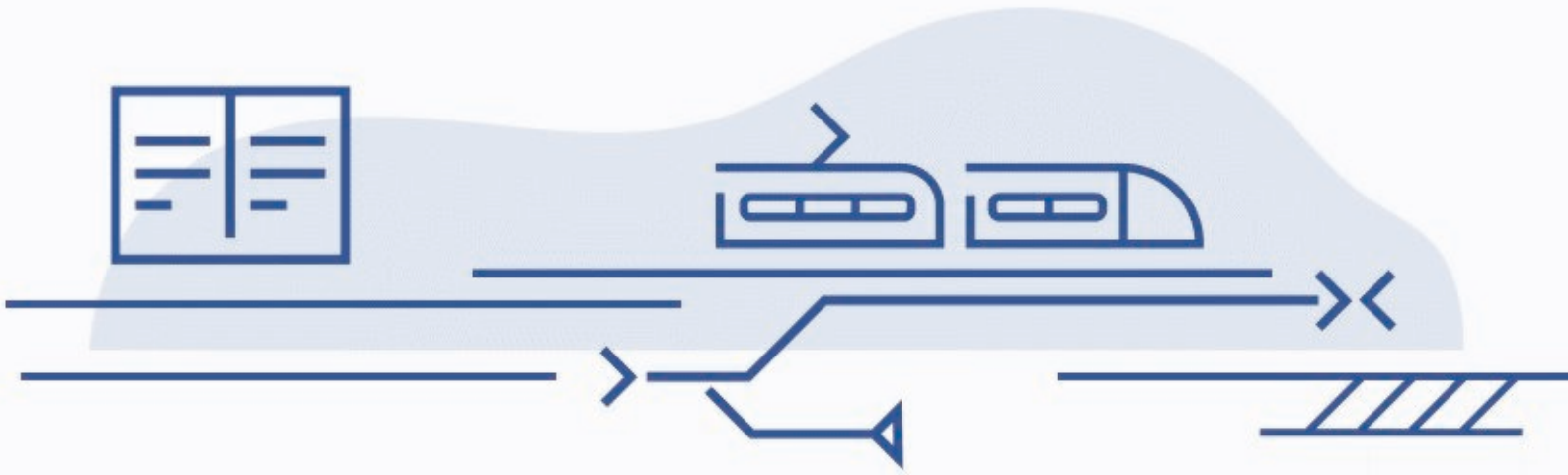
BANE NOR

Network Statement 2027



Bane NOR's Network Statement contains important information about the railway infrastructure, access conditions, and the services we offer to railway undertakings and other stakeholders.

Publication date: 13 December 2025
Timetable 2027: 13 December 2026—11 December 2027

Index

Version Control

Version	Date	Description
0.1	25.08.25	Draft based on Network Statement 2026.
0.2	01.08.25	Consultation document sent to railway undertakings and other interested parties (01.09—13.10.25).
1.0	13.12.25	

Glossary

Below is a glossary with abbreviations and defined terms used in this Network Statement. For definitions related specifically to train operation, see TJN Chapter 1.

See RNE's website for a more comprehensive English glossary with terms often used in relation to the Network Statement.

Abbreviations

AST	Agreement on track access and use of services
Bane NOR	Bane NOR SF
ERA	European Union Agency for Railways
JDIR	The Norwegian Railway Directorate
ORV	Operational Regulations for Railway Personnel
OSS	One stop shop
RFC	Rail freight corridor
RINF	Register of Infrastructure
RNE	RailNetEurope
SJN	Bane NOR's line description
SJT	The Norwegian railway authority
TCR	Temporary capacity restrictions
TJN	Traffic regulations for the railway

Definitions

ARBIS
Bane NOR's system for an overview of TCRs.

Agreement on track access and use of services
The agreement between Bane NOR and railway undertakings regarding the use of the Norwegian railway and Bane NOR's services.

BEST-K
Bane NOR's application system for infrastructure capacity (paths and work in tracks) in the current timetable period.

BEST-L
Bane NOR's application system for infrastructure capacity (paths) in the annual capacity allocation.

Block train
A train operated for freight transport and consisting of uniform wagons carrying a specific type of cargo directly from the departure station to the destination without transshipment, reorganisation, or stops for loading/unloading along the way. The train operates as a single logistical unit and uses fixed timetables and train paths, often in connection with bulk transport such as timber, ore,

containers, or oil products. Characteristics: direct transport between terminals; homogeneous cargo and wagon type; no handling at intermediate terminals.

Fire-fighting train
Train set equipped with firefighting equipment and intended for fire suppression.

FIDO
Bane NOR's electronic system for distribution of train paths and announcements.

Border-crossing
Location where a cross-border railway connection transfers to another infrastructure manager. The term is used only when crossing a national border.

Rescue train
A train operated to retrieve a train that has become stranded on the line.

Infrastructure capacity
An infrastructure manager's main product, offered as location- and time-limited usage rights.

Railway network
The railway network managed by Bane NOR. The Norwegian railway network is the same as the railway network managed by Bane NOR.

Capacity allocation
An umbrella term for the infrastructure manager's planning and allocation of infrastructure capacity and access to service facilities and services in these.

KARI
Bane NOR's automatic customer- and traffic information system. KARI gathers data from several sources: timetables (TPS), the remote-control system (CTC), FIDO, GPS-transmitters aboard the trains, manual updates from TXP (TPR), manual registration from the train announcer, and information from the railway undertakings regarding alternative transport.

Consultation on TCRs
An active dialogue on planned TCRs between Bane NOR, the largest affected service facility operators, and applicants through formal communication channels. These channels may include meetings and the provision of written information, giving recipients the opportunity to comment.

Coordination on TCRs
Collaboration between Bane NOR and Trafikverket on planning TCRs that affect more than one railway network in order to optimise the use of each TCR while seeking to minimise the operational impact.

T-n
A deadline referring to the day of commencement of temporary capacity restrictions (T) and the number of months (n) before that start day.

National Transport Plan
A parliamentary report prepared by the Ministry of Transport. The report presents the Government's transport policy and also serves as a strategic plan for the development of the overall system for road, rail, air, and maritime transport.

Operational capacity allocation
The allocation of infrastructure capacity within the applicable timetable. Operational capacity allocation includes the allocation of residual capacity (see

Residual capacity).

Residual capacity
Available (free) track capacity in the Norwegian railway network that has not been allocated for train operations or track work in the determined timetable.

Exceptional transport
A train is considered exceptional transport when the total weight, axle load, cargo profile, contents, or other factors require specific precautions during train operation, in accordance with UIC Code 502.

Applicant
A railway undertaking or an international association of railway undertakings, or physical or legal persons, such as relevant authorities under Regulation (EC) No. 1370/2007, and shippers, freight forwarders, and operators within combined transport, who have a public or commercial interest in being allocated infrastructure capacity in accordance with Section 1-7 of the Railway Regulations.

Designated TCR
A TCR that involves renewal or upgrading of railway infrastructure and which has a fixed schedule and significant operational impact and/or scope, such that Bane NOR has designated it as a railway technical planning assumption.

Rolling stock composition
A list that identifies the vehicle units in a train, in accordance with *Traffic Rules for the Railway Network*, Chapter 4.

X-n
A deadline referring to the start day of a new timetable period (X) and the number of months (n) before that start day.

Performance scheme
A scheme intended to contribute to improved performance from Bane NOR and the train operating companies, in accordance with Section 6-6 of the Railway Regulations and AST section 12.

1 General Information

1.1 Introduction

Bane NOR is the infrastructure manager for the Norwegian railway network and has prepared and published Network Statement 2027, the 24th edition of the Network Statement.

1.1.1 Bane NOR's organisation

Visit banenor.no to see Bane NOR's organisational chart and information about the company's leadership, ownership, and governance.

1.1.2 Norway's railway sector

Several public and private entities contribute to today's Norwegian rail services. You can find details on the division of responsibilities on the page How the Railway is Organised at jernbanedirektoratet.no.

1.2 Purpose of the Network Statement

The Network Statement provides railway undertakings and other applicants with essential information on accessing and using the Norwegian railway network, as well as other rail-related services.

The Network Statement includes a main document describing the infrastructure and general conditions for operating on the railway network, along with annexes offering additional detailed information, calculations, and forms. There are also links to portals and websites with relevant information, including service facilities descriptions. The links in Network Statement may lead to Bane NOR's own or to external websites.

1.3 Legal aspects

1.3.1 Legal framework

The requirement to prepare and publish the Network Statement is based on Regulation 30 June 2021 no. 2315 concerning railway operations, service facilities, charges, and capacity allocation (Railway Regulations) § 5–1. Specific requirements for content are found in § 5–2.

Requirements for access to and use of the Norwegian railway network, including other rail-related services, are provided by the Railway Regulations and supplementary regulations pursuant to § 1–5 (1).

Acts and regulations

Norwegian acts and regulations regarding railways are available on the Norwegian Railway Authority website sjt.no. Some of the acts and regulations have been translated into English. These translations are not official.

Other Norwegian acts and regulations are available on lovdata.no.

sjt.no
lovdata.no

1.3.2 Legal status and liability

1.3.2.1 Legal status

According to § 5-1 of the Railway Regulations, the information in the Network Statement is binding for the infrastructure manager. This includes annexes and websites that are part of the Network Statement, but not other documents or websites referenced within.

The Network Statement is published in both Norwegian and English, with identical content in both versions. If there is a discrepancy between the two, the Norwegian text takes precedence.

Several references are made to Norwegian legislation and Bane NOR's traffic rules; these are only available in Norwegian.

1.3.2.2 Liability

Bane NOR ensures the accuracy of information in the Network Statement. Updates during its validity period will follow the procedures in Chapter 1.5.2.

Bane NOR aims to provide services in line with the performance standards described in the Network Statement. Information on planned changes beyond the validity period may be included (see Chapter 1.5), but this is non-binding for Bane NOR.

The Network Statement may refer to other documents published by Bane NOR. If Bane NOR makes changes to such documents that affect the rights or obligations of railway undertakings, these changes will be sent for consultation with railway undertakings before implementation.

1.3.3 Appeals procedure

Applicants who feel they have been unfairly treated, discriminated against, or otherwise had their interests infringed may, under § 11-3 of the Railway Regulations, appeal to the Norwegian railway authority (Statens jernbanetilsyn – SJT). This applies particularly to decisions by Bane NOR, railway undertakings, or service facility operators regarding:

a. draft and final versions of the Network Statement
b. criteria established in the Network Statement
c. the allocation process and its outcome
d. the charging scheme
e. the level or structure of infrastructure charges
f. access arrangements under §§ 2–1, 2–2, 2–4, and 2–5

g. access to services, collection of charges, and payment for services as per § 13–2 and Part 4
h. traffic management
i. planning of renewals and planned or unplanned maintenance
j. compliance with §§ 3–4 to 3–7
k. framework agreements

Under § 11–3 (2) of the Railway Regulations, SJT is required to inform affected parties of its decision within six weeks of receiving all relevant information.

1.4 Structure of the Network Statement

RailNetEurope (RNE) has compiled a common framework for the structure and content of the Network Statement (the Network Statement Common Structure). This Network Statement has been prepared in accordance with the Network Statement Common Structure for 2027, which can be downloaded on RNE's website.

1.5 Validity period, updating and publishing

1.5.1 Validity period

Network Statement 2027 is applicable for

- access to and use of infrastructure, delimited by Timetable 27
- processing of capacity-intensive programmes for Timetable 27; this is also applicable if processing takes place before the start of Timetable R27.

The Network Statement is published 12 months prior to the timetable period to which it applies and is valid for one timetable period.

Timetable 27 (TT27) commences on Sunday 13 December 2026 and ends on Saturday 11 December 2027. These dates have been established in accordance with the provisions set out in the Railway Regulations.

1.5.2 Updating

Bane NOR updates and amends the Network Statement when necessary, in accordance with Section 5-1 (2), final sentence, of the Railway Regulations.

Bane NOR will use the change log to announce any amendments or additions occurring after the publication of this Network Statement.

Amendment of a public regulation referred to in the Network Statement will only be announced by means of a supplement to the Network Statement if

- the amendment is not published in Norsk Lovtidend
- the amendment may lead to restrictions in the use of railway infrastructure according to the minimum access package, see the Railway Regulations, Section 4-1. See also Chapter 5.3

1.5.3 Publishing

Network Statement 2027 and the annexes will be published both as a printable PDF version and electronically on the Bane NOR website.

The Network Statement will be sent free of charge to railway undertakings that have a valid Agreement on Track Access and Use of Services (AST) with Bane NOR.

The annual publication of the Network Statement is announced in Norsk Lysningsblad and EU official journals.

1.6 Contacts

1.6.1 Bane NOR

Bane NOR can provide railway undertakings with more detailed information on topics referred to in Network Statement 2027 upon request.

Contact Bane NOR SF

E-mail
postmottak@banenor.no

Mailing address:
Postboks 4350, N-2308 HAMAR

Visitors address:
Schweigaards gate 33, 0191 Oslo

Website: banenor.no

1.6.2 OSS

The One-Stop Shop (OSS) is a contact point for applications for international infrastructure capacity within RNE. Railway undertakings can submit a single, consolidated application through the Path Coordination System (PCS). The OSS ensures coordination and harmonisation of the application among all involved infrastructure managers and integrates it into the annual capacity allocation process.

Contact Bane NORs OSS

Phone
05280 / +47 22 45 50 00

E-mail
ruteplan@banenor.no

Mailing address
Postboks 4350, N-2308 HAMAR

Visitors address
Schweigaards gate 33, 0191 Oslo

1.6.3 OSS, international

An overview of international OSS is available on RNE's webpage.

1.7 Cooperation between European infrastructure managers and railway undertakings

1.7.1 Rail freight corridors (RFCs)

Regulation (EU) 913/2010 on rail freight corridors entered into force in Norway on 17 February 2014. The regulation requires member states to establish international, market-oriented rail freight corridors to

- strengthen cooperation between infrastructure managers on path allocation, interoperability, systems, and development
- ensure adequate capacity and punctuality for freight trains, balanced with passenger traffic
- promote intermodality by including terminals in the management of the corridors

Bane NOR participates in Rail Freight Corridor 3 – ScanMed RFC (Scandinavian–Mediterranean Rail Freight Corridor) – together with Banedanmark, DB Netz, RFI, Trafikverket, ÖBB Infrastruktur, and the Øresund Bridge.

Rail freight corridors

Corridor management (RNE)
For information on how RNE works to make rail freight transport more efficient and coordinated between European countries.

OSS/C-OSS (RNE)
For contact information (C-OSS) for each of the ten freight corridors.

ScanMed Freight RFC
For information about ScanMed RFC.

1.7.2 RailNetEurope and other international cooperation

RailNetEurope (RNE) was created in January 2004 at the initiative of a number of European infrastructure managers that wished to establish a common European organisation in order to facilitate international services. To achieve this objective, RNE offers its members, railway undertakings, applicants and other stakeholders, solutions and support regarding compliance with the European legal framework. This involves developing and harmonising international railway processes, templates, handbooks and guidelines. It also involves developing the necessary IT tools that are streamlined and harmonised.

1.7.2.1 RNE tools

Path Coordination System (PCS)

PCS is an international coordination system for applying for train paths for

railway undertakings and other applicants, infrastructure managers, allocation bodies and rail freight corridors. The Internet-based application optimises coordination of international train paths by ensuring that queries and tenders are harmonised with all parties involved. PCS is the only tool for publishing allocated train paths and residual capacity, and for administering international track queries for the rail freight corridors (RFCs).

PCS can be accessed for free. If you would like a user account, please send your enquiry to RNE PCS Support.

RNE PCS Support

E-mail
support.pcs@rne.eu

Website:
Read more about PCS at rne.eu

Charging Information System (CIS)

CIS is an infrastructure charges information system for applicants, supplied by infrastructure managers and allocation bodies. This Internet-based application provides quick information and indications of costs related to the use of European railway infrastructure, as well as estimating the charges for using international train paths.

CIS can be accessed for free, and users do not need to register.

RNE CIS

E-mail
support.cis@rne.eu

Website:
Read more about CIS at rne.eu

1.7.2.2 OSS

See Chapters 1.6.2 OSS and 1.6.3 OSS, international.

Contact Bane NOR's OSS

E-mail
ruteplan@banenor.no

1.7.2.3 Other international cooperation

In addition to what is mentioned in Chapters 1.7.1 and 1.7.2, Bane NOR also participates in the following international organisations and forums:

European Rail Infrastructure Managers (EIM)

European Rail Infrastructure Managers (EIM) is an organisation for independent infrastructure managers, established in 2002. EIM's work focuses on two principal areas: transport policy lobbying aimed at EU legislative bodies and technical work aimed at the ERA. EIM is one of the organisations that are entitled to appoint specialists to the ERA working groups and the organisation has several technical "shadow working groups" reflecting the ERA groups.

EIM currently has 16 members, of which 11 are national infrastructure managers.

The organisation is headquartered in Brussels.

For more information, visit EIM Rail's website.

Platform for Rail Infrastructure Managers in Europe (PRIME)

Platform for Rail Infrastructure Managers in Europe (PRIME) is a coordination forum for collaboration between the European Commission and the two lobbying organisations for infrastructure managers (EIM and CER). The forum holds two plenary meetings each year at senior management level and has a number of working groups relating to issues within technology, safety and finance. PRIME is led by the Commission c/o DG MOVE.

For more information, visit PRIME's website.

The International Union of Railways (UIC)

Union Internationale des Chemins de Fer, or the International Union of Railways (UIC), is a global organisation headquartered in Paris, established in 1922. UIC possesses considerable expertise and today the organisation predominantly works on research projects to contribute to the development of standards and technical solutions for the railway sector.

For more information, visit UIC's website.

Nordic Infrastructure Managers (NIM)

Nordic Infrastructure Managers (NIM) is a loosely organised collaboration between infrastructure managers and railway authorities in the Nordic countries. The organisation holds an annual meeting at senior management level and has several technical collaboration groups linked to various specific issues. The organisation does not have a fixed secretariat or head office, but the presidency rotates between the members for one year at a time.

NIM does not have its own website but for further information, contact Bane NOR via email at international@banenor.no.

2 Infrastructure

2.1 Introduction

This part provides an overview of Bane NOR's railway infrastructure and related facilities accessible to those authorised to operate on the network. Here, you will find essential information to plan your train operations, whether representing an existing railway company or a new entrant.

Note that the Network Statement does not provide enough technical infrastructure information for vehicle specification, design, or compatibility with Bane NOR's network. For such details, consult Bane NOR's Technical Regulations or contact Bane NOR.

At the start of R27, Bane NOR plans to use RINF – the Register of Infrastructure as the main source of infrastructure information in the Network Statement. Network Statement 2027 will be updated accordingly.

Regarding private railway infrastructure connected to Bane NOR's network, information is included only where accessible to Bane NOR.

For more information about the infrastructure

Technical regulations – Rolling stock/Supplementary information and regulations

Service Facilities at banenor.no

Strekningsbeskrivelsen (NO)
Bane NOR's line description provides an overview of the railway lines in the national rail network. It is a reference guide for operational personnel, containing descriptions of each line, instructions for operating technical equipment, special regulations, and other specific conditions

2.2 Extent of network

2.2.1 Limits

The geographic scope and limits of the railway network are shown in line section maps in Annex 2.2.1 Line maps.

2.2.2 Connecting railway networks

2.2.2.1 National border crossings

There are four border crossings between Norway and Sweden, as outlined in the table below (see also Annex 2.2.1 Line maps). None of the crossings require a change in track gauge, but crossing the national border does involve a switch in visual signalling systems.

Table 1: National border crossings

Border station	Line
Bjørnfjell border crossing	Ofotbanen
Storlien border crossing	Meråkerbanen
Charlottenberg border crossing	Kongsvingerbanen
Kornsjø border crossing	Østfoldbanen

Contact Trafikverket

Phone
+46 77 117 18 19

E-mail
trafikverket@trafikverket.se

Address
Röda vägen 1, S-781 89
BORLÄNGE, SE

Website: trafikverket.se

Contact Norwegian Customs

Phone
+47 22 86 03 12

E-mail
tad@toll.no

Address
Postboks 2103 Vika 0125 Oslo

Website: toll.no

2.2.2.2 Connected networks, including private railways, port tracks, freight terminals, and sidings

In Norway, there is only one main railway network; this is managed by Bane NOR. Beyond this network, there is minimal privately-owned track, most of which is linked to Bane NOR's network and thus included in the Network Statement.

Passing through connection points on the Norwegian railway may require adjustments in loading gauge, axle load, power supply systems, and signalling systems.

For additional information on connected tracks and lines, see Annex 2.2.2.2 Connecting Railway Networks. For details on sidings, see our overview of siding tracks.

In cases where sidings have been unused for extended periods, Bane NOR may remove the switch connecting them to the main network. Railway undertakings wishing to re-establish these connections should contact Bane NOR.

Contact Bane NOR

E-mail
postmottak@banenor.no

2.2.2.3 Additional information

For details on the technical specifications of the railway network relevant to vehicles, see Technical Regulations, Supplementary Information, and Regulations. For a geographic overview of infrastructure characteristics, you can consult Bane NOR's infrastructure database, Maximo.

Contact Maximo at Bane NOR

E-mail
maximo@banenor.no

2.3 Network description

2.3.1 Track typologies

The railway network is mostly single-track; however, double tracks have been established on most line sections near Oslo. Parallel railway lines are only present on a few line sections; for more information, see Annex 2.2.1 Line maps.

2.3.2 Track gauges

The track gauge on the railway network, as well as associated public and private tracks, is exclusively 1435 millimetres.

2.3.3 Stations and nodes

For an overview of stations and nodes on the Norwegian railway, see Annex 2.2.1 Line maps or Bane NOR's line section description. For information about a specific station, including track table and track plan, see our overview of stations.

Bane NOR's graphic schedules provides valuable insight into traffic flow and capacity utilisation at stations and nodes on the railway network. It shows which trains use specific tracks at different times of the day and can contribute to better planning of resources and logistics around key stops.

2.3.4 Loading gauge

International operating profiles

All lines with regular traffic can be operated according to the static and kinematic specifications of the following international reference profiles:

- G1 (EN 15273-4)
- GA (EN 15273-4)
- GB (EN 15273-4)

Combined transport according to the UIC 596-6 – Codification of lines and wagons for combined transport and associated operational procedures

The permitted size for combined transport (Combined Transport Profile Number, CTPN) for each railway line is shown in the line section map in Annex 2.3.4.1 International Profile.

International loading gauges for containers and semitrailers, up to P/C 410, and up to P/C 80, and so forth are applicable on the lines shown in Annex 2.3.4.1 International loading gauge.

National gauges

To ensure maximum utilisation of the Norwegian infrastructure, in particular the curve deflection according to which our lines are constructed, the following national gauge has been established:

Dynamic reference profile (NO1)

Bane NOR uses the dynamic reference profile NO1 EN 15273-4.
This profile applies to all railway lines with regular traffic and is shown in the figure below.

In addition, Bane NOR can, upon request, offer the dynamic reference profile NO2, which is used for double-deck rolling stock and timber transport on certain selected lines.

Both profiles must be considered together with the associated calculation rules, which describe the conditions and assumptions for their use.

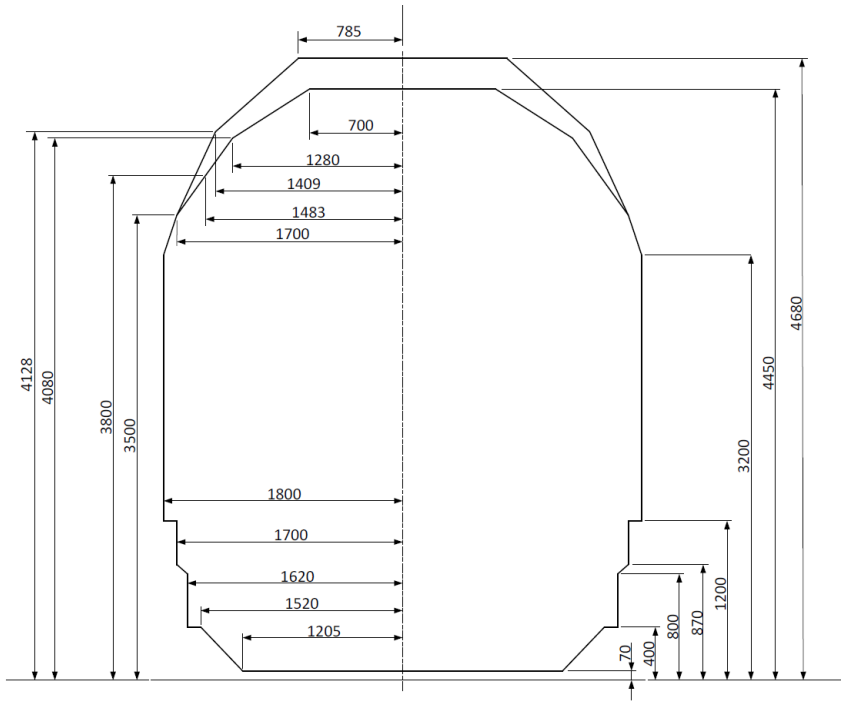


Figure 1 Dynamic reference profile NO1 and NO2.

Static wagon gauge with extra height

Multipurpose wagon profile: Designed for tall, closed wagons equivalent to “multipurpose”. May be used for all kinds of rolling stock on the line sections and under specific conditions listed in Annex 2.3.4.3 Multipurpose wagon gauge.

For transport that exceeds the specified operating profiles, an application for exceptional transport must be submitted to Bane NOR's unit for exceptional transport (Spesialtransport). For more information on exceptional transport, see Chapter 4.7.1.

Contact Bane NOR about exceptional transport

E-mail
spesialtransporter@banenor.no

2.3.5 Weight limits

2.3.5.1 Axle load

See the map in Annex 2.3.5.1 Axle load for information about superstructure class, axle load, and maximum speed.

For information on maximum permitted axle load concerning the load-bearing capacity of bridges, see Technical Regulations, Axle loads and linear loads in relation to bridge load capacities.

2.3.5.2 Metre weight

See the map in Annex 2.3.5.2 Metre weight for information about the maximum permissible linear load according to line classification.

2.3.6 Line gradients

See Annex 2.3.6 Line gradients for a tabular summary of determinative gradients and a visual presentation of vertical profiles.

2.3.7 Maximum line speed

According to the traffic rules for the rail network, the maximum speed limit for passenger trains is 210 km/h, and 100 km/h for freight trains. For an overview of speed profiles by line, see Annex 2.3.7 Line speed.

2.3.8 Maximum train lengths

The train lengths permitted for each line and train path are determined as part of the capacity allocation process.

The maximum length depends on several things, including the length of passing tracks, as well as platforms where passenger trains will stop for boarding and leaving trains.

2.3.9 Power supply

Bane NOR provides electrical power for train traction and heating. For a map of all electrified lines in Norway, see Annex 2.3.9 Electrified lines.

Bane NOR owns and operates refuelling facilities for diesel. For more information, see Chapter 7.3.10.

2.3.9.1 Voltage and frequency

The nominal system voltage is 15,000 volts (AC) for all electrified lines, with a nominal frequency of 16 2/3 Hz.

