

Energy Complacency Threatens Sustainability: World Energy Council (WEC) Message for 1997

INTRODUCTION

The World Energy Council (WEC) is a non-governmental, non-commercial, multi-energy organization with membership in some 100 countries representing over 90% of world energy consumption.

The WEC here draws the attention of decision-makers throughout the world's energy and energy-related sectors to those issues which, in the WEC's view, should be given for greater priority. These decision-makers are urged to act more urgently on these issues. This message is directed primarily to them.

THE GLOBAL ENERGY SCENE

For most people in industrialized countries, energy supplies may not seem much of a problem. They have rarely been so plentiful. Reserves of fuels are abundant. They appear exploitable throughout the next century provided technology advances sufficiently and adequate capital is available. This has understandably created widespread complacency among consumers, but is hiding a number of major issues. Here we focus on one of them - the longer term reconciliation of economic progress with environmental protection.

Despite the apparent abundance of fossil fuels, 40% of the world's population - over 2 billion people - mostly in the developing countries, have no access today to commercial energy. They, therefore, cannot satisfy their basic needs. For them suggestions of complacency are meaningless or an affront. These communities are unable to get on to the first rung of economic development. They are obliged to rely on fuelwood and wastes for their energy.

Because world population is likely to double the next century, with most of the increase in developing countries, the stresses caused by lack of energy will increase unless tackled with determination. If they are not addressed successfully, the deteriorating longer term situation could have profound geopolitical consequences as well as severely adverse environmental impacts - such as deforestation and soil erosion.

However, assuming success in making commercial energy available, then most of this additional demand will be taken up by today's developing economies. Developing countries now account for 35% of world consumption. Many already suffer the effects of poor local air quality. By 2050 they are likely to use over 60% of the world's primary energy. Today the industrialized countries contribute more than any other group of countries to atmospheric emissions from the burning of fossil fuels. By 2020 the primary emitters will have become the developing countries, and their share will continue to grow through at lower per capita emissions levels than in industrialized countries.

Even with big improvements in energy efficiency, the world will consume much more energy in the coming decades. The WEC's work indicates at least a doubling by 2050 in most scenarios. With the continuing advancement of technology and with the investment of the necessary financial resources, there would appear to be adequate accessible oil, gas and coal to supply most of these future needs. There are non-conventional oil and gas resources to be drawn on. Fossil fuels will continue to dominate energy use into the foreseeable future.

However, to reconcile the increasing use of energy in support of economic and social development with protection of the environment, greater efforts are required.

- to improve the environmental performance of fossil fuels;
- to raise more rapidly the efficiency with which all forms of energy are provided and used; and
- to increase the use of non-fossil forms of energy.

ACTIONS NOW

The reconciliation of economic and social development base on increased energy use and the protection of the environment is often referred to as the "pathway to sustainable development". It calls for truly global effort led by the industrialized countries.

WEC, therefore, advocates;

- Creating above all, rapid and effective measures to raise global energy efficiency. The energy intensity rate (that is the energy required to produce one unit of gross domestic product) continues to decline at the long term rate of only 1% per annum in many countries. This performance is far from what is possible by using today's technology more efficiently. Means to achieve increased efficiency include:
 - greater efforts given to national education and publicity campaigns;
 - incentives to increase vehicle and electricity generating efficiency;
 - Encouragement to industry and end-use consumers to invest in new, energy efficient capital equipment.
- Expanding institutional action to improve the transfer of state of the art energy and environmental protection technologies between nations. Successful examples of existing schemes include the recent electricity Group of Seven initiative and aspects of the European Union Phase project.
- Encouraging energy prices to consumers to converge on market prices. Where this involves phasing out subsidies, it may take time to achieve in many countries. But only full market prices will, in the end, discourage waste and