



# Network Statement 2018

banedanmark



# Network Statement 2018

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## **CORRECTIONS AND AMENDMENTS**

This document contains the corrections and amendments described in the table below. This document replaces previous versions of the Network Statement 2018 mentioned in the table.

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# 1 GENERAL INFORMATION

## 1.1 Introduction

---

Rail Net Denmark, which manages the State's railway infrastructure in Denmark, has 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, as well as companies and organisations which deal with transport and logistics. The Network Statement primarily contains information about infrastructure managed by Rail Net Denmark but also contains information about connected infrastructure and Infrastructure Managers.

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

|   |  |  |  |   |
|---|--|--|--|---|
|   | <b>Political level</b>                             |  |  |   |
|   | <b>Ministry of Transport, Building and Housing</b> |  |  |   |
| <b>Supervisory body</b><br><b>Danish Rail Regulatory Body</b> | <b>Authorities</b>                                 |  |  |   |
|   | <b>Accident Investigation Board Denmark</b>        | <b>Danish Transport, Construction and Housing Agency</b> | <b>Rail Net Denmark (Infrastructure Manager)</b> |   |
|   | <b>Companies</b>                                   |  |  |   |
|   | <b>DSB SOV</b>                                     | <b>Railway Undertakings with tendered contraction</b>    | <b>Regional Railway Undertakings</b>             | <b>Railway Undertakings in free operation</b> |

## 1.2 Objective

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The Network Statement's objective is to inform Railway Undertakings, the authorities and other interested parties about Rail Net Denmark's infrastructure, and the terms and conditions for allocation of capacity and use.

The Network Statement is produced in accordance with directive [2012/34/EU](#), Law no. 686 of [27/05/2015](#) (The Railway Act) and [Executive order no. 59 of 02/02/2004](#) on allocation of railway infrastructure capacity (train 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

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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

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

The EUROPEAN PARLIAMENT AND COUNCIL'S REGULATION (EU) no. 913/2010 of 22 September 2010 concerning a European rail network for competitive freight

The EUROPEAN PARLIAMENT AND COUNCIL'S REGULATION (EU) no. 1371/2007 of 23 October 2007 on rail passengers' rights and obligations

The EUROPEAN PARLIAMENT AND COUNCIL'S REGULATION (EU) no. 1370/2007 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

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

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

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

COMMISSION IMPLEMENTATION REGULATION (EU) 2015/10 of 6 January 2015 on criteria for applicants for railway infrastructure capacity and repealing Implementing Regulation (EU) No 870/2014

### National legislation (all links in Danish)

Law no. 686 of 27/05/2015 (The Railway Act)

Executive order no.1276 of 20/11/2015 on Rail Net Denmark'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. 1501 of 05/12/2016 on infrastructure charges etc. for the rail network (including the valid Executive order on up-to-date charging tariffs).

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. with later changes

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 on changes to the Executive order on liability insurance for Railway Undertakings and Infrastructure Managers

Executive order no. 1089 of 07/10/2014 on regulation of amount of compensation and insurance in relation to the Railway law

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 changes to the 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. 857 of 07/07/2015 on changes to 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 wagons 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 changes to the Executive order on rail transportation of dangerous goods

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

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

Executive order no. 372 of 25/04/2016 on control of risk for major accidents and dangerous goods

## **1.4 Legal status**

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### **1.4.1 General remarks**

The Network Statement 2018 is based on valid legislation and associated administrative regulations. The infrastructure fulfils the specifications outlined in this Network Statement and Rail Net Denmark will comply with the standards and procedures stated.

### **1.4.2 Liability**

Rail Net Denmark reserves the right to change or cancel planned infrastructure works in connection with projects, in case of new political decisions.

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

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

We reserve the right to make unforeseeable changes to the Network Statement or to the rail network in general.

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 Rail Net Denmark can be made to the Danish Rail Regulatory Body. For further information on complaint rights, fees and deadlines please refer to the Danish Rail Regulatory Body's website.

## **1.5 Structure of Network Statement**

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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 RNE's website.

Rail Net Denmark's Network Statement has been drawn up in accordance with this structure in order to ensure that all those applying for capacity on Rail Net Denmark'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**

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### **1.6.1 Validity period**

The Network Statement 2018 is valid for the capacity allocation period of K18, (i.e. from 10 December 2017 to 08 December 2018).

### **1.6.2 Updating process**

In the event of significant changes to the information contained in this Network Statement, Rail Net Denmark will publish supplements to the Network Statement. Generally, this will be without a prior public hearing. 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 Rail Net Denmark 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 its publication in the Network Statement to its implementation can only occur after consultation with the Railway Undertakings. However, changes prompted by regulatory requirement – for example new or altered legislation, Ministry of Transport, Building and Housing requirements or decisions by the Danish Rail Regulatory Body – will be effected without a hearing.

## **1.7 Publishing**

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Rail Net Denmark publishes the Network Statement only as an electronic document on Rail Net Denmark's website, from which it can be downloaded free of charge.

The Network Statement 2017 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 is applicable.