The railway power supply is typically characterised by a large distance between feed points and small, distributed converter stations.

For trains with inverter traction systems, experience shows that software developed for the same equipment in continental Europe often requires optimisation to ensure proper train functionality and to avoid unacceptable power fluctuations between the train and the power supply.

For more information, see Technical Regulations, Supplementary Information and Regulations, Chapter 8.

2.3.9.2 Maximum train current

The railway network is divided into classes indicating the capacity of the power supply. The classification represents a balance between the normally expected capacity, the assessed needs of the trains, and practical operational considerations.

Power consumption

The traction power supply is divided into capacity classes:

- non-electrified
- class C1: Imax 900 A (~14 MVA)
- class C2: Imax 700 A (~11 MVA)
- class C3: Imax 450 A (~7 MVA)

For more information, see Map 3 Overview of maximum train current/power consumption in Annex 2.3.9 Electrified lines. The stated current limit is the RMS value, including non-active power (harmonics and reactive power).

On certain line sections, available electrical power may constitute a capacity constraint. For classes C1 and C2, this is primarily relevant under specific conditions that reduce capacity. For class C3, such limitations may also apply during normal operation.

In cases of low voltage, the driver is expected to further limit power draw. This is particularly important for trains without automatic current limitation according to EN 50388, in cases of low contact line voltage.

Regenerative brake current

The railway power supply is also divided into capacity classes:

- non-electrified
- class B1: 900 A (~14 MW)
- class B2: 700 A (~11 MW)
- class B3: 500 A (~8 MW)
- class B4: 300 A (~5 MW)
- class B5: 0 A (0 MW)

For more information, see Map 4 Overview of maximum train current/regenerative braking in Annex 2.3.9 Electrified lines.

2.3.9.3 Overhead line – height and horizontal displacement

Norway has specific national adaptations to the TSI for locomotives and passenger coaches (TSI LOC&PAS) and for freight wagons (TSI WAG). Some of these adaptations concern the overhead contact line system and refer to information on lines that comply with the TSI requirements, which will be

published in the Network Statement as soon as possible. The adaptations also include requirements related to Norwegian winter conditions. These provisions are established through the EEA Agreement and are set out in the Regulation on the interoperability of the railway system on the national rail network (Lovdata, Regulations of 23 July 2015 No. 913 and 17 February 2014 No. 188).

The height of the contact wire varies from 4700 to 6200 mm. Some line sections of the network have a higher minimum height. For further details, please contact Bane NOR.

The nominal displacement of the contact wire from the track centre is 400 mm, with a maximum of 700 ± 50 mm in unfavourable wind conditions for older overhead line installations and 550 ± 30 mm for newer installations.

The clearance profile for pantographs is provided in:

- Technical Regulations, Book 540, Chapter 6, Section 3.4
- Technical Regulations, Book 542, Chapter 5, Annex Clearance profile for pantographs and E-Dimensions

2.3.9.4 Pantograph contact pressure

Limits for the forces between pantograph and contact wire are provided in Technical Regulations, Book 542, Chapter 5.

Limits for the aerodynamic balancing of pantographs are specified in Technical Regulations, Supplementary information and regulations, Chapter 8, Appendix E. Overhead line installations are designed to withstand a wind load of up to 30 m/s perpendicular to the line. Some exposed line sections are designed for a maximum wind load of 37 m/s perpendicular to the overhead line.

Where multiple active pantographs are present on a trainset, the number and spacing of these may determine the permitted operating speeds. Specific approval from Bane NOR is required for each line section.

2.3.10 Signalling systems

According to Chapter 8 of the Traffic Rules for the Railway Network, the signalling system ensures safe train operations. These systems, which include signals, interlocking systems, and block systems, provide trains with information about when they may proceed on a given line section.

Signalling systems inform trains when they can continue a specific line section. The interlocking systems ensure that trains receive a safe line section. Before signals can display a proceed aspect, the train line section is checked to ensure that the track is clear of other trains, that signals in the opposite direction display stop, and that all switches are properly set.

2.3.10.1 ERTMS

ERTMS (European Rail Traffic Management System) is a digital signalling system that is gradually replacing the existing signalling and interlocking installations. The system provides movement authority directly to the driver via the Driver Machine Interface (DMI) and replaces the main signals along the line. The aim is to increase safety, improve operational stability, and make better use of capacity.

2.3.10.1.1 ERTMS implementation plans

ERTMS (Baseline 3, version 3.6.0) is being rolled out gradually across the railway network in accordance with the National Signalling Plan. Each line is taken into use after testing and training have been completed, and trains operating on the line must be equipped with ERTMS. Updated plans and commissioning dates are available in the National signalling plan at banenor.no (NO).

Østfoldbanen, eastern line

As of the third quarter of 2015, the Ski–Mysen–Sarpsborg section has been equipped with ERTMS Level 2 and version 2.3.0d of the system is being used. Only rolling stock with an ERTMS onboard system compatible with ERTMS version 2.3.0d will be granted approval to run on this line.

Gjøvikbanen north

The section from the departure point of Roa station to Gjøvik station was opened with ERTMS Level 2, version 3.4.0, on 17 October 2024. Only rolling stock equipped with onboard ERTMS compatible with this version is permitted to operate on this section.

Vestfoldbanen

From August 2026, implementation of ERTMS Level 2, version 3.6.0, on the section from the departure point of Drammen station to the entry point of Sem station. After the ERTMS implementation date, only rolling stock with onboard ERTMS compatible with this version will be permitted to operate on this section.

Nordlandsbanen north

From November 2027, ERTMS Level 2, version 3.6.0, is planned to be brought into operation on the section from the departure end of Grong station to Bodø station. Only rolling stock with onboard ERTMS equipment compatible with this version of ERTMS will be permitted to operate on this section after the ERTMS opening date.

2.3.11 Traffic control systems

Traffic management on the railway network is regulated by the Traffic rules for the railway Network. For a detailed understanding of these rules, particularly regarding how traffic is managed, see Traffic rules for the railway network, Chapter 5.

Traffic control areas

- Traffic control area east
- Traffic control area south-west
- Traffic control area north

Traffic control centres

- TSS east Drammen
- TSS east Oslo
- TSS north
- TSS south-west

Table 2: Traffic control centres per line

Traffic control centre	Line	From station	To station
TSS east Drammen	Bratsbergbanen	(Nordagutu)	Porsgrunn
	Brevikbanen	(Myrane)	Ørvik
	Drammenbanen	(Asker)	Drammen
	Randsfjordbanen	(Hokksund)	Hønefoss
	Sørlandsbanen	(Drammen)	(Nelandsvatn)
	Vestfoldbanen	(Drammen)	(Porsgrunn)
	Tinnosbanen	(Hjuksebø)	Notodden
TSS east Oslo	Alnabanen	(Alnabru)	(Grefsen)
	Askerbanen	(Lysaker)	Asker
	Drammenbanen	(Oslo S)	(Asker)
	Dovrebanen	(Eidsvoll)	Hove
	Filipstadlinjen	Filipstad	(Skøyen)
	Follobanen	(Oslo S)	(Ski)
	Gardermobanen	(Oslo S)	(Eidsvoll)
	Godssporet Loenga–Alnabru	(Loenga)	(Alnabru)
	Gjøvikbanen	(Oslo S)	Gjøvik
	Hovedbanen	Gjøvik	Eidsvoll
	Kongsvingerbanen	(Lillestrøm)	Charlottenberg
	Roa–Hønefossbanen	(Roa)	(Hønefoss)
	Solørbanen	(Elverum)	(Kongsvinger)
	Spikkestadbanen	(Asker)	Spikkestad
	Østfoldbanen Lokal	(Oslo S)	Ski
	Østfoldbanen Vestre linje	Ski	Kornsjø
	Østfoldbanen Østre linje	(Ski)	(Sarpsborg)
TSS south-west	Arendalsbanen	(Nelaug)	Arendal
	Bergensbanen	(Hønefoss)	Bergen

Traffic control centre	Line	From station	To station
	Flåmsbana	(Myrdal)	Flåm
	Sørlandsbanen	Nelandsvatn	Stavanger
TSS north	Dovrebanen	Hove	Trondheim
	Meråkerbanen	(Hell)	Storlien
	Nordlandsbanen	(Trondheim)	Bodø
	Raumabanen	(Dombås)	Åndalsnes
	Ofotbanen	Narvik	Bjørnfjell
	Stavne–Leangenbanen	(Trondheim M)	(Leangen)
	Rørosbanen	(Hamar)	(Støren)

2.3.11.1 Line sections with centralised traffic control

Centralised traffic control refers to systems in which train traffic is monitored and managed electronically from a traffic control centre. At these centres, train dispatchers oversee traffic across large areas and have a full overview of train movements at multiple stations simultaneously. This makes it possible to manage train operations efficiently and safely. In Norway, most railway lines are remotely controlled, meaning they are supervised and operated from such centres.

There are two modes of operation using centralised traffic control: line sections with centralised traffic control (CTC) and line sections with ERTMS (European Rail Traffic Management System).

Line sections with centralised traffic control

Driving authority is given to the train through the main signal. The train manager on passenger trains is responsible for verifying that a proceed signal has been given. This responsibility is described in more detail in the Traffic Rules for the National Railway Network, chapter 6.8.

Line sections with ERTMS

Driving authority is given directly to the driver via the train's Driver Machine Interface (DMI). In these cases, the train manager on passenger trains does not have responsibility for verifying the proceed signal.

For more information about operating modes on remotely controlled lines, see Annex 2.3.13 Automatic train control systems.

2.3.11.2 Line sections with announcements

Some lines still have a system using manual announcements. This means that a train dispatcher at one station must make contact by telephone with a colleague at the next station before the train is permitted to leave the station. This ensures that there are never two trains on the same block line section at the same time. This line is now reserved for this train and no other activity is permitted until this train has arrived at the next station. The order of the trains is determined by the

timetables and the driver has a duty to be aware of the presence of any crossing trains. Changes may be determined by the train controller and communicated in accordance with the rules set down in TJN.

For more information about line sections with centralised traffic control operating modes, see Annex 2.3.13 Automatic train control systems.

2.3.12 Communication systems

Bane NOR uses GSM-R as the primary communication system for this purpose, which is standard practice for safe operations on the Norwegian railway network.

For transferring diagnostic data from trains to maintenance systems, commercial mobile networks are used to provide the necessary connectivity and data transmission outside the GSM-R system.

Communication between train dispatcher, station manager, and driver is conducted in Norwegian.

For more detailed information about Bane NOR's communication systems and their functions, see Annex 2.3.12 Communication systems.

2.3.13 Train control systems

Line sections with centralised traffic control and line sections with ERTMS have automatic speed monitoring in place, and trains must be equipped with onboard equipped for speed monitoring to operate on these line sections.

- **Line sections with centralised traffic control:** ATC = Automatic Train Control
- **Line sections with ERTMS:** ETCS = European Train Control System

2.3.13.1 ATC

The part of the signalling system on line sections featuring centralised traffic control that monitors the train's speed and activates the train's brakes if the speed limit is exceeded. ATC may be FATC (full speed monitoring) or DATC (partial speed monitoring). The functionality of DATC is limited to driving against the main signal when on 'Stop', excess speed across the first switch on the train entry line section, individual speeds across deviating switches on train exit line sections, and any temporary speed restrictions codes into balises deployed for this purpose.

Approximately 90% of all ATC line sections have partial ATC equipment (DATC), and approximately 10% of all ATC line sections have full ATC equipment (FATC).

To see which lines are equipped with ATC, see Annex 2.3.13 Automatic Train Control Systems.

2.3.13.2 ERTMS Level 2 (ETCS)

On lines equipped with ERTMS Level 2, a running permit and velocity profile are sent from the safety installations to the train via GSM-R. In normal driving mode (FS/OS), a train cannot run without having received a running permit. The train brakes automatically if the permitted speed is exceeded. If a train exceeds its End of Authority (EoA), the train is automatically brought to a halt.

- FS = Full Supervision
- OS = On-Sight
- EoA = End of Authority

For more information, see Annex 2.3.13.2 Communication for ERTMS.

2.3.13.2.1 Train detection

To prevent axle counter faults, only trains compatible with ERA/ERTMS/033281 may be used.

Please refer to the Technical Regulations, Rolling Stock 8.4.2.6 Axle counter systems and TS 50238-3:2019 and TS 50238-3:2019 for specific technical compatibility requirements between trains and axle counters.

2.3.13.2.2 Diagnostics

Bane NOR intends to use diagnostic data from trains in connection with the targeted and efficient operation and maintenance of infrastructure for increased availability. Implicitly, this involves the sharing of data concerning vehicles with Bane NOR. For more information, see AST, Annex 2: Traffic data to Bane NOR.

2.4 Traffic restrictions

2.4.1 Specialised infrastructure

Under the provisions of the Railway Regulations § 8-8, parts of the infrastructure may be reserved for specific types of traffic. The following railway lines are therefore restricted for freight trains:

- Gardermobanen
- Follobanen

For more detailed information, see the special provisions in Bane NOR's line section description.

2.4.2 Environmental infrastructure

2.4.2.1 Noise

Noise restrictions are specified by general Norwegian legislation, see the Neighbours Act, the Pollution Control Act and the Planning and Building Act in particular. Read The Regulation relating to threshold values for noise at lovdata.no.

Further provisions concerning noise restrictions and other environmental conditions are included in AST, Section 10.2.6.3.

Among other things, local noise restrictions mean that whistles must not be sounded at certain level crossings during the night. These level crossings are signposted.

Out of consideration for neighbours and to reduce noise, Bane NOR requires trains with Eco mode to activate such a mode during stabling. Any need to deviate from this requirement must be clarified with Bane NOR.

In connection with the acceptance of vehicles, noise requirements will be a part of the rolling stock acceptance process, see Chapter 3.4.1.

2.4.2.2 Discharge from toilets

According to the Railway vehicle regulations, Annex 6.2.1.1, the use of open toilet systems in railway vehicles is not permitted.

2.4.2.3 Environmental hazards

Information about environmental hazards along the different line sections can be found in Bane NOR's line section description.

2.4.3 Dangerous goods

There are no restrictions except those mentioned in Chapter 2.4.4 below.

2.4.4 Tunnel restrictions

- The transport of *dangerous goods*, in accordance with RID regulations, hazard classes 1-9, is not permitted in Romeriksporten when there are passenger trains in the tunnel.
- Freight trains should not be scheduled to pass through the culvert at Gardermoen Station (Oslo Airport) in the annual timetable.
- To minimise exhaust emissions in tunnels, drivers are advised to maintain the most consistent driving speed possible.

For an overview of tunnels per line sections, see Bane NOR's line section description.

2.4.5 Bridge restrictions

Bane NOR has two bridges with special rules for passing trains: the Skansen and Nidelven bridges, both included under Trondheim station.

Train traffic takes priority over ship traffic. Indicative opening hours for shipping are advertised locally in the daily press when a timetable and local shunting plan have been prepared and actioned by Bane NOR. For information about opening hours and more, see trondheimhavn.no.

2.5 Availability of the infrastructure

All railway lines are generally open for train traffic around the clock.

Any regular closures or restrictions due to inspections and maintenance work are planned and reported by Bane NOR. These closures or restrictions are incorporated into the annual and operational capacity allocation, which is further detailed in Chapter 4.3 on capacity allocation for temporary capacity restrictions.

On lines with announcements, where stations are staffed by dispatchers as needed, staffing and opening hours may depend on capacity needs reported during the annual and operational capacity allocation.

2.6 Infrastructure development

A summary of planned infrastructure measures and the need for track access for the next four years can be found on Bane NOR's webpage Banetekniske planforutsetninger.

For a summary of long-term infrastructure development, please see

- The railway sector's action programme 2018–2029
- The White Paper on the National Transport Plan 2022–2033, St. meld. 20 (2020 – 2021)

3 Access Conditions

3.1 Introduction

This part provides an overview of the conditions and requirements for access to Bane NOR's railway network, including the legal and administrative conditions that must be met to use the infrastructure. The aim is to ensure that anyone wishing to operate on the network has the necessary information to plan and conduct train operations in compliance with current regulations.

Acts and regulations

Norwegian acts and regulations regarding railways are available on the Norwegian Railway Authority website sjt.no. Some of the acts and regulations have been translated into English. These translations are not official.

Other Norwegian acts and regulations are available on lovdata.no.

sjt.no
lovdata.no

3.1.1 Access conditions by line sections

3.1.1.1 COTIF

Norway is a party to the Convention concerning International Carriage by Rail (COTIF), an international agreement that regulates the transport of goods and passengers by rail between member countries. This agreement is incorporated into Norwegian law through the COTIF Act.

On the Norwegian railway network, COTIF regulations apply to all railway lines. This means that both goods (under CIM rules) and passengers (under CIV rules) are transported in accordance with the COTIF agreement.

The Intergovernmental Organisation for International Carriage by Rail (OTIF), which administers COTIF, maintains updated lists of all railway and ferry lines where CIM and CIV rules apply to international rail transport. These lists are available through OTIF to ensure that railway transport operators have access to current information on the lines covered by the agreement.

3.1.1.2 TEN – the trans-European conventional railway system

The Norwegian part of the trans-European conventional rail network includes the following lines:

- Østfoldbanen (Oslo–Moss–Kornsjø) (part of the TEN-T core network)
- Vestfoldbanen (Oslo–Drammen–Skien)
- Bratsbergbanen (Nordagutu–Skien)
- Kongsvingerbanen (Oslo–Kongsvinger–Charlottenberg) (part of the TEN-T core network)
- Sørlandsbanen (Oslo–Hokksund–Stavanger)
- Bergensbanen (Oslo–Hokksund–Hønefoss–Bergen) (Oslo–Roa–

Hønefoss)

- Dovrebanen (Oslo–Dombås–Trondheim)
- Meråkerbanen (Trondheim–Storlien)
- Nordlandsbanen (Trondheim–Bodø)
- Ofotbanen (Narvik–Vassijaure) (part of the TEN-T core network)

3.2 General access requirements

The conditions for operating on the Norwegian railway network are established in Chapter 2 of the Railway Regulations.

3.2.1 Conditions for applying for capacity

To apply for railway infrastructure capacity in Norway, an organisation must meet certain criteria:

Railway undertakings

Undertakings licensed to operate on the Norwegian railway network, provided they hold both a licence and a safety certificate for the relevant type of transport and line.

Undertakings in the process of approval

Undertakings that have not yet received a licence and safety certificate but are in the process of obtaining them may also apply for infrastructure capacity. This ensures their participation in the capacity allocation process. Bane NOR may require such undertakings to demonstrate that they are likely to obtain the necessary approvals by the timetable consultation deadline, as specified in Chapter 4.5.

Applicants

This includes railway undertakings, international groupings of railway undertakings, as well as individuals or legal entities with an interest in obtaining infrastructure capacity. Examples of such applicants include public authorities under Regulation (EC) No. 1370/2007, as well as shippers, freight forwarders, and operators of combined transport, in accordance with Railway Regulations § 1-7 (p).

If an applicant who is not a railway undertaking is allocated infrastructure capacity, they must designate a railway undertaking to carry out the transport. This railway undertaking must have entered, or be in the process of entering into, an agreement with Bane NOR in accordance with Railway Regulations § 10-1. The applicant must designate this railway undertaking at least 30 days before the scheduled departure time from the departure station.

It is important to note that, according to Railway Regulations § 8-1 (2), the transfer of allocated capacity to others or for a different type of transport service is prohibited. When a railway undertaking provides transport services on behalf of an applicant who is not a railway undertaking, this is not considered a transfer within the meaning of the regulation.

3.2.1.1 Access to enter the driver's cab

Personnel carrying out inspections of lines for Bane NOR must be given access to driver's cabs to the necessary extent. Bane NOR cannot demand such access if the railway undertaking must reject this as a consequence of requirements in Acts or Regulations, or internal procedures that implement requirements in Acts or Regulations.

Railway undertakings must formulate their procedures for access to driver's cabs in such a way that it is possible to conclude an agreement providing an inspector with space in a driver's cab at short notice (less than one hour).

For its part, Bane NOR is responsible for ensuring that the inspector does not disrupt the train crew unnecessarily.

The reason for this requirement is to avoid reserving more infrastructure capacity than necessary for inspection and maintenance, and to ensure that Bane NOR has a realistic view of visibility conditions for the train crew.

3.2.1.2 Bane NOR's principal company responsibility

When several undertakings operate in the same area/workplace, they may pose a working environment risk to one another. Each company must ensure that its operations, and the work carried out by its employees, are organised and performed in such a way that employees of the other undertakings are also ensured a fully safe working environment.

Undertakings operating in the same area must cooperate to ensure a fully safe working environment. When several undertakings carry out work in the same area, one company that has employees on-site must assume the role of the *main enterprise*. The main enterprise is responsible for coordinating the health, safety, and environmental work of the individual undertakings, cf. the Working Environment Act § 2-2 and the Internal Control Regulations § 6.

The choice of main enterprise is based on an assessment of, among other things

- which company has the best overall overview of the workplace
- which company has the broadest and most permanent connection to the workplace

The company that is stationary, has the most employees on-site, or performs the most extensive work will naturally be regarded as the main enterprise.

It must be agreed in writing which company is responsible as the main enterprise. If no such agreement is reached, the Norwegian labour inspection authority must be notified, and it will then determine which company shall have the responsibility. Bane NOR must be notified in writing of which company is the main enterprise at any given time.

3.2.2 Conditions for access to the railway infrastructure

According to the Railway Regulations § 2-1, railway undertakings have the right to use the railway network, subject to the limitations set out in this provision and in the Railway Regulations § 2-2. To operate on the railway network, a railway undertaking must hold both a licence and a safety certificate in accordance with the licensing regulations. Additionally, the railway undertaking must meet all other requirements set by Bane NOR for access to the railway network.

To exercise access rights, the railway undertaking must be a member of an industry association recognised by the Railway Directorate (JDIR), in accordance with the Railway Regulations § 2-1 (4).

Access also includes necessary vehicle movements on the railway network, as well as test runs and operations related to training, in accordance with the Railway Regulations § 2-1 (2).

3.2.3 Licences

The requirement for a licence for railway undertakings is described in Chapter 12 of the Railway Regulations. Licences are issued by the Norwegian Railway Authority (SJT). For more information and contact details, see the information below.

3.2.4 Safety certificate

The safety certificate is regulated by Chapter 5 of the Safety Regulations (sikkerhetsforskriften). Safety certificates are issued either by the European Union Agency for Railways (ERA) or the Norwegian Railway Authority (Statens jernbanetilsyn).

Contact Statens jernbanetilsyn

E-mail
post@sjt.no

Website: sjt.no

3.2.5 Insurance

In accordance with the Railway Regulations § 12-6, railway undertakings must have sufficient insurance or guarantees to cover liability for damages that may arise from their operations. This includes coverage for compensation claims in the event of accidents, particularly concerning passengers, luggage, freight, mail, and third parties. The minimum requirement for insurance coverage is 4,500 times the basic amount of the National Insurance Scheme (G) per incident.

In addition to the general requirements, Bane NOR imposes specific requirements for insurance or guarantees. This coverage must be sufficient to cover liabilities that the railway undertaking, and any others for whom the railway undertaking is responsible, may have towards Bane NOR. This includes damage to infrastructure, clean-up after operational accidents, requisition and rescue, as well as firefighting.

Bane NOR is insured in the private insurance market.

3.3 Contractual arrangements

3.3.1 Framework agreement

Bane NOR may enter into framework agreements with applicants for the use of railway infrastructure for a period longer than one timetable period, as facilitated

by the Railway Regulations Chapter 7 and EU Regulation 2016/545. Framework agreements must meet specified conditions, and Bane NOR follows a restrictive practice to ensure effective capacity utilization. New or amended agreements must be reported to the Norwegian Railway Authority (SJT) within four weeks. Framework agreements do not have priority in cases of conflicts and/or on congested line sections; therefore, Bane NOR currently does not enter into new framework agreements on congested line sections.

3.3.2 Contracts with railway undertakings

To access the smallest package of services offered by Bane NOR, the railway company must enter into an Agreement on track access and use of services (AST) with Bane NOR, in accordance with the Railway Regulations § 10-1.

It is not necessary to enter an AST before applying for line sections, but the agreement must be in place for the line sections to be allocated. The current AST can be found in Annex 3.3.2 Agreement on track access and use of services, and a printed copy can be ordered by contacting Bane NOR.

Contact Network Statement

E-mail
network.statement@banenor.no

Format and validity

The format of the AST may be changed, and new agreements can be entered into independently of the validity period for the Network Statement. No separate approval of the AST is required.

Rights and services

The AST also grants the railway undertaking the right to use the services offered by Bane NOR, as outlined in Railway Regulations §§ 4-2, 4-4, and 4-5. This includes access to the services mentioned. For services that Bane NOR offers but fall outside the scope of the AST and the Railway Regulations, a separate agreement must be made with Bane NOR.

For access to and use of services at other operators' service facilities, the railway undertaking must contact the operator of the service facility. Access to tracks managed by Bane NOR, which lead to other operators' service facilities, is included in the smallest package of services; see a description in Chater 5.4 The minimum access package.

3.3.3 Contracts with non-railway undertaking applicants

For applicants that are not railway undertakings, the following requirements apply when applying for infrastructure from Bane NOR:

1. **Preliminary requirements**

   Before applying for infrastructure capacity, the applicant must

   - follow Bane NOR's established process for access
   - create a user in Bane NOR's systems
   - meet the requirements described in the Railway Regulations § 1-7

letter (p)

Note:
It is not necessary to enter into an agreement with Bane NOR to submit an application.

2. Designation of railway undertaking

To use the allocated capacity, the applicant must designate one or more railway undertakings to operate the train services, in accordance with Section 8-2, first paragraph of the Railway Regulations. The designation must be

- submitted to Bane NOR in writing
- notified no later than 30 days before the train operation begins

If several railway undertakings are involved, it must be clearly stated which company is responsible for each individual train path.

If the railway undertaking is changed, Bane NOR must also be notified in writing at least 30 days before the change takes effect.

3. Agreement on track access and use of services (AST)

The railway company designated to perform the train operations must have entered into an AST with Bane NOR before train operations commence and must meet all the requirements set out in the AST Section 10.1.

4. Responsibility for fees

The railway undertaking performing the train operations is responsible for paying the infrastructure charges and other railway-related fees.

If the railway company does not use the allocated capacity, it must pay a reservation fee according to Railway Regulations § 6-7. If the applicant has not designated a railway company, the applicant must pay the reservation fee.

5. Joint liability

The applicant is jointly liable for claims that Bane NOR may have against the designated railway company, including

- claims arising from a breach of obligations under the AST
- claims arising from a breach of general liability rules

6. Revocation of train path

Bane NOR may revoke an allocated train path if

- the applicant does not meet statutory or regulatory requirements
- the conditions set out in AST point 11 (paragraphs four to seven) are not fulfilled
- other conditions for the allocated train path are not fulfilled

7. Additional conditions

Bane NOR may also impose additional conditions on applicants based on

the specific train operation. Such conditions will be specified in the decision regarding the allocation of train paths sent to the applicant

3.3.4 General terms and conditions

The general terms and conditions set down by Bane NOR concerning use of the Norwegian rail network can be found in AST. The agreement may be found in Annex 3.3.2 Agreement on track access and use of services.

