



Guidelines on security and insurances for companies holding an exploration and production licences pursuant to the provisions of the Danish Subsoil Act.

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NOTE: This translation is provided for convenience only, and in the event of any conflict between the wording of the Danish and English versions, the wording of the Danish version shall prevail in all respects.

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1. Introduction and principles

Pursuant to section 24a of the Act on the Use of the Danish Subsoil (the "Subsoil Act"), all licensees under sections 3, 5, 17, 23 or 24 must have adequate financial and technical capacity enabling them to carry out the licensed activities in such a way as to provide society with as much insight and benefit as possible.

The Danish Energy Agency carries out a specific assessment of the financial capacity of licensees in each individual case. The specific assessment is based on some fundamental principles, essentially stipulating that there must be a balance between the licensee's financial obligations and the financial capacity available to the licensee.

The licensee's financial capacity must be sufficient for the licensee to carry out the activities during the forthcoming phase of the operations under the licence, including a contingency fund and the provision of financial security to cover a potential claim for damages arising out of the operations. The financial capacity must include funds for immediate implementation and uninterrupted continuation of all measures required for effective emergency response and subsequent remediation, including if necessary the removal of installations after completion of production.

Pursuant to section 24b of the Subsoil Act, and if the licensed activities are divided into phases, the holder of a licence under sections 3, 5, 17, 23 or 24 must - before embarking on a new phase of a work obligations programme, prior to approval of exploration and appraisal drilling or of a plan for production operations, and prior to implementation of a decommissioning plan for production and conveyance installations - demonstrate sufficient financial capacity for performing the licensed activities.

The licensee must be able to demonstrate that the above obligations can be met by way of the company's equity capital, earnings, insurances and the security provided by the company in favour of the Danish state, etc.

As provided by section 24c of the Subsoil Act, the Minister for Energy, Utilities and Climate may at any time request the holder of a licence granted under sections 3, 5, 17, 23 or 24 of the Subsoil Act to demonstrate that the holder has the required financial capacity to carry out the licensed activities, see section 24a of the Subsoil Act. Should one or more of the participants collectively holding a licence fail to demonstrate such financial capacity, the Danish Energy Agency may require the situation to be rectified within a specified period.

A substantial part of the companies' financial capacity consists of the security provided in favour of the state and of insurances. Under section 24f of the Subsoil

Act, licences may stipulate that licensees are to provide security for the performance of their obligations under the licence. That obligation is specified in section 32 of the Model Licence. According to section 24e of the Subsoil Act the liabilities of the licensee has to be covered by insurance. The insurance must provide adequate cover, having regard to the risk involved in carrying out the operations as well as to the premium costs.

The intention of these guidelines is to provide guidance as to the more flexible use of security, see the provisions of the 2015 Subsoil Act (section 24), while at the same time preventing an increased risk to the state. In addition, the guidelines provide for transparency concerning the requirements for insurances.

These guidelines describe the framework for the provision of security by the companies (section 2) and for the insurances to be taken out by the companies (section 3). A number of terms are defined in section 4.

2. Securities to be provided by the companies

When companies are granted licences in the North Sea, they must – under section 32 of the Model Licence and section 24f of the Subsoil Act – provide security in favour of the Danish state for all public-law and private-law obligations incurred vis-à-vis the Danish state and for all liabilities incurred under section 35 of the Subsoil Act or any other present or future liability regulations, see the Model Guarantee, which may be accessed by clicking on this link: <https://ens.dk/en/our-responsibilities/oil-gas/legislation-and-guidelines> (section1.3.c).

Generally, the participant must provide an unlimited parent-company guarantee (the Model Guarantee). After a specific assessment, the Danish Energy Agency may in exceptional cases seek to uncover any options for the participants in a licence to provide other types of security.

This practice is a direct extension of the practice in countries with which Denmark usually compares herself. It is common practice in both the UK and Norway for parent-company guarantees to be unlimited in amount as well as time, and for them to apply throughout all licence phases. The said countries have little or no experience of other types of guarantee.

In exceptional cases, the requirements for the provision of other types of security than the unlimited parent company guarantee will be stipulated by the Danish Energy Agency on the basis of a specific assessment. Basically, the financial capacity of the company will be compared to the company's financial obligations

under the licence as well as the risk factors of the licence in question, see section 2.1, below.

It will typically be in the early phases of a licence, that the Danish Energy Agency might accept other types of security than the unlimited parent-company guarantee, as the financial risk is typically lower than compared with later phases. The Ministry of Industry, Business and Financial Affairs must be consulted prior to approval by the Danish Energy Agency of any other type of security than the Model Parent Company Guarantee.

