

POLICIES, LEGISLATION AND REGULATIONS FOR GEOTHERMAL IN ICELAND – AN OVERVIEW

Activity 4. Strategic cooperation and future planning

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1. INTRODUCTION AND DISCLAIMER

1.1. Background

The GEOTHERMICA Initiative, overseen by the National Energy Authority of Iceland, is a platform to accelerate geothermal energy deployment through transnational cooperation across Europe. Iceland, with its extensive expertise in geothermal energy, has been at the forefront of harnessing geothermal energy for heating, electricity, and various industrial processes. Poland, rich in untapped geothermal resources, seeks to explore and expand its renewable energy portfolio to ensure energy security, reduce carbon emissions and foster sustainable development.

The transition to renewable energy sources is a critical component of global efforts to mitigate climate change and ensure energy security. Geothermal energy, with its potential for providing reliable, low-carbon heat and cold, plays a pivotal role in this transition. Iceland has become a world leader in the utilization of geothermal energy, successfully integrating it into its power generation and district heating systems. Conversely, Poland, despite having significant geothermal potential, has yet to fully exploit this resource. The disparity in geothermal development between Iceland and Poland presents a unique opportunity for bilateral cooperation.

The objectives of this initiative is:

- (a) **Rapid Knowledge Transfer:** Streamline the exchange of geothermal heating expertise and technology between Iceland and Poland.
- (b) **Policy Guidance:** Draw from Iceland's regulatory success to aid Poland in developing supportive policies for geothermal energy.
- (c) **GEOTHERMICA Engagement and Collaboration:** By aligning with GEOTHERMICA Initiative, the project leverages existing frameworks and strategy support to foster international cooperation in geothermal energy.

The GEOTHERMICA Initiative's focus on enhancing geothermal energy deployment, underscores the timeliness and relevance of this project. By leveraging Iceland's extensive experience and Poland's untapped geothermal resources, the initiative aims to accelerate Poland's renewable energy development.

- (a) **Environmental and Economic Benefits:** Geothermal energy offers a stable, sustainable energy source that can reduce reliance on fossil fuels, decrease carbon emissions, and provide economic opportunities through job creation and energy security. For Poland, a country heavily dependent on coal, geothermal energy represents a path toward a cleaner, more sustainable energy mix.
- (b) **Enhanced Bilateral Relations:** Beyond the environmental and economic benefits, this initiative will strengthen the diplomatic and economic ties between Iceland and Poland. It will serve as a model of international cooperation in renewable energy, showcasing how these two countries can mutually benefit from shared knowledge and experiences.

- (c) **Policy and Regulatory Frameworks:** One of the key success factors behind Iceland's geothermal achievements is its supportive policy and regulatory framework. Poland can benefit from Iceland's experience in creating a conducive environment for geothermal development, including incentives, streamlined permitting processes, and public engagement strategies.
- (d) **GEOTHERMICA Initiative Synergy:** By aligning with the GEOTHERMICA Initiative, the project leverages existing frameworks and strategy support to foster international cooperation in geothermal energy. This alignment enhances the project's feasibility and potential for impact.

Icelanders have utilised geothermal energy for decades, initially for heating in the early 20th century and later for electricity generation. Over time, significant expertise has been developed, and Icelandic legislation governing geothermal energy has evolved and expanded accordingly.

Most countries which are successfully developing their geothermal resources have established and followed a clear and realistic policy relating to the harnessing of geothermal resources. Policies need to consider both the short-term and long-term goals of the government in respect of exploration and exploitation of resources. In order to establish meaningful policies, it is critical to understand the country's potential resources, as well as the success or failure of existing projects.

In this context, the energy consultancy Elements by BBA//Fjeldco has been approached to provide an overview of the geothermal regulatory framework in Iceland, for the comparison with Poland's legislation relating to geothermal energy.

1.2. Disclaimer

This Report contains the results of data collection on the status of the regulatory environment relating to the exploration and exploitation of geothermal energy resources in Iceland. The information contained in this Report, including a review of existing laws, regulations, rules and policies, as well as the methodology and regulatory developments proposed, relies strictly on the available data at the date of this Report and does not contain conclusive or exhausting proposals, but rather indicative proposals based on available data, benchmarking with international experience and good practices and our current understanding of the legal and regulatory environment in Iceland at the date of this Report.

