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The Establishment of a Regulatory Framework for Renewable Energy in Djibouti

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ABSTRACT

The ambition of the Republic of Djibouti is to become the first African country where 100% of the country's energy production is from green energy sources. Renewable energy sources are diverse and varied, ranging from solar and wind power to geothermal energy. The Djiboutian government's development plan provides for the implementation of projects from different sources of renewable energy, distributed as follows: wind, geothermal and solar. These projects will be implemented through public and private funding, with emphasis on power purchase agreements. Ownership of the resources will be marketed by the State, although the rights of use and development of a power station may be granted to an independent energy producer for a certain period, with the possibility of extension. The goal of the Djiboutian government is to regulate the interaction of humans with their environment, in order to make sure that the Djiboutian ecosystem can develop according to its own laws and ensure the preservation of its exceptional or historical aspects. Thus, the legal framework for geothermal energy is being established with the support of UNDP and the Government of Djibouti, and the same will apply to other renewable energies. As part of these preparations, Djibouti has already put in place a legislation in respect of Independent Power Producers (IPP's) and is preparing to implement a regulation to apply the provisions of the IPP legislation. Furthermore, BBA//Fjeldco, along with subcontractors Reykjavik Geothermal, ÍSOR and Verkís, have been selected to put into practice an institutional and regulatory framework for geothermal energy in Djibouti, as well as potentially for other sources of green energy, with the purpose of increasing the understanding and importance of the renewable energy sector for the country's economy and social wellbeing.

1. INTRODUCTION

The economy of the Republic of Djibouti ("**Djibouti**") has started growing at a steady pace and the energy sector has a pivotal role to play in the country´s economic and social progress. Electricity supply shortages presents a serous development bottleneck. Demand for electricity is increasing rapidly, owing mainly to accelerated development in the port activities of Djibouti. The nation's dependence on fossil fuels power plants and imports from neighboring Ethiopia has increased the country´s vulnerability to unpredictable energy supply. As a result, extensive load shedding is expected and will hinder both the government´s plan to increase industrial activities and social development. Thus, the Republic of Djibouti is now looking to diversify and expand its generation capacity with clean energy sources, as articulated in its Vision 2035 national development plan. The planning strategy aims to place the country on a sustainable development pathway by strengthening the country's human capital, developing its private sector and reforming its systems of governance. Vision 2035 acknowledges the importance of energy as a crucial input to economic development and has made energy access and energy security a strategic focus.

Djibouti is endowed with ample energy resources, considered enough for the size of its population and the scale of its economic activities. The country has significant geothermal energy resources for generating electricity. It also has some excellent wind energy sites as well as good solar energy resources. These can be successfully harnessed for power generation and for other energy services like water pumping and micro generation to meet urban and rural energy needs. Djibouti thus can take advantage of the recent technical advances in clean energy technologies and significant reduction in their cost to meet its growing energy demand.

The Government of Djibouti ("**Governmen**t") was allocated grant funds from the United Nations Development Program. The funds were, and are to be, used for consulting services and are to be executed by Djiboutian Office of Geothermal Energy Development ("**ODDEG**"). In early 2018 a request for proposal was addressed to shortlisted consultants, including BBA//Fjeldco, an Icelandic law firm with extensive experience in energy and geothermal related projects ("**BBA//Fjeldco**"). Certain expertise requirements were mandatory, and the consultants were required to have a skilled, knowledgeable and sufficient experience in geothermal resource development, energy projects, energy sector policies, strategies and power system planning, as well as legal and regulatory issues related to geothermal energy and institutional set-up of energy sector key actors. The object of the shortlisted consultants was to prepare a holistic legal and regulatory framework for geothermal energy in Djibouti ("**Project**"). BBA//Fjeldco submitted a Technical Proposal as well as a Financial Proposal along with its' sub-contractors. The sub-contractors are three Icelandic entities, Reykjavik Geothermal, ÍSOR and Verkís, each with extensive expertise requirements necessary for the development and execution of the Project.

