



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 10.12.2003
COM(2003) 740 final

2003/0301 (COD)

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

**concerning measures to safeguard security of electricity supply
and infrastructure investment**

(presented by the Commission)

{SEC(2003) 1368}

EXPLANATORY MEMORANDUM

1. BACKGROUND

The European Union is in the process of creating the largest competitive market for electricity and gas in the world. This integration of energy markets will both lead to greater efficiency and contribute to security of supply. The internal market forms a key part of the Community strategy on security of supply, as discussed in the Green Paper “Towards a European strategy for security of energy supply”, COM(2000) 769. In order to do this, however, it is important that the correct incentives are in place on market participants and that a stable framework exists. This applies to generators, network operators and consumers. This Directive seeks to ensure that a stable framework exists.

A truly functioning, integrated electricity market requires significant investment in transmission networks. Interconnections between Member States are a particular priority in order to allow for a higher level of competition between existing companies. Without additional interconnectors, the principles of market opening may become meaningless as companies consolidate their position in particular regions of the European Union and the market becomes segmented. This was recognised in the conclusions of the Barcelona summit in March 2002 where, in response to the Commission’s Communication on European Energy Infrastructure, COM(2001) 775, Heads of State and Governments endorsed the idea of a target for electricity interconnection equivalent to 10% of installed generation capacity. Investment in transmission networks is also needed to ensure that the network can cope with additional demand without European citizens and businesses falling victim to frequent interruptions in supply or blackouts. Although no system can be 100% reliable, the expectations of electricity consumers are that such incidents are minimised as far as possible.

Finally, a large proportion of new generation investment is expected to come from generation based on renewable energy sources and distributed generation based on CHP. This in turn requires new investment to allow electricity networks to be reconfigured. The spread of, for example, offshore wind generation will require new interconnections and reinforcement of the network to be made at various locations. Distributed generation will require the low voltage networks to be upgraded.

The internal market also needs to ensure that a balance between supply and demand is maintained. Current trends, whereby electricity consumption in the enlarged EU continues to grow unsustainably are unacceptable and a significant effort is required to deliver energy savings. However, the expected closure of a significant proportion of existing plant also means some investment in new generation is likely in the medium term. However both demand management and generation capacity require investment and any business or household making such investments need to know that a stable regulatory framework exists as to how electricity prices will be determined.

In this context, it is important to remember that electricity is unlike any other products. It has no real substitutes and cannot be stored. Furthermore, network security has some characteristics of a public good since failures in the supply of electricity tend to have a general effect on all consumers. There is therefore an ongoing need, now that the competitive market will soon be in place, to provide the correct framework for long term investment in the electricity sector both on the demand and the supply side in the EU.

2. NETWORK PERFORMANCE STANDARDS

The network has to be operated at all times within acceptable frequency, voltage and current limits. Due to the physical nature of electricity and the constantly changing pattern of production and consumption, it is very difficult to predict accurately the amount of flows at any given point in the network. Control of these critical energy infrastructures is, in turn, highly dependent on the security and reliability of the monitoring and controlling ICT infrastructures.

To deal with this uncertainty, network operators adopt rules to ensure that the network has enough spare capacity so that the grid can be operated safely in a variety of extreme circumstances. This affects, for example, how much capacity between one control area and another can be safely used.

Electricity network systems are made of a huge number of components. The system is designed to resist reasonably probable faults in the system. The general standard used for the operation of the electricity of the network is the so-called “n-1” rule. This states that the network should continue to function in the event that any one individual failure has occurred in a specific part of the network. Not all contingencies are covered, since the costs associated in dealing with all possible events would be prohibitive.

These rules, as well as other requirements on information provision and scheduling timetables, are currently dealt with through voluntary guidelines between the Members of TSO organisations for example UCTE and Nordel. UCTE are currently preparing an update of their operational handbook which they intend to make contractually binding on their Members. There is also the possible scope for incorporating further technical rules into guidelines that will be agreed under the Regulation on Cross Border electricity exchanges.