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2. EXECUTIVE SUMMARY

Instability of regulations ranks as one of the highest on the list of identified risks in geothermal projects. Lack of, or unsuitable legal and regulatory framework has an impact on the timeline of a project, authorised use of geothermal resources, commercial viability and bankability of a project and the country's attractiveness for investors. Key issues to be dealt with in national policy are obtaining best investment and financing in geothermal development, cost allocation between private and public sectors, defining responsibilities of national and local authorities, sharing of development benefits among stakeholders, cost of market access, and to allocate development between electricity and direct use.

Other important aspects are to legally define the resources themselves, to be able to determine the applicable legal regime. The ownership must further be clarified and the authority granting access to the resource must be clearly identified. A streamlined administrative and institutional structure is pertinent, and it is critical to collect as much data on existing geothermal reservoirs as possible, as information on geothermal resource is a key to the successful development of geothermal resources.

Iceland is unique as a high level of electricity and heat is generated from renewable sources. The total energy consumption originating from renewable energy sources in Iceland is about 76%. Electricity is almost entirely generated from renewable sources – 71% from hydro and 29% from geothermal. As a result, Iceland is one of the most sustainable countries in the world regarding its energy consumption. The unique position of the Icelandic energy market is demonstrated in legislation where, under Regulation no. 1040/2005, it is stated that power generation licences can only be granted for the exploitation of renewable energy sources.

Due to Iceland's unique geographical location, and its decades-long utilisation of natural resources, significant expertise has been gathered in geothermal policies, legislation, and regulations. Challenges posed by climate change have further strengthened international collaboration, leading to the introduction of new goals, particularly within Iceland's national policy. This policy reflects both the European Union's framework and broader international perspectives. Iceland intends to achieve 35-45% reduction in emissions by 2030 under the Climate Action Plan and geothermal energy plays a large part in both electricity generation and direct use for heating.

While direct incentives and support for geothermal energy projects in Iceland are relatively uncommon, the Climate and Energy Fund provides financial assistance for various initiatives. This includes support for geothermal drilling, particularly for smaller municipalities and individuals, as well as for innovative projects aimed at addressing climate-related challenges.

Although the Natural Resources Act, which has governed geothermal resources since 1998, has remained largely unchanged over the years, Iceland continues to refine its licensing procedures and regulatory framework. The objective is to streamline the application process and improve the licencing system. However, achieving something along the line of a "one-stop shop" will be challenging, given the significant role local municipalities play in infrastructure projects within their jurisdictions. Recent amendments to Icelandic legislation mark a step toward a more efficient licensing process, including the consolidation of public institutions to enhance administrative efficiency.

3. NATIONAL POLICY

A clear national policy is a prerequisite to the enactment of a legislation dedicated to geothermal use. Icelandic authorities have over the past years made multiple changes to the government policy in place concerning renewable energy resources. The Natural Resources Act No. 57/1998 governs, *inter alia*, the exploration and exploitation of geothermal resources, and the Electricity Act No. 65/2003 governs geothermal power plants and the electricity framework as a whole. The Icelandic legislation has therefore for most parts remained the same since 1998 when the Natural Resources Act entered into force, with a number of smaller amendments taking place over the years. The National Policy on geothermal energy and other renewable energy sources has been updated substantially over the past years, specifically taking note of the evolution in the legislation of the European Union, and in the world as a whole.

In October 2020 the Minister of Tourism, Industry and Innovation published an Energy Policy for 2050: Iceland's first long-term policy (Iceland's 2020 Climate Action Plan). The Plan presents a scenario for 2050 and describes the process intended to take place over a thirty-year period. By 2050, fossil fuels will have been entirely replaced by renewable energy sources. Iceland will have achieved carbon neutrality by 2040, as planned in Iceland's Climate Action Plan. Government administration will have an important role to play in supervising enterprises operating under concession contracts and in monitoring significant benchmarks, e.g., regarding energy security, statistics and the preparation of forecasts that are necessary for the government in deciding on policies.

Iceland's 2020 Climate Action Plan is Iceland's main instrument to reach its commitment to the Paris Agreement, specifically its emissions reduction goals for 2030. It is also the main instrument that outlines how Iceland aims to reach its stated goal of carbon neutrality by 2040. In 2020, the Minister for the Environment and Natural Resources published an updated Climate Action Plan, which initially included a total of 50 actions that are expected to decrease emissions in 2030 by more than one million tonnes for carbon dioxide compared to 2005 in sectors that fall under the EU effort sharing regulation. The Plan is organised by how the measures relate to Iceland's commitments, as well as by sources of emissions.