The proposal from BBA//Fjeldco was, with reference to a Quality and Cost Based Selections procedures, selected by the Government to provide services relating to the preparation of a legal and regulatory framework for renewable energies in Djibouti. With a Terms of Reference, ODDEG and BBA//Fjeldco agreed on certain objectives of the consultancy provided, scope of work, expertise requirements and deliverables and timeframes. The main objective of BBA//Fjeldco was to assist the Government to develop a robust systematic plan of geothermal resource development and prepare geothermal legal and regulatory framework. The scope of BBA//Fjeldco´s work, according to the Terms of Reference, was divided into three parts; (i) to review the existing policies and regulations as a basis for preparation of the legal and regulatory framework, (ii) prepare a draft geothermal bill and (iii) prepare the geothermal legal and regulatory framework.

This Article provides an overview on the process of development and preparation of a holistic geothermal legal and regulatory framework in Djibouti and the cooperation between the Government of Djibouti, local advisors and experts in Djibouti as well as the involvement of BBA//Fjeldco and sub-consultants in Iceland.

2. METHODOLOGY AND PROJECT STRUCTURE

2.1. Objective of the project structure

BBA//Fjeldco´s energy team has extensive and relevant experience and know-how of working in the field of geothermal energy and heating. This includes working with developers, sponsors, banks, drilling companies, administrative agencies and governments on projects in countries such as Iceland, the Philippines, Djibouti, China, Germany, USA and Ethiopia. By working on these various projects, BBA//Fjeldco´s energy team has gained valuable insight into what components a successful legal and regulatory framework for geothermal projects should possess.

These components are first and foremost of a nature that protects the utmost interest of the national government and local municipalities in question. Furthermore, project developers, financial institutions, contractors and investors consider the quality of the legal and regulatory framework as being essential when assessing the competitivity of a country for a geothermal project. Therefore, the legal and regulatory framework should be trusted by market players to foster foreign investment and to attract independent power producers. Also, the framework should ensure that in-depth knowledge is gained concerning the area in question, ensure that knowledge is shared, permit holders have proper capacity (technical and financial as deemed necessary), ensure that areas are treated correctly and with regard to the nature and position of the resource, rights of developers to relinquish areas as well as for the government to repossess areas should initially defined criteria no longer be met by parties driving such projects or time limits have lapsed (making way for new interested developers). Finally, it is of the utmost importance that the legal and regulatory framework for geothermal energy be perfectly aligned with the energy policy adopted by the Government, in order to ensure efficient implementation of that policy. Emphasis shall also be put, both at primary legislation and regulation levels, on sustainability and on environmental and societal aspects of the development of geothermal projects in Djibouti. The legal and regulatory framework will also strive to achieve satisfactory security of power supply.

All the components listed above were further outlined in a Technical Proposal submitted by BBA//Fjeldco and following a review from the Government of Djibouti and ODDEG, it was clear that parties had a mutual understanding of the main objectives of the new legal and regulatory framework for Djibouti. It was of the utmost importance to attract as many experienced and financially capable developers and financiers as possible to be involved in future geothermal power development in Djibouti, and a clear and transparent regulatory framework for the development of geothermal resources can play an important role in attracting developers and investors.

Clear and transparent communications between BBA//Fjeldco and ODDEG were important to the work carried out on both sides in relation to the Project. Draft documents and reports were prepared by BBA//Fjeldco in English and translated to French to ensure that all those involved had a complete overview and understanding of the work taking place. In addition to written communications and reports prepared, BBA//Fjeldco, the Government and ODDEG held regular online meetings to further discuss the standing of the Project and strategic planning of next steps. Within the Government and ODDEG, a further policy formulation was additionally carried out to ensure that the legal and regulatory framework would be in line with the energy policy adopted by the Government.

2.2. Approach and methodology

2.2.1. Reviewing existing policies and regulations

As a preliminary to the definition and design of a legal and regulatory framework in Djibouti, it was crucial to carefully review the National Energy Policy and the legislation and regulation currently in place. The first assignment carried out by BBA//Fjeldco could be reviewed as a due diligence, the purpose of which was to identify and analyse the shortfalls, barriers and challenges of the current policies, legislation and of ODDEG's geothermal development strategy. The purpose of the due diligence was also to point out the qualities of the existing legislation and policies and to identify and analyse the provisions that will remain in the new legal and regulatory framework.