As well as the operational rules discussed above, there is also scope for regulators to set performance targets on both transmission and distribution system operators. Such targets will encourage the companies concerned to continue to maintain the network and not to cut corners in on operation. Of course the actual level of targets should be set at the discretion of Member States. Specifically, regulatory authorities are expected to establish such targets as part of the process of approving the methodology for setting network access charges. Article 4, therefore gives Member States the duty to ensure that transmission and distribution companies comply with co-operation such as the UCTE initiative.

3. BALANCING SUPPLY AND DEMAND

As already established in the Commission’s Green Paper on Security of Supply¹, this issue is also an ongoing concern for the EU. In spite of the fact that the demand of energy has been decoupled from the economic growth, energy demand is still expected to grow in the coming years.

Current trends however are unacceptable and, in this regard, the first priority for Member States should be to ensure that policies are in place to control growth in demand. Such an approach is cheaper, works faster and is in line with the commitments of the European Union relating to emissions of greenhouse gases. Demand management must, therefore, be at the centre of any Member State’s policy to maintain security of supply. A policy of projecting

¹ COM(2000) 769 final, 29 November 2000

demand on the assumption of “business as usual” and then using this as a basis for forecast the additional generation requirement is not a policy that is sustainable, either at national or Community level.

However, at the same time, a large number of power stations are due for closure over the next few years and some new investment in generation plant is likely to be required, if only to renew some of the existing stock . Must of the new generation plant to be constructed is expected to be renewable capacity or distributed generation based on CHP plant. The Renewables Directive² sets specific targets for Member States to increase the share of renewable generation. Similar measures for CHP generation are already being discussed at Council. The question is, therefore, whether any other measures are necessary in this context.

One of the favourable consequences of a competitive market is that it removes the inherent tendency to over-investment in generation capacity that is characteristic of a centralised planned electricity industry. This is particularly true where demand can be made more responsive to prices. Competition, however, also makes the maintenance of the balance between supply and demand more delicate.

In a liberalised market, as with other products, private investors are expected to ensure that sufficient capacity is available to meet demand. In general terms, the price mechanism is the way that this is expected to be achieved in the competitive market. As prices rise investment will become viable and either more capacity will come on stream, or demand will be constrained. In order for this mechanism to work properly, investors need to be certain about the scope for government intervention in the electricity market. If not, regulatory uncertainty may prevent investments taking place whether this is in generation capacity or demand management technology. A second issue however, is whether investors are prepared to invest in peaking capacity to cover the very highest periods of demand or incidents where a large proportion of other generation is not available. Some believe such investment will not occur because such events are infrequent and their occurrence is unpredictable. Accordingly there may be a case for governments to provide further measures, in addition to market mechanisms, to ensure adequate capacity is available. This may be achieved through a combination of setting targets for the level of reserve capacity or equivalent measures, for instance on the demand side, and by taking measures to ensure these targets are met, either through incentives or obligations on electricity undertakings. This issue is covered in Article 5 of the proposed Directive.

In a number of cases, the security of supply issue goes beyond national borders and requires careful co-ordination between the Member States concerned. Other than particular emergencies, the single market needs to function at all times. This means that firm capacity made available between Member States should never be interrupted for reasons other than “force majeure”. For example, Member States should not be permitted to interrupt cross border flows due to trends in local wholesale prices. At the same time, however, Member States should exercise a degree of caution when evaluating the extent to which imported energy will be available at times of peak demand and they should take into account the development of the reserve capacity position in other Member States, especially those on whom it is expecting to rely on for imported energy.

A second consideration is that Member States need to adopt policies relating to security of supply which are reasonably consistent with each other. Reserve capacity can add

² 2001/77/EC

significantly to the overall costs of electricity supply. There may therefore be a temptation for one Member State to adopt a very low target for reserve capacity and “free-ride” from other countries with a more cautious approach. Similarly, any mechanisms used to support generation should be reasonably consistent to avoid distorting the electricity market.

4. INTERCONNECTOR CONSTRUCTION

Without new investment in interconnection between Member States, the internal market will not function properly and both security of supply and the efficiency of the industry will be affected. New infrastructure is increasingly important as the industry undergoes consolidation, particularly if concentration is high at Member States level. Increased interconnection also allows for the possibility of Member States to share reserve capacity since it is unlikely that peak levels of demand will occur at the same time in more than one Member State. This will improve the level of security of supply and potentially lead to reduced costs. However the main argument in favour of new interconnection is the need to complete the internal market and allow for greater competition.

