



**GEOTHERMAL DEVELOPMENT FACILITY
FOR LATIN AMERICA**

DEVELOPERS' MANUAL

Version 25.0

Effective Date: May 2, 2022

Beginning with Call 7

Disclaimer: This version supersedes all other versions preceding this Effective Date.

Warren T. Dewhurst, Ph.D., P.E.
Lead Geothermal Project Manager
IDA Fund Management, LLC/GDF
c/o Interlink Capital Strategies
675 N Washington St. #340
Alexandria, VA 22314
United States of America
Phone: [+1 301-916-8996](tel:+13019168996)



Federal Ministry
for Economic Cooperation
and Development

KFW



IDA
Fund Management

Powered by IDA Fund Management, LLC

@ 2021 GDF





NOTICE A
Developers' Manual v25.0
Important Changes to the Developers' Manual
Beginning with Call 7
May 2, 2022

There are several important changes to the Geothermal Development Facility for Latin America that significantly impact the application process as well as the award of grants. All potential applicants should read this notice and be aware of the impact. If in doubt, then please contact the Fund Manager through the website link or directly for clarification.

Eligibility of expansion projects. Expansion or growth of an already existing geothermal power plant can be defined as either type a.) projects designed to add additional capacity to the existing plant and therefore increase overall plant capacity or b.) projects to compensate for a reduced performance of the existing power plant.

GDF eligibility criteria for expansion projects:

To be in compliance with the GDF objective and its donors, only expansion projects defined as type a. (above) will be eligible. Further, those projects must comply with the following criteria:

- 1.) A new Special Purpose Vehicle (SPV - i.e., company) must be established for the proposed expansion project.
- 2.) Additional capacity (MWe) must be installed on site. In order to verify that new drillings add new capacity and do not compensate for reduced performance, operational data of the existing power plant will be submitted by the applicant and reviewed by the Fund Manager.
- 3.) Exploration risk must be demonstrated (meaning the additional capacity comes from a new geothermal reservoir).
- 4.) If the project is successful, based on the existing success criteria, 100% repayment of the grant is required as per the grant agreement.

Application Process for Surface Study and Drilling Grants. Call 7 may be the last opportunity for applicants to submit for surface study grants. Furthermore, until further notice, the application process for a surface study grant has been changed to a one-stage process.

Applicants for surface study grants do not need to apply at the Expression of Interest (EOI) phase and only need to notify the Fund Manager of their intent to make an application for a surface study grant. Notification should be made within the pre-EOI survey (<https://gdflac.com/expression-of-interest/>).



Geothermal Development Facility (GDF) Developers' Manual



Without proper notification to the Fund Manager, an applicant will not receive the links needed to complete the Call for Proposal (CFP) application.

The two-stage (EOI and CFP) process has been preserved for applicants applying for drilling grants. As always, applicants that have passed through the EOI stage on a prior call are automatically eligible to apply at the CFP stage; those applicants do not need to submit a new EOI. However, if the project or ownership of the project has changed then a new EOI should be submitted, since it is materially a different project.

Know Your Client (KYC): As a reminder, the GDF follows the spirit and intent of the World Bank Group and the International Finance Corporation (IFC). Please remember that all applicants must complete an integrity questionnaire documenting certain aspects of their businesses and beneficial owners at the time of both the EOI and the CFP. The purpose of KYC is to better understand the structure of the applicant, the beneficial owners, and other material information that may impact the applicant's submission. The form and questions are identical for both the EOI and the CFP and can be found in the Developers' Manual.

These changes are effective on May 2, 2022, with Call 7. Notice A shall prevail when and if an interpretive conflict or potential conflict exists between Notice A and the Developers' Manual.



Contents

Contents 4
Table of Figures 7
Table of Tables 8
Acronyms and Abbreviations 9
Overview on the GDF 11
Background 11
Objective of the Facility 13
Purpose of the Developer Manual 13
Facility Extent 13
Fund Administration 14
Financial Support 15
Surface Studies Grant 15
Drilling Grant 15
Eligibility 16
Eligible Countries 16
Eligible Entities 17
Eligible Activities 17
Eligible Costs 19
Eligible Costs for Surface Studies 19
Eligible Costs for Drilling Program 20
Non-Eligible Costs 21
Early Contracting 22
Application & Evaluation Procedure 23
Application Sign-Up 24
Stage 1: Expression of Interest (EOI) 24
Stage 2: Call for Proposal 24
Language 24
Information Workshops 24
Open "Rolling" Enrollment Pre-EOI Sign-Up 24
EOI - Evaluation Procedure 25





Geothermal Development Facility (GDF)
Developers' Manual



Evaluation Criteria EOI – Surface Studies 25
Evaluation Criteria EOI – Confirmation Drilling..... 26
Stage 2: Calls for Proposal (CFP) 28
Application – Drilling Programs 29
Evaluation Criteria CFP – Surface Studies 30
Evaluation Criteria CFP – Confirmation Drilling 32
EOI and Application Contents 35
Grant Award..... 35
Grant Disbursement..... 35
Disbursements - Surface Study 36
Disbursements - Drilling Program 37
Repayment - Drilling 38
Repayment Criteria 38
Repayment Timeline 39
Third Party Consultant for Well Test Evaluation..... 39
Test Procedure 40
Procurement Plan 40
Monitoring and Reporting 41
Requirements for Surface Studies 41
Requirements for Drilling Programs 42
Information and Communication 44
Confidentiality and Data Protection 44
Environmental and Social Standards 45
The Developer's Responsibilities 45
IFC/WB EHS Guideline on Power Transmission and Distribution 45
Environmental and Social Risk Management 46
Stakeholder Engagement..... 46
Indigenous People, Free Prior and Informed Consent (FPIC) 47
Surface Study Phase..... 47
Environmental and Social Documentation Requirements..... 47
Completion of Surface Studies: Scoping Report 48





Geothermal Development Facility (GDF)
Developers' Manual



Reporting during Surface Study Phase..... 49
Exploration Drilling Phase..... 49
Environmental and Social Documentation for Application 49
Timeline Monitoring Process 51
Surface Studies – Procurement Option 1..... 51
Surface Studies – Procurement Option 2..... 52
Confirmation Drilling – Procurement Option 1..... 54
Confirmation Drilling – Procurement Option 2..... 55
Know your Client (KYC) 58



Table of Figures

Figure 1. Project and Funding Processes. 12
Figure 2. Fund Organization..... 14
Figure 3. Eligible countries and location of main offices for the Fund Manager..... 16
Figure 4. Application procedure summary and timeline. 23
Figure 5. Repayment timeline..... 39
Figure 6. Table Indicating timeline of Environmental-Social Impact Report completion and submittal.... 42
Figure 7. Table Indicating timeline of Monthly, Well Testing and Integrated Resource Report completions and submittals..... 44
Figure 8. Surface Study Environmental Social reporting requirements. 49
Figure 9. Drilling Environmental Social reporting requirements. 51
Figure 10. Timeline Option 1 - Procurement Plan. 57
Figure 11. Timeline Option 2 - Procurement Plan. 58



Table of Tables

Table 1. Surface Study Evaluation Criteria.....	25
Table 2. Exploration Drilling Evaluation Criteria.....	27
Table 3. Surface Study Evaluation Criteria Application.....	30
Table 4. Drilling Grant Evaluation Criteria.....	32
Table 5. Disbursement triggers Surface Studies.....	37
Table 6. Disbursement triggers Drilling Program.....	37
Table 7. Reports required for review and assessment.....	41
Table 8: Know Your Client Integrity Questionnaire.....	59



Acronyms and Abbreviations

AfD: Agence Française de Développement (French Development Agency)

AoI: Area of Influence

AWC: Anticipated Well Cost

CABEI: Central American Bank for Economic Integration

CAF: Development Bank of Latin America

CNO: Certificate of No Objection

CFP: Call for Proposal

DFI: Development Finance Institutions

DR: Drilling

EBRD: European Bank for Reconstruction and Development

EHS: Environmental and Health and Safety

EIB: European Investment Bank

EOI: Expression of Interest

E&S: Environmental and Social

ESAP: Environmental and Social Action Plan

ESDD: Environmental and Social Due Diligence

ESIA: Environmental-Social Impact Assessment

ESMP: Environmental-Social Management Plan

EU: European Union

EUR: Euro

FPIC: Free Prior and Informed Consent

GC: Grant Contract

GDF: Development Facility for Latin America

GIS: Geographic Information System

GPS: Global Positioning System

GTAI: Germany Trade & Invest



Geothermal Development Facility (GDF) Developers' Manual



- IBRD:** International Bank for Reconstruction and Development
- IDB:** Inter-American Development Bank
- IFC:** International Finance Corporation
- IFW:** Investment Financing Windows
- IRR:** Integrated Resource Report
- JICA:** Japan International Cooperation Agency
- KfW:** Kreditanstalt für Wiederaufbau (German Development Bank)
- LiDAR:** Light Detection And Ranging
- Munich RE:** Munich Reinsurance Company
- MWe:** Megawatt electric
- NORM:** Naturally Occurring Radioactive Materials
- OAS:** Organization of American States
- PPP:** Private or Public-Private Partnerships
- PS:** Performance Standard
- SEP:** Stakeholder Engagement Plan
- SPV:** Special Purpose Vehicle
- SS:** Surface Studies
- TAF:** Technical Assistance Forum
- TG:** Temperature gradient
- TPC:** Third Party Consultant
- UN:** United Nations
- VAT:** Value-added tax
- XRD:** X-ray Diffraction



Overview on the GDF

Background

The Geothermal Development Facility for Latin America (GDF) aims to provide early stage funding for geothermal exploration activities (Figure 1). The purpose of the GDF is to reduce risk and financial barriers that developers currently experience in Latin America. This is accomplished by providing:

1. A Geothermal Risk Mitigation Fund to mitigate early stage resource risk through non-secured and non-recourse grants for Surface Studies and contingent grants for confirmation and exploration drilling activities funded by the German Government and the European Union through KfW,
2. Geothermal Investment Financing Windows (IFW) that will provide financing for subsequent investments for development phases beyond confirmation and exploration drilling (e.g., for production and injection well drilling as well as technical and economic plant design and implementation) that will be offered and administered independently by the financiers Interested in the GDF (CAF/KfW; CABEI/KfW; IBRD; IDB; EIB; AfD; JICA),
3. A Technical Assistance Forum (TAF) to provide an exchange of ideas and to coordinate activities and programs of the GDF with and between the respective partner governments to ensure the implementation of appropriate regulatory and legal framework conditions for geothermal development.

As this program is the first multi-donor scheme to support geothermal energy on a regional scale in Latin America, it is expected to prove transformational in terms of:

- A. Improving development frameworks by reducing existing financial, technical and legal barriers for the development of geothermal energy,
- B. Encouraging more geothermal development in Latin American countries,
- C. Creating a market for geothermal energy by being a catalyst for the first commercial geothermal projects in the Andean region,
- D. Increasing local geothermal industry capacity, increasing economic growth and,
- E. Significantly reducing Green House Gas emission growth and to enhance energy security through diversification of energy matrices across the region.

In addition to the support of many existing Development Finance Institutions (DFI), the facility will be designed to allow further participation of, and contributions by interested donors and financiers. The goal of the facility is to catalyze development of a minimum of 7 geothermal plants with a cumulative capacity of at least 350 MW at a total estimated investment of at least €1 Billion with the optimistic target being €2 Billion.

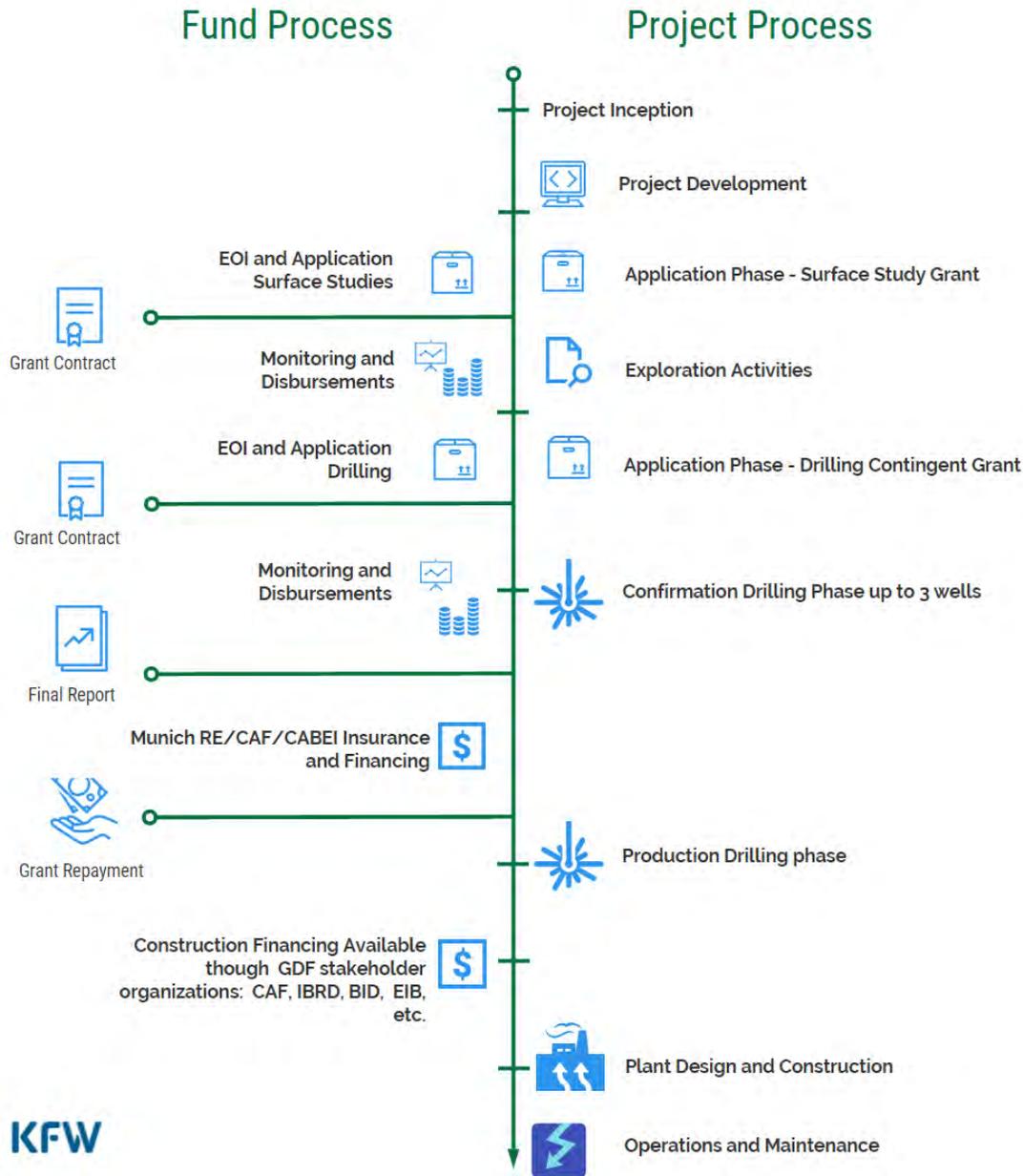


Figure 1. Project and Funding Processes.

