

Network Statement 2020





Network Statement 2020

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Jesper Steen Mortensen Legal Consultant

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Key Account Management Telephone Traffic Operations Carsten Niebuhrsgade 49 Direct DK-1577 København V

8234 0000 +45 8234 9252 jstm@bane.dk banedanmark.dk

CORRECTIONS AND AMENDMENTS

This document contains the corrections and amendments described in the table below. This document replaces previous versions of the Network Statement 2020 mentioned in the table.

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1 GENERAL INFORMATION

1.1 Introduction

Banedanmark, which manages the State's railway infrastructure in Denmark, has, cf. the Railway Act, produced and published this Network Statement. The Network Statement's main target group is Railway Undertakings and others planning to apply for capacity on infrastructure in Denmark. The Network Statement primarily contains information about infrastructure managed by Banedanmark but also contains information about connected infrastructure and Infrastructure Managers.

Basically, the infrastructure managed by Banedanmark will in the following be referred to as Banedanmark's infrastructure

		Political level						
		Ministry of Transport, Building and Housing						
	Ž	Authorities						
ıd supervisory body Regulatory Body		Accident Investigatior Board Denma		Danish Transport, Construction and k Housing Agency		(In	Banedanmark (Infrastructure Manager)	
		Companies						
Appeal and bo	Danish Rail R	DSB SOV	with tenc	ertakings	Regional Railway Undertaki	ngs	Railway Undertakings in free operation	

The Danish rail sector and related authorities are outlined graphically below:

1.2 Objective

The Network Statement's objective is to inform Railway Undertakings and other applicants about Banedanmark's infrastructure, and the terms and conditions for allocation of capacity and use.

The Network Statement is produced in accordance with directive <u>2012/34/EU, act no. 686 of</u> <u>27/05/2015 (The Railway Act)</u> and <u>Executive order no. 1245 of 10/11/2015 on allocation of railway</u> infrastructure capacity (paths) etc.

The Network Statement consists of a main document, which describes the infrastructure as well as the general conditions regarding access to and operation on the infrastructure. In addition, the Network Statement contains an appendix section with further detailed information. Finally, the Network Statement includes useful links, for example to publications and relevant websites.

1.3 Legal framework

The Network Statement is produced with reference to the EU Railway package as well as the derived Danish legislation. Below is a list of the most important legislation related to the operation and use of the railway infrastructure in Denmark. The list is not exhaustive:

EU legislation

DIRECTIVE (EU) 2012/34 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 November 2012 on establishing a single European railway area (recast)

DIRECTIVE (EU) 2016/2370 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 December 2016 amending Directive 2012/34/EU as regards the opening of the market for domestic passenger transport services by rail and the governance of the railway infrastructure

REGULATION (EU) No. 913/2010 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 September 2010 concerning a European rail network for competitive freight

REGULATION (EC) No. 1371/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2007 on rail passengers' rights and obligations

REGULATION (EC) No. 1370/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2007 on public passenger transport services by rail and by road and repealing Council Regulations (EEC) Nos 1191/69 and 1107/70

<u>COMMISSION IMPLEMENTING REGULATION (EU) 2015/10 of 6 January 2015 on criteria for</u> <u>applicants for rail infrastructure capacity and repealing Implementing Regulation (EU) No 870/2014</u>

COMMISSION IMPLEMENTING REGULATION (EU) no. 869/2014 of 11 August 2014 on new rail passenger services

<u>COMMISSION IMPLEMENTING REGULATION (EU) 2015/909 of 12 June 2015 on the modalities for</u> the calculation of the cost that is directly incurred as a result of operating the train service

<u>COMMISSION IMPLEMENTING REGULATION (EU) 2015/171 of 4 February 2015 on certain aspects</u> of the procedure of licensing railway undertakings

<u>COMMISSION IMPLEMENTING REGULATION (EU) 2017/2177 of 22 November 2017 on access to</u> <u>service facilities and rail-related services</u>

<u>COMMISION DELEGATED Decision (EU) 2017/20175 of 4 September 2017 replacing the Annex VII</u> to Directive 2012/34/EU of the European Parliament and of the Council establishing a common <u>European railway area</u>

National legislation (all links in Danish)

Act no. 686 of 27/05/2015 with later changes (The Railway Act)

Act no. 588 of 24/06/2005 on Sund & Bælt Holding A/S

Executive order no.1276 of 20/11/2015 on Banedanmark's duties and powers

Executive order no. 1379 of 01/12/2015 on railway charges and environmental subsidies for freight transportation on the rail network

Executive order no. 1328 of 27/11/2018 on infrastructure charges etc. for the rail network (including the valid on up-to-date charging tariffs of the Executive order).

Executive order no. 1245 of 10/11/2015 on allocation of railway infrastructure capacity (paths) etc.

Executive order no. 1047 of 02/09/2015 on obligation to provide access at intermodal terminals

Executive order no. 1380 of 01/12/2015 on obligation to provide access at stations etc.

Executive order no. 1461 of 15/12/2009 on liability insurance for Railway Undertakings and Infrastructure Managers

Executive order no. 1359 of 02/12/2010 amending Executive order on liability insurance for Railway Undertakings and Infrastructure Managers

Executive order no. 1125 of 09/10/2017 on regulation of amount of compensation and insurance in relation to the Railway act

Executive order no. 1136 of 22/09/2015 on the Danish Rail Regulatory Body

Executive order no. 1465 of 05/12/2016 on vehicles' technical compatibility with the rail network

Executive order no. 1312 of 16/12/2008 on Railway Undertakings' and Infrastructure Managers' emergency work

Executive order no. 865 of 07/07/2015 on amending Executive order no. 1312 of 16/12/2008 on Railway Undertakings' and Infrastructure Managers' emergency work

Executive order no. 147 of 30/01/2017 on safety approval and safety certificates within the railway sector

Executive order no. 865 of 07/07/2015 on amending the Executive order no. 13 of 04/01/2007 on safety approval of Infrastructure Managers

Executive order no. 896 of 13/07/2015 on the abrogation of Executive order on locomotives and passenger coaches operating on the Danish rail network

Executive order no. 601 of 23/06/2009 on rail transportation of dangerous goods

Executive order no. 576 of 31/05/2013 on amending Executive order on rail transportation of dangerous goods

Executive order no. 653 of 08/05/2015 on approval of vehicles on the railway

Executive order no. 854 of 07/07/2015 on the authorization of railway undertakings

1.4 Legal status

1.4.1 General remarks

The Network Statement 2020 is based on valid legislation and associated administrative regulations, including the Executive order no. 1245 of 10/11/2015 on allocation of railway infrastructure capacity (paths) etc., especially implementing article 27 of Directive 2012/34/EU as well as Annex IV of the Directive. The infrastructure fulfils the standards, procedures and specifications outlined in this Network Statement.

1.4.2 Liability

Banedanmark reserves the right to change or cancel planned capacity restrictions in connection with projects, in case of new political decisions.

Banedanmark is not responsible for errors that may occur in connection with the configuration or printing of the Network Statement.

Banedanmark cannot vouch for the correctness of the information in this Network Statement provided by and describing other Infrastructure Managers or service facility operators, including terminal operators.

Reservations are made with regard to changes to the Network Statement or to the condition of the rail network in general which could not be foreseen at the time of publishing the Network Statement.

Relevant legislation and associated administrative regulations shall prevail over the information contained in this Network Statement.

1.4.3 Appeals procedure

Complaints related to the content of the Network Statement or to decisions made by Banedanmark can be made to the Danish Rail Regulatory Body. For further information on complaint rights, fees and deadlines reference is made to the <u>Danish Rail Regulatory Body's website</u>.

1.5 Structure of Network Statement

The international group of European Infrastructure Managers, RailNetEurope (RNE), has produced a common structure for the organisation and content of Network Statements. The latest version of the common structure is on <u>RNE's website</u>.

Banedanmark's Network Statement has been drawn up in accordance with this structure in order to ensure that all those applying for capacity on Banedanmark's infrastructure as well as in other

countries using the common structure will find the same type of information, structured in a similar way.

The Network Statement consists of a main document, which describes the infrastructure as well as the general conditions regarding access to and operation on the infrastructure. In addition, the Network Statement contains an appendix section with further detailed information. Finally, the Network Statement includes useful links, for example to publications and relevant websites.

1.6 Validity and updating process

1.6.1 Validity period

The Network Statement 2020 is valid for the capacity allocation period of K20, (i.e. from December 15^{th} 2019 to December 12^{th} 2020).

1.6.2 Updating process

In the event of significant changes to the information contained in this Network Statement, Banedanmark will publish amendments to the Network Statement. Generally, this will be without a prior public consultation. A wholly or partly revised version of the Network Statement will replace the previous version of the Network Statement.

The above-mentioned does not apply to Banedanmark and the Øresundsbro Konsortiet's (Øresund Bridge Consortium Partnership) standard access contract (see appendixes 2.3A and 2.3B). Changes to the standard access contract during the period from the publication of the Network Statement to its implementation can only occur after consultation with the Railway Undertakings. However, changes prompted by authority requirements – for example new or altered legislation, Ministry of Transport, Building and Housing requirements or decisions made by the Danish Rail Regulatory Body – will be effected without public consultation.

1.7 Publishing

Banedanmark publishes the Network Statement only as an electronic document on <u>Banedanmark's</u> <u>website</u>, from which it can be downloaded free of charge.