The review carried out was focused on the policies and acts relating to (i) electricity, (ii) environment, (iii) water and agriculture, (iv) rural development, (v) petroleum, (f) finance, (g) land, (h) mining, (i) procurement, (j) public private partnerships and (k) other national industry reform strategy and roadmaps. The review also focused on existing institutional set up for geothermal development in order to identify possible gaps and barriers. In addition to the review of the Djiboutian legislation and policies, the due diligence focused on the analysis of best practices adopted in the region, Africa and other parts of the World. As suggested, BBA//Fjeldco conducted a comparative study of licensing frameworks in various jurisdictions with fairly developed systems for geothermal harnessing. The object of the comparative study was to provide a platform to review the best elements from each jurisdiction and included a review of the legislation adopted for geothermal energy in countries having a legal system similar to the Djiboutian system, e.g. France.

In order to ensure that the new legal and regulatory framework would foster the creation of a competitive energy sector and meet the expectations of the market players, it is equally important to understand the power sector in Djibouti. The sub-contractors, Reykjavik Geothermal, ÍSOR and Verkís therefore carried out a review of the power sector in Djibouti. Such review was based on, amongst others, context assessments, existing literature on geothermal technology and resource development and consultations with local, regional and international stakeholders.

2.2.2. Inception Report

The review described above gave rise to a report identifying and analysing the issues to be addressed in the new legal, regulatory and institutional framework and describing the structure and content of the new legislative and regulatory package, the institutional

framework and the implementation strategy (the "**Inception Report**"). The Inception Report was used as the first milestone for the consultation process.

The Inception Report was made up of the following chapters:

1. Djibouti´s National Energy Policy and Existing Applicable Legal and Regulatory Provisions
2. Djibouti´s Energy Supply and Future Energy Demand
3. Energy Market and Available Infrastructure for Energy Production
4. Structure of Public Decision making in the development of Djibouti´s energy resources
5. Overview of the geothermal prospects and development in Djibouti
6. Challenges for geothermal development
7. Prospect strategy for regulatory development of geothermal activities
8. Conclusion

The drafting of the Inception Report was a great co-operation between BBA//Fjeldco, ODDEG and the sub-contractors, as each party had its own input in different chapters and provisions of the report. As a result, the report provides an excellent summary of the current structure and standing of energy related matters in Djibouti, prospects and challenges for geothermal development as well as an overview of the existing applicable legal and regulatory provisions.

The Inception Report included a chapter on proposed strategy for regulatory development of geothermal activities in Djibouti but the legal and regulatory provisions governing geothermal activities need to encompass the various stages of geothermal development, such as identification of the reservoir, resource assessment and surface exploration, pre-feasibility study and pre-development, development and execution, operation and decommissioning. Furthermore, for such legal and regulatory provisions to facilitate investment from private (local as well as international) developers, with the aim of making use of the existing geothermal reservoirs in an environmentally friendly, economically sustainable and socially acceptable way, these legal and regulatory provisions need to protect the interests of the various parties involved. The parties involved are mainly (i) the state; (ii) developers; (iii) lenders/sponsors/investors; (iv) landowners; (v) indigenous peoples and (vi) other project-affected parties.

The Inception Report set out the main principles of the approach to be taken in a new geothermal act and related regulations as suggest by BBA//Fjeldco and the sub-contractors with reference to previous experience and project development, as well as certain changes that were foreseen that needed to be made to other law affecting the procedure from the identification of the reservoir to the decommissioning of the project. The Government and ODDEG were responsible for writing an introduction to Djibouti´s legal environment, the National Energy Policy and applicable legal and regulatory provisions. Furthermore, the Government and ODDEG provided information on the general structure of public decision making and special provisions applicable to decision making relating to energy resources. BBA//Fjeldco and sub-contractors reviewed Djibouti´s energy supply and future energy demand, including the current energy production, installed capacity and access to energy, reviewed the energy market in Djibouti and available infrastructure for energy production. Additionally, the Inception Report holds an overview of geothermal prospects and development in Djibouti, including geology and geodynamics, history of geothermal development and description of identified geothermal sites.

