

*Unofficial translation of Danish Executive Order No. 1255 of 3 December 2019. In case of discrepancy, the original Danish text will prevail.*

## Executive order on submission of information about production of hydrocarbons from Denmark's subsoil

Under section 26(5), section 34a and section 34b(1) of the Act on the Use of the Danish Subsoil, see consolidated act no. 1190 of 21 September 2018 as amended by Act no. 500 of 1 May 2019, according to authorisation under section 4(1) of executive order no. 1068 of 25 October 2019, the following is set out about the duties and authority of the Danish Energy Agency:

### *Scope and definitions*

1. This executive order lays down rules on the licensees' submission of information about production of hydrocarbons from Denmark's subsoil. The information is submitted for the purpose of the Danish Energy Agency's exercise of supervision and monitoring of the activities of the licensees.

(2) The requirement about submission of information applies from the time when the first development of a field has been approved according to section 10 of the Danish Subsoil Act. Submission of information according to the executive order must be made by e-mail to [ensproduction@ens.dk](mailto:ensproduction@ens.dk)

(3) For fields whose delimitation stretches over an area covered by several licences for exploration and production of hydrocarbons granted under the Danish Subsoil Act, the licensees must ensure through mutual agreement that reports etc. under this executive order are submitted.

(4) Following application, the Danish Energy Agency can approve deviation from the executive order in the period between approval of development of a field under section 10 of the Danish Subsoil Act and until production is initiated.

(5) Requirements on reports containing information about the production of propane and butane under this executive order only apply if the licensee uses separation facilities in connection to the transportation in the oil pipeline, see the Danish Act on establishment and use of a pipeline for transportation of crude oil and condensate (the Danish Pipeline Act).

2. This executive order uses the following definitions:

- 1) Active well: A well that has not been finally closed.
- 2) Allocated hydrocarbons: Produced hydrocarbons split into various fractions, e.g. oil, propane, butane, gas for sale etc.
- 3) Butane (C<sub>4</sub>H<sub>10</sub>): Butane, which has been sold or is expected to be sold, measured in kilos. If butane is sold as part of stabilised oil, the butane must be included in the quantity of stabilised oil.
- 4) Field: A delimited coherent area covered by one or more licences for exploration and production of hydrocarbons, which has been extended for the purpose of production under section 13(2) of the Danish Subsoil Act, and an area covered by a field delimitation made under the Sole Concession for exploration and production of hydrocarbons etc. in Denmark's subsoil, dated 8 July 1962 as amended.
- 5) Flaring: Gas burned without utilisation of the energy content of the gas, measured in normal cubic metres (Nm<sup>3</sup>).
- 6) Discovery: A coherent accumulation of hydrocarbons in the subsoil.
- 7) Gas for fuel (gas fuel): Gas used as fuel in the production of energy for the purpose of processing, including processing at the separation facilities in Fredericia, and for transportation of oil and gas, measured in Nm<sup>3</sup>.
- 8) Gas production: Gas produced from a well or a field except for lift gas, measured in Nm<sup>3</sup>.
- 9) Oil field units: Units for quantity and volume usually used in the oil industry instead of SI units.

- 10) Oil production: Production of liquid hydrocarbons from a well or a field, measured in standard cubic metres (Sm<sup>3</sup>).
- 11) Allocated oil: Oil and condensate sold or expected to be sold to a third party as stabilised oil, measured in Sm<sup>3</sup>. Water content is not included in the oil on sale (BS&W).
- 12) Processing centre: Collaborating processing facilities on one or more platforms that process the production from one or more fields.
- 13) SPE-PRMS 2007: SPE/WPC/AAPG/SPEE Petroleum Resources Management System 2007. Is not announced in the Danish Law Gazette, but is announced in its availability for review at the Danish Energy Agency.
- 14) Project: A project is defined in compliance with SPE-PRMS 2007.
- 15) Propane (C<sub>3</sub>H<sub>8</sub>): Propane, which has been sold or is expected to be sold as propane, measured in kilos. If butane is sold as part of stabilised oil, the butane must be included in the quantity of stabilised oil.
- 16) Sales gas: Gas, which has been sold or is expected to be sold to a third party, measured in Nm<sup>3</sup>.
- 17) SI units: Units based on the SI basic units metre (m), kilogram (kg), second (s), ampere (A), kelvin (K), candela (cd) and mole (mol).
- 18) Licence: A licence granted under section 5 of the Danish Subsoil Act for exploration and production of hydrocarbons.

