



# Guidelines for Geothermal Projects

## Content of Standard Contracts

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## CONTENTS

1.	GUIDELINES TO THE CONTENT OF STANDARD CONTRACTS .....	4
2.	GENERAL CONSIDERATIONS – STANDARDS .....	4
3.	CHECKLIST OF THE TYPICAL CONTENT OF A GEOTHERMAL DRILLING CONTRACT .....	5
3.1.	Definitions .....	5
3.2.	Interpretation .....	5
3.3.	Duration.....	5
3.4.	Breach of contract.....	5
3.5.	Cancelling for other purposes (without reason) .....	5
3.6.	Suspension.....	6
3.7.	Standards of performance.....	6
3.8.	The rights and obligations of the drilling contractor.....	6
3.9.	The concession holder's rights and obligations .....	6
3.10.	Representatives of the partners.....	6
3.11.	Economic conditions .....	6
3.12.	Confidentiality .....	6
3.13.	Responsibility and indemnification .....	6
3.14.	Insurance .....	7
3.15.	Transfer.....	7
3.16.	Sub-contracting.....	7
3.17.	Notes and communication .....	7
3.18.	Force majeure .....	7
3.19.	Selection of court.....	7
3.20.	Settling of conflicts.....	7
3.21.	General conditions .....	7
3.22.	Signature.....	7
3.23.	Appendix.....	7
4.	WHERE TO FIND ADDITIONAL INFORMATION .....	9
5.	USE OF THE GUIDANCE .....	10

## 1. Guidelines to the content of standard contracts

These guidelines to the content of a standard contracts focus on the contract(s) to be signed between on one side the district heating company/geothermal company (hereafter referred to as *the concession holder*) and on the other side the drilling contractor.

A geothermal project consists of a large number of various contracts and agreements of considerable significance (especially contracts for pre-surveys and seismic contracts), but the drilling contract must be considered the most important one seen in an economical as well as a technical perspective. Consequently, this type of contract should be thoroughly focused upon.

These guidelines being part of six guidelines concerned with geothermal projects were drafted to the Danish Energy Agency (DEA) in 2015, and are to be read as a whole:

### Strategic approach to geothermal projects

Verification  
process for  
geothermal  
projects

Regulatory  
requirements

Organisation and  
competences

Content of  
standard  
contracts

Budgeting for  
and cost control  
of geothermal  
wells

## 2. General considerations – standards

It is recommended for the district heating company to use the standard contract normally used within the energy industry as such one is well suited to act as a draft of a drilling contract. Several such standard are available.

One possibility is to use the Danish or British version of AB 92 (general conditions for building and construction). These standard conditions known to most Danish players are an expression of the general legal basis for contracts and are relatively balanced between the interests of the district heating company and the drilling contractor. It is possible to use the standard ABT 93 for total deliveries/total contracts.

The disadvantage is that both AB 92 and ABT 93 will require considerable adjustment if acting as a drilling contract, and typically foreign players are not likely to know the conditions in advance.

Another possibility is to use international standards typically developed within the oil and gas industry.

The most common standards are the British LOGIC contracts covering a long succession of technical deliveries and developed by working groups consisting of oil companies and contractors/suppliers. Several of the standards may advantageously be re-arranged to act as a draft of a drilling contract for geothermal projects in Denmark.

Another leading oil and gas nation, Norway, has developed industrial standards for the oil and gas activities. Like the British standards they, too, may be used for geothermal projects. Especially NF 07 (Norwegian Fabrication Contract 2007) and NTK (Norwegian Total Contract) should be mentioned.

Additionally, a number of contracts and standards for agreements – typically found on the Internet – may, after a certain adjustment, be used for drilling contracts in geothermal projects.

However, under all circumstances it is wise to let an experienced contract engineer or legal advisor experienced in the business be the *drafter* of the agreement and ensure proof and quality control both of commercial and the legal aspects of the contract.

### **3. Checklist of the typical content of a geothermal drilling contract**

First of all, two important principles for contracts should be discussed.

Primarily, it is of paramount importance that the contract is considered as an integrated document comprising technical, commercial as well as legal conditions, and the best contract is obtained when the three areas are closely intertwined.