The Network Statement is available in Danish and English. The main document and all appendixes have been translated to English. In the event of discrepancies between the two versions of the Network Statement, the Danish version shall apply.

1.8 Contact information

For enquiries regarding national and international rail traffic and other infrastructure access, contact Banedanmark. Relevant Banedanmark contact information is contained in the table below.

Banedanmark's postal address is:

Banedanmark Carsten Niebuhrs Gade 43 DK-1577 København V DENMARK

CVR: 18 63 22 76 Telefon: (+45) 82 34 00 00 E-mail: <u>banedanmark@bane.dk</u> Web: <u>www.bane.dk</u>

Standard Access Contract	Traffic Operations, Costumers
Data exchange	Signals
Dangerous goods	Quality and Safety, Working Environment
Freight lines	Traffic Operations, Traffic Operations Planning
Capacity applications	Traffic Operations, Traffic Operations Planning
Commercial enquiries,	Traffic Operations, Costumers
including advertising	
Communication systems	Signals
Running time calculations	Traffic Operations, Traffic Operations Planning
Network Statement	Traffic Operations, Costumers
One Stop Shop	Traffic Operations, Costumers
Route compatibility	Quality and Safety
Sidings usage	Traffic Operations, Traffic Operations Planning
Current	Infrastructure
Technical requirements &	Infrastructure
rules	
Train control system	Signals
Operational rules	Quality and Safety
Transmission and cables	Signals
Exceptional transports	Traffic Operations, Capacity Planning
Vintage train operation	Traffic Operations, Capacity Planning

1.9 Rail freight corridors

The <u>EU regulation 913/2010</u> outlines the establishment of a series of European rail freight corridors and was created in order to increase competition within international freight transport, including completion with other forms of transport.

Part of the Danish rail network is included in European rail freight corridor 3 (Scandinavian Mediterranean – ScanMed), which covers the Stockholm/Oslo – Malmö – Copenhagen – Padborg – Hamburg – Innsbruck – Verona – Palermo line. ScanMed was established in 2015.

A Corridor Information Document (CID) has been produced, which gives further details about the freight corridor. Further information can be found on ScanMed's <u>website</u>.

More information about the rail freight corridor is available on the <u>Danish Traffic, Construction and</u> <u>Housing Agency Agency's website</u> as well as on <u>Banedanmark's website</u>.

For information on other freight corridors, see <u>RNE's website</u>.

1.10 RailNetEurope – international co-operation between Infrastructure Managers

Banedanmark participates in the European co-operation between Infrastructure Managers, RailNetEurope (RNE). See <u>RNE's website</u> for more information about the organisation.

1.10.1 One Stop Shop

One Europe – ONE Service

In Denmark, enquiries regarding applications for capacity on freight corridors must be made through Banedanmark's One Stop Shop at <u>asn@bane.dk</u>. Alternatively, enquiries can be made to Banedanmark, Traffic Operations, Key Account Management.

Further information on One Stop Shops can be found on <u>RNE's website</u>.

1.10.2 RailNetEurope tools

Path Coordination System (PCS)

PCS (Path Coordination System) is an online software tool which supports the coordination of processes for international train path requests. Banedanmark recommends using PCS. For further information, see <u>RNE's website</u>.

Charging Information System (CIS)

CIS (Charging Information System) is a web-based application for the calculation of infrastructure charges. CIS is designed to provide Railway Undertakings and any other applicants who intends to apply for the allocation for capacity in international rail freight corridors with pricing information. The system calculates a price estimate. For further information, see the <u>website of the application</u>.

Train Information System (TIS)

TIS (Train Information System) is a web-based application which visualises international trains from origin to destination. It supports international train management by delivering data concerning international passenger and freight transport performed in rail freight corridors. For further information, see <u>RailNetEurope's website</u>.

1.11 Glossary

RNE has created an easy-to-use glossary of English terms related to Network Statements. The glossary can be found on <u>RNE's website</u>.

2 ACCESS CONDITIONS

2.1 Introduction

The following sections describe the terms and conditions related to Railway Undertakings' access to the rail network in Denmark, including licence and safety certificate requirements.

2.2 General access requirements

Access to Banedanmark's infrastructure is regulated by a number of acts and Executive orders, <u>The</u> <u>Railway Act</u> as well as specific regulations on licenses, safety certification and authorisation can be found on the <u>Danish Transport</u>, <u>Construction and Housing Agency's website</u>.

2.2.1 Requirements to apply for a train path

Applications for allocation of capacity on Banedanmark's infrastructure as well as possible connection with other countries' connected infrastructure must be submitted to Banedanmark.

The terms and conditions for operating a Railway Undertaking do not have to be satisfied at the time of capacity application. Third parties, for example other countries' OSSs (One Stop Shops), may apply for train paths on behalf of a Railway Undertaking.

Non-RU applicants for capacity must be approved by Banedanmark in order to be able to apply for capacity on Banedanmark's infrastructure.

For further information on requirements for non-RU-applicants, contac can be directed to Traffic Operations, Key Account Management

Allocated capacity may not be transferred, hired or sold to a third party.

2.2.2 Requirements to be made on applicants for capacity

For Railway Undertakings operating in Denmark a permit (licence) and a safety certificate issued by the Danish Transport, Construction and Housing Agency are required, see sections 2.2.3 + 2.2.4.

In case capacity has been allocated to the Railway Undertaking, a valid and legal liability insurance is required, see section 2.2.5.

2.2.3 Permit (licence) for performing train operations

The Danish Transport, Construction and Housing Agency issues licences to operate a Railway Undertaking in Denmark.

The Danish Transport, Construction and Housing Agency's guidelines on licence applications can be found on <u>the Agency's website</u>.

Licences issued in other EU member states as well as in Norway and Switzerland are also valid in Denmark provided that the party in possession of the licence has a valid and legal liability insurance in accordance with relevant legislation. For further information, see section 2.2.5.

2.2.4 Safety certificate

The Danish Transport, Construction and Housing Agency issues safety certificates to Danish and other Railway Undertakings which fulfil the relevant requirements. For further information, see <u>the Agency's website</u>.

2.2.5 Cover of liabilities

Railway Undertakings which are allocated capacity must have legally required liability insurance, in accordance with the requirements of Executive order on liability insurance for Railway Undertakings and Infrastructure Managers.

For further information, see the Danish Transport, Construction and Housing Agency's website.

2.3 General business and commercial conditions

2.3.1 Contracts for Railway Undertakings

Standard access contracts for the usage of Banedanmark's infrastructur Prior to using the allocated capacity on Banedanmark's infrastructure, it is obligatory for the party which has been allocated capacity to enter an agreement with Banedanmark in the form of a standard access contract (Appendix 2.3A).

The standard access contract establishes collaborations, reciprocal rights and duties, conditions etc. for the use of Banedanmark's infrastructure.

If required due to special circumstances related to the party with allocated capacity, the standard access contract may be supplemented by individual appendixes and addendums.

Standard access contracts for the usage of the infrastructure of Øresundsbro Konsortiet In addition, prior to use of allocated capacity on infrastructure managed by the Øresundsbro Konsortiet (Øresund Bridge Consortium Partnership) and located in Denmark, it is obligatory for the Railway Undertaking to enter an agreement with Banedanmark in the form of a standard access contract with Banedanmark on behalf of the Øresundsbro Konsortiet (Appendix 2.3B).

The standard access contract is not a prerequisite for applying for train paths.

For further information about services delivered by Banedanmark, see section 5.

2.3.2 Contracts for non-RU applicants

Non-RU applicants for capacity must be approved by Banedanmark in order to be able to apply for capacity.

It is obligatory for the applicant to enter an agreement with Banedanmark, which states the conditions which apply for the application of capacity, including the obligation to provide a guarantee of payment of 50.000 DKK (Appendix 2.3C).

For further information, contact Key Account Management.

2.3.3 Framework agreement

Work is being carried out under the auspices of RNE on the introduction of standard framework agreements which would enable capacity to be allocated to a Railway Undertaking for a period longer than the 1-year timetable period/capacity allocation period. Banedanmark does not currently enter into such agreements. Contact Banedanmark, Key Account Management, for further information regarding the possibility of future framework agreements on capacity allocation.

2.4 Operational rules

Banedanmark, Quality & Safety, produces and publishes operational rules for use of allocated capacity on Banedanmark's infrastructure, following authorisation by the Danish Transport, Construction and Housing Agency. The rules can be seen on <u>Banedanmark's website</u>.

Banedanmark, Technical Operations, prepares and issues safety-related application conditions (SRAC).

Other Infrastructure Managers in Denmark also stipulate rules for their infrastructure.

Øresundsbro Konsortiet (Øresund Bridge Consortium Partnership) publishes Trafiksikkerhedsforskrift – TF (Traffic Safety Regulations), which apply in coordination with Banedanmark's rules for operation on Øresundsbro Konsortiet's infrastructure.

Currently, Danish is the only permitted language on Banedanmark's infrastructure. In the long term, Banedanmark plans to introduce English as a permitted language. This implementation will be coordinated with the rollout of the Signalling Programme, which is described in section 3.9.

2.5 Exceptional transports

The issuing of transportation permits for exceptional transports is carried out by Banedanmark, Traffic Operations, Capacity Planning. Enquiries should be sent to <u>ut@bane.dk</u>.

Processing and issuing take place according to the Instructions for Exceptional Transports produced by Banedanmark, Quality & Safety. The instructions also contain a definition of exceptional transports. The instructions can be found on <u>Banedanmark's website</u>.