Investors, in order to have the confidence to build new infrastructure, need to be faced with a clear regulatory regime. Therefore, although it is primarily the role of TSOs to put forward infrastructure projects, it is clear that the regulatory authority also needs to be involved in the planning process given that these authorities will have a clear jurisdiction over the tariffs that network operators can charge. Likewise, regulators in neighbouring Member States need also to co-operate when deciding which investments should be approved.

National regulators need to ensure that TSOs are adequately rewarded for the investments that are made. The return on capital on new investments should at least be equal to the cost of capital of the company concerned, taking into account its financial structure. In some cases, a higher return for new infrastructure could be contemplated.

In the event that, for whatever reason, the TSO fails to make sufficiently rapid progress on important infrastructure projects, then the regulatory authority should have certain rights to ensure that work takes place. In the extreme, the regulatory authority should have the right to arrange for the work to be carried out by another party, and for the costs to be borne by the TSO. Article 6 of the proposed Directive sets out this process.

5. CONCLUSIONS

Investment in adequate transmission capacity is crucial for the future security and sustainability of electricity provision in the EU. New interconnections within Europe are also needed to foster competition, particularly where existing companies have a dominant position. Without such investments Member States may be inclined to take more interventionist measures such as divestment or capacity release. It is important, therefore, that decisions on investments are made, and this requires Member States to face up to the issues concerned rather than continuously postpone important investment decisions.

Action is also necessary on the issue of maintaining the balance between demand and supply. The first priority here is the need for the unacceptable trends in energy consumption to be constrained. Where new generation investment is necessary this should, to a large extent, come from renewables and co-generation facilities. However developers of such technologies, as well as any other investors in the sector, need to have a stable framework. Member States must therefore have a clearly defined approach to the supply demand issue which is published

in advance and constant. If not, the position will continue to deteriorate and governments may be tempted by other interventionist measures, incompatible with competition with an undue bias in favour of increased generation capacity.

The attached draft Directive therefore proposes that Member States must adopt a stable regulatory framework in support of the necessary investment and that this should be reasonably consistent between Member States, while also respecting the need for subsidiarity.

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

**concerning measures to safeguard security of electricity supply
and infrastructure investment**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission³, footnote

Having regard to the opinion of the European Economic and Social Committee⁴,

Having regard to the opinion of the Committee of the Regions⁵,

Acting in accordance with the procedure laid down in Article 251 of the Treaty⁶

Whereas :

- (1) Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC⁷ has made a very important contribution towards the creation of internal market for electricity. The guarantee of a high level of security of supply is a key objective for the successful operation of the internal market and that Directive gives the Member States the possibility of imposing public service obligations on electricity undertakings, inter alia, in relation to security of supply. These public service obligations should be defined as precisely and strictly as possible, and should not result in the creation of generation capacity that go beyond what is necessary to prevent undue interruption of distribution of electricity to final customers
- (2) A competitive single EU electricity market necessitates transparent and non-discriminatory security of supply policies compatible with the requirements of such a market. The absence of such policies in individual Member States, or significant differences between the policies of the Member States would lead to distortions of competition. Definition of clear roles and responsibilities of all market actors is therefore crucial in safeguarding the well-functioning of the internal market and

³ OJ C [...], [...], p. [...].

⁴ OJ C [...], [...], p. [...].

⁵ OJ C [...], [...], p. [...].

⁶ OJ C [...], [...], p. [...].

⁷ OJ L 176, 15.7.2003, p. 37.

security of electricity supply while at the same time avoiding creating obstacles to new entry, distortions of the internal market for electricity or significant difficulties for companies with small market shares.