Bane NOR does not apply European General Terms and Conditions (EGTC).

3.4 Specific access requirements

3.4.1 Rolling stock acceptance

The Norwegian Railway Authority (SJT) gives permission to commission vehicles, in accordance with the Interoperability Regulations; national technical requirements for vehicles are specified in the Vehicle Regulations.

Information on the process is available from SJT.

Vehicles used by Bane NOR – whether owned, hired, or operated by contractors on behalf of Bane NOR – must also have a valid Bane NOR vehicle registration card. This card is issued by Bane NOR and includes a Bane NOR Technical Inspection Deadline (BN TKF).

Contact Statens jernbanetilsyn

E-mail
post@sjt.no

Website: sjt.no

3.4.1.1 Requirements for equipment in traction units

For drivers to have access to various control cabinets, such as crank boxes and control cabinets for level crossing barriers, all traction units must be equipped with CTC keys.

How to order keys

Keys must be requested from Bane NOR by sending an e-mail to logistikk@banenor.no.

The order must include the following information:

- order of CTC keys – “F no. 708 690 840”
- the requester’s company name
- the requester’s customer number at Bane NOR (or “new customer”)
- the requester’s reference
- contact person (name and telephone number)
- number of keys
- invoice address

- delivery address

Keys are collected from: Bane NOR's central inventory, Aurvegen 13, 2030 Nannestad, Norway.

The requester must acknowledge receipt of CTC keys and is obliged to return them when they are no longer needed. Lost CTC keys must be reported to Bane NOR.

3.4.1.2 Gas and smoke protection equipment on trains

To ensure the safe evacuation of trains from hazardous areas in the event of fire or gas leakage, it is recommended that all trains be equipped with gas and smoke protection equipment.

Passenger trains should carry two sets of this equipment:

- One set should be placed in the driving vehicle, accessible to the driver.
- The other set should be stored together with the train's other emergency equipment, for use by the rest of the onboard staff.

In units with two driving cabs, one set of gas and smoke protection equipment should be located near each cab.

3.4.2 Staff acceptance

Drivers must have a driving licence issued by a national safety authority and a certificate issued by the railway undertaking. Bane NOR is not responsible for training or approval of drivers, on board staff or shunting personnel.

Requirements of relevance to drivers are specified in the Driver Regulations. Requirements of relevance to on-board staff and shunting personnel are specified in the Training Regulations and TSI-OPE.

3.4.3 Exceptional transport

Exceptional transport refers to the transportation of goods or units that require special measures or permits, according to the definition in UIC brochure 502-1, Article 1.3. Bane NOR uses this UIC definition to classify exceptional transports.

Bane NOR decides whether an exceptional transport can be permitted, and if so, under what conditions it can be carried out. Details on how exceptional transports are handled, including procedures and requirements, are further described in Chapter 4.7.

3.4.4 Dangerous goods

The transport of dangerous goods is governed through the Regulations on land transport of dangerous goods, including ADR/RID.

3.4.5 Test trains and other special trains

Test trains are subject to permission from the Norwegian Railway Authority (SJT) according to the Vehicle Regulations.

Contact the Norwegian Railway Authority

E-mail
post@sjt.no

Website: sjt.no

4 Capacity Allocation

4.1 Introduction

This part describes Bane NOR's process for capacity allocation on the railway network and in service facilities, as well as the need for track access for infrastructure maintenance, renewal, and upgrade. The process follows the requirements set out in Chapters 8–10, and Annex IV of the Railway Regulations. When referring to the allocation of services, we are referring to the services described in Chapters 5.3 and 7.3. The Traffic Division, through the Capacity Management Unit (Kapasitetsstyring), is responsible for the capacity allocation process, and our decisions regarding infrastructure capacity allocation are considered individual administrative decisions.

4.2 General description of the process

The capacity allocation process is designed to contribute to the optimal utilisation of infrastructure capacity, where the need for track access is assessed against the need for necessary maintenance, renewal, and upgrading of railway infrastructure.

The capacity allocation process is designed to meet the requirements of the Railway Regulations, ensuring that Bane NOR involves applicants and offers infrastructure capacity on fair and non-discriminatory terms, in accordance with EEA law.

4.2.1 The three phases of the capacity allocation process

The capacity allocation process follows two pathways, one for planning and allocating capacity for train paths and one for planning and allocating capacity for temporary capacity restrictions (TCR).

Both pathways are split into the timed phases

- long-term capacity planning
- annual capacity allocation
- operational capacity allocation

Each phase consists of sub-processes that are repeated annually.

The three phases are illustrated in Figure 1 below and described in more details in Part 4.

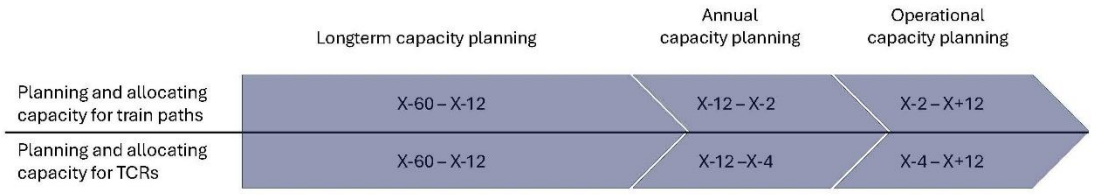


Figure 1 The three phases of path allocation

4.2.2 Distribution of responsibilities related to capacity allocation

Within this framework, Bane NOR will decide on the allocation of infrastructure capacity, including determining and assessing availability and allocation of individual train paths. These decisions are a part of the basic functions undertaken by the infrastructure manager. In accordance with Section 3-4 of the Railway Regulations, neither railway undertakings nor other parties should be able to directly or indirectly exert determining influence about Bane NOR's fulfilment of these fundamental functions.

Bane NOR's decisions regarding allocation of infrastructure capacity to applicants should be taken on an individual basis.

Bane NOR's Capacity Management Unit owns and is responsible for the capacity allocation process.

4.2.2.1 Stakeholders involved in the capacity allocation process

- RailNetEurope (RNE) determines dates for the timetable period.
- Bane NOR, in its capacity as infrastructure manager, has capacity allocation authority.
- OSS is a function managed by the timetable unit in order to assist railway undertakings with queries linked to applying for infrastructure capacity. See Chapter 1.6.2 for more information.
- Applicants are responsible for applying for infrastructure capacity in accordance with the requirements set out in Part 4 of the Network Statement.
- The Norwegian Railway Directorate (Jernbanedirektoratet – JDIR) determines which railway undertaking should apply for train paths for publicly funded passenger transport.
- The Norwegian Railway Authority (Statens jernbanetilsyn – SJT) serves as the appeals body for Bane NOR's capacity allocation process.

4.2.3 Information about available infrastructure capacity

The available capacity in Bane NOR's rail network is the existing infrastructure capacity as described in Bane NOR's line section description, updated to include

- permanent capacity changes in Chapter 4.5.1.4

- designated temporary capacity restrictions that, following consultation with applicants, are published as planning requirements for the annual capacity allocation process in Chapter 4.3.1.1
- pre-planned train paths for the rail freight corridor, ScanMED RFC, in Chapter 4.5.1.6.

In addition, the available infrastructure capacity will also depend on

- technical timetable planning assumptions as set out in Chapter 4.5.1.2
- operational planning assumptions as set out in Chapter 4.5.1.5

4.2.4 Procedure for applying for infrastructure capacity

Bane NOR allocates infrastructure capacity for a period corresponding to a maximum of one timetable period. The infrastructure capacity applicant must therefore limit its application to a period corresponding to a maximum of one timetable period.

Bane NOR recommends that applicants include an application letter that gives a general description of their application.

4.2.4.1 Guidelines for applicants that are not railway undertakings

Guidelines for applicants that are not railway undertakings are described in Chapter 3.3.3.

Applicants that are not railway undertakings must inform Bane NOR of the railway undertakings that will run on the allocated train path in accordance with the schedule set out in Chapter 4.5.1.9.

4.2.4.2 Procedure for applying for national train paths

Train path applications in the annual capacity allocation must be submitted through Bane NOR's system for applications in the annual capacity allocation (BEST-L) in accordance with the set deadlines shown in Chapter 4.5.1.9 Schedule for the annual capacity allocation process.

Capacity applications for capacity and services in service facilities must be enclosed with the application using a separate form. The form can be found in Annex 4.2.4.2 Application for capacity and services in service facilities.

4.2.4.3 Procedure for applying for international train paths

The Path Coordination System (PCS) is a web-based communication tool developed to optimise the coordination of paths in international traffic. Read more about PCS on the RNE website. The tool can be used free of charge. As a member of the international association of infrastructure managers, RailNetEurope (RNE), Bane NOR is obliged to use the tool for international timetable work if applications are registered. Cross-border traffic (including Norwegian lines) may be looked up using this tool.

RailNetEurope (RNE) has defined international corridors for freight service. Pre-planned train paths are being prepared for these corridors and will be published in accordance with the Schedule for the annual capacity allocation process set out in Chapter 4.5.1.9. Applications for these train paths must be submitted via PCS. The application deadline is the same as for national train paths. Information

can be found on the ScanMed RFC website.

Further information concerning international collaboration and coordination of applications for infrastructure capacity can be found in Chapters 1.6–1.7 and 4.10.

4.2.4.4 Bane NOR's procedure for applying for infrastructure capacity for work in tracks

Plans for temporary capacity restrictions (TCRs) must be added to Bane NOR's system for monitoring TCRs (ARBIS) in accordance with the established deadlines shown in Chapter 4.5.1.9 Schedule for the annual capacity allocation process.

4.2.4.5 Procedure for applying for passenger transport not included in contracts to public services

In accordance with Section 2-3 of the Railway Regulations, applicants who wish to use infrastructure capacity for passenger transport not included in contracts relating to public services, must notify the infrastructure manager and market monitoring body. The notification must be submitted no later than 18 months before the effective date of the timetable to which the application for capacity relates. Notifications to Bane NOR must be submitted via ruteplan@banenor.no.

Railway undertakings and applicants with a new commercial passenger transport service, must report this to the Norwegian Railway Authority (SJT) via their website.

4.2.5 Requirements concerning the contents of applications

Applications must take the form of a complete proposal for a timetable to ensure that the train schedule is cohesive. In cases where trains are to be joined or split, applicants must include this.

Applications for capacity must comply with the planning assumptions as they are described in the following chapters:

- 4.5.1.1 Timetable planning assumptions
- 4.5.1.2 Technical timetable planning assumptions
- 4.5.1.3 Infrastructure technical planning assumptions
    - 4.3.1.1 Designated TCRs
    - 4.5.1.4 Permanent capacity changes
- 4.5.1.5 Operational planning assumptions
- 4.5.1.6 Pre-planned train paths for the ScanMed RFC freight corridor

Bane NOR encourages all applicants to familiarise themselves with the relevant content of JDIR's standard for timetable models, dated 19 July 2022. This document provides guidelines for ensuring the quality of the basis for timetable construction.

The application must include the minimum information necessary for Bane NOR to verify and/or construct the timetable. The table below outlines the required information.

Table 1: Minimum requirements in path application

Information	Passenger trains	Empty trains	Freight trains	Light engines
Train number (Train numbers are assigned by Bane NOR, unless stated otherwise in the application)	X	X	X	X
Train category	X	X	X	X
Train type	X			
Line number (see table in Chapter 4.2.5.3)	X			
Product code (see table in Chapter 4.2.5.4)	X		X	
Running days/dates	X	X	X	X
Path, from—to	X	X	X	X
Departure/arrival time Proposed departure time from the rail-head station, possibly proposed arrival time at the terminal station if this is to be given priority	X	X	X	X
Stopping patterns and activities – with minimum stopping time needed	X	X	X	X
Suggested location for change of personnel – include minimum stopping time needed	X	X	X	X
Request for specific platform track	X			
Type of vehicle	X	X	X	X
Need for assistance locomotive – state line section	X	X	X	
Determinative running speed	X	X	X	X
Train size *Passenger trains*: number of standard stock units and total length (in metres) *Freight trains*: the coupled train weight, total length (in metres), and axle load	X	X	X	X
Temporary rolling stock turning	X	X	X	X

Information	Passenger trains	Empty trains	Freight trains	Light engines
Documentation on permission to use a new vehicle type	X	X	X	X
Need for terminal capacity, including			X	X
• need for stabling capacity	X	X	X	X
• need for access to other services and service facilities (If the need refers to a location that has no train heating system at the time of submitting the application, this should be specifically highlighted and ordered separately from ruteplan@banenor.no)	X	X	X	X

** Bane NOR reserves the right to adjust dwell times based on historical data. This is contingent on the historical data being derived from operational planning conditions comparable to those in the current year's application.*

It is possible to apply for specific platform tracks at stations for TT26. Such applications must be submitted as attachments in BEST-L by the ordinary application deadline.

Bane NOR must ensure that all factors that applicants may face are taken into account for the duration of the capacity allocation process. All applicants may submit information about all factors they believe to be of importance to the application, including the financial consequences for their businesses. Such information must be submitted to Bane NOR as attachments via BEST-L by the ordinary application deadline.

If an application is incorrect or incomplete, Bane NOR will contact the applicant and ask for correction. If the application is not corrected by the deadline set by Bane NOR, Bane NOR may reject all or parts of the application for train paths.

In accordance with Section 8-2 (3) of the Railway Regulations, Bane NOR may require applications to include documentation demonstrating that the applicant has a plan for meeting the planning assumptions.

4.2.5.1 Use of special vehicles

When using special vehicles, such as demonstration rolling stock, steam locomotives, the vehicle's performance on gradients must also be specified.

If there is a need for technical breaks along the way, for lubrication, inspection, filling with water, and so forth, the duration of the break must be stated, along with the greatest distance between technical breaks, in kilometres.

4.2.5.2 Phasing in new vehicles

If a new vehicle is to be introduced on a line section and this vehicle's performance or capacity is a necessary condition for running this path, the necessary vehicle approval and technical data must be obtained by the time of the infrastructure capacity application. Alternatively, the railway undertaking

must make it clear that the permit application process is in progress and that such a permit will be available before the timetable is established.

If a new vehicle is intended to replace another vehicle on existing line sections, it is recommended the railway undertaking apply for infrastructure capacity suitable for both existing and new vehicles.

The reason for this provision is that the train's operating characteristics may have a very large impact on the national rail network, which mainly consists of single tracks and has many steep gradients.

4.2.5.3 Line numbers

Table 2: Line numbers

Line number	Line section
F1	Oslo–Stockholm
F4	Bergen–Oslo
L4	Bergen–Arna
R40	Bergen–Myrdal
R45	Myrdal–Flåm
F5	Stavanger–Oslo
L5	Stavanger–Egersund
R50	Nelaug–Arendal
R55	Notodden–Porsgrunn
F6	Trondheim–Oslo
R60	Hamar–Trondheim
R65	Dombås–Åndalsnes
F7	Trondheim–Bodø
F71	Trondheim–Malmø C
R70	Steinkjer–Støren
R71	Trondheim–Storlien
R75	Bodø–Rognan
F8	Narvik–Luleå/Stockholm
R80	Narvik–Abisko/Kiruna
RE10	Lillehammer–Drammen
RE11	Eidsvoll–Skien

Line number	Line section
RX11	Oslo S–Skien
R12	Eidsvoll–Kongsberg
R13	Dal–Tønsberg
R13X	Jessheim–Oslo S
R14	Kongsvinger–Asker
L1	Lillestrøm–Spikkestad
F2	Oslo–Malmø/København
RE20	Oslo S–Halden/Gøteborg C/Malmø C
RX20	Oslo S–Fredrikstad
R21	Stabekk–Moss
R22	Oslo S–Mysen/Rakkestad
R23	Oslo S–Ski
R23X	Oslo S–Moss
L2	Stabekk–Ski
L2X	Oslo S–Ski
RE30	Gjøvik–Oslo S
R31	Gjøvik/Jaren/Hakadal–Oslo S
FLY1	Drammen–Oslo Airport (Gardermoen)
FLY2	Stabekk/Oslo S–Oslo Airport (Gardermoen)

4.2.5.4 Product codes

Table 3: Product codes

Code	Code description	Definition
A1	Other industrial trains	Other industrial trains (aviation fuel, oxygen, propane, military transport, and so forth)
A2	Work trains and transport trains	Work trains and transport trains requested by Bane NOR
A3	Freight trains	Freight trains requested by Bane NOR
H1	OSL GAR	Transport to Oslo Airport (Gardermoen)
K1	Combination and wagonload trains	Combination and wagonload trains
M1	Ore and minerals	Ore and minerals
P1	Other Pt. (passenger trains)	Other passenger trains (Flåmsbana, trains to/from Sweden)
T1	Traffic package 1/SB	Traffic package 1 / Sørlandsbanen
T2	Traffic package 2/North	Traffic package 2 / North
T3	Traffic package 3/BB	Traffic package 3 / Bergensbanen
T4	Eastern Norway 1	Directly allocated service obligation, Eastern Norway 1
T5	Eastern Norway 2	Directly allocated service obligation, Eastern Norway 2
Tn	Other Pt. (passenger trains) agreed with the Norwegian Railway Directorate	Other passenger train agreements with the Norwegian railway directorate (JDIR) paid for by the Norwegian Railway Directorate
W1	Timber and woodchip trains	Combined timber and woodchip trains (includes wagons for both timber and woodchip)
W2	Timber	Pure timber trains
W3	Woodchip	Pure woodchip trains

4.2.6 Content requirements for applications for capacity and services in service facilities

As part of the annual capacity allocation process, applications for capacity and services in service facilities must be described using the capacity application form found in Annex 4.2.4.2 Application for capacity and services in service facilities, and submitted through Bane NOR's system for applications in the annual capacity allocation (BEST-L) in accordance with the set deadlines shown in Chapter 4.5.1.9 Schedule for the annual capacity allocation process.

Access to tracks at stations for passengers, and access to terminal tracks used

for loading and unloading, is allocated as train paths. Therefore, applications for track access at stations and terminals must follow the application deadlines set out in Chapter 4.5.1.9.

In the operational capacity allocation process (ad hoc), applicants may submit applications for capacity at service facilities at any time. Bane NOR will respond to such applications within the deadlines specified in § 2 of the Service Facilities Regulations. The same applies to applications for the services mentioned in § 3 of the Service Facilities Regulations.

Applications for services at Bane NOR's service facilities must be submitted to the relevant service facility. Applications for capacity and services at service facilities operated by entities other than Bane NOR must be submitted to the relevant service facility. For more information about the various service facilities, see Chapter 7.2.

For Bane NOR to allocate infrastructure capacity at service facilities, the application must contain the necessary minimum information, as described in the table below.

Table 4: Requirements for contents of applications for access to service facilities

Service facility type	Application content requirements
Passenger stations	Stop patterns and activities, with minimum required dwell times (see Chapter 4.2.5)
Freight terminals	See Annex 4.2.4.2 Application for capacity and services in service facilities
Timber terminals	See Annex 4.2.4.2 Application for capacity and services in service facilities
Shunting facilities	See Annex 4.2.4.2 Application for capacity and services in service facilities
Stabling facilities	See Annex 4.2.4.2 Application for capacity and services in service facilities
Maintenance facilities	See Annex 4.2.4.2 Application for capacity and services in service facilities
Other technical facilities	Not applicable
Port facilities	See Annex 4.2.4.2 Application for capacity and services in service facilities
Relief facilities	See Annex 4.2.4.2 Application for capacity and services in service facilities
Refuelling facilities	See Annex 4.2.4.2 Application for capacity and services in service facilities

If an application is incorrect or incomplete, Bane NOR will contact the applicant and ask for correction. If the application is not corrected by the deadline set by Bane NOR, Bane NOR may reject all or parts of the application for train paths.

4.2.7 Long-term capacity planning

Bane NOR will conduct capacity analyses and develop capacity improvement plans for both internal studies and regulatory requirements.

The purpose includes assessing

- whether new or modified railway infrastructure provides sufficient capacity
- the effects on capacity and robustness of changes to timetables and/or rolling stock
- consistency and completeness of expected and planned train services
- measures to optimise capacity during construction (phase plans)
- the impact on energy supply and railway power systems from changes in infrastructure, timetable models, and rolling stock

Capacity planning

Bane NOR will coordinate the need for track access for operations, maintenance and construction of new railway infrastructure, as well as the capacity needs and/or new types of rolling stock submitted by railway undertakings.

The purpose is to standardise the quality assurance and coordination of needs for changes to existing base timetables and planning principles, future infrastructure capacity and/or adapted railway infrastructure capacity for new types of rolling stock.

Planning shall begin no later than 60 months (X-60) before the start of the relevant timetable period. Submitted capacity needs are not binding in the planning phase, but it is important that the submitted needs are of sufficient quality.

Regular dialogue meetings shall be held between Bane NOR and applicants, as well as any other external stakeholders, to ensure that inputs to the annual capacity allocation process are assessed and meet an adequate quality standard.

Contact Bane NOR

E-mail
ruteplan@banenor.no

Running time calculations for new rolling stock

If running time calculations are required for new rolling stock types, applicants can request Bane NOR to perform these calculations. Bane NOR holds detailed information about the line section to be operated, while the applicant must provide specific information about the rolling stock, including

- traction characteristics of the locomotive(s)
- weight distribution between powered and unpowered axles
- length of the rolling stock

- deceleration capabilities
- speed restrictions for the rolling stock

Contact Bane NOR

E-mail
ruteplan@banenor.no

4.2.8 Annual capacity allocation

The annual capacity allocation process consists of activities designed to coordinate and allocate infrastructure capacity until a new timetable has been established and published. The timetable will be determined once every calendar year, and the capacity allocation process is therefore repeated annually. The annual capacity allocation is carried out in accordance with guidelines specified in Acts and Regulations, in addition to guidelines described here in Part 4.

Bane NOR's feasibility studies

Bane NOR offers feasibility studies for applicants who require information on infrastructure capacity based on specific specifications of commercial and operational needs. For such a feasibility study to be carried out, the requester must contact Bane NOR to agree on the need for the necessary information.

Please note that an applicant's request for a feasibility study is not considered to be an application for infrastructure capacity. Communicated results of the feasibility study are not binding for Bane NOR during the capacity allocation process. Train paths based on the results of the feasibility study must be applied for in the usual way.

To verify whether a new vehicle can be operated on the rail network, Bane NOR offers the applicant the opportunity to simulate operation of the vehicle in a computer program.

Table 5: Phases and milestones in the annual capacity allocation

Phase	Period	Activity	When
Planning phase (X-12–X-8) Update planning requirements	Commencement period (X-12–X-8)	Bane NOR invites applicants to attend a common start-up meeting for the annual capacity allocation process. The main topics for the meeting will be a review of the schedule and the assumptions that form the basis for applications and allocation of infrastructure capacity.	12 months
		BEST-L is updated with new data and opens for	10 months

Phase	Period	Activity	When
		the registration of new applications.	
		Bane NOR invites each railway undertaking to attend separate early dialogue meetings. Separate meetings will be convened with each undertaking and the discussions will be confidential.	10 months–9 months
Construction phase (X-8–2 ½) Design new train paths	Design period (X-8–X-5 ½)	Bane NOR receives applications by the ordinary deadline (midnight on the second Monday of April). Any late applications for train paths will be processed as described in Chapter 4.5.2.	8 months
		Bane NOR designs train paths based on received applications and will compile these into a new draft timetable.	8 months–5 ½ months
	Consultation period (X-5 ½–X-4 ½)	Bane NOR issues the draft new timetable for consultation. The consultation period will last at least one month.	5 ½ months–4 ½ months
	Coordination period (X-4 ½–X-3 ½)	Bane NOR considers consultation comments and prepares solutions to any conflicts.	4 ½ months–3 ½ months
		Bane NOR convenes separate timetable meetings with each stakeholder to review the general comments from the consultation round.	4 months
		Bane NOR considers any comments from the timetable meetings and proposes solutions to any conflicts.	4 months–3 ½ months
	Determination of international train paths (X-4)	Any capacity that affects cross-border traffic is allocated first.	4 months

Phase	Period	Activity	When
	Dispute resolution period (X-3 ½)	If one or more parties request dispute resolution, Bane NOR is required to initiate Bane NOR's dispute resolution system.	3 ½ months
	Determination of train paths (X-3)	National train paths and the timetable for the upcoming period is allocated.	3 months
Allocation phase (X-3–X-2)	Inclusion of late train path requests and quality assurance (X-3)	The determined timetable is updated to include any late train path applications. The updated version of the timetable then undergoes quality assurance.	3 months–2 months
	Publication and allocation of national and international train paths (X-2)	Capacity that affects national and international traffic is then allocated simultaneously as the timetable is published.	2 months

4.2.9 Operational capacity allocation

See Chapter 4.5.3 Ad-hoc path requests.

4.3 Reserving capacity for temporary capacity restrictions

4.3.1 General principles

Annex IV to the Railway Regulations sets out requirements for an internationally harmonised consultation, coordination and publication process for known temporary capacity restrictions. Bane NOR has chosen to adopt the European abbreviation for temporary capacity restrictions, TCR. In the following, TCR will therefore refer to temporary capacity restrictions.

TCRs may cover scheduled maintenance, major development projects and temporary scheduled driving speeds, and are necessary to maintain a high level of quality in the existing infrastructure while also developing new infrastructure to meet market needs. All TCRs known to Bane NOR are published in ARBIS, where applicants can find detailed information about each TCR.

- ARBIS (log-in required)
- ARBIS (limited version, no log-in required)

During the planning of TCRs, Bane NOR will consult the applicants and consider their input. Bane NOR will provide a justification for any input that is not accommodated. Bane NOR's planning of TCRs shall ensure the greatest possible socio-economic benefit and limit negative impacts for applicants and users of railway services.

When a TCR affects several railway networks, Bane NOR coordinates these with Trafikverket to minimise traffic-related consequences on both sides of the border.

All ad-hoc applications for infrastructure capacity and services must be aligned with the established plan for temporary capacity restrictions. For more information on ad hoc applications, see Chapter 4.5.3.

4.3.1.1 Designated TCRs

Designated TCRs form part of the infrastructure-related planning assumptions (BTP) and constitute an important basis for the annual capacity allocation process. Railway undertakings must adapt their applications for infrastructure capacity to these designated TCRs. Bane NOR reserves the right to remove any trains applied for within a designated TCR.

If a designated TCR results in a rail break between two stations or terminals, applicants wishing to operate trains between these stations or terminals must apply for train paths on an alternative railway line.

To prevent such TCRs from occupying more capacity than necessary, criteria have been established which all must be fulfilled before a TCR can be defined as designated.

Criteria for a designated TCR:

- Affected applicants and the largest operators of service facilities must have been consulted about the TCR.
- The TCR must fall into the category of a large or a high impact TCR or be recurring throughout all or significant parts of the timetable period, for example fixed maintenance windows.
- An investment decision for the TCR must be in place.
- Bane NOR must have assessed the TCR documentation to ensure the probability of the TCR being implemented as planned.
- Bane NOR must also have assessed the scope of all TCRs that meet the criteria for a designated TCR against the railway undertaking's needs and the TCR's anticipated service improvements for freight owners and passengers and, if applicable, must reduce the number of designated TCRs if the outcome of the assessment so dictates.
- Designated TCRs will be determined by Bane NOR's executive committee.