Gauges applicable in Denmark can be seen in appendix 2.5. For further information on line classifications (axel load and meter load), see section 3.3.2.2.

For information on application for capacity related to exceptional transports, see section 4.7.

Intermodal operations

Loading units which are to be transported on rolling stock must be constructed and marked according to the requirements in UIC 596-5 and 596-6.

In Denmark, it is possible to use the infrastructure up to P/C 80 or P/C 410 as exceptional transports.

Permanent transportation permits are issued for transportation between the intermodal terminals (see section 3.7) and for transit between the Padborg border and the Malmö border. Issuing of transportation permits is performed by Banedanmark, Traffic Operations. Enquiries can be made to <u>ut@bane.dk</u>.

Overview of loading units with relevant exceptional transport numbers:

- P/C 45 = BDK 8100-20
- P/C 60 = BDK 8101-20
- P/C 80 = BDK 8102-20
- P/C 369 = BDK 8103-20
- P/C 375 = BDK 8104-20
- P/C 400 = BDK 8105-20
- P/C 410 = BDK 8110-20

2.6 Dangerous goods

The Danish Transport, Construction and Housing Agency controls the transportation of dangerous goods by rail in Denmark and carries out inspections to ensure that Railway Undertakings and Infrastructure Managers comply with the rules for the transportation of dangerous goods on the infrastructure. Information about inspection areas and the scope of inspection can be found in the valid directive on inland transportation of dangerous goods. More information can be found on the Danish Transport, Construction and Housing Agency's website.

The transportation of dangerous goods on the infrastructure in national and international freight corridors is governed by the Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID). These regulations can be seen in annex 1 to appendix B of the Convention Concerning International Carriage by Rail, COTIF, with appendixes CIM and CIV, as well as the rules stipulated by the Ministry of Transport, Building and Housing or the Danish Transport, Construction and Housing Agency.

RID is, according to order no. 919 of 16 December 1998 exempt from inclusion in "Lovtidende" (the Danish Law Gazette). A Danish translation of the regulations can be seen on the <u>Danish</u> <u>Transport, Construction and Housing Agency's website.</u>

Banedanmark is at all times responsible for providing details of the quantity and type of dangerous goods in areas which are Banedanmark's responsibility. Therefore, all Railway Undertakings and others transporting dangerous goods must at all times provide details (including information about high risk RID 1.10.3.1.2.) to Banedanmark of quantity and location of dangerous goods in transit, as well as in secured and unsecured areas on Banedanmark's infrastructure. This should take place by electronic notification of wagon lists to Banedanmark's RID database in valid format in

order to ensure that relevant rules are followed, including the requirements in RID as well as the valid Executive order on control of risk for major accidents and dangerous goods.

For information on application for allocation of capacity related to the transportation of dangerous goods, see section 4.7.

2.7 Rolling stock acceptance process

Rolling stock, including locomotives, train sets, passenger coaches, freight wagons, infrastructure works vehicles and vintage trains, must be in possession of approval in the form of an authorisation to put into service (APIS) issued by the Danish Transport, Construction and Housing Agency, and must be registered in the National Vehicle Register (NVR). Rolling stock with an authorisation to put into service (APIS) may only be operated by either certified Railway Undertakings or approved Infrastructure Managers.

Information on authorisation to put into service (APIS) for rolling stock can be found on the <u>Danish</u> <u>Transport, Construction and Housing Agency's website.</u>

Rail or road vehicles as well as other specific vehicles which operate at a speed of under 20 km/h and which are used during possessions must obtain an authorisation to put into service (APIS) from Banedanmark before being placed on the track. For further information, see <u>Banedanmark's</u> <u>website</u>.

2.8 Staff acceptance process

The Danish Transport, Construction and Housing Agency is responsible for approving Railway Undertakings' internal education of staff with functions requiring safety certificates.

Further information is available on the <u>Danish Transport</u>, <u>Construction and Housing Agency's</u> <u>website</u>.

3 INFRASTRUCTURE

3.1 Introduction

The following sections describe Banedanmark's overall infrastructure. The description comprises a range of geographical, technical and operational characteristics, which are relevant to the application purpose of the infrastructure.

An outline map of lines in Denmark can be seen in appendix 3.1A. Outline maps of lines open for passenger and freight traffic can be seen in appendixes 3.1B and 3.1C respectively.

This section also describes other Infrastructure Managers' infrastructure or connected rail network elements.

3.2 Extent of network

3.2.1 Geographical limits

The geographical limits of the Danish rail network are outlined in appendix 3.1A.

The following lines are blocked and therefore not available for allocation of capacity:

- Nykøbing F Gedser
- Tønder Tinglev

Sidings and including branch lines connected to other sidings, such as connections to port lines and private tracks

A siding can be classified as to one of three levels:

Open

There is a demand for usage of the siding. The siding is therefore fully maintained and fully functional. An overview of open sidings, grouped according to usage for various operational purposes, can be seen in appendix 3.2A.

Inactive

There is no demand for usage of the siding. The siding is therefore not available for traffic use, and Banedanmark can subsequently declare the siding inactive.

If there is demand for the siding within 24 hours, it is Banedanmark's responsibility to ensure that the siding can be used for traffic purpose. Therefore, the siding is technically operational, and maintenance of the siding can, if necessary, take place.

Closed

There has been no demand for usage of the siding for 24 months, during which time the siding has been inactive. Banedanmark will recommend to the Danish Transport, Construction and Housing

Agency that the siding is closed. If this change in status is authorised by the Danish Transport, Construction and Housing Agency, the siding will be closed operationally and technically.

If a request for reopening of the siding is not expected in the foreseeable future, Banedanmark will recommend to the Danish Transport, Construction and Housing Agency that the siding is removed.

Status of the sidings as *inactive* or *closed* is published in the Network Statement, appendix 3.2.A.

3.2.2 Infrastructure connected to Banedanmark's infrastructure

Banedanmark's international and national borders with other Infrastructure Managers are shown in appendix 3.2B.

National borders with other Infrastructure Managers

The Great Belt Link

The fixed connection over the Great Belt is owned by Storebælt Inc. (Great Belt Inc). Banedanmark is the infrastructure manager of the fixed connection over the Great Belt and is responsible for traffic-related operations.

Storebælt Inc. is responsible for maintenance and reinvestment related to infrastructure on the fixed connection over the Great Belt and covers all costs related hereto.

Sund & Bælt Holding Inc. administrates the system owned by Storebælt Inc. and is responsible for all maintenance and reinvestment projects on the railway line from km 106,840 to 132,396.

An annual emergency situation exercise is conducted with regard to the Great Belt Link. The Great Belt Link is closed for traffic during the exercise.

The Øresund Railway

The Danish infrastructure connected to the \emptyset resunds Bridge – \emptyset resundsbanen (\emptyset resund railway) – is owned by \emptyset resund Inc.

A/S Øresund is responsible for the maintenance and reinvestments on to the Danish railway infrastructure connected to the Fixed Øresund Link and incurs all expenses in connection herewith. However, Banedanmark is responsible for the maintenance and reinvestments of the interlocking systems on the Danish railway infrastructure connected to the Fixed Øresund Link.

Banedanmark is infrastructure manager of the Danish railway infrastructure connected to the Fixed Øresund Link.

Sund & Bælt Holding Inc. administrates the system owned by Øresund Inc. and is responsible for all maintenance and reinvestment projects. However, Banedanmark is responsible for the administration of the interlocking systems on the Danish railway infrastructure connected to the Øresund Fixed Link

Regional railways

The following links contain information on the regional railways in Denmark with railway infrastructure connected to Banedanmark's infrastructure:

- <u>Midtjyske Jernbaner's website</u>
- Lokaltog's website
- <u>Nordjyske Jernbaner's website</u>
- Vestbanen's website

Information on where regional railways are connected to Banedanmark's infrastructure can be seen in appendix 3.2C. Banedanmark is Infrastructure Manager for crossings on private railways.

Private sidings

For further information on private sidings, see appendix 3.2C. Information on port railway tracks and port berths can be obtained from the relevant track owners, see section 5.3.7.

For information on freight terminals, see section 3.7.

International interface to other Infrastructure Managers

Banedanmark's infrastructure is connected to the German infrastructure at the Padborg border and the Tønder border. For further information on the borders' locations and adjacent Infrastructure Managers, see appendix 3.2C.

The interfacer between the Danish rail network and the Swedish rail network is at the system border at Peberholm's western station border at km 23.6. The interface between Banedanmark's infrastructure and the infrastructure managed by Øresundsbro Konsortiet (Øresund Bridge Consortium Partnership) is outlined in appendix 3.2C. Infrastructure managed by Øresundsbro Konsortiet is described in <u>Netredegørelsen for Øresundsbron (Network Statement for the Øresund Bridge</u>).

3.2.3 Further information

For information on the regional railways' infrastructure, see appendixes 3.2D – 3.2H.

An outline map of borders to other infrastructure managers can be seen in appendix 3.2.B.

3.3 Description of Banedanmark's infrastructure

Banedanmark's infrastructure is described in detail in this section.

3.3.1 Geographic identification

3.3.1.1 Number and length of lines

An overview of the number of lines can be seen in appendix 3.3A. An overview of the length of lines can be seen in appendix 6.6

3.3.1.2 Track gauges

In Denmark, the track gauge is 1435 mm. standard.

3.3.1.3 Stations and nodes

A map of selected stations, stopping points and nodes on Banedanmark's infrastructure can be seen in appendix 3.1B.