All this was reviewed as necessary steps to be taken in order for BBA//Fjeldco to be able to submit proposed strategy for regulatory development of geothermal activities in Djibouti as it was essential for strategy making to have a deep understanding of the issues outlined above. In the Inception Report, BBA//Fjeldco proposed the first strategy for regulatory development, securing the interests of all parties involved, and provided a summary of proposed changes to the existing regulatory environment.

2.2.3. First Consultation Report

Once the Inception Report had been reviewed and the strategy for regulatory development approved by the Government and ODDEG, BBA//Fjeldco started working on a second report called the First Consultation Report, proposing certain strategy for the development of regulatory framework for geothermal activities in Djibouti ("**First Consultation Report**"). As previously stated, one of the objectives of the review carried out by BBA//Fjeldco was to focus on the analysis of best practices adopted and to propose a highly functional legal and regulatory framework for harnessing geothermal energy for electricity production and direct use.

It was necessary that the legal and regulatory framework would put a primary focus on protecting and securing the interests of the state of Djibouti and its people in relation to the harnessing of the country's energy resources. This general principle had to be applied throughout the legislative proposal and the regulatory provisions and will, amongst others, apply in terms of:

- Securing that Djibouti's geothermal resources are utilized for the benefit of Djibouti and its people by, amongst others, allocating the ownership of the resource in line with the general principles of the constitution and national laws on public and private property;
- Access to resources being provided only to competent and qualified parties through appropriate selection procedures;
- Knowledge of the resources being properly obtained and shared;
- Development of know-how and research concerning the resources being secured;
- Sufficient and appropriate monitoring of all activities of public and private developers being ensured;
- Requirements for environmental- and social impact assessments being clear and sufficiently monitored;
- Creating a transparent and efficient legal and regulatory framework which attracts investors;
- Public intervention being guaranteed in cases where private developers do not comply with the provisions of licenses granted for geothermal activities;
- Security of supply, cost competitiveness and sustainability being ensured;

- Electricity and/or other outputs from the development of geothermal resources in Djibouti, first and foremost serving the interests of the people of Djibouti and the neighboring communities within the resource area;
- Securing that the state receives sufficient and adequate proceeds from the development of geothermal resources; and
- The duration of permits being sufficient and adequate and the access of the state to the resource being guaranteed at the end of the permit period, in line with the general principles of the constitution and national laws on public and private property.

However, in order to facilitate geothermal research and possible geothermal utilisation in Djibouti it is also necessary that developers, investors and financiers, both domestic and foreign, are willing to incur the risks of developing geothermal resources in Djibouti. It is therefore necessary to secure their interests and aligning them with the interests of Djibouti, especially in terms of:

- Granting permit holders a sufficiently defined access to the resource, through a clear and transparent procedure;
- Clearly defining rights and obligations of permit holders and the role of applicable administrative bodies, including rights and obligations relating to how the resource can/shall be managed and operated and monitored by administrative bodies;
- Clearly defining rights (as well as obligations) to relinquish areas and/or permits;
- Clearly defining fees and or levies and the payment thereof;
- Clearly defining what progress needs to be made on various stages of project development, including under which circumstances any permits will become exclusive for production of electricity, heating/cooling or other outputs;
- Clearly defining rights and/or obligations as regards any auxiliary resources resulting from harnessing a geothermal resource;
- Clearly defining the regime of protection of foreign direct investments;
- Clearly defining the taxation of geothermal energy projects;
- Ensuring that lenders are able to take valid and enforceable security and guarantees over project assets; and
- Defining clear venues for resolution of any disputes and the sufficient enforcement of any dispute resolutions.

The Inception Report included an outline for the draft geothermal act ("**Geothermal Act**") and the supporting regulatory framework. The geothermal regulatory framework needed to cover the whole geothermal energy sector from the entry point of research, prospecting, exploration drilling to energy production, legal guarantees and security of investment and incentives as well as tariffs and/or power purchase agreements. The First Consultation Report included a summary of chapters, and their main provisions, which were expected to be the backbone of the Geothermal Act. Each chapter was outlined, and the main focus points of each chapter explained. Some summary chapters included a reference to the objective of the chapter and/or certain issues that needed to be reviewed by ODDEG and the Government from a constitutional standpoint, including for example ownership of resources and the right of private landowners to hold title to any potential sub-surface geothermal resources. Furthermore, a summary of the provisions likely to be included in each chapter were listed.