In the socioeconomic assessment of rail breaks, the following are considered:

- inconvenience to passengers through increased journey times, transfer inconvenience, reduced punctuality and cancellations

- alternative transport – its impact on passengers and the associated transport costs
- passenger loss and lost ticket revenues
- consequences for freight trains through delays and cancellations, changes to transit times and any transfer to road
- external effects resulting from modal shifts or changes in transport mode
- Bane NOR's operating costs, including changes in personnel, machinery and set-up/tear-down
- costs to the public sector, including changes to tax financing costs

Requirements for socioeconomic assessments of TCRs may be waived if Bane NOR can document circumstances that justify why the planned timing of the TCR cannot be changed. Such circumstances may include practical feasibility, dependencies on other TCRs, or similar factors.

Table 6: Designated TCRs for TT27

ARBIS ID	Date/Duration	Line section	Project
OS02551	All TT27	(Oslo S)—(Skøyen)	Maintenance window every night
SB04011	All TT27	(Gjerstad)—(Kristiansand)	KL-AT, line sections closed daily
BB02741, BB02743, BB02744	All TT27	(Hønefoss)—(Haugastøl)	KL-AT, line sections closed daily
GMB04474	09.01.27—25.01.27	Gardermobanen (Oslo S) —(Lillestrøm)	Renewal Romeriksporten
DOB03254	17.04.27—28.04.27	(Eidsvoll)—(Lillehammer)	Kleverud—Sørli—Åkersvika
DOB03253	04.09.27—04.10.27	(Eidsvoll)—(Lillehammer)	Kleverud—Sørli—Åkersvika

4.3.1.2 Categorisation of TCRs

TCRs are divided into different categories based on two main factors: the number of consecutive days and their anticipated impact on services. A TCR that cannot be categorised as major impact, high impact, medium impact, minor impact, must be categorised as a less than minor impact TCR.

Table 7: Categorisation of TCRs

Category	Consecutive days	Impact on service (estimation of traffic cancelled, re-routed, or replaced by other modes of transport)
Major impact TCR	>30 consecutive days	>50 % of the estimated service volume on the railway line section
High impact TCR	>7 consecutive days	>30 % of the estimated service volume on the railway line section
Medium impact TCR	≤7 consecutive days	>50 % of the estimated service volume on the railway line section
Minor impact TCR	Unlimited	>10 % of the estimated service volume on the railway line section
Less than minor impact TCR	Unlimited	≤10 % of the estimated service volume on the railway line section

In accordance Annex IV, Section 13 of the Railway Regulations, Bane NOR may set stricter deadlines and threshold values for capacity restrictions than what is stipulated in Annex IV of the Railway Regulations. Such a decision must be agreed upon with the applicants and service facility operators. Other criteria than those stipulated by the Regulation may also be used if needed.

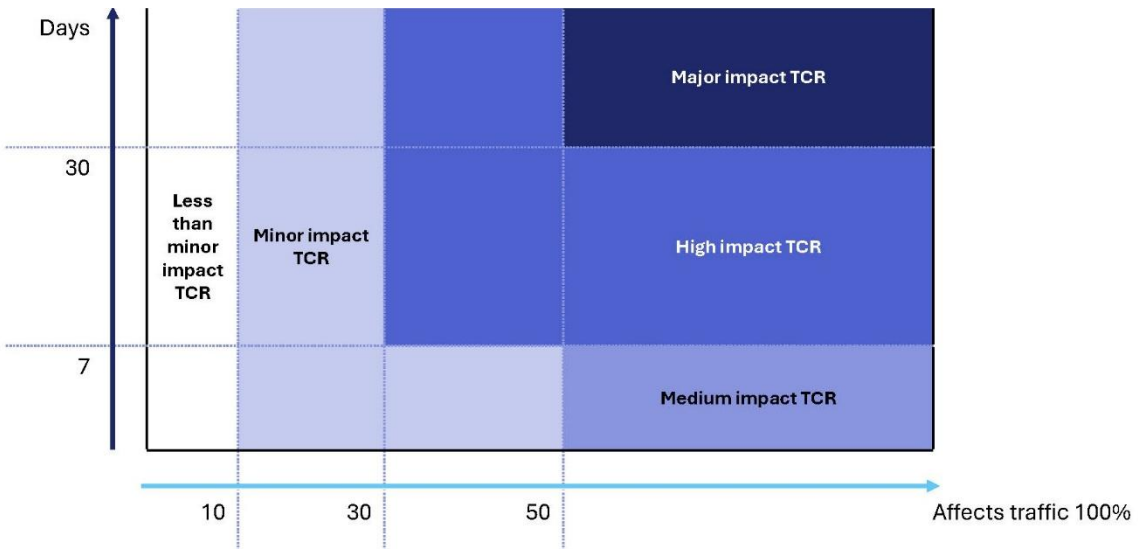


Figure 2 Categorisation of TCRs.

4.3.2 Deadlines and information provided to applicants

Bane NOR publishes information about temporary capacity restrictions in ARBIS.

- ARBIS (log-in required)
- ARBIS (limited version, no log-in required)

In ARBIS the TCRs are described with the following information:

- the TCR's planned commencement date
- the TCR's start and end times for each day, as soon as such details are available
- the TCR's geographical scope
- if applicable, the available capacity on suitable alternative line sections
- the TCR's category: maintenance or renewal/upgrade. For TCRs that include elements of both categories, the category with the most significant time and location scope will define the TCR

4.3.2.1 Section 16 assessment

When Bane NOR plans a high impact TCR, applicants may contact Bane NOR at felles.arbis@banenor.no to request participation in the development of conditions for two alternative TCRs. The preparation of such alternatives is referred to as a *section 16 assessment*.

Upon receiving such a request, Bane NOR shall invite all affected applicants to participate.

Affected applicants are those railway undertakings currently operating on the relevant line segment in the valid timetable, as well as those planning to operate on the segment during the affected timetable period.

In order to ensure that all potentially affected operators are invited—including those Bane NOR may not be aware of—railway undertakings are encouraged to monitor the publication of high impact TCRs in ARBIS and to contact Bane NOR at felles.arbis@banenor.no with a request to participate in a Point 16 assessment if they believe they may be affected.

In the invitation, applicants will be asked to provide input on preferences and needs that could reduce negative impacts on them and their customers. These needs should be communicated to Bane NOR as early as possible, so they can be considered during the preparation of the consultation meeting. Applicants who are unable to provide their input at this early stage will still be considered during the consultation.

When an applicant requests a section16 assessment, Bane NOR shall carry it out by X-24. This deadline assumes that

- Bane NOR has published the high impact TCR in ARBIS no later than X-34
- the applicant has requested the point 16 assessment no later than X-32

If Bane NOR publishes a high impact TCR later than X-34 but before X-18, applicants may still request a section 16 assessment. In this case, the request must be submitted no later than 40 working days after the TCR was published in ARBIS.

Bane NOR shall consult with the affected applicants, considering how they and their customers will be impacted, while also ensuring the project's feasibility. Bane NOR will then decide which alternative will be implemented.

Each alternative must at a minimum include:

- the duration of the TCR
- available diversionary line sections
- available capacity on diversionary line sections
- expected journey times
- the expected infrastructure charges

Contact Bane NOR

E-mail
felles.arbis@banenor.no

4.3.2.2 Deadlines for TCR consideration

TCRs are considered during period X-60 to T-4 for passenger traffic and X-60 to T-1 for freight traffic. The table below outlines relevant general deadlines, marked as X-n [n months before the start date of a timetable period (X)] and T-n [n months before the start date of the respective TCR (T)]. The deadlines specify when Bane NOR will

- consult affected applicants and major operators of service facilities about the TCRs
- coordinate TCRs impacting more than one rail network with Trafikverket
- publish known TCRs

During consultations, affected applicants and major operators of service facilities can submit written comments directly in ARBIS.

For the coordination of TCRs, Bane NOR will, if necessary, invite applicants active on the affected sections and the largest affected operators of service facilities to participate in the process.

Dates relevant to the consideration and consultation of TCRs are described in Chapter 4.3.2.2.

Table 8: Deadlines for considerations of TCRs

<table>
<tr><th>Minor impact TCR</th><th>Medium impact TCR</th><th>High impact TCR</th><th>Major impact TCR</th><th>Deadline</th></tr>
<tr><td rowspan="12">Consultation and coordination</td><td rowspan="7">Consultation and coordination</td><td rowspan="2">Consultation and coordination</td><td>Consultation and coordination</td><td>X-60 to X-24</td></tr>
<tr><td>Section 16 assessment</td><td>X-34 to X-24</td></tr>
<tr><td colspan="2">First publication of known Major and High impact TCRs</td><td>X-24</td></tr>
<tr><td colspan="2">Consultation and coordination continues</td><td>X-23 to X-19</td></tr>
<tr><td rowspan="2">Consultation and coordination continues</td><td>Conclude coordination</td><td>X-18</td></tr>
<tr><td rowspan="3">Final consultation</td><td>X-17 to X-14</td></tr>
<tr><td>Conclude coordination</td><td>X-13,5</td></tr>
<tr><td colspan="2">Final consultation</td><td>X-13</td></tr>
<tr><td colspan="3">Second publication of Major, High, and known Medium impact TCRs</td><td>X-12</td></tr>
<tr><td>Consultation and coordination continues</td><td rowspan="5">Non applicable</td><td rowspan="5">Non applicable</td><td>X-11 to X-7</td></tr>
<tr><td colspan="2">Consultation and coordination of Medium and Minor impact TCRs known at X-6,5 at the latest</td><td>X-6,5 to X-5</td></tr>
<tr><td colspan="2">Publication of Medium and Minor TCRs</td><td>X-4</td></tr>
<tr><td colspan="2">Communication of detailed information to passenger railway undertakings about how the TCR will affect allocated train paths</td><td>T-4</td></tr>
<tr><td colspan="2">Communication of detailed information to freight railway undertakings about how the TCR will affect allocated train paths</td><td>T-1</td></tr>
</table>

Bane NOR may decide to deviate from the deadlines specified in the table if special circumstances justify it. This may include situations where capacity restrictions are necessary to restore safe train operations, where the timing of the restrictions is beyond Bane NOR's control, or where adhering to the deadlines would not be cost-effective or could cause unnecessary damage to

assets. Furthermore, deviations from the deadlines may also be made if all affected applicants provide their consent.

In such cases, as well as in other situations involving capacity restrictions not covered by the table, Bane NOR is obligated to consult with applicants and major affected operators of service facilities in an appropriate manner. This ensures that all relevant parties are informed and involved in the decision-making process, in accordance with Annex IV, section 14, of the Railway Regulations.

4.3.2.3 Schedule for TCR consideration for the phases long-term and annual capacity allocation

Table 9: Schedule for TCR consideration

Date	(X-60 to X-12) Long-term phase	(X-12 to X) Annual phase
2025		
12.12.		TT27: Strategic dialogue meeting 1 of 3 (X-12) TT27: Determination (high and major impact TCR)
12.12.25— 27.02.26		TT27: Consultation period 1 of 2 (less than minor, minor, and medium impact TCR)
14.12.		TT26: Timetable implemented
2026		
27.02.		TT27: Final date for comments on consultation 1 of 2 (less than minor, minor, and medium impact TCR)
27.03.	TT28—TT31: Strategic dialogue meeting 1 of 2	
27.03.—15.05.	TT28—TT31: Consultation 1 of 1 (all TCR categories)	
15.05.	TT28—TT31: Final date for comments on consultation period (all TCR categories) Final date for submitting requests for point 16 assessments for TT29	
17.06.		TT27: Strategic dialogue meeting 2 of 3 (X-6)
06.07.—07.08.		TT27: Consultation period 2 of 2 (less than minor, minor, and medium impact TCR)
07.08.		TT27: Final date for comments on consultation (less than minor, minor, and medium impact TCR)

Date	(X-60 to X-12) Long-term phase	(X-12 to X) Annual phase
21.08.		TT27: Strategic dialogue meeting 3 of 3 (X-4) TT27: Determination (less than minor, minor, and medium impact TCR)
28.09.—16.10.		TT28: Consultation period 1 of 1 (high and major impact TCR)
12.10.		TT27: Timetable TT27 is published
16.10.		TT28: Final date for comments on consultation period 1 of 1 (high and major impact TCR)
13.11.	TT29—TT32: Strategic dialogue meeting 2 of 2	
11.12.		TT28: Strategic dialogue meeting 1 of 3 (X-12) TT28: Determination (high and major impact TCR)
13.12.		TT27: Timetable TT27 is implemented

If Bane NOR becomes aware of high impact or major impact TCRs too late to include them in the long-term consultation phase described in the table above, these will be handled through direct consultation with affected applicants via email and, if necessary, in dedicated meetings.

Designated high impact or major impact TCRs determined at X-12 will be followed up in national coordination meetings after their determination, to ensure that all involved parties are well informed and that necessary measures are effectively coordinated.

4.3.2.4 Deadlines for providing details of offered train paths

In accordance with Annex IV, section 12 of the Railway Regulations.

Period X – X+3 for passenger trains

During the period X – X+3, Bane NOR cannot provide details of the offered train paths for passenger trains and empty stock trains within the standard deadline of four months before the start date of the TCR (T-4). However, the Railway Regulations allow Bane NOR and affected applicants to agree on shorter deadlines for providing these details.

To ensure a more predictable schedule during the period X – X+3, Bane NOR proposes the following deadline: details of offered train paths for passenger trains and empty stock trains will be provided no later than one month and 15 days before the start date of the TCR (T-1.5). This requires that the railway undertaking applies for alternative train paths no later than two months before the start date of the TCR (T-2).

Period X+4 – X+12 for passenger trains

During the period X+4 – X+12, Bane NOR will provide details of the offered train paths for passenger trains and empty stock trains no later than four months before the start date of the TCR (T-4). This is conditional on the railway undertaking applying for alternative train paths no later than five months before the start date of the TCR (T-5).

Period X – X+12 for freight trains

During the period X – X+12, Bane NOR will provide details of the offered train paths for freight trains, light locomotives, and shuttle trains no later than T-1, provided the railway undertaking applies for alternative train paths no later than two months before the start date of the TCR (T-2).

If necessary, Bane NOR and the applicants can agree on different deadlines than those stated above. For changes to allocated capacity, the rules described in Chapter 4.8 will apply.

4.3.2.5 Criteria for re-routing in the event of major impact TCRs

In accordance with Annex IV (17) of the Railway Regulations, Bane NOR shall establish criteria for determining which trains within each type of train service are to be re-routed during high impact TCRs.

The criteria shall consider the commercial and operational constraints of applicants, unless such constraints arise from managerial or organisational decisions made by the applicants.

The train services assessed for passenger services are

- long-distance trains
- local trains
- region trains
- regional express trains

The train services assessed for freight are

- intermodal trains
- system/block trains
- wagonload trains

In addition, the following services are assessed:

- light locomotives
- empty trains

Conditions for the use of the criteria

Use of the criteria presupposes that there is a high impact TCR and that a diversionary option exists which applicants wish to use.

Criteria

- **Current timetable:**
  One component in assessing which train services are to be re-routed, is the current timetable.

The current timetable shows the traffic volume per service type operating on the relevant line section/station/terminal, and when supplemented with knowledge of expected changes in traffic development, this forms the basis for calculating how many trains per service type can be accommodated.

- **Possibilities for replacing trains with other transport:**
  Another component is the difficulty of replacing a train service with other forms of transport. The possibilities assessed include:
    - replacing passenger trains with buses or other modes of transport
    - directing passengers to other trains
    - rerouting trains via alternative railway lines
    - transhipping freight to other modes of transport
    - advancing or postponing traffic
- **Time-sensitivity of different traffic types:** A third component is an assessment of how time-critical the transports within the different service types are. Trade-offs are made against the possible increase in journey time or transport time resulting from the high impact TCR. The assessment of time-criticality considers:
    - the time-sensitivity of passengers, and the reasonableness of increased journey
    - times if the train is replaced by a bus or passengers are directed to another train
    - that freight may not be able to reach its destination at all
    - that extended transport time may cause goods to perish or become unusable
    - that the transport may miss a critical onward connection

Based on the above criteria, Bane NOR will, in the construction phase of the annual capacity allocation process, propose how trains should be re-routed during the implementation of the high impact TCR.

4.3.2.6 Preliminary plan for remaining capacity for high impact TCR

In accordance with Annex IV, point 17 of the Railway Regulations, Bane NOR shall publish a preliminary indication of remaining capacity for different types of train services in the Network Statement together with the criteria in Section 4.3.2.5. This preliminary indication is hereafter referred to as a preliminary plan.

The preliminary plan applies to:

- the line section/station affected by the high impact TCR, and any diversionary line sections
- a maximum of one timetable period
- the period during which the high impact TCR is in effect, if diversionary line sections exist
- any periods of single-track operation on the line section with the high impact TCR, if no diversionary line sections exist

The preliminary plan shall ensure that the reduction in the number of trains is carried out in a manner that meets transport needs to a limited extent when capacity is reduced.

The preliminary plan does not apply to:

- periods when the line section with the high impact TCR is completely closed for traffic (line interruption) and no diversionary line sections exist
- short-term opportunities for through-running through the TCR area, unless these are known at the time the preliminary plan is prepared
- turnbacks within the line section affected by the high impact TCR. Any turnbacks may still be requested in the annual process, provided they do not conflict with the framework conditions for the high impact TCR

The preliminary plan may be used as a basis for applications for train paths in both the annual and the operational phases.

Process for preliminary planning of remaining capacity for high impact TCR

Period X-22 – X-16

Bane NOR shall consult the applicants and prepare the preliminary plan, which recommends how remaining capacity may be allocated per service type.

The plan is prepared in cooperation with applicants, while the criteria in Section 4.3.2.5 may be applied.

To ensure that the plan meets transport needs as far as possible, remaining capacity may be allocated differently throughout the day and week.

The plan shall be drawn up as a preliminary allocation of capacity per service type.

Bane NOR shall attempt to achieve agreement among the applicants on the plan. If no agreement is reached, Bane NOR shall take applicants' needs into account as far as possible and decide the preliminary plan based on the criteria in Section 4.3.2.5.

Period X-16 – X-12

Bane NOR will publish the preliminary plan in the consultation version of the Network Statement. It shall then be updated in accordance with accepted consultation feedback from affected applicants by the end of the consultation at X-12.

Period X-12 – X-2

Bane NOR encourages applicants to apply for train paths in accordance with the preliminary plan.

If multiple applicants request the same capacity indicated in the preliminary plan, the conflict will be resolved in line with other conflicts in the annual capacity allocation process.

Period X-2 – X+12

If capacity remains available as indicated in the preliminary plan, Bane NOR will encourage applicants to apply for train paths in accordance with the preliminary plan.

4.3.3 Planning and accommodation of alternative transport

Bane NOR is responsible for preparing stations for alternative transport and allocating capacity and areas at stations to railway undertakings for the implementation of alternative transport.

Railway undertakings must submit their known requirements for station

preparations for the upcoming timetable period by the deadline for input to the second consultation round on Temporary Capacity Restrictions (TCRs). Submissions must be made by completing a provided Excel form, linking it to the relevant ARBIS ID, and sending it to Bane NOR at kundelogistikk@banenor.no.

If new requirements for station preparations arise during the timetable period or were not known at the time of the second TCR consultation round, they must be reported on an ongoing basis. However, this must be done at least three months before the disruption begins, also to kundelogistikk@banenor.no.

Plans for the implementation of alternative transport during disruptions must be distributed by Bane NOR to railway undertakings at least 21 days before the planned disruption. Bane NOR will finalize these plans no later than seven days before the disruption occurs.

When multiple railway undertakings conduct alternative transport simultaneously at a station, Bane NOR will allocate capacity and areas to them. Railway undertakings must submit their plans for driving line sections to Bane NOR at kundelogistikk@banenor.no at least 21 days before the disruption begins.

4.4 Impacts of framework agreements

For information about framework agreements, see Chapter 3.3.1 Framework agreements.

Gardermobanen (line section Etterstad–Gardermoen)

In 2000, Bane NOR concluded a contract with Flytoget (Airport Express Train) for the line between Etterstad and Gardermoen, which gives Flytoget “the necessary priority” so that it can have regular departures up to six times an hour in each direction. *Regular* means that the departures must be distributed evenly throughout the hour.

This agreement was revised in 2003 and will expire on 1 January 2030. Bane NOR assumed the Norwegian national rail administration’s (Jernbaneverket) obligations pursuant to the agreement on 1 January 2017. As Etterstad is not a station, but merely a point on a line, the agreement has a corresponding impact on the Oslo Central Station (Oslo S)–Etterstad section (Reference: JBV ref. 03-1458, document 4).

4.5 Path allocation process

The path allocation process is regulated by Chapters 8, 9, 10 and Annex IV of the Railway Regulations.

The various deadlines associated with the annual capacity allocation process are described in Chapter 4.5.1.9 and largely correspond to the RailNetEurope calendar.

4.5.1 Annual timetable path requests

In general, the transition to a new timetable will take place at midnight on the

second Saturday of December. If a transition or adjustment is implemented after the winter season, especially for the purpose of considering any changes to timetables for regional passenger services, this must take place at midnight on the second Saturday of June and, if necessary, on other dates that fall between these two dates. Infrastructure managers may agree on other dates and must, in such cases, notify EFTA's Surveillance Authority if this could affect international services.

The TT27 period will be in effect from Sunday, 13 December 2026 to Saturday, 11 December 2027, and capacity will be allocated for the period. The timetable includes train paths (and services) and plans for work in tracks.

A detailed description with milestones (activities and deadlines) is provided in Chapter 4.5.1.9 Schedule for the annual capacity allocation process and will be submitted to applicants and infrastructure managers before the planning process commences.

To ensure that the timetable can be operated as constructed, Bane NOR may find it necessary to adjust the requested train paths. Any such adjustments will be based on operational planning assumptions and/or the capacity-allocation principles described in the Network Statement. These adjustments will be made in dialogue with the applicants concerned.

Applicants will be invited to a start-up meeting for the annual capacity allocation process. The start-up meeting will take place during December 2025 and marks the start of the annual capacity allocation process for TT27. At the meeting, Bane NOR will, among other things, present the final timetable requirements for the annual capacity allocation process.

4.5.1.1 Timetable planning assumptions

Timetable requirements are key factors that applicants must consider when applying for infrastructure capacity. These assumptions comprise four main elements, related to: technical timetable, infrastructure, and technical production planning requirements, as well as pre-planned train paths for the ScanMed RFC freight corridor.

4.5.1.2 Technical timetable planning assumptions

Technical timetable planning requirements form part of the overarching timetable planning requirements and are based on the following:

- **Theoretical running time calculations:**
  Calculations based on the vehicle's specifications, maximum permitted speed, and the largest typical train size for the requested service. A base margin of 4% is added.
- **Requested stopping pattern:**
  This includes station stops and allowances for acceleration and deceleration.
- **Allowances for timetable-related stops:**
  This covers stops for crossings, running on diverging tracks, and other necessary adjustments.
- **Special allowances for infrastructure conditions:**
  This includes reduced speeds over sections or stations applicable for a

significant part of the timetable period and which must be considered during timetable construction.

- **Reduced speeds at stations with single entry signals:**
  Speed is set at 40 km/h.

To optimise capacity utilisation throughout the operational day, Bane NOR will apply the following principles:

Oslo Central Station (Oslo S)–Lysaker:
A maximum of 22 trains per hour per direction in the base timetable, increasing to 24 trains per hour per direction during peak periods. No more than seven trains may run in sequence with a two-minute headway.

Kongsvinger station:
For trains starting or terminating at Kongsvinger and requiring operations such as locomotive changes, reversing to/from Solørbanen, coupling/uncoupling wagons, or other shunting movements, a 600-metre limit applies.

Cross-border traffic:
For cross-border traffic where train services are cancelled by Trafikverket, Bane NOR reserves the right to cancel corresponding running days.

Alternative train path proposal:
If the requested timetable cannot be accommodated, Bane NOR will only consider alternative timetables +/- one hour from the departure station during the construction phase. Requests for timetable slots outside this range must be submitted separately in LPR.

Train parking:
Generally, parking in station tracks is not permitted as part of the capacity-allocation process. Exceptions may be granted if Kapasitetsstyring (Bane NOR's capacity management unit) has assessed that sufficient capacity is available.

Train turning:
Generally, turning trains at two-track stations is not permitted as part of the capacity-allocation process. Exceptions may be granted if Kapasitetsstyring (Bane NOR's capacity management unit) has assessed that sufficient capacity is available.

4.5.1.3 Infrastructure-related planning assumptions

Infrastructure-related planning requirements reflect the existing infrastructure capacity of the railway network, updated with permanent capacity changes and designated temporary capacity restrictions. These restrictions are published as assumptions for the annual capacity allocation process.

The infrastructure-related planning assumptions for TT27 are:

- **Existing infrastructure capacity** – described in detail in Bane NOR's track description (SJN)
- **Permanent capacity changes** – described in detail in Chapter 4.5.1.4
- **Designated temporary capacity restrictions** – described in detail in Chapter 4.3.1.1

4.5.1.4 Permanent capacity changes

Permanent capacity changes are changes that result in a permanent change to the available infrastructure, such as new tracks or the removal of old sidings.

The permanent capacity changes that form the basis for TT27 are described in Tables 10 and 11 below.

Table 10: New infrastructure, capacity enhancement

ARBIS ID	Station/Line section	Change
NB04747	Snåsa	New platforms for tracks 1 and 2.
DOB04932	Ler	New side platform for track 2 (125 m).
VB04049	Drammen–Stokke	New double-track Nykirke–Barkåker, ERTMS Kobbervik–Sem, new Tønsberg station, new Barkåker stabling facility.
KB05169	Galterud	New passing loop for crossing by 740 m long freight trains.
NB04747	Snåsa	New platforms for tracks 1 and 2.

Table 11: Removed infrastructure, capacity reduction

ARBIS ID	Station/Line section	Change
BB04703	Myrdal	Track 3 removed, length of platform track 2 reduced from 120 m to 7 m.
DOB04682	Hamar	Tracks 21–24 in the shunting yard is closed.
DOB02180	Stange	Only one track available.
DOB05074	Trondheim S	The Nyhavn track will be permanently closed at the start of R27, and it will no longer be possible to stable rolling stock there.
NB04013	Stjørdal	The overhead contact line system will be disconnected for the whole of R27 due to the station reconstruction.

4.5.1.5 Technical production planning assumptions

Technical production planning assumptions include characteristics of the rolling stock, such as traction performance, train weight, length, and tilting capability, among others. These assumptions, as well as other factors relevant to the rolling stock's ability to operate the requested train paths, shall be based on observed data. Several of these assumptions are known prior to the capacity-allocation process, while the remaining ones are determined as a result of the capacity allocation.