Network Statement 2020 v.1.0 INFRASTRUCTURE Banedanmark's standard for platforms in stations with long-distance or international traffic is 320 metres. It should be noted that not all stations conform to this standard. Guideline information on the length and height of all platforms in stations on Banedanmark's infrastructure can be seen in appendix 3.6.

In relation to Banedanmark's infrastructure, the line information (TIB) contains a description of the local operational conditions for stations. The TIB lines can be seen in appendix 3.3B and on <u>Banedanmark's website</u>.

3.3.2 The infrastructure's capabilities

3.3.2.1 Kinematic reference lines

An overview of the applicable kinematic reference lines on the Banedanmark's infrastructure can be found in appendix 3.3C.

Loading gauges

An overview of applicable loading gauges can be found in appendix 2.5.

Gauges for mixed traffic have not been implemented, but up to P/C 80 and P/C 410 can be transported on most lines. They must be transported as exceptional transports, see section 2.5.

3.3.2.2 Weight limits

Due to synergetic conditions, there is no guarantee that permission will be granted to travel at maximum speed as well as with maximum axle load and maximum meter load. For more information, see section 3.3.2.4 on line speeds.

Maximum axle load

A guideline overview of maximum axle load can be seen in appendix 3.3D. The applicable maximum axle load of vehicles on individual lines (and line sections) is contained in AML, which can be found on <u>Banedanmark's website</u>. Maximum axle load refers to the highest weight per axle on the line.

Weight per meter

A guideline overview of maximum weight per meter can be seen in appendix 3.3E. The applicable maximum meter load for individual lines (and line sections) is contained in AML, which can be found on <u>Banedanmark's website</u>. Maximum meter load refers to the highest weight per meter on the line.

Train weight and load

Reference is made to the valid legislation as well as rules issued by Banedanmark. The rules can be found on <u>Banedanmark's website</u>.

3.3.2.3 Gradient

TIB contains information about gradients on the line. Max. permitted gradient/decline is contained in Track Rules 1987 section 2.10.

Line gradients

Wheel gauges must be suitable for a line gradient of 1:40.

3.3.2.4 Line speeds

An overview of maximum line speeds can be seen in appendix 3.3F. Maximum line speed refers to the highest permitted speed for train sets with documented limited impact on the track (in Danish: "*særlige togsæt"*) for the given part of the line. Specifications of "*særlige togsæt"* appear from Banedanmark's norm BN2-74.

For other rolling stock, the maximum speed may be lower than the maximum line speeds mentioned in the appendix. These limits appear in TIB (Banedanmark's route information).

3.3.2.5 Maximum train lengths

Train length refers to the total length of the train including operational and non-operational tractive units.

Information about permitted train lengths can be found on <u>Banedanmark's website</u>.

Certain sorting yards/loops cannot accommodate trains of more than 835 meters, and therefore capacity limits may be imposed in these circumstances. Further information can be obtained from <u>korrtoga@bane.dk</u>.

3.3.2.6 Electrification

Long-distance lines

The following lines of Banedanmark's infrastructure are electrified:

- Helsingør København Roskilde Odense Fredericia Lunderskov Esbjerg
- København Øresundsforbindelsen
- København Køge Nord Ringsted
- Køge Nord Køge Næstved
- Lunderskov Tinglev Padborg
- Tinglev Sønderborg

System separations:

Lernacken, Sweden: Between 25 kV 50 Hz and 15 kV 16.7 (operational at line speed) Padborg: Between 15 kV 17,7 Hz (not operational at line speed)

The electrical operation on the long-distance lines is performed 25 KV 50 Hz alternating currents from distribution stations along the track.

S-train lines

The S-train lines in the Greater Copenhagen Municipal area operate at 1650 V direct current from transformer stations along the track.

3.3.3 Traffic control and communication systems

3.3.3.1 Signalling systems

Traffic control and management is carried out by Banedanmark through various types of interlocking systems which send a visual stop/go signal to the driver in accordance with the 1975 Safety Regulations (SR).

Long-distance lines

Control and management of traffic on long-distance lines where the Signalling Programme has been rolled out is carried out by Banedanmark through ERTMS in accordance with the Safety Regulation's Operational Rules (OR-F).

S-train lines

Control and management of the S-train traffic is carried out by Banedanmark through CBTC in accordance with the Safety Regulation's Operational Rules (OR-S).

The overall implementation plan can be seen in appendix 3.9.

3.3.3.2 Traffic control systems

Traffic control takes place partly using remote control and partly using local control of interlocking and block systems. Approximately 97% of Banedanmark's lines are remotely controlled. There are both larger regional control centres (RFCs) and smaller control centres (FCs). A few stations are manually controlled, but the rest are remotely controlled; station interlocking systems where an FC is located are usually controlled by local train dispatchers, the only exception being the S-trains.

The locations and coverage areas of the control centres as well as the manually controlled stations can be seen in appendix 3.3H.

Some stations require manual manning as a prerequisite: Horsens, Randers, Herning, Viborg, Silkeborg, Ellidshøj and Langå.

Operating times for local staff are stated in TIB (Banedanmark's route information). Exceptional manning of stations can be arranged with Banedanmark by the 15th of the previous month by contacting:

<u>tjsyd@bane.dk</u> for Horsens <u>tjnord@bane.dk</u> for all other stations

3.3.3.3 Communication systems

Each line/station is allocated specific radio channels (frequencies) which Railway Undertakings are permitted and obliged to use. All radio communication uses the GSM-R system.

The channels (frequencies) may only be used on the allocated channels and at the allocated shunting places and times. The relevant radio channel for each station is outlined in TIB (Banedanmark's route information). Banedanmark's requirements regarding use of GSM-R radio are described in the infrastructure register (only in English).

Radio conversations are recorded and monitored.

Long-distance lines

GSM-R radio (interoperable) is used for oral and data communication to and from the trains.

For shunting etc., portable Point-to-Point radios must be used. Portable radios must be configured to operate only on allocated channels/frequencies. The railwayundertakings are responsible for correct configuration.

S-train line

GSM-R must be used for oral and data communication to and from the trains. In order to use the system, trains must be equipped with a GSM-R radio.

3.3.3.4 Train control systems

In accordance with the Danish Transport, Construction and Housing Agency's "*Railway safety regulations BJ no. 5-1-2014 on regulations for operating on lines with train control systems*", trains which are allocated capacity on lines equipped with train control systems must be equipped with either interoperable ETCS Level_2 (possibly combined with ATC STM equipment) or be equipped with) mobile ATC, ATP, mobile HKT (on the S-train line) or mobile CBTC (on the S-train line). The systems are not interoperable.

The valid traffic information issued by Banedanmark on the handling of the Danish Transport, Construction and Housing Agency's BJ 5-1-2014 contains guidelines for operating rolling stock without the ATC system on lines with ATC.

3.4 Traffic restrictions

3.4.1 Specialised infrastructure

Special restrictions and limitations for operating on freight lines are described in the Safety Instructions (SIN).

3.4.2 Environmental restrictions

According to the <u>Environmental Protection</u> Act the undertaking responsible must when making system arrangements and operation planning ensure that the extent to which the surrounding are exposed to pollution is reduced to be as little as possible.

The Railway Undertaking is obliged to take measures which Banedanmark finds necessary with in order to comply with the specific instructions from the environmental authorities concerning pollution caused by the Railway Undertaking.

The parties are obliged to mutually involve each other in any contact with relevant authorities, if such contact may lead to any of the parties being subject to an enforcement notice according to the Environmental Act and this statement.

Ground pollution

In case of just emerged spillage of oil or other chemicals from operated trains caused by the Railway Undertaking or in connection with refilling of fuel in areas of Banedanmark the Railway Undertaking must immediately inform the nearest control office.

The railway Undertaking must inform where the spillage took place (nearest station and kilometre point) and about the extent concerned. Upon detection of the spillage the Railway Undertaking must partly stop the spillage, partly initiate clan-up of the oil.

The local council concerned decides which investigations and remedial actions must be taken. Such investigations must be paid by the Railway Undertaking.

The Railway Undertaking must subsequently inform Banedanmark's environmental team about the spillage by completing the form on Banedanmark's website: <u>https://www.bane.dk/-/media/Bane/Leverandoer/Miljoe/Haandtering-af-oliespild-og-kemikaliespild.docx.</u>

The completed form must be sent to miljoeogenergi@bane.dk

Noise

The parties must attempt to minimize noise. Environmental legislation employs two different definitions of noise from the railway; noise from passing trains (section noise) and noise from other activities (terminal noise). These definitions are defined in guideline no. 1/1997 "Noise and vibrations from railways" and amendment from July 2007.

Noise activities, such as stationary trains idling on reversing tracks and stabling tracks are considered terminal noise, where the guidelines stated by the Danish Environmental protection Agency are limited to max. 35 dB at night in ownership against open and low residential areas. This implies that the engines, compressors and other noisy components of a train must be switched off at night, when the local council gives instructions to the railway Undertaking as to apply a limit value.

The environmental legislation does not contain limit values for line noise from existing railways. Running to and from stabling tracks (to and from operation) and reversing tracks is covered by the regulations for line noise.

In addition, the EU's TSI Noise must be complied with, and this is covered by the Ministry of Transport, Building and Housing's <u>Executive order no. 884 of 07/07/2015</u> and later changes on noise limits for new rolling stock in motion and idling. The train producers' compliance with the limitations in TSI NOISE is, however, not a guarantee that the Railway Undertakings will be able to comply with the Environmental Protection Agency's limitation of 35 dB on stabling tracks near accommodation.

