



**A CLEAN ENERGY ECONOMY:  
ICELANDIC KNOW-HOW  
IN INTERNATIONAL CO-OPERATION**

**A Speech  
by  
The President of Iceland  
Ólafur Ragnar Grímsson  
at a Forum in Berlin  
during a State Visit to Germany  
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Your Excellencies  
Ladies and Gentlemen

In my speech last night at the State Dinner hosted by the President of Germany I emphasized the importance of clean energy co-operation between our countries which could also include projects throughout Central and Eastern Europe, and in Asia and Latin-America as we will hear examples of later today.

Thus Icelandic know-how together with technological and scientific expertise could become the foundation of a new pillar in Europe's clean energy future, especially with respect to the continent's largely untapped geothermal resources.

In recent decades Iceland has radically transformed the energy system so now 100% of our electricity production and 100% of house heating is provided by domestic, renewable resources: hydro and geothermal. Along the way the economy has become more diversified, aided by this clean energy transformation, including strong aluminium and other high-tech industries, dynamic IT companies and growing tourism.

Our clean energy economy helped the people of Iceland to tackle the banking collapse, especially because the cost of heating and electricity for

ordinary families, homes and businesses is very low compared to what it is in other European countries. But also because it makes Iceland an attractive location for industrial investments; for aluminium smelters, data-storage centres, high-tech industries and other thriving enterprises.

Thus, the first global investment decision taken by Rio Tinto after an interval following the fall of Lehman Brothers in 2008, was to modernize its aluminium smelter in Iceland, and Century Aluminium now hopes to build its second smelter in Iceland; decisions taken because aluminium produced by clean energy maintains a strong long-term market position. Similarly, the establishment of new data storage centres is helped and inspired by the supply of clean energy.

This has indeed been a revolutionary transformation, not only allowing us to build an economy with an inherent long-term strength but also to make significant contributions to the rest of the world. Thus, the geothermal sector has now become one of the major pillars of Iceland's foreign policy and our diplomatic efforts.

The United Nations Geothermal Training Programme, founded more than three decades ago in Iceland, has strengthened the capabilities of more than 40 developing countries and in recent years Icelandic energy companies and engineering firms have participated in geothermal projects in China and India, in East-Africa and Central-America, in Western and Eastern Europe, in the Middle-East, Russia and the United States. Later today, we will in fact have presentations describing such projects.

It has been an important task of my Presidency to promote such cooperation, especially since the threat of irreversible climate changes makes it our moral duty to help others to move towards a more sustainable future.

The climate crisis constitutes a call for a fundamental energy revolution, a comprehensive transformation from fossil fuel to green energy resources. Coming from a country with the largest glaciers in Europe, close to the frozen Arctic, Icelanders do not need to attend international conferences to be convinced of the accelerating rate of climate change. Our own neighbourhood exhibits ample evidence of it, so it seems clear that without a comprehensive transformation of the energy systems the entire world will already in this century face costly and dramatic consequences of severe weather events and rising sea levels.

In the global debate on climate change, sustainability and energy transformation, there has been a predominant tendency to concentrate primarily on electricity production and overlook the multiple economic

advantages and business opportunities derived from a clean energy economy.

In this respect Iceland can be of great service, inviting visitors to witness for themselves in a matter of one or two days the various aspects of a clean energy economy as well as its contribution to bringing a country within a few years out of a profound financial crisis onto a road of recovery, economy growth and low unemployment.

Let me, therefore, in the short time allowed, list briefly a number of ways in which clean energy has strengthened and broadened the Icelandic economy, making a compelling case for sustainability; that it is indeed good for business.

First. Cheap electricity and space-heating for households and companies makes the energy bill far lower than in other countries, increasing the resources available for other expenditures and investments.

Second. Long term access to clean energy has proven itself to be a magnet for foreign investment, e.g. aluminium producers and other industrial companies.

Third. The access to clean energy, with its low carbon footprint, strengthens the global marketing position of the emerging and dynamic high-tech and IT sectors of Iceland since the combination of advanced technology and clean energy appeals increasingly to enlightened customers all over the world.

Fourth. Greenhouse agriculture which diversifies the farming sector, enables us to enjoy the domestic production of tomatoes, cucumbers, peppers and a variety of vegetables while it also fascinates the tourists. Indeed, tomato growing has been so successful that Iceland could within a few years begin exporting tomatoes to Europe.

Fifth. Fish farming with geothermal heat adjusting the sea and fresh water temperatures according to the needs of different species; the most recent example being the construction of a 2,000 tonnes Senegal sole fish farm within the Reykjanes geothermal power park.

Sixth. In recent decades, tourism has made considerable earnings from various spas, of which the Blue Lagoon is the most famous example, as well as from outdoor swimming pools and other lifestyle by-products of geothermal energy. Now more than half a million tourists visit the Blue Lagoon every year; soon twice the total population of the country.

Seventh. Health and cosmetics. The chemicals in the geothermal water, have, together with the growing of specially treated barley in greenhouses, turned out to be a fertile basis for developing modern cosmetic and health products, proving how cutting-edge science and high-tech innovation can expand the use of clean energy.

Eight. The drying of fish products, especially fish heads, backbones and other parts which previously were thrown away, has in the last 30 years evolved into a prosperous multi-million dollar export market; allowing the Icelandic fish products to be stored in their dry form by local Nigerian street vendors for up to two years without any special infrastructure; a method which I am now advocating at the global level since the drying of fish, meat, fruit and vegetables could be a major contribution to enhancing food security on every continent, especially since a large part of the food already produced in the developing world gets destroyed within a week due to the lack of proper storage methods and facilities.

Ninth. The potential of a zero emission urban traffic by introducing, in the coming years, electric and hydrogen vehicles using the clean energy national grid already established by our utility companies.

Tenth. Clean energy projects have strengthened the capacities of our universities and been the foundation of a strong engineering and technical sector, invigorated in the last decades of the twentieth century by various clean energy efforts and is now increasingly engaged in projects in other countries, adding science and research to our modern export endeavours.

Eleventh. The clean energy achievements and our multi-dimensional clean energy economy has, especially in this new century, become an expanding foundation of our foreign relations, our diplomatic, political and economic cooperation with countries in Asia, Africa, Europe and the Americas. It is the major reason why global leaders like China and India engage with my small nation and why dozens of other countries have recently opened their doors to a constructive cooperation with Iceland.

All of this shows in numerous ways how the transformation towards clean energy and the vision of sustainability have strengthened the Icelandic economy; indeed one of the explanations for our successful recovery after the financial crisis four years ago.

Within Europe the link between a clean energy transformation and a successful economic future needs to become the core guideline of government policies and advanced business plans. In this respect a dialogue and hopefully also extensive co-operation between Icelandic and German partners is of great importance.

The discussion here today is inspired by that vision and the following presentations will illustrate in practical ways how the evolution of a clean energy economy can both lead to a sustainable future and prosperity for all.