4.5.1.6 Pre-planned train paths for the ScanMed RFC

Pre-arranged paths (PaPs) must be published no later than eleven months before

the start of the timetable period. These paths are specific to the ScanMed RFC freight corridor and are made available on the corridor's website and in the Path Coordination System (PCS).

The pre-arranged paths (PaPs) are specifically designed for international freight traffic in the annual timetable and are developed by the infrastructure manager in collaboration with the corridor organisation, based on a thorough analysis of the transport market. Applications for and allocation of this capacity are managed directly through the corridor's C-OSS function.

As these PaPs are granted special priority during the capacity allocation process, they may offer significant advantages for international freight traffic.

This is in accordance with the Regulation on the implementation of Regulation (EU) No. 913/2010 concerning a European rail network for competitive freight (FOR-2014-02-17-190).

4.5.1.7 Timetable draft

Bane NOR receives applications for train paths, plans for work in tracks and services, both nationally and internationally, Combined, these applications create the basis of the timetable draft.

The draft timetable is a preliminary result of the capacity allocation process and contains the following elements:

Description of capacity:

- line capacity (graphical timetable)
- track capacity, including allocated capacity for stabling of rolling stick during operational breaks
- terminal capacity

Overview of trains applied for, with remarks such as:

- rejection of infrastructure capacity applied for (with reasons)
- restrictions (tonnage/length)
- layover periods for exchange of personnel / loading and unloading
- descriptions of potential clashes

Capacity for cross-border trains will be coordinated before the draft timetable is published.

4.5.1.8 Guidelines for comments on the draft timetable

The guidelines set out in this chapter are intended as information for applicants on how consultation comments should be formulated to ensure that they are sufficiently specific for consideration. The consultation comments should be sent to ruteplan@banenor.no, and the applicants are asked to provide feedback, either as consultation comments or as feedback of no feedback to the draft timetable.

- **General comments:**
  General comments on an allocation.
- **Comments:**
  When a proposal differs from what was requested, comments may be

provided. These can relate to a specific part of the train path or the entire path. Such comments may include:
    - broken connection
    - different departure and arrival stations
    - departure/arrival times that do not match the request
    - running time
- **Input not regarded as comments:**
  Submissions falling outside the category of "comments" will be treated as remaining capacity and included in the established timetable wherever possible. This includes:
    - changes to the original application
    - new trains not included in the original application
    - changes to departure or arrives stations
    - increased weight, length, or changes to rolling stock affecting the constructed train path
    - addition of running days (except for quality control of running days)
    - requests to change the requested timing

Applicants wishing to withdraw infrastructure capacity applied for before the timetable is established can do this by sending an e-mail to ruteplan@banenor.no.

Note:
If the consultation comments result in a conflict of interest, Bane NOR will initiate a coordination process.

4.5.1.9 Schedule for the annual capacity allocation process

This schedule must be viewed in the context of the schedule for the consideration of TCRs in Chapter 4.3.2.2.

Table 12: Schedule for the annual capacity allocation process

Model reference	From	To	Process/Activity
2025			
	15. 09.		First date for requesting possibility studies for TT27
		11.12.	Commencement meeting TT27 with applicants for information and dialogue regarding the timetable planning assumptions for the upcoming timetable period.
	14.12.		Timetable TT26 is implemented.
2026			
1	12.01.		Initial day of application period for infrastructure capacity in TT27.
		12.01.	Pre-planned train paths (PaPs) for international

Model reference	From	To	Process/Activity
			freight services TT27 are published.
	02.02.	06.02.	Early dialogue – one-on-one meetings with applicants
1	09.02.		First day for train path applications – BEST-L opens.
		16.02.	Final day for requesting possibility studies for TT27.
		16.03.	Deadline for replies on TT27 possibility study requests.
1		13.04.	Final day of application period for infrastructure capacity in TT27.
2	14.04.		First day for late application for train paths in TT27.
	08.06.*	12.06.*	Dialogue meetings TT27 with applicants prior to the draft timetable.
3		06.07.	Draft timetable is published.
	06.07.	07.08.	Consultation period for draft timetable.
		07.08.	Consultation comments of draft timetable for TT27 must be submitted to Bane NOR by 09.00.
4	10.08.	04.09.	Coordination period.
	17.08.*	21.08.*	Dialogue meetings TT27 with applicants for review of consultation comments to the draft timetable.
		24.08.	Final day for determination of international traffic, including pre-planned train paths (PaPs) and terminal times for international freight services national train paths as feeder traffic to/from PaPs Bane NOR locks the timetable for changes to international traffic at

Model reference	From	To	Process/Activity
			09.00.
		04.09.	Final date to submit requests for dispute resolution.
6	07.09.	18.09.	Dispute resolution period.
		25.09.	Final date for withdrawal of requested infrastructure without a reservation fee.
7		25.09.	Timetable TT27 determined at. 09.00.
8		25.09.	Final date for late train path applications for TT27. Bane NOR must have received the application by 09.00.
	29.09.		Initial date for responses to late train path applications.
9		12.10.	Timetable TT27 is published.
	13.10.		Initial date for requesting ad hoc train paths for TT27.
		13.11.	Final date for applicants that are not railway undertakings, to inform Bane NOR about what railway undertaking will operate their allocated paths.
10		13.12.	Timetable TT27 is implemented.

** Dates have been agreed upon with the Swedish Transport Administration but may be subject to change. The dialogue meeting in June is optional but may be initiated by Bane NOR if needed.*

Model for capacity applications

The illustration below provides a detailed description of the infrastructure

capacity application process.

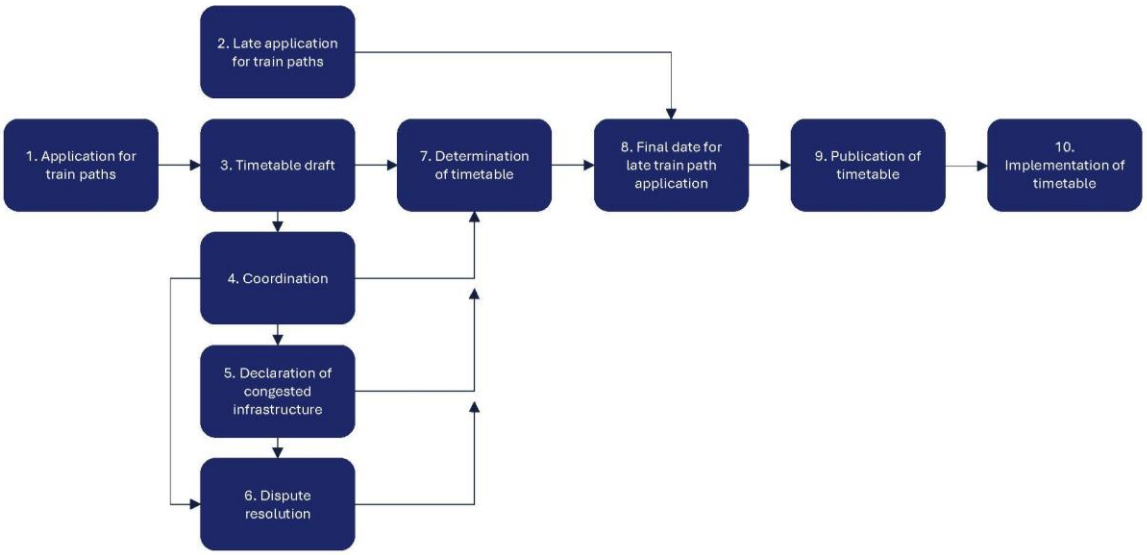


Figure 2 Model for infrastructure capacity application

1. **Application for train paths:**
   This is the initial step where operators or other stakeholders formally apply to use railway tracks at specific times. The application must include the required documentation and comply with established deadlines.
2. **Late application for train paths:**
   If an application is submitted late, it must be handled differently. This stage addresses late applications and how they are managed in accordance with applicable regulations.
3. **Timetable draft:**
   Before the final timetable is established, a draft is prepared. This includes departure and arrival times, as well as any stops along the line section. The draft is carefully reviewed to ensure it aligns with capacity requirements and infrastructure availability.
4. **Coordination:**
   This step involves aligning the train paths of various operators to avoid conflicts and optimise capacity utilisation.
5. **Declaration of congested infrastructure:**
   If Bane NOR's proposed coordination does not achieve agreement among the parties and if capacity shortages are anticipated soon, the affected section(s) will be declared congested. In such cases, Bane NOR will conduct a capacity analysis and develop a capacity enhancement plan to identify measures that can eliminate the congestion in the short and medium term.
6. **Dispute resolution:**
   If an applicant requests dispute resolution, Bane NOR must initiate the process and decide within 10 working days.

7. **Determination of timetable:**
   The determination of the timetable is described in Chapter 4.5.6. Once all considerations have been addressed, the final timetable is locked for comments and changes, including withdrawal of capacity, related to applications sent within the ordinary deadline. This serves as the official schedule that operators follow.
8. **Final date for late train path applications:**
   Before approving a late application for train paths, it is thoroughly reviewed to ensure it does not disrupt existing plans. This step is crucial to maintaining efficient and reliable train operations.
9. **Publication of timetable:**
   The publishing of the timetable is described in Chapter 4.5.7. If changes occur after the timetable has been finalised, it will be updated before publication to all relevant parties. This ensures access to the most up-to-date information.
10. **Implementation of timetable:**
    The new timetable comes into effect Sunday morning after the second Saturday in December.

4.5.2 Late annual timetable path requests

In accordance with the Railway Regulations, Annex IV, points 3 and 6, applicants may submit requests for train paths after the regular deadline and until 09:00 on the day the timetable is determined. These requests are referred to as Late Path Requests (LPR).

As Trafikverket and Bane NOR have different schedules for processing late applications, and to allow Bane NOR sufficient time to provide details of the allocated train paths as described in Chapter 4.3.2.3, Bane NOR requests that applicants avoid submitting late applications for cross-border trains.

Details about the application period for late applications and the expected response deadlines are outlined in the schedule in Chapter 4.5.1.9.

The requirements for the content of late applications are the same as for applications submitted within the regular deadline; see Chapter 4.2.5 for details. Late applications for train paths must be submitted in BEST-L.

The processing of late applications occurs in the order they are received and begins no earlier than the day after the timetable is finalised. Bane NOR prepares timetable proposals for late applications. If the applicant does not provide written acceptance of the proposal, the application will be cancelled.

During the processing of late applications, it may be necessary to adjust already allocated train paths to accommodate a new timetable proposal. Any changes to previously allocated train paths must be approved by the affected applicants.

The processing of late applications concludes in time for the capacity allocated through late applications to be included in the determined timetable before its publication. Thus, capacity allocated through late applications is incorporated when the timetable is opened for ad hoc applications. The formal allocation of train paths is binding and handled in the same manner as train paths allocated through applications submitted within the regular deadline, as per the schedule

described in Chapter 4.5.1.9.

4.5.3. Ad-hoc path requests

Information about residual capacity

In accordance with Section 8-7 of the Railway Regulations, Bane NOR will provide information about the available residual capacity in the applicable timetable and make such information available to applicants. This will be done by publishing daily graphs on the Bane NOR website.

How to apply for residual capacity

In terms of applications for train paths or work in tracks for the timetable period in question, these must be applied for via BEST-K.

Requirements for applications for residual capacity is the same as the requirements for applications for capacity in the annual capacity allocation process.

The timetable planning assumptions are described in Chapters 4.5.1.1–4.5.1.6. For more information about the assumptions applicable for the current timetable, applicants may contact Bane NOR.

Table 13: How to apply for residual capacity

How to apply	Deadline	Who processes the application?
When the need for residual capacity for timetable access is known, the train operating company and the infrastructure manager must apply for this capacity in BEST-K	Before noon on the day before the change is to be implemented.	Operational timetable planner
If a need for residual capacity for timetable access arises within the same operating day, the train operating company and the infrastructure manager must apply for this capacity directly to the train controller at nok@banenor.no. **Note:** Applications for residual capacity within the operating day must only concern operationally critical needs.	After noon on the day before the change is to be implemented.	Train controller

Bane NOR's processing of applications for residual capacity

The operational timetable planner processes applications for temporary capacity restrictions and permanent changes to the established timetable, as well as the detailing and implementation of such changes and the allocation of residual capacity. Capacity is allocated in the order in which applications are received.

To be able to respond quickly to applications for residual capacity, Bane NOR will assess the need for residual capacity within the framework of the established timetable. This also includes applications for residual capacity on congested infrastructure.

When a train operating company applies for infrastructure capacity (residual capacity), Bane NOR will allocate the residual capacity in the order in which applications are received and provide a response within five working days. If the train operating company applies for residual capacity less than five days before the planned train path, please note that Bane NOR may not be able to complete the processing of the application in time for the day of operation. This may mean that the train path cannot be allocated.

Bane NOR's processing of applications for access to service facilities

Bane NOR provides access to service facilities in accordance with the Service Facility Regulations.

When a railway undertaking applies for access to service facilities together with the application for infrastructure capacity, Bane NOR will respond as soon as possible and no later than five working days. If the railway undertaking applies for access less than five days before the requested use of the service facility, Bane NOR cannot guarantee that the application will be processed in time. This may result in the application not being approved.

Communication in operational capacity allocation

Communication in operational capacity allocation normally takes place between the transport management of the railway undertakings and Bane NOR's operational timetabling unit (Operativ Kapasitetsstyring). During the operational day, Bane NOR's contact point will be the traffic control centres.

Contact Bane NOR

E-mail
operativ.ruteplan@banenor.no

Applications for residual capacity within the operational day

Applications for residual capacity within the current operational day should only pertain to critical operational needs. Examples include:

- emergent requirements for operating empty trains or light engines
- running trains for urgent fault rectification.

Contact National operations coordinator

E-mail
nok@banenor.no

4.5.3.1 Non-compliance with operational planning assumptions

During the execution of the timetable, Bane NOR reserves the right to withdraw train paths for trains that do not comply with the planning assumptions. See also AST section 10.2.1.

4.5.3.2 Bane NOR's reply

Upon processing infrastructure capacity applications, Bane NOR follows the following guidelines:

- **Full accommodation:**

If the application/notification may be fully accommodated, it is sufficient to notify the applicant of this.

- **Partial accommodation:**
  If the application/notification cannot be fully accommodated, Bane NOR must provide information about alternative time and train path.
- **No accommodation:**
  If the application/notification cannot be accommodated at all, Bane NOR must provide information about alternative time and train path.

Bane NOR will respond to the applicant via BEST-K. When an application is accommodated, Bane NOR will announce the allocated infrastructure capacity via FIDO, in accordance with the Traffic Rules for the Rail Network.

4.5.3.3 Notification of large and/or complex applications

Special deadlines are agreed in the case of large and/or complicated applications. Railway undertakings are advised to provide notification to Bane NOR of the application well in advance, even if not all the details are in place. Receipt of notification gives the same priority regarding allocation of train path requests outside the timetabling process as an ad hoc application.

Application deadlines for exceptional transport are described in Chapter 4.7.1.1 Deadlines for applications for exceptional transport.

A notification of an ad hoc application for infrastructure capacity should include the following information:

- approximate date(s) on which the train(s) is/are to run
- train category
- the section(s) on which the train(s) is/are to run
- the need for stabling/parking vehicles

Contact Bane NOR

E-mail
operativ.ruteplan@banenor.no

4.5.4 Coordination process

The purpose of coordination is to create a timetable that has no conflicts of interests so that all applications can be approved. If it is not possible to accommodate all applications, Bane NOR must coordinate the applications, in accordance with Section 9-1 of the Railway Regulations.

Description of the coordination process

1. **Initial contact:**
   Bane NOR will first contact applicants with shared interests to clarify and document the content of their applications and their actual needs for train paths.
2. **Meetings:**
   Applicants are then invited individually or to joint meetings, provided the

parties agree. Applicants are given the opportunity to propose alternative solutions for consideration.

3. **Proposed solution:**
   Once all necessary information has been gathered, Bane NOR prepares a proposed solution based on the following principles:
   1. coordination of international/cross-border traffic
   2. applicants' actual need for train paths, based on existing or prospective transport service agreements
   3. optimal utilization of capacity on the railway network
   4. considerations of robustness
4. **Submission of proposal:**
   The proposal is sent to the involved applicants. If Bane NOR's coordination proposal is not accepted by the parties, and if capacity shortages are expected soon, Bane NOR must declare the section as congested and allocate infrastructure capacity according to the prioritization criteria outlined in Chapter 4.6.3.

Conflicts of interest can only arise between applicants, and not between Bane NOR and applicant(s).

Bane NOR shall consult applicants regarding planned TCRs, as described in Chapter 4.3, according to Annex IV of the Railway Regulations. Any objections from applicants must be raised during these consultations.

4.5.5 Dispute resolution process

When the coordination process has concluded, applicants that, following coordination, still disagree with the draft timetable may submit a request for dispute resolution. Such a request must be submitted in writing. In accordance with Section 9-2 of the Railway Regulations, Bane NOR is required to reach a final decision within ten days of receiving the request.

If the dispute is not resolved, Bane NOR will declare the affected section(s) congested and allocate infrastructure capacity in accordance with the guidelines detailed in Chapter 4.6.

The dispute resolution process will not delay the capacity allocation process.

4.5.5.1 Deadline for submitting requests

The exact deadline for submitting requests for dispute resolution can be found in the schedule in Chapter 4.5.1.9, which is announced at the beginning of the annual capacity allocation process.

4.5.5.2 Request content and address – counterpart

The request for dispute resolution must include the following elements:

- **Identification:**
  A reference to which trains and/or which operating schedule the request concerns (sufficient to identify the request with a time and line)
- **Justification:**
  A thorough justification for the request

- **Suggestion of solution:**
  A description of the solution the applicant believes the dispute resolution process should result in
    - for the applicant specifically
    - for the other applicant(s) whose allocated infrastructure capacity will be modified if the applicant's request is accommodated

The request is submitted to ruteplan@banenor.no. Bane NOR will subsequently forward copies of the request to any affected applicants.

4.5.5.3 Affected applicants' potential duty to act – deadline

When a submitted request for dispute resolution could affect another applicant's allocated infrastructure capacity, the affected applicant(s) must submit their response within two working days of receiving a copy of the request. The response must reference and identify the original request for dispute resolution.

The response is submitted to ruteplan@banenor.no.

4.5.5.4 Bane NOR's consideration of the request

Bane NOR will invite the affected applicants to separate meetings to review the request and any responses. If all affected applicants wish, a joint meeting may be convened.

Bane NOR will decide based on an assessment of the request, any responses, and information from the meetings with the applicants. The decision will consider the requirements and guidelines set out in legislation, regulations, and the Network Statement.

Bane NOR's decision shall be in writing and shall include a justification. It shall be communicated to the complainant and to the other applicants involved in the process within ten working days after the request has been received in accordance with Chapter 4.5.5.

The rules on individual administrative decisions in the Public Administration Act apply to Bane NOR's case processing in connection with decisions on the allocation of infrastructure capacity, unless otherwise provided by the Railway Regulations.

4.5.5.5 Appealing Bane NOR's decision – the effects of such an appeal

Applicants may, in accordance with Section 11-3 of the Railway Regulations, appeal Bane NOR's decisions on the allocation of infrastructure capacity to the Norwegian railway authority (SJT). Applicants may also appeal deficiencies in the allocation process and how Bane NOR has involved them in the process to SJT.

Note that an appeal to SJT has no suspensive effect, and that Bane NOR's decision is applicable until SJT decides on any changes.

For more information, see Chapter 1.3.3 Appeals procedure.

Contact SJT

E-mail
post@sjt.no

Website: Klage på konkurransevilkår

4.5.6 Determined timetable

The timetable is finalised at X-3. A determined timetable means that the timetable is locked for comments and changes, including the withdrawal of capacity, relating to applications submitted within the ordinary application deadline (at X-8).

In the period between finalisation and publication (X-3 to X-2), the timetable is updated with late applications for train paths and undergoes quality control.

4.5.7 Published timetable

Allocated capacity is shown in the published timetable submitted to applicants and presented on Bane NOR's website. Capacity is shown in the following forms:

- **Section capacity:**
  Shows allocated train paths and available residual capacity, presented as a graphical timetable.
- **Track capacity:**
  Includes location and allocated capacity for stabled rolling stock during operational breaks.
- **Terminal capacity:**
  Shows allocated capacity in terminals.
- **Capacity reserved for work in tracks:**
  Capacity reserved for planned work in tracks is described in ARBIS.

4.6 Congested infrastructure

4.6.1 Definition of congested infrastructure

See Chapters 1-7, letter (q), and 9-3 of the Railway Regulations for the definition.

4.6.2 Congested lines (in Norway)

The following sections are considered congested:

Oslo Central Station (Oslo S)
between 06:30 and 09:00 and between 15:00 and 17:30 on working days (Monday–Friday).

Oslo Central Station (Oslo S)–Lysaker
around the clock on working days (Monday–Friday).

Alnabru–Eidsvoll (Hovedbanen)–Trondheim–Bodø
around the clock every day.

Drammen–Stavanger
around the clock every day.

Hønefoss–Bergen
around the clock every day.

Lillestrøm–Kongsvinger

around the clock on working days (Monday–Friday).

Sandbukta–Moss (including Moss station)
between 06:30 and 08:30 and between 15:30 and 17:30 on working days (Monday–Friday).

Råde–Lisleby
between 06:00 and 18:00 on working days (Monday–Friday)

4.6.3 Prioritisation criteria (in the event of congested infrastructure)

Pursuant to the Railway Regulations, Section 9-5, the following prioritisation criteria must be applied in the event of congested infrastructure:

1. services included in contracts with the state concerning public service provision
2. national and international freight transport
3. specific type of service on lines as specified in Section 8-8, second paragraph
4. passenger transport in general

Assessment of socio-economic value in accordance with § 9-5 (2) of the Railway Regulations

In cases where applications for train paths exceed available capacity, Bane NOR shall allocate capacity using a different order than the prioritisation criteria described above. In such cases, Bane NOR will prioritise the transport service that has significantly greater societal importance than other services, which will therefore be excluded.

To manage such situations, Bane NOR uses a socio-economic model to assess infrastructure capacity, as described in Annex 4.6.3. This method provides an evaluation of socio-economic benefit, and the results of this analysis will carry significant weight in the decision-making process for prioritisation. Train operating companies must submit documentation as described in Annex 4.6.3. Bane NOR may also require the train operating company to provide evidence demonstrating that the information reported for the analysis is accurate. If such documentation is not submitted, Bane NOR will prioritise train operators that have provided the required documentation.

Bane NOR applies Sections 9-5 (1) and (2) as follows:

1. For all conflicts of interest between train services, a socio-economic assessment is carried out in accordance with Annex 4.6.3, *Method for the Socio-Economic Evaluation of Train Path Allocation*.
2. The train path is allocated to the service that the socio-economic assessment shows has at least 20% greater societal benefit than the other service.
3. If the difference in societal benefit is below this threshold, the train path is allocated according to the prioritisation criteria.

Determining the threshold

The 20% threshold was established following a consultation process in the autumn of 2024. Bane NOR received various inputs during the consultation; some stakeholders had no objections, some believed the threshold should be lower, while others suggested it should be higher. After a comprehensive assessment of these inputs, Bane NOR concluded that 20% is an appropriate level for what can be considered significant in this context. Bane NOR will evaluate the threshold after the TT26 capacity allocation process.

4.6.4 Process in the event of congested infrastructure

According to Section 9-3 of the Railway Regulations, the following process is followed when a railway infrastructure is declared congested:

Declaration of congestion

If, following coordination of train path applications and consultation with applicants, it is not possible to sufficiently accommodate all applications for infrastructure capacity, Bane NOR shall immediately declare the affected railway infrastructure congested. The same applies to railway infrastructure for which capacity shortages can be expected soon.

- **Criterion not triggering congestion:**
  Applications must represent actual capacity needs. This means that applicants must be able to document different transport requirements. If two applications are based on identical transport needs, the conflict will not result in congestion.
- **Criterion for duration of congestion:**
  Congestion will persist from the time it is declared until the necessary measures in the capacity improvement plan have been implemented, and the cause of the congestion has been resolved.

For infrastructure without an existing capacity enhancement plan

If the congested railway infrastructure is not subject to a capacity improvement plan, Bane NOR must carry out a capacity analysis (see Chapter 4.6.5), which must be completed within six months of the railway infrastructure being declared congested.

Bane NOR must subsequently draw up a capacity improvement plan within six months of completing the capacity analysis. The capacity improvement plan must address the identified capacity needs.

For infrastructure with an existing capacity enhancement plan

If the congested railway infrastructure is already subject to a capacity improvement plan (see Chapter 4.6.6), Bane NOR must update this plan within six months of the railway infrastructure having been declared congested. The update must reflect the current situation and any other prioritisations.

4.6.5 Capacity analysis

When a railway infrastructure is declared congested, and no capacity improvement plan is in progress, Bane NOR must conduct a capacity analysis in

accordance with § 9-6 of the Railway Regulations. The purpose of the capacity analysis is to identify the causes of congestion and propose measures to alleviate it in the short and medium term. This analysis must be completed within six months of the declaration of congestion.

4.6.6 Capacity enhancement plan

In accordance with § 9-7 of the Railway Regulations, Bane NOR must develop a capacity improvement plan based on the findings of the capacity analysis. This plan must be completed within six months of the conclusion of the capacity analysis and aims to establish an action plan to reduce congestion.

As part of the development of the capacity improvement plan, Bane NOR will invite infrastructure users to provide input. This gives affected parties the opportunity to share their perspectives and needs and may include the option for individual meetings with Bane NOR. Information on how to participate in this process will be distributed once work on the capacity improvement plan begins.

4.7 Exceptional transport and dangerous goods

4.7.1 Exceptional transport

When an applicant wishes to operate transports carrying cargo that requires special handling, whether in a regular train or as an additional train, this must be explicitly stated. Applications for exceptional transport should only be submitted for trains that meet the criteria for exceptional transport. Exceptional transport is defined in the glossary.

4.7.1.1 Deadlines for applications for exceptional transport

Exceptional transport can have significant effect on infrastructure capacity, which is why it is important to apply for exceptional transport as early as possible. To ensure an effective allocation process, exceptional transport applications should, if possible, be submitted within the deadline for the annual capacity process as stated in Chapter 4.5.1.9.

If the exceptional transport application is not submitted within the deadline for the annual capacity process, it must be submitted to Bane NOR's unit for exceptional transport (Spesialtransport).

Note that processing time for exceptional transport outside of the annual capacity allocation process may take longer than five office days. Once approval of the exceptional transport application is received, the applicant must apply for infrastructure capacity via BEST-K. The approval must be enclosed with the application.

Contact Bane NOR about exceptional transport

E-mail
spesialtransporter@banenor.no

4.7.1.2 Auxiliary tools used to verify whether exceptional transport is feasible

If an applicant wishes for Bane NOR to use an auxiliary tool to verify whether exceptional transport is feasible, Bane NOR can simulate the transport using a computer tool. Such use of auxiliary tools constitutes an additional service and is described in Chapter 5.4.3.1.

4.7.2 Dangerous goods

4.7.2.1 Dangerous goods in connection with the capacity allocation process

In the capacity allocation process, Bane NOR assumes that all freight trains carry dangerous goods. Railway undertakings that will carry dangerous goods must therefore also comply with the schedule in Chapter 4.5.1.9.