Air pollution

The Environmental Protection Agency does not state any limit values for air pollution caused by railway operation. However, limit values applying to new locomotives and motor coaches are laid down in appendix 4 of the Ministry of Environment ad Foods's Executive order on limitation of air pollution from non-road mobile engines.

3.4.3 Dangerous goods

On the <u>Danish Transport</u>, <u>Construction and Housing Agency's website</u>, there is information on the rules for transporting dangerous goods, including special information on transporting dangerous goods via the Great Belt and Øresund railway tunnels.

3.4.4 Tunnel restrictions

There are certain restrictions related to operating with diesel-operated trains under the Great Belt and Øresund. In addition, passenger trains must fulfil certain requirements in order to carry passengers in the Great Belt and Øresund tunnels. Permission to carry passengers in the tunnels must appear from the Authorisatin for Placing in Service (APIS) of the rolling stock. Similar restrictions apply to other tunnels/covered areas.

For further information see Øresundsbro Konsortiets Trafiksikkerhedsforskrift (Øresund Bridge Consortium Partnership's Traffic Safety Regulations) as well as Banedanmark's Safety Regulations (SR), Safety Instructions (SIN) and traffic information.

3.4.5 Bridge restrictions

Certain wind restrictions apply related to rail traffic on the Great Belt Bridge and the Øresund Bridge. For further information see Øresundsbro Konsortiets Trafiksikkerhedsforskrift (Øresund Bridge Consortium Partnership's Traffic Safety Regulations) as well as Banedanmark's SR, SIN and traffic information.

3.5 Restrictions in the availability of the infrastructure

There are two important factors which can restrict availability of the infrastructure; infrastructure works, and access to sidings.

Capacity restrictions

Appendix 3.5A and 3.5B outlines the planned capacity restrictions in K20 and K21 for S-train lines as well as for long-distance lines, which, in accordance with the standard access contract (Appendix 2.3A) must be included in the Network Statement.

The standard access contract (Appendix 2.3A) outlines when and how Railway Undertakings must be notified of other infrastructure works/capacity limitations, which are not included in the Network Statement.

If a possession of allocated capacity is necessary, the affected Railway Undertaking(s) will enter into discussions with Banedanmark to resolve the challenge. This may include allocating alternative capacity to the Railway Undertaking(s) involved.

Banedanmark reserves the right to implement special restrictions related to the use of Banedanmark's infrastructure based on the condition of the area and the line.

Access to sidings

Access to and use of sidings, including extended use, can only take place by prior agreement with the Infrastructure Manager/Infrastructure Owner. The agreement may contain special restrictions including limited access, reduced speeds, reduced axle load etc.

3.6 Service facilities

3.6.1 Passenger stations

An overview of all passenger stations and way stations on Banedanmark's infrastructure as well as guideline information on platform lengths and heights can be seen in appendix 3.6A.

An overview of all passenger stations and way stations on Banedanmark's infrastructure after the roll-out of the ECTS-system on those lines, were ECTS is expected to operate in 2020, as well as guideline information on platform lengths and heights can be seen in appendix 3.6B.

3.6.2 Freight terminals

Intermodal terminals

A number of intermodular terminals with obligation to provide access exists in Denmark, where freight can be transhipped between road and rail. Banedanmark owns the intermodal terminals below, which are operated by other terminal operators:

Location	No. of	Track length	Ramp	Manager
	tracks			
Høje Taastrup	8	3290	No	DB Cargo
Padborg	2	900	No	TX Logistik
Taulov	9	5529	No	DB Cargo

For further information about access to the terminals, contact Banedanmark, Traffic Operations, Capacity Allocation. Capacity applications to and from the terminals follow the capacity allocation process, see section 4.

3.6.3 Sidings for shunting

Railway Undertakings can carry out shunting on sidings. An overview of stations with sidings available for freight and passenger trains can be seen in appendix 3.8. An overview of how many metres of siding are located at each station can be seen in appendix 3.2A.

There is no guarantee that the entire siding can be used for shunting.

Applications for capacity for shunting must be made to Banedanmark, Traffic Operations, Capacity Allocation. Banedanmark allocates capacity on access sidings. All shunting must be by agreement with Banedanmark.

3.6.4 Sidings for parking

Railway Undertakings can park rolling stock on sidings. An overview of stations with sidings available for freight and passenger trains can be seen in appendix 3.8. An overview of how many metres of siding are located at each station can be seen in appendix 3.2A.

There is no guarantee that the entire siding can be used for parking.

Applications for capacity for parking must be made to Banedanmark, Traffic Operations, Capacity Allocation.

On certain sidings available for parking Banedanmark offers access to mains sockets for power supply. For this purpose Banedanmark supplies mains sockets at three voltages:

- 1500 V (single-phase)
- 1000 V (single-phase)
- 400 V (three-phase)

It should be noted that that the rules for placing of dangerous goods is subject to applicable Executive order on control of risk for major accidents and dangerous goods.

3.6.5 Maintenance facilities for rolling stock

Banedanmark does not make workshops or other facilities for the maintenance of rolling stock available to Railway Undertakings.

3.6.6 Production-related services

Banedanmark does not provide facilities to the Railway Undertakings for cleaning or washing of rolling stock.

3.6.7 Port lines/tracks

Banedanmark allocates capacity to and from port tracks. An overview of the locations of port lines/tracks can be seen in appendixes 3.1C and 3.2C

3.6.8 Emergency facilities

Banedanmark provides assistance as to rescue service after prior agreement.

3.6.9 Refuelling facilities (diesel)

Banedanmark does not provide facilities for diesel refuelling.

3.6.10 Other facilities

3.6.10.1 Vehicle weighbridges

Banedanmark owns a number of vehicle weighbridges. The locations of these vehicle weighbridges are shown below:

City	Bearing capacityt	Weight-ID
Kolding	50 t	23362
Fredericia	2 of 50 t each	23363
Køge	60 t	23364

Banedanmark cannot guarantee that all wagon weighbridges are verified and operational.

3.6.10.2 Turntables

Banedanmark owns turntables at Padborg and Nykøbing F.

3.7 Service facilities managed by others than Banedanmark

An overview of the supply systems not managed by Banedanmark can be found in appendix 3.7.

3.8 Development of infrastructure

This section comprises a description of major development projects with regard to the infrastructure. The dimension of time for the projects is longer than the validity period of the Network Statement.

3.8.1 The Signalling Programme

In line with the political agreement on green transport policies of 28 January 2009, the Danish parliament decided that the signalling systems on the main and regional lines and the S-train lines would be renewed. On the main and regional lines, a signalling system will be implemented based on existing signalling solutions and the European train control standard ERTMS level 2, and on the S-train lines a CBTC system will be implemented. The Signalling Programme rollout is expected to be completed in 2030 on the main and regional lines and in 2021 on the S-train lines. For further information about the Signalling Programme rollout, see <u>Banedanmark's website</u> as well as the overall plan in appendix 3.9 (in Danish only).

Long-distance lines

For the main and regional lines, contracts are signed for the signalling infrastructure on the east of the Little Belt with Alstom, and on the west of the Little Belt with a consortium consisting of Thales and Strukton. The new signalling infrastructure will be brought into use one line at a time.

S-train lines

For the S-train lines, contracts for the signalling infrastructure are entered into with Siemens. The new signalling infrastructure will be brought into use one line at a time.

3.8.2 The new Copenhagen – Ringsted track

On 18 May 2010, the Danish Parliament decided on the new systems act for a new double-track electrified railway between Copenhagen and Ringsted via Køge. The purpose of this new railway is to increase capacity between Copenhagen and Ringsted.

The railway project has been budgeted at 10.4 billion DKK (2009 price), and the track is expected to be ready for use in 2019. The line will include a new station, *Køge Nord*, where passengers will be able to change between the long-distance lines and the S-train lines. The railway will be constructed for the operation of freight and passenger trains. The speed of passenger trains will be up to 250 km/h, and it will be Denmark's first railway line capable of operating high-speed trains.

The project is part of the political plans to improve capacity and travel time between the country's largest cities.

Read more about the new Copenhagen – Ringsted track on Banedanmark's website.

3.8.3 Electrification Programme

On 29 May 2015, Banedanmark entered into a contract on the electrification of the majority of the Danish rail network with a consortium consisting of Aarsleff-Siemens. At the same time as the electrification, Banedanmark is carrying out a range of major renovation work including the reconstruction of several hundred bridges around Denmark, as part of the overall electrification programme. The line between Lunderskov and Esbjerg is the first line to be electrified as part of

Banedanmark's Electrification programme. Work on the new Ringsted – Copenhagen line and the line between Køge Nord and Næstved is in progress.

Read more about the Electrification programme on <u>Banedanmark's website</u> and in the overall plan in appendix 3.9.

4 CAPACITY ALLOCATION

4.1 Introduction

The following sections describe the rules and procedures related to the allocation of capacity on Banedanmark's infrastructure in accordance with the valid Executive order on allocation of railway infrastructure capacity (paths) etc.

The production and distribution of Banedanmark's annual working timetable is coordinated by Banedanmark, Traffic Operations, Capacity Allocation. The distribution date is in keeping with the date of the annual international timetable changeover – i.e. the first Sunday after the second Saturday in December. During the timetable period, Banedanmark may distribute an updated timetable if necessary. Changes in the intervening period are dealt with via train service announcements.