The “Fund” (initially €50 Million), is a Mauritius charitable foundation, which is designed as a subsidy program to partially off-set the cost of exploration work (Surface Studies and Drilling Programs) of public and private investors acting as geothermal project developers (Applicants/eligible entities).

In order to fund the best possible projects, the grants will be awarded based on quality of the proposed project’s technical geological data, proposed work program, financial viability and environmental



impact. In addition, the Applicant's organization will be evaluated based on its capacity and experience in developing geothermal power resources.

Objective of the Facility

The GDF risk mitigation program is bifocal with the purpose of reducing the risk and capital intensity on developers during the early stages. The two funding opportunities are:

Surface Studies. Direct grants for Surface Studies to determine the optimal location of exploration wells at the most promising geothermal prospects.

Drilling. Contingency grants for drilling and testing of confirmation wells to confirm the existence of a commercial geothermal reservoir and to help Applicants secure financing for subsequent steam field development.

Purpose of the Developer Manual

The Developer Manual is public information about the Fund so that developers can decide whether or not to become Applicants. It describes the pre-qualification (Expression of Interest - EOI), application (Call for Proposal - CFP), and evaluation phases and summary information on the grant provisions.

Facility Extent

The total first closing of the Fund is €50 Million. The Fund is initially endowed with grant funding from the European Union (EU) and the German Federal Government through KfW Development Bank. The Fund will be open to contributions from other donors throughout the 10 years of its expected duration.

Fund Administration



Figure 2. Fund Organization.

The establishment and the operation of the Fund involve several entities as shown in Figure 2.

The Council of GDF consists of delegates from contributing donors, initially appointed by KfW. The Council oversees the operations of the Fund Manager and ensures that the GDF meets its overall objectives.

The Investment Committee of GDF consists of individuals appointed by the Council as non-voting members and review the Fund Manager’s recommendations for Surface Studies or Contingency (Drilling) Grants. The Investment Committee recommends decisions for approval by the Council of the Foundation.

The Fund Manager is responsible for the day to day operations of the Fund. The Fund Manager is comprised of financial, legal and technical experts. The Fund Manager is responsible for the design and management of the entire Facility. The Fund Manager has designed the fund procedures and will evaluate and recommend to the Investment Committee and the Council the projects that they believe are worthy of funding support as well as monitor and enforce the application’s compliance with certain



minimum technical specifications, environmental and social responsibility standards, as well as enforce the Fund's rights and interests.

In addition to the Fund Manager, an independent well testing and monitoring team known as a Third Party Consultants (TPC) will be assigned to monitor and test drilling projects that are partially funded by GDF. The test team will be chosen by the Grantee but all costs will be borne by the GDF. The cost of well testing will reduce the net amount that the Grantee receives.

Financial Support

The disbursements will be based on achieving key milestones and based on the limits mentioned above.

Joint funding of a proposed project by public grants from other facilities is allowed but must be capped. Applicants need to demonstrate that at least 20% of the eligible costs are covered from their own resources.

Surface Studies Grant

Surface Studies grants offer partial grants of up to 40%, capped at EUR€600,000, of the approved eligible costs for exploration phase activities (activity: Surface Studies). For example, projects exceeding EUR 1.5 Million will only receive grant funding of €600k regardless of total budget. Surface Study Grants will be awarded post completion of the study in one disbursement unless the Applicants require partial disbursements (Option B – see below under Disbursements - Surface Study).

Drilling Grant

Drilling Grants offer contingency grants for exploratory drilling. Depending on the drilling plan funding is available various intensities for a maximum of 3 wells. Grants will be funded as a complete program but with stage gates established to provide up to four disbursements. The maximum grant is €9.8 Million or up to 70% of the eligible project costs of the exploration Drilling Program. For example, projects exceeding €14.5 Million will only receive grant funding up to €9.8M with qualifying eligible costs. This project can include 2 or 3 well programs but with a bias towards three wells. All grants will be recoverable based on pre-determined definitions of success and repayment of grants.

Since the Fund is likely to be the largest--if not the only--outside funding source in the Project (and thus the only "lender") at this earliest stage and as the result of assuming significant cost and exposure to development risk, the Fund will require a priority security position (the "Security") in the project until such time as the Project is deemed unsuccessful as defined in the Grant Agreement, or until such time as the grant has been fully repaid.

The definition of success will be derived from the well output of the well in the program where success is achieved if any single well is proven to achieve greater than 6MWe or the average of the total wells in the program is greater than 3MWe. If the first two wells in a program do not produce steam and are both failures based on data presented, the Grant Agreement will be terminated without recourse or obligation to the developer.

In addition to the above mentioned funding, an independent well testing team will need to be contracted (and agreed to by the Fund Manager) with the grant fund providing for 100% of these costs. In other words, the contingency grant amount (net) provided to the Grantee will be reduced by the total cost of well testing and compliance. Well testing guidelines follow procedures and standards established by the Fund as outlined in the well testing section below.

To assist in the repayment, several of the financiers involved in the GDF might provide the possibility of refinancing this amount in the framework of financing for the subsequent project development stages although neither the developer nor the respective financier is obligated to refinance the grant repayment.

Eligibility

Eligible Countries

Currently, only projects located in the following countries (see Figure 3) are eligible for consideration and funding under the GDF:



Figure 3. Eligible countries and location of main offices for the Fund Manager.

The Fund will not support projects in areas subject to conflicts, or where disputes about borders exist.



Eligible Entities

Applications are open to all legal organizations including public, private or public-private partnerships (PPP). The structure of any consortium needs to be clearly described in the application and verified with evidence of legal standing based on applicable national/international regulations. The grant recipient entity (SPV) if not the same as the Applicant will have to be created prior to a potential grant award and its members and stakeholders cannot be materially different from those disclosed in the CFP application. In the interest of efficiency and clarity, we recommend that the application be submitted by the SPV that owns a specific project as opposed to the parent company or lead applicant in the development team, as GDF will require a priority security interest in the applicant entity, which guarantee has to be senior to all other lenders. If the applicant is the SPV, it makes the repayment obligation and related security interest easier to identify and can avoid potentially complicated inter-creditor arrangements.

Especially in case of PPPs the fund concept acknowledges the fact that the Applicant and beneficiary (being a public entity) and the recipient of funds (being a private entity) might differ. This would have to be confirmed by the public entity in a separate declaration and the recipient of funds will be determined in the Grant Contract co-signed by the public entity. PPP structures have to be established in accordance with the particular national regulations in which the entity resides. The Fund Manager has the final word and approval regarding the eligibility and appropriate structure of a PPP.

The following maximum grant allocations currently apply to Applicants applying for more than one project.

- A maximum of four Grant Contracts per Applicant consisting of two Surface Studies and two Drilling Grants throughout the lifetime of the Fund with a maximum of one application per instrument (Surface Study and Drilling Grant) per developer, per country per CFP.

Eligible Activities

Activities eligible for support from the GDF on a project basis consisting of:

Surface Studies (SS) to determine drilling targets and sites for subsequent confirmation wells. Surface Studies may include geophysical surveys (e.g. seismic, gravity, magnetics or magnetotelluric or other resistivity surveys) including supplementary geological, hydro-geological and/or geochemical surveys. Shallow temperature gradient (TG) holes or probes are also eligible activities. The goal of funding SS is to produce an integrated 3-D conceptual geological model of the prospected geothermal resource for targeting subsequent confirmation wells with the ideal scenario where the SS is followed up by a Drilling Program.

Drilling (DR) contingent grants will provide funding for full size wells at sites where considerable exploration Surface Studies have been completed and where the conceptual geologic modeling shows favorable conditions for the commercial exploitation of the resource. Slim holes (< 5" diameter of last casing or liner) are eligible for DR contingency grants provided full size wells are also included in the



work plan. The eligible programs consist of both high and medium enthalpy projects and require different exploration strategies.

- High enthalpy: DR grants will provide funding for up to three full size wells ($\geq 5''$ diameter of the last casing or liner) which will form the basis for confirmation and further production and injection well development phases. Standard Diameter covers wells $5'' < d < 9.5''$ and Large Diameter Covers wells $d > 9.5''$. Funding may also be applied to technical feasibility sections, when combined with financial feasibility work with the aim of securing finance for subsequent confirmation and production wells. However, market analysis, financial modeling, plant design activities and others are not covered by GDF as outlined in the Eligible Activities section of this Developers' Manual).

- Medium enthalpy: An exploration Drilling Program may comprise a geothermal doublet consisting of two full size reservoir wells ($\geq 5''$ diameter of the last casing or liner). In case a Drilling Program targets only one full size production well this might be eligible for funding in exceptional cases e.g. reservoir does not allow for pressure compensation through reinjection. Wastewater disposal has to be allowed by country specific regulations in all cases. Further, GDF gives preference to projects that employ reinjection of wastewater.

- In addition, DR grants can provide funding for mobilization and demobilization of drilling rigs, cutting analyses, well logging, well-testing and completion of an integrated reservoir model. Infrastructure costs required for confirmation drilling within 20% (e.g. access roads, water supply) are also eligible for funding.

The program will have a preference toward high enthalpy sites and larger sites based on the inherent requirement of the application to demonstrate the economic viability of the project as defined by the developer in the application process.

The GDF will not provide funding for activities of a general nature, e.g. financial and legal fees, concession area reconnaissance, land purchase, land lease, power/energy market study, regulatory framework analysis, country wide reconnaissance, public or private institution research, mitigation of political or legal risk or general eligible entity overheads.

The origin of goods and services shall be restricted to countries and territories that are Member States of the United Nations and that are not subject to UN, EU or OAS sanctions. Every Applicant will submit a declaration of compliance with KfW policies on prevention of fraud, corruption and money laundering and finance of terrorism activities as well as compliance with strict environmental and social impact guidelines detailed later in this document.

In addition to these declarations, Applicants will be required to submit a declaration that the developers tendering and/or procurement procedures conform to donor procurement and sustainability policies (see the GDF website www.gdflac.com for download links of relevant documents.)



In addition to new green-field, eligible expansion projects will also be considered by GDF if the following conditions are met:

Definition of expansion projects:

Expansion or growth of an already existing geothermal power plant. Two types of expansion projects can be defined:

- a. projects designed to add additional capacity to the existing plant and therefore increase overall plant capacity.
- b. projects to compensate for a reduced performance of the existing power plant.

Eligibility criteria for expansion projects:

To follow compliance with the GDF objective and its donors only expansion projects of above-mentioned type a) will be eligible which have to comply with the following criteria:

1. A new SPV must be established for the proposed expansion project.
2. Additional capacity (MW) must be installed on site. To verify that new drillings add new capacity and do not compensate for reduced performance, operational data of the existing power plant will be reviewed.
3. Exploration risk must be demonstrated (meaning the additional capacity comes from a new geothermal reservoir).
4. If the project is successful, based on the existing success criteria, 100% repayment of the grant is required as per the grant agreement.

Eligible Costs

Eligible Costs for Surface Studies

Eligible costs comprise the following activities provided they are directly associated with the completion of Surface Studies, but will be approved by the Fund Manager on a case-by-case basis:

- Rental or provision (excluding purchase) of technical equipment (e.g. geophysical signal sources, geophysical sensors, recorders, receiver stations, GPS equipment, gravity equipment, magnetic equipment). Where equipment is owned by the Applicant, the Applicant may charge market rates for the use of that equipment, however, funding cannot be provided for the purchase of equipment,
- Providers of specialist services (e.g. geological mapping, seismic surveys, electromagnetics, magnetotellurics, gravity, magnetic, microseismics, LiDAR, chemical and rock sampling and analyses, soil geochemistry),
- Material and specialist services - such as drilling and logging, for shallow temperature gradient hole(s), probes,
- Personnel, on-site accommodation and transport including vehicle leasing or rental,



- Purchase of aerial photography, remote sensing data or equivalent,
- Purchase of geological maps (analogous and digital for GIS),
- Consumables (e.g. fuel, chemicals used during sampling / measurements),
- Environmental / social assessments, permits and licenses (for subsequent drilling),
- Drilling Program engineering and design studies,
- Infrastructure upgrades to roads etc. required to complete Surface Studies,
- Documentation and reports,
- Project management costs,
- Mandatory insurances and bonds to be taken out and maintained during the entire project period including but not limited to the following items:
 - General liability including third party liability
 - All risks (physical loss or damage, including fire)
 - Workers compensation insurance
 - Specialty tools and equipment

Eligible Costs for Drilling Program

Using the Anticipated Well Cost (AWC) Guidelines (available to Applicants after the EOI has been received and accepted, through the GDF web portal and CFP application) Applicants shall estimate their costs for the proposed Drilling Program.

The AWC Guidelines outline the maximum allowable total cost for AWC items, per meter drilled, for different types of wells, diameters, and depths. Costs exceeding the maximum values stated in the AWC Guidelines must be comprehensively justified and will be assessed on a case by case basis during evaluation of the application. The AWC Guidelines will be periodically reviewed for indexation and cost adjustment purposes.

Variable costs for eligible drilling budget items which are not specified in the AWC Guidelines (so-called non-AWC items) need to be separately justified in the technical application forms and priced in the cost estimate.

