

Critique of CEER Paper on regulation of energy infrastructure

Analysis and comments prepared for the European Federation of
Public Service Unions (EPSU)

by

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June 2003

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1 Introduction

In March 2003, the Council of European Energy Regulators (CEER) issued a Position Paper, 'Principles on regulatory control and financial reward for infrastructure'. This was in response to a request by the European Commission to the CEER to put forward guidelines on 'how to regulate and financially reward the construction of infrastructure, taking into account the provisions of article 7 of Directive 2001/77/EC in relation to electricity produced from renewable energy sources.'

Before examining the Position Paper in detail, a number of points should be noted. First, although CEER describes its report as a 'Position Paper', in the document, it is made clear that it has not been approved by the CEER Board. It is not therefore clear how this can be described as a CEER Position Paper.

Second, it should be noted that no reference whatsoever is made to renewable energy sources in the Position Paper. Most of the Position Paper concerns the duties of Transmission System Operators and on international transmission connections, and there are detailed references to natural gas networks. Since most renewable electricity sources are small in scale, less than 10MW, and, for practical reasons, feed directly into their local distribution networks rather than the national high-voltage grid, the Position Paper does not seem relevant to the question asked of the CEER. The CEER also puts forward 'principles' rather than 'guidelines' justifying this on the basis that the principles would form the basis for discussions with the European Commission and other interested parties and that guidelines would be produced in a second phase after these discussions and after the principles are approved by the CEER Board.

Third, the Position Paper concentrates almost exclusively on how investment in new transmission capacity should be handled. This is understandable given the concentration on infrastructure development. However, it should be noted that in the cases where transmission systems in a liberalised system have failed, for example in Argentina in 2002¹ and New Zealand in 1998², it was due principally to failure to maintain existing assets effectively. Some recognition in the Position Paper of the importance of maintenance would have been welcome.

Finally, it should be noted that the problem of investment in transmission is one substantially created by the process of liberalisation. As the Position Paper acknowledges 'In a non-liberalised market where there is only one vertically integrated company, that company has natural incentives for network reinforcements.' In short, integrated companies have a strong incentive to make sure there is sufficient investment in infrastructure to ensure that their own consumers are reliably supplied. Liberalisation breaks that chain of responsibility to consumers. The Commission and the CEER do not appear to acknowledge that there could be any doubts that a liberalised model of electricity supply industry is superior to the non-liberalised model. There are many arguments that need not be rehearsed here about how efficient wholesale electricity markets have actually been and whether retail competition really does bring benefits to consumers, especially residential consumers. However, it should be noted that there are strong grounds for arguing that in such a capital intensive network industry with such an overwhelming need for reliability, a monopoly system would be more efficient. In a properly regulated, centrally planned system, wasteful duplication of investment could be avoided and central planning would allow the necessary long-term investments to be made to ensure that supply and demand would balance.

2 The Overarching Principle

Prior to deriving its eight detailed principles, the CEER states its 'overarching principle' with respect to infrastructure development.

¹ In November 2002, a failure at a substation cut power to 13 million consumers for more than 4 hours.

² In February 1998, four cables supplying Auckland failed leaving power supplies to the city severely disrupted for a month.

“The full liberalisation of the market is the dominant prerequisite for the efficient use of existing infrastructure and the development of new infrastructure. In these circumstances, a key focus should be on the ability of signals emerging from trade to highlight the need for new investment.”

This is a very curious way to view the electricity industry infrastructure (the network). For a small consumer, transmission costs might represent up to 5% of an overall electricity bills (much less for large consumers), while distribution costs might represent up to 30%. The discussion in the Position Paper centres on the transmission network. No discussion is included on investment in the distribution network, a much larger element of the consumer price of electricity.