#### *Daily reporting*

3. The licensee must every day, no later than at 13:00, submit information about the production of hydrocarbons and consumption of lift gas and injected quantities of water in connection with the production for each field and process centre for the preceding calendar day or other fixed 24-hour period, which has been finalised within the preceding calendar day, to the Danish Energy Agency. Reporting for Fridays, Saturdays and public holidays may be sent to the Danish Energy Agency on the first subsequent working day. The reporting must be made in SI units or oil field units with a specification of conversion factors into SI units. The reporting must at least include the following information:

- 1) The production of oil, propane, butane and gas. The split of hydrocarbon products must be made according to how the hydrocarbons are expected to be sold or used. The product of gas is split into sales gas, gas for reinjection and gas consumed for fuel and flaring, respectively.
- 2) Injected quantities of water.
- 3) A brief account of material deviations from normal production and a brief description of reason and period for any whole or partial shutdown of the field or shutdown of equipment of importance to the production.
- 4) Overview of active wells that are temporarily shut-in, with a brief statement of the reason for the closing and information about the duration of the closing period (down-time) in the 24-hour period.
- 5) Any other relevant information about the progress of the production.

#### *Monthly reports on production*

4. The licensee must, no later than on the last working day in each calendar month, submit a report concerning status of the production of hydrocarbons and the consumption of lifting gas and injected quantities of water in connection with the production in the preceding month for each field and process centre to the Danish Energy Agency. The report must contain a description of the production progress in proportion to the latest prognosis, see section 8, and an explanation of any deviations.

The report must also contain a status for ongoing projects, which the Danish Energy Agency has approved or licenced under sections 10 and 17 of the Danish Subsoil Act.

5. No later than 15 days after the end of a calendar month, the licensees must submit the production data for the said calendar month as specified in appendix 1, to the Danish Energy Agency. If the licensee uses conversion factors into SI units, this must be stated. If any later correction of submitted data is made, the corrected data must immediately be sent to the Danish Energy Agency. The licensee must, no later than 15 March in the subsequent year, submit final production data for the individual months of a calendar year in connection with the annual reporting to the Danish Energy Agency, see section 10. If measuring or allocation errors or errors otherwise are ascertained after this deadline, the Danish Energy Agency must be informed thereof immediately. The Danish Energy Agency determines how the measured values should instead be calculated.

(2) Data for foreign production processed or transported in Danish facilities must be specified separately. Generally, this data should be specified as stated in appendix 1. The reporting must also include consumption of gas for fuel and flaring in case of processing and transportation of the foreign production in Danish facilities. Before submission, the design of the reporting must be approved by the Danish Energy Agency.

(3) Data for Danish production processed or transported in foreign infrastructure must be reported to the Danish Energy Agency. This data must be specified as stated in appendix 1. The reporting must also include consumption of gas for fuel and flaring in case of processing and transportation of Danish production in foreign facilities. Before submission, the design of the reporting must be approved by the Danish Energy Agency.

#### *Annual reports of reserve and resource statements and prognoses*

6. No later than 31 January each year, the licensee must submit a report containing an updated reserve and resource statement and an updated production and injection prognosis with a corresponding prognosis for costs of capital, operating and decommissioning costs to the Danish Energy Agency. Costs of capital, operating and decommissioning costs must be stated in the prices of the delivery year. Data in the report must be stated in SI units. Data in the report for the production and injection prognosis can be stated in oil field units. Data must be stated in an electronically editable format (e.g. spreadsheet).

7. The reserve and resource statement must be updated by the end of the preceding year. The statement must be in compliance with the resource classification in SPE-PRMS 2007. For each field, project and deposit, the following must be stated:

- 1) The initially present quantities of oil (stock tank oil initially in place: STOIP) and gas (gas initially in place: GIIP).
- 2) The current production divided into saleable oil, gas, propane and butane as well as gas fuel and flaring consumption.
- 3) Reserves divided into saleable oil, gas, propane and butane. The reserve statement must include 2P (Proved + Probable).
- 4) Contingent oil and gas resources classified as 2C (Proved + Probable Contingent Resources), divided into saleable oil, gas, propane and butane. For each project, a description of maturity must be stated. The maturity description must state the classification in SPE-PRMS 2007, section 2.1.3.1, Project Maturity Sub-classes (Development Pending, Development On Hold, Development Unclassified and Development Not Viable).

(2) The year of the licensee's expected production stop must be stated for each field.

8. Production and injection prognoses must include the quantities produced and injected until the year when the licensee expects to cease production, as specified in section 7(1) and (2). In the subsequent years until the time for expiry of the licence, the annual quantities that can technically be produced with corresponding injected quantities are to be specified.

(2) The prognoses must be divided into reserves that can be technically produced and contingent

resources.

(3) For each field, project and deposit, the prognoses must include the following information:

- 1) Oil, gas and water production.
- 2) Lift gas consumption, water and gas injection.
- 3) Allocated oil, propane, butane and sales gas.