Eligible costs comprise the following activities on the condition that they are directly associated with the drilling and testing program:

- Site preparation (well pads and sumps),
- Mobilization and demobilization costs,
- Rental or provision of drilling rigs and associated equipment (e.g. pumps),
- Providers of specialist services e.g.; reservoir engineering, stimulation, directional drilling, tubular inspections, mud logging, H₂S monitoring, cementing, mud engineering, wireline services, geophysical logging, well site geology, petrology, chemical sampling and analysis of coring, underbalanced drilling, environmentally acceptable disposal of waste including hazardous material according to applicable regulations,
- Rig-on, injection, production as well as interference testing and post-drilling downhole surveys and follow-up research on the core or cuttings (e.g. XRD, thin sections),



- Infrastructure costs required for exploration drilling (e.g. access roads, water supply),
- Personnel, on-site accommodation and transport including vehicle leasing or rental,
- Purchase of aerial photography, remote sensing data or equivalent, mapping etc.,
- Consumables (e.g. fuel, casing, wellheads, bits, cement, mud),
- Environmental / social assessments, permits and licenses (for subsequent construction of power plant),
- For Developers who haven't received a Grant for Surface Studies from GDF: Preparation of Environmental / social studies/ –impact assessments and –management plans (including specific plans such as Biodiversity Management Plans or Resettlement Action Plans / Livelihood Restoration Plans if applicable) and Stakeholder Engagement Plan as per Applicable Standards (see the Environmental Social Standards section) for the drilling phase, up to a maximum of 10% of the grant amount ,Documentation and reports,
- Social outreach/host community engagement to the standards set out in the Environmental-Social Impact Assessment (ESIA) section of this Manual.
- Mandatory insurances and bonds to be taken out and to maintained during the entire project period including but not limited to the following items:
 - General liability including third party liability,
 - All risks (physical loss or damage) including Fire,
 - Workers compensation insurance,
 - Mandatory drilling insurances as specified in the Grant Contract, in particular:
 - Drilling (well control, blowout and side-tracking),
 - Environmental bonds for environmental damage caused by blowout, soil or water pollution by the geothermal fluid or surface equipment or subsidence of the drilling platform,
 - Drilling bonds,
 - “Lost-in-hole” insurance coverage has to be requested from and provided by any service or tool provider, when purchasing the particular service or tool. The coverage should comprise at least the tool costs.

Note: *In the case that the above requested drilling insurances are not available for the particular project, a confirmation from a specialized insurance company has to be submitted stating this fact.*

- A technical feasibility study that has the explicit aim of securing finance for subsequent exploration or confirmation wells or field development wells (As such, it is expected that a feasibility study would combine exploration drilling results and reservoir engineering with other technical considerations that will be covered by GDF.).

Non-Eligible Costs

Non-eligible costs must be covered by the Applicant and should not be included in the application work budget. These non-eligible costs include but are not limited to:

- All costs in excess of the amount stated in the Grant Contract, including cost overruns.



Geothermal Development Facility (GDF) Developers' Manual



- Developer overheads (e.g. office costs, general management costs),
- Costs of permanent abandonment of wells,
- Third party liability and claims, including claims by the drilling contractor and environmental damage or clean-up costs,
- Debts and provisions for losses or debts,
- Interest or guarantee costs owed,
- Items already financed by other parties (e.g. governments, donors),
- Purchases of land, buildings or vehicles,
- Currency exchange losses,
- Tariffs and Taxes, including VAT,
- Cost of preparing applications or cost incurred during negotiations of the Grant Contract,
- Costs for participation at meetings and workshops,
- Training and capacity building adhering to well defined standards (see ESIA for further detail),
- All costs incurred prior to grant award (such as costs for Surface Studies, concessions etc.) – except for “early contracting” costs (see the Procurement Manual for more details on early contracting).
- A financial “bankable” feasibility study that has the explicit aim of securing finance for subsequent production and injection wells, steam field development, plant construction, and operation (As such, it is expected that a financial and bankable feasibility study would combine technical feasibility, covered by GDF, with local market and technical considerations including those financed by the Applicant such as: market, regulatory and commercial considerations).

Early Contracting

Applicants may identify and select service providers prior to a grant award. Please consult the GDF Procurement Manual for further information.

Application & Evaluation Procedure

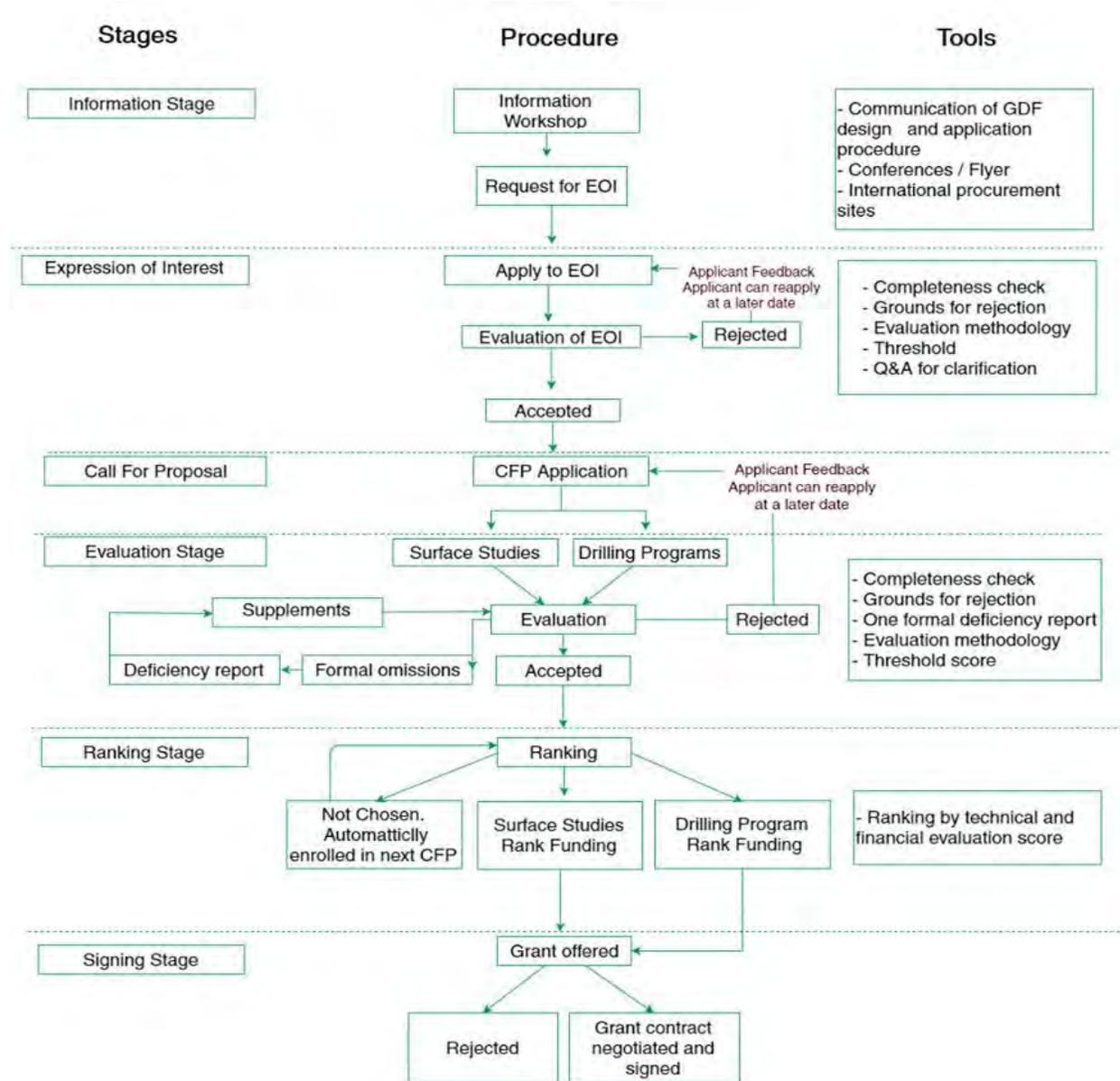


Figure 4. Application procedure summary and timeline.



The Fund will provide grants to developers through a competitive and transparent two-stage application and evaluation process. In addition to the application procedure, a brief sign-up survey form is required before receiving the application documentation and procedure. Figure 4 summarizes the application procedure and the expected timeline for implementation.

Application Sign-Up

Potential Applicants will need to complete a brief sign-up survey. Upon receipt, they may be invited to participate in the application process. Applicants who do not have the capability to complete a successful utility-scale geothermal exploration project may not be invited to participate based on this sign-up survey.

Stage 1: Expression of Interest (EOI)

The EOI is the primary pre-qualification process. An EOI will be required to be submitted before the specified cut-off date. Based on the evaluation of the EOI, certain developers will be invited to participate in the Call for Proposal (CFP) stage of the application process.

Stage 2: Call for Proposal

Only Applicants that have successfully completed and passed the EOI stage will be invited to submit a proposal. The CFP will require a detailed proposal presented by the Applicant describing organizational structure, geoscientific basis for development, proposed work plan, financial resources and business case for GDF funding. In addition to the CFP proposal, a PowerPoint presentation will be required from the Applicants to summarize the business case for their project. Draft Grant Agreements may be provided by the Fund Manager during the CFP stage so that any potential comments or requested revisions can be marked by the Applicant, however, nothing guarantees that proposed changes will be accepted by GDF. Any costs resulting from changes to the Grant Agreement will be fully paid by the Grant Applicant.

Language

English is the official language for all GDF applications.

Information Workshops

Before the start of each application round, the Fund Manager and/or other entities familiar with the process may provide pre-application information and training for potential Applicants and other stakeholders (such as organizations, financiers etc.) to the GDF. While these workshops can provide useful information, they are not mandatory.

Open “Rolling” Enrollment Pre-EOI Sign-Up

A potential Applicant may complete and submit a Pre-EOI sign-up survey through the GDF website at any time. Completion of this survey does not guarantee acceptance or qualification to submit an EOI. However, it is the first step and those that meet minimum requirements, through the sign-up survey, will be given instructions for submitting an EOI at a certain date once that window of opportunity opens up.



EOI - Evaluation Procedure

After closing the pre-qualification process, Applicants that exceed the minimal technical evaluation threshold (70 points out of 100) shall pass to the next stage and will be invited to participate in the CFP stage.

All Applicants will be provided with feedback detailing the Application's strengths and weaknesses. Applications which are not invited to the CFP stage may apply for subsequent application rounds.

Projects that receive grant funding for Surface Studies do not have to complete an EOI to apply for a Drilling Grant and will be automatically accepted into the CFP stage for Drilling upon application. In addition, Applicants who are accepted though the EOI stage but, for whatever reason, are unable to apply during the CFP stage do not have to submit an EOI for subsequent application rounds and are automatically accepted to the CFP stage upon request.

Evaluation Criteria EOI – Surface Studies

Table 1 shows the evaluation criteria and standards that will be applied to EOI application submissions. Applications which score in the lowest category (0-3 points) for Geo Scientific, Land Access, or Financial criteria will automatically be excluded from further consideration. The overall minimum score to progress to the CFP round is 70%. Both rejected and accepted applications will be provided with feedback detailing the applications strengths and weaknesses.

Table 1. Surface Study Evaluation Criteria.

Evaluation Criteria	Scale Factor	Criteria	Possible Points
Geo-scientific			
Indication of the existence and nature of the geothermal resource based on completed studies	3	Good evidence of the existence of a geothermal resource	7-10
		Some evidence of the existence and nature of a geothermal resource	4-6
		Limited evidence of the existence and nature of a geothermal resource	0-3
Appropriateness of the work and timeline for the proposed surface study or drilling activity.	2	Detailed work plan description that is technically feasible, reasonably scheduled and appropriately justified.	7-10
		Some detail included that demonstrates a feasible work plan.	4-6
		Incomplete or unfeasible work plan	0-3
Land Access and Permits			
Appropriate access and work	2	All authorizations, environmental permits, environmental and social impact assessments, licenses required are in place.	7-10



authorizations for planned activities.		Authorizations, environmental permits or licenses required are in progress.	4-6
		No authorizations, environmental permits or licenses are in place or in progress.	0-3
Financial			
Financial plan and capacity for meeting the cost share portion of the grant agreement.	2.5	Detailed plan outlining adequate resources to complete the proposed work. (3 years' Financial statements audited for the Developer and the SPV if available)	7-10
		Limited financial planning and resources available to complete the proposed work.	4-6
		Limited or no financing plan for the proposed work.	0-3
Overall Quality			
Overall Quality	0.5	Excellent	7-10
		Average	4-6
		Poor	0-3
		Maximum Points	100
		Minimum Points	70

Evaluation Criteria EOI – Confirmation Drilling

Table 2 shows the evaluation criteria and standards that will be applied to EOI application submissions. Applications which score in the lowest category (0-3 points) for Geo Scientific, Land Access, or Financial criteria will automatically be excluded from further consideration. The overall minimum score to progress to the CFP round is 70%. Both rejected and accepted applications will be provided with feedback detailing the applications strengths and weaknesses.



Table 2. Exploration Drilling Evaluation Criteria.

Evaluation Criteria	Scale Factor	Criteria	Points
Geo-scientific			
Drilling pad locations and subsurface targets are well defined by geoscientific studies and conceptual geological model.	3.5	Good evidence of geothermal resource based on extensive geophysical and geological studies and drill sites justified by a well-constructed conceptual geological model.	7-10
		Some evidence of a geothermal resource based on limited geophysical and geological studies and drill sites justified by a limited conceptual geological model.	4-6
		Limited evidence of a geothermal resource based on little to no geophysical and geological studies and drill sites justified by a basic or no conceptual geological model.	0-3
Appropriateness of the work and timeline for the proposed surface study or drilling activity.	1.5	Detailed work plan description that is technically feasible, reasonably scheduled and appropriately justified. Equipment and skilled labor/key experts identified.	7-10
		Some detail included that demonstrates a feasible work plan.	4-6
		Incomplete or unfeasible work plan	0-3
Land Access and Permits			
Appropriate access and work authorizations for planned activities.	1.5	All authorizations, environmental permits, environmental and social impact assessments, licenses required are in place.	7-10
		Authorizations, environmental permits or licenses required are in progress.	4-6
		No authorizations, environmental permits or licenses are in place or in progress.	0-3
Financial			
Financial plan and capacity for meeting the cost share portion of the grant agreement.	3	Detailed plan outlining adequate resources to complete the proposed work, and follow on development phases. (3 years' Financial statements audited for the Developer and the SPV if available)	7-10
		Limited financial planning and resources available to complete the proposed work and follow on development phases.	4-6
		Limited or no financing plan for the proposed work, or follow on development phases.	0-3
Overall Quality			
Overall Quality	0.5	Excellent	7-10



		Average	4-6
		Poor	0-3
		Maximum Points	100
		Minimum Points	70

Stage 2: Calls for Proposal (CFP)

Optional Informational Workshops will be organized after evaluation of the EOI. The workshops can assist Applicants with submitting a quality and relevant CFP. It will cover the main topics required for submission and introduce GDF policies and procedures. The aim is to ensure high-quality applications by clearly explaining the application, evaluation and procurement processes and these will be paid not with GDF funds, but with additional Applicant resources.

