

## MEMORANDUM

**To:** Geoscience Policy Division - Department of the Environment, Climate and Communications, 29-31 Adelaide Road, Dublin, Ireland

**From:** BBA//Fjeldco

**Date:** 28 February 2022

**Subject:** Consultation on the Draft Policy Statement on Geothermal Energy for a Circular Economy and associated SEA Environmental Report and AA Natura Impact Statement

**1. INTRODUCTION**

- 1.1 The Department of the Environment, Climate and Communications (the “DECC”) has initiated a consultation process on certain policy papers relating to the development of geothermal energy in Ireland (the “Consultation”).
- 1.2 As part of the consultation process, the DECC is seeking views on:
- (a) a Draft Policy Statement on Geothermal Energy for a Circular Economy (the “Draft Policy”);
  - (b) an Environmental Report prepared as part of the Strategic Environmental Assessment process (the “SEA Environmental Report”); and
  - (c) a Natura Impact Statement prepared as part of the Appropriate Assessment process (the “AA Natura Impact Statement”).
- 1.3 BBA//Fjeldco is an Icelandic full-spectrum corporate law firm with offices in Reykjavik and London. The firm also has a presence in France. The firm has advised Icelandic companies in geothermal ventures in countries around the world, including the Philippines, Indonesia, China, Abu Dhabi, Nepal and Ethiopia. Furthermore, BBA//Fjeldco has advised Icelandic energy companies in securing terrain for geothermal research as well as advising on Power Purchase Agreements and Project Agreements. As a result of this, the firm’s attorneys have also gained substantial experience in dealing with foreign governments and energy authorities in matters concerning licenses, such as for feasibility studies, exploration drilling, construction of facilities and operations.
- 1.4 BBA//Fjeldco created, in cooperation with several first-class law firms in the world, the Geothermal Transparency Guide, providing an overview of the geothermal regulatory framework in 17 countries – see <http://www.geothermal.bba.is/>. The firm is currently

expanding the scope of the Guide to become a Renewable Energy Transparency Guide, and to include between 30 and 40 countries.

- 1.5 It is part of the firm’s policy to share our knowledge and experience on legal and regulatory frameworks for the development of geothermal resources. As part of this approach, we have decided to participate in the Consultation. This memorandum focuses primarily on the Draft Policy.
- 1.6 This memorandum provides for a high-level overview of the best practices observed or called for by industry practitioners on an international scale, which we deem relevant for the Consultation and for the creation of a legal and regulatory framework for geothermal energy in Ireland. We emphasise that this memorandum only contains a summary of key issues regarding the Draft Policy and shall not be construed as legal advice concerning the issues described in it. We also emphasise that we do not provide advice on Irish laws.
- 1.7 At your request, we would be happy to provide further details on any aspects of this memorandum.
- 1.8 Terms defined in the Draft Policy and not defined herein shall have the meaning ascribed to those terms in the Draft Policy.

## **2. OBSERVATIONS ON THE DRAFT POLICY**

- 2.1 Section 4.3 of the Draft Policy provides that “[t]he Department will engage with the public and the Geothermal Energy Advisory Group to assess how the issue of access to land can be best addressed within the policy and regulatory framework”<sup>1</sup>. **Access to land**

Questions arise in case the title to the land in question is held by private individuals or entities. A critical issue here is, to which extent the private owner needs to be consulted before the exploration or exploitation works start and to which extent the landowner may prevent the license holder from accessing his land.

In jurisdictions where ownership of geothermal resources is vested in the State, applicable law usually contains provisions preventing private land owners from hindering access to plots of land with geothermal prospects. Although due consideration needs to be taken with respect to the interests of the private landowner, such laws may provide that the private landowner should not (i) be able to explore or exploit the geothermal resource located under its land unless with a license from the applicable state authority; or (ii) be able to prevent such land from being exploited by other parties, if the state decides to grant geothermal exploration- or exploitation licenses on such land. Due compensation

<sup>1</sup> Section 4.3 (p.10).

needs however to be awarded to private landowners when a license is granted to other parties to exploit geothermal reservoirs on the land.