The Icelandic Government has signalled a willingness to achieve a reduction in emissions in ESR-sectors by 40%, and up to 55% calculated along with EU-countries and Norway, from 2021-2030 compared to 1990 levels. A minimum of ISK46 billion is expected to be spent on key climate action in the period 2020-2024. Actions taken in the areas of carbon sequestration and wetlands restoration are expected to lead to significant benefits, with an estimated increase of more than 500% compared to 2005 levels. These measures play an important role in the use and development of renewable energy, and in achieving Iceland's goal of carbon neutrality by 2040. It is intended to implement further measures in due course in conformity with established EU directives with EEA relevance e.g. (EU) Directive 2023/959 (amending ETS Directive 2003/87/EC) about the ETS2 scheme, on emissions from buildings, road transport and small-scale industry. Investments in renewable energy sources in Iceland are mostly subject to general law as there is no statutory legal regime regarding the funding and financing of renewable energy. The fact that Iceland produces 99.9% of its energy from renewable energy sources may help to explain the lack of a statutory legal regime regarding funding and financing.

With an extensive update to the Climate Action Plan, introduced in June 2024, the Icelandic Government increased their intended climate-related actions from 50 to 150. The Plan provides a detailed mapping and assessment of climate actions and contributes more systematically than before to reducing greenhouse gas emissions and increasing carbon sequestration. New measures indicate that Iceland can achieve 35-45% reduction in emissions by 2030 and measures aimed at increasing green energy generation are now formally a part of the updated Climate Action Plan. A clear distinction is now made between three types of climate-related measures: (i) direct actions, which can be directly measured in terms of emission reductions; (ii) indirect actions, which contribute towards emission reductions; and (iii) climate-related projects, which support the targeted implementation of actions. Moreover, the Icelandic Government intends to regularly update the Climate Action Plan and closely monitor all actions taken.

4. OWNERSHIP AND ACCESS TO GEOTHERMAL RESOURCES

The term geothermal resources must be defined in an appropriate manner to ensure that the legal and regulatory framework is designed for various types of geothermal projects, including geothermal direct use. Such definition is important as it designates the type of resources which shall be subject to the legal and regulatory provisions elaborated in relation to geothermal energy.

4.1. Definition of resources

Under Article 2 of the Natural Resources Act, geothermal energy means, on the one hand, reserves of energy in the bedrock, and, on the other hand, a constant flow of heat from within the earth, which does not constitute groundwater.

The term “geothermal heat” refers to a constant flow of heat from “the bowels of the earth” that is not regarded as “groundwater”, or geothermal reserves in rocks in the earth’s crust. The Act defines “groundwater” as “water in the subsurface in a continuous layer, static or flowing, that normally fills all interconnected cavities in the relevant stratum and is exploited for purposes other than transferring heat to the surface of the earth or using its local energy”.

Relevant Chapters of the Natural Resources Act therefore make a distinction based on thermal capacity, not the depth of the resources itself. It should be noted that Act No. 48/2011 on the Plan for Nature Protection and Energy Utilisation (the Master Plan Act) defines “high temperature geothermal areas” as geothermal systems where the temperature of the groundwater reserve is 200°C or higher, at a depth of 1,000 meters or closer to the surface.

4.2. Ownership of resources

Any act on the research and development of geothermal resources needs to consider the constitutional and/or legal provisions concerning the ownership of land and resources contained in the sub-surface. The question of ownership and right of use of the geothermal resource is crucial in all geothermal energy projects, especially when the project is developed and operated by a private entity.

Since such projects extensively relies on a secured access and right to use and to dispose of geothermal heat, fluids and other components of the geothermal resource, it is essential that the developers have a clear view of their rights on the geothermal resource. Ownership and right of use is even more important in the context of cascaded use, as developers need to secure their rights on the resource and to have a clear view on the scope of such rights. This is the case in geothermal industrial parks where an adequate and clear legal and contractual framework is key to the success of such projects.

Ownership and right of use of the geothermal resource must be clearly defined at national level, like any other natural resource. Ownership of geothermal resources may pertain to groundwater, thermal water, minerals and other substances and resources, varying from one country to another. Therefore, determining the ownership of geothermal resources can be very complex in the absence of clear provisions.