Generally, the Model Guarantee is not limited in time and is therefore not usually returnable, the reason being that possible claims for damages may arise many years later. However, after a specific assessment and upon request from the guarantee applicant or the guarantor, the Danish Energy Agency may elect to return a guarantee.

The Danish Energy Agency may also meet a request for the return of a guarantee if a licence has ceased to exist. However, as a general rule the Danish Energy Agency will not return a guarantee if the guarantee involves wells, whether or not such wells are plugged and abandoned. This also reflects the practice in Norway and the UK. A request for the return of a guarantee will normally be accepted if the guarantee is replaced by another guarantee, which is typically the case in connection with assignments.

2.1. Possible forms of security

As mentioned above, the Danish Energy Agency will normally require the companies to provide a parent-company guarantee in the form of the Model Parent Company Guarantee, which is unlimited in amount and time. This is due to the fact that the Model Parent Company Guarantee is considered to be least onerous to the state, in terms of administration as well as financially. Other forms of guarantee acceptable to the Danish Energy Agency following specific assessments include bank guarantees and payments into Escrow accounts.

Any acceptance by the Danish Energy Agency of the bank guarantee or payment into an Escrow account is generally subject to the bank or other relevant financial institution holding an internationally recognised credit rating corresponding to "upper medium grade" or better, corresponding to A3 (Moody's), A- (S&P), A- (Fitch) or a similar rating from another internationally recognised credit rating institution.

After a specific assessment, the Danish Energy Agency may also consider that no security is provided during the two introductory licence phases (phase 1 and phase

2), where there is no significant risk of major pollution accidents as a result of drilling, production or decommissioning. This is subject to the condition that the companies can demonstrate that they have satisfactory financial capacity without the provision of security.

It should be noted that, according to section 32 of the standard licence (Model Licence) of the Danish Energy Agency, the Danish Energy Agency may require the security to be changed or supplemented subject to 30 days' prior notice.

Table 1 below specifies the forms of security which can be approved by the Danish Energy Agency, following a specific assessment, in respect of the individual licence phases.

Table 1: Possible forms of security in the individual licence phases

<p>Phase 1: Exploration phase – processing of existing data</p>	<p>Preferred security:</p> <ol style="list-style-type: none"> 1) Model Parent Company Guarantee (unlimited in amount and time) <p>Exceptions – in special cases:</p> <ol style="list-style-type: none"> 2) Parent-company guarantee (with limitations) 3) Bank guarantee limited in amount and time 4) Payment into an Escrow account limited in amount and time 5) Payment to operator limited in amount and time <p>Please note: Following a specific assessment, it may be possible in this phase for the participant not to provide security. This is subject to a satisfactory positive equity capital, current assets and/or satisfactory earnings.</p>
<p>Phase 2: Exploration phase – seismic and other preliminary investigations</p>	<p>As in phase 1</p>



<p>Phase 3: Exploration phase – with drilling</p>	<p>Preferred security:</p> <ol style="list-style-type: none"> 1) Model Parent Company Guarantee (unlimited in amount and time) <p>Exceptions – in special cases:</p> <ol style="list-style-type: none"> 2) Parent company guarantee (with limitations) 3) Bank guarantee limited in amount and time 4) Payment into an Escrow account limited in amount and time.
<p>Phase 4: Development phase – including establishment of production wells</p>	<p>As in phase 3</p>
<p>Phase 5: Production phase</p>	<p>As in phase 3</p>
<p>Phase 6: Decommissioning phase</p>	<p>As in phase 3</p>

For the purpose of assessing, if it in exceptional cases should be possible to provide other kinds of securities, the Danish Energy Agency has in cooperation with the industry prepared estimates of worst case scenario clearance costs following an accident, cf. annex 1. It should be noted that the table does not cover all costs of accidents, nor any claims for damages or compensation resulting from an accident.

3. Requirements for participants' insurances

Pursuant to section 24e of the Subsoil Act, the licensee's liability under the licences must be insured. Once a year, the operator for the individual licences will submit a declaration of insurance to the Danish Energy Agency, declaring that the individual participants in the licence have taken out the necessary insurances. The declaration of insurance is attached as Annex 3.

The insurances must be taken out with insurance companies with an internationally recognised credit rating corresponding to "upper medium grade" or better.