- (3) Cooperation between national transmission system operators in issues relating to network security including definition of transfer capacity, information provision and network modelling is vital to the development of a well functioning internal market. A lack of co-ordination regarding network security is detrimental to the development of equal conditions for competition.
- (4) Transmission and distribution operators should be required to deliver a high level of service to final customers in terms of the frequency and duration of interruptions to customers.
- (5) Without prejudice to Articles 86, 87 and 88 of the EC Treaty, it is important that Member States lay down an unambiguous framework which will facilitate security of supply and is conducive to investments in generation capacity and demand management techniques. It is also important that appropriate measures are taken to ensure a regulatory and fiscal framework to encourage investment in new transmission interconnection, especially between Member States. These incentives should develop harmoniously throughout the Community if distortions to competition are to be avoided.
- (6) The European Council at Barcelona agreed on a target for the level of interconnection between Member States corresponding to 10% of installed generation capacity in each Member State in order to improve security of supply and facilitate competition. Low levels of interconnection have the effect of fragmenting the market and are an obstacle to the development of competition. The existence of adequate physical interconnection capacity is crucial but it is not a sufficient condition for competition to be fully effective. It also required that the transmission system operator is prevented from withholding capacity to create artificial scarcity. In that respect greater transparency of the capacity calculation and allocation procedure in the transmission system should be ensured.
- (7) Transmission system operators need an appropriate regulatory framework for investment. Such a framework should create regulatory certainty and incorporate a reasonable rate of return on those investments, at least covering their cost of capital. It should also contribute both to security of supply and the effectiveness of competition in the internal market.
- (8) Member States should lay down rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and ensure that they are implemented. Those penalties must be effective, proportionate and dissuasive.
- (9) In accordance with the principles of subsidiarity and proportionality as set out in Article 5 of the Treaty, the objectives of the proposed action, namely the creation of a fully operational internal electricity market, based on fair competition and secure electricity supplies, cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale and effects of the action, be better achieved by the Community. This Directive confines itself to the minimum required in order to achieve those objectives and does not go beyond what is necessary for that purpose.

HAVE ADOPTED THIS DIRECTIVE:

Article 1
Subject Matter and Scope

This Directive establishes measures aimed at ensuring the proper functioning of the EU internal market for electricity by safeguarding security of electricity supply and by ensuring an adequate level of interconnection between Member States.

It establishes a framework within which Member States shall define general, transparent and non-discriminatory policies on security of electricity supply compatible with the requirements of a competitive single market for electricity.

Article 2
Definitions

For the purposes of this Directive, the following definitions shall apply:

“generation” means the production of electricity;

“transmission” means the transport of electricity on the extra high-voltage and high-voltage interconnected system with a view to its delivery to final customers or to distributors, but not including supply;

“transmission system operator” means a natural or legal person responsible for operating, ensuring the maintenance of and, if necessary, developing the transmission system in a given area and, where applicable, its interconnections with other systems, and for ensuring the long-term ability of the system to meet reasonable demands for the transmission of electricity;

“distribution” means the transport of electricity on high-voltage, medium-voltage and low-voltage distribution systems with a view to its delivery to customers, but not including supply;

“distribution system operator” means a natural or legal person responsible for operating, ensuring the maintenance of and, if necessary, developing the distribution system in a given area and, where applicable, its interconnections with other systems and for ensuring the long-term ability of the system to meet reasonable demands for the distribution of electricity;

“interconnectors” means equipment used to link electricity systems;

“projects relating to cross border electricity transmission” covers both interconnectors and internal connections which increase the scope for cross border transactions;

“interconnected system” means a number of transmission and distribution systems linked together by means of one or more interconnectors;

“supply” means the sale, including resale, of electricity to customers;

“renewable energy sources” means renewable non-fossil energy sources (wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases);

“distributed generation” means generation plants connected to the distribution system;

“regulatory authority” means the regulatory authorities in Member States, as designated in accordance with Article 23 of Directive 2003/54/EC;

“new market entrant” means a company generating or supplying electricity in a Member State which has started its operations in that Member State since the entry into force of Directive 96/92/EC;

“company with a small market share” means either a generator with less than 5% of the generation capacity in the relevant market, or a supplier with a share of less than 5% in its relevant market.

Article 3 General Provisions

1. In establishing their general policies with respect to ensuring high levels of security of electricity supply, Member States shall define and publish the roles and responsibilities of different categories of market actors, respectively:

- a) transmission system operators;
- b) suppliers;

in achieving these policies and specify, where appropriate, the minimum standards that must be complied with by the actors on the electricity market in question.