Under the Icelandic Natural Resources Act, ownership of resources in the ground is attached to the proprietary rights on private land. Resources found on public land are however the property of the Icelandic State. In the Act, the term resources is defined as “any element,

compound and energy that can be extracted from the earth, whether in solid, liquid or gaseous form, regardless of the temperature at which they may be found”.

Icelandic citizens and other Icelandic legal persons are permitted to own energy exploitation rights for other than domestic use of geothermal resources. The same applies to enterprises that produce or distribute energy. Individuals and legal persons domiciled in another European Economic Area (EEA) member state shall have the same right as Icelandic citizens and legal persons.

4.3. Access to land

The questions of ownership and right of use of geothermal resource is crucial in any geothermal energy project, especially when the project is developed and operated by a private entity. Since such project extensively relies on a secured access and right to use and to dispose of geothermal heat, fluids and other components of the geothermal resource, it is essential that the developers have a clear view of both their rights on the geothermal resource and access to the geothermal resource, i.e. access to land.

Questions often arise when 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 licence holder from accessing his land.

In general, cases where plots of land with geothermal prospects are held by private parties, and although due consideration needs to be taken with respect to the interests of the private landowner, the private landowner should not (i) be able to explore or exploit the geothermal resource located under its land unless with a licence 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 licences on such land. Due compensation must however be granted to private landowners when a licence is granted to other parties to exploit geothermal reservoirs on the land and the landowner should be entitled to a fair compensation for land occupation.

Under Icelandic law, relevant landowners shall have the opportunity to comment on applications for exploration, exploitation and power plants according to Article 13 and 14 of Administrative Code No. 37/1993. Opposition from a landowner will not have a direct bearing on whether a licence is granted. However, the opinion of the landowner is taken into consideration by the licencing Authority when a licence is granted. It should be noted, that before a holder of an exploitation licence starts extraction on a private land, the licence holder must reach an agreement with the landowner on compensation for the resources. If an agreement cannot be reached, the licence holder can submit a request to the relevant Ministry for expropriation.

The conditions for the expropriation are set out in the Constitution of the Republic of Iceland, which states that the expropriation can only be carried out if (a) the expropriation is required by public interest, (b) there is a clear legal basis for the expropriation, and (c) the landowner is fully compensated for the expropriation. The compensation is therefore valued on a case-by-case basis.

Landowners may however, without any licence, utilise geothermal heat extracted on their private land for household and agricultural use, including for greenhouse farming and other

industries up to 3.5 MW. However, a landowner must notify the licencing Authority and submit a plan including a description of any proposed drilling, blasting, mining tunnel building and/or any major operations for this reason. The Authority may impose conditions on landowners as considered necessary for safety or technical reasons.

It should be noted that power plants with an installed capacity of less than 1 MW do not require a power plant licence unless a connection to the grid is proposed. Owners of power plants with an installed capacity between 30 – 1000 kW must regularly submit technical information about the power plant to the National Environment and Energy Agency (NEEA). Furthermore, the NEEA must be annually updated on the total electricity production of power plants with an installed capacity over 100 kW.

5. LICENSING

5.1. Licensing and Regulatory Authority

The National Environment and Energy Agency (“NEEA”) operates for the benefit of society and in line with Iceland's energy policy. Its role is to create a transparent environment for energy matters, promote innovation and informed discussions, and provide expert advice to the authorities for the well-being of the general public. The NEEA operates under the authority of the Ministry of the Environment, Energy, and Climate in accordance with laws and regulations pertaining to it but the main roles of the NEEA are outlined in the Act on the National Environment and Energy Agency No. 110/2024.

The NEEA manages administrative affairs in energy matters and acquires knowledge about the utilisation of energy sources and other geothermal resources, having the following competences:

- (i) it issues permits for research and utilisation of resources and energy production;
- (ii) it manages administrative matters delegated to the institution by law, such as resource laws, water laws, electricity laws, laws regarding the ownership of Icelandic state resources in the seabed, and hydrocarbon laws;
- (iii) it collects data and maintains a database about the utilisation of energy sources and other geothermal resources;
- (iv) it conducts research on the utilisation of energy sources and other geothermal resources and other matters in the field of energy;
- (v) it participates in long-term energy planning for the nation;
- (vi) it serves as an advisory body to the government on energy matters and other resource utilisation;
- (vii) it oversees the implementation of electricity acts, particularly their licensing components, the transmission and distribution of electricity, as well as the aforementioned special laws in the field of resource matters.

