

Sub-Sea Electrical Cable Connection to Europe

Results and recommendations of the advisory group
commissioned by the Minister of Industries and
Innovation

26th of June, 2013

Unofficial translation of select parts of the committee report provided by Landsvirkjun

Introduction

1.1 Foreword

In the report pertaining to the “Comprehensive Energy Strategy for Iceland” the objective of “opening up the isolated Icelandic electricity system with the introduction of a sub-sea cable if and when it is (macro) economically feasible” is put forward. On the 27th of April, 2012, the Minister of Industry and Commerce announced the appointment of an advisory group (with reference to the above) to assess the possibility of constructing a sub-sea cable between Iceland and mainland Europe. On the 29th of June, 2012 a further announcement was made on the appointment of an advisory group to assess the possibility of constructing a sub-sea cable for the transport of electricity, between Iceland and mainland Europe. This type of project has been technically possible for some time and there are indications that it would prove economically viable.

The group was expected to assess the macroeconomic viability of the project, the technical and environmental aspects of such a project, the legal environment and international agreements. Such an analysis would be a step towards the broad social consensus necessary for the continuation of the project.

The advisory group was, according to the ‘letter of purpose’, expected to stand for the professional and informed debate on issues pertaining to the sub-sea cable and to deliver an interim report to the Minister of Industry and Commerce on its findings by the end of 2012. The advisory group requested a deferral and was granted permission to submit their findings in the spring of 2013.

This report describes the group’s analysis on the assessment and the recommendations put forward to the Minister with regard to the continuation of the project.

The accompanying documents to this report include the group’s findings, a report released by the Institute of Economic Studies at the University of Iceland, with regard to macroeconomic viability, a memorandum on environmental matters and a legal analysis carried out by the Ministry of Industries and Innovation.

On the 1st of September, 2012 the Minister of Industries and Innovation took over the duties of the Minister of Industry and Commerce as a result of the government’s decision to merge the Ministry of Fisheries and Agriculture, the Ministry of Industry, Energy and Tourism

and part of the Ministry of Economic Affairs. The Minister of Industry and Commerce took over responsibility for energy matters in the Ministry of Industries and Innovation on the 23rd of May, 2013.

1.2 The appointment of the advisory group

The Ministry of Industries and Innovation requested nominations from the following parties for the advisory group on the sub-sea cable: all political parties within parliament, the SA-Confederation of Icelandic Employers, the Icelandic Confederation of Labour (ASÍ), the Federation of State and Municipal Employees (BSRB), the Association of Local and Regional Authorities in Iceland, the Consumers Association of Iceland, the Icelandic Pension Funds association, Landsnet, Landsvirkjun, Icelandic Energy and Utilities and the Iceland Nature Conservation Association.

After receiving the various nominations the following candidates were appointed to form the advisory group:

Gunnar Tryggvason: Chairman, appointed by the Minister of Industry and Commerce

Vilhjálmur Þorsteinsson: nominated by the Social Democratic Alliance Party

Álfheiður Ingadóttir: nominated by the Left Green Movement Party

Ólöf Nordal and Jón Gunnarsson: Reserve Member, nominated by the Independent Party

Sigurður Ingi Jóhannsson: nominated by the Progressive Party

Baldvin Björgvinsson: nominated by the Movement Party

Nils Gústavsson: nominated by Landsnet

Ragna Árnadóttir: nominated by Landsvirkjun

Pétur Reimarsson: nominated by the Confederation of Icelandic Employers (SA)

Þuríður Einarsdóttir: nominated by the Federation of State and Municipal Employees (BSRB)

Arnbjörg Sveinsdóttir: nominated by the Association of Local and Regional Authorities in Iceland

Ásdís Kristinsdóttir: nominated by the Icelandic Energy and Utilities

Signý Jóhannesdóttir and Kristján Þórður Snæbjarnarson: Reserve Members, nominated by the Icelandic Confederation of Labour (ASÍ)

Valdimar K. Jóhannsson: nominated by the Consumers Association of Iceland

Árni Finnsson: nominated by the Iceland Nature Conservation Association

Erla Sigríður Gestsdóttir, a specialist at the Ministry of Industries and Innovation, worked in cooperation with the group.