Participation at the workshop is optional for Applicants wishing to submit an application.

The CFP stage includes the following activities:

- Access to the CFP documentation for shortlisted Applicants along with a possible invitation to participate in the pre-bidding workshop. Applicants will access these documents via the GDF application web portal.
- Inquiries for clarifications regarding the request for application are possible in writing up to 14 days before the closing date of the CFP. Inquiries received after the deadline will not be considered. Inquiries will be collected and anonymized, answers will be sent to all shortlisted companies.
- The deadline for submission of application documents will not be extended. The content of the request for each application round might be changed by amendment at any time. Amendment(s) will be distributed to all shortlisted candidates.
- Applications have to be uploaded through GDF application web portal before the deadline for upload. Deadlines may be extended at the discretion of the fund manager. Any extension will be communicated to applications through the application procedure.
- In addition to the uploaded electronic version of the application, all documents/declarations requesting original signatures must be sent by mail as one set of original documents upon instruction from the fund manager. These instructions will contain a deadline for submission of hard documents. Applications received after the deadline or not in the required manner will not be evaluated, and sent back un-opened. Certain documents may require authentication of seals and signatures. This can be accomplished by a lawyer or public government authority. Apostilles are not required. All documents requiring authentication should be notarized. Authentication can be made in the language of the country of origin for the document. When possible, English is preferred.
- Applications will be evaluated using the predefined methodology described in Evaluation Criteria Application.



Application – Drilling Programs

Figure 5 shows the evaluation process which basically comprises three evaluation stages:

Stage 1: Check on completeness of submitted documents / information and check on basic eligibility criteria. This is the basic information collected in the application survey questions. A deficiency report will be sent to the Applicants in case it is incomplete. Applications will be granted 2 weeks the opportunity to remedy these deficiencies. If the application is rejected during this stage based on the submission of in-eligible criteria (e.g. not an eligible organization, country or activity) a rejection letter will be sent to the Applicants.

Stage 2: Detailed assessment on technical, social-environmental impacts, legal and financial data submitted. The assessment based on a points-based system, allows for a ranking of applications. Only applications reaching the threshold of 70 out of 100 points are eligible for funding. Reaching the 70-point threshold does not guarantee funding as decisions will be based on available funding and overall quality of the received applications.

This includes financial evaluation of the cost estimates of the Applicants, checked for completeness, eligibility and for drilling projects, for compliance with the AWC Guidelines. Subsequently, the adequateness and reasonability of the cost estimates based on the justifications given will be determined. Any adjustments necessary as the basis for the grant level offered in the contract will be proposed. For the sake of clarity, if the cost estimates are found to be higher than the expert's evaluation cost estimates, the grant level will be adjusted to match the estimated costs of the Fund experts. If the budget is unreasonably estimated, the financial evaluation will fail, and the application will be rejected.

Stage 3: At the end of each application period and in due course with the evaluation of proposals, a ranking of applications will be conducted. The applications will be ranked according to points received. Based on the availability of funds the highest ranked applications will be offered a Grant Contract first.

Applications that pass the detailed evaluation but are not selected for funding will receive feedback, be placed on a waiting list for possible funding. If chosen Applicants withdraw, they will be encouraged to apply for future funding rounds.

In case that a project shows evaluation results over the threshold, the Grant Contract will be subject to the correct and final submission of all proven project development requirements such as concessions, licenses, legal composition, rights and obligations of the Applicant, among others. If these project development-associated conditions are not met and submitted in due time (3 months after grant offering) the Applicant may withdraw the proposal and re-submit it in a potential next application round.



Evaluation Criteria CFP – Surface Studies

Table 3 shows an overview of the evaluation criteria for Surface Study CFP. For all evaluation criteria (excluding overall quality), applications which score in the lowest category (0-3) will not be considered further in the current application round but will be provided with feedback accordingly. The overall minimum score for consideration is 70%. Depending on funding levels and final application rankings a score over 70% does not necessarily guarantee grant funding.

Table 3. Surface Study Evaluation Criteria Application.

#	Evaluation Criteria	Scale Factor	Scoring Category	Possible Points
Geo-scientific				
1	Indication of the existence and nature of geothermal resource based on results from previous studies	3.0	Strong evidence of the existence of a geothermal resource	7-10
			Good evidence of the existence and nature of a geothermal resource	4-6
			Poor evidence of the existence and nature of a geothermal resource	0-3
2	Robustness of work program and schedules for Surface Studies.	2.0	Detailed, thoroughly presented and technically feasible as well as appropriate work program and justification	7-10
			Feasible work program but lacking some detail	4-6
			Incomplete or unfeasible work program	0-3
Financing plan & permit				
3	Appropriate authorization for exploration activities, environmental and any other relevant permits/licenses/rights in place or under negotiation	0.5	All authorizations and all permits/licenses/rights in place or not required	7-10
			Negotiations for authorization and permits/licenses/rights underway	4-6
			No details specified or no authorization/permits/licenses/rights available and no negotiations underway	0-3
4	Description of market for future power plant output	0.3	Robust and well thought out market strategy	7-10
			Feasible market strategy but lacking some detail	4-6
			Incomplete or unfeasible market strategy	0-3



5	Plan for financing the developer's portion of the Surface Studies budget	1.3	Thoroughly presented, robust, feasible and adequate financing plan	7-10
			Fair financing plan, but lacking some detail	4-6
			No or limited financing plan	0-3
Project Development				
6	Plans for obtaining expertise, finance and equipment for reservoir confirmation drilling	0.2	Strong and well thought out plans for subsequent reservoir confirmation drilling	7-10
			Good plans for subsequent reservoir confirmation drilling but lacking some details	4-6
			No or limited plans for subsequent reservoir confirmation drilling	0-3
Experience				
7	Geothermal exploration experience and expertise of the developer including private sector partners and engaged consultants as demonstrated in the key personnel CVs	1.2	Qualified working experience of key personnel in comparable geothermal projects \geq 10 years, including experience in South/Central America	7-10
			Qualified working experience of key personnel in comparable geothermal projects \geq 5 years including, experience in South/Central America	4-6
			Qualified working experience of key personnel in comparable geothermal projects $<$ 5 years	0-3
8	Geothermal exploration experience and expertise of the developer including private sector partners and engaged consultants as demonstrated in the project references.	1.0	Good track record of successful geothermal exploration and development	7-10
			Some experience but some gaps and/or limited track record	4-6
			Unproven or inexperienced developer.	0-3
9	Financial, management and organizational capabilities	0.4	Strong financing, management and organizational capabilities in place to complete development	7-10
			Good financial, management or organizational capabilities, but lacking some detail	4-6
			Poor financial, management or organizational capabilities	0-3

Overall Quality				
10	Overall Quality	0.1	Excellent	7-10
			Average	4-6
			Poor	0-3
			Maximum Points	100
			Minimum Points	70

Evaluation Criteria CFP – Confirmation Drilling

Table 4 shows an overview of the evaluation criteria for Drilling Projects CFP. For evaluation criteria 1-3 and 6-12, applications which score in the lowest category (0-3 points) will not be considered further in the current application round but will be provided with feedback accordingly. The overall minimum score is 70%. Depending on funding levels and final application rankings, a score over 70% does not guarantee grant funding.

Table 4. Drilling Grant Evaluation Criteria.

#	Evaluation Criteria	Scale Factor	Scoring Category	Possible Points
Geo-scientific				
1	Indication of appropriate drill sites in geothermal resources area selected based on results from all previous studies with emphasis on geophysics and geological studies	2.0	Very good, well documented and robust evidence from extensive geophysical and geological studies of a geothermal resource / multiple sites identified with good justification for drill site selection based on a 3D conceptual model	7-10
			Fair, well-documented evidence from a moderate geophysical and geological resource evaluation program / fair justification for drill site selection based on 3D conceptual model	4-6
			Some evidence of a geothermal resource / little or no geophysical and geological studies completed / poor justification for drill site selection	0-3
2	Robustness of plans, adequateness of proposed equipment and schedules for drilling / testing program for support by the Fund	2.0	Thoroughly presented and technically feasible work program; evidence of ability to source equipment	7-10
			Feasible work program but lacking some detail	4-6
			Incomplete or unfeasible work program	0-3
Technical				
3		0.5	Very good, complete and comprehensible in detail, derived from the frame conditions at	7-10



	Resilience of the technical concepts, efficiencies, investment as well as operating and maintenance costs applied in the prefeasibility study		the site, the market situation, and the operating experience with geothermal systems	
			Fair, the chosen approaches are understandable as far as possible and appear appropriate	4-6
			The chosen approaches are incorrect or not at all or hardly understandable	0-3
Local & Country benefit				
4	Importance of the project within the framework of the national electricity market and the further development of geothermal power generation	0.3	The project is very important	7-10
			The project has certain significance	4-6
			The project is not or hardly significant	0-3
5	Local effects of the project such as combined heat and power /rural electrification/project benefits for communities/ employment or other direct use applications	0.3	The project is very important	7-10
			The project has certain significance	4-6
			The project is not or hardly significant	0-3
Financing plan & permit				
6	Appropriate authorization for drilling activities, environmental and any other relevant permits/licenses/rights in place or under negotiation	0.5	All authorizations and all permits/licenses/rights in place or not required	7-10
			Negotiations for authorization and permits/licenses/rights underway	4-6
			No details specified or no authorization/permits/licenses/rights available and no negotiations underway	0-3
7	Description of market for future power plant output / Off-taker agreement or equivalent in place or under negotiation	0.8	Market strategy / off-taker agreement in place or not required	7-10
			Negotiations for off-taker agreement underway	4-6
			No evidence that off-taker agreement negotiations are underway	0-3
8	Plan for financing the developer's portion of the Drilling Program budget	1.5	Thoroughly presented, robust, feasible and adequate financing plan	7-10
			Fair financing plan, but lacking some detail	4-6
			No or limited financing plan	0-3

9	Robustness of business plan for development of geothermal resource and power plant after completion of Drilling Program	0.3	Robust and well thought out business plan	7-10
			Feasible business plan but lacking some detail	4-6
			Incomplete or unfeasible business plan	0-3
Experience				
10	Geothermal exploration experience and expertise of the developer including private sector partners and engaged consultants as demonstrated in the key personnel CVs	1.0	Qualified working experience of key personnel in comparable geothermal projects ≥ 10 years / regional South/Central America experience ≥ 10 years	7-10
			Some experienced staff available, qualified working experience of key personnel in comparable geothermal projects but < 10 years / some regional South/Central America experience but < 10 years	4-6
			Key personnel inexperienced in comparable geothermal projects / no regional South/Central America experience	0-3
11	Geothermal exploration experience and expertise of the developer including private sector partners and engaged consultants as demonstrated in the project references	0.5	Good track record of successful geothermal exploration and development	7-10
			Some experience but some gaps and/or limited track record	4-6
			Unproven or inexperienced developer	0-3
12	Management and organizational capabilities	0.2	High management and organizational capabilities in place to carry out program	7-10
			Fair management or organizational capabilities, but lacking some detail	4-6
			Low management or organizational capabilities	0-3
Overall Quality				
13	Overall Quality	0.1	Excellent	7-10
			Average	4-6
			Poor	0-3
			Maximum Points	100
			Minimum Points	70



EOI and Application Contents

Content descriptions for the EOI and both applications, Surface Study as well as Drilling Projects, can be found in the relevant instruction manuals that are sent to each prospective Applicant via the GDF web portals.

Grant Award

The Grant will be awarded based on the conditions and specifications set out in the finalized Grant Agreement. The Grant Agreement incorporates the proposed work plan, deliverables, budget, reporting requirements, declaration of undertaking and integrity, and repayment schedule specific to the proposed project.

Grant agreements may be modified and negotiated with the GDF Fund Manager. Negotiated agreements, which may accommodate special circumstances, can be attempted at the risk and expense of the Grantee without a guaranteed outcome. Modifications that are complex and require substantial time for negotiation may jeopardize the ultimate award of a grant.

Grant Disbursement

Payments will in general only be disbursed against the submission, receipt and acceptance of an online disbursement request for payment including all supporting pro forma or actual invoices received for eligible activities and the achievement of certain milestones as defined in the disbursement schedule. Furthermore, every disbursement request will require the Applicant to qualify that they are within an acceptable bound of the pro-forma budgets as well as that the Applicant and the Project are in ongoing compliance with required procurement and Environmental-Social Impact standards of the Fund.

- The developer shall send original receipts invoices/bank transfer vouchers related to the eligible activities and supporting information relating to the milestones achieved. Supporting information shall be the original receipts and/or invoices milestone reports etc.
- All costs must be recorded in the developer's accounts and tax documents. They shall be accessible, identifiable and verifiable by an external auditor, and must be backed up by copies of the original supporting documents with the originals submitted to the Fund. Developers must keep accurate, regular records and dedicated, transparent and accessible accounts of project implementation for a period of ten years following grant provision by the GDF. All project documentation may be audited at any time by KfW, the Fund Managers or affiliates.
- Invoice and supporting information will be assessed by the Fund Manager. This will consist of a check regarding quality and consistency, especially a comparison between the application documents, the contracts with the service providers, the costs charged and the reasonableness of these costs in relation to the activities conducted (includes a check on non-eligible costs and costs not substantiated). Significant deviations have to be documented and reported by the Fund Manager.
- Individual disbursements will be made based on the amounts specified in the Grant Contract as described in the disbursement schedule.



- If the disbursement request is not accepted due to ineligible costs, budget overruns, fraud or other similar activities:
 - The developer will be informed and will be asked for clarification of the budget and invoices.
 - The developer shall within two weeks correct and re-submit the invoice in accordance with instructions given to the developer by the Fund Manager.
 - If the issue remains unresolved, dispute resolution will take place as per the conditions in the Grant Contract and further disbursements will be withheld.