## **1.8 Contact information**

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

Rail Net Denmark's postal address is:

Rail Net Denmark  
Amerika Plads 15  
2100 Copenhagen Ø  
Denmark

Telephone: (+45) 82 34 00 00  
Email: [banedanmark@bane.dk](mailto:banedanmark@bane.dk)

|   |   |
|---|---|
| Access contract                             | Traffic Operations, Key Account Management      |
| Capacity applications                       | Traffic Operations, Traffic Operations Planning |
| Commercial enquiries, including advertising | Traffic Operations, Key Account Management      |
| Communication systems                       | Traffic Operations, IT and Signals              |
| Dangerous goods                             | Quality and Safety, Working Environment         |
| Data exchange                               | Traffic Operations, IT and Signals              |
| Electrical current                          | Technical Operations, Electrical Current        |
| Exceptional transports                      | Traffic Operations, Key Account Management      |
| Freight lines                               | Traffic Operations, Traffic Operations Planning |
| Network Statement                           | Traffic Operations, Key Account Management      |
| Running time calculations                   | Traffic Operations, Traffic Operations Planning |
| One Stop Shop                               | Traffic Operations, Key Account Management      |
| Operational rules                           | Quality and Safety                              |
| Route compatibility                         | Quality and Safety                              |
| Sidings usage                               | Traffic Operations, Traffic Operations Planning |
| Technical requirements & rules              | Technical Operations                            |
| Train control system                        | Technical Operations, Security                  |
| Transmission and cables                     | Technical Operations, IT                        |
| Vintage train operation                     | Traffic Operations, Key Account Management      |

## 1.9 Rail freight corridors

The [EU regulation 913/2010](#) 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 website.

More information about the rail freight corridor is available on the Danish Traffic, Construction and Housing Agency’s website as well as on Rail Net Denmark’s website.

For information on other freight corridors, please see RNE’s website.

## **1.10 RailNetEurope – international co-operation between Infrastructure Managers**

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Rail Net Denmark participates in the European co-operation between Infrastructure Managers, RailNetEurope (RNE). Please see RNE’s website 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 Rail Net Denmark’s One Stop Shop at [asn@bane.dk](mailto:asn@bane.dk). Alternatively, enquiries can be made to Rail Net Denmark, Traffic Operations, Key Account Management.

Further information on One Stop Shops can be found on RNE’s website.

### **1.10.2 RailNetEurope tools**

*PCS (formerly Pathfinder)*

PCS (Path Coordination System) is an online software tool which supports the coordination of processes for international train path requests. Rail Net Denmark recommends using PCS. For further information, please see RNE’s website.

*CIS (formerly EICIS)*

CIS (Charging Information System) is RNE’s international access charge estimation tool, designed to provide customers with pricing information. A web-based umbrella system for the various national railway infrastructure charging systems, it can calculate the price for the use of international train paths within minutes, 24 hours a day – including charges for train paths, station fees and shunting fees. Please see [RNE’s website](#) for further information.

*TIS (formerly EUROPTIRAILS)*

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 trains on freight train corridors. Please see RailNetEurope's website for further information.

## **1.11 Glossary**

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

## 2 ACCESS CONDITIONS

### 2.1 Introduction

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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

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Access to Rail Net Denmark's infrastructure is regulated by a number of laws and Executive orders. [The Railway Law](#) is the most relevant, but there is also information about specific regulations on licenses, safety certification and authorisation on the Danish Transport, Construction and Housing Agency's [website](#).

#### 2.2.1 Requirements to apply for a train path

Applications for allocation of capacity on Rail Net Denmark's infrastructure as well as possible connection with other countries' connected infrastructure must be submitted to Rail Net Denmark. In order to apply for capacity from Rail Net Denmark, applicants must provide information about rolling stock type and technical data. Further requirements can be specified by Rail Net Denmark.

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.

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

#### 2.2.2 Who is allowed to perform train operations?

Railway Undertakings operating in Denmark require a permit (licence) and a safety certificate issued by the Danish Transport, Construction and Housing Agency, see sections 2.2.3 + 2.2.4. Liability insurance requirements are described in section 2.2.5.

#### 2.2.3 Licences

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 [the Agency's website](#).

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 valid and legal insurance in accordance with relevant legislation. For further information, please 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, please see [the Agency's website](#).

### **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, please see [the Danish Transport, Construction and Housing Agency's website](#).

## **2.3 General business and commercial conditions**

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### **2.3.1 Framework agreement**

Work is being carried out under the auspices of RailNetEurope 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. Rail Net Denmark does not currently enter into such agreements. Please contact Rail Net Denmark, Key Account Management if you would like further information regarding possible future framework agreements on capacity allocation.

### **2.3.2 Contracts**

#### *Standard access contracts*

Prior to using the allocated capacity on Rail Net Denmark's infrastructure, it is obligatory for the party which has been allocated capacity to enter an agreement with Rail Net Denmark 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 Rail Net Denmark'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.

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 party which has been allocated capacity to enter an agreement with Rail Net Denmark in the form of a standard access contract with Rail Net Denmark 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 Rail Net Denmark, see section 5.

### **2.3.3 Contracts for non-RU applicants**

Non-RU applicants for capacity can be approved by Rail Net Denmark.

It is obligatory for the party to enter an agreement with Rail Net Denmark, 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, please contact Key Account Management.

## 2.4 Operational rules

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

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 Rail Net Denmark's rules for operation on Øresundsbro Konsortiet's infrastructure.

Currently, Danish is the only permitted language on Rail Net Denmark's infrastructure. In the long term, Rail Net Denmark 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

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The issuing of transportation permits for exceptional transports is carried out by Rail Net Denmark, Traffic Operations. Enquiries should be sent to [ut@bane.dk](mailto:ut@bane.dk).

Processing and issuing take place according to the Instructions for Exceptional Transports produced by Rail Net Denmark, Quality & Safety. The instructions also contain a definition of exceptional transports. The instructions can be found on [Rail Net Denmark's website](#).