The Danish Energy Agency also accepts insurances taken out with Captives. Captives are subject to the same requirements as those applying when an insurance is taken out with an independent company, i.e. a credit rating of "upper medium grade" or better, corresponding to A3 (Moody's), A- (S&P), A- (Fitch), B- (A.M. Best) or a similar rating from another internationally recognised credit rating institution. After a specific assessment, the Danish Energy Agency may take into consideration a credit rating for a closely affiliated group company. In addition, the Danish Energy Agency may accept insurances from Captives that meet the Solvency II requirements.

The insurance requirements depend on the current phase of the licences, and on whether offshore or onshore activities are involved. The requirements also depend on whether the licence involves exploration or production of oil or gas. As there may be some uncertainty about deposits in the exploration and development phases, the insurances in those phases must correspond to the ones carried for oil fields.

In the case of exploration activities with drilling or in the case of production, the participant must as a minimum take out the following insurances:

- Control of Well (COW)/ Operators Extra Expenses (OEE)
- Third Party Liability (TPL)
- Removal of Wreck

Annex 2 provides an overview of the insurances to be taken out in the individual licence phases, including the required coverages.

The amounts set out in Annex 2 state the requirements on a 100% basis. If a participant's percentage share is lower than 100%, the participants' percentage insurance amounts are calculated by multiplying the percentage by the required amounts (see examples below).

Once a year, the operator under a licence will submit a form of declaration as shown in Annex 3 for insurances taken out for the licence. The form may be accessed by clicking on the following link: <https://ens.dk/en/our-responsibilities/oil-gas/legislation-and-guidelines> (section 1.3.g)

By submitting the insurance form to the Danish Energy Agency, the operator for the individual licence declares that documentation has been received concerning the participants' insurance, including the total amount of deductible undertaken by the participant for COW/OEE, TPL and removal of wreck, and that the insurances provide the scope of cover and amounts of coverage required by the Danish Energy Agency. The form includes fields for the specification by the operator for the licence of the amounts of deductible undertaken by each individual participant under the licence.

By way of example, a participant holding 100% of an offshore licence with oil production involving production must as a minimum take out insurance with the following minimum coverage:

- COW/OEE – DKK 1,000,000,000
- TPL – DKK 1,000,000,000
- Removal of wreck - 25% of replacement costs (like to like basis)

As a starting point, the required total insurance sum for OEE/TPL is DKK 2,000,000,000. (However, see Annex 2 for a more detailed explanation). A participant holding 15% of a licence must generally be able to establish to an operator under a licence that the participant has taken out insurance equalling 15% of the insurance sum for each of the above OEE/TPL insurances, equalling DKK 300,000,000 in total.

4. Definitions

- A licence means a right to conduct preliminary investigations, explorations and production of raw materials; to establish and operate pipeline installations; to explore and use the subsoil for storage or other non-production purposes; or to carry out scientific investigations, all within a specified area and in accordance with the Subsoil Act.
- Licensee means the participant(s) having the right to conduct preliminary investigations, explorations and production of raw materials pursuant to the provisions of the Subsoil Act; to establish and operate pipeline installations; to explore and use the subsoil for storage or other non-production purposes; or to carry out scientific investigations. A licensee may consist of one or more natural or legal persons collectively, including licence holders and consultants.
- A participant in a licence means a company having its own company registration number in either Denmark or another country. A participant may also be a sole trading business.
- An operator means the participant carrying out activities under a licence on behalf of the licensee, or sole-risk operations on behalf of some participants in a licence.
- Insurance declaration means a form in which the operator under a licence declares on behalf of all participants in the licence that the participants have taken out the required insurances. The Danish Energy Agency has drawn up a form for the insurance declaration (Annex 3), which may be accessed by clicking on the following link <https://ens.dk/en/our-responsibilities/oil-gas/legislation-and-guidelines> (form 1.3.g)
- An internationally recognised credit rating is a rating issued by either Moody's, Fitch, A.M. Best or Standard & Poor or another internationally recognised credit rating institution.
- Installations means facilities, pipelines, etc., established on the basis of licences granted under sections 10 & 17 of the Subsoil Act.
- A JOA (Joint Operating Agreement) is the collaboration agreement for the participants in a licence.
- A parent-company guarantee refers to the Model Guarantee (limited or unlimited in amount and time) issued by a parent company. The Model Guarantee may be accessed by clicking on the following link <https://ens.dk/sites/ens.dk/files/OlieGas/modelgaranti.docx>