In case of fraud as defined by World Bank Anti-Corruption Policy standards (such as activities that contravene the integrity and veracity of any of the declarations made by the developer) the Grant *Contract will be cancelled immediately, further disbursements will cease, the Fund will immediately enforce its security interest in the Project and the case may be communicated to legal authorities.*

- The Grant Contract may also be cancelled, or funding delayed until the notional issues are adequately and timely cured, in cases of:
 - Only non-eligible activities have been conducted
 - Insufficient reporting, including final report or financial reporting
 - Breach of the GDF's Environmental, Social or Health standards
- Other situations identified by the Fund Manager that in its opinion constitute cancellation of the contract. The cancellation of the Grant Contract in cases such as fraud, non-eligible activities, insufficient quality of services conducted or breach of the applicable environmental, social environmental and health standards will result in the Fund Manager enforcing its security interest in the Project, exercise the Advance Payment Guarantee corresponding to 30% of the contract value valid for the contract period which has to be delivered with the advance payment invoice and force immediate repayment of the grant regardless of the success of the wells.

Disbursements - Surface Study

Grants for Surface Studies are paid out for eligible activities up to the grant maximum set in the finalized Grant Contract. Milestones and the grant disbursement schedule will be included in the Grant Contract.

No repayment is necessary for Surface Study Grants.

Surface Study Grants will be awarded post completion of the study in one disbursement unless the Applicant requires partial disbursements and is able and willing to provide the necessary Advance Payment Guarantee that assures the completion of the Surface Study. **In the event of failure to complete the Surface Study Milestones under Option B, GDF will terminate the Grant Agreement without further disbursement obligation.** In general, the following shall apply (Table 5):

Table 5. Disbursement triggers Surface Studies.

Disbursement	Milestone	Disbursement Percentage Option A*	Disbursement Percentage Option B**
1	Mobilization to site completed and approved invoices	20%	
2	Completion of data collection and approved invoices	30%	
3	Final Report Acceptance and approved invoices	50%	100%

* Option A requires the provision of an advance payment guarantee equivalent to the percentage of the disbursed amount of the total grant amount. Grantees may reduce the Advance Payment Guarantee amount depending on the advance payment amount requested, however, any advance payment must be guaranteed 100%.

** Option B does not require the submission of an Advance Payment Guarantee.

Disbursements - Drilling Program

Grants for Drilling Programs are paid out for eligible activities up to the grant maximum set in the finalized Grant Contract. Milestones and the grant disbursement schedule will be included in the Grant Contract. Repayment will be based on the success criteria described herein (Table 6). In general, the following shall apply:

Table 6. Disbursement triggers Drilling Program.

Disbursement	Milestone	Disbursement Percentage Option A*	Disbursement Percentage Option B**
1	Grant Agreement / Insurances / Approved Drilling Plan / Submission of Advance Payment Guarantee	40%	N/A
2	Spud in 1st Well and approved invoices.	40%	20%
3	Completion and Testing of Wells 1 and 2 and approved invoices (Well 3 reports can be submitted with the final report, if approved to go ahead).	10%	40%
4	Final Report (Integrated & Financial) and approved invoices.	10%	40%

* Option A requires the provision of an advance payment guarantee equivalent to the percentage of the disbursed amount of the total grant amount. Grantees may reduce the Advance Payment Guarantee amount depending on the advance payment amount requested, however, any advance payment must be guaranteed 100%.

** Option B does not require the submission of an Advance Payment Guarantee.



To encourage the completion of well testing, disbursement number 3 is set upon the completion and testing of wells 1 and 2. Should wells 1 and 2 be considered failures, the remaining funds of the Grant will be canceled, and the scheduled costs related to well 3 will not be funded.

Repayment - Drilling

In case of successful drillings repayment is required within three years of completion of the Confirmation program with incentives to the Grant Recipient to repay earlier as described below:

- 80% of Grant amount within 1 year of successful program completion
- 90% within 2 years of successful program completion
- 100% within 3 years of successful program completion

To assist with this, CAF/CABEI and Munich RE may offer follow-on funding for steam field development drilling.

Repayment Criteria

It is required of the developer to submit a declaration of success or failure with the final report and test reports according to the disbursement schedule. Proof that the drilling was unsuccessful must be supplied and may be challenged by the Fund Manager.

For the GDF the following success criteria apply:

Two scenarios exist for the capacity of the wells to be sufficient to deem the Drilling Program a success: Success is determined on a program level, and so a successful program will require repayment to be calculated from the entire grant distributed to the developer.

- All of the wells that have been drilled have an average capacity that is greater than or equal to 3 MWe.
- At least one of the 3 wells eligible for GDF financing that have been drilled has a capacity that is greater than or equal to 6 MWe. This includes projects where the average capacity across three wells falls below 3 MWe, but a single well may have a high enough capacity.

To assure a neutral and independent evaluation of drilling success, the monitoring activity during the well test is performed by a Third Party Consultant, see the Third Party Consultant section below for a description. The Third Party Consultant monitors the correct execution of the well tests as well as chemical sampling and analysis of the geothermal fluid. This includes a site visit during the execution of the well test. The purpose of the monitoring is to verify that the well test has been performed according to best practices in the geothermal industry.

Practical issues regarding the well test procedure and requirements can be found in the GDF Well Test Guidelines which are identical to those guidelines set by Munich RE.

Repayment Timeline

If the project meets the success criteria as certified by the Grantee or determined by the GDF the grantee has up to 36 months, from the completion of the last funded well, to fulfill repayment obligations (see Figure 5) from the time that the Final Report on the program has been received and success has been determined by either the Applicant or the Fund Manager. *If the repayment is more than 36 months' delinquent, the Fund Manager reserves the right to call on the security interest in the Project immediately.* Figure 5 summarizes the repayment timeline.

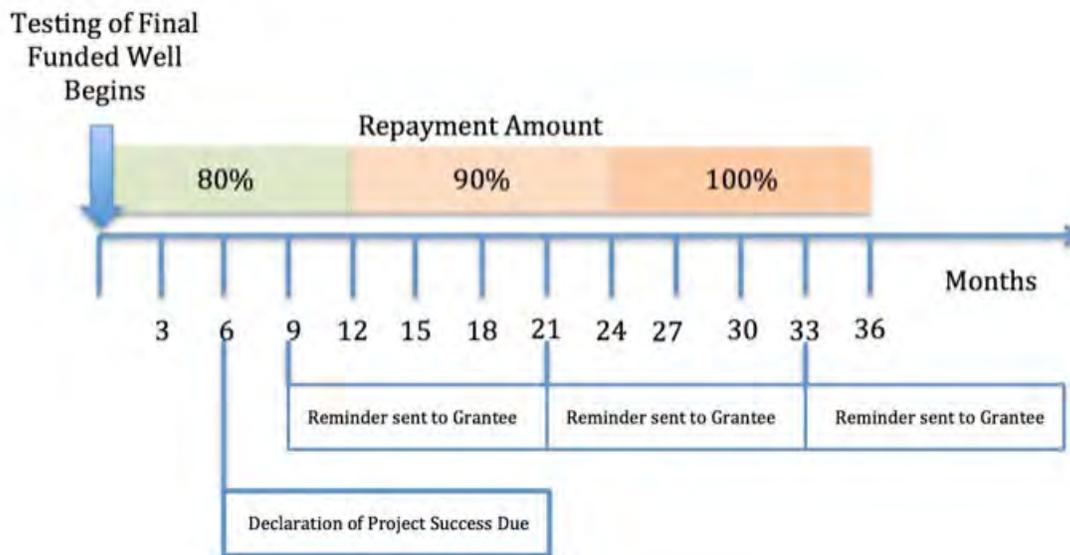


Figure 5. Repayment timeline.

Third Party Consultant for Well Test Evaluation

The Well Testing will be completed and evaluated by an independent Third Party Consultant (TPC). The role of the TPC is to provide a neutral and independent opinion regarding drilling success. After the well test, the developer provides a final report on the test results which states whether the well/Drilling Program is successful or not according to the drilling success criteria. The Third Party Consultant, approved, and contracted to the Fund Manager and 100% reimbursed by grant funds (earmarked from the contingent grant allocated to the project), reviews and approves this final report and provides a declaration of determination to the Fund Manager.

The developer will be required to involve the TPC in the planning and design of the test through submission of the Test Plan at the CFP stage. The length and cost of the testing will be defined by the applicant in the work plan and budget. The TPC has to approve the planned execution of the well test.

The work of the TPC should be led by a Qualified Person or Persons. A Qualified Person must have at least 10 years' experience relevant to the task at hand of testing and evaluation of geothermal wells.



The contractor, test procedure, and reports must be approved by the Fund Manager. The test evaluation report must provide the name of the Qualified Person(s), the name of the company issuing the report and state the independence of the company to the developer.

It is assumed that the test evaluation is a team effort for which a multidisciplinary team will be required. This applies to the evaluation of the geochemical characteristics of the reservoir as well as reservoir engineering. The division of responsibilities should be clearly stated in the report and each Qualified Person identified.

Test Procedure

Please refer to the GDF Well Testing Guidelines for specific information. It should be noted that the GDF Guidelines are identical to those provided by Munich RE.

Procurement Plan

Applicants must abide by all KfW procurement standards. Applicants must provide a procurement plan with their application detailing the procedures put in place when contracting for services, as well as certify through a written declaration that they have abided by applicable KfW procurement standards.

Each Applicant must submit a procurement plan that meets KfW Procurement Manual and Sustainable Procurement Toolbox Standards and Guidelines (documents available on the GDF website, (www.gdfiac.com)). These Procurement Guidelines incorporate policy provisions and procedures to promote transparency, accountability, and ethics in the operation, management, and reporting of procurement activities. All Applicants awarded grants are required to consistently apply these policies and procedures throughout the partially GDF-funded Project.

Again, the Applicant is required to certify, at the time of application, that their plan does in fact meet KfW standards and guideline. The Fund Manager may, upon its discretion, recommend that KfW review or audit an Applicant's submission for full compliance. However, Applicants are encouraged to submit a third-party certification of compliance issued by a reputable accounting, audit, and management company to minimize concern and avoid delays. Such third-party endorsement can provide additional assurance to the Fund Manager and to KfW that the Applicant is in fact in compliance. All third-party certification shall be performed at the expense of the Applicant.

There are two options that can help Applicants through this process. The first is Option 1, where the applicant has selected and clearly disclosed in the CFP Proposal the contractors that they intend to use. The second is Option 2, where no selection has been made at the time of proposal submittal. Those applicants that choose Option 1 automatically satisfy the KfW Procurement Guidelines through the inherently competitive process of making a GDF application. Those Applicants that choose Option 2 however must demonstrate complete conformance to KfW Procurement Guidelines.

For more details about the Procurement Plan, please refer to the Procurement Manual.



Monitoring and Reporting

Developers are required to submit several reports for review and assessment as specified below. In addition, site visits of drilling projects may be, but not necessarily, conducted by the Fund Manager to verify physical work from time to time as shown below in Table 7. In addition, the general timeline may be modified by the Fund Manager and or the Council as needed.

Table 7. Reports required for review and assessment.

Project Stage	Milestone	Reporting Requirement
<i>Project Implementation</i>	Grant Contract Signed	Drilling Plan and Insurance, All E&S Documentation including ESDD, ESAP, ESIA, ESMP, SEP
<i>Project Implementation</i>	Spud in 1st Well	Spud in Notification and Monthly Reports
<i>Project Implementation</i>	Completion and Testing of Wells 1 and 2	Well Testing, Monthly Reports and Approved Invoices
<i>Project Finalization</i>	Final Report	Integrated Resource Report, Final Environmental Social Report and Success Declaration

Requirements for Surface Studies

The Grantee shall inform the GDF of Surface Studies' commencement, update the GDF of progress in monthly status reports and at survey/work completion. Within 6 months of completion of work, the Grantee shall complete an Integrated Resource Report (IRR).

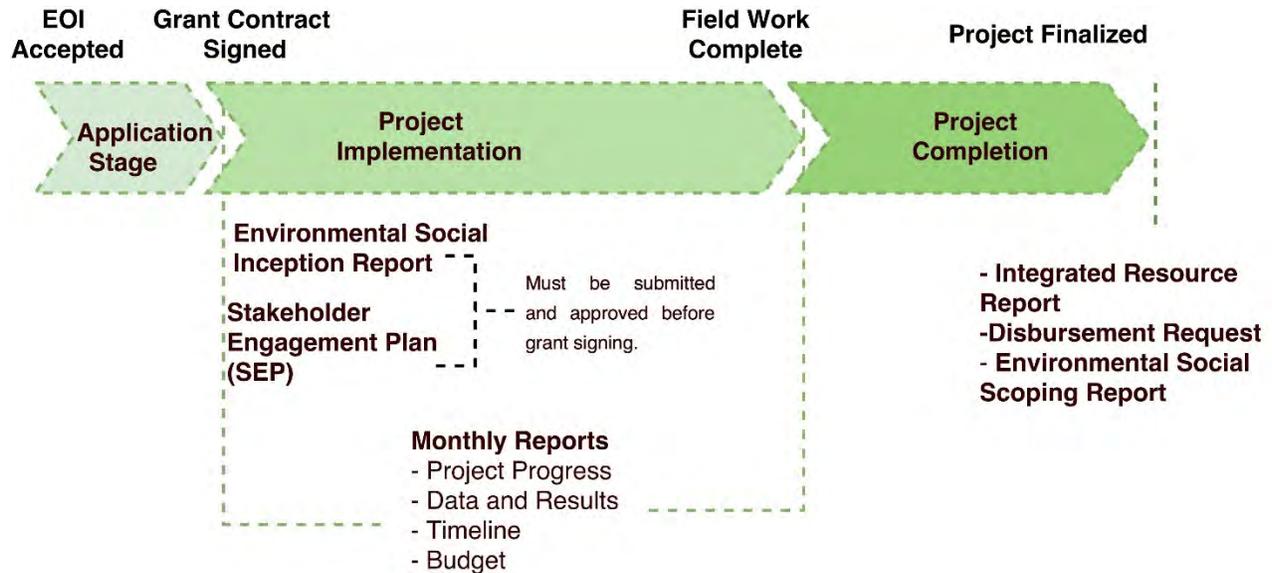
- Environmental Social Inception Report and Stakeholder Engagement Plan (for more details see the Environmental Social Standards section).
- Monthly reports describing work progress, data and results, timeline and budget. Raw data in digital format may be additionally requested on a case by case basis by the Fund Manager in order to verify results and the interpretation if the Integrated Resource Report is not sufficiently detailed.
- The Integrated Resource Report shall include all collected data, interpretations, updates of project documentation, as well as information on the total project costs. The report must also include date, cause and justifications for overages in time, scope and costs when applicable.
- Environmental Social Scoping Report (for more details see the Environmental Social Standards section).