Gauges applicable in Denmark can be seen in appendix 2.5. For further information on line classifications (axel load and meter load), please 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 dealt with by Rail Net Denmark, Traffic Operations. Enquiries can be made to [ut@bane.dk](mailto:ut@bane.dk).

Overview of loading units with relevant exceptional transport numbers:

- P/C 45 = BDK 8100-18
- P/C 60 = BDK 8101-18
- P/C 80 = BDK 8102-18
- P/C 369 = BDK 8103-18
- P/C 375 = BDK 8104-18
- P/C 400 = BDK 8105-18
- P/C 410 = BDK 8110-18

## 2.6 Dangerous goods

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The Danish Transport, Construction and Housing Agency controls the transportation of dangerous goods by railway in Denmark and carries out inspections to ensure that Railway Undertakings and Infrastructure Managers abide by 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 internal 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 on national and international freight corridors is governed by the Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID), which 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 [Danish Transport, Construction and Housing Agency's website](#).

Rail Net Denmark is at all times responsible for providing details of the quantity and type of dangerous goods in areas which are Rail Net Denmark's responsibility. Therefore, all Railway Undertakings and others transporting dangerous goods must at all times provide details to Rail Net Denmark of quantity and location of dangerous goods in transit, as well as in secured and unsecured areas on Rail Net Denmark's infrastructure. This should take place by electronic notification to Rail Net Denmark's RID database 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

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Rolling stock, including locomotives, multiple units, passenger vehicles, freight vehicles, infrastructure works vehicles and vintage trains, must be in possession of approval in the form of an authorisation permit from the Danish Transport, Construction and Housing Agency, and must be

registered in the National Vehicle Register (NVR). Rolling stock with an authorisation permit may only be operated by either certified Railway Undertakings or approved Infrastructure Managers. Information about authorisation permits for rolling stock can be found on the Danish Transport, Construction and Housing Agency's website.

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 a permit from Rail Net Denmark before being placed on the track. For further information, please see [Rail Net Denmark's website](#).

## **2.8 Staff acceptance process**

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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 Danish Transport, Construction and Housing Agency's website.

# 3 INFRASTRUCTURE

## 3.1 Introduction

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The following sections describe Rail Net Denmark's overall infrastructure. The description comprises a range of geographical, technical and operational characteristics, which are relevant to its various uses.

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. The section is not a complete description of infrastructure in Denmark, as not all Infrastructure Managers and terminal operators, including operators of service facilities, have contributed.

## 3.2 Extent of network

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### 3.2.1 Geographical limits

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

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

- Nykøbing F – Gedser
- Tønder – Tinglev

#### *Abandonment of sidings*

When Rail Net Denmark observes that a siding needs to be abandoned (formally closed), the below-mentioned procedure is followed in agreement with the Danish Transport, Construction and Housing Agency: The siding must be declared inactive for 24 months prior to formal closure. The statuses of inactive and closed must be published in the Network Statement.

Inactive sidings, including tracks connected to other sidings such as port lines and private tracks, which Rail Net Denmark has declared inactive following authorisation from the Danish Transport, Construction and Housing Agency can be seen in Appendix 3.2A.

The above-mentioned procedure results in a siding being classified at one of three levels:

#### *Open*

There is a demand for usage of the siding which results in the siding being 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 not available for traffic use and Rail Net Denmark can subsequently declare the siding inactive. The siding can have this status for 24 months.

If there is demand for the siding, it is Rail Net Denmark's responsibility to ensure that the siding can be used. Therefore, the siding is technically operational, as maintenance of the siding can take place.

#### *Closed*

There has been no demand for usage of the siding for 24 months, during which time the siding has been inactive. Rail Net Denmark 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, Rail Net Denmark will recommend to the Danish Transport, Construction and Housing Agency that the siding is removed.

### **3.2.2 Infrastructure connected to Rail Net Denmark's infrastructure**

Rail Net Denmark's international and interior 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). Rail Net Denmark is Infrastructure Manager of the fixed connection over the Great Belt, and is responsible for traffic-related operations.

Storebælt Inc. directs maintenance and reinvestment related to infrastructure on the fixed connection over the Great Belt, and covers all such costs.

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

There is an annual emergency situation exercise in the Great Belt tunnel. The Great Belt tunnel is closed to traffic during the exercise.

##### *The Øresund Railway*

The Danish land-based infrastructure connected to the Øresunds Bridge – Øresundsbanen (Øresund railway) – is owned by Øresund Inc.

Rail Net Denmark is Infrastructure Manager of the Danish infrastructure connected to the fixed link over the Øresund (Kastrup track and Kalvebod track) and is responsible for traffic-related operations.

Sund & Bælt Holding Inc. administrates the system owned by Øresund Inc.

### *Regional railways*

The following links contain information on the regional railways in Denmark with railway infrastructure bordering Rail Net Denmark's infrastructure:

- Midtjyske Jernbaner's [website](#)
- Lokaltog's [website](#)
- Nordjyske Jernbaner's website
- Vestbanen's [website](#)

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

### *Private sidings*

For further information on private sidings, please 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, please see section 3.7.

### *International borders with other Infrastructure Managers*

Rail Net Denmark's infrastructure borders the German infrastructure at the Padborg border and the Tønder border. For further information on the borders' locations and adjacent Infrastructure Managers, please see appendix 3.2C.

The border 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 border between Rail Net Denmark's infrastructure and infrastructure managed by Øresundsbro Konsortiet (Øresund Bridge Consortium Partnership) is outlined in appendix 3.2C. Infrastructure managed by Øresundsbro Konsortiet, is described in Netredegørelsen for Øresundsbron\_(Network Statement for the Øresund Bridge).

