



Forum
BARCELONA
2004



GREEN
CROSS
International

DIALOGUES

ON

ENERGY AND SUSTAINABLE DEVELOPMENT:

WHERE ARE WE GOING?

Barcelona

June 2 - 3, 2004

The current energy model has proven incapable of satisfying the energy needs of 85% of the inhabitants of the planet. Nearly 2 billion people in the world live without any kind of energy supply; another 3 billion have a deficient or insufficient supply.

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Access to energy, especially electricity, is critical to breaking the cycle of poverty and fostering human development and growth.

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The global demand for energy must be met in a way that avoids harmful impacts to the climate, air quality, water quality, and eco-systems.

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Energy conservation and efficiency, and the appropriate allocation of clean, renewable energy technologies, must be integral components of a sustainable energy future.

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Distributed renewable technologies such as photovoltaic and small-scale wind power are the building blocks of a decentralized generation system.

June 2004 affords two important opportunities to define the parameters of a sustainable energy future. During the same week that Spain will host the Energy Dialogues at the Forum Barcelona 2004, Germany will host the International Conference for Renewable Energies in Bonn.

The Bonn conference will chart the way towards an expansion of renewable energies world wide, by responding to the commitment made by countries during and after the 2002 Johannesburg World Summit on Sustainable Development to increase their portion of new renewable energy to 10% of energy consumption by 2010. Conference participants will come from Governments, national and international organizations, industry and NGOs. The Barcelona Forum will both inform and build upon the outcomes of the Bonn Conference, in the overall effort to shape and implement a sustainable energy future.

The Risks of an Imbalanced Energy Model

Energy is key to human development. Its availability and our dependence on energy, very clear in developed countries, is a condition for the very evolution of our societies. Today, there are enormous imbalances in the use of energy between the different countries of the planet, which intensify the economic disparities between them. The current energy model has proven incapable of satisfying the energy needs of 85% of the inhabitants of the planet. Almost 2 billion people in the world live without any energy supply and 3 billion have an insufficient supply. The remaining 15% who are well served are the approximately 1 billion inhabitants of developed countries: but these countries are far from self-sufficient in energy. In addition, it is expected that demand for energy in these developed countries will increase hugely in coming decades. According to the International Energy Agency, if the “business as usual” consumption scenario continues to be followed, consumption of primary energy will increase by two thirds by 2030.

Exacerbating this energy imbalance and our uncertain future, the bulk of the global energy resources are controlled by a small number of countries and corporations. Approximately 10 multinational companies control the distribution of the vast majority of worldwide energy resources, and three large conglomerates dominate the market. Despite this concentration of economic resources and power, supply remains inconsistent, even in the developed countries. Power outages have struck some 50 million users on the East Coast of the USA, followed by black-outs in Denmark, Sweden, Italy and London, and 42 mini-power outages in Spain.

With such events occurring more and more frequently, it is inevitable that we wonder whether the current energy model is sustainable. With energy the fundamental driver of the global economy and a major factor in world politics, we find ourselves in the undesirable position of total dependency on inexpensive energy sources which are extremely harmful to the environment. The potential for future instabilities in this fragile centralized model pose real dangers for heightened economic and geopolitical imbalances and the very real potential for provoking regional and global armed conflicts.

Historically, political, socio-territorial and economic factors have dictated energy policy. In recent years another element has exploded onto the scene: the environmental aspect. Increased awareness of environmental risks has necessitated that the energy industry consider safety not only in terms of public health but also as it relates to the global environment. This factor has led to a call for improvements in existing technology, making the industry more efficient; and clarified the direct links between fossil fuel consumption and climate change. The evident need for cleaner energy technology has forced us to seek new energy sources, such as solar, wind, and other renewable energies.

Energy Policies – Establishing a New Model

As a top priority, the future energy model must decouple the correlation between economic growth and increased carbon dioxide emissions and, to the extent possible, between economic growth and increased energy consumption.

Over the past millennium there has been a tendency to “decarbonise” energy resources. The world’s principal energy source changed gradually from wood to fossil sources. This process has occurred more rapidly since the beginning of the industrial revolution, first from coal to oil and now increasingly to natural gas. Each of these resources contains less carbon than the

one before. Nevertheless, developing countries with strong and rapid economic growth, particularly China and India, are often using the cheapest and most easily accessible energy resources available to them, usually coal – which is also widely used in the USA. For many other underdeveloped countries the main energy source remains wood, with dramatic consequences in terms of deforestation and desertification.

Regardless of where they are implemented, every energy model must fully consider the full range of social, economic, and environmental concerns in combination with the objective of satisfying energy requirements. The new model for energy sustainability should be based on the concept of determining the minimum quantity of energy necessary to satisfy social needs, both quantitatively and qualitatively, and secondly meeting this need with the highest efficiency and cleanest technologies available. Thus the importance of rapidly increasing the use of renewable energies (wind power, solar power, biomass) and limiting the use of conventional energy sources (coal, oil, gas, and nuclear). Solar energy has demonstrated a particular value in addressing a number of problems related to energy supply and distribution in remote or undeveloped areas.