In addition, the First Consultation Report included a short summary of the support regulatory framework but in addition to the Geothermal Act a supporting secondary regulatory framework was needed. This new regulatory framework was set to provide regulations relating to exploration and production permits, concessions, administrative procedures and other provisions implementing the principles set forth in the primary legislation. The supporting legislation was, from the beginning of the Project, considered necessary to provide a more detailed description of the technicalities behind the licensing procedure, in line with best practice procedure.

With the enaction of a new geothermal act, it will be necessary to consider amending current legislation in Djibouti affecting geothermal activities, in order to ensure that (i) there is no overlap between the provisions of an eventual geothermal act and other laws; and (ii) to ensure that provisions in other laws do not undermine the strategy of attracting investment in geothermal activities in Djibouti. Furthermore, it could be necessary to create special laws on certain matters, for the same purposes. The First Consultation Report included an overview of the existing legislation that needed to be further reviewed in order to support the objectives and goals of the new Geothermal Act.

Finally, the First Consultation Report included a roundup of the need for a certain administrative body, designated as the licensing and supervising authority for geothermal operations in accordance with the applicable provisions of the Geothermal Act. When implementing a framework geothermal legislation, some countries have established a specific institution to fast track geothermal resource development. This one institution is often responsible for all aspects of geothermal licensing and monitoring as well as acting as a supervisory authority. In other countries, several administrative bodies can be involved in the licensing and developing of geothermal resources, and each body may have its own part of the licensing and/or monitoring duties. When looking at the administrative structure in Djibouti, taking into consideration the holistic legislation proposal and best practice, it had to be considered whether it was necessary to establish a separate public entity responsible for the process of applications relating to geothermal operations and the monitoring and surveillance process or if the role of ODDEG should be extended. The First Consultation Report included a summary of the authority of the licensing and supervising authority as well as a reference to appeal process of administrative decisions made by the administrative body, providing all those involved in the Project with information to discuss and review when deciding what would be the best approach for the government and the public of Djibouti.

3. GEOTHERMAL ACT AND REGULATION

3.1. Introduction to the Geothermal Act

Following a review of this First Consultation Report as well as the Incentive Report by all relevant parties and stakeholders in Djibouti, and after BBA//Fjeldco and ODDEG had agreed on the principal approach and strategy in the creation of the framework, BBA//Fjeldco moved forward with preparing a first draft of the Geothermal Act. With reference to the recommendations and identification of the general principles to be included in the primary legislation, and with reference to the conclusions drawn from

the due diligence process, it was decided that the new geothermal act should be standalone statue containing a majority of the provisions relating to the exploration and licensing process of geothermal energy. However, as a part of the work carried out by the Government in relation to the Vision 2035 national development plan, the Government has in recent years passed legislation that greatly affect the Geothermal Act, including the IPP Act no. 88/AN/15/7ème L, regulating the activities of independent power producers, and the PPA Act no. 186/AN/17/7ème L on Public Private Partnerships. When drafting the Geothermal Act, it was necessary to ensure that the Geothermal Act highlighted and function alongside legislation affecting geothermal activities and electricity production already in place. As a result, the Geothermal Act focuses on certain issues relating to the first steps necessary when entering into geothermal operations in Djibouti but makes a reference to the IPP Act and the PPA Act, where applicable.

3.2. Summary of the provisions of the Geothermal Act

The Geothermal Act is divided into the following 10 chapters and below is a short summary of the main provisions of each chapter, providing an overview of the main provisions of the Geothermal Act.

3.2.1 Chapter 1 – Objectives, definitions and scope

The objective of the Geothermal Act is to facilitate the reconnaissance, exploration and utilisation of geothermal resources and ensure that the geothermal resources are carried a sustainable, and an environmentally and socially responsible manner as well as to ensure that to ensure that generation based on geothermal resources will support the generation and delivery of electricity for local consumption. Chapter 1 includes a detailed section on the definitions used in the Geothermal Act, but defining the main concepts and terms for the Geothermal Act was an extremely important factor in the drafting process as a clear terminology is necessary to secure that the provision of the Geothermal Act will be clear and understandable. Additionally, it was important to the define the scope of the Geothermal Act and the act applies to geothermal operations performed by both public and private parties within the territory of Djibouti.