Banedanmark only produces the working timetable in electronic form, and it can be seem on <u>Banedanmark's website</u>.

4.2 Description of the capacity allocation process

An applicant is allocated capacity by Banedanmark in accordance with the guidelines in section 4.4. Allocation takes place annually and the allocation period has a duration of one year.

Along with the application, the Railway Undertaking must state at which stations stabling tracks are required. This must include the anticipated number of units for which space is required at a given geographical location as well as information about at which stations shunting is required. Applications for allocation of capacity must be submitted in a format authorised by Banedanmark. Allocation of stabling tracks will be communicated in writing as a supplement to the capacity allocation.

More information about application for allocation of capacity, including application forms can be found on <u>Banedanmark's website</u>.

Railway Undertakings applying for capacity for international freight traffic must use the joint European timetable planning system, PCS (Path Coordination System). More information can be found on <u>RNE's website</u> and in section 1.10.2.

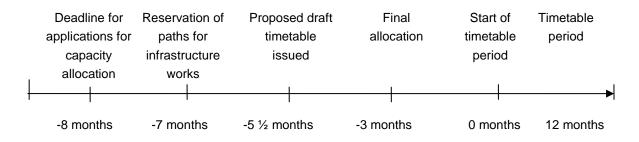
Banedanmark, Traffic Operations, Capacity Allocation offers free basic training in using PCS.

In addition, capacity can be allocated for ad hoc usage of the infrastructure.

4.3 Schedule for allocation process

4.3.1 Schedule for working timetable

Capacity allocation on Banedanmark's infrastructure follows the procedure and includes the deadlines stated below:



Banedanmark will make decisions on capacity allocation based on applications received 8 months before the start of the timetable period. In the event of more than one application for allocation of the same capacity, Banedanmark will, with the applicants' consent, attempt to allocate the optimal capacity, and allocate it to the applicant that can best document a concrete need.

7 months before the timetable period, Banedanmark will reserve capacity for infrastructure works, taking received capacity applications into account.

Banedanmark will issue a proposed draft timetable at least 5½ months before the start of the timetable period and the final capacity allocation will be announced at least 3 months before the timetable period.

An overview of the deadline dates for K20 can be seen in appendix 4.3.

4.3.2 Schedule for ad-hoc requests

Applications for ad hoc allocation of capacity for operating vintage trains must be received by Banedanmark at least 30 days before the date requested. It is recommended that other Railway Undertakings submit applications at least 5 working days before the date requested. Allocation takes place on a first-come first-served basis and Banedanmark will process the request within 5 working days of receipt. Charges are calculated based on the valid tariffs at that time.

Applications should be sent in writing to <u>korrtoga@bane.dk</u> or via PCS.

4.4 Allocation process

4.4.1 Coordination process

In the event of conflicting requests for allocation of capacity on the same line, Banedanmark will invite the relevant applicants to coordinated negotiations. Applicants who choose not to participate in negotiations or who display passivity at negotiations will risk being down prioritised. If a solution cannot be found through negotiation, Banedanmark will make the final decision on allocation.

Allocation of capacity always adheres to the valid Executive order on allocation of railway infrastructure capacity (paths) etc.

4.4.2 Dispute resolution process

Complaints regarding the allocation process should be made in writing to:

Danish Rail Regulatory Body (Jernbanenævnet) Carsten Niebuhrs Gade 43 DK-1577 København V DENMARK info@jernbanenaevnet.dk

Complaints must be submitted in writing to the Danish Rail Regulatory Body within four weeks of the announcement of the relevant capacity allocation. More information about fees and deadlines is available on the <u>Danish Rail Regulatory Body's website</u>.

4.4.3 Congested infrastructure

When it is not possible to fulfil an application for capacity following coordination and subsequent consultation, the infrastructure is declared to be congested. An overview of the congested lines in K18, as well as bottlenecks, which are lines at risk of congestion as capacity usage is in excess of UIC's maximum recommended usage, can be seen in appendix 4.4.

When a line is congested, capacity allocation is carried out according to the principles described in the valid Executive order on allocation of railway infrastructure capacity (paths) etc.

When applying for allocation of capacity on congested infrastructure, the applicant must prioritise paths in order to enable Banedanmark to draw up principles for operation at reduced speed.

In case of congested infrastructure, Banedanmark is responsible for producing a capacity analysis and a capacity enhancement plan.

4.4.4 Framework Agreements

At the moment Banedanmark does not apply any framework agreements.

Contact Banedanmark, Key Account Management, for further information regarding the possibility of future framework agreements on capacity allocation.

4.5 Allocation of capacity for maintenance, renewal and construction of infrastructure

See the valid renewal plan as well as other detailed overviews. These documents can be acquired from Banedanmark, Traffic Operations, Capacity Allocation.

4.6 Non-usage and cancellation

In order to retain rights to allocated capacity, the party that has been allocated capacity must use it. If the party that has been allocated capacity has wholly or partly ceased to use the capacity, the party is obliged to immediately inform Banedanmark.

In order to ensure optimisation, Banedanmark can withdraw unused capacity from a party that has been allocated capacity, as long as the unused capacity constitutes at least 25% of the total capacity for the calculation month. If the infrastructure is defined as congested, the Danish Transport, Construction and Housing Agency will determine an alternative threshold through Executive order.

Paths can be cancelled for a fee. The deadlines for cancellation and the level of fees are set out in the Executive order on infrastructure charges etc. for the rail network. For more information, see section 6.

4.7 Exceptional transports and dangerous goods

Exceptional transports

Applicants must disclose exceptional transports when applying for allocation of capacity, and must obtain transportation permission prior to application (for more information see section 2.5). When transportation permission has been granted, capacity can be allocated.

Dangerous goods.

Contact Banedanmark, Capacity Allocation for information on capacity allocation for transporting dangerous goods.

4.8 Special measures in the event of disturbance

4.8.1 Principles

Banedanmark has produced a contingency plan in accordance with the Executive order on Railway Undertakings' and Infrastructure Managers' emergency work describing how serious incidents or disturbances to rail traffic will be dealt with. The contingency plan also covers the Great Belt link as well as the Copenhagen H/Vigerslev – Copenhagen Airport Kastrup Line. The line between Copenhagen Airport Kastrup and Peberholm is, however, managed by Øresundsbro Konsortiet (Øresund Bridge Consortium Partnership) in accordance with Trafiksikkerhedsforskrift (TF – Traffic Safety Regulations). In accordance with the valid Executive order no. 1245 of 10/11/2015 on allocation of railway infrastructure capacity (paths) etc. Banedanmark can demand that Railway Undertakings make available the resources, including rolling stock, that Banedanmark finds appropriate in order to normalise railway traffic as quickly as possible.

In emergency situations and in the case of breakdowns which make the infrastructure inaccessible, Banedanmark can close allocated capacity during repairs.

In connection with the production of the working timetable, a "*Principper for afvikling"* ("*Operational Code"*) is also produced, which describes how traffic should be operated in case of traffic irregularities, with or without reduced capacity. Banedanmark may deviate from the "*Operational Code"* if required in order to normalise operations. The "*Operational Code"* is sent to Railway Undertakings prior to the start of a timetable period.

4.8.2 Operational regulations

An overview of operational regulations can be seen on Banedanmark's website.

4.8.3 Foreseen problems

Banedanmark releases traffic information and instructions in connection with specific weather conditions.

Winter arrangements

Every year Banedanmark implements a winter alert which is effective from 15 November to 30 April.

In connection with the winter alert, a "*winter arrangements"* traffic statement is produced, divided into guidelines applying to long-distance lines and guidelines applying to S-train Lines. "*Winter arrangements"* is distributed to all relevant partners, including all Railway Undertakings operating on Banedanmark's infrastructure.

Traffic operations during winter is performed based on a special winter arrangement plan. This plan is divided partly into phases/levels depending on the severity of the weather, partly in geographic areas depending on which railway lines being affected by the winter weather. Each phase/level is proportional to which traffic can operate. It is up to Banedanmark to decide when to progress from one phase/level to the next.

Arrangements in case of storms

Banedanmark implements arrangements to be followed in connection with storms. Performing traffic in case of storms is based on a special storm arrangement plan. This plan is divided partly into phases/levels depending on the severity of the storm, partly in geographic areas deæending on which railway lines being affected by the storm. Each phase/level is proportional to which traffic can operate. It is up to Banedanmark to decide when to progress from one phase/level to the next.

Leaf fall arrangements

Banedanmark implements a leaf fall alert. The alert is set up on a pre-arranged date with start up of leaf fall cleansing on selected railway lines on which traffic operation is especially affected by the leaf fall.

Active participation

Network Statement 2020 v.1.0 CAPACITY ALLOCATION Railway Undertakings will be invited by Banedanmark to actively participate in the preparation of winter arrangements, arrangements in case of storms as well as leaf fall alert in good time prior to the winter and leaf fall seasons.

Bridge and tunnel restrictions on the Great Belt and the Øresund Bridge and tunnel restrictions on the Great Belt and the Øresund are regulated by "Minimum requirements for maintaining train services", which is distributed as traffic information by Banedanmark, Quality and Safety, Railway Safety on behalf of the infrastructure owner.

4.8.4 Unforeseen problems

Unforeseen situations are handled by *Driftscenter Danmark* (Operations Centre Denmark) for main and regional lines in close collaboration with the Railway Undertakings and the affected area, including various control offices, other Infrastructure Managers etc. For the S-train line, situations are handled by *Driftscenter Hovedstaden* (Capital City Operations Centre).