The NEEA is authorised to charge fees for its administrative affairs, provided that the fees do not exceed the costs directly associated with the specific administrative matter.

5.2. Licensing Framework

A suitable application procedure for licences in respect of exploration activities, production, transmission and distribution of electrical and thermal energy, as well as for the operation of power stations and power grids, must be clearly defined in the regulatory framework. Licences for geothermal energy are granted in respect of a certain geographical area.

The NEEA is responsible for the administration of exploration and utilisation of geothermal energy in Iceland under the Natural Resources Act. The NEEA's licence grants the licence holder the right to use ground resources with certain exceptions, and the Agency can also

grant permission for others to conduct geothermal research. The NEEA also manages a large database of geothermal research and exploitation, with the prime example being the borehole register along with other statistical information. Information on geothermal drilling is required to be submitted to the NEEA, and the NEEA also collects and publishes data on geothermal utilisation as part of regular monitoring.

The NEEA works closely with other public bodies involved in the use of geothermal energy and construction related to it. Local authorities are responsible for local planning matters and the granting of building permits, and the National Planning Agency handles environmental assessment and planning matters. There is also cooperation with energy and utility companies and their association, Samorka, as well as the Iceland Renewable Energy Cluster and GEORG, a research cluster in the field of geothermal energy. This is not an exhaustive list, as geothermal energy plays an important role in Icelandic society.

The NEEA grants licences for the exploration and exploitation of energy, regardless of whether the resource is located on private or public land. The licensing framework is divided into three categories: (i) an exploration licence, attributed to the initial geological and geochemical field surveys addressed to a preliminary evaluation of the perspectives of a geographical location, (ii) an exploitation licence which allows for the extract and use of the resource in question during the term of the licence and (iii) power production licence associated with electricity production, for an installed capacity of 1 MW or more.

The licence must state explicitly the obligations of the licence holder in order to be able to perform an assessment of the feasibility for geothermal activities and eventually to harness the reservoir, if feasible. These obligations concern, among others, environmental protection, data collection and reporting duties etc. The licence holder also has obligations to make use of the licence, by carrying out the exploration or exploitation works for which the licence was granted, and by complying with the exploration or exploitation schedule.

5.3. The Master Plan

A reference must be made to the Icelandic Master Plan for Nature Protection and Energy utilisation, which is a tool to reconcile the competing interests of nature conservation and energy utilisation on a national scale and is an essential instrument of the energy sector regulatory regime in Iceland. The Master Plan is regulated by Act no. 48/2011 on the Plan for nature protection and energy utilisation. The Master Plan covers geographical areas where there are power plant options for energy generation, both on privately owned land as well as on public land. The Master Plan classifies the power plant options in three categories: (i) the protection category, (ii) the standby category and (iii) the utilisation category. On 15th of June 2022, the Icelandic parliament approved a parliamentary resolution on the updated classification of power generation options and protection of future options.

The parliamentary resolution on the categorisation of power options became legally binding. A total of seven power options were put on hold, four of them were previously in the protection category of the framework plan and three in the exploitation category. One power option was moved to the utilisation category but was previously in the standby category. For the first time, wind energy zones were included in the utilisation category of the framework with two offshore areas defined.

The classification will be updated in the fifth phase of the Master Plan which was introduced by the project committee of the Master Plan in June 2024. Only one of the proposed options for exploitation is geothermal energy, and four of the options are in hydropower. The geothermal option is located in Bolaalda, in southern Iceland, and the hydropower options are located in the northwest of Iceland. The legislative process for the change of Act no. 48/2011 is currently pending.

5.4. Cascaded use

According to Article 6 of the Natural Resources Act, the utilisation of resources in the ground is subject to a licence from the NEEA, whether it involves utilisation on private land or public land, with some exceptions provided for in the Act. A utilisation licence permits the licence holder to extract and use the resources in question during the term of the licence in the quantity and on the terms that are laid down in said Act and the NEEA regards as necessary. Accordingly, the only utilisation previously agreed upon with the NEEA is allowed. According to the Natural Resources Act, the surveying and utilising of rocks, stones, gravel, clay, sand, pumice, tephra and other volcanic and mineral material, as well as soil, peat and brown coal on private land is permitted without a licence.