## **3.2.3 Further information**

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

## **3.3 Network description**

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Rail Net Denmark's infrastructure is described in detail in this section.

### **3.3.1 Geographic identification**

#### *3.3.1.1 Number of main lines*

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

### 3.3.1.2 *Track gauges*

In Denmark, the track gauge is 1435 mm.

### 3.3.1.3 *Stations and nodes*

A map of selected stations, way stations and nodes on Rail Net Denmark's infrastructure can be seen in appendix 3.1B.

Rail Net Denmark's standard for platforms in stations with regional, main line 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 Rail Net Denmark's infrastructure can be seen in appendix 3.6.

In relation to Rail Net Denmark's infrastructure, the route information (TIB) contains a description of the local operational conditions for stations. The TIB lines can be seen in appendix 3.3B and on Rail Net Denmark's website. The Network Statement does not include detailed information about sidings connected to stations.

## 3.3.2 **The infrastructure's capabilities**

### 3.3.2.1 *Reference lines*

An overview of the relevant reference lines on the Rail Net Denmark's infrastructure can be seen in appendix 3.3C.

#### *Loading gauges*

Information on loading gauges for all lines can be found in RIV appendix II, volume 1 (sign 13 and sign 14) or in UIC fiche 506. Exceptions in Axle load, Meter load, Loading gauges (AML) can be seen in section 5. New facilities are built to loading gauges (UIC) GC cf. UIC fiche 506.

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 for individual lines (and line sections) is contained in AML, which can be found on Rail Net Denmark's website. Maximum axle load refers to the highest weight per axle on the line.

#### *Meter load*

A guideline overview of maximum meter load 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 Rail Net Denmark's website. Maximum meter load refers to the highest weight per meter on the line.

#### *Train weight and load*

Please see the valid legislation as well as rules issued by Rail Net Denmark. The rules can be found on Rail Net Denmark's website.

#### **3.3.2.3** *Gradient*

TIB contains information about gradients on the line. Longitudinal profile is also contained in Track Rules 1987 section 2.10.

##### *Line gradients*

Since the introduction of monoblock concrete sleepers in 1989, line gradients of both 1:20 and 1:40 can be found on Rail Net Denmark's infrastructure. On main and regional lines and S-train lines, rail grinding took place in 1997 and 2001 meaning that the gauge on the top of the track is now suitable for a line gradient of 1:40.

Consequently, 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 multiple units with documented limited impact on the track (known as "særlige togsæt") for the given part of the line. Specifications of "særlige togsæt" appear in Rail Net Denmark'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 (Rail Net Denmark'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 Rail Net Denmark's website.

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 [korrtoaga@bane.dk](mailto:korrtoaga@bane.dk).

#### **3.3.2.6** *Power supply*

##### *Main and regional lines*

Electrified routes in Denmark run from Helsingør (Elsinore) in the north (coastal track) over Zealand via Copenhagen, over Fyn and into Jutland in Fredericia, and from here to Esbjerg in the west and to Padborg and Sønderborg in the south. In addition, an electrified line extends into Sweden.

System separation between 25 kV 50 Hz and 15 kV 16.7 HX electrical current is established in Lernacken, Sweden (operational at line speed) and Padborg (not operational) respectively. An overview of the electrified routes in Denmark can be seen in appendix 3.3G.

The electrical supply on the main and regional lines operates at 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 Rail Net Denmark through various types of interlocking systems which send a visual stop/go signal to the driver in accordance with the 1975 Safety Regulations.

Control and management of traffic on main and regional lines where the Signalling Programme has been rolled out is carried out by Rail Net Denmark through ERTMS in accordance with the Safety Regulation's Operational Rules (OR-F). The implementation plan for the Signalling Programme on main and regional lines can be seen in Appendix 3.9A.

Control and management of the S-train traffic on the Jægersborg – Hillerød line is carried out by Rail Net Denmark through CBTC in accordance with the Safety Regulation's Operational Rules (OR-S). The implementation plan for the Signalling Programme on the S-train lines can be seen in Appendix 3.9B.

#### *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 Rail Net Denmark'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.

Manning of manually controlled stations:

Horsens is manned as specified in TIB (Rail Net Denmark's route information).

Langå is manned as specified in TIB.

Exceptional manning of stations can be arranged with Rail Net Denmark by the 15th of the previous month by contacting [tjnord@bane.dk](mailto:tjnord@bane.dk).

Other manually controlled stations are manned around the clock.

### 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 (Rail Net Denmark's route information). Rail Net Denmark's requirements regarding use of GSM-R radio are described in the [infrastructure register](#) (only in English).

Radio conversations are recorded and monitored.

#### *Regional and main lines*

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

For shunting etc. portable CP1000 radios or other authorised radios can be used. Portable radios must be configured to the relevant application.

#### *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 mobile 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 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 Rail Net Denmark 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**

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### **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**

#### *Noise pollution:*

The Environmental Protection Agency has no national limitations for noise levels from existing infrastructure. However, noise from stationary trains idling on centre sidings or berthing sidings (trains stopping for the night) must be limited to 35 dB at night in residential areas. This means that trains' engines and other noisy components must be switched off at night. In addition, the EU's TSI Noise must be complied with, and this is covered by the Ministry of Transport, Building

and Housing's [Executive order no. 884 of 37/37/2015](#) 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 berthing sidings near accommodation.

