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# The Law of Iceland as It Affects Geothermal Development

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## ABSTRACT

In Iceland, geothermal resources are governed by general rules of the common law of property but also regulated by provisions of statutory law allowing the State certain control over their development. The right of ownership and use of geothermal resources generally vests in the owner of the land where the resources lie. Accordingly they are largely under private ownership and not necessarily vested in the State unless the State is the owner of the property to which they belong. The depth to which individual ownership of geothermal resources may reach has not been defined by law. Conflicts between adjoining properties are to be settled by appraisal of their rateable interests in the geothermal field.

Geothermal resources may not be separated by sale from the land to which they belong except by permission of the State. In case of sale of the resources or of the land the local municipality and the State have a preemptive right of purchase (at market value). The State has a right to expropriate geothermal resources for public purposes, subject to compensation to the owner by constitutional right.

In electricity production, the pivotal rule is that a parliamentary concession is required to establish power plants, and development is in fact mostly handled through utility corporations owned by the State and/or major municipalities. In space heating, the policy of the law is to entrust development to municipalities, who may be granted a monopoly to operate geothermal heating systems in defined areas, to the exclusion of other means of heating. Development for other purposes (agricultural, industrial) is not as heavily regulated by statute.

The State, acting through the National Energy Authority, has a right to explore geothermal resources wherever situated by drilling or otherwise and generally to supervise their conservation and development.

## INTRODUCTION

In Iceland, the development of geothermal resources for other than household purposes is a 20th-century phenomenon, and the same applies to development in the related field of hydroelectric power. The rules of law specifically designed to affect this development have similarly been devised in this century, chiefly in the form of statutory law enacted by the Icelandic legislature, the Althing. The most important single work of legislation in this respect is the Waters Act of 1923, which still remains basic in the field of hydroelectric development. It dealt less directly with geothermal development, however, and this field was subsequently treated in another legislation, the Act on the Right of Ownership and Use of Geothermal Resources of 1940. This latter Act has since been incorporated into the Energy Act of 1968 and its provisions, with certain amendments, now form a specific chapter thereof.

## BACKGROUND IN PROPERTY LAW

The starting ground for geothermal resource legislation was in the law of property and rights in land, as this stood after the turn of the century. In this field of the law, the principle of private property has always been dominant in Iceland, consistently with a relatively wide distribution of actual land ownership. This has been so virtually since the country was settled 1100 years ago, when the small-freehold farming estate was established as the most basic unit of landed property. In modern times, since a hundred years ago, the principle of private ownership is protected by a constitutional safeguard declaring the right of property to be inviolable and providing that no man shall be forced to surrender his property except in the public interest, pursuant to a requirement of statutory law, and against full compensation.

#### **PUBLIC VS. PRIVATE PROPERTY**

Despite this safeguard, it is and was recognized in Icelandic law that it may be constitutionally lawful to impose limitations on the rights of ownership and use of private property without liability of compensation to the owner, especially if such limitations are embodied in general rules of nondiscriminatory character and do not frustrate developed interests. Thus it is believed that it would have been constitutionally possible in 1923 to legislate that the hydroelectric power potential of the rivers of Iceland should be placed in the public domain and become property of the State. This was proposed and hotly debated at the time. However, the majority of the legislators decided in favor of a somewhat different solution, namely, of leaving the waters of the country in the domain of private ownership, but subjecting their use for power development and other purposes by individual owners to various limitations geared to the interests of the State and of neighboring landowners. The most important limitation as regards energy development lies in the rule that a concession or license from the State is required in order to construct and operate power plants of commercial size.

# SOLUTION FOR GEOTHERMAL RESOURCES

When the legislators a few years later specifically turned their attention to geothermal resources, the same kind of question came up for debate. While the Waters Act had established that surface hot water pools and springs should be regarded as property of the owner of the surrounding land, the further question was whether subsurface water or steam should be placed in the public domain. The legislators again came out in favor of a similar solution, whereby the geothermal resources could be regarded as subject to private ownership and attached to the land above, but also to various limitations in the public interest in the matter of their use and disposal. This time, however, the solution was perhaps less final, in that no attempt was made to define the downward limits to which individual ownership might reach into the earth.

### PRESENT DEBATE

Thus it may be argued that the question is still open to some extent, and that it still may be possible for the State to assert direct ownership over subsurface geothermal resources without compensation to landowners. More particularly, the argument runs to the effect that there obviously must be limits to the depth to which ownership of land can extend for any purpose, and that the reason why such limits have not been fixed in Icelandic law is simply that they have not previously been needed. It is said that the general legal standard is to the effect that the individual landowner's rights only extend as far down as it is necessary to grant them in order to allow him to make such use of his land as falls within the scope of ordinary utilization of real estate. The further contention is that deep-well drilling constitutes an extraordinary utilization of real estate, beyond the technical capacity of the ordinary landowner, and also one which is likely in any case to involve an encroachment upon the similar interests of other landowners.

A law amendment based on arguments of this kind has been under consideration in the Althing in recent years, where it is proposed that the State should assume ownership of all high-temperature geothermal fields, that is, fields where temperatures in excess of 200°C are encountered at depths within 1000 m. The fields of this kind are estimated to contain perhaps 90% of all utilizable geothermal energy in the country. It is not known whether this proposal has a sufficient following to be adopted in the near future. If it is not soon adopted in some form, the proposal may be made obsolete by intervening activity in drilling and development. For practical purposes, however, it is to be noted that many of the said high-temperature fields already are in the control of the State or local municipalities through their ownership of land.

# GENERAL RULE ON OWNERSHIP

In any event, the existing rule as to ownership of geothermal resources in Iceland is set forth in Article 9 of the Energy Act of 1968, which states that every unit of landed property carries with it the right to possess and exploit geothermal heat from the property, subject to such limitations as laid down in the Act. The following Article 10 further explains the scope of the right of exploitation and confirms that it includes exploitation by way of drilling, without any reference to depth as previously mentioned.