The first priority should always be energy conservation and maximum efficiency of energy use, leading to the minimization of environmental risks and especially to a reduction in the greenhouse gas emissions that directly increase global warming and the unpredictable consequences of climate change. European citizens recognised the heat wave of summer 2003, with its widespread human tragedies, as a clear and threatening sign of climate change.

It is also necessary to prevent other environmental impacts caused by the production and transportation of energy sources, which affect biodiversity, and pollute air and water, often devastating consequences, for example to marine ecosystems and coastal societies in the case of oil spills at sea.

The Kyoto Protocol, which calls for reductions in carbon emissions, is a vitally important global commitment to addressing the serious energy challenge, and related social and environmental threats we face. Unfortunately, its implementation is being jeopardised by the obstructive policies of the world's two biggest energy consumers, the United States and Russia. The combination of energy conservation, energy efficiency, and renewable energies, aided by research and the development of new technologies, is the basis of sustainable energy management. It is imperative that we move quickly to implement these strategies, even as the adoption of the Kyoto Protocol remains uncertain.

A New Culture of Energy Sustainability

The quest for sustainability requires a decoupling of economic growth from energy consumption; a shift to clean and renewable sources of energy; decentralizing the production and distribution of energy; and increasing local control of energy resources. In order to achieve this, as the United Nations Development Program indicates, we need strategies that promote sustainable energy as the engine for equitable economic growth and the reduction of poverty. Given that access to modern energy services is a prerequisite for increased productivity and improved living standards, addressing this challenge provides a massive opportunity for poverty eradication and sustainable development: the adoption of policies and strategies for the production and use of energy that are economically, socially and environmentally sustainable, thus converting energy into an important instrument for sustainable development.

The evolution of energy sources has coincided with two important trends: 1) the gradual decentralization of economic activity, and 2) with the communications and technology revolutions. The latest technological revolution, through devices such as the personal computer and cellular telephone, has disintegrated the centralized, vertical model of mass communication. Many experts predict that a similar change in the field of energy is imminent, thus breaking the vertical structure of the energy supply and distribution industry and democratising through the use of small scale distributed generation systems. This would also transform the millions of currently passive energy consumers into active parties by giving them the capacity to generate energy close to the point of consumption and to make decisions concerning the workings of the system.

Changes and processes already in motion, starting with changes in our own homes together with the increasing demand by citizens for governments to outline sustainability policies, demonstrate that there is a growing momentum for a new model of sustainable energy management. Movements in this direction include: changing concepts in urban design to seek greater energy efficiency in urban planning, architecture and construction; innovations in and wider use of public transport; programs to reduce energy use in offices and homes; rationalizing the use of private vehicles; favouring more energy-efficient products and services on the market; and incentive programs for the installation of small renewable energy systems. These developments point toward the kind of diverse but unified strategy which could be put in place for creating a new culture of energy and a sustainable energy future.

Outline Programme

Day One – June 2

9.30 – 10.30 Opening Ceremony

Welcome Address

Mikhail Gorbachev, Chair, Green Cross International

Klaus Töpfer, Executive Director, UNEP

Saito, Vice President Toyota

10.30 – 12.00 Panel 1: ENERGY AND DEVELOPMENT: Is a new energy model possible?

12.30 – 18.30 Panel 2 : ENERGY SCENARIOS: Are developed societies energy gluttons?

Day Two - June 3, 2004

9.30 – 11.30 Panel 3 : ENVIRONMENTAL RISKS: Who is going to pay?

12.00 – 18.30 Panel 4 : ENERGY AND HUMAN HABITAT : Can we make our everyday lives more energy sustainable?

Closing Remarks

Green Cross International: network of 28 national organizations worldwide

Mikhail Gorbachev founded Green Cross International in 1993. The mission of Green Cross is to help ensure a just, sustainable and secure future for all by fostering value changes and cultivating a new sense of global interdependence and shared responsibility regarding humanity's relationship with nature.

Website: www.greencrossinternational.net

Universal Forum of Cultures, Barcelona 2004

FORUM 2004 is a world event that aims to encourage dialogue between all the cultures that make up humanity, with the objective of demonstrating that the differences between nations should not be a source of conflict, but rather, quite the opposite, they are the origin of creative richness.

For more information about the Dialogues on Energy and Sustainable Development

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Joan Fages I Torras – President, European Renewable Energies Federation (EREF) and the Spanish Association of Renewable Energy Producers

José Antonio Garrido – Cotec Foundation for Technological Innovation

Juan Manuel Ormazabal – Director General, National Center for Renewable Energies (CENER)

Antonio Romero – Barcelona Energy Agency

Albert Sasson – Special advisor – Forum 2004

Eric Flat – United Nations Environment Program (UNEP)

Alexander Ivancic – Barcelona Regional

Bertrand Charrier - Vice President, Green Cross International

Alberto Fraguas – Executive Director, Green Cross Spain

Pedro Ralda – Dialogues – Forum 2004