However, the use of certain by-products in geothermal energy projects, i.e. research and utilisation of microorganisms, cellular or non-cellular microbiological entities capable of replicating or transferring genetic materials, is prohibited in geothermal areas without a specific licence from the NEEA. The Icelandic Institute of Natural History shall supervise and any research and utilisation of microorganisms and the Minister in charge of nature conservation must advise the NEEA before such a licence can be granted.

6. DATA AND SUPPORT

A geothermal project's risks are highest in the initial stages, when available resource information is scarce. The risk gradually decreases as the resource information base strengthens in the process of exploration and development. Information on the geothermal resources, e.g. geological data, characteristics and composition of the geothermal fluids is key to the development of geothermal utilisation.

Analysis of available data of geothermal potential in various countries around the world indicates that such data is often missing, incomplete or inaccurate. Mapping the geothermal potential at regional or country level is seen as a key step to enable implementation of direct utilisation of geothermal resources. The quality of data available on the resources, coupled with information on potential markets for various applications, is critical to determine the feasibility of such projects. Feasibility studies, built on reliable exploration data, help identify and prioritize projects.

Mapping of geothermal energy resources has been carried out in Iceland, as noted above. In February 2021, the Iceland Drilling Company (operating as Jarðboranir hf. in Iceland) transferred its extensive drilling report collection to the NEEA for the purposes of filing and preservation. The aim is to record and scan the contents of the drill report collection and make it available online eventually, along with other historical information that the NEEA has been publishing recently, such as statistical information regarding the production of energy, use and price of energy and various data on the energy resources already in use in Iceland, along with projected power plant possibilities and even surface temperature far and wide in Iceland.

1. The additional information currently being published by the NEEA is a welcomed addition to the information already available. The most well-known database is without a doubt the "Borehole Register", which contains information on over 14,000 boreholes drilled in Iceland since 1904. The applicable data is publicly accessible and developers of geothermal energy have access to the database.

6.1. Incentives and support

Geothermal projects differ from other renewable energy projects because of how much of the relative risk of the project is present at the earlier stages of the project's development. The upstream/exploration phases, and especially the test drilling phase, can be considered the riskiest parts of geothermal project development. The test drilling phase is much more capital intensive than all the previous phases, while still fraught with uncertainty. Significant investment is required before it is known whether the geothermal resource has enough potential to recover the costs.

Risk-sharing agreements between the public and private sector at the exploration stages can significantly increase the chance of private investment in geothermal energy projects. Iceland can be used as an example of a successful incentive scheme, aimed at minimizing resource exploration risks. In the early 1960s a geothermal fund was established, where municipalities were granted low interest loans covering up to 60% of drilling costs. The loans could be converted into non-repayable grants if the development of a new geothermal field proved unsuccessful.

Another incentive is the Climate and Energy Fund, administered by the NEEA and owned by the Icelandic state. The operations of the Fund are based on Act no. 76/2020 on the Climate and Energy Fund, further outlined in rules no. 185/2016. The Fund grants subsidies for measure that aim to reduce the use of fossil fuels and the exploitation of domestic energy sources instead of fossil fuels, with special emphasis on projects relating to the exploration of geothermal heat. Icelandic citizens and other persons holding the right to produce energy from domestic resources can apply but grants shall not exceed 50% of the estimated costs of a given project. The subsidy portion from the Fund is generally one-third (33%) of the cost, excluding value-added tax.

The Fund grants loans to smaller municipalities and individuals for geothermal drilling as well as grants to individuals and companies to switch from subsidised electricity to geothermal heating. Furthermore, the Fund awards grants to students, university research projects, institutions, companies, and individuals conducting research in the field of environmental and energy issues in Iceland. Previously, the Icelandic Climate Fund provided funding for innovative projects addressing climate-related problems and educational projects about the effects on climate change. Grants for innovation projects are, among other things, intended to support research and development work related to the adoption and implementation of new, environmentally friendly designs and technical solutions. The maximum grant amount from the Fund for an innovative project is ISK 15 million. The fund puts an emphasis on projects that have the potential to be used as widely as possible, with an impact beyond individual companies or other institutions. Now all such grants are provided under one, merged Climate and Energy Fund.

Regulation no. 565/2022 on tax limitation on green properties and other comparable properties gives legal entities permission to calculate a special obsolescence charge on “green assets”, i.e. assets considered environmentally friendly and acquired in 2021-2025. Assets considered to aid renewable energy are subject to a 25% special obsolescence charge and assets connected to the sustainable and environmental use of natural resources are subject to a 13.3% special obsolescence charge.