1.3 Advisory group's analysis

The advisory group initially began its analysis by identifying the key tasks necessary to ensure the successful completion of the objectives set out by the letter of purpose. Tasks were defined according to the three pillars of sustainable development:

Economic Dimensions	Social Dimensions	Environmental Dimensions
Profitability of project, risk assessment	Control over agreements with international counterparts- Landsvirkjun/ Landsnet/ AVR/ UTR	Impact on ocean floor
Business model and participants	Legal framework of the project	Impact of strengthening the transmission system (as a result of the Sub-sea cable) and landing sites
Impact on risk distribution	Impact on domestic electricity costs/resource rent division	Impact of new power stations (with regard to the Icelandic Master Plan for Hydro and Geothermal Energy Resources)
	Impact on security of supply	Overall environmental impact with regard to the effects of offering green energy to the host country and more efficient utilisation
	Impact on labour market	
Macroeconomic ROI		

Economic advisor
Environmental advisor
Ministry of Industries and Innovation

The tasks defined under these three dimensions were then categorised according to disciplines and specialist advisors were appointed to assist the group:

Economic advisors: Institute of Economic Studies at the University of Iceland: Gunnar Haraldsson, Jónas Hlynur Hallgrímsson and María H. Gestsson

Environmental advisors: Stefán Gíslason from Environice and Birgitta Stefánsdóttir from Lund University

Legal advisors: Ólafur Egill Jónsson from the Ministry of Industries and Innovation, Ragnheiður Elfa Þorsteinsdóttir from Málþingi and Tómas H. Heiðar from the Ministry of Foreign Affairs

The advisory group also invited a number of individuals and representatives from various companies and institutions with specialist knowledge pertaining to the project.

The advisory group held meetings on 15 occasions between August, 2012 and May, 2013 and invited a number of guests to attend the meetings; individuals as well as representatives from regional authorities, organisations and NGO's. A number of parties requested an audience with the advisory group and in many instances only part of the group met with the parties in question.

The advisory group held a well-attended seminar on the 26th of February, 2013 at the Harpa Concert and Conference Centre. The reports from the various specialist advisors, the letter of purpose, the minutes from the meetings, memorandums and presentations can be found in the accompanying documents of this report.

1.4 Guests of the advisory group and visits

The following parties met with the advisory group:

Landsvirkjun: Hörður Arnarson, Óli Grétar Sveinsson, Jón Ingimarsson and Ríkharður Ríkharðsson

Landsnet : Guðmundur Ingi Ásmundsson

Ministry of Foreign Affairs: Tómas H. Heiðar

National Energy Authority: Guðni A. Jóhannesson

Environice: Stefán Gíslason

Institute of Economic Studies at the University of Iceland: Gunnar Haraldsson, Jónas Hlynur Hallgrímsson and Ragnar Árnason