The electricity network is simply a means to deliver electricity to final consumers and efficient use of the infrastructure is not a worthwhile objective by itself. Only if improving the efficiency of use of the network results in lower **overall** costs is maximising efficiency of use of the network a worthwhile objective. It is generally acknowledged that the transmission network for a competitive generation market has to have greater capacity than it would if the network was operated as a centralised monopoly. This extra capacity is required so that all locations in the network can be supplied by a number of potential suppliers, without running up against bottlenecks. In a monopoly market, the costs of removing potential bottlenecks may be greater than the benefits. In short, it will probably be necessary to invest more in the transmission network in a competitive market than it would for a monopoly market.

The sense of the second sentence of the ‘overarching principle’ is not clear. The sense could either be that the priority should be ensuring that market signals are the dominant force in triggering new investment; or the sense could be that the priority should be to determine *if* market forces can be the dominant influence in triggering new investment. Given the pro-market rhetoric of the Position Paper, the former interpretation is the most likely. However, the Position Paper does acknowledge later (page 8) that ‘long-term infrastructure market signals seem difficult to achieve’ and on these grounds, the latter interpretation would make more sense.

The basic problem is that market signals are only likely to become apparent when congestion or bottlenecks have already occurred. Given that major transmission links are often controversial, difficult to site and may take several years to be completed, it hardly seems a sensible way to run the network to wait until there are problems and some form of congestion management (generating the market signals) is needed before new investment can start to be planned.

3 Principle 1 (on the importance of new infrastructure for competition and security of supply)

‘Public authorities should endeavour to encourage sufficient investment in gas and electricity network infrastructure in order to implement the internal energy market, facilitate efficient competition and safeguard security of supply. Public authorities need to maintain oversight of infrastructure decisions in order to promote both security of supply and network efficiency.’

While, this principle seems reasonably unobjectionable, it should be noted that the principle does seem to acknowledge it is not sufficient to set up good regulatory systems with appropriate market signals and does seem to conflict with (one reading of) the ‘overarching principle’. Governments still need to check up on transmission companies to see that they are doing their job. The Position Paper repeatedly stresses the need to respond to market signals, but is not specific about what these signals are and how they would work. The only example given is transmission capacity auctions for cross-border trading. The problem, as argued above, is that the lead time on major transmission lines is often several years. Market signals tend only to be apparent when capacity shortage or a bottleneck is apparent. The paper suggests that ‘the development of commodity and/or capacity trading will provide medium-term price transparency, facilitating risk management and thereby helping to create investment signals’. However, these methods have not been proven anywhere and they seem somewhat speculative and unproven as a means of stimulating vital new investment.

4 Principle 2 (on the importance of the efficient use of infrastructure)

Transmission System Operators must manage their networks in a way that ensures the efficient use of infrastructure.

Again, it would be hard to argue against the efficient use of infrastructure. However, if we examine Annex 2, where the issues of how to manage the networks efficiently are addressed at greater length, we find:

Efficiency in the use of infrastructure is the outcome when a set of factors all function properly. Those factors are non-discriminatory third party access, system management, regulated access tariffs, transparency in the use of the network, the actual use of the installations, congestion management, and effective market structures.

This is a statement of belief, with no supporting evidence, apparently based on a conviction that a market forces are always a superior way to develop a network than central planning.

5 Principle 3 (on the role and responsibility of public authorities)

Public authorities should establish transparent, non-discriminatory and standardised options for the development of infrastructure and aim as far as possible to minimise regulatory risks.

It would be hard to argue against non-discrimination and transparency, but the concept of minimisation of regulatory risks deserves some analysis. The Position Paper does not expand on how regulatory risk might arise and how it should be avoided. It seems most likely that what is being suggested is that regulatory risk arises if companies are not able to recover the cost of investments from consumers because of regulatory action. The implication is that such regulatory action is always capricious. It seems curious that a document produced by regulators should have so little understanding of why regulators are forced to act against companies in this way.