2. In developing those measures, Member States shall take the utmost account of:

- a) the internal market and the possibilities for cross-border co-operation in relation to security of electricity supply;
- b) the need for reductions in the trend rate of growth of electricity demand in order to meet the Community's environmental commitments;
- c) the importance of ensuring continuity of electricity supplies;
- d) the need to ensure adequate levels of reserve generation capacity or equivalent measures on the demand side;
- e) the need to promote the use of electricity generated from renewable sources in line with Directive 2001/77/EC;
- f) the need for a degree of diversity in electricity generation in order to ensure a reasonable balance between different primary fuels;

- g) the need to encourage energy efficiency and the adoption of new technologies, in particular demand management technologies, renewable energy technologies and distributed generation;
 - h) the need for continued operation of the network in the event of system failure at an individual point or points in the network and the cost related to mitigate such supply disruption;
 - i) the need for ongoing renewal of the transmission and distribution networks to maintain the performance of the network;
 - j) the need for a cost effective provision of electricity.
3. Member States shall ensure that any measures adopted in accordance with paragraph 1 do not place an unreasonable burden on new market entrants and companies with small market shares. Member States shall also evaluate the impact of the measures on the cost of electricity for final consumers.

Article 4
Network Security

1. Member States, in consultation with their neighbouring countries, shall ensure that minimum operational standards on network security are observed by the transmission system operators.
2. The regulatory authorities in Member States shall set performance standards for transmission and distribution system operators in terms of occurrence of interruptions of final customers as a result of transmission network incidents. Those standards shall be published by the regulatory authorities.

Article 5
Maintaining Balance between Demand and Supply

1. Without prejudice to Articles 87 and 88 of the Treaty, Member States shall take appropriate measures, in the light of Articles 4 and 7 of Directive 2003/54/EC, and including the encouragement of the efficient use of energy as well as the encouragement of new generation companies to enter the market, to ensure that there is a balance between the demand for electricity and the availability of generation capacity.

In particular, Member States shall require transmission system operators to ensure an appropriate level of reserve capacity or by adopting equivalent measures, for instance relating to the real-time control of peak demands.

In addition to the measures provided for in the second sub-paragraph, and without prejudice to Articles 87 and 88 of the Treaty, Member States may take additional measures to achieve these objectives, including but not limited to:

- a) promotion of demand management
- b) interruptible customers

- c) obligations on suppliers and/or generators
 - d) establishment of a wholesale market framework with a sufficient number of competitors that provides suitable price signals for investment and consumption.
2. Member States shall publish the measures taken pursuant to this Article ensuring the widest possible dissemination among actual and potential investors in generation and electricity consumers.

Article 6
Network Investment

1. Member States shall ensure that, for both the transmission and distribution network, investment decisions are taken such that increased demand side management measures are prioritised in so far as they may supplant the need for network or generation investment.
2. Member States shall ensure that investment decisions take into account of the need for:
- a) increased possibilities for connecting renewable electricity, in view of meeting the indicative targets as set out in the Directive 2001/77 on the promotion of electricity from renewable energy sources and in the Directive 200x/xx on cogeneration;
 - b) increased opportunities for customers to exercise their rights to choose supplier as set out in Directive 2003/54.
 - c) the need to ensure a high quality service at a reasonable price, in line with Directive 2003/54/EC, Article 3(3), in particular for customers in remote and isolated regions.

Article 7
Interconnector Construction

1. Transmission system operators shall, on a regular basis, submit a document setting out their investment intentions for the provision of adequate level of cross-border interconnection capacity to the regulatory authority.
2. The document referred to in paragraph 1 may cover one or more calendar years and shall, take account of
- a) existing and planned generation, transmission, distribution and supply,
 - b) expected patterns of consumption allowing for demand management measures,
 - c) the need to promote distributed generation
 - d) the need to promote renewable generation

- e) regional, national and European sustainable development objectives, including those projects forming part of the Axes of Priority European Interest provided for in Decision XXX of the European Parliament and of the Council [laying down guidelines for trans-European networks...]⁸.
- 3. The regulatory authority shall consult on the proposed investment documents with the Commission. The Commission will consult on the aggregate effect of the proposed investment strategies with the European Regulators Group on Electricity and Gas established by the Commission Decision 2003/796/EC.
- 4. The regulatory authority shall endorse the transmission system operator's plan or an alternative plan after having made, in consultation with the transmission system operator, suitable amendments as a result of the process in paragraph 3 and the priorities as defined in paragraph 2 and Article 6.
- 5. The regulatory authority shall take account of the investment strategy endorsed under paragraph 4 when approving, pursuant to Article 23(2) of Directive 2003/54/EC, the methodology for network access tariffs.

