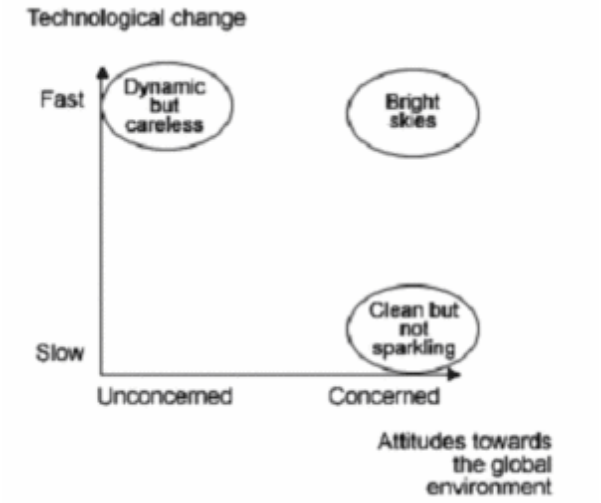
Une politique énergétique européenne ?

Scénarios d'évolution énergétique : trois axes exploratoires

Agence pour l'Energie Nucléaire de l'OCDE, (2003), "Energy to 2050, Scenarios for a sustainable future", p. 61-65 et 78-90

http://www.nea.fr/html/ndd/reports/2002/nea3809.html



Scenario Clean but not sparkling

This scenario is characterised by a string concern for the global environment by both the public and policymakers but a relatively slow rate of technological change. Contrary to a common wisdom for which strong pro-environment policies would lead to a rapid development of environmentally firendly technologies, a number of actors could put such an outcome at risk. In this scenario a combination of pessimistic perceptions about technology and ovezealous policy intervention do not allow for the full potential of technological development to be released. Furthermore, insufficient investments in R&D or failure of these research efforts to produce results leads to limited technological progress. As in this scenario technologies fail to deliver, environmental goals are largely met through induced changes in behaviour, and likely only at rather high costs.

Scenario Dynamic but careless

This scenario is characterised by very dynamic technological change, low priority for climate change mitigation and a generalised belief that sustained growth and rapid progress in technologies will take care of all problems without need for much policy intervention. As a corollary, this scenario has more rapid economic growth than the first one, including more open but less regulated markets. Unhindered economic growth is the main priority, shared by develeloped and developing countries alike. However, not all countries are able to achieve fast growth rates and some lag behind. Global Threats such as climate change take a back seat in the concerns of both citizens and politicians.Although energy represents a relatively small share of production inputs or household spendings, low energy prices and security of supply are considered an important condition for economic growth. At the beginning, progress is faster in fossil fuel based technologies, helping to maintain low prices. In both developed and developing countries local environmental problems are not ignored but are dealt with at the local level and consistently with the

economic resources of the affected communities or individually through pollution impact averting behaviour. As a consequence of these initial conditions, fossil fuel demand grows rapidly, followed by an increase in GHG[1] emissions. These two factors increase the likelihood of energy security of supply crises and worsening environmental conditions. To deal with security of supply, and in the continuous quest for low energy costs the system accelerates the development of new technologies. While the first phase of this scenario is therefore heavily oriented towards fossil fuel-based technologies, in the second part of the scenario horizon, non-fossil technologies emerge too.

Scenario Bright skies

This scenario is characterised by both rapid technological change and strong concern for the global environment by both the public and policymakers. Other features of this scenario inlcude a (global) GDP growth rate somewhere in between the first two cases but closer to the second, robust trade and market liberalisation trends, a narrowing down of income differences across regions and countries. As a result, overall, energy prices will be somewhat higher than in the second scenario but lower than in the first.
In this scenario, governments of developed countries agree to deal with the threat of climate change in a coordinated fashion and to take action to slow doan and reverse current trends in GHG emissions. In due time they are joined in this process by developing countries, who agree to take increasingly stringent commitments for GHG emissions control and reduction. Domestically, developed country governments set out to design and implement policies that will, on the one hand, encourage a reduction of energy-related GHG emissions and, on the other hand, channel both government and private resources towards development of new technologies for climate change mitigation. These efforts produce a host of positive technological outcomes, which allow the attainment of environmental goals, and also enhance energy security while keeoing prices relatively low.

[1] GHG : gaz à effet de serre (greenhouse gas)

Textes de référence

- Energie nucléaire et émission de gaz à effet de serre
- Scénarios d'évolution énergétique : trois axes exploratoires

Illustrations

- Union Européenne / Russie : les enjeux stratégiques d'un partenariat énergétique
- Prises de position sur le nucléaire : quelques exemples illustratifs

Données statistiques

- L'impossible autosuffisance énergétique
- Une dépendance énergétique de plus en plus forte
- A quel rythme les technologies des énergies renouvelables sont-elles mises en œuvre ?
- La prédominance des hydrocarbures dans les bouquets énergétiques nationaux