For that reason, it is important for expertise in all three disciplines to be closely involved in the planning, negotiating and signing of contracts.

Secondly, it is important to stress that the legal text of the contract cannot stand alone, but should be closely in compliance with a number of appendices accepted as a part of the contract.

Such appendices typically will comprise a description of the work (a drilling program), information about special technical and geological conditions, a time schedule, prices and rates, administrative relations, list of insurances – shortly, a long succession of detailed conditions of major importance, typically not stated in the legal text, but discussed and agreed on in appendices to the contract.

Below is a list of typical contractual conditions of drilling contracts. Comments to the individual conditions are included.

#### **3.1. Definitions**

It is often an advantage to let the contract include definitions of the most important aspects of the undertaking – like a precise definition of the partners, their respective *groups*, hereunder owners and affiliates, the drilling rig to be used as well as a number of technical and legal terms frequently met in the contract.

#### **3.2. Interpretation**

This section typically comprises statements on which documents take precedence to others, e.g. the text of the contract versus appendices and the internal priority of the appendices if inconsistency between them exists.

#### **3.3. Duration**

It is an advantage to let the contract state start and deadline for the mobilizing of the drilling rig as well as a date of the commencement of the drilling operation. Such times are of significant importance not least for calculation of the costs as well as clarifying responsibilities and insurances etc.

#### **3.4. Breach of contract**

The standard contract typically states situations which may result in the drilling contractor breaching the contract, such as delay in execution of work, inferior quality etc. offering the concession holder the right to demand payment of fines, reduction of cost, compensation or – in case of major non-performance which cannot in any reasonable way be rectified – cancelling of the contract. Stated, too, is the procedure to be followed if the concession holder wants to apply such rights.

#### **3.5. Cancelling for other purposes (without reason)**

The concession holder may have a need for cancelling the contract – without reason – giving for instance 30 or 60 days notice. This will often be negotiated before signing, but it should be expected that the drilling contractor will reserve the right to a cancelling fee or another type of compensation for granting this right to the concession holder.

### **3.6. Suspension**

Like in case of cancelling without a reason the concession holder might need to suspend the contract. This may often be negotiated, but it is to be expected that the drilling contractor will reserve the right to have running costs during the period of suspension covered.

### **3.7. Standards of performance**

This clause calls upon the drilling contractor to comply with good practise in the drilling industry, to use qualified and experienced personnel, comply with legislation and standards and in general to perform the job in a conscientious way. The clause may contain specific guarantees offered by the drilling contractor.

### **3.8. The rights and obligations of the drilling contractor**

This clause may elaborate further on the duties of the drilling contractor during the operation, including providing a confirmation that the drilling contractor is familiar with the underground, the drilling site, the climate and weather conditions of the area, and that he/she is aware of and will follow all rules in force for the work. Included may also be conditions for remedy of shortcomings, meeting delays, responsibility for own personnel, duty to cooperate with other suppliers, advisors etc.

### **3.9. The concession holder's rights and obligations**

His/her obligations, among other things, comprise of granting the drilling contractor access to the drilling site, just as the central obligation of paying the drilling contractor correctly and timely may be included here. His/her rights may comprise the right to inspect the site and to be informed on behalf of their party/employer.

### **3.10. Representatives of the partners**

Each party, typically, shall appoint a representative (and a substitute) to receive all information, notices and information during the contract, and who can take action or decide on behalf of his/her party/employer.

### **3.11. Economic conditions**

This clause covers the duty of the concession holder to pay (daily) rates for the work as stated in an appendix. For total contracts, it will typically be a matter of a fixed amount.

### **3.12. Confidentiality**

Typically, the parties agree on confidentiality in all significant matters concerning their economic interests or business secrets and to ensure a clear and controlled communication to media, the public etc.

### **3.13. Responsibility and indemnification**

Typically, the clauses on responsibility and indemnification will be most complicated as it is necessary to agree on a clear and reasonable distribution of responsibility for injury of personnel, damage to drilling rig and other equipment as well as responsibility for injury of third person, including responsibility for damage to the environment etc. This agreement shall be closely attached to the agreements on insurance. Typically, the clause will contain the so-called *knock-for-knock* principle calling for each party to be responsible only

for damage to own personnel and equipment (and to third party), but not to the other party for injury of his/her party's personnel and damage to equipment.

