

Documentation of statistics for Transport by pipeline 2022



1 Introduction

These statistics covers transport in pipelines and transport of oil and natural gas by pipelines, with figures from 1982 and onwards.

2 Statistical presentation

These statistics provides annual estimates of transport in 1,000 tonnes and million tonnekilometers in pipelines by product, including including natural gas and natural gas exported, as well as crude oil incl. and excl. water.

2.1 Data description

The statistics shows the development in transport of oil and natural gas in pipelines in the overall distribution network in Denmark as well as investments in infrastructure.

Information is collected from the enterprises operating the Danish pipelines, primarily from the Danish oil and gas fields in the North sea to either Danish mainland or abroad. The main variables are the transported amount of oil and gas and the length of and investments in the network.

2.2 Classification system

Not relevant

2.3 Sector coverage

Transport

2.4 Statistical concepts and definitions

Pipelines: Pipelines are transportation oil and gas pipelines designed to bring product from platforms to processing plants on land or between countries. The pipelines are designed to withstand a pressure of at least 80 bar.

Tonnekilometre: Unit of measure representing transport of one tonne of goods by pipeline over one kilometre

2.5 Statistical unit

Companies transporting oil and gas in the Danish network of oil and gas pipelines

2.6 Statistical population

Enterprises with transactions in the Danish oil and gas network.



2.7 Reference area

The Danish exclusive economic zone (EEZ).

2.8 Time coverage

1982-

2.9 Base period

Investments in pipelines in deflated to 2015-prices based on the producer price indices for road construction.

2.10 Unit of measure

The units of measure used are

- amounts measured in metric tonnes
- transport performance measured in million tonnes-kilometres

2.11 Reference period

Transport in pipeline is annually.

The length of the pipeline network refers to 31 December.

2.12 Frequency of dissemination

Annually.

2.13 Legal acts and other agreements

The Act on Statistics Denmark (Lov om Danmarks Statistik), Section 8, cf. Order no. 610 of 30 May 2018.

The data collection is not based on an EU legislation.

2.14 Cost and burden

Response burden has not been calculated but is considered Insignificant.

2.15 Comment

The statistics has a theme page on <u>transport by pipeline</u> as well as a theme page on <u>pipeline</u> <u>infrastructure</u>.



3 Statistical processing

Data for the statistics on pipelines are collected annually from enterprises with transport activities in pipelines in the Danish exclusive economic zone. Validation if done by checking for significant fluctuation in comparison to previous reported data as well as deviations compared to the production of oil and natural gas.

3.1 Source data

Data is reported by the enterprises that owns, controls or operates oil and gas pipelines in Denmark.

3.2 Frequency of data collection

Annually

3.3 Data collection

Data is collected electronically through the Danish public sector data collection portal, Virk.dk.

3.4 Data validation

The data is checked for major fluctuations compared to previous reported data as well as reported production in the oil and gas fields. Also, data is checked for reports of the same gas or oil transport by different companies. This is the case where gas or oil is transported through different parts of the network operated by different companies. In that case the quantity is reported twice. The main effect to the final statistics is elimination of overlapping reports from different enterprises.

3.5 Data compilation

Data is collected electronically in aggregated form from data providers. No imputation are done. The raw oil usually contains a small amount of water and oil quantities are corrected to to account for water content in the oil with a fixed factor of 0.97, i.e. assuming a water content of 3 pct.

3.6 Adjustment

No correction to the data is made besides what is described in points Data validation and Data Treatment.

4 Relevance

The statistics is relevant in order to complete the transport statistics and monitor transport by all modes. The statistics covers the same overall variables as other transport statistics: transport performance, infrastructure and investments.



4.1 User Needs

The ministries, business associations and enterprises as well as international organisations.

The statistics are mostly used for monitoring the market and deciding transport policies.

Transport in pipelines is part of the overall transport statistics that covers transport by various modes of transport.

4.2 User Satisfaction

Information on user satisfaction is not collected systematically. Rare feedback from users shown satisfaction with the statistics.