It has been common practice in the recent years that foreign investors making large investments in Iceland have entered into an investment agreement prior to the power purchase agreement. Approved investment qualifications will qualify for incentives in the form of derogations from taxes and charges, a fixed income tax rate for a period of 10 years as well as exemptions from customs and excise duties on importation. The incentives are thus provided for the investment and not through a Power Purchase Agreement.

7. ENVIRONMENTAL OBLIGATIONS

7.1. Introduction

The utilisation of renewable energy sources in Iceland is generally subject to an environmental impact assessment when such utilisation could have significant environmental effects due to its scope, nature or location. Geothermal power plants and other thermal power plants with an installed capacity power of 50 MW or more are generally always subject to an environmental impact assessment. Regarding exploration, the drilling of production wells and other wells for researching in high and/or low-temperature areas may be subject to an environmental impact assessment depending on the project and whether it is likely to have a significant environmental impact due to its scope, nature or location.

Environmental obligations

A project developer shall notify the National Planning Agency (“NPA”) prior to utilising natural resources and submitting documents, which, for example, contain a description of the project, information on the geographical area of the proposed project and proposed facilities and a description of which parts of the project may have an impact on the environment. If the proposed project is subject to an environmental impact assessment, the developer of the project shall submit a scoping document proposal to the NPA as early as possible on the planning stage and provide information on the project; alternatives that could be considered, and information on how the project will comply with the relevant development plans. Where applicable, countermeasures and other measures intended to be implemented subject to the environmental impact assessment on possible environmental impact, as determined by the provided data, should be introduced.

Utilisation of renewable energy is subject to an environmental impact assessment when such utilisation could have a significant environmental impact due to its scope, nature or location. This applies to the exploration/exploitation and production of electricity regarding every renewable energy source and the first assessment is therefore made as a general comment.

Environmental impact assessments are governed by the Act on Environmental Assessment of Project and Plans No. 111/2021. A project developer shall notify the NPA prior to utilising renewable energy and submit the following documents:

- (a) description of the project (scope and main steps);
- (b) information on the geographical area of the proposed project and proposed facilities;
- (c) information on how the proposed project falls within the plan, proposed facilities and general information on how the project fits within the existing town and country planning;
- (d) description of local conditions, terrain, vegetation and land use, and whether the proposed project is near or on protected areas; and
- (e) description of which parts of the project may have an impact on the environment.

The NPA shall make a decision on whether a project is subject to an environmental impact assessment within seven weeks. If the proposed project is subject to an environmental impact

assessment, the developer shall submit a scoping document proposal to the NPA as early as possible on the planning stage. In the proposal, the developer shall provide information on the following:

- (a) general information on the project;
- (b) the project site and alternatives that could be considered and provide information on the planning of the project site;
- (c) how the project will comply with development plans;
- (d) what aspects of the project and of the environment should be emphasised;
- (e) description of data already available; and
- (f) a plan for making information available and for public consultation.

The scoping document proposal shall be made known to consultation bodies and the general public as well as the NPA. The NPA shall make a decision on the developer's proposal within four weeks after having received the opinion of the licensors and other relevant parties. The public and other parties involved shall have six weeks to comment on the proposed project.

Once this procedure is done and a project developer decides to engage in the project, a report on the environmental impact assessment must be compiled. The substance of the report shall be consistent with the scoping document. Furthermore, the report shall specify the effects, cumulative and synergic, direct and indirect, which the proposed project and concomitant activities may have on the environment and the interaction of individual environmental factors. It shall explain upon what premises the assessment is based. It shall describe the aspects of the proposed project which are regarded as most likely to have an impact upon the environment, including its scale, design and location, compliance with development plans, proposed mitigating measures and proposals for environmental monitoring where appropriate. The main alternatives considered, and their environmental effects, shall always be explained and compared. A non-technical summary shall be prepared describing the report's main findings. The report's findings shall include classification and criteria for the environmental impact of individual aspects of the project, based upon guidelines issued by the NPA.

7.2. De-Commissioning

According to the Act on Natural Resources, the direct terms of the agreements are not regulated and there are no legal obligations for decommissioning at the end of the term. However, the NEEA generally puts forth obligations in the licence itself, including requirements to return the land to its original state and the end of the licencing period.