## Manifesto Save the Climate (2005 version)

The concentration of greenhouse gases in the earth's atmosphere has reached its highest level of the past half million years. This surge began in the early years of the industrial revolution in the 1880s. It is due primarily to the accumulation of increasing carbon dioxide and methane emissions directly related to human activity. If no action is taken, greenhouse gas concentrations will continue to increase.

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The majority of experts who observe and study these phenomena have clearly stated that, unless emissions, especially of carbon dioxide, are reduced by at least 50 %, the mean temperature on the earth's surface will increase by several degrees Celsius in the course of this century. Such a temperature increase is on the same order of magnitude as those that followed the ice ages but in this case, it will occur in a much shorter time period and will have major consequences on the climate. The resulting impacts on our health, on agriculture, on sea levels, on wildlife, etc... are more difficult to assess but the possibility that catastrophic and irreversible damage could occur, to the point of threatening the conditions of human life cannot be excluded. How will we react to this threat? There is no choice but to reduce greenhouse gas emissions by all available means.

While significant energy savings are possible and desirable in modern industrialized countries, it is impossible to demand similar efforts from developing countries. Barring a catastrophic economic recession, worldwide energy consumption will continue to grow. Accordingly, we must develop, whenever possible, non-fossil fuel energy production technologies. Such technologies are available for centralized electric power production connected to a grid, i.e. nuclear power, hydroelectricity, wind powered generators. Solar photovoltaic technologies are particularly suitable for isolated sites and for countries whose electric power grid is not fully developed. Solar thermal and geothermal technologies, well managed biomass, and heat pumps must be utilized in the heating of buildings and to produce hot water. Transportation will continue to depend on fossil fuels; it is all the more important to seek other options such as public transportation, electrically powered vehicles, and vehicles powered by hydrogen produced from either the electrolysis or the thermo-chemical decomposition of water, provided the electricity or heat are produced without greenhouse gas emissions.

The larger emerging countries will necessarily rely, as we have done in the past two centuries, on coal, oil and gas for their development. As a consequence, (in the absence of significant progress in technologies for the capture and sequestration of carbon dioxide) the carbon dioxide emissions from these countries will increase. Developed countries must demonstrate that limiting greenhouse gas emissions is possible thanks to modern technologies, without jeopardizing their economies or reducing the quality of life of their populations. Countries such as France, Sweden and Switzerland, whose electricity is produced primarily from hydroelectric and nuclear power, have much lower carbon dioxide emissions per unit of energy consumed than countries like Germany, the USA and Denmark whose electricity production is based mainly on coal or gas. Clearly, the countries that produce their electricity without burning fossil fuels are the ones that should be imitated.

The time has come for us to realize that the issue in the energy debate cannot be whether or not to ban nuclear power, but to know how the burning of climate threatening fossil fuels can be mastered as efficiently as possible. Nuclear power as it is mastered in our nations represents a very low hazard as compared to greenhouse gases and if banning fossil fuels would be unrealistic, maintaining the present state would be just as unrealistic.

We call on our fellow citizens and on our leaders to engage in a voluntary and determined policy to reduce energy consumption, and to develop nuclear power and renewable energy sources. Instigating such a policy, and that alone, can reasonably guarantee that our generation, and future generations as well, will continue to benefit from an acceptable and predictable world climate.