4.7.2.2 Dangerous goods when operating trains

Railway undertakings that carry dangerous goods must adhere to the regulations relating to the land transport of dangerous goods. At a minimum, railway undertakings are required to specify where on the train the dangerous goods are located in the carriage sequence, the carriage number, UN number, and hazard note, in accordance with TJN, Chapter 4.

4.8 Rules after path allocation

4.8.1 Rules for modification of infrastructure capacity by the applicant

When an applicant needs to change or adjust allocated infrastructure capacity, this is referred to as timetable modification.

If allocated infrastructure capacity will be used wholly or partially, the applicant must immediately inform Bane NOR by modifying or cancelling the relevant train path.

The applicant may also submit changes to allocated infrastructure capacity, for example, changing operating days, switching operators, or similar.

In addition, a request for changes to allocated infrastructure capacity must be submitted when

- new or increased traffic is desired that is not included in the timetable
- train weight or length is to be increased beyond the planning assumptions for the allocated train path
- other factors that may negatively affect the allocated infrastructure capacity and the given planning assumptions

Changes or cancellations to allocated infrastructure capacity must be applied for via BEST-K.

Deadlines for this process are specified in Chapters 4.2.9 and 4.5.3. A reservation fee applies for cancelled infrastructure capacity, as described in Chapter 5.6.4.

4.8.2 Rules for modification of infrastructure capacity by Bane NOR

When Bane NOR needs to modify, replace, or withdraw allocated infrastructure capacity, this is referred to as a timetable change. This applies when there is a need to manage TCRs, or in the event of unforeseen incidents that may affect operations.

There are no specific deadlines for such changes. Additionally, as outlined in Chapter 5.6.2, no fees are associated with capacity changes initiated by Bane NOR.

4.8.3 Non-usage rules by the applicant

In accordance with Railway Regulations §§ 9-4 and 10-2, Bane NOR is responsible for addressing cases where allocated infrastructure capacity is not used as agreed upon.

If allocated capacity is unused, charges will apply as outlined in Chapter 5.6.3. The threshold for defining unused infrastructure capacity is an 80% utilisation rate for each allocated path within a calendar month, unless there are non-economic reasons beyond the applicant's control.

When the utilisation of allocated infrastructure capacity falls below the threshold for unused capacity, Bane NOR may consider this in future capacity allocations. This could result in a lower priority or a refusal of allocation. The applicant will be given the opportunity to provide comments.

- **For congested infrastructure:**
  If an allocated path is used less than the threshold, Bane NOR will withdraw the allocated path with five working days' notice. The applicant will have the right to provide comments before a final decision is made.
- **For non-congested infrastructure:**
  If the allocated capacity is used below the threshold, Bane NOR will conduct an assessment based on factors such as the utilisation rate, demand for residual capacity on the line section, and the applicant's historical usage. Bane NOR may withdraw the allocated path with five working days' notice, and the applicant will have the right to comment before a final decision is made.

These processes ensure predictable and fair management of capacity while allowing adjustments in line with changing needs and capacity situations.

4.8.3.1 Returning of train paths from railway undertakings to Bane NOR

When a train path is returned to Bane NOR and redistributed during a timetable period – because a railway undertaking has been shut down, for example – Bane NOR will announce the availability of such a train path and set a deadline for applying for the available infrastructure capacity.

Applications for infrastructure capacity released in this way are submitted as ad hoc applications. Bane NOR will implement an allocation process, to ensure that all interested parties will have equal opportunities to apply for it. The following principles and criteria are applicable to such allocations:

- **The applicant's actual train path requirements (weighted 30%)**

– assessed either based on agreements concluded for transport services or based on the applicant's prospects of concluding such agreements.

- **The short and long-term consequences of the allocation (weighted 30%)** – predictability for transport service users and a robust and stable train service is weighted.
- **The best possible utilisation of the infrastructure (weighted 20%)** – includes the extent to which train paths allocated previously have been used.
- **Environmental considerations (weighted 20%)** –includes energy-efficient rolling stock amongst other factors.

In the event of an application conflict, Bane NOR will

- undertake an objective review and assessment of information and documentation received in connection with the relevant applications; this will include obtaining documentation or otherwise seeking to verify undocumented information submitted by the applicants, particularly if the information is of key significance to the allocation decision
- prepare documentation during case processing, explaining the assessments that form the basis for the allocation
- provide the applicants with written reasons for Bane NOR's allocation decision and information on how allocation has taken place in accordance with the specified principles and criteria for allocation, including the assessments that form a basis for the allocation.

4.8.4 Rules for cancellation of infrastructure capacity

Cancellation of infrastructure capacity occurs when an applicant needs to cancel an allocated train path. This is referred to as a path cancellation. This applies to paths allocated during both the annual and operational (ad hoc) phases of the capacity allocation process. Path cancellations during the annual phase must be made by 09:00 on the day the timetable is determined. In the operational phase, there is no deadline for cancelling a path.

In accordance with Railway Regulations § 6-7, Bane NOR may impose a fee when allocated infrastructure capacity is cancelled or not used. In such cases, reservation charges are applied as described in Chapter 5.6.4.

4.9 TTR for smart capacity management

4.9.1 Objectives of TTR

Bane NOR participates in the Timetabling Redesign (TTR) project, initiated by RailNetEurope (RNE) and Forum Train Europe (FTE), with support from the European Rail Freight Association (ERFA). As a result of the project, a proposal has been put forward for a new regulation on capacity allocation. The new regulation aims to harmonise capacity allocation processes across Europe to improve the utilisation of railway infrastructure and meet the market's need for predictability and available capacity for both passenger and freight transport.

Bane NOR's capacity programme ensures that the capacity allocation process in

Norway will be harmonised with other European countries from the time the new EU regulation comes into effect in Norway.

The TTR project is designed to ensure a more efficient and coordinated capacity allocation, involving detailed planning that covers both national and international needs. For more information about the TTR project, see the RNE website and the FTE website.

4.9.2 Process components

Customer-focused capacity allocation (TTR) is based on the following elements:

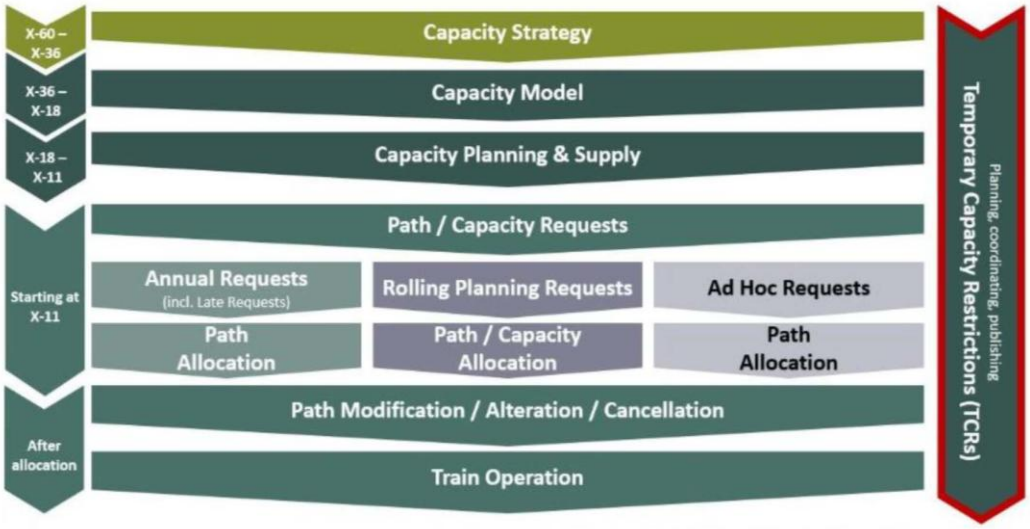


Figure 3 Key elements in the customer-related capacity allocation process (TTR)

- **Capacity strategy (X-60 to X-36 months):**
  This step involves creating an initial overview of future capacity, temporary capacity restrictions (TCRs), expected capacity needs, and planning principles for TCRs and traffic flow. The strategy will incorporate feedback from infrastructure managers, applicants, and the largest operators of service facilities, resulting in a published strategy document as input for the capacity model.
- **International reconciliation of temporary capacity restrictions:**
  This involves the coordination of maintenance, upgrades, and other capacity restrictions between infrastructure managers, as well as consultation with stakeholders who have an interest in coordinated and predictable TCRs as input for their own operations. The process is designed to ensure that such measures are handled in a consistent manner across borders.
- **Capacity model (X-36 to X-18 months):**
  This model provides a more detailed forecast for various capacity needs, such as capacity for track work, freight transport, passenger transport, residual capacity, and more. Applicants can report their capacity needs to ensure the model is as realistic and relevant as possible.

4.9.3 Implementation

TTR will be implemented in accordance with the applicable regulations, and the sub-processes will be introduced gradually once permitted by national regulations. Bane NOR has implemented the sub-process capacity strategy.

Read more about customer-focus capacity allocation	**Contact Bane NOR**
banenor.no	E-mail ruteplan@banenor.no

4.9.3.1 Capacity strategy

By the beginning of TT27, Bane NOR will publish the capacity strategy for TT30. This capacity strategy will include the entire Norwegian rail network.

Timeline for drawing up the R30 capacity strategy:

X-60 to X-39 (December 2024–September 2026)

Bane NOR collects the necessary input data and prepares a draft capacity strategy for R28.This draft is harmonised with the Swedish transport administration's (Trafikverket) capacity strategy.

X-39 (September 2026)

A draft of the strategy is published on Bane NOR's website and on RNE's website.

X-39 to X-37 (September 2026–November 2026)

Bane NOR involves the applicants, the largest operators of service facilities, and any affected unit in Bane NOR. The input is used for further development of the strategy.

X-36 (December 2026)

Capacity strategy TT30 is published on Bane NOR's website and on RNE's website.

Bane NOR involve interested parties and give information about where and how to submit input.

Contact Bane NOR
E-mail ruteplan@banenor.no

4.9.3.2 Capacity model and capacity partitioning

As of yet, Bane NOR has not implemented this process.

4.9.3.2.1 Capacity needs announcement

As of yet, Bane NOR has not implemented this process.

4.9.3.3 Capacity supply

As of yet, Bane NOR has not implemented this process.

4.9.3.4 Feasibility studies

Bane NOR offers feasibility studies as described in Chapter 4.2.8.

4.10 Capacity allocation principles for the rail freight corridors

The principles for capacity allocation in rail freight corridors affiliated with the OneStopShop (C-OSS) can be downloaded from the RNE website.

5 Services and Charges

5.1 Introduction

This part provides an overview of the services Bane NOR offers its customers, as well as the prices for these services, in accordance with Chapters 4 and 6 of the Railway Regulations. The services are divided into the following categories:

- the minimum access package
- access to service facilities and services within them
- additional services
- ancillary services

The information is structured in line with the Railway Regulations, except for services in service facilities, which are covered in Part 7 of the Network Statement.

The use of services by railway undertakings is governed by Bane NOR's applicable standard terms and conditions at any given time. These standard terms and conditions are outlined in AST, Annex 1: Standard terms and conditions.

5.2 Charging principles

5.2.1 Introduction

Bane NOR prices its services based on Chapter 6 of the Railway Regulations and Regulation 7 August 2021 No. 2361 on the implementation of Regulation (EU) 2015/909. This regulatory framework ensures that prices are transparent and follow a methodological approach based on costs directly incurred by the provision of each service.

5.2.2 Minimum access package

Bane NOR has determined the charge for the minimum access package based on:

a. charges that are based on direct costs – see Section 6-2(1) of the Railway Regulations and the Commission Implementing Regulation for Regulation (EU) 2015/909
b. mark-up on infrastructure fees – see Section 6-3 of the Railway Regulations
c. discounts – see Section 6-4 of the Railway Regulations

Bane NOR establishes all the above charging elements pursuant to Section 6-1(1) of the Railway Regulations.

Access to and from Bane NOR's main track and to and from service facilities is subject to marginal cost charging in the same way as the minimum access package. This applies regardless of who operates the service facility.

In addition, Bane NOR also has the following schemes linked to the minimum access package:

a. performance scheme in accordance with Section 6-6 of the Railway Regulations
b. path cancellation charges in accordance with Section 6-7 of the Railway Regulations

Note:
On 13 December 2024, the Norwegian Railway Authority (Statens Jernbanetilsyn) imposed corrective measures on Bane NOR regarding the determination of surcharges. Bane NOR was required to conduct a renewed analysis of market segments and the calculation of surcharges, and to suspend the collection of surcharges until this has been completed in consultation with the affected parties.

Bane NOR is in the process of fulfilling this requirement, but the work is not yet complete. The results of this work may lead to changes in market segments and the calculation of surcharges as described in Chapters 5.2.5 and 5.3.2.3 below, which Bane NOR will notify of if applicable.

5.2.3 Access to services in service facilities and supply of services

Access to services in service facilities and the services provided within them are priced based on § 6-9 (3) of the Railway Regulations. See Part 7 Service Facilities for more information.

5.2.4 Additional and ancillary services

Additional services and ancillary services are priced based on § 6-9 (4) of the Railway Regulations, cf. Chapters 5.4 and 5.5. For more information about additional and ancillary services offered by Bane NOR, see Chapter 5.4 additional services and Chapter 5.5 Ancillary services.

5.2.5 List of market segments

In accordance with the Railway Regulations § 6-3 (4), a list of market segments shall be included in the Network Statement and reviewed at least every five years.

Below is the list of market segments and an explanation of how Bane NOR has carried out the market segmentation. As stated in Chapter 5.2.2 above, changes to this segmentation may occur because of the Norwegian Railway Authority's decision of 13 December 2024.

The division into market segments is shown in the figure and in the lists below.

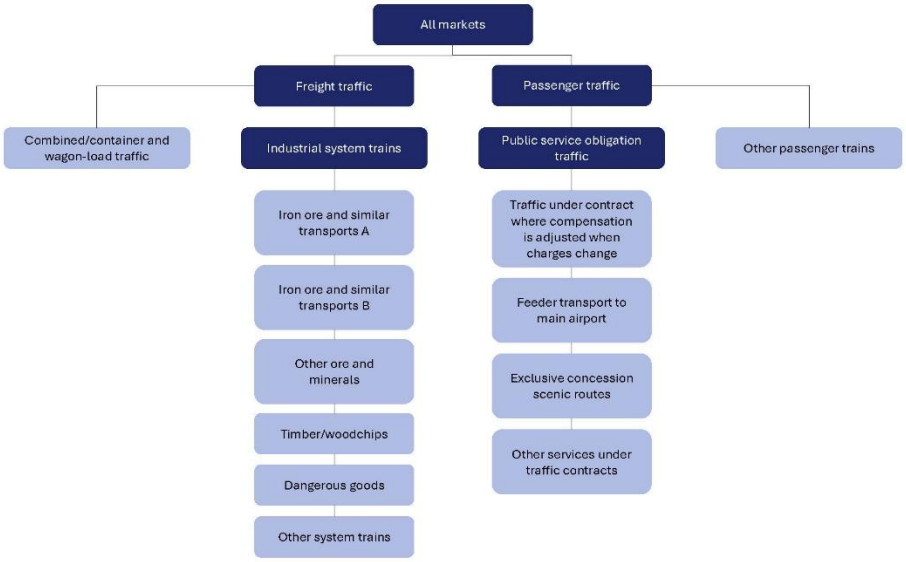


Figure 1 Market segments

The main division in the market segments is first made between freight traffic and passenger traffic.

Market segments within freight traffic:

- combined/container and wagonload traffic
- iron ore and similar transports A
- iron ore and similar transports B
- other ore and minerals
- timber/woodchips
- dangerous goods
- other system trains

Market segments within passenger traffic:

- traffic under contract where compensation is adjusted when charges change
- feeder transport to main airport
- exclusive concession scenic routes
- other system trains
- other passenger trains

Market segmentation principles

The division of market segments must comply with the requirements set out in EU Directive 2012/34 and the Railway Regulations. § 6–3 (3) of the regulations is relevant, stating:

> Before determining mark-ups on infrastructure charges, the infrastructure manager shall analyse the relevant market segments. This

analysis must, at a minimum, cover freight transport, passenger transport under a public service contract, and other passenger transport, but the market segments may be further divided based on the type of goods or passengers being transported.

The preamble to EU Directive 2012/34 also allows for consideration of significant differences in cost structures, market prices, and quality. To meet the regulatory requirements for non-discrimination and to safeguard the competitiveness of railway segments, Bane NOR considers it relevant to also assess significant differences in how transport services can handle and adapt to mark-ups. This means that there should be comparable levels of price elasticity within a segment. Factors such as the types of goods and passengers, cost structures, market prices, and quality are closely related to price elasticity. Consequently, a market segmentation based on these factors will largely group transport services with similar price elasticity.

Summary of Bane NOR's segmentation criteria

- Segmentation must distinguish between freight transport, passenger transport under a public service obligation, and other passenger transport.
- Bane NOR performs further categorisation based on the types of goods or passengers transported and whether there are significant differences in cost structure, market prices, or quality requirements for the transport services.

Once segmentation based on these principles is complete, further division is deemed unnecessary as it would offer no practical benefit and could make the pricing system unnecessarily complex and resource-intensive for all parties to manage.

Main categories

The three main categories as defined by the regulatory requirements, represent different aspects of the traffic along the Norwegian railway network. The Based on current traffic patterns, these categories comprise the following, as detailed in the list below:

1. **Freight traffic** – all types of freight traffic
2. **Passenger traffic under a public service obligation** – various types of traffic agreements exist between passenger railway undertakings and the state (via the Railway Directorate). Common to these agreements is a requirement for a specific number of train departures within a given period. Agreements may differ in whether they grant operators certain rights or involve public compensation. Bane NOR interprets all passenger train services operating under agreements where the state sets requirements for the number of departures and grants certain rights to operators as falling under this category
3. **Other passenger traffic** – passenger trains without the type of traffic agreement mentioned above

Further subdivisions

Transport services within these main categories can vary significantly. Further subdivisions have therefore been made in line with the criteria described above.

Bane NOR's approach began with a comprehensive mapping of all types of transport on the Norwegian railway network, based on Oslo Economics' rapport from 2022 on segments on the Norwegian railway. The report includes a systematic review of all passenger and freight transport services, their competitive landscapes, and an analysis of actors, value chains, organisation, and market conditions. This provides a solid foundation for grouping comparable transport services into the same segment as described above.

Freight traffic

- **Combined and wagonload:**
  Combined and wagonload trains carry various types of goods on the same train. It is useful to differentiate between combined freight trains and industrial system trains. A key characteristic of combined trains is their ability to use standardized load carriers, which are often transported by truck to and from a rail terminal, or sometimes by ship. The suitability of the goods for transport by multiple modes makes rail transport more exposed to competition. This, along with the small financial margins for operators, means that these transports are comparable in terms of demand adjustment when transport prices change (price elasticity).
- **System trains:**
  System trains, on the other hand, are tailored to the specific needs of the goods being transported, carrying one type of product per train. These needs can relate to volume, weight, or other factors requiring specialised load carriers. Consequently, system trains are generally less flexible when switching to alternative modes of transport. Within system train freight, differences in quality, cost structure, and market prices necessitate further segmentation based on product type, as described below.
- **Ore and minerals:**
  Commodity types such as ore and minerals include iron ore and similar materials from mining operations. These materials may have varying levels of processing at the time of transport, but this has not been deemed sufficient reason for further subdivision. Differences in requirements for transport services, however, do justify additional segmentation. Notably, there are differences in capacity demands per train. The volumes transported per train significantly affect cost structures and competitiveness against road transport. This group of transports is therefore divided into two segments, with weight classes for loaded trains serving as an indicator for determining the appropriate segment. See the section below on segment placement for further details.

  Other ores and minerals differ from iron ore and similar transports in terms of volumes and competition from alternative modes of transport, making this a separate segment.
- **Dangerous goods:**
  For dangerous goods transported by rail, the choice of transport mode may be driven by specific safety considerations. Due to these unique quality requirements, dangerous goods are assigned their own segment.
- **Timber and woodchips/pulpwood:**

Timber and woodchips/pulpwood are goods with low value and high weight, requiring specialised infrastructure, such as timber wagons, terminals, and lorries. These factors make such transport comparable within the segment while differing from other segments.

- **Other system trains:**
  System train transport not already mentioned is grouped under the segment "other system trains".

Passenger transport subject to a public service obligation

For passenger transport covered by public service obligations (PSO), a primary distinction is made between services governed by agreements where compensation is adjusted for changes (referred to as PSO) and other services with agreements. The PSO segment includes both local and regional trains, as well as long-distance trains, which are part of the public transportation system where passenger revenues are not expected to fully cover costs. A common feature of these services is that changes in charges are offset through adjustments in compensation. These shared characteristics make PSO transports comparable and justify grouping them into a single segment. Furthermore, it would be inappropriate to place PSO transport services in segments alongside services where compensation is not adjusted. Such segmentation could result in surcharges that distort competition.

For passenger traffic with traffic agreements that include certain obligations and rights but without compensation from the state, there are reasons not to group all in one segment. Feeder services to the main airport differ both from other services with traffic agreements and from other trains stopping at Oslo Airport. Unlike other trains stopping at Oslo Airport, the feeder service does not receive compensation from the state, so ticket revenue is important for financing operations. Other characteristics of the segment are that trains have some exclusive rights on the infrastructure and may not need to open for alighting before Oslo Airport and boarding after departure from Oslo Airport. These factors, along with others, mean that the train service has better punctuality and seat availability than other trains on the same line section. The train service is targeted at passengers willing to pay more for these qualities.

Experience routes with exclusive rights also have traffic agreements with obligations and rights, but without compensation. The type of passengers and the train product itself differ from the others because tourists are the target group, and the train journey itself is the attraction.

In summary, Bane NOR has divided passenger transport subject to a public service obligation into four segments as shown in Figure 1.

Other passenger transport

The last main category from the regulatory minimum requirements for segmentation is other passenger transport. This includes tourism-based traffic without exclusive rights, as well as other commercial passenger traffic, including to/from Sweden. Within the segment, there are similarities regarding operating conditions. Bane NOR has not found it necessary to further subdivide other passenger transport at this time.

Assignment of transports to market segments

To assign a train product to the relevant segment, the following steps can be

followed. Any new types of transport or currently inactive transport should be placed in the segment that most closely resembles the new transport.

Table 1: Assignment of transports to market segments

Question	Yes	No
1. Freight train?	Proceed to question 2	Proceed to question 8
2. Combined/wagonload train?	Segment: Combined/wagonload	Proceed to question 3
3. Iron ore and similar transports where the train weight in the loaded direction is normally over 6,500 gross tonnes?	Segment: Iron ore and similar transports A	Proceed to question 4
4. Iron ore and similar transports where the train weight in the loaded direction is normally between 1,500 and 6,500 gross tonnes?	Segment: Iron ore and similar transports B	Proceed to question 5
5. Other types of ore and minerals?	Segment: Other types of ore and minerals	Proceed to question 6
6. Timber and/or chip wood train?	Segment: Timber/chip wood	Proceed to question 7
7. Dangerous goods?	Segment: Dangerous goods	Segment: Other system trains
8. Passenger train subject to a public service obligation?	Proceed to question 9	Segment: Other passenger trains
9. Compensation adjusted with changes in charges?	Segment: Traffic with agreements where compensation is adjusted with changes in charges	Proceed to question 10
10. Feeder transport to main airport?	10. Feeder transport to main airport	Proceed to question 11
11. Experience routes with exclusive rights?	Segment: Experience routes with exclusive rights	Segment: Other with traffic agreements

5.3 Minimum access package and charges

5.3.1 Content of the minimum access package

According to the Railway Regulations, Section 4-1, railway undertakings are given access to the minimum access package by concluding an AST with Bane NOR.

The minimum access package includes the following:

a. processing infrastructure capacity applications
b. the right to use allocated capacity
c. use of railway infrastructure, including points and crossings
d. traffic control, including signalling, regulation, processing and communication and gathering of information about rail services
e. use of power supply equipment for traction current, where available
f. all other information that is necessary to implement or operate the

service for which capacity is allocated – this includes electronic announcements, line section diagrams and traffic rules issued by Bane NOR, but limited to the lines on which the railway undertaking in question is permitted to operate

Traffic control – GSM-R equipment for vehicles

Traffic control, as mentioned in letter d), also includes data communication for ERTMS onboard equipment and communication via fixed-mounted GSM-R telephones between trains (drivers) and the traffic control centre/traffic controller at stations on non-centrally controlled sections.

The railway companies are responsible for providing GSM-R equipment and ensuring it is correctly installed in the vehicles. The GSM-R equipment must comply with the guidelines provided in Annex 2.3.12 Communication Systems. For the driver's terminal, the requirements are in accordance with UIC EIRENE for an 8W cab radio with an external antenna and external power supply.

Any other use of the GSM-R phone is considered an additional service. Costs associated with traffic control or station staffing on sections without line blocks, in connection with the operation of regular trains or special trains, are covered by the minimum package of services.

Contact OPM User Support

Phone
+47 73410110

E-mail
opm.brukerstotte@banenor.no

Power supply

Where a power supply is available, railway companies are entitled to use this equipment by entering an AST with Bane NOR. For more information on which parts of the railway network are equipped with overhead line systems, see Annex 2.3.9 Electrified Lines.

Bane NOR's electronic distribution system

Railway companies are also responsible for connecting to Bane NOR's distribution system for announcements (FIDO) and for providing equipment that can receive announcements from Bane NOR, such as a PC or tablet. This equipment should be able to receive announcements both before departure from the departure station and en route, if it is possible to receive signals from the internet or mobile networks.

For more information, see the Railway Network Traffic Regulations (TJN) Chapters 1 and 2.

Contact FIDO

E-mail
fido@banenor.no

5.3.2. Method for calculating charges for the minimum access package

In accordance with the Railway Regulations, Chapter 6, and the Regulation on the Implementation of Regulation (EU) 2015/909.

5.3.2.1. Charges based on direct costs—basic charge

The charges for access to the basic service package (see the Sections 4-1 and 6-2 of the Railway Regulations) and access to service facilities must be set at the cost arising "as a direct consequence of the rail service in question", see Section 6-2(1) of the Railway Regulations on the basis of EU Regulation 2015/909, Bane NOR is of the opinion that the term "direct consequence" can be replaced by a marginal cost principle on the basis of an economic analysis. Furthermore, the Railway Regulations use a "mandatory clause", and this is understood as a minimum payment, unless the exceptions in the Regulations apply.

Bane NOR has performed an econometric analysis based on costs linked with corrective and preventive maintenance of the infrastructure and traffic load. The method is based on determining how costs vary depending on different traffic volumes, based on mathematical and statistical methods. Both costs and traffic load were measured for each line section for the years 2017—2021. The model is in logarithmic form (double log) and traffic load is measured based on the number of train kilometres. This means that we calculate cost elasticity, such as how many percent costs increase by in the event of a 1% change to traffic volume.