#### *Air pollution*

The Environmental Protection Agency has no national limit for air quality in connection with usage of the infrastructure in relation to neighbours or others. There are, however, limits for new locomotives and engines in appendix 4 of the Ministry of Transport's [Executive order no. 367 of 15/04/2011](#), with later changes, on limitation of air pollution from non-road mobile machinery.

#### *Ground pollution*

Railway Undertakings must report spillage of oil from locomotives, multiple units and other rolling stock to Rail Net Denmark via [miljoenergi@bane.dk](mailto:miljoenergi@bane.dk) and to the local environment authority (the local council in which the spillage took place). The Railway Undertaking, Rail Net Denmark and the local council will decide in collaboration to what extent an earth cleaning action or a ground pollution investigation is required. The local council will evaluate whether the oil is at risk of leaking into ditches and waterways or ground water, and therefore becoming a hazard for water supply systems in the area. The Railway Undertaking must initiate and pay for these investigations and clean-up operations in collaboration with Rail Net Denmark and the local council.

### **3.4.3 Dangerous goods**

On the [Danish Transport, Construction and Housing Agency's website](#), 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 will be issued at the time of the rolling stock acceptance.

There are also restrictions in place for other tunnels/covered areas.

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

## 3.5 Availability of the infrastructure

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

### *Infrastructure works*

Appendix 3.5A outlines the planned major infrastructure works and other limitations to capacity in K17 for S-train lines as well as regional and main 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 Rail Net Denmark to resolve the challenge. This may include allocating alternative capacity to the Railway Undertaking(s) involved.

Rail Net Denmark reserves the right to implement special restrictions related to the use of Rail Net Denmark'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. The agreement may contain special restrictions including limited access, reduced speeds, reduced axle load etc.

## 3.6 Passenger terminals

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

## 3.7 Freight terminals

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### *Intermodal terminals*

In Denmark there are some intermodal terminals with obligation to provide access, where freight can be transhipped between road and rail. Rail Net Denmark owns the intermodal terminals below, which are operated by other terminal operators:

| <b>Location</b> | <b>No. of lines</b> | <b>Line length</b> | <b>Ramp</b> | <b>Manager</b> |
|-----------------|---------------------|--------------------|-------------|----------------|
| 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 Rail Net Denmark, Traffic Operations, Capacity Allocation. Capacity applications to and from the terminals follow the capacity allocation process, see section 4.

#### *Other freight sidings*

An overview of the location of sidings for freight trains can be seen in appendix 3.8. Information about the size of sidings for freight purposes can be seen in appendix 3.2A. Rail Net Denmark allocates capacity to and from these facilities.

#### *Port lines/tracks*

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

## **3.8 Service facilities**

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### **3.8.1 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.

Rail Net Denmark cannot guarantee that the entire siding can be used for shunting.

Applications for capacity for shunting must be made to Rail Net Denmark, Traffic Operations, Capacity Allocation. Rail Net Denmark allocates capacity on marshalling sidings. All shunting must be by agreement with Rail Net Denmark.

### **3.8.2 Storage sidings**

Railway Undertakings can store 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 storage.

Applications for capacity for storage must be made to Rail Net Denmark, Traffic Operations, Capacity Allocation.

On certain sidings available for storage, Rail Net Denmark offers access to mains sockets for electricity supply. Rail Net Denmark supplies mains sockets at three voltages; 1500 V, 1000 V, both single-phase and 400 V three phase. Undertakings should not expect to have access to sockets with other current strengths.

It should be noted that that the rules for placing of dangerous goods is subject to Executive order no. 1666 of 14/12/2006 on control of risk for major accidents and dangerous goods.

### 3.8.3 Maintenance facilities

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

### 3.8.4 Refuelling facilities

Rail Net Denmark does not provide facilities for diesel refuelling.

### 3.8.5 Technical facilities

#### *Wagon weighbridges*

Rail Net Denmark owns a number of wagon weighbridges. The locations of these wagon weighbridges are shown below:

| <b>Town</b> | <b>Max capacity</b> |
|-------------|---------------------|
| Esbjerg     | 43 tonnes           |
| Fredericia  | 2 x 50 tonnes       |
| Kolding     | 43 tonnes           |
| Padborg     | 60 tonnes           |

Rail Net Denmark cannot guarantee that all wagon weighbridges are verified and operational.

## 3.9 Infrastructure development

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This section describes large infrastructure development projects. The projects have a longer time horizon than the validity of this Network Statement.

### 3.9.1 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 2021 on the main and regional lines and in 2018 on the S-train lines. For further information about the Signalling Programme rollout, please see [Rail Net Denmark's website](#) as well as the overall plan in appendix 3.9.

#### *Main and regional lines*

For the main and regional lines, contracts are in place for the signalling infrastructure on the East of the Little Belt waterway with Alstom, and on the West of the Little Belt waterway 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 in place with Siemens. The new signalling infrastructure will be brought into use one line at a time.

## **3.9.2 The new Copenhagen – Ringsted track**

On 18 May 2010, the Danish Parliament accepted a proposal 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 2018. The line will include a new station, Køge Nord (North Køge), where passengers will be able to change between the regional/main line and the S-train line. 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. Journey times of a maximum of 60 minutes will be implemented between the country's largest cities (Copenhagen, Odense, Aarhus and Aalborg), and traffic hubs will be established in these cities in order to create better connections between local and regional traffic.

Read more about the new Copenhagen – Ringsted track on Rail Net Denmark's website.

## **3.9.3 Electrification Programme**

On 29 May 2015, Rail Net Denmark 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, Rail Net Denmark 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 will be the first line to be electrified as part of Rail Net Denmark's Electrification programme.