Without prejudice to Articles 87 and 88 of the Treaty, it shall in particular provide positive incentives for investment by allowing a rate of return on investment that compare to the average cost of capital for investment with similar risk.

- 6. In case of delay or default caused by the transmission system operator in implementing the projects identified under paragraph 4, the regulatory authority shall have the necessary means at its disposal to ensure that progress on the approved strategy is satisfactory, in particular by:
 - a) imposing financial penalties on transmission system operators whose projects fall behind schedule;
 - b) issuing of an instruction to the TSO to undertake work by a certain date;
 - c) arranging for work to be undertaken by a contractor through a tender process.

Article 8 Penalties

- 1. The Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive.
- 2. The Member States shall notify those provisions to the Commission by the 1 December 2005 at the latest and shall notify it without delay of any subsequent amendment affecting them.

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Article 9
Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 1 January 2006. They shall forthwith inform the Commission thereof.
2. When Member States adopt those measures; they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. The method of making such references shall be laid down by Member States .

Article 10
Reporting

The Commission shall monitor and review the application of this Directive and submit a progress report to the European Parliament and the Council no later than 31 December 2007.

Article 11
Entry into Force

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Article 12

This Directive is addressed to the Member States.

Done at Brussels, [...]

For the European Parliament
The President
[...]

For the Council
The President
[...]

LEGISLATIVE FINANCIAL STATEMENT

Policy area(s): Energy and Transport

Activity(ies): Energy Industry and Internal Market

Title of action: Proposal for a Directive of the European Parliament and of the Council on electricity infrastructure and security of supply.

1. BUDGET LINE(S) + HEADING(S)

Not applicable

2. OVERALL FIGURES

2.1 Total allocation for action (Part B):

2.2 Period of application:

Annuelle

2.3 Overall multiannual estimate on expenditure: 0,5 M€

a) Schedule of commitment appropriations/payment appropriations (financial intervention) (*see point 6.1.1*)

€ million (to 3rd decimal place)

	2005	2006	2007	2008	2009	Total
Commitments						
Payments						

b) Technical and administrative assistance and support expenditure(*see point 6.1.2*)

Non Applicable

Commitments						
Payments						

Subtotal a+b						
Commitments						
Payments						

c) Overall financial impact of human resources and other administrative expenditure (see points 7.2 and 7.3)

Commitments/ payments	0,108	0,108	0,108	0,108	0,108	0,540
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TOTAL a+b+c						
Commitments	0,108	0,108	0,108	0,108	0,108	0,540
Payments	0,108	0,108	0,108	0,108	0,108	0,540

Compatibility with the financial programming and the financial perspective

- Proposal compatible with the existing financial programming
- This proposal will entail reprogramming of the relevant heading in the financial perspective
- This may entail application of the provisions of the Interinstitutional Agreement.

2.4 Financial impact on revenue⁹:

- No financial implications (involves technical aspects regarding implementation of a measure)

OR

- Financial impact – the effect on revenue is as follows:

Note: All details and observations pertaining to the method of calculating the effect on revenue should be included in a separate annex.

€ million (to 1 decimal place)

		Prior to action (Year n-1)	Situation following action					
Budget line	Revenue		Year n	n+1	n+2	n+3	n+4	n+5
	a) Revenue in absolute terms							
	b) Change in Revenue	Δ						

(Please state each budget line involved, adding the appropriate number of rows to the table if there is an effect on more than one budget line)

⁹ For further information see a separate guidance paper

3. BUDGET CHARACTERISTICS

Type of expenditure		New	EFTA participation	Participation applicant countries	Heading Financial Perspective
Comp/ Non-comp Non-Comp	Diff/ Non-diff Diff	YES/ NO Yes	YES/NO Yes	YES/NO Yes	No 3

4. LEGAL BASIS

The Treaty establishing the European Community, in particular Article 95.