All reporting will be completed online through the GDF online reporting system, via the GDF web portal.

Monitoring conducted by the Fund Manager will be limited to reviewing reports and documentation submitted by the Grantee but usually will not include any on-site visits. However, the Fund Managers reserve the right to conduct spot check site visits.

Failure in complying with the monitoring or reporting requirements will result in a request to rectify the issue. If the issue remains, dispute resolution will take place as per the conditions in the Grant Contract.

If the dispute resolution remains un-resolved, pertaining failure in complying will result in the cancellation of the Grant Contract. Repayment of the grant will be required in this case. Additionally, the fund will assert its security position as established in the grant agreement until such time as repayment has occurred.



Project Stage	Milestone	Reporting Requirement
Project Implementation	Site Mobilization	Monthly Reports and Approved Invoices
Project Implementation	Completion of Data Collection	Monthly Reports and Approved Invoices
Project Finalization	Final Report	Integrated Resource Report, Environmental Scoping Report

Figure 6. Table Indicating timeline of Environmental-Social Impact Report completion and submittal.

Requirements for Drilling Programs

The following reporting requirements are required from Grantees:

- Inform the Fund Manager at spud-in and the beginning of well testing,
- Drilling and Well Testing Reporting Procedures during CFP phase,
- Monthly reports from project signing to completion of all Well Testing,
- Well testing reports for each well,
- Integrated Resource Report and Financial Report within six months of completion of well testing. The report shall include all program data, milestones, interpretations, and all updates on the supporting project documentation as well as information on the total project costs accrued.



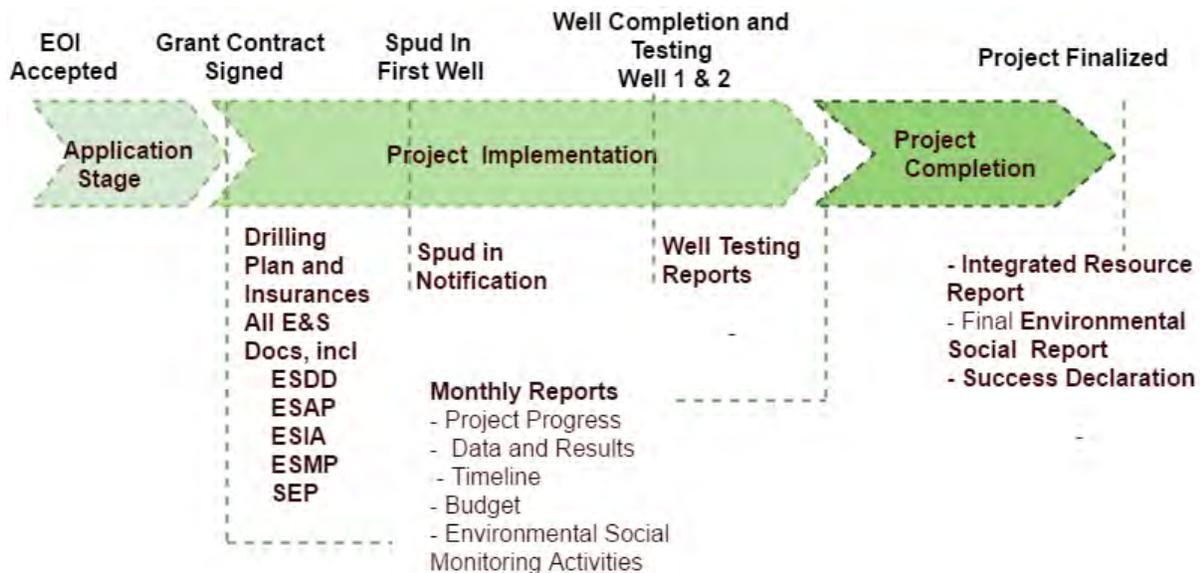
- Final Environmental Social Report (for details see the Environmental Social Standards section).

Furthermore, the Grantee shall inform the Fund Manager of the start (spud-in for each well) and ending of drilling operations (installation and testing of final casing string).

Raw data in digital format without any additional preparation of the data might be additionally requested on a case by case basis in order to check operations, procedures and conclusions related to the success criteria and repayment obligations.

Besides reviewing submitted reports and documentation, the monitoring of Drilling Programs encompasses up to four site-visits per drilling project (up to three wells). The first site-visit will be conducted by the technical consultant of the Fund Manager during the drilling of the first well. In addition, a TPC will conduct site visits during the testing of each of the funded wells.

Failure in complying with the monitoring or reporting requirements will result in a request to rectify the issue. If the issue remains, dispute resolution will take place as per the conditions in the Grant Contract. If the dispute resolution remains un-resolved, pertaining failure in complying will result in the cancellation of the Grant Contract. *Repayment of the grant will be required in this case. Additionally, the fund will assert its security position as established in the grant agreement until such time as repayment has occurred.*



Project Stage	Milestone	Reporting Requirement
Project Implementation	Grant Contract Signed	Drilling Plan and Insurance, All Environmental & Social Documentation including ESDD, ESAP, ESIA, ESMP, SEP
Project Implementation	Spud in 1st Well	Spud in Notification and Monthly Reports



<i>Project Implementation</i>	Completion and Testing of Wells 1 and 2	Well Testing, Monthly Reports and Approved Invoices
<i>Project Finalization</i>	Final Report	Integrated Resource Report, Final Environmental Social Report and Success Declaration

Figure 7. Table Indicating timeline of Monthly, Well Testing and Integrated Resource Report completions and submittals.

Information and Communication

After signing of the Grant Contracts in each application round, information on the total number of projects funded and the total amount of funds may be published on the GDF webpage.

As part of their application, basic information including the developer, the general location, size and nature of the resource; type of Surface Studies to be undertaken; type and number of drilling operations and metadata on information sources will be made available for download to the public. This document will be available after the Grant Contract has been signed.

For Surface Studies, in addition to what is stated above, the entire Integrated Resource Report will be kept confidential. However, this information may be used in the assessment of a Drilling Application if one is made by the same Grantee.

All project documentation will be kept confidential for a period of two years starting with handover of the report to the Fund.

Confidentiality and Data Protection

All data provided by an Applicant will be used exclusively with regard to management of the Fund and pertinent grants. For administrative and legal reasons, all Applicants must permit the use of the data and release the Fund Managers from all liability regarding proprietary data and security. As such, once data is voluntarily provided by the Applicant it is not considered proprietary by the Fund Managers for the purpose of managing the data, the fund, or related activities.

By submitting an EOI and a CFP Grant Application, either for Surface Studies or Drilling Projects, the Applicant implicitly understands and agrees to these data protection principles and releases the Fund Managers and the donor institutions, such as KfW from claims and liability for the use of the information.

The donors and the Fund Manager will keep confidential the details of any Application and any information made available in connection with any further inquiries and/or discussions with the Project Developer/Applicant except that mentioned above in the Information and Communication section. The details of any Application will only be made available to the GDF Council and the Fund Manager's employees and professional advisers which are directly involved in the appraisal of such information. If required and approved in writing by the Council, the data may also be transferred to internal audit services and/or relevant third parties directly involved in the GDF operations and management.



If agreed in writing by the Applicant, all application and project documentation for follow-on drilling projects can be shared with Munich RE/CAF/CABEI for a joint application for additional funding.

Environmental and Social Standards

The Developer's Responsibilities

It is the Developer's responsibility to carry out its operations at all times in compliance with all applicable national environmental, occupational health & safety and social laws and regulations. International Law including conventions and treaties adopted by the host country and applicable to the Project will be respected.

In addition, compliance with the requirements of KfW's Sustainability Guideline and therewith International Environmental and Social Safeguards is required:

IFC Environmental and Social Performance Standards (PS)⁴:

- PS1: Social and Environmental Assessment and Management Systems
- PS2: Labor and Working Conditions
- PS3: Pollution Prevention and Abatement
- PS4: Community Health, Safety, and Security
- PS5: Land Acquisition and Involuntary Resettlement
- PS6: Biodiversity Conservation and Sustainable Natural Resource Management
- PS7: Indigenous Peoples
- PS8: Cultural Heritage

World Bank Group's Environmental and Health and Safety (EHS) Guidelines⁵

- General EHS Guidelines
- EHS Guidelines for Geothermal Power Generation
- EHS Guidelines for Onshore Oil and Gas Development (for the management of naturally occurring radioactive materials (NORM))
- World Bank Group's EHS Guidelines for Toll Roads (regarding abnormal load transports)

IFC/WB EHS Guideline on Power Transmission and Distribution

Guidelines on Incorporating Human Rights Standards and Principles, Including Gender, in Program Proposals for Bilateral German Technical and Financial Cooperation⁶,

⁴ IFC Performance Standards

⁵ IFC EHS Guidelines

⁶ Guidelines on Incorporating Human Rights Standards and Principles, Including Gender, in Program for Proposals for Bilateral German Technical and Financial Cooperation, 2013



For the resettlement aspects, the UN Basic Principles and Guidelines on Development-based Evictions and Displacement, namely §§ 42, 49, 52, 54 and 60, have to be complied with (in addition to national legislation and IFC PS5).

For workers' accommodations, projects should adhere to international standards for worker housing such as "Workers' Accommodation: Processes and Standards: A Guidance Note by IFC and the EBRD"⁷.

In addition, guidance shall be obtained from "Geothermal Exploration Best Practices: A Guide to Resource Data Collection, Analysis, and Presentation for Geothermal Projects (IFC 2013) and "Best Practices Guide for Geothermal Exploration" (2014 by IGA in cooperation with IFC)⁸.

Host Country Legislation and the International Applicable Standards are together referred to as the Applicable Standards. According to the Applicable Standards the following main topics are under the Developer's responsibility:

Environmental and Social Risk Management

The assessment of environmental and social impacts and risks, including their significance and materiality, as well as the development of adequate management plans and programs are key tools for achieving sound environmental and social performance for undertakings funded by GDF. To assess these impacts and design management plans and programs an Environmental and Social Impact Assessment (ESIA) needs to be conducted (see further information below). The central tool to address and manage the specific risks and impacts of geothermal projects is an appropriate environmental and social management system (ESMS), in line with relevant legislation of the host country and compliant with the Applicable Standards.

Stakeholder Engagement

The Developer is required to prepare and implement a continuous process of Stakeholder Engagement, to be built into project planning in a way that enables a meaningful information exchange with all identified stakeholder groups at the very outset of the project and at subsequent key decision-making points in its life cycle. Stakeholder engagement activities need to satisfy host country legal requirements, guidelines, and formats and have to be compliant with the Applicable Standards. Adequate budgetary resources should be foreseen and dedicated to this activity.

As key element of Stakeholder Engagement, the timely disclosure of relevant project information enables stakeholders to understand the project's risks, impacts, and opportunities. The Developer will disclose Information to stakeholders in the local language(s) and in a manner that is timely, accessible and culturally appropriate. Any vulnerable or minority groups will be meaningfully taken into account in order to secure their equitable representation and for due consideration of their rights, views, and interests.

⁷http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/learning+and+adapting/knowledge+products/publications/publications_gpn_workersaccommodation

⁸http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/learning+and+adapting/knowledge+products/publications/publications_handbook_geothermal-bp/



Stakeholder Engagement comprises consultation of communities who are or are likely to be, affected by adverse impacts from a project. The Developer will undertake a process of meaningful consultation in a manner that provides the affected parties with opportunities to identify and express their views on project risks, impacts, and mitigation measures.

The overall frequency and degree of engagement and consultations will depend on the nature and magnitude of risks and current and potential adverse environmental or social impacts arising from the project.

The Developer's responsiveness and the meaningful on-going engagement and consultations with impacted individuals, communities and other relevant stakeholders are key for a meaningful process of Stakeholder Engagement.

Indigenous People, Free Prior and Informed Consent (FPIC)

It is the Developer's responsibility to assess at the very outset of the Project if indigenous communities are present in the wider concession area. Careful probing of on-site communities' qualification will be undertaken, in order to establish if IFC Performance Standard (PS) 7 (Indigenous Peoples) ought to be triggered.

In case IFC PS 7 is triggered, the principle of free, prior and informed consent (FPIC) has to be applied by the Developer. In line with IFC PS 7, FPIC refers to the process whereby an affected community of indigenous peoples arrives at a decision in accordance with their legal provisions, cultural traditions and practices.

The FPIC process should produce a clear endorsement or rejection of the proposed project and a statement of accompanying mitigating measures and/or benefit-sharing agreements. As such, it is the main instrument ensuring to the Developer and the GDF that at the project level, the indigenous peoples' priorities for economic, social and cultural development and environmental protection are promoted, informed by their traditional cultures, knowledge, and practices, and the implementation of their inherent right to self-determination.

FPIC is expected to be established through good faith negotiation between the Developer and the participating indigenous communities and to be fully documented as a mutually accepted process between the parties, carrying evidence of agreement between them as the outcome of the negotiations and clearly outlining benefit- and risk-sharing provisions.

Further information on the above described Developer's responsibilities is provided below including required assessments, management plans, and essential considerations.

Surface Study Phase

All activities during the Surface Studies have to be undertaken in line with the relevant national legislation and requirements and compliant with the Applicable Standards.

Environmental and Social Documentation Requirements

The Developer will submit:



- a) **Inception Report**, containing key environmental and social information on the area to be studied. The Inception Report has to include the Developer's work plan for the acquisition of environmental and social information and related activities during the surface study phase if any.
- b) **Stakeholder Engagement Plan (SEP)**, describing the overall approach for stakeholder engagement and the stakeholder engagement activities to be undertaken during the Surface Study Phase, explaining how local communities in the survey area will be informed about the activities and consulted during the field work. The SEP will contain an initial grievance mechanism, to be further developed based on information from stakeholder engagement during the Surface Studies.

Note: These documents are not required to be submitted during the application phase, however, the documentation will need to be approved before grant signing and will become part of the Grant Contract. The Applicant is required to conform and adhere to all national, regional and local regulations. It is the obligation of the Grantee that all work is performed in accordance with all pertinent laws.