2.2 Section 5.2 provides a good overview of the main applications of geothermal energy. Those applications may be combined in so-called geothermal industrial parks (“GIP”). GIPs integrate various activities which use geothermal energy to a greater or lesser extent. Usually, the core of the GIP will be a plant generating electrical power and/or heat, which will then provide the other businesses with power and/or heat. Activities found in GIPs include, among others, power and heat generation, greenhouses, fish farming, meat processing, cooling and balneology. Connecting those businesses in a GIP raises various legal and regulatory issues, which should be addressed in the legislation to be elaborated if the intention is to address GIP in the legal and regulatory framework. Most of those issues are common to all geothermal projects (i.e. regardless of whether they are part of a GIP or not) but some are especially relevant in the case of GIP, for instance (i) ownership, (ii) access to land, (iii) cascaded use and (iv) access to networks. The question of access to land and ownership are addressed paragraph 2.1 of this memorandum.

### **Applications – geothermal industrial parks**

**Cascaded use of geothermal resources** raises some legal issues in terms of liability. Liabilities need to be clearly allocated to the participants in the GIP. For instance, the fact that the geothermal resource is shared, raises the question whether and to what extent participating businesses share the liability relating to resource management. Those questions need to be addressed in the local regulation or in the contracts between GIP participants and, when appropriate, the public authority.

**Access to network** will depend on the structure of the electricity or district heating market. A power producer will have to look into whether it can connect directly to the users or to an off-grid minigrid, without having to connect to the national or local distribution network. The transmission system operator or the distribution system operator might have to be involved in the process. With regards to heat production, it is important that local regulations facilitate to connection of geothermal heat production units to existing district heating networks.

We also note that participants in the GIP are connected to each other by contracts such as power purchase agreements, heat supply agreements, steam supply agreements, PPP and concession agreements. Those contracts address the following issues:

- (a) Risk allocation relating to, among others, quality of the fluid, damage to the environment, damage to third parties, force majeure, resource risk ;

- (b) Security of supply ;
- (c) Pricing, indexation, taxes ;
- (d) Financing of infrastructures.

We note that the type of use of geothermal resources should also be specified in the GECL (power generation, direct use, cascaded use, mineral extraction). The legal and regulatory framework applicable to mineral extraction should also be clarified from the outset. For instance, the question should be raised on whether the applicable mining or minerals development act should apply.

**Type of use to be specified in GECL – applicability of mining laws in case of mineral extraction**

- 2.3 Section 5.4 of the Draft Policy provides that “the public, particularly communities close to where larger projects are proposed, will need to be provided with easily understood information about the potential impacts from certain activities and how these are managed within the regulatory framework”<sup>2</sup>. It might be sensible to include a requirement to consult and involve municipalities, or any relevant local authority representing communities under Irish law, which may be affected by the project, prior to licenses and permits being awarded for a given project. Ensuring social and administrative acceptance would minimize the risk of projects being put on hold at a later stage.

**Consultation of the public**

- 2.4 Section 5.5 of the Draft Policy provides that “it is critical that thresholds are in place to ensure that small, domestic or commercial, projects that present no risk are not bound to follow the same regulatory process as deeper, larger projects”<sup>3</sup>. Attention should be given to how those thresholds will be determined. As an example, under French law, temperature was, until recently, a distinctive criterion in determining the legal regime applying to the exploration and exploitation of geothermal resources. The distinction based on the temperature of the resource has led to certain difficulties in the development of geothermal projects in France, especially regarding the exploration of low-temperature resources. To summarize, French law provided for a simplified permitting process and shorter exploration periods for low-temperature resources, the duration of which could not be extended. However, in some areas, the exploration of low-temperature resources proved to be complex and, in some circumstances, hardly achievable within the three years of an exploration authorization, which led to some

**Thresholds**

<sup>2</sup> Draft Policy, Section 5.4 para. 3 (p.21).

<sup>3</sup> Section 5.5 para. 1 (p. 22).

projects being abandoned. In order to address the issue, the French mining code was amended with effect from 1 January 2020. The choice of the relevant permit is no longer based on the temperature of the resource. At exploration level, the project developer may choose the type of permit that is the most suitable for the exploration of the resource, i.e. a three years research authorisation or a five years exclusive exploration permit irrespective of the temperature of the resource. At exploitation level, the distinction depends on the primary thermal power of the geothermal resource. If the primary thermal power is below 20 MW, the exploitation will require an exploitation permit. If the primary thermal power is equal to or higher than the 20 MW threshold, a concession will be required. It should also be noted that a simplified administrative procedure is available for small projects depending on various criteria (open/closed loop, depth under 200m, temperature under 25°C and thermal power under 500kW).

The Draft Policy proposes that geothermal installations should be regulated differently depending on the quantity of energy produced by the contemplated installations. Before implementing that proposal into law, it should be ensured that the chosen thresholds reflect the complexity of the projects and constitute an adequate criterion to select the appropriate regulatory regime for a given project.

