning : interconnect capacity, access and transit rules, treatment of loop flows and technical standards (particularly as concerns voltage levels). Certainly variation between Member States in this area is both inevitable and justified. However we need more as regards a common design and principles.(Portugal)

It is important to be aware that such co-operation and agreement on the 'right' definitions is not an easy task. There is controversy even within the industry on these aspects (Barker, US).

National variation in tariff structures represent significant barriers : for example, in Germany tariffs are distance dependent but in other Member States such as Denmark they are not. This may be expected to dampen commercial initiatives to export electricity from Germany. A further problem needs to be addressed as concerns cross border tariffs involving international sea cables

(for example between Denmark and Sweden and Norway). Since these cables are traditionally under joint ownership between national operators, the legal framework as regards rights to make decisions on access and pricing are blurred. Both of these issues also raise institutional questions. Who, for example, should a Danish operator appeal to in the international context ? In order to make the internal market system actually function, we need to make a more realistic attempt to focus on such practical problems (Denmark).

The transition period between now (where special rules are called for) and the point at which an effectively competitive market is established will, hopefully, also represent a period in which the commercial driving force for harmonisation between Member State rules is recognised and realised (Sweden).

There is a clear and specific need for a set of rules to govern electricity transmission across national boundaries. It would be of particular significance to establish / clarify the position of France and of Belgium in this area There is a clear demand for a Commission Recommendation in this context and we would request that such guidance be provided in this form (Bauer, Degauss AG, Germany).

The reaction from both France and Belgium concerned the fact that national law implementing the EU directive had not yet been finalised and, thus, that no definitive position as concerns inter-Member-State transmission had yet been established.

The reaction from the European Commission (Benavides) was a clear message that pressure to direct the Commission to issue further and more detailed proposals concerning harmonisation of national electricity markets would be resisted. Any such movement towards enforcing common regulatory solutions at the EU level would be incompatible with the principle of subsidiarity.

The Chairman (Claus Ehlermann) underlined this point, emphasising that, indeed, in applying internal market and competition principles to the electricity and gas sectors of the Member States, the Commission had already pushed its competence to the limit vis a vis the subsidiarity constraint.

1. Presentations

The first speaker of the second day was **Professor Stephen Littlechild**, Director General of the Office of Electricity Regulation in the UK.

His presentation consisted of statistical tables concerning (inter alia) the development of competition in the UK electricity market and price implications for consumers, accompanied by a description and analysis of the regulatory framework and underlying principles by which this was achieved. His main points were the following:

Full unbundling of generation and transmission is essential (accounting separation proved inadequate). The independent transmission operator has a duty to facilitate competition and provide « even handed treatment ». As concerns distribution and supply functions, accounting separation has been sufficient so far (for the wholesale market and for supply to large industrial end users). However, as competition expands to smaller and domestic users, it will probably be necessary to enforce stronger separation here, including separate licences for distribution and supply, and, ideally, separate ownership.

Non-discrimination in transmission and distribution is critical. Currently system charges are published but rules may need to be tightened as concerns timing and notice of changes. There are also non-discrimination conditions as concerns the supply side, in particular to prevent predatory pricing between the distributor and its own supply area. Regulatory constraints will be relaxed here as dominance (and the potential to abuse it) is reduced.

Professor Littlechild also discussed the UK treatment of policy issues such as stranded costs public service obligations and renewable energy. The problem of stranded costs is best met with clear and focused transitional arrangements. Public service obligations should be regarded and implemented as a (distinct) supplement to the competition objective and should not be incompatible with it. As concerns renewables, competition is leading to convergence.

Prof. Littlechild's main arguments were that both privatisation and regulation have been key factors leading to supply competition, price restraints on network bottlenecks and lower prices for consumers. He considers that separate ownership (i.e. divestiture of vertically integrated operations) and the refining of rules concerning unbundling and non-discrimination is increasingly important as competition is extended to a broader range of consumers

The second speaker of the morning was **Mr Jan Moen** from the Norwegian Water Resources and Energy Administration. He commenced by stressing the difference between the Norwegian and the British context for competitive provision of energy services and went on to discuss the reasons and implications of these differences. In particular he noted the fact that, unlike the UK, Norway had not privatised the national grid and that the UK market structure contrasted with that of Norway both in terms of numbers and types of competitors.

While highlighting it as a "hot" and contentious issue, Mr Moen emphasised that (unlike the UK framework) vertical integration of the utilities is still unrestricted in Norway. He said that the government would prefer not to split up the electricity companies, for "political reasons". Thus they are relying in the efficacy of their rules concerning open access and unbundling.