4.9 Allocation of capacity for service facilities

Banedanmark allocates capacity for service facilities. All shunting on Banedanmark's infrastructure must be arranged with Banedanmark.

5 SERVICES

5.1 Introduction

Banedanmark delivers a range of services to Railway Undertakings. These services are described below.

Banedanmark's services are divided into four categories in accordance with EU directive 2012/34 annex II. Not all services described in the directive are offered by Banedanmark. For services offered by a different provider, the provider is referenced when possible.

5.2 Minimum access package

In general terms, Banedanmark's minimum access package provides applicants and Railway Undertakings with the opportunity to be allocated capacity and to use the infrastructure. Banedanmark is obliged to provide the minimum access package on an equal, non-discriminatory basis.

As described in DIRECTIVE (EU) 2012/34 annex II point 1, the minimum access package comprises the following:

- a) Handling of requests for railway infrastructure capacity;
- b) The right to utilise capacity which has been granted;
- c) Use of the railway infrastructure, including points and changing points;
- d) Train control including signalling, regulation, dispatching and the communication and provision of information on train movement;
- e) Use of electrical supply equipment for traction current, where available;
- f) All other information required to implement or operate the service for which capacity has been granted.

Banedanmark's standard access contract (Appendix 2.3A) contains a more detailed description of Banedanmark's minimum access package as well as the reciprocal conditions, rights and duties which Banedanmark and the Railway Undertaking are subject to in connection with delivery or use of the minimum access package.

5.2.1 Specifics on passenger information

Banedanmark's standard access contract (Appendix 2.3A) includes an outline description of the delivery of passenger information. The following provides a more detailed description of Banedanmark's delivery of passenger information.

By arrangement with and in collaboration with Railway Undertakings, Banedanmark delivers visual and auditory passenger information on long-distance lines via Banedanmark's media at stations. Banedanmark's delivery of passenger information depends on Banedanmark having access to the necessary data on Railway Undertakings' operations.

Passenger information is delivered via various media according to the relevant service standard and depending on various operational situations and customer needs.

The precise provision is determined in the "Service Standard for Passenger Information", which is regularly adjusted, but generally, Banedanmark's passenger information includes the following as a minimum:

During normal train operation

Banedanmark's electronic information screens at stations and on platforms are updated with information on departures and arrivals. Banedanmark gives customers notice about upcoming planned changes in traffic via information screens and loudspeakers.

During disruption to train operation

Banedanmark's electronic information screens at stations and on platforms are updated with information on trains' current departure times. Audio information about changes in traffic and advice for customers is given by announcements over Banedanmark's loudspeakers at stations and on platforms.

In addition

Banedanmark updates the web-based *Rejseplanen* (Journey Planner) with trains' up-to-date arrival and departure times, platform numbers, cancellations and extra trains on the long-distance lines.

Banedanmark provides a nationwide telephone service for blind and visually handicapped customers, which provides an audio version of departure and arrival information.

Real time data usage for passenger information

To ensure that passenger information is consistent and updated, Banedanmark has established a data service. This service collects real time data about train operations from its own and other linked Railway Undertakings' real time data sources.

This information is used by Banedanmark and linked Railway Undertakings as well as other interested parties in a full range of systems and interfaces.

This ensures that customers experience the same passenger information regardless of which media they use. The data service can be provided to all Railway Undertakings via a standard interface.

In order for Banedanmark to be able to provide correct and actual passenger information the Railway Undertakings performing passenger transport deliver GPS positions for own trains as well as information with regard to timetables and data on rolling stock in real time.

5.3 Track access to service facilities and supply of services

There is a range of service facilities in connection with the Danish railway infrastructure. The facilities and services offered are operated by Banedanmark or other providers. Railway Undertakings have an access right, including track access, to these facilities and services when they are available.

The following describes Banedanmark's services at the service facilities and the conditions for access to them. Wherever possible, other providers are referenced for facilities not operated by Banedanmark.

See section 3 for information on locations of services facilities and section 6 for information on charges.

5.3.1 Access to service facilities

5.3.1.1 Passenger stations

Banedanmark allocates track access to stations in accordance with the guidelines in section 4 and standard access contract (Appendix 2.3A).

Most facilities on passenger stations are owned or managed by Railway Undertakings. These facilities are available for use by other Railway Undertakings in accordance with the rules in the Executive order on obligation to provide access at stations.

5.3.1.2 Freight terminals

Intermodal terminals

Banedanmark owns the intermodal terminals listed in section 3.6 but the terminals are operated by terminal operators. All Railway Undertakings have access rights to the terminals and the services delivered by the terminal operators in accordance with the valid Executive order on obligation to provide access at intermodal terminals.

Banedanmark allocates capacity at intermodal terminals according to the rules in the Executive order on obligation to provide access at intermodal terminals.

5.3.1.3 Marshalling yards and facilities

Banedanmark allocates capacity in accordance with the guidelines in section 4.

5.3.1.4 Stabling tracks/sidings

Banedanmark allocates capacity in accordance with the guidelines in section 4.

5.3.1.5 Maintenance facilities

Banedanmark does not own or operate any maintenance facilities for rolling stock.

5.3.1.6 Other technical facilities, including cleaning and washing facilities

Banedanmark does not own or operate any cleaning and washing facilities.

5.3.1.7 Port facilities

Banedanmark does not offer any services in ports.

For further information on ports and related services, reference is made to the relevant port authorities on the following links:

<u>Esbjerg Havn</u> <u>Fredericia Havn</u> <u>Frederikshavn Havn</u>

Network Statement 2020 v.1.0 SERVICES <u>Grenaa Havn</u> <u>Hirtshals Havn</u> <u>Kalundborg Havn</u> <u>Kolding Havn</u> <u>Køge Havn</u> <u>Skagen Havn</u> <u>Thyborøn Havn</u> <u>Vejle Havn</u> <u>Aalborg Havn</u>

5.3.1.8 Relief facilities

See information on weighbridges in section 3.6.10.

5.3.1.9 Refuelling facilities

Banedanmark does not own or operate any refuelling facilities and does not provide fuel for rolling stock.

5.3.1.10 Facilities for monitoring wheel- and axel loads on trains in operation

Banedanmark monitors wheel- and axelloads on trains in operation. For this purpose, Axelload Checkpoints facilities of the type ATLAS FO are used. Banedanmarks ATLAS FO facilities are placed in the infrastructure as follows:

TIB-line	Track no.	Placement (center of ATLAS FO facility in the track)
1	Н	14,191
1	V	14,191
1	Н	181,974
1	V	181,980
26	2. right track	85,983
820	5	2,391

Banedanmark handles violations of applicable thresholds for wheel- and axelloads in accordance with BN2-205.

Banedanmark offers access to measuring data from the ATLAS FO facility. For further information, contact <u>ALC-drift@bane.dk</u>.

5.3.1.11 Facilities for monitoring pantographs on trains in operation

Banedanmark monitors pantographs on trains in operation. For this purpose, PantoInspect facilities are used. Banedanmarks PantoInspect facilities are placed in the infrastructure as follows:

TIB-line	Track no.	Placement
1	Н	12,708
1	V	12,721
820	Н	2,251
820	V	2,251
880	Н	4,071

5.3.2 Services available at the service facilities

Intermodal terminals

For further information on the terminals and the services available, see links below:

Kombiterminal Taulov og Høje Taastrup Kombiterminal Padborg

Other sidinga for freight trains

In excess of making the infrastructure available, Banedanmark does not provide any service on sidings.

5.4 Additional services

Banedanmark can supply the following additional services upon the request of a Railway Undertaking.

Reference is made to section 6 for information on charges.

5.4.1 Traction current

For information on the supplying of traction current, see Banedanmark's standard access contract, appendix 2.3A.

5.4.2 Service for rolling stock

Train pre-heating and other electricity to trains via mains sockets For information on train pre-heating and other electricity to trains via mains sockets, see Banedanmark's standard access contract, appendix 2.3A.

Water for preparation of trains For information on water for preparation of trains, see Banedanmark's standard access contract, appendix 2.3A.

5.4.3 Exceptional transports

For information on permits for exceptional transports, see Banedanmark's standard access contract, appendix 2.3A.

5.5 Ancillary services

Upon request, Banedanmark can provide the ancillary services mentioned in 5.5.1 - 5.5.8 to a Railway Undertaking.

See section 6 for information on charges.

5.5.1 Access to telecommunication network

Telecommunication companies involved in public mobile communication have the right to lease aerial space in existing masts and on tall buildings. Banedanmark can therefore offer aerial space in Banedanmark's masts and on Banedanmark's buildings under comparable leasing conditions as are offered to telecommunication companies.

5.5.2 **Provision of supplementary information**

Data on train movements

For data on train movements which is not included in the minimum access package, see Banedanmark's standard access package, appendix 2.3A.

Route compatibility

Banedanmark will help with enquiries regarding route compatibility.

5.5.3 Technical inspection of rolling stock

Banedanmark does not offer the service of inspection of rolling stock.

5.5.4 Ticketing systems at passenger stations

Banedanmark does not provide information on ticket systems at passenger stations.

5.5.5 Specialised maintenance service for rolling stock

Banedanmark does not provide specialised maintenance service for rolling stock.

5.5.6 Course in cross-border operations

Banedanmark can provide a course in Danish rail traffic regulations for locomotive drivers of Railway Undertakings only operating between Germany and the border stations of Padborg or Tønder.