4.3 Data completeness rate

There is no regulation or guidelines for the compilation of transport in pipelines.

5 Accuracy and reliability

The statistics is based on an exhaustive census with few and large enterprises and has 100 percent response rate. The transported amounts are coherent with the production of oil and natural gas.

Revisions in published data is rare and only occurs if reporting errors affects previous years.

5.1 Overall accuracy

The statistics are assessed to be reliable since the statistics are completely covered, i.e. all relevant enterprises report.

5.2 Sampling error

Not relevant

5.3 Non-sampling error

No other than the reporting companies can send oil and gas through the network of pipelines. All the companies report all necessary data. It has not been possible to quantify any measurement errors. Based on the character of the main indicators in the statistics, there is not expected to be any systematic errors in reported data.

To calculate oil without water content, it is assumed that the average water content is 3 per cent.



5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

The statistics is based on reports from a few and very large enterprises working within an sector with extensive legislative control. The reported data show a large degree of consistency.

Partly because of the above and partly because a great consistency between transported quantities and produced quantities, cf. [Danish Energy Agency]https://ens.dk/en/our-services/statistics-data-key-figures-and-energy-maps/annual-and-monthly-statistics), the overall quality is assessed to be high.

Calculations are made on transport performance (tonne-kilometres) and crude oil excluding water.

Calculation of crude oil excluding water is calculated based on the assumption that water content in average is 3 percent. The water content can vary and there is an uncertainty in this calculation. It is assessed to be quite small.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

Only final figures are published. In very rare cases, reporting errors might give occasion to revise previous published statistics

6 Timeliness and punctuality

The statistics are published between 250 and 300 days after end of reference year.

Since 2011 the statistics has been published at the preannounced time.



6.1 Timeliness and time lag - final results

The statistics are published annually between 250 and 300 days after the end of the reference year.

6.2 Punctuality

The statistics is published annually without delay compared to the preannounced time.

7 Comparability

The statistics are compiled in accordance with European guidelines and is comparable with statistics from EU.

A consistent time series exists since 1982.

7.1 Comparability - geographical

Eurostat publishes comparable on transport in pipelines for countries that report the statistics.

7.2 Comparability over time

Statistics from 1982 and onwards are comparable.

7.3 Coherence - cross domain

Comparable transport statistics are not available.

7.4 Coherence - internal

Not relevant

8 Accessibility and clarity

The statistics are published annually as tables in the online databank, Statbank under the topics of <u>Goods transport</u> and <u>Traffic og infrastructure</u>.

Selected tables are published in Statistical 10-year Review (in Danish).

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.



8.2 Release calendar access

The Release Calender can be accessed on our English website: <u>Release Calender</u>.

8.4 News release

There is no news release in connection to the data.

8.5 Publications

Transport in pipelines is part of other transport statistics in tables in <u>Statistical Ten-year review</u> (in Danish only).

8.6 On-line database

The statistics are published in the Statbank under the subjects in the following tables:

- <u>ROR1</u>: Pipeline network by pipelines and time
- <u>ROR2</u>: Investments in the pipeline network by pipelines, unit and time
- <u>ROR11</u>: Transport in pipelines by product, unit and time

8.7 Micro-data access

Micro-data can be made accessible through Statistics Denmark's researcher-access.

8.8 Other

Not relevant

8.9 Confidentiality - policy

The statistics follows the principles in Statistics Denmarks Confidentiality policy.

8.10 Confidentiality - data treatment

However, due to the small number of reporters complete confidentiality cannot be guaranteed. It is seen as acceptable since there already is a high degree of publicity with regard to the exploitation of oil and natural gas in reports from e.g. <u>The Danish Energy Agency</u>.

8.11 Documentation on methodology

No additional methodology descriptions is available.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of these statistics is in the division of Short Term Statistics. The contact person is Henriette Erichsen, tel.: + 45 2977 5638, and e-mail: HEE@dst.dk.