The fact that the lines have different technical designs in the form of the number of points, tunnels, speeds, and so forth, has been indirectly taken into account by differentiating between regions. The estimation of the cost elasticities is carried out using the ordinary least squares method, often referred to as OLS in literature. Marginal costs can be determined by multiplying the cost elasticity by the average costs.

Division by region

The marginal costs are not constant across the entire network, as confirmed by the marginal cost calculations. By dividing the railway sections into regions, it is possible to account for the different cost levels and indirectly adjust for variations in technical variables without directly including them in the model.

Table 2: Division of lines in Norway

Region	Line
Oslo region	Alnabanen Askerbanen Drammenbanen Gardermobanen Hovedbanen Follobanen
Ofotbanen	Ofotbanen
Remainder	Remaining lines

Differentiation of the charge based on axle load

The basic charge is based on axle load. The calculations have been documented in Annex 5.3.2.1 Basic charge (dated 1 Sep 2023) and forms the basis for the rates in Chapter 5.3.3.

5.3.2.2 Capacity charge

The Railway Regulations, Section 6-2 (2), provide a basis for a supplement to the charge so that it reflects the lack of capacity in an identifiable part of the rail network. Bane NOR will not collect any capacity charges in 2027.

5.3.2.3 Mark-ups on infrastructure charges

In addition to the basic charge, the infrastructure manager is, under Section 6-3 of the Railway Regulations, permitted to recover further costs through mark-ups if the market can bear them.

An overview of the market segments is provided in Section 5.2.5. Below is an overview of the segments that Bane NOR has assessed as being able to bear mark-ups. As set out in Section 5.2.2 above, changes to market segments and the calculation of mark-ups may arise as a result of the Norwegian Railway Authority's decision of 13 December 2024. Annex 5.3.2.3 Mark-ups describes the methods used to calculate these mark-ups.

The following segments have been assessed as having the capacity to bear mark-ups:

- passenger traffic with traffic agreements (PSO, public service obligation) where fee increases can be covered
- iron ore and similar transport A
- iron ore and similar transport B
- other ores and minerals
- transport to the main airport

The allocation of surcharges between the segments follows the principle of minimal impact from adjustments. Segments with low price elasticity should pay relatively more than those with higher price elasticity (Ramsey principle). Since the PSO segment can pass on fee changes to the state, the Ramsey principle cannot be applied in this case. Therefore, the surcharges in the PSO segment are set so that its share of the total surcharge is proportional to its share of train kilometers (using traffic data from 2019, 2021, and 2022 as a basis). The remaining surcharges are distributed across the other surcharge segments using the Ramsey principle. The rates per train kilometres are determined by dividing the total surcharge for a segment by the number of train kilometres in that segment.

The methods used for estimating these mark-ups are described in Annex 5.3.2.3 Mark-ups.

5.3.2.4 Discounts

To promote new services, Bane NOR, based on the principles of competition neutrality in each individual case, will agree on possible discounts in accordance with Section 6-4 of the Railway Regulations. The agreements will specify the period and the extent of the discount.

Section 6-4 of the regulations also allows for the provision of a time-limited

discount to stimulate traffic on significantly underutilised sections. The regulation clarifies that it is not enough for a section to be underutilised, but it must be significantly underutilised. "Significantly" is understood to mean that the capacity of the section is under 50% throughout the day. Traffic has increased in recent years, and there are no longer any sections that meet the criteria for being defined as significantly underutilised.

Bane NOR has provided the freight traffic with an incentive to increase usage of the following sections/sectional parts by offering a discount on track charges related to the minimum package of services on the relevant sections/sectional parts. To ensure that the discount provides the right market stimulus, Bane NOR believed it needed to be substantial and apply for a long enough period to provide predictability. The level of the discount was set based on Bane NOR's market knowledge and consultations with operators. In 2017, the discount was set at 75% and was reported to apply until 2025 on the following sections that met the above definition of being significantly underutilised:

Non-electrified line sections:

- Kongsvinger–Elverum
- Hamar–Elverum–Røros–Støren
- Dombås–Åndalsnes
- Trondheim–Hell–Storlien/Bodø

Other line sections:

- Sørlandsbanen, on the Kongsberg–Kristiansand–Orstad (Ganddal) section
- Dovrebanen, on the Eidsvoll–Dombås–Åndalsnes/Heimdal/Brattøra sections
- the Roa–Hønefoss and Hønefoss–Hokksund sections

Because the sections are no longer significantly underused, Bane NOR wishes to gradually phase out the discount from and including 2024, as shown in table 3.

Tabell 3: Phasing-out the discounts

	2023	2024	2025	2026	2027	2028
Rate	75 %	60 %	45 %	30 %	15 %	0 %

5.3.2.5 Forms of operation exempt from infrastructure charges

The following forms of operation are exempt from infrastructure charges:

- operation of rescue trains, firefighting trains, assistance trains, service trains and other trains used for inspection or maintenance of the railway infrastructure, as well as trains for the purpose of transporting equipment or materials to be used in connection with work on or near the infrastructure manager’s own infrastructure
- the necessary operation for “running in” new infrastructure, test runs for type approval of new rolling stock and necessary operation linked with familiar operation of new infrastructure
- operation of museum trains under the museum’s own auspices. Such operations must not inconvenience other traffic. If the museum train is charted by a third party, the charge will be paid as for other trains

- shunting of railway vehicles (rolling stock)
- transport of converter units to and from workshops and between converter stations
- operation on behalf of Bane NOR in connection with maintenance and development
- operation for non-profit purposes.

5.3.3 Minimum access package charges

All charges are specified exclusive of value-added tax and Bane NOR invoices include value-added tax.

The charges will be adjusted annually in accordance with Statistics Norway's price index for the operation and maintenance of road systems. For more information, see Chapter 5.8.

Based on the documentation of the basic charge and mark-ups, the 2027 charges are, based on 2026 charges, set to:

Table 4: Charges (2026-charges)

Line section and axle load	Basic charge Section 6-2(1) * (NOK per train kilometre)	Mark-up for the following market areas (Section 6-3) (NOK per train kilometre)				
		PSO**	Main airport	Iron ore and similar transports A	Iron ore and similar transports B	Other ore and minerals
Axle load below 25 tonnes		11,75	4,48	550,81	139,85	8,39
Oslo region	5,84					
Ofotbanen	9,94					
Remainder	9,94					
Axle load above 25 tonnes						
All line sections	159,04					

*Paragraph reference relates to the Railway Regulations
***Public Service Obligation*

Merk:
As set out in Section 5.2.2, the mark-ups may be subject to change as a result of the Norwegian Railway Authority's decision of 13 December 2024.

Tables 5 and 6 provide examples of what will happen to the invoiced amount for a

passenger train and a freight train:

Table 5: RE11: Eidsvoll–Larvik: double-set, morning rush, one train (2026 charges)

Charge range	Line section	Km	Rate (NOK)	Amount
Oslo region	Eidsvoll–Oslo S	65,91	5,84	385
	Oslo S–Drammen	51,50	5,84	301
Remainder	Drammen–Larvik	103,30	9,94	1027
Total basic charge				*1712*
Oslo region	Eidsvoll–Oslo S	65,91	11,75	774
	Oslo S–Drammen	51,50	11,75	605
Remainder	Drammen–Larvik	103,30	11,75	1214
Total mark-up				*2593*
Total amount invoiced				**4306**

Table 6: Combined transport train Alnabru-Brattøra: 44 TEU, one train (2026 charges)

Charge range	Line section	Km	Rate (NOK)	Amount
Oslo region	Alnabru–Lillestrøm	12,23	5,84	71
	Lillestrøm–Eidsvoll	46,91	5,84	274
Remainder	Eidsvoll–Brattøra	485,1	9,94	4822
Total basic charge				*5167*
Discount (base = basic charge for discounted sections)			15 %	-723
Total amount invoiced				**4 444**

5.4 Additional services and charges

If Bane NOR provides any of the additional services described in Section 4-4 of the Railway Regulations, Bane NOR must provide these to railway undertakings if they apply for them.

The railway undertakings must consult the party providing the service in order to obtain additional services provided by any party other than Bane NOR. Bane NOR determines the charges for use of additional services based on Section 6-9(4) of the Railway Regulations. Insofar as these services are only offered by Bane NOR, these services can at most be priced at the cost charged for performing the service, including a reasonable profit.

Additional services offered by Bane NOR include the following:

5.4.1 Traction current (power supply for train operation)

In accordance with Section 4-4 (1)(a) of the Railway Regulations, which governs the supply of electrical energy for train operations in Norway, Bane NOR provides energy supply for train operations (traction current). This includes both the purchase of energy and its resale to the train operating companies that run services on the national railway network. The Railway Regulations require the infrastructure manager to offer electrical energy as an ancillary service to all train operating companies that need it.

Bane NOR supplies converted electrical energy for train operations through its Energy unit. The Energy Regulatory Authority (RME) in the Norwegian Water Resources and Energy Directorate (NVE) has granted Bane NOR a licence for the sale of electrical energy, enabling the company to offer this service to train operating companies.

The calculation of electrical energy consumption for train operations can be carried out in two ways: preferably through direct measurement using energy meters installed in the traction units, or alternatively through indirect calculation based on energy consumption coefficients. These coefficients take into account several variables, including the type of traction rolling stock, the railway line, and traffic patterns.

The principles and requirements for the settlement and pricing of electrical energy are detailed in "Bane NOR's standard terms for settlement of 16 2/3 Hz energy." This document provides an overview of how energy costs are distributed, how consumption data should be reported, and the terms and conditions for invoicing.

Bane NOR's standard terms and conditions for the invoicing of 16 2/3 Hz energy Overview of the process for measuring, settling, and allocating costs for the energy supplied via the railway's contact line, installations related to the contact line, and substation installations.

Charges for traction current (power supply for train operation)

The charges for electricity consist of the following main elements:

- electrical power
- grid rent to send power from the production site to Bane NOR’s converter stations
- conversion and transfer losses at Bane NOR facilities
- Bane NOR’s administrative costs
- public fees

When services are requested by or offered to several parties, Bane NOR will set charges and publish these online.

Tariffs

Overview of the current tariffs at any given time. All prices are excluding VAT.

5.4.2 Preheating of passenger trains

In accordance with Section 4-4 (1) letter b) of the Railway Regulations, Bane NOR is responsible for ensuring the power supply to stationary railway vehicles, including passenger trains that require pre-heating in Bane NOR's service facilities. This includes both vehicles with and without their own current collectors, as well as other types of trains that require a power supply while stationary.

Bane NOR's strategy for providing power to stationary railway vehicles is that

- vehicles with their own pantographs will generally be supplied from the catenary via the pantographs
- vehicles without their own pantographs and others who require it are supplied from the train heating posts, where available

This service is also offered to train categories other than passenger trains.

5.4.2.1 Pantograph

Bane NOR offers railway undertakings power supply to pantographs for stabled vehicles subject to the following conditions:

- Stabling sidings must be electrified, and the track power supply must have adequate capacity.
- Stabling under live overhead contact lines must meet the minimum requirements concerning electrical safety as described in Chapter 7.3.5.2 and TJN 3.20.
- There must be adequate technical compatibility between track power supply and railway vehicles receiving the power supply. Experience shows that diode-equalisation of the vehicle's mains power converter during stabling results in adequate technical compatibility in accordance with EN 50388.
- Short-term interruptions in supply, that is interruptions with a duration of less than 15 minutes, must be expected and deemed necessary and do not need to be reported. Efforts are made to reduce the scope and duration of short-term interruptions through planning, particularly during the seasons when there is a critical need for power supply to the vehicles (for instance during the winter).
- Long-term interruptions in supply, that is interruptions with a duration exceeding 15 minutes, must be expected and may be necessary.
- Scheduled interruptions will be announced at least one day in advance. In the event that further coordination requirements are identified, interruptions are announced two weeks in advance so that the railway undertaking has the opportunity to manage the vehicles (such as rigging down, stabling elsewhere or connecting to any train heating posts). Efforts are made to schedule planned interruptions for seasons during

which the need for power supply for vehicles is not critical (cold). Efforts are made to reduce unplanned interruptions through switching and will be announced as soon as possible so that the railway undertaking can manage the vehicles as necessary.

- Railway undertakings pay the costs associated with energy supply in accordance with the charges and terms set down in Chapter 5.4.1 Traction current (power supply for train operations).

Any need for this additional service must be reported in connection with the capacity allocation process, as described in Chapter 4.2.1.2. In the event of long-term interruption, railway undertakings may, following clarification with Bane NOR, use any available existing train heating posts if the vehicle is technically compatible with these. Costs associated with energy supply are incurred in accordance with the same principles as for Chapter 5.4.2.2 Train heating posts (except for fixed annual rent). Energy consumption must be reported by the railway undertaking.

Contact Bane NOR OSS

E-mail
oss@banenor.no

5.4.2.2 Train-heating posts

The railway undertakings pay the costs associated with energy supply, following these principles:

- **16 2/3 Hz:** same prices and terms as for 5.4.1 Traction current (power supply for train operation).
- **50 Hz:** The costs correspond to the actual costs incurred by Bane NOR to provide the service. This refers to costs associated with the acquisition and supply of electrical power, including an administrative mark-up of 5%.

Annual rental charges:

- 1000 V (16 2/3 Hz or 50 Hz) – NOK 13662
- 1x230 V (50 Hz) – NOK 9 563
- 3x230 V (50 Hz) – NOK 13 662
- 3x400 V (50 Hz) – NOK 20 493

Tariffs

Overview of the current tariffs at any given time. All prices are excluding VAT.

If there is a need for new construction of train heating stations, railway companies can contact Bane NOR for an assessment of whether such stations should be established and how they should potentially be financed. Railway companies initiating new construction must advance the rental cost for the use of the station for three years.

For an overview of train heating post locations, see our overview of stabling

facilities.

5.4.3 Services for exceptional transport and dangerous goods

In accordance with Section 4-4 (1) letter c) of the Railway Regulations, Bane NOR is obligated to offer certain services related to exceptional transports and the transportation of dangerous goods. Below, the services offered by Bane NOR within these areas are described.

5.4.3.1 Services relating to exceptional transport

Bane NOR offers the railway undertaking the opportunity to verify the feasibility of an exceptional transport by simulating the transport in a dedicated software tool. This ensures that the transport can be carried out safely and efficiently on the relevant section of the railway.

Contact Bane NOR about exceptional transport

E-mail
spesialtransporter@banenor.no

5.4.3.2 Services relating to the transport of dangerous goods

Bane NOR does not offer any services related to the transport of dangerous goods. The railway undertakings must follow the guidelines outlined in the ADR/RID regulations as these specify the requirements for the transport of dangerous goods. These regulations, which are a part of the European and international regulations, are available on the Directorate for Civil Protection and Emergency Planning (DBS) website.

Transport of dangerous goods – guidelines

ADR/RID regulations at dbs.no

OTIF - Intergovernmental Organisation for International Carriage by Rail

5.5 Ancillary services and charges

According to Section 6-9(4) of the Railway Regulations, Bane NOR sets the charges for any ancillary services. Insofar as these services are only offered by Bane NOR, these services can at most be priced at the cost charged for performing the service, including a reasonable profit. Otherwise, these services will be priced at market rates.

All ancillary services provided by Bane NOR must be made available to all undertakings on the same terms and without discrimination, in accordance with the Railway Regulations, Section 4-5 (2).

To use services provided by someone other than Bane NOR, the railway undertaking must consult the party providing the service.

Ancillary services as described in Section 4-5 of the Railway Regulations include the following:

a. **Access to telecommunications network:** Bane NOR does not provide access to telecommunications networks other than those required in connection with train operation.
b. **Provision of supplementary information:** Railway undertakings requiring information in addition to that provided in the Network Statement and other available sources should contact the OSS.
c. **Technical inspection of rolling stock:** Bane NOR does not normally offer technical inspection of rolling stock, but it may do so in exceptional cases, such as when starting traffic after an incident or similar when restoring traffic.
d. **Ticketing services at passenger stations:** Bane NOR does not offer ticket sales to passengers at stations, but it offers the option of hiring space for ticket sales and/or ticket machines.
e. **Specialised heavy maintenance services**: Bane NOR does not offer specialised heavy maintenance services supplied at maintenance facilities designed for high-speed trains or other types of rolling stock requiring special facilities.

Contact Bane NOR OSS

E-mail
oss@banenor.no

5.5.1 Other services

In accordance with Section 6-9 (4) of the Railway Regulations, Bane NOR sets prices for additional services. If exclusively offered by Bane NOR, these services may be priced at no more than the cost of providing them, plus a reasonable profit. Services provided by other suppliers will be priced according to market terms. Additional services, as described in Section 4-5 of the Railway Regulations, are offered upon request.

A separate agreement with Bane NOR is required for additional services, and prices will be specified in this agreement. In general, additional services are priced at market terms,

5.5.1.1 Rescue

Bane NOR, through the recovery and emergency unit (Berging & beredskap jernbane), has established enhanced rescue preparedness for specific fire-sensitive areas in the Oslo region and along the Bergensbanen.

Oslo S:
A fire and rescue train transports rescue personnel and equipment to accident sites with a response time of 15 minutes.

Bergen:
A rescue locomotive has a minimum one-hour preparation time for high-altitude incidents.

The deployment of rescue trains is decided by emergency services in cooperation with train dispatchers and executed by Bane NOR's operational train control upon notification to the recovery and emergency unit.

Rescue service agreements include:

- Geilo Red Cross: equipment, personnel, and GPS-marked line sections during winter
- Finse 1222 and Vatnahalsen Hotel: accommodation during crisis situations
- local fire brigades: Training and equipment for grounding overhead catenary systems

5.5.1.2 Recovery

Bane NOR provides nationwide recovery services with personnel and equipment. Recovery operations are coordinated by the Recovery Manager (Bergingsleder), requested by the train dispatcher. These operations may include:

- clearing accident sites and transporting rolling stock
- temporary repairs to enable transport to workshops

Recovery equipment is available at multiple locations, including Lodalen, Bryne, Bergen, Trondheim, Mo i Rana, and Narvik.

Services include vehicle transport, temporary repairs, and technical assistance. Costs for recovery are borne by the party responsible for the damage.

The primary objective of the recovery service is to clear the incident site (accident/derailment) of railway rolling stock and freight, as well as manage transport from the site to the nearest suitable location for stabling, allowing infrastructure repairs and the resumption of normal train traffic.

The recovery service has diesel locomotives equipped with specialised couplers for use in clearing vehicles with technical problems that obstruct traffic in the Oslo region.

In recovery operations, the party causing the damage or triggering the operation will receive an invoice from Bane NOR in the form of a reimbursement claim for each case.

Railway undertakings are responsible for providing the technical information necessary for recovering rolling stock, such as descriptions of lifting points, braking systems, and electrical systems, to Bane NOR's recovery and emergency unit (Berging & beredskap jernbane).

The recovery and emergency unit has established standby arrangements with personnel and equipment available at the locations mentioned in Table 7.

Table 7: Recovery and emergency material per location

Location	Personel	Material/Equipment
Lodalen	Recovery manager, rescue crew, locomotive drivers	Diesel locomotive, diesel motor vehicle with recovery equipment, lorry with recovery equipment, recovery vehicle with rotating crane, miscellaneous vehicles, heavier rescue and recovery equipment.
Bryne	Rescue crew	Recovery equipment trailer

Bergen	Rescue crew, locomotive drivers	Diesel locomotive, recovery equipment carriage, crew carriage
Trondheim	Rescue crew	Recovery equipment carriage, crew carriage
Mo i Rana	Rescue crew	Combined recovery equipment, crew carriage
Rescue crew	Rescue crew	Recovery equipment in containers on flat carriage

Rescue and recovery equipment refers to standard portable tools, hydraulic lifting devices, transition coupling, and transport trailers.

Services that may be offered by the recovery and emergency unit, include:

- transport of rolling stock that cannot run as ordinary trains to workshops or another agreed location
- temporary improvements to prepare rolling stock for transport to a workshop
- rescue and recovery services at the incident site after the basic services have been completed and infrastructure reopened
- technical and other interim assistance to railway undertakings. This could include reviewing CCTV, charging errors, issues connected to coupling, and others. This assumes that railway undertakings provide the rescue and recovery unit with operational access to rolling stock, as well as permission for the technical operation of rolling stock

These services are available upon request. For more information about rescue and recovery services, please contact Bane NOR.

Contact the rescue unit

Roy Johnsrud
Rescue unit manager

E-mail:
roy.johnsrud@banenor.no

5.5.1.3 Firefighting train

Bane NOR can decide to run firefighting trains behind trains that have a greater than normal risk of combustion. A request for a firefighting train is made at the same time as the infrastructure capacity application. For further details about the application process, see Chapter 4.2.

Flatbed wagons for transporting rescue vehicles on the railway line are based in Bergen and Voss.

5.5.1.4 Tank wagons containing water for extinguishing fires along the railway line

Bane NOR can choose to park water wagons at stations near line sections where it is known from experience that there is a greater than normal risk of ignition and access to water may be difficult.

Water wagons/containers are in Alnabru, Sarpsborg, Hønefoss, Ål, Myrdal, Voss, Hamar, Dombås and Støren. There are also water wagons on Ofotbanen, and these are stationed in Narvik.

5.5.1.5 Water supply for trains

Water supply for passenger trains (drinking and washing water)

The need for access to water pumps is reported in connection with the capacity allocation process. For more information about the application process, see Chapter 4.2.

Water supply (large volumes in a short time)

For a list of service facilities that offer water refilling, see our overview of stabling facilities.

The need for access to water cranes during train operation is reported in connection with the capacity allocation process. For more information about the application process, see Chapter 4.2.

5.5.1.6 Disposal of waste from toilets

For further information about disposal of waste from toilets, see our overview of stabling facilities.

5.6 Financial penalties and incentives

5.6.1 Penalties for path modification

There are currently no charges imposed for timetable changes.

5.6.2 Penalties for path alteration

There are currently no charges imposed for timetable changes.

5.6.3 Penalties for non-usage

The full basic charge will be charged for trains that do not operate and that have not been cancelled prior to the planned departure time. No path cancellation charges will be levied in the event of acute incidents occurring. These will come under the performance scheme. For more information about the performance scheme, see Chapter 5.7.1.

5.6.4 Penalties for path cancellation

In accordance with Section 6-7 of the Railway Regulations, the purpose of reservation charges is to emphasize that unused track capacity has alternative value, either through use by another railway undertaking or for infrastructure manager maintenance. Reservation charges are applied for allocated infrastructure capacity that is either cancelled or not used by the applicant.

The applicant, which can be a railway undertaking or another entity as defined in Section 1-7 (p) of the Railway Regulations, is responsible for paying these charges. The infrastructure manager is exempt from paying reservation charges

for its own transport related to maintenance.

Reservation charges are calculated based on information about allocated capacity and the cancellation time recorded in BEST, or unused capacity registered with code 85 in TIOS. The charges apply to unused capacity, including ad hoc allocations, and only when the applicant is directly responsible. In cases of disagreement regarding the cause codes, the railway undertaking may lodge a complaint in accordance with the dispute resolution procedure outlined in Section 5.7.1.

Table 8: Path cancellation charges that are levied

Time period	Charges that are levied
Up to 15 days before the planned departure time from the rail-head station.	30 % of basic charge and mark-up
Between 14 and 48 hours before the planned departure time from the rail-head station.	60 % of basic charge and mark-up
< 48 hours before the planned departure time from the rail-head station.	80 % of basic charge and mark-up

The basic charge in the table is calculated based on the planned line section and train kilometres.

A train that is not operated and for which there is no cancellation before the scheduled departure time will be charged the full base price. This includes trains that are not operated and not cancelled and are registered in TIOS with cause code 85 and cause type "Cancelled due to market reasons."

No reservation fees will be applied in the case of sudden, unforeseen events. These will be covered under the performance scheme. For more information about the performance scheme, see Chapter 5.7.1.

5.6.5 Incentives/discounts

5.6.5.1 ERTMS discounts

In accordance with Section 6-2(6) of the Railway Regulations, Bane NOR does not currently provide an incentive scheme linked with ETCS equipment beyond what has already been established via the agreement on 50% coverage of railway undertakings' installation costs.

5.6.5.2 Silent brake pads

In accordance with Section 6-2 (3) of the Railway Regulations, Bane NOR, in line with the NOI TSI, is considering both incentive schemes and pricing measures to encourage a swift transition to low-noise composite brakes. A proposed scheme will be submitted for consultation before implementation. An incentive scheme will be introduced once the relevant technology is approved for Northern Europe.

5.7 Performance scheme

5.7.1. Bane NOR's performance scheme

The performance scheme is based on Section 6-6 of the Railway Regulations. The performance scheme, including the dispute resolution mechanism, is set out in AST Appendix 4: Performance Scheme and has been in force since 1 January 2017. The scheme does not apply to operations referred to in Section 5.3.2.5, nor to trains without a fixed timetable, including shunting services.

The purpose of the performance scheme is not only to impose a malus when the agreed performance level is not achieved, but also to provide an incentive for greater operational stability or a higher level of performance.

The scheme is based on absolute values for delay hours and cancellations, with payments triggered from the first recorded event. A linear model is used to calculate the amounts under the performance scheme. This means that the applicable rate for delay minutes is multiplied by the number of chargeable delay minutes, and the applicable rate for cancellations is multiplied by the number of chargeable cancellations. This is done for each operator, and the amounts are then aggregated to determine the total payment from Bane NOR to each train operating company, and the total payment from each train operating company to Bane NOR. If the monthly amount payable by the operator, or the monthly amount payable by Bane NOR to the operator, exceeds the prescribed maximum amount (the cap), the sum is reduced to that maximum. The applicable rates and rules for the cap are shown at the end of this section.

The scheme also includes a bonus arrangement for reducing delays to freight trains, as described at the end of this chapter. See Chapters 9—13 for descriptions of the cause codes.

Cause codes included in the scheme:

1. Bane NOR codes
    - code 1—5, 7, 86 and 99
    - delays/cancellations without cause code
2. Railway undertaking codes
    - delays: code 81—85
    - cancellations: code 81
3. Exemptions
    - cancellations with the cause category 'Planned cancellation' are exempt for passenger train operators, as these are included in the Alternative Transport ('Bus Replacement Services') scheme for passenger operators

Consequential delays and payment

Code 99 represents consequential delays because of primary causes (codes 1–5, 7, 81–86 and 91–94).

- Bane NOR will pay what the railway undertakings have been charged for codes 86 and 99.
- The railway undertakings will indirectly pay their share of the events under codes 86 and 99 by paying a higher NOK rate on the primary causes (codes 81-85) except on the following lines: Arendalsbanen,

Breiviksbanen, and Flåmsbana.

Cancellations where action cards are used, are included.