The reality is that Regulators have always had to battle to keep up with the regulated companies who frequently exploit the regulatory process to increase their profits. Under American rate-of-return regulation, companies frequently 'gold-plated' their investments (in other words spent more than was necessary) because their allowed level of profits was based on receiving a 'fair' rate of return on the amount they invested. Regulators had to use 'prudency hearings to assess whether investments were 'used and useful' and 'prudently incurred' to ensure that imprudent investments were not included in the asset base on which allowed profits were calculated. These prudency hearings clearly represented regulatory risk, but they were equally clearly necessary to protect consumers, in an effective manner, from exploitation.

Incentive regulation was intended to avoid this problem by focusing the process on the actual performance of the regulated company in operating the system, not on how that performance was achieved. Provided the service to consumers was good, the Regulator should have no interest in how this performance was achieved, whether by investment in new facilities or improvements in operational efficiency. Such a hands-off approach quickly proved not to be viable and incentive regulation has evolved so that it is just a new form of rate-of-return regulation. Now in the UK, regulators are asked to give consent to investment programmes, typically 5 years forward and to give companies prior approval to recover the costs and earn a return on these decisions. In short, because this is an *ex ante* procedure, the Regulator has become the investment decision-maker, precisely the situation incentive regulation was meant to avoid. Under this system, companies invariably invest less than they are allowed to, keeping the unearned rate of return as extra profits and some of their investments are frequently of questionable value. In these circumstances, does the Regulator allow companies to exploit the system (and the public) or should he try to protect the interests of consumers by clawing some of the money back, subjecting the companies to regulatory risk?

6 Principle 4 (on the transparency of investment plans)

Public authorities should enforce a minimum procedure for the publication of the Transmission System Operators' infrastructure plans.

This principle that those using the network should be able to see how the network will develop seems uncontroversial

7 Principle 5 (on the independence in network management)

Transmission System Operators must be effectively unbundled to ensure that there is no conflict of interest when making investment decisions and to ensure there are sufficient incentives to provide non-discriminatory third party access. Unbundling of network ownership is the preferred route to follow.

If the liberalised model is to be followed and genuine competition is feasible both in the generation and retail activities, as opposed to the oligopolistic structures that seem to be emerging, some form of separation between monopoly and competitive activities would seem a basic requirement. However, if competition is feasible and large centralised companies are to be broken up, the social and technological consequences need to be examined. For example, conditions for workers should not be adversely affected by fragmentation of the industry and valuable national technological capabilities should not be lost.

8 Principle 6 (on the applicable regulatory regime)

6a. Public authorities should establish, in advance and in a transparent manner, which regulatory regime is to be applied for both national and cross-border investments. Such a regulatory regime should include a clear description of its applicability, the relevant criteria for the financial reward for new infrastructure investments and should describe the relevant criteria applicable to third party access to the new infrastructure.

6b. Merchant infrastructures have to be decided on a case-by-case basis and should continue to be subject to an appropriate *ex-ante* regulatory control for each individual case. Where the merchant status is granted on a time-limited basis, the ongoing regulatory status should be properly re-appraised at the end of this period.

This is the main element of the CEER Position Paper and discussion of it accounts for over half of the position paper. The Paper identifies three possible approaches to the regulation of new transmission links.

Under 'Approach 1' - regulated reinforcement with regulated tariffs – the CEER envisages that the new links would essentially be decided by government/regulatory authorities who would commission the construction of the link. The possibility of Trans-European Network (TEN) involvement and hence some element of public subsidy (grants for construction or studies or interest rate subsidies) is raised.

Under 'Approach 2' - non-regulated reinforcement with regulated tariffs –

'Regulators would not have an explicit role either in the approval or rejection of specific infrastructure projects. Instead, the regulators would leave both the initiation and construction of proposals up to TSOs.'

The implication is that this would be a much more hands-off procedure with risk falling on the developer rather than on consumers. However, elsewhere, the Paper stresses the need to minimise regulatory risks and it also acknowledges that regulation tends to be *ex ante*, in other words, investment programmes are subject to prior approval by the Regulator. This suggests that even under this approach, much of the project risk would still fall on consumers.