3.2.2 Chapter 2 – Ownership of resources and sustainable use

Chapter 2 of the Geothermal Act provides a policy reference to the ownership and use of geothermal resources. According to the chapter, all geothermal resources are the property of Djibouti. and geothermal resources shall be utilised in a sustainable manner and shall avoid, to the extent possible, unreasonable activities affecting the environment and aim to promote the sustainability of geothermal resources.

3.2.3 Chapter 3 – Access to geothermal resources

Chapter 3 of the Geothermal Act includes provisions relating to access to geothermal resources and the need for permits for geothermal operations, as all geothermal operations are subject to a permit from the licensing authority. In order to secure access to private land, for the purpose of geothermal operations, the licensing authority has the authority to initiate expropriation proceedings in accordance with local legislation in Djibouti. Chapter 3 furthermore includes provisions on the owner of private land, compensation to owners of private land if the land is to be used in relation to geothermal operations and limitation on the owner´s authority to prevent access to his or her land.

3.2.4 Chapter 4 – Licensing authority and institutional structure

Chapter 4 of the Geothermal Act includes a summary of the general responsibilities of the licensing authority responsible for the procedure of issuing permits in respect of any and all geothermal operations as well as the renewal and revocation of permit as well as an overview summary of licensing authority´s main powers and duties. The chapter includes a reference to the fact that all issuing of permits shall take place in an equitable and transparent manner, through appropriate licensing procedures.

3.2.5 Chapter 5 – Issue and substance of permits

Chapter 5 of the Geothermal Act includes provisions relating to the types of permits available for geothermal operations, the issue and substance of each type of permits as well as general rules applicable to the permitting procedure, i.e. how and where and application shall be submitted, in what form and how permits shall be issued. With reference to applicable legislation in Djibouti, namely the IPP Act and the PPA Act, there are a total of five different types of permits available for geothermal operations; (i) a reconnaissance license, (ii) an exploration license, (iii) a direct use permit, (iv) license on private initiative for generation and (v) generation concession. The provisions of chapter 5 provide information on each type of permit, the applicable duration and possible extensions and permitting procedures. Furthermore, the chapter provides information on permits can be extended and right to continue geothermal operations. Additionally, where any by-products are obtained as a part of utilisation of geothermal resources, the holder of a permit previously issued by the licensing authority can reclaim the by-products for further use or commercialization, following rules set forth in chapter 5 of the Geothermal Act.

3.2.6 Chapter 6 – Monitoring of permit holders and permit areas, disclosure requirements of permit holders and handling of information

Chapter 6 of the Geothermal Act includes provisions on disclosure requirements of a permit holder during the period of the permit as well as at the end of a certain permit period and the obligation of permit holders to submit reports, including geological samples and other relevant information. With reference to Chapter 6 of the Geothermal Act, provisions are in place to secure the confidentiality of certain information but also to ensure that the licensing authority can fulfil regulatory requirements relating to the issuing and disclosure of information.

3.2.7 Chapter 7 – Transferability and revocation of permits and suspension of operations of the permit holder

Chapter 7 of the Geothermal Act includes provisions on the possibility to transfer permits and what the licensing authority must do prior to allowing the transfer of a permit. The chapter further includes provisions on the possibility to hypothecate or pledge permits as security for any financial obligations as well as the possibility to hypothecate or pledge the equity of the holder of a permit previously issued, including the allowed transfer and the actions to be taken by the licensing authority prior to approving hypothecation or pledge. Finally, chapter 7 contains information on the revoking of permits and suspension of geothermal

operations if a permit holder does not comply, or fails to comply, with conditions of the applicable permit and the effective legislation.