Read more about the Electrification programme on Rail Net Denmark's website.

# 4 CAPACITY ALLOCATION

## 4.1 Introduction

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The following sections describe the rules and procedures related to the allocation of capacity on Rail Net Denmark's infrastructure in accordance with the valid [Executive order on allocation of railway infrastructure capacity \(paths\) etc.](#)

The production and distribution of Rail Net Denmark's annual working timetable is coordinated by Rail Net Denmark, 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, Rail Net Denmark may distribute an updated timetable if necessary. Changes in the intervening period are dealt with via train service announcements.

Rail Net Denmark only produces the working timetable in electronic form, and it can be seen on [Rail Net Denmark's website](#).

## 4.2 Description of process

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An applicant is allocated capacity by Rail Net Denmark 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 berthing sidings 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 Rail Net Denmark. Allocation of berthing sidings 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 Rail Net Denmark's website.

Railway Undertakings applying for capacity for international freight traffic must use the joint European timetable planning system, PCS (Path Coordination System), previously known as Pathfinder. More information can be found on RNE's website and in section 1.10.2. Rail Net Denmark, Traffic Operations, Capacity Allocation offers free basic training in using PCS.

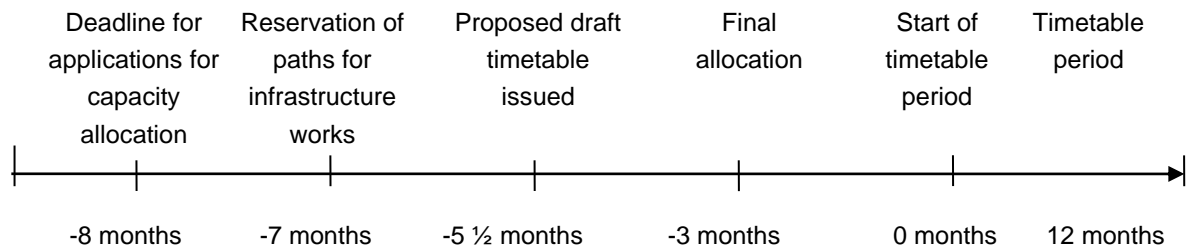
In addition, capacity can be allocated for ad hoc usage of the infrastructure.

## 4.3 Schedule for allocation process

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### 4.3.1 Schedule for working timetable

Capacity allocation on Rail Net Denmark's infrastructure follows the procedure and includes the deadlines stated below:



Rail Net Denmark 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, Rail Net Denmark 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, Rail Net Denmark will reserve capacity for infrastructure works, taking received capacity applications into account.

Rail Net Denmark 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 K17 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 Rail Net Denmark 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 Rail Net Denmark 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 [korrtoqa@bane.dk](mailto:korrtoqa@bane.dk) or via PCS.

## 4.4 Allocation process

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### 4.4.1 Coordination process

In the event of conflicting requests for allocation of capacity on the same line, Rail Net Denmark 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, Rail Net Denmark 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  
Edvard Thomsens Vej 14  
DK-2300 Copenhagen S  
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 [Danish Rail Regulatory Body's website](#).

#### **4.4.3 Congested infrastructure**

When it is not possible to fulfil a capacity application following coordination and subsequent consultation, the infrastructure is declared to be congested. An overview of the congested lines in K17, 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 Rail Net Denmark to draw up an operational code for when capacity is reduced.

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

#### **4.4.4 Framework Agreements**

Rail Net Denmark does not currently enter into Framework Agreements.

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### **4.5 Allocation of capacity for maintenance, renewal and enhancements**

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

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### **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 been allocated capacity has wholly or partly ceased to use the capacity, the party is obliged to immediately inform Rail Net Denmark.

In order to ensure optimisation, Rail Net Denmark 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**

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### *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 Rail Net Denmark, Capacity Allocation for information on capacity allocation for transporting dangerous goods.

## **4.8 Special measures in the event of disturbance**

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### **4.8.1 Principles**

Rail Net Denmark 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. Rail Net Denmark can demand that Railway Undertakings make available the resources, including rolling stock, that Rail Net Denmark 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, Rail Net Denmark 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, as far as waiting time rules and action plan are concerned. Rail Net Denmark 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 Rail Net Denmark's website.

#### **4.8.3 Foreseen problems**

Rail Net Denmark releases traffic information and instructions in connection with specific weather conditions.

##### *Winter arrangements*

Rail Net Denmark instigates a winter alert which is effective from 15 October to 30 March.

In connection with the winter alert, a "winter arrangements" traffic statement is produced, divided into Main and Regional Lines, and S-train Lines. "Winter arrangements" is distributed to all relevant partners, including all Railway Undertakings operating on Rail Net Denmark's infrastructure.

The winter alert for all lines is described in a separate appendix to the "winter arrangements". The winter alert is divided into three phases/levels, dependant on the local weather situation. The phases/levels describe the prioritising of points and also explain which infrastructure the snow control must focus on in each phase/level. Each phase/level is proportional to which traffic can operate. It is up to Rail Net Denmark to decide when to progress from one phase/level to the next.

##### *Leaf fall*

Rail Net Denmark instigates a leaf fall alert. The alert is set up on a pre-arranged date with start-up, operation and positioning of rolling stock.

##### *Active participation*

Railway Undertakings will be invited by Rail Net Denmark to actively participate in the preparation of winter arrangements 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 Rail Net Denmark, Quality and Safety, Railway Safety on behalf of the infrastructure owner.