Under 'Approach 3' - non-regulated reinforcement with non-regulated tariffs: the "merchant line" approach – the market is essentially free to develop what links it wants subject to a number of provisos. The paper

states: 'the infrastructure owner(s) would typically bear the risk of not recovering the full costs of construction'. The case for *ex ante* regulatory control advocated in Principle 6b is not argued and it is not clear how *ex ante* regulatory control would be compatible with risk falling on the developer. There is little evidence that private companies are prepared to take the investment risk implied by the merchant line approach.

As with the rest of the Position Paper, there is a total absence of any practical examples of how these approaches have worked in practice.

9 Principle 7 (on the procedures for licensing new infrastructure)

Public authorities should guarantee that procedures applicable to granting required licences for new investments in gas and electricity network infrastructure are non-discriminatory and efficient.

This principle seems unexceptionable as far as it goes, although it would have been worth stressing that non-discrimination and efficiency are not the only requirements of such procedures. For example, ethical considerations, sustainability and compliance with employment standards must also be taken into account.

10 Principle 8 (principle on the applicable regulatory regime)

Swifter, more expeditious administrative authorisation procedures are required for infrastructure development, including, in particular, interconnection infrastructures.

While it seems difficult to argue against the use of swifter, more expeditious procedures, the Paper gives no indication of what types of problem it has in mind. Indeed, it is not clear that there is any problem. Given that much of the rest of the Paper argues for regulatory certainty and prior approval of projects, it is clear that the risk that the investment will prove to be misconceived or inappropriate still lies with consumers. The need for swift, expeditious procedures therefore has to be balanced against the need for proper public scrutiny and assessment for projects for which much of the risk will fall on the public.

11 Conclusions

It is not clear why the CEER apparently so blatantly fails to answer the question that it was asked by the Council to the Commission and the European Parliament. Nor is it clear how the document presented can be a Position Paper when it has not been approved by the CEER Board. Nevertheless, it seems the CEER regard this as an important policy statement on the development of transmission networks for electricity and gas and it therefore deserves careful consideration.

The clearest point to emerge is how far the liberalised industry has diverged from the ideals that were attributed to it. In the original vision, investment decisions were to be taken by companies, acting on entrepreneurial bases with no intervention by public authorities. In this way, the risk of new investment would fall on the developer, not as it had traditionally done, on consumers. The CEER still subscribes to this rhetoric and the document is littered to references to the need for price signals to provide the main impetus for new investment. However, if we examine in detail the mechanisms actually being proposed are dominated by central planning and by aspiring to avoid 'regulatory risk', the risk of new investments clearly remains with consumers, not the shareholders of the companies. The European Commission also acknowledges that market forces and commercial decision-making will not be sufficient to ensure appropriate investment in the transmission system. In the amendments to the 1996 Electricity Directive that were put forward by the Council to the Commission in November 2002, Recital 22 states:

In the interest of security of supply, the supply/demand balance in individual Member States should be monitored, and monitoring should be followed by a report on the situation at Community level, taking account of interconnection capacity between areas. Such monitoring should be carried out sufficiently early to enable appropriate measures to be taken if security of supply is compromised. The

construction and maintenance of the necessary network infrastructure, including interconnection capacity, should contribute to ensuring a stable electricity supply.

What becomes apparent from the Position Paper is that the vision of entrepreneurial companies risking shareholders' money making commercial investment decisions is not realistic. Without guaranteed returns on investment (minimisation of regulatory risks) and public processes to identify the necessary investments, private companies cannot be relied upon to expand the network in an appropriate way.

The Paper is devoid of any practical examples and is not supported by any evidence from experience of actually operating transmission networks in a liberalised market. Without well-founded supporting evidence, the recommendations of this document cannot be adopted with any confidence.