SEP has to include actions to clarify whether IFC PS 7 is triggered by the Project and the SEP has to contain respective provisions to apply the process of Free, Prior Informed Consent in case this would be required.

The Inception Report with work plan and the SEP will be reviewed by GDF and are subject to "No Objection".

Completion of Surface Studies: Scoping Report

During the surface study phase, based on the inception report, initial environmental and social baseline information may be obtained in preparation of the full ESIA required for Drilling phases. The scoping exercise aims at identifying those potential impact areas that need further investigation in the ESIA phase. The result of these investigations, including the initial stakeholder engagement activities, is a Scoping Report, to be submitted by the Developer after the completion of the surface study phase. The Scoping Report will cover the physical, biological, socioeconomic and cultural environments within the proposed project area and identify the key issues relevant to the Project to be considered in the full ESIA for Exploration Drilling and in complementary ESIA's for further project developments (i.e. production drilling, power plant, transmission lines). The Scoping Report will provide confirmation of the Project's Area of Influence (Aoi)⁹, the Terms of Reference for any additional baseline studies needed and for impact assessment and development of ESIA's, ESMPs, Resettlement Action Plans and any other safeguard instruments as required in order to comply with the Applicable Standards.

The information obtained during the surface study phase will inform the further development/update of the Updated SEP, e.g. will provide input on the design of the engagement activities for the forthcoming ESIA phase. As part of the overall stakeholder engagement process, stakeholders should be able to

⁹ The Aoi shall be defined and considered as the relevant physical, biological, and socioeconomic receptors potentially affected by the proposed Project

provide input to the SEP and any other scoping document and receive feedback on how their comments and input have been incorporated and addressed. This process shall be made visible via an Updated SEP comprising a transparent, accessible, culturally appropriate and free of cost grievance mechanism.

By completion of the surface study phase and as pre-requisite for final disbursement, the Developer will submit in line with the Applicable Standards:

- a) Any E&S documentation as required by national legislation,
- b) Scoping Report and
- c) Updated SEP.

In case IFC PS 7 is triggered, the Developer will provide documented evidence for the application of FPIC and the respective decision made in this context (see under Section “Environmental and Social Standards” above).

The Scoping Report and the updated SEP will be subject to review and “No Objection” by GDF.

Reporting during Surface Study Phase

During the surface study phase (from GC signing up to submission complete E&S Documentation as required), the Developer will submit monthly status reports, comprising information on stakeholder engagement activities and respective findings as well as on the progress of environmental and social field studies (Figure 8).



Figure 8. Surface Study Environmental Social reporting requirements.

Exploration Drilling Phase

All activities during the Exploration Drilling Phase have to be undertaken in line with the relevant national legislation and requirements and compliant with the Applicable Standards.

Environmental and Social Documentation for Application

For application the Developer will submit:



ESDD – Environmental and Social Due Diligence report that contains an independent GAP analysis against the above described standards and an Environmental and Social Action Plan (ESAP) describing the deficiencies and requirements to update the ESIA, ESMP, and SEP.

The Fund Manager may request the following documentation during CFP evaluation and full documentation will be required to be submitted before fund disbursements can be made. Grant funds can be applied to updating the ESIA ESMP and SEP as per the deficiencies described in the ESDD. Drilling cannot begin until all deficiencies noted have been shown to have been implemented/ remedied. *Failure to remedy noted deficiencies will result in the cancellation of the grant and activation of the security interest to recover any disbursed payments.*

- a. ESIA report,
- b. ESMP as result of the ESIA process,
- c. SEP covering all project phases and all relevant national legal requirements regarding public information and disclosure. The SEP will be informed by but may not be limited to findings from the surface study phase and from any environmental and social studies carried out for the Project so far. The SEP will comprise a transparent, accessible, culturally appropriate and free of cost grievance mechanism,
- d. Any other environmental and social management plans as identified as required and applicable (e.g. Resettlement Action Plan, Livelihood Restoration Plan, Water Resources Management Plan, Biodiversity Action Plan, Indigenous Peoples Plan).

The ESIA and SEP process shall indicate whether indigenous people are present in the project area/on the project sites. In this case, IFC PS 7 will be triggered and the Developer will apply the process of FPIC and will provide documented evidence for the application of FPIC and the respective decision made in this context. In addition, and Indigenous Peoples Plan may be required or appropriate provisions in line with IFC PS 7 have to part of the ESMP (respective sub-plans, e.g. community development plans) and of the SEP.

During the Drilling Program phase (from Grant Contract signing / start of early contracting, up to final E&S Report/Completion Report), the Developer will submit monthly status reports, comprising information on stakeholder engagement activities and respective findings as well as on the progress of environmental and social field studies (Figure 9).

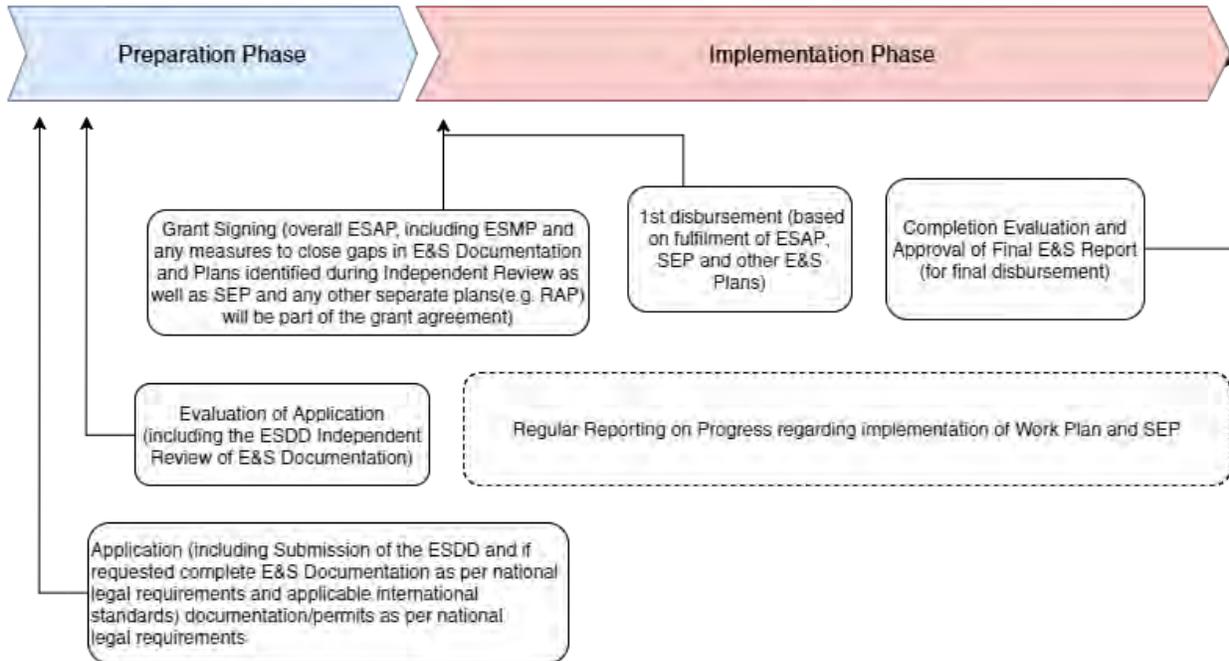


Figure 9. Drilling Environmental Social reporting requirements.

Timeline Monitoring Process

The times stipulated in this section depend on the type of grant and the chosen procurement option. Note that due to the additional requirements of the projects with Procurement Option 2, the execution time is extended by six months. Further, the timeline, milestones can be modified by the Fund Manager and or the Council as they determine. An Applicant or Grantee that requires a change in the timeline is required to request the change in writing to the Fund Manager.

Note

No work can be done until Declarations of No Objection/Certificate of No Objection (DNO/CNO) have been received from the Fund Manager to the Grantee for both procurement and ESIA. In addition, monthly reports should begin on the project immediately upon the completion and execution of the Grant Agreement. Please note that this extension of an additional six (6) months applies to all projects (Surface Studies & Confirmation Drilling projects) using Procurement Option 2.

Surface Studies – Procurement Option 1

According to this option, the Grantee has already identified its Contractor(s). As soon as the Grantee signs the agreement, they will have one (1) month to present to the Fund Manager the IR, SEP, and the



Procurement Plan Letter(s) of Intent to Associate from the CFP application with a cover letter confirming that there has not been any change since the CFP.

After this, the Fund Manager will have one (1) week to evaluate and provide an opinion and results to the Grantee; if the IR and SEP fulfill GDF requirements, the Grantee will obtain another CNO. With these certificates, both parties may sign the Grant Agreement. If for any reason the Grantee does not meet the requirements of the IR, SEP, and Procurement Plan, the Grantee will be given an additional month to present the updated documentation in order to receive a CNO and subsequently sign the Grant Agreement. The Fund Manager will determine when the updates of these documents are sufficient.

After the fully executed agreement, the Grantee will have six (6) months to inform the Fund Manager of commencement of activities. The Grantee will have fifteen (15) months to complete all activities.

During Surface Studies activities, the Grantee is required to provide monthly progress reports for technical aspects (project status) and quarterly progress reports for environmental and social (E&S) issues. The Grantee will be provided with the links to access the online surveys through the GDF web portal. These reports will describe working progress, data and results, timeline, and budget for the technical and E&S aspects.

Raw data in digital format may be additionally requested on a case-by-case basis by the Fund Manager, in order to verify results and interpretation if the Integrated Resource Report (IRR – Final Report) is not sufficiently detailed.

The Fund Manager will have two (2) weeks to evaluate and provide comments to the Grantee regarding each report (monthly and quarterly). The Grantee may be required to update subsequent reports in accordance with the comments of the Fund Manager.

Within six (6) months of completion of all work, the Grantee shall complete an IRR and a Final E&S Report. This IRR shall include a description of all collected data, interpretations, and updates of project documentation, as well as information on total project costs. The Final E&S report shall include all information collected during the project including social, biological, physical, cultural, and environmental information. The reports must also include dates, causes, and justifications for overages in time, scope, and costs when applicable.

All reporting will be completed online through the GDF online reporting system.

The Fund Manager will have up to one (1) month to evaluate and provide comments to the Grantee about these final documents. The Grantee may be required to make changes or provide additional information to the Fund Manager (See Figure 10 for more details).

Surface Studies – Procurement Option 2

According to this option, the Grantee has not identified its Contractor(s) yet. After the Grantee signs the Grant Agreement, the Grantee will have four (4) months to present to the Fund Manager its IR, SEP, and Procurement Plan. This period is distributed as follows: one (1) month to present to the Fund Manager the IR and SEP, and three (3) months to present the Procurement Plan and get approval from the Fund



Geothermal Development Facility (GDF) Developers' Manual



Manager. Procurement Option 2 requires considerable effort and will certainly take some time for the Grantee to form a plan that conforms to GDF and KFW procurement guidelines.

Subsequently, the Fund Manager will have one (1) week to evaluate and provide results to the Grantee; if the IR, SEP, and Procurement Plan are compliant with GDF requirements, the Grantee will obtain a CNO. With these certificates, both parties may sign the Grant Agreement.

If for any reason the Grantee does not meet the requirements of the IR, SEP, and Procurement Plan, the Grantee will be given an additional month to present the updated documentation in order to receive a CNO and subsequently be able to sign the grant agreement. The Fund Manager will determine when the updates of these documents are sufficient.

After the fully executed agreement, the Grantee will have twelve (12) months to commence activities. Within these months, the Grantee should publish the Procurement notice in the Germany Trade & Invest (GTAI) and select its Contractor. This GTAI notice will also be sent to the GDF Fund Manager, who will issue a CNO if appropriate. As soon as the Contractor has been selected, the Grantee must notify the Fund Manager about their selection and then the GDF will provide a CNO.

After this notification, the Grantee will have fifteen (15) months to complete all activities.

During Surface Studies activities, the Grantee is required to provide monthly progress reports for technical aspects (project status) and quarterly progress reports for environmental and social (E&S) issues. The Grantee will be provided with the links to access the online surveys through the GDF web portal. These reports will describe working progress, data and results, timeline, and budget for both technical and E&S aspects.

Raw data in digital format may be additionally requested on a case-by-case basis by the Fund Manager, in order to verify results and interpretation if the IRR is not sufficiently detailed.

The Fund Manager will have two (2) weeks to evaluate and provide comments to the Grantee regarding each report (monthly and quarterly). The Grantee may be required to update reports in accordance with the comments of the Fund Manager.

Within six (6) months of completion of work, the Grantee shall complete an IRR and a Final Environmental and Social Report. This IRR shall include all collected data, interpretations, and updates of project documentation, as well as information on total project costs. The final E&S report shall include all social, biological, physical, cultural, and environmental information collected during the project. The reports must also include dates, causes, and justifications for overages in time, scope, and costs when applicable.

All reporting will be completed online through the GDF online reporting system.

The Fund Manager will have up to one (1) month to evaluate and provide comments to the Grantee about these final documents (See Figure 11 for more details).



Confirmation Drilling – Procurement Option 1

According to this option, the Grantee has already identified its Contractor(s). As soon as the Grantee signs the agreement, they will have one (1) month to present to the Fund Manager the ESDD and the Procurement Plan Letter(s) of Intent to Associate from the CFP application, along with a cover letter confirming that there has not been any change since the CFP.

After this, the Fund Manager will have one (1) week to evaluate and provide an opinion and results to the Grantee; if the ESDD fulfills GDF requirements, the Grantee will obtain another CNO. With these certificates, both parties may sign the Grant Agreement. If for any reason the Grantee does not meet the requirements of the ESDD and Procurement Plan, the Grantee will be given with an additional month to present the updated documentation in order to receive a CNO and subsequently sign the Grant Agreement. The Fund Manager will determine when the updates of these documents are sufficient.

After the fully executed agreement, the Grantee will have twelve (12) months to inform the Fund Manager of commencement of activities. After this notification, the Grantee will have twenty-four (24) months to complete all activities.

During Confirmation Drilling activities, the Grantee is required to provide monthly progress reports for technical aspects (project status) and well testing, and quarterly progress reports for environmental and social (E&S) issues. The Grantee will be provided with the links to access the online surveys through the GDF web portal. These reports will describe working progress, data and results, timeline, and budget for both technical and E&S aspects.