(4) For each process centre, the prognoses must include information about the consumption of gas divided into gas fuel and flaring.

(5) For the first two years, the prognoses must be stated for each calendar month. For the third year and onward, the prognoses are stated at least on an annual basis. The production is stated as a daily average of the said period, meaning monthly and annually, respectively.

(6) As regards produced gas transported in up-stream gas pipelines with several users, the size of the production and its division into periods must be in compliance with the requirements in the agreements concluded on the use of the pipelines between producer and transporter.

(7) As regards oil produced that is transported in oil pipelines with several users, the size of the production and its division into periods must be in compliance with the requirements in the transportation agreements entered into, see Danish Act on establishment and use of a pipeline for transportation of crude oil and condensate (the Danish Pipeline Act).

(8) The production and injection prognoses must be accompanied by prognoses for the annual costs of capital and operating costs until the licensee's expected time of production cessation. Costs of capital and operating costs must be calculated for each field, project and deposit. If the licensee has estimates for the annual costs of capital and operating costs after the expected time for production cessation, they must be stated. Further, the expected costs for decommissioning of facilities and installations divided between fields and projects must be stated.

(9) For the first four years, the cost prognoses must be in compliance with the licensee's adopted budget for the licence in the actual year and the operator's estimated budget for the next three years, respectively. The expected costs for decommissioning must be in compliance with the statement of the expected costs under section 32a(2) of the Danish Subsoil Act.

**9.** The licensee must account for the contemplations behind the reserve and resource statement and the prognoses for a field. Projects included in the statement and the prognoses must be described together with the estimated times for production start. Substantial deviations relative to the most recently sent reserve and resource statement as well as a prognosis must be stated and reasoned. If the changes have taken place based on analyses and reservoir studies, which have previously been sent to the Danish Energy Agency, reference can be made thereto.

#### *Annual report and working plan*

**10.** No later than 15 March each year, the licensee must send a report for each field to the Danish Energy Agency. The report must contain a status of the field and a working plan for the further work of optimising the production. The plan must also give an account of how it should be ensured that any new development possibilities are identified.

(2) The status must account for the following:

- 1) The progress of production and injection in the preceding calendar year compared to the current production and injection progress of the field.
- 2) Capacities in processing facilities in the field. Capacities for processing of oil and gas must also be described. If the gas compression is made in stages, capacity for each stage is stated, whether exported oil and gas from the field's facilities have been finalized for sale, capacities for gas injection, lifting gas, water treatment and water injection. If capacities are changed as a result of approved development plans, the future capacities are stated.
- 3) Current issues in connection with production and processing. To the extent that it has not been reported based on the last year's working plan or mentioned in the working plan of the current year, see clause 3, new data interpretations and work performed in the preceding calendar year are accounted for as well

as for planned operational activities in the current calendar year. An account is given of interpretations of data and new modelling of the individual reservoirs. Finished reports in relation to studies and analyses must be attached to the report if they have not been sent previously.

(3) The working plan must cover five years from and including the year in which the plan is submitted. The working plan must be updated annually. The plan must include activities in progress or which are started in the time period of the working plan. Material changes in relation to the most recently submitted working plan must be accounted for.

(4) The working plan must at least account for the following matters:

- 1) Data collection activities, including measuring programmes and the purpose of them.
- 2) Studies, projects and operational activities for assessment and improvement of the efficiency of the production with the production strategy and the developments that have been approved or applied to have approved under sections 10 and 17 of the Danish Subsoil Act. Projects and operational activities can include new wells, well workovers and other well work, optimisation of water injection and changes to processing facilities etc. For projects that have been applied for, or which have been approved, reference can be made to approval or application.
- 3) Studies and projects, which will clarify if there is basis for further development of the field. Both technical aspects and financial consequences of further production must also be included in the report.
- 4) If a field has not had any production for a year, or when the accumulated production of a field has reached 90% of the expected final production, or no later than five years before expected time of decommissioning, the working plan must contain a review of the studies, including measuring programmes, projects and operational activities, which are planned to be carried out to maintain production for as long as possible at a financially reasonable basis to society and the licensee. Further, an account must be given of the basis, which must exist before any decision is made about closing the field, and which studies, including measuring programmes, projects and operational activities are planned to obtain the basis.

(5) The working plan must contain a schematic time schedule, e.g. in the form of a Gantt chart, for studies, including measuring programmes and projects for the field. Reporting times and decision milestones (decision gates) must be stated.

*Supplementary reporting for fields whose oil production is transported in the pipeline from Gorm E to Fredericia*

**11.** Licensees of fields whose production is transported or is planned to be transported in the pipeline from Gorm E to Fredericia must submit copies of the information that the licensee sends to the owner of the pipeline under the model transportation agreement to the Danish Energy Agency. The information must be sent to the Danish Energy Agency at the same time as it is delivered to the owner of the pipeline under the Danish Act on establishment and use of a pipeline for transportation of crude oil and condensate (the Danish Pipeline Act).