- A bank guarantee means an irrevocable guarantee provided in the form of a "Letter of Credit" by a bank with a long-term credit rating of "upper medium grade" or better, corresponding to A3 (Moody's), A- (S&P), A- (Fitch) or a corresponding rating from another internationally recognised credit rating institution.
- Payment into an Escrow account means an irrevocable payment to a bank or insurance company with a long-term credit rating of "upper medium grade" or better, corresponding to A3 (Moody's), A- (S&P), A- (Fitch) or a corresponding rating from another internationally recognised credit rating institution.
- Licence phases means:
 - a) Phase 1: Exploration phase – processing of existing data
 - b) Phase 2: Exploration phase – seismic and other preliminary investigations
 - c) Phase 3: Exploration phase – with drilling
 - d) Phase 4: Development phase – including establishment of production wells
 - e) Phase 5: Production phase
 - f) Phase 6: Decommissioning phase



5. Annex 1: Estimated costs of accidents

Estimated costs of offshore and onshore accidents (*in brackets*) depending on seepage and quality of oil.

	Medium-heavy oil	Light oil	Condensate/gas
< 5,000 bopd	DKK2,000,000,000 0 [DKK40,000,000]	DKK1,800,000,000 0 [DKK40,000,000]	DKK340,000,000 [DKK40,000,000]
5,000 bopd to 9,999 bopd	DKK2,400,000,000 0 [DKK70,000,000]	DKK2,100,000,000 0 [DKK70,000,000]	DKK345,000,000 [DKK70,000,000]
10,000 bopd to 14,999 bopd	DKK2,800,000,000 0 [DKK100,000,000]	DKK2,350,000,000 0 [DKK100,000,000]	DKK350,000,000 [DKK100,000,000]
15,000 bopd to 19,999 bopd	DKK3,200,000,000 0 [DKK130,000,000]	DKK2,600,000,000 0 [DKK130,000,000]	DKK355,000,000 [DKK130,000,000]
20,000 bopd to 24,999 bopd	DKK3,600,000,000 0 [DKK160,000,000]	DKK2,850,000,000 0 [DKK160,000,000]	DKK360,000,000 [DKK160,000,000]
25,000 bopd to 29,999 bopd	DKK4,000,000,000 0 [DKK190,000,000]	DKK3,100,000,000 0 [DKK190,000,000]	DKK365,000,000 [DKK190,000,000]
30,000 bopd to 34,999 bopd	DKK4,400,000,000 0 [DKK220,000,000]	DKK3,350,000,000 0. [DKK220,000,000]	DKK370,000,000 [DKK220,000,000]
≥ 35,000 bopd	DKK4,800,000,000 0 [DKK250,000,000]	DKK3,600,000,000 0 [DKK250,000,000]	DKK375,000,000 [DKK250,000,000]

Source: BMT Cordah, 2016

Note: Calculations for offshore accidents are based on an assumption of seepage from a specific geographical point in the North Sea.

6. Annex 2: Required insurance coverage

No later than 1 March every year, the operator of a licence must submit a signed insurance declaration, see Annex 3. The operator certifies that the individual participants have taken out the relevant insurances as specified below.

The insurances are generally effected by insurance companies operating internationally and specialising in the oil and gas production industry. In some cases, no Danish terminology exists for these insurances; therefore the description below is in English in order to ensure that the insurance types and coverages required by the Danish Energy Agency are unambiguous.

Type of insurance	Relevant activities	Relevant phases	Minimum requirements for scope of cover	Minimum requirements for insurance coverage	Requirements concerning deductibles
OEE, Operators Extra Expense	Offshore, Onshore, and Geothermal licences	<p>Phase 3 (exploration phase with drilling)</p> <p>Phase 4 (development phase – including establishment of production wells)</p> <p>Phase 5 (Production phase)</p> <p>Phase 6 (Decommission phase – including period of monitoring of wells)</p>	<p>Control of Well as well as Seepage and Pollution following a blow-out event including but not limited to the following coverages:</p> <ul style="list-style-type: none"> • Underground blow outs, • Making Wells safe, • Resultant Plugging and Abandonment expenses, • Contingent Joint Ventures and • Deliberate Well Firing Costs 	<p>Offshore: Minimum DKK 1,000,000,000 (100% interest per occurrence) - including underground blow out. If three times all costs relating to drilling and testing any well in the covered year exceeds DKK 1,000,000,000 the coverage should as a minimum be increased to this higher amount for that well only. Costs relating to drilling and testing this well shall be as stated in the budget for the license, approved in accordance with the JOA.</p> <p>Onshore and Geothermal: Minimum of DKK 300,000,000 (100% interest per</p>	The participant must be able to account for its financial capacity, deductibles under insurances carried, and any other obligations under licences

