

Opening speech of Foreign Minister Össur
Skarphéðinsson at the Iceland Geothermal
Conference, in Harpa Conference hall,
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MINISTRY FOR FOREIGN AFFAIRS

Mr. President, excellencies, ladies and gentlemen, geothermal friends,

It is a real privilege to me, an old geothermal enthusiast, to welcome you all to the first Iceland Geothermal Conference held in the heart of our capital - in our stunning new conference and music hall.

I especially want to extend a very warm welcome to our honoured guest, Mrs. Sri Mulyani, Managing Director of the World Bank Group, with whom Iceland is embarking on a very special, geothermal relationship.

A pile of thanks goes out to Hákon Gunnarsson and his excellent team at the Icelandic Geothermal Cluster, who conceived the conference, and have so meticulously organised it and planned.

As one of your host, distinguished visitors, I do apologise for the weather and the blizzard outside, but Foreign Ministers unfortunately don't rule the elements. I assure you, however, that despite the weather, and despite the name, Iceland is not ice-cold. You will find warmth everywhere, in the sense that you will be welcomed with open arms wherever you go. We anyway always suspected that the early settlers a millenium ago, our blessed foremothers and -fathers didn't choose the name of Iceland to describe her coldness, but rather to deter others from coming in their wake, - so as to be able to enjoy her riches alone, in peace – not least the geothermal.

I hope you will be able to brave the snow and storm to enjoy Reykjavík. You will find that Reykjavik is a very welcoming city, quite cosmopolitan, inded the smallest cosmopolitan capital in the world, with a lot of interesting sites, lots of

cheap open door geothermal swimming pools that you must visit, lots of safe entertainment, and if you, like me, are too fond of cozy little restaurants you'll find them in abundance - of all creed and culture.

And if you feel jet-lagged, or worn-out, or old, you only have to throw yourselves into the world-famous geothermal lava-pool, the Blue Lagoon, that not only softens tired muscles, but also, miraculously, shaves ten years off your face.

Mind you, it only works for 2 or 3 days, so if you want to gain eternal youth you might have to be a regular visitor.

In front of you, the geothermal elite of the world, I even dare to say, that Reykjavík is designed exactly for people like you. It is the only geothermal capital in the world. The warmth within the homes in Reykjavík, in here, and the lights, as well as the swimming pools of course - all derive from geothermal. So, if you want a geothermal life-style, go Icelandic, stay in Reykjavik.

Ladies and gentlemen,

You hear me rave enthusiastically about geothermal, but the truth is that geothermal is an ingrained part of the Icelandic identity. It colours the life of almost every citizen. Renewable energy, not least the geothermal, laid the foundation of a very successful society in this faraway island on the margins of the North-Atlantic, with a welfare system that is second to none. But it wasn't always like that.

In Iceland we like to tell stories, and let me tell you a little story about us as a nation.

In the early part of the last century, Iceland was amongst the poorest countries in Europe. For centuries we believed that our only natural resource was the fishing stocks in the sea. It was only with the advance of technology that we realized we had something akin to goldmines under our very feet, or in front of

us, in the form of geothermal geysers - and of course the glacial waterfalls.

This totally changed our society.

In the lifetime of only one generation Iceland transformed herself. From the end of the Second World War we went from being as dependent on oil and gas as any other western nation, - to being able to meet 80% of our energy needs from clean, green renewables. First, it was hydro, but with the advent of the oil crisis in the Seventies, we started utilizing geothermal with vigour – and never looked back.

I've already described some of its life-quality related benefits.

The economic benefits are also huge. Every decade geothermal used for space heating alone saves the Icelandic people the equivalent of one year's GDP. That is a lot of money – and all in hard currency.

Today, virtually all electricity in Iceland is derived from renewables. Geothermal covers more than 90% of our space heating requirements. Only about 20% of our total needs are met by imported oil - to drive our large fishing fleet and for transport. And as you will learn during the conference, we plan to increase the share of geothermal substantially over the next years.

So we not only preach the geothermal gospel, we live it.

Dear friends.

The world today is focussed on climatic changes and the dire consequences of fossil fuels. All the buzz these days is about new solutions – how is the world going to solve these very difficult problems? Well, we know the short answer: There is no silver bullet. There will be no single solution for a long time.

In this century, the solution will be found in a mixed portfolio of new technologies, such as biofuels, solar power, wave power – and in break-throughs in technology that is already proven, such as nuclear and hydro.