5. DESCRIPTION AND GROUNDS

5.1 Need for Community intervention ¹⁰

5.1.1 Objectives pursued

The market opening for electricity makes it increasingly important that investment in both transmission and generation is maintained. A competitive market changes the way such investments are decided and implemented and Member States need to clarify their policies in this regards.

In particular, on transmission, the introduction of regulated third party access means that, in effect, the decisions of regulator on access tariffs affect the availability of finance for infrastructure investment. Unless regulators are embedded into the decision being made, confusion and paralysis will result.

Regarding the supply demand balance, a competitive framework implies investment decisions responding to price signals rather than being planned by governments. However the nature of electricity may make prices volatile and there are some public good features to security of supply which imply the possibility of government intervention. If this is to occur then the approach of Member States should be clearly set out in advance in order to avoid creating a climate of uncertainty.

5.1.2 Measures taken in connection with ex ante evaluation

a) Explain how and when the ex ante evaluation was conducted (author, timing, and where the reports are available) or how the corresponding information was gathered

Events in electricity markets during 2002-03 demonstrated some of the problems that might be caused through inadequate investment. Blackouts in both the EU and US highlighted the need for clear operational standard for transmission networks and the need for correct maintenance and development of the network.

¹⁰ For further information see a separate guidance paper

Generation adequacy was also tested by both a cold winter in the Nordic region and a very hot summer all over Europe. Although the supply chain actually performed well in these circumstances the need for investment in generation and demand management is clear. A stable regulatory framework is needed for this.

b) Describe briefly the findings and lessons learnt from the ex ante evaluation.

There is a need for this measure in order to correct some of the undesirable and unsustainable trends in the EU electricity industry. Increased interconnection is necessary chiefly in order to support the development of competition and to ensure that there is a real internal EU market. To the extent that new interconnection helps achieve this, there will be substantial benefits to the EU economy of up to €5 billion per annum. Without these investments, the possibility for customers to choose their supplier will be constrained and these benefits will also be reduced. Transmission investment is also expected to yield some benefits in terms of security of supply since a reinforced network is better able to cope with the additional and sometimes unpredictable flows that have been brought about by the introduction of cross border competition. Finally new investment will contribute to the environmental goals of the Community to the extent that renewable electricity generation can be connected to the network and achieve its potential. Some of the investments being put forward will also help make better use of the Community's hydro electric resources. The existing framework for investment needs to be reformed in order, in particular, to recognise the role of regulatory authorities in such decisions.

The measures on security of supply, especially greater co-ordination of network operators and a clearer framework for the electricity wholesale market, will also be of benefit to the Community. Large scale blackouts can be costly to the EU economy. Estimates of the effect of a one day interruption in a large Member State run to around 5-10 billion Euro. Action to reduce the likelihood of such incidents is to be welcomed. This will be best served by a clear regulatory framework which allows both customers and generators to respond to economic price signals without government intervention. It is not clear that such an environment exists in a number of Member States and the Directive and the proposed measure seeks to remedy this situation.

5.1.3 Measures taken following ex post evaluation

Following the evaluation and consultation process, the drafting of the proposal seeks to give an appropriate balance between measures on the demand side and those on the supply side. Ever since the publication of the Green Paper on Security of supply, the Community's policy has been to emphasise the considerable potential of demand management for both security and sustainability reasons. However demand management also requires investment decisions to be made and the same points about regulatory stability still apply.

A need was also identified to examine the consequence of the proposals, particularly on transmission infrastructure, for the fuel mix of electricity generation in the EU. Generally speaking new interconnectors may have some impact in that a strong network may favour the dispatch of generation with a low marginal cost, notably nuclear and hydro. This effect was not, however thought to be particularly significant considering that only a modest increase in interconnection is being proposed.

5.2 Actions envisaged and arrangements for budget intervention

Not applicable

5.3 Methods of implementation

All of the work will be carried out internally by the Commission; including the receipt of Member States' submissions on the subject, monitoring and the preparation of appropriate reports and evaluation.