#### **4.8.4 Unforeseen problems**

Unforeseen situations are handled by Driftscenter Danmark (Denmark Operations Centre) for main and regional lines in close collaboration with the Railway Undertakings and the affected area, including command posts, 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**

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

# 5 SERVICES

## 5.1 Introduction

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Rail Net Denmark delivers a range of services to Railway Undertakings. These services are described below.

Rail Net Denmark'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 Rail Net Denmark. For services offered by a different provider, the provider is referenced when possible.

## 5.2 Minimum access package

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

As described in EU directive 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 track points and junctions;
- 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.

Rail Net Denmark's standard access contract (appendix 2.3A) contains a more detailed description of Rail Net Denmark's minimum access package as well as the reciprocal conditions, rights and duties which Rail Net Denmark 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

Rail Net Denmark'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 Rail Net Denmark's delivery of passenger information.

By arrangement with and in collaboration with Railway Undertakings, Rail Net Denmark delivers visual and auditory passenger information on main and regional lines via Rail Net Denmark's media at stations. Please note that Rail Net Denmark's delivery of passenger information depends on Rail Net Denmark 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, Rail Net Denmark's passenger information includes the following as a minimum:

*During normal train operation*

Rail Net Denmark's electronic information screens at stations and on platforms are updated with information on departures and arrivals. Rail Net Denmark warns customers about upcoming planned changes in traffic via information screens and loudspeakers.

*During disruption to train operation*

Rail Net Denmark'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 Rail Net Denmark's loudspeakers at stations and on platforms.

*In addition*

Rail Net Denmark updates the web-based Rejseplanen (Journey Planner) with trains' up-to-date arrival and departure times, platform numbers, cancellations and extra trains on the main line.

Rail Net Denmark 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, Rail Net Denmark has established a data service: Train Status. Train Status collects real time data about train operations from its own and other linked Railway Undertakings' real time data sources. This data is then consolidated to provide consistent and homogenous passenger information. This information is used by Rail Net Denmark 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. Train Status data can be provided to all Railway Undertakings and other interested parties via a standard interface. Rail Net Denmark is currently working on linking all Railway Undertakings and other interested parties to Train Status.

## **5.3 Track access to service facilities and supply of services**

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

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

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

### **5.3.1 Passenger stations, their buildings and other facilities**

Rail Net Denmark 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.

### **5.3.2 Freight terminals**

#### *Intermodal terminals*

Rail Net Denmark owns the intermodal terminals listed in section 3.7, 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.

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

For information on the terminals and services offered, please see the following links:

Taulov and Høje Taastrup Intermodal terminal  
Padborg Intermodal terminal

#### *Other sidings for freight trains.*

Rail Net Denmark does not offer any services on sidings other than making the infrastructure available.

### **5.3.3 Marshalling yards and train formation facilities, including shunting facilities**

Rail Net Denmark allocates capacity in accordance with the guidelines in section 4.

### **5.3.4 Storage sidings**

Rail Net Denmark allocates capacity in accordance with the guidelines in section 4.

### **5.3.5 Maintenance facilities**

Rail Net Denmark does not own or operate any maintenance facilities for rolling stock.

### **5.3.6 Other technical facilities, including cleaning and washing facilities**

Rail Net Denmark does not own or operate any cleaning and washing facilities.

### **5.3.7 Sea and inland port facilities linked to railway activities**

Rail Net Denmark does not offer any services in ports.

For further information on ports and related services, please refer to the relevant port authorities.

### **5.3.8 Help facilities**

See information on weighbridges in section 3.8.5.

### **5.3.9 Refuelling facilities and provision of fuel**

Rail Net Denmark does not own or operate any refuelling facilities and does not provide fuel for rolling stock.

## **5.4 Additional services**

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Rail Net Denmark can supply the following additional services upon the request of a Railway Undertaking.

Please see section 6 for information on charges.

### **5.4.1 Traction current**

For information on the supplying of traction current, please see Rail Net Denmark's standard access contract, appendix 2.3A.

### **5.4.2 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, please see Rail Net Denmark's standard access contract, appendix 2.3A.

### **5.4.3 Water for preparation of trains**

For information on water for preparation of trains, please see Rail Net Denmark's standard access contract, appendix 2.3A.

### **5.4.4 Exceptional transports**

For information on permits for exceptional transports, please see Rail Net Denmark's standard access contract, appendix 2.3A.

## **5.5 Ancillary services**

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Upon request, Rail Net Denmark can provide the ancillary services mentioned in 5.5.1 – 5.5.8 to a Railway Undertaking.

Please see section 6 for information on charges.

### **5.5.1 Access to telecommunication network**

The Mast Law gives telecommunication companies involved in public mobile communication the right to lease aerial space in existing masts and on tall buildings. Rail Net Denmark can therefore offer aerial space in Rail Net Denmark's masts and on Rail Net Denmark's buildings under comparable leasing conditions as are offered to other telecommunication companies.

### **5.5.2 Provision of supplementary information**

#### *5.5.2.1 Data on train movements*

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

#### *5.5.2.2 Route compatibility*

Rail Net Denmark will help with enquiries regarding route compatibility.

### **5.5.3 Technical inspection of rolling stock**

Rail Net Denmark does not offer the service of inspection of rolling stock.

### **5.5.4 Advertising in Rail Net Denmark areas**

Rail Net Denmark owns a number of commercial advertising spaces on platforms, tunnels and other areas. These commercial spaces can be leased from Rail Net Denmark 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, please contact Traffic Operations, Key Account Management.