Mr Moen a o stressed that cons nterest ıst always remain the f s of pro-competitio
objectives in this s He pre ed data to back up his ertion of the succes

2 Round Table of Regulators

Chaired by Mr Ehlermann; with Mr Ranci (Italy) Mr Vasconcelos (Portuga Mr Fernandez Ordonez (Spain), Ms Gabrielson (Sweden), Mr Ra a (Finland), Mr Kragelur Denmark), Mr Littlechild (UK), Mr Moen (Norway) and Mr Kelly (C)

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The critical policy issue is the distinction between accounting separation and legal unbundling Full structural separation poses problems as regards (a) the definition and reimbursement of stranded costs; and (b) the political preference for integrated nation-wide distribution (Italy).

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The critical factor is the separation of: generation, transmission and system operation. It seems that the importance of the latter distinction is not yet recognised in the EU where these functions

tend to be integrated. However, there is a clear conflict of interest between ownership of the transmission infrastructure and efficient pro-competitive system operation. Wherever possible policy reforms in this sector should first establish restructuring (in particular as concerns full unbundling and divestiture as concerns vertically integrated operations) and then address the objectives of liberalisation and market opening. (US - Barker)

It is important to address the issue of the legitimacy and accountability of "the regulator" We also need much more information to make reliable price comparisons (Portugal).

The EU Directive requires unbundling of various levels but the key question is still open: What are the actual demands of such unbundling vis a vis legal separation and / or divestiture as concerns ownership? (Sweden)

The central issue for FERC is to secure open access to electricity networks for wholesale providers (i.e. for suppliers and distributors). Unbundling must be functional and effective; that is, it must ensure that the unbundled levels actually behave as if they were separate companies. There should be a threat of stronger regulatory measures if this objective is not achieved. Most states in the US are focusing on unbundling between generation and transmission. Stranded costs may best be recovered from all end customers instead of burdening just the market entrants. The question of open access for end users is less clear. The main problem is that big business (major consumers) have a natural advantage over the small domestic user. Congress is considering a national policy for end user access. (US, Kelly)

Unbundling is a key issue in Denmark where the market is characterised by full vertical integration. Commercial unbundling – i.e. accounting separation – between the supply function and network operation will certainly be necessary to ensure fair trading. However, legal rights to enforce tougher unbundling obligations on private electricity companies is problematic. In any case, the actual definition and substance of unbundling rules per se is not the point, what matters is the effect on the behaviour of the market players in question. For example, even where full structural separation and divestiture is imposed, there is always the risk of collusive agreements causing anti-competitive effects and market distortion. (Denmark)

Effective regulation is a difficult task. The further unbundling goes, the easier the regulatory task becomes. (Norway)

Comments from the Chair (Prof. Claus Ehlermann): The relationship between structural reforms in the market and the need for regulatory controls on market behaviour is a key issue. Achieving the right competitive structures may be much more important and effective than attempting to control behaviour. Indeed, it is only when it is not possible to ensure the right market structures that there is need for regulation. However, enforcing radical structural reform is often problematic from a legal point of view. EU antitrust rules do not enforce the breaking up of existing monopolistic structures. They have only been used to prevent their formation, in particular with the merger control regulation,. Member States may generally enforce restructuring as far as state owned enterprises are concerned, but where they are not, problems are likely to arise concerning private property rights. In any case, Member States should seek to push their potential to enforce restructuring and unbundling to the utmost limit.

Open Discussion

How is it possible to establish effective management unbundling without full legal separation? In practical reality, management separation demands separate boards of directors. (Russell)

In fact there are very few people in top management. The composition of the board is not so significant as concerns the day to day running of the company (Gabrielson)

In the Netherlands we aim to ensure an effective level of unbundling without enforcing changes in ownership structures. There are rules to ensure separate boards for the separate unbundled elements. (de Jong)

The burden of proof should be placed on the integrated company(s) to prove that they have achieved the appropriate level of unbundling. Otherwise they face the threat of tougher market intervention and divestiture. (Kragelund)

The most important separation to achieve is that between system operation (neutral and independent management and administration) and the more commercial and competitive activities of generation, supply and distribution. (Magnusson)

Divestiture of network facilities will be prove to be very difficult. Policy should focus primarily on establishing the effective separation of the activity of systems operation from the rest. This is more practical and much easier to achieve (Ordonez)

Unless unbundling of ownership is achieved commercial solutions for the competitive market will be unclear because ultimately strategy is directed by the holding company. Where utilities are still in the public sector (public ownership) it is more likely to be appropriate to control the behaviour of the operator with ex-ante regulations. On the other hand, where operators are privately owned (such as is the case in the energy sector in Germany) competition rules should suffice. (Leyser)

3. Future Regulators Meeting

M Benavides emphasised the need for a follow up to this meeting of the EERF. He noted that there seemed to be a clear consensus among participants that further issues should be explored and discussed by the forum.