5.5.7 Instruction to tunnel safety

Banedanmark can provide instructors for a course in tunnel safety.

5.5.8 Course in "Safety on the tracks"

This course is aimed at employees of Railway Undertakings or contractors who, at their own risk, manoeuvre within 4 metres of a track in an area owned by Banedanmark and other Infrastructure Managers.

5.5.9 Assistance in connection with test trains

In connection with test trains, Banedanmark can help with the reviewing of safety rules and possible compensation initiatives as well as exemption approvals. In addition, Banedanmark will assist with evaluation of test trains' possible effects on the infrastructure.

5.5.10 Advertising in Banedanmark areas

Banedanmark owns a number of commercial advertising spaces on platforms, tunnels and other areas. These commercial spaces can be leased from Banedanmark for a fee by Railway Undertakings, public institutions or others. However, most of the advertising spaces are included in a licensing agreement with a partner.

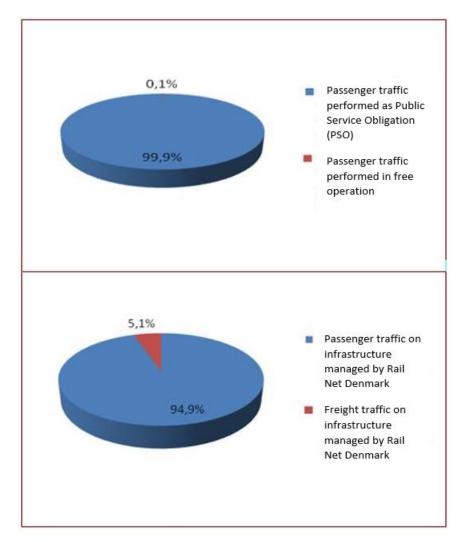
Other advertising agreements are entered into on an ongoing basis. For further information, contact Traffic Operations, Key Account Management.

6 CHARGES

6.1 Charging principles

Below is an account of the various charging principles which correspond to the services described in section 5.

Based on the total fees charged in 2016, the traffic was divided as follows:



6.1.1 Minimum access services

Charges for operating on Banedanmark's infrastructure are established in the Executive order on railway charges and on environmental subsidies for freight transportation on the rail network and the Executive order on infrastructure charges etc. for the rail network.

Railway Undertakings pay infrastructure charges to operate on Banedanmark's infrastructure, except for the S-train.

If a Railway Undertaking does not wish to use an allocated train path, the train path can be cancelled, whereupon infrastructure charges are payable in accordance with the rules in Executive order on infrastructure charges etc. for the rail network.

Environmental subsidy

Under a range of circumstances, Railway Undertakings may receive an environmental subsidy from Banedanmark based on a consignment note for freight transport. The environmental subsidy is paid to national and international (import/export) freight transport as well as to intermodal transport (trailer, detachable body or container) transiting through Denmark and reloading to or from a lorry at one end of the transportation. Further conditions are contained in the abovementioned Executive orders.

6.1.2 Track access to service facilities described in section 5.3.1

There is no separate charge for track access to service facilities.

6.1.3 Services at the service facilities described in section 5.3.2

Banedanmark does not deliver any services at service facilities and there is therefore no information on the charging principles in this Network Statement.

Reference is made to the relevant service supplier as outlined in section 5.3 for information on charges.

6.1.4 Additional services

Traction current

Traction current usage is measured as described below. Measurement of traction current does not generate income for Banedanmark.

Traction current delivered to trains with a traction current metre on board which sends the data used to calculate charges via Erex:

- Traction current charge is calculated according to the valid tariff at that hour for electricity on the spot market (Nord Pool Spot) with the addition of an electricity-trading tariff.
- The charge depends on the location and usage in charging areas DK1 and DK2.
- The electricity tariff is supplemented with the State's up-to-date electricity tariffs, PSO, leakage, contribution to administration of traction current calculations and VAT.

There may be small variations in the calculated charges for operation on the Øresund Bridge as the supply switches between Swedish and Danish power supply.

Traction current delivered to trains without a traction current metre on board:

- Traction current charge is charged based on the month's average tariff for DK1 and DK2 with the addition of an electricity-trading tariff.
- Charges are based on the reported number of kilometres travelled in the period multiplied by an amount of kWh/km. KWh is calculated differently for each class of rolling stock. The calculated number of kWh is used to calculate the charge.
- The calculated charge comprises the electricity tariff, State's up-to-date electricity tariffs, PSO, leakage, difference loss, contribution to administration of traction current calculations and VAT.

Train pre-heating and other electricity to trains via mains sockets

Electrical current for train pre-heating (standby current) supplied via the train's pantograph is calculated and charged in connection with the charging of traction current as described above.

Electrical current use from mains sockets made available by Banedanmark will be calculated at cost price including tariffs etc.

Water for preparation of trains

For information on calculation of charges for water for preparation, see Banedanmark's standard access contract in appendix 2.3A.

Exceptional transports

For information on calculation of charges in respect of permits for exceptional transports, see Banedanmark's standard access contract in appendix 2.3A.

6.1.5 Ancillary services

Charges for ancillary services are by agreement.

6.2 Charging system

Infrastructure charges and other charges for services take place independently of each other in accordance with the principles and tariffs indicated elsewhere in this section.

6.3 Tariffs

6.3.1 Minimum access package

Banedanmark regulates the tariffs of infrastructure charges annually based on developments in general prices and salary indexes. The regulated tariffs are stipulated in an Executive order.

The annual tariff stipulation takes place directly before the start of the New Year, when the new tariffs will become applicable. Therefore, it is not possible to include the tariffs for 2020 in the Network Statement 2020 at the time of its publication.

Banedanmark also stipulates the tariff for the environmental subsidy in an Executive order.

Valid tariffs can be found in the Executive order on infrastructure charges etc. for the rail network or from Banedanmark, Traffic Operations, Key Account Management.

6.3.2 Access to services facilities referred to in 5.3

There is no separate charge for track access to service facilities.

6.3.3 Services referred to in 5.3

Banedanmark does not deliver any services at service facilities and there is therefore no information on the charging principles in this Network Statement.

Reference is made to the relevant service supplier as outlined in section 5.3 for information on charges.

6.3.4 Additional services

Traction current

The tariff for traction current follows the on-going development in the market as described in section 6.1.4. Therefore, it is not possible to give a tariff in this Network Statement.

Train pre-heating and other electricity to trains via mains sockets For further information on the tariff for electricity via mains sockets, please see Banedanmark's standard access contract, appendix 2.3A.

Water for preparation of trains

For further information on the tariff for water for preparation, please see Banedanmark's standard access contract, appendix 2.3A.

Exceptional transports

For further information on the tariff in respect of permits for exceptional transports, please see Banedanmark's standard access contract, appendix 2.3A.

6.3.5 Ancillary services

Tariffs for ancillary services are available from Banedanmark on request.

6.4 Tariffs

6.4.1 Tariff for non-usage f paths

Banedanmark does not levy charges for paths not used.

Reference is made to the Executive order on infrastructure charges etc. for the railway network.

6.4.2 Cancellation tariffs

If an applicant or a Railway Undertaking does not wish to use an allocated path, the path concerned can be cancelled. If an applicant or a Railway Undertakinfg cancels one or more paths at a time less than 49 days before planned operation, 50 % of the charge for the cancelled path or the first of cancelled paths during the cancellation period are paid. If the path is cancelled less than 8 days paid before planned operation, the entire charge for the path concerned isvpaidl.

Reference is made to the Executive order on infrastructure charges etc. for the railway network.

6.4.3 Reduction in connection with framework agreements

At the moment Banedanmark does not apply any framework agreements.

Contact Banedanmark, Key Account Management, for further information regarding the possibility of future framework agreements on capacity allocation.

6.4.4 ERTMS dicsount

Banedanmark does not grant any ERTMS discount on infrastructure charges.

Reference is made to the Executive order on infrastructure charges etc. for the railway network.

6.5 **Performance scheme**

As a result of directive 2012/34/EF and the Executive order on Banedanmark's duties and powers, Banedanmark has established a generic obligatory performance scheme to encourage Infrastructure Managers and Railway Undertakings to minimise disruption on the infrastructure and therefore improve the infrastructure's efficiency.

6.6 Changes to charges

As far as possible, all changes to charges, other than on-going tariff regulating, will be announced by Banedanmark at least 12 months prior to implementation. All changes will be indicated to Railway Undertakings at hearings followed by publication of an amendment to an Executive order.

The tariff for the environmental subsidy can be changed with one month's notice via an Executive order issued by Banedanmark.

6.7 Billing and paying arrangements

Infrastructure charge

Infrastructure charges are payable to Banedanmark monthly in arrears with a payment deadline of 30 days net, in accordance with the rules in the Executive order on infrastructure charges etc. for the rail network.

Failure to pay infrastructure charges before a deadline stated to the Railway Undertaking may result in Banedanmark revoking allocated capacity.

Traction current

Charges for traction current are payable to Banedanmark monthly in arrears with a payment deadline of 30 days net.

Train pre-heating and other electricity to trains via mains sockets

Charges for electricity used for train pre-heating and other electricity via mains sockets are payable to Banedanmark monthly in arrears with a payment deadline of 30 days net.

Water for preparation of trains

For further information on billing for water for preparation, please see Banedanmark's standard access contract, appendix 2.3A.

Exceptional transports

For further information on billing for exceptional transports, please see Banedanmark's standard access contract, appendix 2.3A.