(2) Together with the information to the Danish Energy Agency, the licensee must give an account of the context between the information and the latest production prognosis delivered to the Danish Energy Agency under clause 8 and the Danish Energy Agency's latest determination of the production under section 15 of the Danish Subsoil Act. The licensee must further account for the basis of the information about the composition of the production and the expected development thereof.

*Commencement*

**12.** The executive order enters into force on 1 January 2020.

*The Danish Energy Agency, 26 November 2019*

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/ Carl-Christian Munk-Nielsen

### Data reporting according to section 5

The monthly reporting of information according to section 5 must comprise the data below if it is measured.

Data must be specified in SI units as stated below.

Data is submitted to the Danish Energy Agency in electronic form in a format as specified by the Danish Energy Agency.

If a well or a platform does not produce for a month, the well and the platform must still be included in the data reporting file with a specification hereof. If a well or a platform is permanently closed, the well or the platform must no longer form part of this data reporting file.

If data, such as well head temperature, is not measured, this must be stated.

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#### Production wells

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##### *Data per 24 hours*

Name of well

Date

Gas, production (Nm<sup>3</sup>)

Gas, mass (kg)

Gas, lift gas (Nm<sup>3</sup>)

Oil, production (Sm<sup>3</sup>) Water, production (Sm<sup>3</sup>)

Well head, pressure (kPa)

Well head, temperature (°C)

Bottom hole, pressure (kPa)

Bottom hole, temperature (°C)

Up-time (hours)

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#### Injection wells

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##### *Data per 24 hours*

Name of well

Date

Water, injection (Sm<sup>3</sup>)

Gas, injection (Nm<sup>3</sup>)

Well head, pressure (kPa)

Bottom hole, pressure (kPa)

Up-time (hours)

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**Platform data**

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*Data per 24 hours*Name of platform<sup>1</sup>

Date

Gas, export to shore<sup>2</sup> (Nm<sup>3</sup>)Gas, import from export pipeline (Nm<sup>3</sup>)Gas, fuel (Nm<sup>3</sup>)Gas, flaring (burning of gas without utilisation)  
(Nm<sup>3</sup>)Gas, injection (Nm<sup>3</sup>)Gas, lift gas (Nm<sup>3</sup>)Oil, stock<sup>3</sup> (Sm<sup>3</sup>)Water, production (Sm<sup>3</sup>)Water, injection in total (Sm<sup>3</sup>)Water, injected production water (Sm<sup>3</sup>)

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<sup>1</sup> Calculated for processing platforms with gas fuel consumption and/or flaring. Gas fuel consumption and flaring allocated to foreign production must be stated under its own field name.

<sup>2</sup> Platform from which gas for sale is exported to shore. Gas for sale allocated to foreign production must be stated under its own field name.

<sup>3</sup> Stock in any storage tank at the end of the 24-hour period.

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**Allocated hydrocarbon products per field and/or licence**

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*Data per calendar month*

Name of licence

Name of field

Date (month)

Oil (volume), allocated (Sm<sup>3</sup>)Propane (volume), allocated (Sm<sup>3</sup>)

Propane (mass), allocated (kg)

Butane (volume), allocated (Sm<sup>3</sup>)

Butane (mass), allocated (kg)

Gas for sale, allocated (Nm<sup>3</sup>)Gas (volume), fuel allocated (Nm<sup>3</sup>)Gas (volume), flaring allocated (Nm<sup>3</sup>)Water (volume), allocated (Sm<sup>3</sup>)

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**Well test**

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*For the wells that have been tested in the period, the following must be reported:*

Name of well

Test number

Sequence number

Date (start time)

Duration (minutes)

Choke (mm)

Well head, pressure (kPa)

Bottom hole, pressure (kPa)

Separator, temperature (°C)

Separator, pressure (kPa)

Gas rate, production (Nm<sup>3</sup>/day)

Gas rate, lift gas (Nm<sup>3</sup>/day)

Oil rate (Sm<sup>3</sup>/day)

Water content (vol%)

Oil, density (kg/Sm<sup>3</sup>)

Test reason

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### Cargo

*For platforms from which oil is loaded onto vessels, the following must be reported for each cargo:*

Data for the period

Name of platform

Cargo number

Date (time of loading)

Name of tanker

Oil<sup>1</sup> (Sm<sup>3</sup>)

Density (kg/Sm<sup>3</sup>) Destination

Ownership of load<sup>2</sup>

<sup>1</sup>Oil shipped, net quantity (ex BS&W).

<sup>2</sup>Information about companies and their shares.