### **3.14. Insurance**

In order to avoid missing or double insurance it is important that clear agreements are stated as to who is to insure what. Typically, there will be a need for insurance of work and property of own personnel and equipment plus an insurance against third party liability.

### **3.15. Transfer**

This clause covers the right to transfer the contract to e.g. an affiliate or sister company or to a third party.

### **3.16. Sub-contracting**

A significant adjustment of the standard contract will be that the drilling contractor – in addition to his/her own deliveries – shall be responsible, too, for his/her sub-contractors. Furthermore, it may be a requirement that the concession holder shall be allowed to approve the most important sub-contractors.

### **3.17. Notes and communication**

Clear and practical procedures shall be agreed upon regarding how the parties are to communicate with each other and the rest of the world if this has not been stated elsewhere.

### **3.18. Force majeure**

The force majeure clause covers all unusual situations that may justify one of the parties not being able to meet his/her obligations in compliance with the contract as this is caused by extraordinary circumstances like hurricanes, lightning, national strikes, war and unrest etc.

### **3.19. Selection of court**

In contracts for drilling of geothermal wells in Denmark it will typically be agreed that disagreements of contractual matters shall be settled by a Danish court, but major international players may now and then insist on using their own courts, e.g. German, Dutch, British or Swedish courts. This will place further demands on the concession holder's legal support.

### **3.20. Settling of conflicts**

It has to be decided if the parties shall agree on whether disputes and disagreements shall be settled by normal courts or by arbitration possibly after an attempt or similar has been made to mediate. An important issue, too, is where the case is to be tried, for instance in Copenhagen, Hamburg, London or Stockholm.

### **3.21. General conditions**

These conditions may address various subjects like how to react if an agreement is deemed illegal or invalid, relationship to other legislation or similar situations.

### **3.22. Signature**

Both parties sign the contract with name, title and date.

### **3.23. Appendix**

As mentioned before, a drilling contract normally will be accompanied by a large number of appendices. As an example, the following may be mentioned:

Appendices:

- a. Description of Work
- b. Time Schedule
- c. Rates and rates for additional work
- d. Specifications of the drilling rig
- e. Materials to be delivered
- f. Procedures for Safety, Health and Environment Protection
- g. Insurance
- h. Administrative requirements, hereunder invoices

## 4. Where to find additional information

- AB92 and ABT 93 free of charge from Dansk Byggeri:  
<https://www.danskbyggeri.dk>.
- LOGIC standard contracts can be bought from Oil Gas UK and downloaded from:  
<https://www.logic-oil.com/content/standard-contracts-0>.
- The Norwegian standard contracts free of charge from Norsk Industri or downloaded from:  
<http://docplayer.me/1428411-Norsk-fabrikasjonskontrakt-2007-nf-07.html>.
- Udredning om mulighederne for risikoafdækning i geotermiprojekter  
(Memorandum on the possibilities for risk coverage of geothermal projects) (DEA, 2014)
- Drejebog om geotermi  
(Script on geothermics) (DEA, 2014)
- Vejledning om strategisk tilgang  
(Guideline on strategic approach to Geothermal Projects) (DEA, 2015)
- Vejledning om myndighedsbehandling  
(Guideline on Regulatory requirements) (DEA 2015)
- Vejledning om myndighedsbehandling  
(Guideline on verification process for Geothermal Projects) (DEA 2015)
- Vejledning om organisering og kompetencer i forbindelse med geotermi  
(Guideline on Organisational structure and competences) (DEA 2015)
- Vejledning om budget & økonomistyring for geotermiboringer  
(Guideline on Budgeting and cost control for geothermal wells) (DEA 2015)

## 5. Use of the guidance

As everybody knows, no two geothermal projects are alike, and the reader's attention is drawn to the fact that this guidance cannot and does not aim at replacing any concrete advice in the relevant area.

Thus, the guidance under all circumstances should be augmented by special advice on the project in question within planning, regulatory procedures, geology and geophysics, reservoir, drilling management and logistics, legal and insurance-related advice as well as any other type of assistance and advice.