Draupnir Legal Services: Eiríkur Svavarsson

Starwood Energy Group: Haukur Eggertsson, John Dizard and Madison F. Grose

Canada Iceland Business Association: Ársæll Valfells

Powerbridge: Edward M. Stern

Atlantic Supergrid: Godfrey Spickernell

International Energy Agency: Markus Wrake

Nordisk Energiforskning: Benjamin Smith

National Grid: David Moore, Kevin Lee, Mark Pierce

UK Trade & Investment: Pétur Stefánsson

OFGEM: Emmanouela Angelidiki

European Wind Association: Justin Wilkes

Statnett: Erik Skjelbred

THEMA Consulting: Marius Rennesund

Samtök orkusveitarfélaga: Stefán Bogi Sveinsson

1.5 Seminar

The advisory group held a seminar at Harpa Concert Hall and Conference Centre in Reykjavík, on the 26th of February, 2013 and it was attended by two hundred people. The seminar was entitled “Is it Time to Connect?” The Chairman of the meeting was Helga Jónsdóttir, Executive Chairman of Harpa. Gunnar Tryggvason opened the seminar, introduced the advisory group’s analysis and reviewed some of the aspects of the project. The speakers at the seminar were Justin Wilkes from the European Wind Association, Emmanouel Angelidiki from OFGEM, Erik Skjelbred from Statnett, Marius Holm Rennesund from Thema Consulting, Pétur Stefánsson from UK Trade & Investment, Gunnar Haraldsson from the Institute of Economic Studies at the University of Iceland and Stefán Gíslason from Environice. The panel sessions after the presentations included Þórður Snær Júlíusson from the newspaper Fréttablaðið, Hörður Arnarsson from Landsvirkjun, Guðmundur Ingi Ásmundsson from Landsnet, Guðmundur Hörður Guðmundsson from Landvernd, Marta Eiríksdóttir business expert and Magnús Þór Ásmundsson from Alcoa. The sessions inspired lively discussions between the panel and the audience. The seminar was successful and the advisory group was able to use it to their advantage as a number of interested parties were able to add their input to the various presentations and discussions. Recordings and presentation material from the seminar can be accessed via the Ministry of Industries and Innovation’s website: <http://www.atvinnuvegaraduneyti.is/verkefni/serverkefni/verkefni-i-gangi/saestrengur-til-evropu/>

3. Advisory group recommendations

The points put forward so far clearly highlight the fact that there are a number of major variables dependent upon considerable uncertainty. Amongst these are issues that could be further defined by more research and discussions with the potential contracting parties and which can be utilised in the calculation model for the macroeconomic viability of the project such as energy prices, energy quantity, length of contract, ownership etc. The calculation model can also be used to lessen the uncertainty by utilising the results to assess issues such as the impact on domestic electricity prices, potential crowding-out effects, increased national income etc.

At this point in time, it is the advisory group's opinion that it cannot confirm the macroeconomic viability of constructing a sub-sea cable between Iceland and the UK. However there are indicators that such an endeavour could prove macro- economically profitable if certain conditions were to be fulfilled i.e. if negotiations with the counterparties should prove successful, procuring favourable energy prices and secure long term contracts.

The advisory group believes that work should continue on mapping out the various aspects of the project domestically whilst concurrently seeking out answers on potential operational and ownership models from the counterparties in the UK.

The advisory group put forward the following proposals, to the Minister, on the construction of a sub-sea cable:

1. That the analysis on the macroeconomic viability of the project should be continued alongside purposefully seeking out new information on proposals 3 and 4. A detailed cost-benefit analysis on the possible impact on domestic energy prices, the subsequent effects on energy prices in areas that do not have access to geothermal water for heating, the effects on the number of jobs and their value should be conducted. The effects on the operating conditions of energy intensive enterprise such as large scale industry and greenhouse horticulture and the effects on industries serving them, both directly and indirectly.
2. That the Ministry or the National Energy Authority should identify potential case scenarios for energy procurement and the order of power station construction for variable transmission capacity.
3. That Landsnet be given authorisation to begin negotiations, in cooperation with Landsvirkjun and other energy providers (when applicable) with the appropriate transmission system operators in the UK and with the British energy authority Ofgem (where applicable) on the connection of the transmission systems, the business model and the ownership of the sub-sea cable. Landsnet and Landsvirkjun should also seek out potential financial backing for preparatory research and consider viable cooperation options with regard to the sub-sea cable project.

4. That the Ministry should seek out ways to obtain information on the aforementioned matters, possibly via discussions, with the British government on the basis of the 'Memorandum of Understanding' signed by ministers from both countries on the 30th of May, 2012. The purpose of these discussions would be to identify how the sale of Icelandic energy could fall under British legislation on incentives for renewable energy with an emphasis on long-term contracts (15-25 years) to reduce the risk of energy procurement in Iceland.
5. To define a path for the secure return of resource rent from the electricity sales via the sub-sea cable to the central government, local government, public, industry and other stakeholders regardless of the ownership of power stations, distribution systems and electrical substations (transformer station) in Iceland. Considerations include subscription fees, resource rent and taxation on resource rent or a share of resource rent. Enquiries should also be made as to the method used by the Norwegians (in similar projects) and its suitability for Icelandic circumstances.
6. To assess the effects of the ownership of the sub-sea cable and how this would impact 'security of supply' domestically. Potential financial backing should therefore be explored with the objective of Landsnet obtaining up to a 50% share in the entity owning the cable within a set time frame after the onset of operations, without taking serious financial risk during the construction period (i.e. the Build-Operate-Transfer financing).
7. That the Ministry would pursue an assessment of which laws and regulations would require revision in order to initiate the construction of an electricity cable to Europe.