[illegible] however, that there was perhaps a little too much consensus among participants and that this was a sign that participation should be broadened.

M Lyon (Luxembourg) underlined the importance of such informal discussions on EU electricity markets as a complement to the more formal grouping established in Brussels. He also noted that, in the future, industry participation in the forum should increase as more markets are liberalised (at the moment the UK is inevitably over represented in this regard).

M Garribba stressed that the single market issue was not explored sufficiently in this meeting. He said that the forum needed to address in a more focused way the actual physical and non-physical 'road blocks' to achieving an EU internal market in electricity. Another issue he highlighted which should be addressed was that of 'renewables'. He also supported the idea of broader participation, in particular from industry (both market players and users). He also proposed that in future meetings there should be more time left for discussion and questions since such interaction was the most particular and valuable element of this type of informal forum.

The Portuguese representative also emphasised the challenge of the single market, but he argued that competition implementation of competition reforms may actually jeopardise this goal. In

particular he was concerned that liberalisation alongside the establishment of diverse regulatory frameworks poses the risk of dismantling the existing western European interconnected network and leaves little structure for co-ordination in its place. He reminded the forum that the issue of interconnection between European grids had already been addressed over 40 years ago within the framework of the OECD, but was based on the principle of co-operation not competition.

M Lepisto argued that the challenge of unbundling should also be applied to the distinction between legislators and regulators. He also noted that participants had spent too much time simply advocating their own systems and that the forum should attempt to focus on the key general issues more vigorously and at a more profound level.

M Heden repeated the point that more attention needed to be paid to the task of establishing a single market instead of merely 15 competitive but isolated national markets. The concept of "regulator" was also inherently problematic and controversial. For example, as noted previously by M Kelly, the identification of certain important tasks need not imply that they be carried out by a certain type of regulatory institution. In this context he emphasised that the independent system operator should play a more significant role in carrying out and monitoring pro-competitive goals.

M Bauer reacted against a previous suggestion that the forum should make use of existing EU trade associations and interest groups as a way of broadening participation. He argued that they reflect only the "lowest common denominator" and that, instead, it would be much more valuable to invite a selection of key individual players and users which would provide a spectrum of discrete but clear view points. He also agreed that the problem of boundaries between national markets is critical. As concerns the role of a regulator, M Bauer understood the notable resistance to regulation (particularly as concerns the German market) but he underlined that there are certain functions which must be performed by "someone" ('regulator' or not). He was doubtful that a general antitrust authority would be sufficient in this context. He also emphasised that, since we will inevitably get things wrong, (especially the early days of reforms), any institutional structures and frameworks introduced should be designed to facilitate regulatory changes and ongoing institutional reform.

M Leyser underlined M Garribba's point that the forum would benefit from more time for open discussion. The meetings should not be over-formalised, rather they should be take this

M Green suggested that PSOs (public service obligations) should also be considered as a topic for a future meeting.

Conclusion

In concluding the discussion and summarising the issues raised, M Benavides noted, in particular, the importance of expanding participation in the forum, especially as concerns industry representatives. He underlined that, while issues such as renewables and PSOs were certainly relevant, they should only be addressed in this forum in the context of the pro-competitive reforms and goals included in the EU directive. Lastly, M Benavides emphasised the unique advantages and appropriateness of the EUI as the on-going seat for this forum: He noted in particular the fact that it is both an EU level institution, and, at the same time, offers a neutral and non-official environment for discussion.

He thus made a proposal that future meetings of the EERF be held at the EUI in Florence with organisation and administration carried out in the framework of the Robert Schuman Centre. He

further proposed that the forum should meet around every six months so that the next meeting would be planned for October 1998.

All these points met with clear consensus from participants

Finally, the Chairman (M Claus Dieter Ehlermann) concluded the meeting. He noted that it had been, overall, a great success. On behalf the EUI and the Robert Schuman Centre, he accepted the proposal that future meetings of the EERF continue to be held here in Florence and agreed that the EUI provided a particularly appropriate seat for such a forum.

gosling@datacomm.iue.it