				<p>occurrence) -including underground blow out. If three times all cost relating to drilling and testing any well in the covered year exceeds DKK 300,000,000 (100% interest per occurrence) the coverage should as a minimum be increased to this higher amount for that well. Cost relating to drilling and testing the most expensive well shall be as stated in the budget for the licence, approved in accordance with the JOA.</p>	
Type of insurance	Relevant activities	Relevant phases	Minimum requirements for scope of cover	Minimum requirements for insurance coverage	Requirements concerning deductibles

TPL, Third Party Liability	Offshore, Onshore, and Geothermal licences	<p>Phase 2 (exploration phase – seismic and other preliminary investigations)</p> <p>Phase 3 (exploration phase with drilling)</p> <p>Phase 4 (development phase - including establishment of production wells)</p> <p>Phase 5 (production phase)</p> <p>Phase 6 (decommissioning phase - including period of monitoring of wells)</p>	Including pollution in respect of wells and assets.	<p>Offshore: Minimum limit of DKK1,000,000,000 (100% interest per occurrence).</p> <p>Minimum limit for condensate/dry gas DKK 185,000,000 (100% interest per occurrence).</p> <p>Onshore and Geothermal: Minimum limit of DKK185,000,000 (100% interest per occurrence).</p>	See above
Type of insurance	Relevant activities	Relevant phases	Minimum requirements for scope of cover	Minimum requirements for insurance coverage	Requirements concerning deductibles
Removal of Wreck	Offshore licences	<p>Phase 3 (exploration phase with drilling)</p> <p>Phase 4 (development phase - including establishment of production wells)</p> <p>Phase 5 (Production phase)</p> <p>Phase 6 (Decommissioning phase)</p>	Definition of coverage should include: Removal of Wreck and/or debris	25 % of Asset Replacement cost (like for like basis)	See above

7. Annex 3: Insurance declaration form – see Annex 2 for explanation

Operator's Declaration of Insurance

Concerning Licence: X/XX Covering the year: 201X

Indicate licence phase (i.e. exploration, development, production, decommissioning):.....

Indicate field type (i.e. oil or gas/condensate):.....

The operator hereby declares to have received insurance certificates or declarations of self-insurance from all co-licensees (including the operator's own certificate or declaration) for the year mentioned above. The operator also declares that the insurances are effected by insurance companies which meet the solvency and/or rating requirements of the Danish Energy Agency. Furthermore, the operator declares that the insurance programmes for all co-licensees fulfil the following conditions:

Operator's additional expenses, OEE

Offshore activities

Control of Well (COW) - including seepage and pollution

Coverage: Normal coverage in the Danish sector is a minimum of DKK 1,000,000,000 (100% interest) per occurrence - including underground blow out. If three times all cost relating to drilling and testing any well in the covered year exceeds DKK 1,000,000,000 the coverage should as a minimum be increased to this amount for that well. Cost relating to drilling and testing this well shall be as stated in the budget for the licence, approved in accordance with the JOA.

Onshore Activities

Control of Well (COW) - including seepage and pollution

Coverage: Normal coverage in Denmark is a minimum of DKK 300,000,000 (100% interest) per occurrence - including underground blow out. If three times all cost relating to drilling and testing any well in the covered year exceeds DKK 300,000,000 the coverage should as a minimum be increased to this amount for that well. Cost relating to drilling and testing the most expensive well shall be as stated in the budget for the licence, approved in accordance with the JOA.

Operator / co-licensee	Retention level (in USD) for OEE

Third Party Liability (TPL) regarding exploration (seismic and drilling), development and production and decommissioning offshore and onshore

Offshore activities

Coverage: Minimum limit of DKK 1,000,000,000 (100% interest) per occurrence for oil fields. Minimum limit for condensate/dry gas DKK 185,000,000 (100% interest per occurrence).

Onshore and Geothermal:

Minimum limit of DKK 185,000,000 (100% interest per occurrence).

Operator / co-licensee	Retention level (in USD) for TPL

Removal of Wreck regarding exploration (with drilling), development and production and decommissioning offshore

Coverage: Minimum 25% of asset replacement cost (like for like basis).

Operator / co-licensee	Retention level (in USD) for Removal of Wreck

Other activities than drilling

By signing this form, the operator declares that the companies performing other activities than drilling carry insurance coverage which is normal for the specific activity performed under the Knock-for-Knock principle.

Date, stamp and signature

To be submitted to the Danish Energy Agency no later than 1 March in the covered year.