## PROBLEM OF NEIGHBORING INTERESTS

Article 11 of the Energy Act provides for the problem arising where a geothermal field is crossed by the boundaries of two or more properties and the field cannot be physically divided for purposes of utilization. The problem is to be solved by an appraisal of the rateable interests of the individual properties in the field, such appraisal to be carried out by experts appointed by the local court of law. Other disputes between the landowners over the right of utilization also are to be settled by such appraisal.

The method of settlement by appraisal of conflicting interests is common in Icelandic property law, for example, with respect to salmon fishing and other exploitation of running waters. However, there is perhaps some question whether it will be satisfactory for purposes of geothermal resources, without further elaboration of ways and means of settlement beyond the mere prorating of the interests. For example, the Act does not directly indicate the manner in which priority problems among the owners should be solved. As it is, I believe that the utility of the provision in case of dispute has not yet been put to a serious test in practice.

## LIMITATION ON RIGHTS OF ASSIGNMENT

The rule that rights in geothermal resources attach to the land where they are situated is coupled with a proviso to the effect that the landowner may not separate the rights from the land by sale or other alienation, except by specific permission of the government (according to Article 12 of the Energy Act). It may be mentioned that similar rules apply with respect to the use of water for irrigation purposes and to salmon fishing rights, under legislation governing in these fields.

Article 12 further provides that if the geothermal resources or the land to which they belong are to be sold or otherwise alienated, to third parties other than the owner's immediate family, the local municipality will have a right of first refusal or a preemptive right of purchase to the property, and that the State will have a right of second refusal. The rule granting first refusal to the municipality falls within a wider rule contained in other legislation, whereby rural districts are given such right with respect to all sales of land within the district. The second refusal of the State, however, is specific to geothermal resources.

As a further limitation, it is to be mentioned that under the Act on the Right of Ownership and Use of Real Estate of 1966, originally adopted early in this century, all assignment of Icelandic real estate to foreign parties requires a concession or license from the Government. This also would apply if necessary to an assignment of geothermal resources.

#### POWERS OF EXPROPRIATION

Under Article 14 of the Energy Act, the Government is granted a general right to expropriate geothermal heat in the public interest for purposes of development or to protect development already existing in the neighborhood. Without such provision, expropriation would have to be based on a special Act of the Althing each time. The said expropriation may result in liability for compensation under the constitutional safeguard previously mentioned.

#### LIMITATIONS ON UTILIZATION

As already mentioned, there exists in the field of energy development the general limitation that a concession from the State is required to construct and operate electric power plants of commercial size. Since 1946, the granting of such concessions for plants in excess of 2000 kW has been reserved to the Althing, from which it follows that the building of such plants is normally based on special legislation each time.

In practice, this principle has been used to favor power development by public rather than private enterprise, partly due to the expense of electrifying the sparsely populated areas, but also for other policy reasons. Through the years, the production and distribution of electric power has been handled mostly by utility corporations owned outright by the State and/or the major municipalities. The production of electric power for heavy industry, which is recent development, has been handled by the largest of these corporations, Landsvirkjun (the National Power Compnay), established in 1965.

As to space heating, the large-scale development of geothermal resources for this purpose was originated by the largest municipality in the country, the City of Reykjavík, on the basis of a special Act of the Althing of 1940. At the present time, the general rules of law pertinent to this development are framed within Chapter V of the Energy Act of 1968. The policy of the Act is to entrust the development of geothermal resources for community space heating to municipalities in the country. Under Articles 27 and 33, the Government may grant to individual or associated municipalities a franchise to operate geothermal heating systems in defined supply areas, and may vest the franchise with a monopoly by providing that all housing within the area must be heated through the system, if this is considered necessary to ensure its financial viability.

Development of geothermal resources for other purposes, such as utilization in industry and agriculture, is not extensively regulated by statutory law specifically relating to geothermal heat. Horticultural use is already widespread, mostly in small farming units. Industrial use is in its infancy, and the only major geothermal facility presently in use is operated by an independent division of the National Energy Authority, to supply steam to a diatomaceous earth process-

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ing plant at Lake Mývatn owned by the Government and Johns-Manville Corporation of the United States. The facility was established under provisions of a special Act of the Althing relating to this plant. However, other facilities similarly established are due to follow very shortly.

## **ADMINISTRATION AND PLANNING**

Under the Energy Act of 1968, the National Energy Authority is established as the institution through which the State exerts its interest in the exploration of geothermal resources in the country and in the supervision of their conservation and development. Among other duties, the Authority is charged with assisting the Government in overall policy-making and planning and in carrying out research for these purposes as well as for specific project developments.

The State, acting through the National Energy Authority, has a right to explore geothermal resources wherever situated, by drilling or otherwise. The Authority operates a drilling division as an independent concern under its auspices.

#### FINAL COMMENTS

This short excursion into the law of Iceland relating to geothermal development will not afford a very complete view of our way of arranging things in this field, nor any thorough analysis of the question whether we have been arranging them in the best possible manner. I have referred somewhat extensively to a certain paradox in the law, namely, of favoring private property in land as the basic indicium of ownership of geothermal resources, while favoring public enterprise in the matter of their exploitation, at least for utility purposes. I should perhaps conclude by stating that I do not believe that this arrangement has resulted in any material hindrance to this date in terms of progress in development. On the one hand, the public utilities have been able to cope with the cost of acquiring possession of the resources needed for development, and on the other hand, the time has not necessarily been ripe for major undertakings in exploitation by private enterprise. The arrangement may well remain the best for the future, but we may also find reason to consider alternatives in both areas.