Geothermal is not going to save the planet – alone. But I dare say it will be a part of the solution. I know I am preaching to the converts, but I maintain that still today, geothermal is an under-estimated and under-valued source of energy.

I'm convinced, that geothermal has enormous unused potential as a source of energy in the future. Allow me to swiftly run through four supporting arguments:

First, the utilization of low-temperature areas for generation of clean geothermal energy has hardly started yet. There are cities, even capitals in Europe, such as Paris and Amsterdam that literally float on pools of low-temperature water. In Asia, Beijing is another example. One of the challenges of the future is to realize the energy captured there.

Secondly, new technological advances may increase enormously the yield of energy from geothermal sources. For example, deep-drilling to extract liquid at supercritical stage might in future, when technically mastered, yield 10 times more energy from each borehole. I won't even take time to excite you with futurology such as harnessing the “black-smokes”, the rich submarine geysers and high-temperature fields on the bottom of the sea. But I believe they will be important sources of energy towards the end of this century.

Thirdly, we will in future with technological advances and vigorous entrepreneurship be able to extract much more

energy from geothermal than we are presently able to. Much to our shame, we only harness today about 7-11% of the full thermal energy generated by each field. Geothermal as a resource has to be approached as a multiple stream of revenue, not only for generation of electricity and space heating but to extract minerals from it, use it for production of bio-fuel, increasing the production of greenhouses, rearing of expensive aquatic species, advanced spa treatments; you name it.

And fourthly, there is still a bunch of countries in different regions of the world with great potential for geothermal utilization that is not yet harnessed. It suffices to mention the country of Madama Mulyani, Indonesia, and many countries in East Africa, and the Americas.

So, ladies and gentlemen, I believe the age of geothermal is just beginning.

But nations like Iceland, that have experience and breaking edge-technology also have a duty to share, to mitigate our experience to other aspiring geothermal nations, not least in the developing world.

In Iceland we have done this through our highly successful Geothermal Training Program, that Iceland funds, and runs, under the auspices of the United Nations University.

During the last 30 years more than 700 geothermal experts have graduated from the program, from over 40 countries. Many of them are now geothermal leaders back home, some exceptionally good. I have had the pleasure to meet some of them on my travels. I know some of them are back for this

conference, and I extend a very heartfelt welcome to them especially.

The core of the program has always been in Iceland. Through the years we have also offered courses around the globe, including in countries that today have become leaders in geothermal development, such as in Kenya, and China. With increased contributions to the program we have in the last few years extended it to Masters and PhD degrees as well.

I may add, that Madamy Mulyani made an excellent suggestion during our meeting yesterday, on extending this to training for future managers, to get the practical “fingerspitzgefühl” for running big geothermal power plants that we expect to see in many developing countries in the future.

Ladies and gentlemen, whilst I’m on this particular subject I want to pay special tribute to the father of the Geothermal Training Program, Dr. Ingvar Birgir Friðleifsson, who after 35 years will soon retire. You have truly been a great visionary and a magnificent leader.

Finally, ladies and gentlemen, I mentioned earlier that Iceland and the World Bank have decided to join forces with respect to geothermal. That, not least, is why Madame Mulyani is here today.

We, Iceland and the Bank, have made what I really feel is an historic agreement on developing geothermal in the Great African Rift Valley.

Iceland's role will be to lead, and to fund, the necessary work on geological research and explorations in the countries along the Rift Valley, resulting in a pipeline of concrete geothermal projects.

We know, however, that it is not enough to map and do feasibility studies. The greatest difficulty always is to secure finance for the exploratory drilling, vital to attract the capital needed to embark on full utilization of a prospective field.

A part of our agreement is therefore that the World Bank will use its financial strength and expertise to create a vehicle to fund the exploratory drilling, always the greatest hurdle on the way to build a geothermal power plant.

This I feel is a real breakthrough for East Africa, and shows how magnificent a tool the World Bank can be for nations and their peoples struggling from poverty to the decent lives they deserve.

I shall leave it to Madame Mulyani to describe this in greater details, but I want to express my sincere gratitude to her, and to the bank, for their understanding of the value of using geothermal to overcome energy-poverty in that particular part of the world, and for the Bank's excellent cooperative spirit.

I am very proud, that Iceland is now the World Bank's primary partner and lead counsel on geothermal. It is both an honor for Iceland and a recognition of the impressive work done by our experts in this field for decades.

With this, ladies and gentlemen, I leave you in peace. Thank you for your beautiful silence.