

Iceland and the Future Hydrogen Economy

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Sustainable Development**

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Excellencies, ladies and gentlemen, dear friends,

Allow me to welcome you to this International Seminar on Hydrogen Economy for Sustainable Development sponsored by the Government of Iceland and the Department of Economic and Social Affairs of the United Nations (DESA). It gives me great pleasure to be able to offer Iceland as a venue for exchanging views and information on the role of hydrogen as an energy carrier in sustainable development in the field of energy.

Let me also at the outset convey my deepest appreciation to the capable staff of DESA for their indispensable role in bringing this event about.

The seminar is taking place in the context of the follow-up to the World Summit on Sustainable Development (WSSD) in Johannesburg, where energy issues were given considerable attention. The Commission on Sustainable Development (CSD), the body overseeing the implementation of the Johannesburg commitments, has devoted its current cycle of work largely to energy issues. Therefore, Iceland was pleased to be able to use the fourteenth session of the CSD earlier this year to host a Learning Center on Hydrogen in cooperation with DESA. The Learning Center brought the potential of hydrogen as an energy carrier to the attention of United Nations, and highlighted the relevance of hydrogen technology for the objectives of sustainable development and the Millennium Development Goals.

The reliance of the world economy on fossil fuels for energy is of growing concern. It is unsustainable and is increasingly being recognized as such.

The continued release of greenhouse gases from the burning of fossil fuels is accelerating global climate change. This is disrupting living conditions all over the world in a variety of ways, including through the increase of extreme weather events and higher incidents of pests and disease. The international community has recognized the importance of making an effort to limit the emission of greenhouse gases to slow human induced climate change. This may improve our chances to adapt to these changes and strengthen our economies.

At the same time, we know that fossil fuels are a finite resource. People may debate the time it will take before we run out of oil, gas or coal, be it decades or centuries. However, everybody agrees that we will exhaust our reserves of fossil fuels sooner or later. We, who are gathered here at this meeting, will almost certainly not be around when that happens and I will certainly not be Foreign Minister. But we all have an obligation to develop sustainable energy sources for our economies, to ensure prosperity for future generations.

Most of the participants in this seminar come from countries that are poor in fossil fuels and have to rely in imported fuels for purposes of transportation. Iceland is one of those countries.

Early in the last century, Iceland recognized the importance of developing its own renewable energy resources to increase energy security and diminishing its reliance on imported fossil fuels. This policy has been highly successful. Today over 70 percent of Iceland's energy needs are provided by renewable resources. Practically all electricity and energy for space heating is provided with renewable energy in the form of hydropower and geothermal energy. Fossil fuels are now used exclusively for powering our cars and fishing vessels and for some industrial processes.

Iceland is often described as an exceptional case because of its rich resources of renewable energy. However, this is only partly true. Many countries have a great potential for energy production from renewable resources, but few have done as much as Iceland in developing these resources.

Some countries have not felt much need to develop renewable energy resources because they are rich in oil, gas or coal. Often, however, there is reluctance to invest in long term projects with a long payback time. This may be one factor in the slow development of renewable energy in many developing countries, where private investors demand high profits from projects and development agencies and donor countries are reluctant to provide funds for the development of so-called “new” or “unproven” technologies.

Iceland’s experience in developing its geothermal energy is an example of how such technologies can be put to use to develop a sustainable energy system. When the decision was made in 1961 to construct a geothermal district heating system for the whole of Reykjavik, some people were skeptical about its feasibility. They considered it risky because of its complexity and long payback time. But it proved highly successful, and today 87% of all houses in Iceland are kept warm with geothermal heat, and geothermal energy is now also being used for electrical production.

It is my sincere hope that Iceland’s experience can be of use in other countries, including developing countries, some of which are confronted with a situation similar to that of Iceland when it started its geothermal development. Iceland has shared its experience through the Geothermal Training Program of the University of the United Nations, and Icelandic specialists have participated in geothermal projects in developing countries.

Iceland intends to continue its support for geothermal development and to participate in more geothermal projects in developing countries in the future.

Moreover, Iceland would wish to see its experience in strategic development of energy resources used to increase the share of renewable energy even further with new technologies such as fuel cells, using hydrogen as an energy carrier. Our aim is to make Iceland the first sustainable energy economy with all its energy needs provided by renewable energy, using fossil fuels only for some industrial processes.

In a hydrogen economy, high-quality energy services would be delivered in an efficient, clean and safe manner while generating little or no polluting emissions at the point of use. But for such a system to be environmentally friendly the primary source would have to be renewable.

The government of Iceland is aware that Iceland's transition to the hydrogen economy will not happen in isolation. We must work with others to make this an integral part of the global agenda for energy development. Indeed, this is the goal we have set ourselves with this seminar; to contribute to the creation of a sustainable global energy future. I invite you all to join us in that quest as I wish you both success and enjoyment during your stay in Reykjavík over the next two days.

Thank you