- 2.5 Section 6.3 provides that “the Geoscience Regulation Office of the DECC will be the Geothermal Regulatory Authority”<sup>4</sup>. It further provides that “Geothermal projects, as new activities, will be assessed by the relevant bodies within their existing responsibilities”<sup>5</sup>.

**Geothermal  
Regulatory  
Authority –  
one-stop shop**

A key enabling factor for all geothermal projects, including direct-use projects, is the simplification of procedures and institutional framework. Creating a “one-stop shop” administrative institution (licensing authority) responsible for interactions with project developers could be beneficial to the development of geothermal projects by providing security to the project developers and shortening the permitting procedure. As part of such system, a single institution would be in charge of, among others, receiving all applications and delivering the permits. Such institution would be responsible for the coordination of the process with all other relevant institutions and would be the developer’s only point of contact with the administration.

<sup>4</sup> Section 6.3 para. 1 (p. 25).

<sup>5</sup> Section 6.3 para. 2 (p. 25).

When possible, the licensing authority should also be in charge of monitoring the geothermal activities during the validity period of a permit.

When direct-use projects are developed at a regional level, rather than at national level, regional authorities should be involved in the process. If relevant and consistent with the administrative organisation of the country in question, having a local authority as one-stop shop might prove more efficient. Decentralisation of regulation could indeed enable project developers and institutions to adapt to the particulars of the area where the project is developed.

- |     |  |   |
|-----|--|---|
| 2.6 | The Draft Policy insists on the importance of planning. Siting and planning indeed need to be taken into consideration when designing a public policy on the use of geothermal energy. When it comes to district heating, local authorities such as municipalities play a key role in terms of planning and siting. It should be ensured that those local authorities are entitled to take the relevant decisions to integrate geothermal heat production in the local planning. When needed, local rules and procedures should be simplified. Also, in order to ensure the preservation and the efficient use of geothermal resources, states may find appropriate to entitle local authorities to give priority to geothermal projects over other types of heat generation projects. | <b>Importance of planning – priority given to geothermal projects</b>   |
| 2.7 | Section 6.6.1 of the Draft Policy provides that “[t]he objective of a GEEL will be to determine whether or not the geothermal resource can provide enough energy to make the proposed geothermal energy project viable” <sup>6</sup> . It should be considered to grant exclusive exploration rights to the holder of a GEEL.  | <b>GEEL – exclusive rights</b>  |
| 2.8 | Section 6.6.1 of the Draft Policy provides that “[a]t any stage during the term of a GEEL a company may apply for a Geothermal Energy Capture Lease (GECL) if it is of the opinion that the geothermal resource is viable for energy production” <sup>7</sup> . The legal framework should also be clear as to whether the holder of a GEEL will have the right to obtain a GECL should the holder prove the resource and fulfil all requirements for obtaining such lease. Should such right not be granted, the law should provide for an indemnity to be granted to the holder of GEEL in case the GECL is granted to a third party or not granted at all.  | <b>Issue of a GECL – right of the holder of a GEEL to obtain a GECL</b> |
| 2.9 | Section 6.6.3 provides that “If a GECL is not granted following a GEEL, the GSRO will be immediately free to release or otherwise disseminate  | <b>Release of data - confidentiality</b>                                |

<sup>6</sup> Section 6.6.1 para. 2 (p.27).

<sup>7</sup> Section 6.6.1 para. 6 (p.28).

such data provided under the provisions of the GEEL<sup>8</sup>. It should be considered to grant developers the right to classify some information as confidential, especially business sensitive information.

- |      |  |                                 |
|------|--|---------------------------------|
| 2.10 | The permitting procedure should be transparent and non-discriminatory. It should be assessed whether all permits and licenses should be granted on a competitive basis or whether permitting without calls for tenders should be allowed e.g. in relation to smaller projects.                                   | <b>Permitting<br/>procedure</b> |
| 2.11 | We note that the Draft Policy does not mention any support mechanism to incentivise the development of geothermal projects. Support mechanism such as feed-in tariffs, auctions, feed-in premiums, risk mitigation mechanisms or grants should be considered in order for geothermal projects to be competitive. | <b>Support<br/>mechanisms</b>   |

Should you have any questions or comments regarding the subject matter herein or if you would like us to elaborate further on any aspects of this memorandum, please do not hesitate to contact us. We would gladly provide any further information requested.

\*\*\*

BBA//Fjeldco

<sup>8</sup> Section 6.6.3 para. 4 (p. 30).