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Economic Commission for Europe

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Item 4(a) of the provisional agenda

Data collection, methodological development and harmonization of transport statistics:

Glossary for Transport Statistics

Proposed pipeline chapter for the Glossary for Transport Statistics

Amendments as agreed by the Group of Experts and the Intersecretariat Working Group, as of 29 May 2018

Summary

The following document is a proposed draft of the pipeline chapter for the 5th edition of the UNECE/ITF/Eurostat Glossary for Transport Statistics, as of 29 May 2018. Users can see the changes described in the modifications file ECE/TRANS/WP.6/2018/Inf-1e.

D. Pipeline Transport (version 29 May 2018)

D.I/II INFRASTRUCTURE/TRANSPORT EQUIPMENT

D.I/II-01 Pipeline

A closed conduit, with pumps, valves and control devices, for conveying fluids, gases, or finely divided solids by pumping or compression.

Only units which actually carry out an activity during the reference period should be considered. 'Dormant' units or those not yet having begun their activity are excluded.

D.I/II-02 Pipeline facility

New and existing piping, rights-of-way, and any equipment, facility, or building used in the transportation of gas, hazardous liquids, or carbon dioxide, or in the treatment of gas during the course of transportation.

D.I/II-03 Pipeline network

All pipelines in a given area.

Pipelines on the national territory include pipelines on the seabed of the country.

D.I/II-04 Oil pipeline

All parts of a pipeline facility through which oil or petroleum products move including, but not limited to, line pipe, valves, and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks.

D.I/II-05 Gas pipeline

All parts of the pipe conduit, completed with such equipment as valves, compressor stations, communications systems, and meters for transporting natural and/or supplemental gas from one point to another, usually from a point in or beyond the producing field or processing plant to another pipeline or to points of utilisation.

D.I/II-06 Types of oil and gas pipelines

In general, pipelines can be classified in three main categories depending on their main purpose. The categories are as follows:

1. Gathering pipelines

Group of smaller interconnected pipelines forming complex networks with the main purpose of bringing crude oil or natural gas from several nearby wells to a treatment plant or processing facility.

In this group, pipelines are usually short, couple of hundred of metres, and with small diameters. Also subsea pipelines for collecting product from deep water production platforms are considered gathering systems.

2. Transportation pipelines (trunk pipelines)

Mainly long pipes with large diameters, moving products (oil, gas, refined products) between cities, countries and even continents. These transportation networks include several compressor stations in gas lines or pump stations for crude and multi-product pipelines.

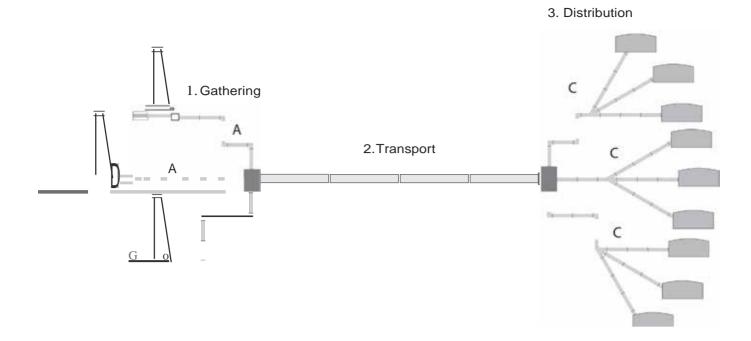
Branch lines, where they satisfy the requirements for transportation pipelines, are included as well as pipelines between the land and drilling platforms at sea. Excluded are pipelines whose total length is less than 50 kilometres or whose inside diameter is less than 15 centimetres and pipelines used only for military purposes or located entirely within the site boundaries of an industrial operation, as well as pipelines that are entirely off-shore (i.e. located solely out in the open sea). International pipelines whose total length is 50 kilometres or more are included even if the section in the reporting country is less than 50 kilometres long. Pipelines consisting of two (or more) parallel pipelines are to be counted twice (or more).

3. Distribution pipelines

Composed of several interconnected pipelines with small diameters, used to take the products to the final consumer.

Basically, feeder lines to distribute gas to homes and businesses downstream, or pipelines at terminals to distribute final products to tanks and storage facilities are included in this group.

D.I/II-06 Types of oil and gas pipelines



D.III ENTERPRISES, INVESTMENT AND MAINTENANCE

D.III-01 Pipeline transport enterprise

Enterprise formed to carry out in one or more places activities for the provision of transport services through oil or gas pipelines and whose main activity according to the value added is the transportation of goods through oil or gas pipelines.

In terms of activity classifications the following classes are involved:

ISIC/Rev.4: Class 4930 - Transport via pipelines

NACE/Rev.2: Class 49.50 - Transport via pipelines.