Raw data in digital format may be additionally requested on a case-by-case basis by the Fund Manager, in order to verify results and interpretation if the IRR is not sufficiently detailed.

The Grantee shall inform the Fund Manager of the start (spud-in for each well) and end of drilling operations (installation and testing of final casing string).

The Fund Manager will have two (2) weeks to evaluate and provide comments to the Grantee regarding each report (monthly and quarterly). The Grantee undertakes to update subsequent reports in accordance with the comments of the Fund Manager.

Within six (6) months of the completion of work, the Grantee shall complete an Integrated Resource Report (IRR), a Final Environmental and Social Report, and a Success Declaration. This IRR shall include a description of all collected data, interpretations, and updates of project documentation, as well as information on total project costs. The Final Environmental and Social Report and Success Declaration shall include all social, biological, physical, cultural, and environmental information collected during the project. The reports must also include dates, causes, and justifications for overages in time, scope, and costs when applicable.

All reporting will be completed online through the GDF online reporting system.



The Fund Manager will have up to one (1) month to evaluate and provide comments to the Grantee about these final documents (See Figure 10 for more details).

Confirmation Drilling – Procurement Option 2

According to this option, the Grantee has not identified its Contractor(s) yet. After the Grantee signs the Grant Agreement, the Grantee will have four (4) months to present to the Fund Manager the ESDD and the Procurement Plan. This period is distributed as follows: one (1) month to present to the Fund Manager the ESDD and three (3) months to present the Procurement Plan and get approval from the Fund Manager. Procurement Option 2 requires considerable effort and will certainly take some time for the Grantee to form a plan that conforms to GDF and KFW procurement guidelines.

After this, the Fund Manager will have one (1) week to evaluate and provide an opinion and results to the Grantee; if the ESDD fulfills the GDF requirements, the Grantee will obtain another CNO. With these certificates, both parties may sign the Grant Agreement. If for any reason the Grantee does not meet the requirements of the ESDD and Procurement Plan, the Grantee will be given with an additional month to present the updated documentation in order to receive a CNO and subsequently sign the Grant Agreement. The Fund Manager will determine when the updates of these documents are sufficient.

After the fully executed agreement, the Grantee will have eighteen (18) months to start or commence activities. Within these months, the Grantee should publish the Procurement notice in the Germany Trade & Invest (GTAI) and select the Contractor. This GTAI notice will also be sent to the GDF Fund Manager, who will issue a CNO if appropriate. As soon as the Contractor has been selected, the Grantee must notify the Fund Manager about their selection and then the GDF will provide a CNO.

After the commencement notification, the Grantee will have twenty-four (24) months to complete all the activities.

During Confirmation Drilling activities, the Grantee is required to provide monthly progress reports for technical aspects (project status) and well testing, and quarterly progress reports for environmental and social (E&S) issues. The Grantee will be provided with the links to access the online surveys through the GDF web portal. These reports will describe working progress, data and results, timeline, and budget for both technical and E&S aspects.

Raw data in digital format may be additionally requested on a case-by-case basis by the Fund Manager, in order to verify results and interpretation if the IRR is not sufficiently detailed.

The Grantee shall inform the Fund Manager of the start (spud-in for each well) and end of drilling operations (installation and testing of final casing string). Note that well testing must be completed and evaluated by an independent Third-Party Consultant (TPC) (refer to the Developer's Manual – Third-Party Consultant for Well Test Evaluation, page 38).



Geothermal Development Facility (GDF) Developers' Manual



The Fund Manager will have two (2) weeks to evaluate and provide comments to the Grantee regarding each report (monthly and quarterly). The Grantee undertakes to update subsequent reports in accordance with the comments of the Fund Manager.

Within six (6) months of completion of work, the Grantee shall complete an IRR, a Final Environmental and Social Report, and a Success Declaration. This IRR shall include all collected data, interpretations, and updates of project documentation, as well as information on total project costs. The Final Environmental and Social Report and Success Declaration shall include all social, biological, physical, cultural, and environmental information collected during the project. The reports must also include dates, causes, and justifications for overages in time, scope, and costs when applicable.

All reporting will be completed online through the GDF online reporting system.

The Fund Manager will have up to one (1) month to evaluate and provide comments to the Grantee about these final documents (See Figure 11 for more details).

Figure 10 shows the summary of the timeline for Surface Studies and Confirmation Drilling projects with Procurement Option 1, and Figure 11 shows the summary of the timeline for Surface Studies and Confirmation Drilling projects with Procurement Option 2.



Geothermal Development Facility (GDF) Developers' Manual

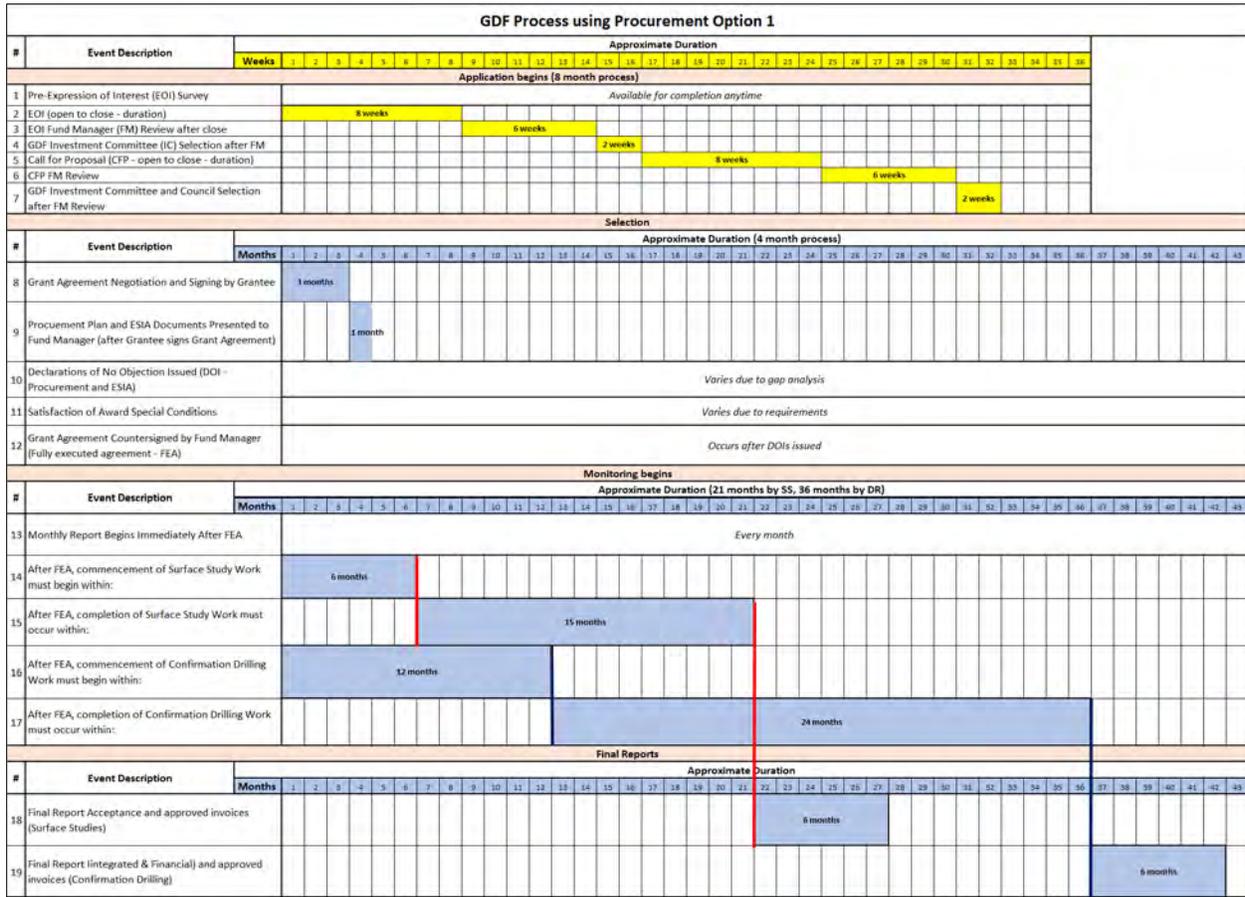


Figure 10. Timeline Option 1 - Procurement Plan.





Geothermal Development Facility (GDF) Developers' Manual

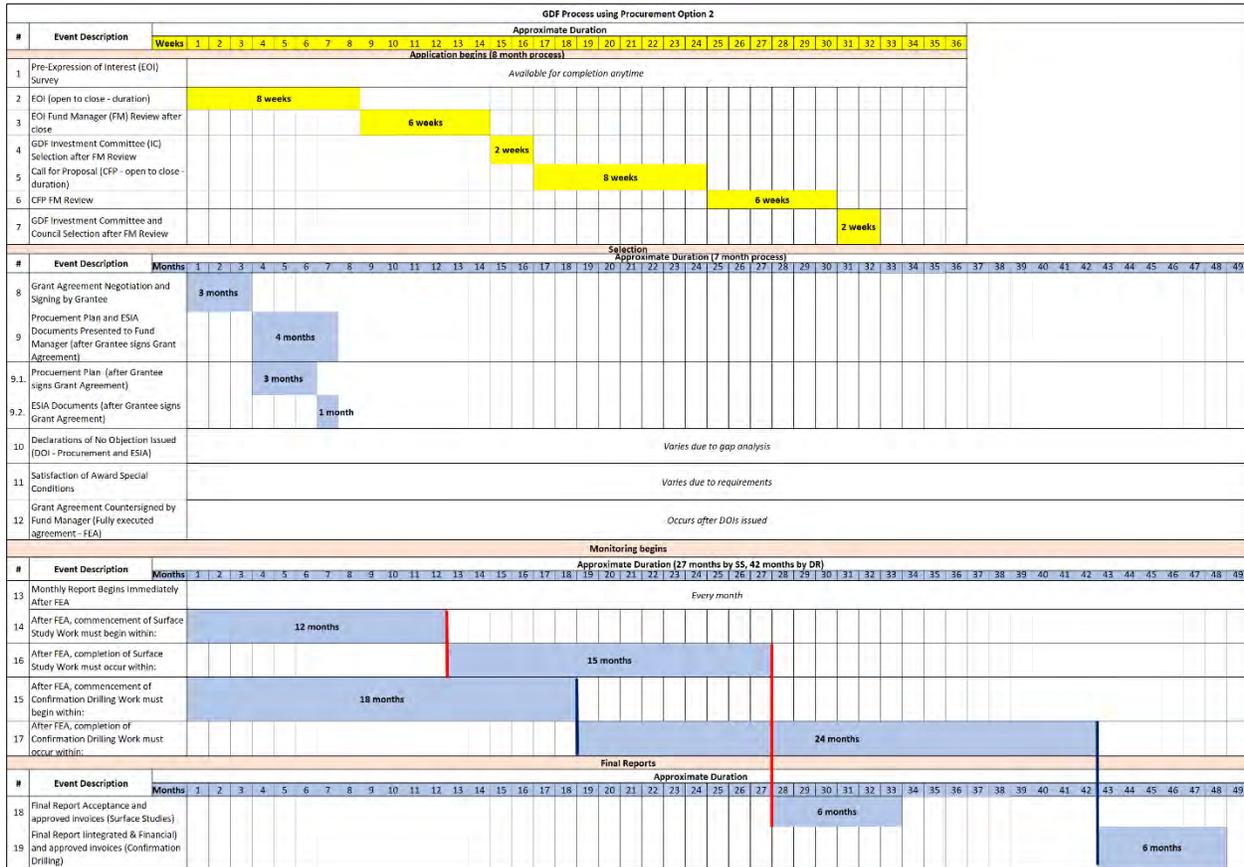


Figure 11. Timeline Option 2 - Procurement Plan.

Know your Client (KYC)

All applicants are required to complete and submit an integrity questionnaire documenting certain aspects of their businesses and beneficial owners. This information is critical and the GDF is guided by IFC KYC standards. If the applicant fails to submit the information or submits incomplete information that is deemed by the Fund Manager to be deficient in some way, then their application is likely going to be dismissed and not evaluated. The KYC integrity questionnaire is included within the online forms and will be evaluated during the EOI and CFP. Although subject to modification from time to time a copy of the questionnaire can be found in Table 8. Please note that the Fund Manager may perform an independent KYC evaluation as required.





Table 8: Know Your Client Integrity Questionnaire. This questionnaire will be used to evaluate the integrity of the applicant. The completion of this form and the review of responses will be required as part of both the EOI and CFP process.

Identification	
*For all entities, include the country of the entity's incorporation and principal place of business. For all individuals, include the person's nationality.	
Name of Applicant, and any alternate names used:	
Country of Applicant's incorporation and principal place of business:	
Names of Applicant's senior management (CEO, COO, CFO, etc.):*	
Names of the members of Applicant's board of directors: *	
Names of beneficial owners, directly or indirectly owning 5% or more of Applicant: * (Please provide a complete organigram of the organization with details of ultimate beneficial owners as an attachment.)	
Names of Applicant's parent companies, subsidiaries, and significant affiliates: *	
Questions	
These questions apply to any of the above-listed people or entities:	
<p>1. Has been included on the U.N. Security Council sanctions list, OFAC, EU, or World Bank sanctions list? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, list the names of the sanctioned individuals or entities and describe the sanction:</p> <p>2. Has been listed on the World Bank Group's debarment or temporary suspension list? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, list the names of the sanctioned individuals or entities and describe the debarment or temporary suspension:</p> <p>3. Within the last five years, has been: (a) convicted of any crime; or (b) found civilly liable or reached a settlement related to an integrity issue (e.g., enforcement actions requiring compliance reporting or fines, administrative or arbitration proceedings, regulatory breaches, etc.)? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, list the names of the individuals or entities and describe the conviction(s), civil judgment(s), or settlement(s):</p> <p>4. Is under investigation for criminal activities or serious civil infractions? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, list the names of the individuals or entities and describe investigation(s):</p>	



5. **Within the last five years, has been responsible for any significant environmental, social, or health incident?**

Yes No If yes, list the names of the individuals or entities and describe the issue(s):

Other relevant information (e.g., unusual corporate structure, any other issue relating to the above-listed entities and individuals that would be relevant to the integrity due diligence. Please submit as a separate attachment to your application. In addition, any changes to ownership or corporate structure throughout the project must be reported accordingly to the Fund Manager)