3.2.8 Chapter 8 – Decommissioning

Chapter 8 of the Geothermal Act describes the process of decommissioning of geothermal operations and includes provisions on the process which commences once a permit has terminated, whether it has expired or has been revoked. It is an important step in legislation drafting to include provisions on the decommissioning of operations and for the government in question, in this case Djibouti, to form an opinion on the government's involvement following termination of a permit. Chapter 8 provides the licensing authority in Djibouti to acquire all immovable and movable property but if they do not elect to acquire the property the licensing holder can transfer the property and installation to a third party or remove all properties and installations from the area in question. If the holder of a permit does not fulfil his obligation according to the provisions of chapter 8, the licensing authority has the authority to sell all movable and immovable properties at an auction.

3.2.9 Chapter 9 – Fees, taxes and custom duties

Chapter 9 of the Geothermal Act provides the licensing authority with the necessary permission to collect fees in respect of issuance of all permits and renewal of permits. Furthermore, the chapter provides the licensing authority with the tool to negotiate with each permit holder on certain incentives, reductions and/or exception from custom duties, taxes or levies, as necessary to attract foreign investors and developers, ensuring the function of the Geothermal Act. All income of a permit holder arising in connection with utilisation of geothermal resources shall be subject to a payment of a natural resource fee, which shall represent a certain percentage of the total income of the permit holder arising from the utilisation.

3.2.10 Chapter 10 – Miscellaneous provisions

Finally, chapter 10 of the Geothermal Act includes a number of miscellaneous provisions, including provisions on the liability of the permit holder, what happens in case of violations of the provisions of the Geothermal Act, dispute resolution and validity of permits or authorizations issued prior to the entry into force of the Geothermal Act.

3.3. Summary of the provisions of the Geothermal Regulation

When drafting the Geothermal Act, the objective was from the start to ensure that the Geothermal Act was clear and compact and understandable both for the public of Djibouti as well as foreign and domestic developers, investors and others involved in geothermal operations. As a result, the Geothermal Act includes a number of references to a geothermal regulation. With reference to the definitions of the Geothermal Act, the geothermal regulation sets forth details of the matters covered in the Geothermal Act, including (but not limited to) procedures for the granting of permits and terms of permits, permit Fees, access to permit Areas and geothermal resources, geothermal operations (including drilling and exploration drilling), monitoring and surveillance of geothermal operations and permit holders, data collection, amendments and revocations of permits ("**Geothermal Regulation**"). The Geothermal Regulation provides, among others, for a detailed description of the role, powers and finances of the Licensing Authority, details on the application procedure for permits and the rights and obligations of permit holders.

The Geothermal Regulation is additionally a much more technical document, providing technical information, definitions of successful reconnaissance and exploration activities and the information requirements which a permit holder must fulfil from a technical and operational standpoint.

With the Geothermal Act providing a general overview of provisions relating to the exploration and licensing process of geothermal energy, the Geothermal Regulation can in the future be amended to reflect up-to-date technology, equipment and operations, as the regulation can more easily be amended.

4. CONCLUSION

The process of development and preparation of a holistic geothermal legal and regulatory framework in Djibouti has been a great cooperation between the Government of Djibouti, ODDEG and BBA//Fjeldco, in addition to invaluable assistance received from both local advisors in Djibouti and sub-contractors in Iceland. The partnership between the parties has provided all those involved with further and deeper understanding of what it takes to draft a legal and regulatory framework and ensure that the interests of the state of Djibouti and its people, as well as the interests of developers, investors and financiers, both domestic and foreign, are additionally taken into consideration.

At, or around, the time of publication of this paper it is the hope of both authors, who have been highly involved in the process through every step of the way, that the Geothermal Act has entered into force in Djibouti and that Djibouti will be one step closer to its goal of becoming the first African country where 100% of the country's energy production is from green energy sources. The Geothermal Act will hopefully serve to expend and strengthen the electricity generation capacity in Djibouti for years to come, as articulated in its Vision 2035 national development plan, and place the country on a sustainable development pathway. Our hope is that foreign investors and developers will review Djibouti as a prominent country for geothermal operations, based on a strong and stable legal and regulatory framework for geothermal operations ensuring the electricity production for future generations.

REFERENCES

This paper is, as of today, a summary of the co-operation between BBA//Fjeldco and ODDEG and the work that has taken place. To be reviewed if necessary to include references.