



## **Icelandic Road Map to a Clean Energy Future**

**A message from  
the President of Iceland  
Ólafur Ragnar Grímsson**

Iceland has succeeded in transforming its economy from coal and oil to clean energy in the lifespan of only one generation. This achievement has attracted considerable interest from all around the world. Rich and poor nations alike are impressed by how Iceland created a clean energy revolution; they seek to learn from our experience and work with our experts.

I strongly believe that if we could do this, so can others. I am also convinced that our experience in harnessing our natural resources in an intelligent way provides important lessons for many developing countries.

When I was growing up in a small fishing village in the western fjords of Iceland, I remember helping my grandmother to bring the coal to her house where it was used to keep our family warm during the long winters. Iceland was then an underdeveloped country, one of the poorest in Europe, under foreign rule and with few of the tools needed to build a successful future.

In the capital, Reykjavík, the coal depot was one of the largest city landmarks. The inhabitants waited eagerly for coal to arrive in huge ships from across the Atlantic Ocean. In pictures taken in Reykjavík at the time, the coal smog taints the skies, a black cloud one of the consistent features of the city.

Now all this has changed. The air is clear and Reykjavík can truly be called the leading clean energy capital of the world. In my youth, over 80%

of Iceland's energy was based on imported coal and oil. Now 100% of its electricity production and house-heating needs are met by clean hydroelectric and geothermal production. About 75% of our entire energy consumption is now based on these indigenous, renewable sources.

This development has indeed been a success story, making Iceland one of the most affluent countries in the world. The Human Development Index, calculated by the UNDP, put Iceland in top position last year. This same institution classified my country as a developing economy until the 1970s.

The oil crises in the 1970s, fuelled by the Arab-Israeli War and the Iranian Revolution, caused Iceland to change its energy policy. When the price of oil stabilized, Iceland continued developing its clean energy resources when other countries turned back to using fossil fuels. Our sustained effort has contributed significantly to Iceland's prosperity. The economic benefits can be seen when the total payments for hot water used for space heating are compared to the consumer costs of oil in other countries.

The present value of Iceland's total savings made in this way between 1970 and 2000 is estimated to be more than three times the country's national income for the year 2000.

Assuming that geothermal energy used for heating homes in 2003 was equivalent to the heat obtained from the burning of 646,000 tons of oil, the use of geothermal energy reduced the total release of CO<sub>2</sub> in the country by roughly 37%.

In addition to the economic and environmental benefits, the development of geothermal resources has had a desirable impact on social life in Iceland. People have preferred to live in areas where geothermal heat is available, in the capital and rural villages where thermal springs can be exploited for heating dwellings, greenhouses, schools, swimming pools and other sports facilities, tourism and smaller industries. Statistics show improved health of the inhabitants of these regions.

Geothermal resources have been identified in some 90 countries. Icelanders are determined to work with others, in Africa, Asia, the Americas, the Caribbean, the Pacific and Europe, to develop their geothermal potential. I have supported initiatives by Icelandic scientists, experts, energy companies, investors and the leaders of our development cooperation programmes to bring our expertise to places where it is most needed.

The top fifteen countries in electricity production from geothermal sources include ten developing countries. The top fifteen countries in direct use of geothermal energy include five developing and transitional countries.

I have had the pleasure of engaging in discussions with global leaders to advocate a clean energy future. I am pleased to have initiated the cooperation between Iceland and Djibouti where, if everything goes according to plan, Reykjavik Energy will build a large geothermal power plant.

For these purposes, I invited the President of Djibouti, Ismail Omar Guelleh, to Iceland to take a personal look at the geothermal power plants. The mere fact that he undertook the journey in the middle of the winter is a firm sign of his commitment and the will of African countries to adopt far-sighted and responsible policies with the reliable support of those who have the knowledge and the financial resources.

I am proud of the many students from developing countries who have studied at the United Nations University Geothermal Training Programme in Iceland. They have been good ambassadors of their countries. I have heard from our experts how well many of these students have fared at home after their studies, where they have contributed in a significant way to their countries' clean energy development.

I have followed with interest the work of the Icelandic Development Agency and how it has supported clean energy development in Africa and the Americas, promoted cooperation, supported the education of local experts and developed capacity. These operations have enhanced the good reputation that Iceland enjoys all over the world.

I have made it an important part of my Presidency to encourage cooperation with China, India, the Philippines, Indonesia and other countries with geothermal potential, countries urgently in need of clean energy resources to build their future fortune. I have done this because of my strong conviction that for the future of mankind, the equality of states and the good of the environment, all countries need to strive for an energy transformation on the same scale as Iceland has achieved.

It is my hope that many countries will follow our lead and realise that what is now considered a tough challenge can in a relatively short time become a successful reality if the right policies are adopted.