

*France-Israel Dialogue on:  
Sustainable Energy options  
4-5 July, 2010*

**The Jerusalem Institute for Israel Studies**

## **Abstracts**

### **Session 1: “ Energy, Environment and Geopolitics”**

- *Mr Lucien Chabason, President of the Blue Plan for the Mediterranean and Associate Director IDDRI*

#### **Energy impact on the environment as a criterion for energy policy**

All sources of energy produce environmental impact:

- coal burning produces CO, CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>
- Oil burning produces SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> in different proportions
- Hydroelectricity affects the natural cycle of water and disturbs hydrobiology
- Terrestrial windmills affect the landscapes and perhaps birds migration
- Marine energy might affect the marine environment.
- Nuclear energy produces dangerous waste which are a long term but serious issue in terms of sustainable management.
- Gas combustion produce CO<sub>2</sub> but in less quantity than oil and coal.
- Solar energy might use wide surfaces of cultivated lands; but, in fact it might be the less pollutant energy Authorities and other actors have to make their energy mix in taking into account these different impacts. Those countries which are mainly concerned by local pollution, specially urban pollution, should reduce the use of coal as a priority.

Those countries which are listed on the annex 1 of the Kyoto protocol should give priority to energies which emit less or no CO<sub>2</sub>.

But all countries should give priority to energy efficiency and to saving energy policies.

Of course, environment protection cannot be the sole criterion for energy policy. Energy costs and dependence are other important criteria.

Many Mediterranean countries depend mostly on fossil energy specially oil which maybe a danger on the long term. A combination of economic, environmental and political criteria should bring MED countries to give a high priority to energy efficiency and solar energy.

- *Mr Jean Pierre Hauet, Former Chief Technology Officer of the ALSTOM Group – President KB Intelligence*

### **Electric energy as a component of a sustainable development policy**

Electricity underpins economic development and contributes to the welfare of human beings. But its responsibility in current emissions of greenhouse gases is evident and is likely to go on increasing with the return of coal and the putting into service of an impressive number of new power plants, especially in China.

Is electricity for the future a threat or sheet anchor?

This presentation will call for a thermodynamic approach of the climate problems and how, thanks to a comprehensive optimization of the electrical system, it is possible to imagine scenarios that are compatible with the climate constraints. It will warn against excessive optimism on some solutions (notably carbon capture), and recalls that nuclear energy remains, with energy efficiency, the only industrially proven large scale solution to reduce emissions. It will introduce the conclusions of an article recently published by the Passages magazine which reviews the situation of the nuclear market around the world and assesses the strengths and weaknesses of French industry in the arena.

Finally, the presentation will stress that the fight against global warming is a matter of incremental costs. It questions the capacity of market mechanisms to adequately address the climate issue which is a long-term one relating to general interest.

- *Dr. Brenda Shaffer, Senior researcher at School of Political Sciences, University of Haifa*

### **"Energy as a tool of foreign policy"**

- *Mr Hervé Lainé General Engineer, Bridges, Water and Forests French Ministry of Ecology, Energy, Sustainable Development and the Sea.*

### **Renewable and carbon free energy**

Except for geothermal energy, renewable sources of energy –Wind, Solar, Oceans, Biomass, and Hydraulic- as well as conventional sources come mainly, directly or as a derivative, from the sun. But there is an essential difference: using conventional energy is exploiting a stock which has been accumulated for thousands of years; using renewable energy is capturing a flow, at a specific time and at a specific place.

Here is the problem: it is easy and often cheap to utilize large existing reserves of coal or oil, on the contrary it is generally more difficult and expensive to utilize a flow of renewable energy, of which we don't know how to make large reserves.

Although inexhaustible and carbon free, renewable energy probably can't be the only way to take up the energy challenge of the few next decades: we have also to consider energy sobriety and efficiency, if not to take in account the nuclear energy.