6. FINANCIAL IMPACT

6.1 Total financial impact on Part B - (over the entire programming period)

(The method of calculating the total amounts set out in the table below must be explained by the breakdown in Table 6.2.)

6.1.1 Financial intervention

Commitments in € million (to the 3rd decimal place)

Breakdown	2004	2005	2006	2007	2008		Total
Action 1 : Studies to prepare guidelines							
Etc.							
TOTAL							

6.1.2 Technical and administrative assistance, support expenditure and IT expenditure (Commitment appropriations)

Non Applicable

	Year N	N + 1	N + 2	N + 3	N + 4	N + 5 and subs. Years	Total
1) Technical and administrative assistance							
a) Technical assistance offices							
b) Other technical and administrative assistance: - intra muros : - extra muros : <i>of which for construction and maintenance of computerised management systems</i>							
Subtotal 1							

2) Support expenditure							
a) Studies							
b) Meetings of experts							
c) Information and publications							
Subtotal 2							
TOTAL							

6.2 Calculation of costs by measure envisaged in Part B (over the entire programming period)¹¹

not applicable

Commitments in € million (to the 3rd decimal place)

Breakdown	Type of outputs (projects, files)	Number of outputs (total for years 1...n)	Average unit cost	Total cost (total for years 1...n)
	1	2	3	4=(2X3)
TOTAL COST				

7. IMPACT ON STAFF AND ADMINISTRATIVE EXPENDITURE

7.1 Impact on human resources

Types of post		Staff to be assigned to management of the action using existing and/or additional resources		Total	Description of tasks deriving from the action
		Number of permanent posts	Number of temporary posts		
Permanent officials or Temporary staff	A	1			1. <i>Monitoring of the implementation by Member States and reporting on the effect of the Directive.</i>
	B				
	C				
Other human resources					
Total		1			

¹¹ For further information see a separate guidance paper

7.2 Overall financial impact of human resources

Type of human resources	Amount €	Method of calculation *
Officials	108.000	1*108.000 €
Temporary staff		
Other human resources (give budget line)		
Total	108.000	

The amounts are total expenditure for twelve months.

Other administrative expenditure deriving from the action

Budget line (number and heading)	Amount €	Method of calculation
Overall allocation (Title A7)		
A0701 – Missions		
A07030 – Meetings		
A07031 – Compulsory committees ⁽¹⁾		
A07032 – Non-compulsory committees ⁽¹⁾		
A07040 – Conferences		
A0705 – Studies and consultations		
... Other expenditure (state which)		
Information systems (A-5001/A-4300)		
Other expenditure - Part A (state which)		
Total		

The amounts are total expenditure for twelve months.

⁽¹⁾ Specify the type of committee and the group to which it belongs.

I.	Annual total (7.2 + 7.3)	108.000€
II.	Duration of action	not limited
III.	Total cost of action (I x II)	108.000€/year

The requirements in terms of human and other administrative resources are to be met within the resources made available to DG TREN in the framework of the annual allocation process.

8 FOLLOW-UP AND EVALUATION

8.1 Follow-up arrangements

The result of the measures foreseen in the draft Directive will be assessed in the light of the future development of investment. This will be recorded in the reports envisaged in the Directive based on Member State submissions.

Specifically the required outputs of the Directive will be monitored at two levels:

- i. completion of individual projects of European Interest as defined by the TENS guidelines
- ii. use of an indicator for each Member State of the % of interconnection relative to domestic installed generation capacity with reference to the target of 10% agreed by Heads of State at the Barcelona Summit March 2002.

The collection of this information will be carried out using the existing reporting mechanisms for TENs and the “benchmarking” report on the implementation of the electricity and gas Directives.

8.2 Arrangements and schedule for the planned evaluation

It is believed that a detailed review of the effectiveness of the approach set out in the Regulation in developing common rules, as well as the effectiveness of the financial actions taken by the Commission to support this effort, should take place two years after the entry into force of the Regulation.

9. ANTI-FRAUD MEASURES

Reimbursement of experts and payment of experts for studies carried out will be made in compliance with applicable financial rules.