### **5.5.5 Course in cross-border operations**

Rail Net Denmark 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.

### **5.5.6 Course in tunnel safety**

Rail Net Denmark can provide instructors for a course in tunnel safety.

### **5.5.7 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 Rail Net Denmark and other Infrastructure Managers.

### **5.5.8 Assistance in connection with test trains**

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

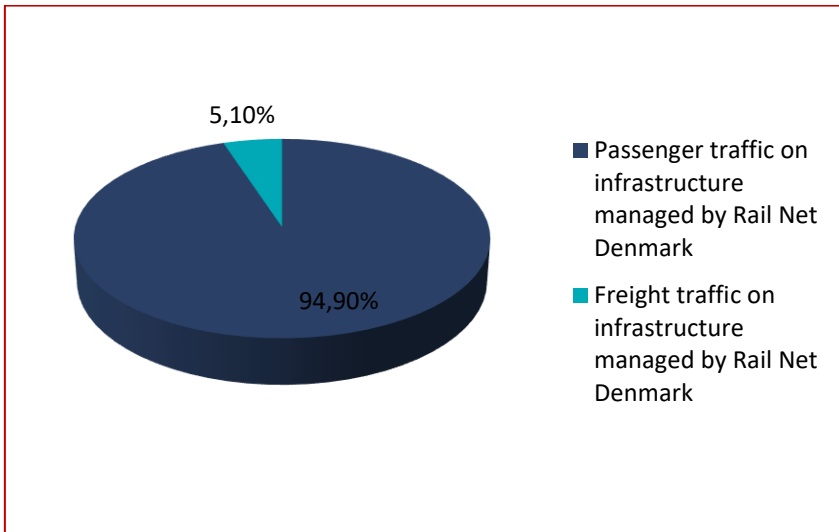
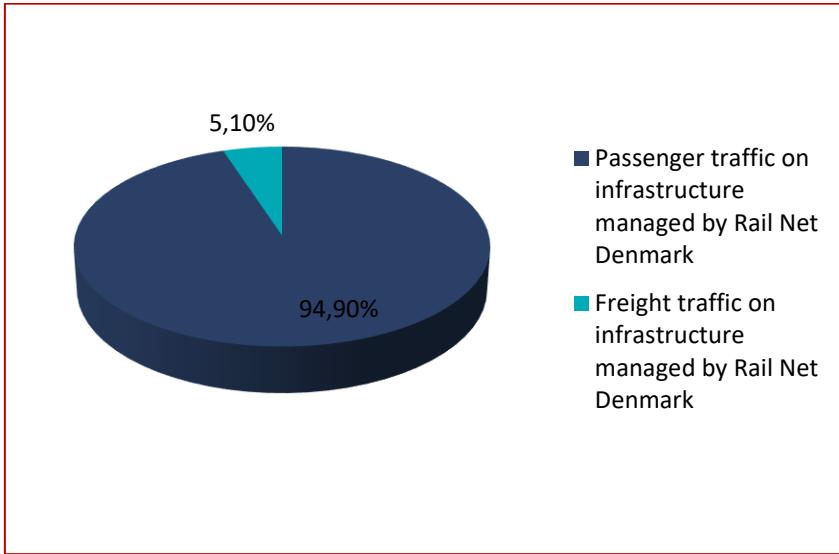
# 6 CHARGES

## 6.1 Charging principles

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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 2014, the traffic was divided as follows:



### **6.1.1 Minimum access services**

Charges for operating on Rail Net Denmark'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 Rail Net Denmark'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 but 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 Rail Net Denmark 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 above-mentioned Executive orders.

### **6.1.2 Track access to service facilities described in section 5.3**

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

### **6.1.3 Services at the service facilities described in section 5.3**

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

Please refer 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 Rail Net Denmark.

*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 (nordpool) 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 electricity 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 sub-entry. 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 Rail Net Denmark will be calculated at cost price including tariffs etc.

*Water for preparation of trains*

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

*Exceptional transports*

For information on calculation of charges for exceptional transports, please see Rail Net Denmark's standard access contract in appendix 2.3A.

### **6.1.5 Ancillary services**

Charges for ancillary services are by agreement.

## **6.2 Charging system**

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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**

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### **6.3.1 Minimum access package**

Rail Net Denmark 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 2018 in the Network Statement 2018 at the time of its publication.

Rail Net Denmark 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 Rail Net Denmark, 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**

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

Please refer 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 Rail Net Denmark's standard access contract, appendix 2.3A.

#### *Water for preparation of trains*

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

#### *Exceptional transports*

For further information on the tariff for exceptional transports, please see Rail Net Denmark's standard access contract, appendix 2.3A.

### **6.3.5 Ancillary services**

Tariffs for ancillary services are available from Rail Net Denmark on request.

## **6.4 Performance scheme**

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As a result of directive 2012/34/EF and the Executive order on Rail Net Denmark's duties and powers, Rail Net Denmark 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.

The scheme was established in the Executive order on infrastructure charges etc. for the State's rail network.

## 6.5 Changes to charges

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As far as possible, all changes to charges, other than on-going tariff regulating, will be announced by Rail Net Denmark 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 Rail Net Denmark.

## 6.6 Billing and paying arrangements

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### *Infrastructure charge*

Infrastructure charges are payable to Rail Net Denmark 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 Rail Net Denmark revoking allocated capacity.

### *Traction current*

Charges for traction current are payable to Rail Net Denmark 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 Rail Net Denmark monthly in arrears.

### *Water for preparation of trains*

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

### *Exceptional transports*

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