Paris, January 13, 2006

Green Paper on Energy Efficiency

"Doing more with less"

Key messages from Electricité de France S. A.

A welcome initiative

EDF is pleased that the European Commission has taken the initiative to publish a Green Paper on energy efficiency. The major changes taking place worldwide – the disappearance of fossil fuels, global warming and, for the European Union, a high level of energy dependence – make energy efficiency a subject of prime importance.

For EDF, promoting energy efficiency falls in line with its commitment in favour of sustainable development, which seeks to preserve our resources for future generations. This commitment is immediately reflected in its **generation portfolio**, since more than 85% of EDF's power output is produced without any CO_2 emissions, and EDF supports an ambitious investment programme in renewable energy sources. This is also reflected in its **offer for the end-customer**, such as the development of more efficient uses of electricity, advice in terms of optimising consumption and the supply of energy services.

EDF is also pleased to note that the Green Paper takes into account **a wide range of economic sectors**; the issues at stake are of major importance for Europe, and for that same reason the actors in every sector must help solve them. Even though the focus on the electricity sector is still too great[1], the Green Paper does highlight the situation of the transport sector as one of the fastest growing and greatest consumers of energy, and the highest producer of CO_2 emissions. EDF is convinced that action must be undertaken in this sector and supports certain initiatives in electric transport, as a clean, efficient means of transporting people (both individually and collectively) and delivering goods in cities.

Better prioritisation of the objectives

EDF considers, however, that the ultimate goals pursued by the Commission through energy efficiency would gain considerably if they were more clearly defined in relation to an **overall energy strategy.**

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[1] *The Green Paper considers a predominant amount of energy savings can be made by the electricity industry, when it only represents 20% of the final demand. However, electricity can be a vector at the same time for using non-carbon energy sources and energy performance, through more efficient industrial uses, such as heat pumps, electric transport, and so on.*

Is its purpose to reduce the emissions of greenhouse gases? Under these conditions, nuclear power and the renewable energies should have been mentioned. Is its purpose to reduce the use of imported fossil fuels? Here again, nuclear and hydraulic power most definitely have a role to play.

Given the lack of any **prioritisation** of this kind, it is somewhat surprising that in focusing on the sole issue of energy efficiency, Green Paper should promote combined gas cycles, which no doubt have a high level of energy efficiency, but cause a dash for a fossil fuel, emit greenhouse gases into the atmosphere, and do not reduce the energy dependence of the European Union.

EDF recommends that **economy measures should mainly target energy sources that emit greenhouse gases** and should not dissuade the consumption of energy sources that emit little or none at all.

In addition, EDF considers that caution should be taken before establishing a link too quickly or too close between energy saving certificates and CO_2 emission licences. While these new market instruments may appear *a priori* to be more effective than taxes, the consequences of their implementation should be studied separately over the long term and on a country-by-country basis, before considering the uniform application of one and/or the other, or combining both.

"Better regulation" also for energy

The directives or draft directives concerning energy efficiency or related sectors have increased in number in recent years, such as the directive on co-generation, the directive on electricity produced from renewable energy sources, the directive on the eco-design of energy-using products, the directive on the energy performance of buildings, the proposed directive on energy efficiency services. In addition, certain countries in the European Union (such as France, Italy, Netherlands and the United Kingdom) have set up or plan to set up **national policies** for energy efficiency based on occasionally innovative systems, such as white certificates.

EDF considers that the focus should be given to ensuring that the directives already adopted are correctly **implemented** and **their effects evaluated** before launching new initiatives for Community legislation. It would also be useful to have large-scale **experience feedback** on the new tools tested in certain Member States, before their widespread application on a European scale.

In addition, EDF underlines the importance it attaches in seeing the least bureaucratic systems possible set up, in order to minimise the costs of implementation, and those that focus most on meeting **market requirements**. Legislation should be limited to defining a general framework in which the actors can choose the most relevant options, in order to ensure their flexibility and responsiveness, with particular regard to the complete opening of the energy markets in 2007.

Better direction for research

Given the vital issues at stake in energy efficiency, EDF considers that a significant role should be reserved for **innovation, research and development**, to enable the emergence of breakthrough solutions that would allow the European Union to consolidate its lead in this field.

This is not the case: at present R&D efforts are concentrated on the means of production. The plain matter of the fact is that **energy efficiency in terms of uses** still has the greatest difficulty in being recognized and treated as a priority R&D area. Yet it involves many subjects of extreme importance, such as the renovation of existing buildings (the leading consumer of energy, with a very slow renewal rate), electric transport, efficient energy storage (mobile or static), efficient use of energy in industrial processes, to name but a few.

Lastly, it seems equally important not to weigh down the process of **setting-up research projects** and to take care to harmonise European and national research policies.

Sources of progress for electricity

In terms of **electricity production**, EDF considers that major improvements in output are possible in every energy alternative, and more particularly for the nuclear option, the coal industry, and certain renewable energy sources. They could mainly be implemented for new facilities, the numbers of which are likely to multiply with the likelihood of the renewal of the generation capacity, especially from 2015 onwards.

For a number of reasons (reducing CO_2 emissions, security of supply, maintaining Europe's technological leadership, implementing the Lisbon Strategy, and so on) it is essential that **no option should be neglected** and in particular that we do not forget **nuclear energy.** The Green Paper does not mention this option**, although** it is a source of improvement in output and does not emit greenhouse gases. Similarly, we should not oppose the **"distributed production"** model to that of **"centralised production"**. Whatever the case, the industrial actors need more long-term visibility about the environmental rules that will be applied, particularly in terms of CO_2 emissions.

Where **cogeneration** is concerned, the only facilities of interest are those that enable substantial savings in primary energy under real operating conditions. In the future, the maturity of the market for CO_2 emission licences may enable sufficient development of the advantages of efficient cogeneration systems without financial support.

With regard to **electricity distribution**, reducing technical losses is the principal action that distributors can undertake to improve their energy efficiency. Various technical solutions are already available, but their implementation runs up against the currently unattractive character of **tariff regulation modes**, based on the "cost plus fair rate of return" approach. One source of improvement could be a system in which the returns on capital invested would be modulated according to the purpose of the investments and the nature of the savings they produce, based on increasing the remuneration of investments resulting in reductions in losses.

Consumer involvement

Lastly, over and above the economic and technological stakes at play, EDF considers energy efficiency to be a major issue in terms of **informing and training consumers** about the more effective use of energies. Consumers need to be made aware that energy is becoming a rare and therefore expensive commodity, and that using it has an impact on the environment. Initiatives to train and inform consumers must be taken by the public authorities at the European and national levels, as well as by **all the economic actors** present on the energy efficiency market. EDF will continue its efforts in this respect.

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