D.III-02 Public pipeline transportenterprise

A pipeline transport enterprise which is principally owned (more than 50 per cent of the capital) by the country or public authorities and their enterprises.

D.III-03 Investment expenditure on infrastructure

Expenditure for the construction of new infrastructure or the extension of existing infrastructure, including reconstruction, renewal and major repairs.

Expenditure on pumping and compression facilities is included.

D.III-04 Maintenance expenditure on infrastructure

Expenditure for keeping infrastructure in working order.

Expenditure on pumping and compression facilities is included.

D.IV/V TRAFFIC/TRANSPORT MEASUREMENT

D.IV/V-01 Pipeline transport

Any movement of crude or refined liquid petroleum products or gases in a given pipeline network.

D.IV/V-02 National oil pipeline transport

Oil pipeline transport between two places (a pumping-in place and a pumping-out place) located in the same country or in the part of the seabed that is allocated to it. It may involve transit through other countries.

D.IV/V-03 National gas pipeline transport

Gas pipeline transport between two places (an initial compression facility and a decompressing facility) located in the same country or in the part of the seabed that is allocated to it. It may involve transit through other countries.

D.IV/V-04 International oil pipeline transport

Oil pipeline transport between two places (a pumping-in place and a pumping-out place) located in two different countries or on those parts of the seabed allocated to them. It may involve transit through one or more additional countries.

D.IV/V-05 International gas pipeline transport

Gas pipeline transport between two places (an initial compression facility and a decompression facility) located in two different countries or on those parts of the seabed allocated to them. It may involve transit through one or more additional countries.

D.IV/V-06 Transport capacity of a pipeline

Maximum tonnage of the product that the pipeline is able to move during a given period.

In the case of multi-product pipelines, either the average density of the products or the density of the product that is predominantly moved through the pipeline shall be used to convert the capacity – which is usually measured in barrels or in cubic meters per given period – into tonnes.

D.IV/V-07 Goods transported by pipeline

Any gas, natural or manufactured, liquefied or in the gaseous state (SITC division 34), crude oil (SITC class 333) or refined petroleum product (SITC class 334) moved by pipelines.

D.IV/V-08 Crude oil

A mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities.

D.IV/V-09 Refined petroleum products

Refined petroleum products include but are not limited to gasoline, kerosene, distillates (including No. 2 fuel oil), liquefied petroleum gas, asphalt, lubricating oils, diesel fuels, and residual fuels.

D.IV/V-10 Natural gas

Natural gas consists mainly of methane occurring naturally in underground deposits, associated with crude oil orgas recovered from coal mines (colliery gas). To facilitate its transportation, natural gas may be converted to liquid form by reducing its temperature to - 160° C under atmospheric pressure. It then becomes liquefied natural gas. (LNG).

The density of LNG is between 0.44 and 0.47 tonnes per cubic metre, depending on its composition.

D.IV/V-11 Liquefied petroleum gas (LPG)

Petroleum gas consists of propane and butane and is usually derived from natural gas and crude oil refining. Petroleum gas can be liquefied under low pressure (5-10 atmospheres) and then become LPG.

In locations where there is no natural gas and the gasoline consumption is low, naphtha is converted to LPG by catalytic reforming.

D.IV/V-12 Tonne-kilometre by pipeline

Unit of measurement of transport which represents the transport of one tonne of goods by pipeline over one kilometre.

The distance taken into account is the distance actually run.

D.IV/V-13 Goods having left the country by pipeline (other than goods in transit by pipeline throughout)

Goods which, having been loaded into a pipeline by pumping or compression in one country or that part of the seabed allocated to it, left the country by pipeline and were delivered to another country.

D.IV/V-14 Goods having entered the country by pipeline (other than goods in transit by pipeline throughout)

Goods which, having been loaded into a pipeline by pumping or compression in another country or that part of the seabed allocated to it, entered the country by pipeline and were delivered there.

D.IV/V-15 Pipeline transit transport

Goods which entered the country by pipeline and left the country by pipeline at a point different from the point of entry, after having been transported across the country solely by pipeline.

Goods which entered and/or left the country in question by vessels before loading into by pumping or compression or after delivery from a pipeline at the frontier are included.

D.IV/V-16 Goods pipeline transport link

The combination of the loading place by pumping or compression and the delivery place of the goods transported by pipeline whichever itinerary is followed.

Places are defined by using international classification systems such as NUTS (Nomenclature of Territorial Units for Statistics - Eurostat).

D.IV/V-17 Place of initial pumping-in or compression station

The place taken into account is the place at which the goods were first pumped-in or first compressed into a pipeline.

D.IV/V-18 Place of pumping-out or delivery station

The place taken into account is the place at which the goods were pumped-out or delivered from a pipeline.