Table 9: Cause codes TIOS

Bane NOR	Railway undertaking	External circumstances
Code 1 – Railway	Code 81 – Faulty vehicle	Code 91 – Delay from abroad
Code 2 – Security system, signal installation and remote control	Code 82 – Vehicle delayed from stabling facility	Code 92 – External circumstances
Code 3 – Electric power / overhead contact line	Code 83 – Lack of personnel	Code 93 – Incident, collision
Code 4 – Telecommunication, transmission, ERTMS, and ICT	Code 84 – Station stop	Code 94 – Unwanted incident
Code 5 – Planned infrastructure maintenance	Code 85 – Planned assumptions not met	
Code 7 – Error in traffic control or timetabling	Code 86 – Faulty vehicle blocking track	
Code 99 – Consequential delay (Bane NOR's share)	Code 99 – Consequential delay (railway undertaking's share)	

Table 10: Detailed list of codes with explanations – Bane NOR

Code number and name	Description
Code 1 – Railway	• Line faults, broken rails, sun kinks, frost heave • Slow running in accordance with FIDO • Slippery rails due to snow, ice, or leaf fall • Trees on the line or vegetation obstructing visibility • Slippery platforms • Surface water caused by blocked culverts (not flooding) • Planned work not completed on time • Engineering trains blocking the line due to faults • Terminal faults (e.g., cranes) • Weather conditions not classified as extreme, such as ice in points or insufficient snow clearance
Code 2 – Security system, signal installation and remote control	• Traffic controllers unable to set signal

Code number and name	Description
	• Track section coverage including salt coating • Fault in track circuit, point control, interlocking system/remote control system, ATC balise • Fault in level crossing protection systems, avalanche warning systems • Switch not in control • Unintentional passing of a stop signal due to technical fault ("signal drop") • Fault in emergency power supply system
Code 3 – Electric power / overhead contact line	• Downed/damaged overhead line • Tree over overhead line system • Fault in overhead line components • Fault in traction substation (loss of power/reduced capacity) • Lack of point heating
Code 4 – Telecommunication, transmission, ERTMS, and ICT	• Telecommunication and transmission faults for which Bane NOR is responsible and which lead to operational disturbances • Fault in the GSM-R system • Fault in loudspeakers/display systems • Fault in FIDO communication • ERTMS fault
Code 5 – Planned infrastructure maintenance	• Train planned to be cancelled due to scheduled works on the relevant section, known to railway undertakings in advance • Delays resulting from waiting for alternative transport • Single-track operations due to planned works
Code 7 – Error in traffic control or timetabling	• The signal is set too late by the traffic controller • Fault in auxiliary systems (FJS [Automat/ATL/TLS]) • Fault in the timetable; data fault in TIOS • Difficulty reporting trains to staffed stations • Bane NOR personnel misuses the FIDO system • Missing station operator or train

Code number and name	Description
	controller

Table 11: Detailed list of codes with explanations – railway undertakings

Code number and name	Description
Code 81 – Faulty vehicle	• Any vehicle fault that causes stop or reduced speed • Load displacement on freight train • Fault in the onboard equipment for FIDO, ERTMS and ATC
Code 82 – Vehicle delayed from stabling facility	• Departure is delayed because the train is not prepared in time from the operational depot/engine shed/parking track or similar *If the root cause of the delay is known that code should be used instead of cause code 82.*
Code 83 – Lack of personnel	• Delay caused by a personnel shortage at the railway undertaking, including staff changes en route • Major disruption situations such as emergency response protocols *Exception: in cases of acute illness among staff, this should be recorded under code 94.*
Code 84 – Station stop	• Scheduled stop time at station/stop is exceeded due to passengers, loading/unloading of freight, shunting/dividing/coupling, or use of a wheelchair lift en route • The railway undertaking requests that the train be held due to transfer passengers from other delayed trains, regardless of the cause of the delay on the train waiting. *Since cause codes are recorded upon arrival, a station stop must also be recorded upon arrival at the next station.*
Code 85 – Planned conditions not met	• The train is operated with reduced capacity • The train does not maintain the scheduled speed • Test running • Additional train stops ordered by the railway undertaking • Train cancelled due to market-related reasons or lack of vehicles • The railway undertaking's personnel use the FIDO system incorrectly • Adjustments made to account for

Code number and name	Description
	previous delays (most relevant for trains operating on a commuter schedule) *Exception: This code is not used for adjustments due to activated action cards and other major events that disrupt large parts of the train traffic; in such cases, the primary cause is used. It is also not used if something prevents the train from running on the line section, such as a train breakdown.*
Code 86 – Faulty vehicle blocking track	• Delays caused by another broken-down train or a train with a fault blocking the line; also used if single-track operation must be implemented due to this. • Should be used even if the broken-down train or train with a fault on the vehicle has resumed operation. *When the line is cleared for traffic, but the signaller chooses to hold back an opposing train while waiting for a crossing, this train should be assigned Code 99 (Consequential delays).* *Remember: The broken-down train or train with a fault should have Code 81 (Faulty vehicle).*

Table 12: List of codes for consequential delays

Code number and name	Description
Code 99 – Consequential delays	• On-time trains waiting for a delayed train for crossing, or caught in a queue • Train delayed by other train movements • Overall assessments made by the signaller regarding the order/selection of crossing points • Lack of room at terminal/stabling area

Tabell 13: Detailed list of codes with explanations – external circumstances

Code number and name	Description
Code 91 – Delay from abroad	• Train delayed from / cancelled in Sweden • Train is detained in Norway due to a problem in Sweden
Code 92 – External circumstances	• Storm/snowstorm, flooding and landslides making the line

Code number and name	Description
	impassable, as well as the risk of such events • Heavy snowfall
Code 93 – Incident, collision	• Collision with a person, vehicle, animal, or other object on the track or at the station • Operational accidents, derailments, shunting accidents *Used for all derailments and collisions, regardless of the underlying cause*.
Code 94 – Unwanted incident	• Near accidents such as unauthorized access to tracks or reports of animals along the line • Train waiting for police/ambulance/customs officers • Fire near the track/station • Unintended passing of a signal at stop (actual passing) • Power failure • Sudden illness of the traffic controller or the railway undertaking's personnel

A few clarifications:
When the first service in a train pair is delayed and this causes the first return service to be delayed as well, the cause code is carried over to the return service.

Cancellations by operators with the cause category 'Cancelled for commercial reasons' remain subject to the reservation charge; see Section 5.6.4 for further information. Other cancellations are charged in accordance with the coding and rates set out in the performance scheme. In recent years, the performance scheme has been undergoing revision. During this work, consultations have been held with train operators, and meetings have taken place with the Norwegian Railway Directorate, the Ministry of Transport, and the Norwegian Railway Authority. The aim has been to strengthen the economic incentives in the scheme and make them more accurate, as well as to reduce imbalances between the segments.

Since 2026, a distinction has been made between geographical areas (see Table 12 below). Introducing such a distinction provides better alignment between the rates in the performance scheme and the consequences of delays and cancellations.

Table 14: Geographical areas

Area	Lines
Area East	Alnabanen, Askerbanen, Drammenbanen Oslo–Lier, Follobanen, Gardermobanen, Gjøvikbanen, Hovedbanen, Kongsvingerbanen, Oslo S–Skøyen, Østfoldbanen, Solørbanen,

	Spikkestadbanen
Ofotbanen	Ofotbanen
Area North and South-West	Arendalsbanen, Bergensbanen, Bratsbergbanen, Breviksbanen, Dovrebanen, Drammenbanen south of Lier, Flåmsbana, Meråkerbanen, Nordlandsbanen, Randsfjordbanen, Raumabanen, Roa–Hønefossbanen, Rørosbanen, Sørlandsbanen, Tinnosbanen, Vestfoldbanen

The calculation of the new rates is based on the socioeconomic time costs of delays and cancellations for different train products within freight and passenger transport on the railway. These costs depend on the number of passengers and the volume of freight on board the trains, as well as the time values of passengers and freight owners. The relative differences in socioeconomic costs between the geographical areas and between passenger and freight trains form the basis for the differentiation of rates. The aim of such differentiation is to strengthen each party's incentive to avoid disruptions where the consequences are greatest.

Download a detailed description of the calculation method

Ytelsesordningen_ Network Statement 2026 (PDF 584,73 KB)

From 2026, only operators' cancellations with code 81 result in payments to Bane NOR. (For cancellations for commercial reasons, the reservation charge continues to apply.) The rationale for focusing on code 81 is primarily to encourage the avoidance of cancellations that have negative consequences for other trains.

In spring/summer 2025, Bane NOR carried out a further review of the performance scheme following input from, among others, the Ministry of Transport and the Norwegian Railway Directorate. The review identified imbalances in the scheme between passenger and freight operators, and certain adjustments were therefore introduced. The revision thus corrected a mismatch between the passenger and freight segments and facilitates higher payments from Bane NOR to operators than under the existing scheme. From September 2025, the following changes were introduced:

- **Increased rates for cancellations affecting freight operators:** The rates for cancellations affecting freight railway undertakings have been doubled, so they now match those applied to passenger railway undertakings. This applies both to payments from Bane NOR to freight operators and to payments from freight operators to Bane NOR.
- **Significantly increased ceiling for compensation from Bane NOR:** The maximum amount Bane NOR may pay to passenger and freight railway undertakings has been increased from 100% to 300% of the amount invoiced for the smallest service package. This will, among other things, allow railway undertakings to receive higher compensation in the

event of major incidents. No changes have been made to the ceiling for payments that railway undertakings may be required to make to Bane NOR.

- **Full cancellations under code 5 included for freight operators:**
  Full cancellations under code 5 are now included for freight railway undertakings, as they do not have an agreement for alternative transport in the same way as passenger railway undertakings.
- **Adjustments of rates from 2027:**
  From 2027, the rates for cancellations affecting freight operators will increase further and will then be set somewhat higher than the rates for passenger operators. The background for this is an overall assessment of the current arrangements and the net costs incurred by railway undertakings because of cancellations. On average, freight operators incur greater financial losses than passenger operators when cancellations occur. At the same time, they do not receive compensation for such losses, unlike passenger operators, who are compensated through agreements for alternative transport during planned cancellations.

For full cancellations of freight trains using code 5, the rates will be adjusted for each train operating company by a factor reflecting the proportion of services they cancelled in the years 2022–2024. This ensures that operators are only compensated for traffic they were scheduled to run.

Example: If an operator must cancel 10 services in a given month due to planned engineering work, and they have on average cancelled 10% of their services in the years 2022—2024, they will receive the following payment:

*Bane NOR's cancellation rate * number of services cancelled with code 5 * the factor for cancelled services = Payments attributable to code 5.*

*6 028 * 10 * 0,9 = 54 252*

Table 15: Delays – railway undertakings

	NOK per minute delay	Area East	Ofotbanen	Area North and South-West
Passenger train	Standard rate	163	91	117
Passenger train	Line section exempt from charges for consequential delays	111	77	77
Freight train	Standard rate	58	72	91
Freight train	Line section exempt from charges for consequential delays	40	60	59

Lines without addition for consequential delays are Arendalsbanen,

Breviksbanen, and Flåmsbana.

Table 16: Delays – Bane NOR

	NOK per minute delay	Area East	Ofotbanen	Area North and South-West
Passenger train	Standard rate	111	77	77
Passenger train	Planned work not finished on time	155	107	107
Freight train	Standard rate	40	60	59
Freight train	Planned work not finished on time	55	84	84

Table 17: Cancellations – railway undertakings

	NOK per cancellation	Area East	Ofotbanen	Area North and South-West
Passenger train	Standard rate	8154	6920	8532
Freight train	Standard rate	12231	10380	12798

Table 18: Cancellations – Bane NOR

	NOK per cancellation	Area East	Ofotbanen	Area North and South-West
Passenger train	Standard rate	5760	6472	6472
Passenger train	Planned work not finished on time	8064	9062	9062
Freight train	Standard rate	8640	9708	9708
Freight train	Planned work not finished on time	12096	13593	13593

Maximum values in the performance scheme

In accordance with the Railway Regulations § 6-6, which stipulates that because the performance scheme should not jeopardise the financial viability of a service, the following maximum values have been established for all parties:

- **Delays:**
  75 % of invoiced amount per month for railway undertakings, and 300% for Bane NOR related to the minimum package.
- **Cancellations:**
  75 % of invoiced amount per month for railway undertakings, and 300% for Bane NOR related to the minimum package.

The rates in 2027 will be adjusted in accordance with Statistics Norway's price index for the operation and maintenance of road infrastructure. For further information on price changes, see Section 5.8

Bonus scheme for the freight industry

Section 6-6 of the Railway Regulations allows for the performance scheme to include "... bonuses that reward performance that exceeds what has been planned." For 2026, Bane NOR wishes to continue the bonus scheme for the freight industry. The reason for this is that the freight industry is accountable for a large proportion of delays, and increased quality and precision in traffic patterns for freight trains are expected to have positive ripple effects for passenger railway undertakings and contribute to increased socio-economic benefits. Bane NOR also suggests that no bonus scheme for the passenger train industry is introduced, as this will have little to no effect for the punctuality of passenger trains.

An estimated proportion of trains running on time has been calculated for the four market segments (combined/wagonload, timber and woods chip, iron ore and minerals, and other system trains) based on historical data. The proportion has been estimated based on the average proportion of trains running on time for each segment historically. The threshold for each segment will correspond to the historical average with a mark-up of 0.04, as the criteria for having a bonus scheme under Section 6-6 are that it "rewards performance that exceeds what has been planned". For 2026, the proportions have been estimated using data from the period 2022—September 2025. In this context, trains running on time refers to trains without delays recorded using code 81–85, as these are the delays over which railway undertakings have the greatest influence. The expected proportion of trains running on time has been used as the threshold for triggering a bonus. The market segments and associated thresholds are listed in the following table:

Table 19: Market segments and thresholds

Market segment	Threshold
Combination and wagonload	0,82
Timber and woodchip	0,82
Ore and minerals	0,93
Other industrial trains	0,90

The railway undertaking will receive a bonus for each train that runs on time beyond the expected number each month. The railway undertaking will not receive a bonus if the proportion of trains running on time one month is lower than the threshold.

If the number of trains running on time exceeds the threshold, the bonus will be calculated as follows:

$$Bonus_{\{ijk\}} = \left(number\ of\ trains\ on\ time_{\{ijk\}} - number\ of\ trains\ expected\ on\ time_i\right) * b$$

$$number\ of\ trains\ on\ time_{\{ij\}} = \frac{number\ of\ trains\ on\ time\ in\ segment\ in\ 2019-2022}{number\ of\ trains\ in\ segment\ in\ 2019-2022} * number\ of\ trains_{\{ij\}}$$

b = bonus per train on time beyond expectation
i = segment
j = railway undertaking
k = month

For 2027, the bonus is set at 10 000 NOK per train running on schedule beyond the expected number per month. The maximum payment per month per train operator is limited to 40% of the basic charge.

5.7.2. Alternative transport compensation

The compensation scheme covers 80% of the costs tied to alternative transport (bus/taxi) that occur due to Bane NOR's planned maintenance and development activities. This is a one-sided scheme intended to reduce the costs for passenger train operators. For further details, see AST Annex 4: Performance scheme.

5.8 Changes to charges

5.8.1 Annual charge adjustments

There is a need for annual charge adjustments between the updates to the calculated marginal costs approximately every five years and the determination of new charge levels. Bane NOR uses Statistics Norway's cost index for operation and maintenance of road systems. The charge adjustment itself will be undertaken according to the following principle:

$$P_{\{t+1\}} = P_t * \frac{KI_tQ_2}{KI_{\{t-1\}Q_2}}$$

Pt+1 = next year's charge
Pt = current year's charge
KIQ2 = Statistics Norway's index per second quarter for the current (t) and

Table 20: Percentage changes to charges

	From 2023 to 2024	From 2024 to 2025	From 2025 to 2026
Price index (t-1) Q2	93,4	94,8	100,4
Price index t Q2	94,8	100,4	101,2
Percentage change year t to year t+1	1,5 %	5,9 %	0,8 %

The reference period in the statistics was changed in the first quarter of 2025. There have been revisions to the price growth from 2024 to 2025; the prices in Network Statement were adjusted by 5.4% in 2025 and not 5.9% as stated in the table above.

This means an adjustment to charges in arrears and provides predictability for the railway undertakings, as the price level is known for 4-5 years at a time and adjustment of the following year's charges will be completed in the third quarter of the previous year. At the same time, it will be possible to monitor the index throughout the year. The adjusted charges for the coming year will be published as an update to the Network Statement no later than 1 September of the current year.

5.8.2 Other changes to charges

The charges for the use of the rail network (the basic service package) are set and levied by Bane NOR within the scope of the Railway Regulations, Sections 6-1 to 6-5 and the Directive 2012/34/EU. Any changes must fall within the framework drawn up in the Railway Regulations, Chapter 6.

Relevant users will be notified in writing of changes to charges for access to and services at service facilities, and changes to charges for additional services and ancillary services at a consultation at which railway undertakings will be given a deadline of at least three months in which to comment.

Any changes to charges because of requirements stipulated by an enforceable judgement or market supervisory authority will be implemented immediately with no consultation.

5.9 Billing arrangements

5.9.1 Minimum access package invoicing

Billing occurs after the 15th of each subsequent month. Billing information is published via DRAGE, which is accessible through Bane NOR's customer portal.

Bane NOR's customer portal

Do you work for a railway undertaking that has an agreement with Bane NOR? Log in to access useful information.

Log in

The railway undertakings are obliged to provide the necessary information for calculating the value of the service. If a railway undertaking fails to supply the

necessary information, Bane NOR may set the value based on its own judgement.

For questions regarding billing, contact marked@banenor.no.

Information all railway undertakings are required to provide

The gross weight for all trains must be reported regularly. A completed wagon record – see Chapter 4 of TJN and ADR/RID 2023 – is considered to constitute satisfactory reporting. The wagon record must be submitted in electronically as stipulated by Bane NOR in AST, Annex 2: Traffic data to Bane NOR.

Payment terms (including non-payment)

Payment must be made within 30 days. In the event of late payment, interest on arrears will be charged in accordance with Section 2 of the Interest on Late Payment Act. In cases of non-payment, Bane NOR may withdraw allocated train paths in the event of material payment default

5.9.2 Additional and ancillary services invoicing

The invoicing of additional services varies depending on the service type. The terms and conditions for the invoicing of traction current (power supply for train operation) are described in “Bane NOR’s standard terms and conditions for the invoicing of 16 2/3 Hz energy”.

Invoicing for the rental of train heating posts is done once per year.

Bane NOR's standard terms and conditions for the invoicing of 16 2/3 Hz energy

Overview of the process for measuring, settling, and allocating costs for the energy supplied via the railway's contact line, installations related to the contact line, and substation installations.

6 Operations

6.1 Introduction

This part provides an overview of the rules governing the operation of the railway network and how disruptions to planned operations are handled. Here, you will find important information about the guidelines for daily operations, including procedures that come into effect in the event of unforeseen incidents and deviations from the plan.

6.2 Operational rules

About operational rules

TSI operation and traffic management (TSI-Ope)

Railway Regulations § 3-5 (1)

Regulation on Health Requirements for Operational Railway Personnel and Signals on Trains

Bane NORs traffic rules for the rail network (TJN)

A description of the infrastructure as a basis for the railway undertaking's line book

6.2.1 Railway undertakings obligation to follow TJN

Railway undertakings are obliged to comply with Bane NOR's applicable traffic rules and other operating rules applicable to the rail network.
Bane NOR may grant dispensations from the traffic rules in special circumstances. Dispensations may not be granted for rules pursuant to TSI-Ope. Applications must be submitted to the Traffic Division via Bane NOR.

Contact Bane NOR

E-mail
postmottak@banenor.no

6.2.1.1 Changes to traffic rules issued by Bane NOR

Bane NOR uses the assessment instruction (utredningsinstruksen) as a basis when preparing traffic regulations, but the investigation instruction does not limit Bane NOR's right to make decisions regarding changes in accordance with the authority granted by law and regulations.

Changes to the traffic regulations that are a necessary result of implementing regulatory requirements, such as the common European rules in TSI-Ope, will typically not be subject to consultation by Bane NOR. In such cases, the consultation is carried out by the authority that sets the regulation.

Descriptions of technical installations, local procedures, or arrangements will generally not be subject to consultation, and the same applies to changes to these.

6.2.2 Requirement for continuous availability of traffic management

Bane NOR requires railway undertakings to have a traffic management function that is always available when their trains are in operation.

The traffic management function must have the authority to make the necessary decisions to handle and resolve operational disruptions quickly, so that the consequences of such disruptions are minimal and short-lived.

Railway undertakings must provide Bane NOR with the necessary contact information for their traffic management function and are responsible for always keeping this information up to date.

Any changes to contact information must be reported to sirkulaerer@banenor.no, and updates will be implemented no later than 14 days after the change has been reported.

6.3 Operational measures

In the event of operational disruptions, it is in Bane NOR's and the railway undertaking's joint interest to restore normal train operations, punctuality, and regularity as quickly as possible. This is also required in accordance with Railway Regulations § 10-4, which emphasizes the importance of ensuring efficient traffic flow. To achieve this, various measures may be used, such as prioritizing trains, cancelling trains, or redirecting trains.

6.3.1 Principles

Good punctuality and regularity are important requirements for Bane NOR’s and the railway undertakings’ reputations and financial situations and are a crucial requirement for achieving the best possible capacity utilisation.

A crucial prerequisite for good punctuality is strict adherence to the agreed planning assumptions, particularly in high-traffic areas such as the Oslo region and the cities of Bergen, Stavanger and Trondheim. This must be ensured in day-to-day timetable planning. For more information, see Chapter 4.2.1.1.

Critical delays in a capacity context will vary according to line section and depend on a number of factors such as distances between passing loops, the length of passing loops, the type of safety installation, as well as capacity utilisation and technical assumptions.

In the Oslo area, a critical delay is defined as a delay exceeding three minutes.

6.3.1.1 Priority rules in the event of irregularities in rail services

The purpose of the prioritization rules is to ensure a consistent and predictable management of traffic disruptions, as outlined in the requirements of Railway Regulations § 10-4.

The train controller shall, based on experience and a comprehensive assessment, ensure that traffic is normalized as quickly as possible (general disruption reduction). If necessary, the train controller should collaborate and coordinate with other affected train control areas, particularly for trains passing

through the Oslo area.

Responsible personnel in the traffic areas, in cooperation with relevant railway undertakings, shall develop action plans for a unified approach to managing major traffic disruptions.

Detailed prioritization rules are established alongside the individual timetable.

6.3.1.2 Guidelines in the event of operational disruptions

The following guidelines have been provided for use by Bane NOR's operational traffic control to restore designated rail services as quickly as possible in the event of disruptions.

6.3.2 Operation regulation

The general principle is that trains which are on schedule should be prioritized to remain on time.

However, there may be situations where considerations regarding the vehicle's turn-round and its importance for the execution of the timetable make it necessary to deviate from this principle.

The details of such deviations are established in connection with the relevant timetable, and Bane NOR publishes these guidelines just before each new timetable period begins. Railway companies are informed about the planned guidelines during the capacity allocation process.

6.3.2.1 The train controller's right to depart from the operational guidelines due to local conditions

Train controllers may depart from operational guidelines when this is deemed to be justified. The train controller's authority can be found in TJN Item 5.3: In certain situations, train controllers may deviate from the traffic rules for the railway network (TJN). This applies to situations in which there is a risk to life or health or where necessary to resolve or avoid a deadlocked traffic situation and there is no increased risk. Train controllers must clearly state which rules are being deviated from.

6.3.2.2 Special measures in the event of disruption

In accordance with Railway Regulations § 10-4, Bane NOR must take all necessary measures to restore normal train traffic when disruptions occur, such as due to technical failures or accidents. Bane NOR also has the authority to take other necessary actions in such situations, such as withdrawing infrastructure capacity or requisitioning the railway companies' vehicles to restore normal traffic.

When Bane NOR exercises its right to requisition, net operating-related costs are reimbursed only if the disruption that led to the requisition was not caused by the railway company being requisitioned, or by those for whom they are responsible.

The costs associated with the use of Bane NOR's requisitioning right will be charged to the party responsible for the disruption in train traffic.

6.3.3 Disturbances

6.3.3.1 Foreseen disturbances

Foreseen disturbances in the form of reduced infrastructure capacity must be resolved based on the same prioritisation criteria as in the case of congested infrastructure, but in such a way that service trains running for the purpose of helping to restore the limited infrastructure capacity are given priority over other trains.

Bane NOR and the railway undertakings involved can agree jointly on a different solution.

6.3.3.2 Unforeseen disturbances

In the case of unforeseen disturbances resulting in reduced infrastructure capacity, the same prioritization criteria apply as for congested infrastructure. Here too, work trains that help restore infrastructure capacity should be prioritized.

In such situations, the temporary traffic management solutions should be customer-oriented, ensuring that they best meet the needs of the railway companies' customers. The quality of operational disruption management plays an important role in the collaboration within the railway sector. This means that the solutions should not only focus on the traffic management itself, but also on alternatives such as alternative transport, customer communication, and other relevant customer handling for both passenger and freight trains.

The quality of operational disruption management is crucial, and there are three aspects to this:

1. the preparation of alternative plans, ahead of disruptions
2. the operational handling of disruptions
3. the parties’ work on measuring, evaluating, and improving disruption management

The selected solutions, plans, and action cards for operational disruption management must always comply with current safety requirements and regulations, laws, guidelines, and other relevant agreements; see the manual (below) for detailed descriptions.

For situations where Bane NOR has prepared action cards, these must be followed unless all involved parties collectively agree on an alternative solution. Bane NOR has an action card group consisting of representatives from the traffic control centres and railway undertakings. These action cards are evaluated and updated annually in line with the new timetable. The action cards must also be customer-oriented; see the manual (below) for detailed descriptions.

Handbok - Quality in operational disruption management (KOA)

The purpose of the handbook is to support a consistent methodology for planning, carrying out, and evaluating operational disruption management. The handbook is currently only available in Norwegian.

"Reduced infrastructure capacity" refers to a situation where it is not possible to carry out the planned train operations on a section, for example, due to technical problems such as signalling failures, unavailable switches, or only one passable

track on a double-track section.

6.3.3.3 Emergency response plan for accidents

Bane NOR has an emergency response portal (Emergency Response in Bane NOR). There, Bane NOR's system for emergency preparedness related to unwanted incidents is outlined. The descriptions in the portal convey Bane NOR's principles for dimensioning and prioritisation.

Emergency response analyses for objects and sections provide central guidelines for the railway undertaking's emergency response analyses/plans. These emergency response analyses are made available in the Emergency Response Portal.

Access to the portal requires a password. For assistance, send an e-mail to beredskap@banenor.no.

Emergency preparedness portal

Tactical and operational emergency preparedness information, including procedures for alerting, managing, communicating and cooperating in emergency situations, as well as various types of analyses.

Log in

6.3.3.4 Logging and storage of calls in Bane Nor's train radio network

In accordance with the Railway Infrastructure Regulations, Section 3-11, third paragraph, Bane NOR must store communications in connection with traffic management securely and for a sufficient time in relation to the need for any potential investigation of railway accidents, serious railway incidents and railway incidents.

Bane NOR logs and stores all such communications. This is applicable to all communication on the train radio network.

These communications will be played back in the following instances:

- in the event of railway accidents and serious railway incidents requiring connection with railway accidents and serious railway incidents
- to check communication discipline

The purpose of storing these communications is linked to safety management in order to help clarify accidents and incidents. Everyone involved in playback must exercise caution in respect of confidentiality and maintaining privacy.

Separate administrative procedures have been prepared for use in connection with railway accidents and serious railway incidents.

6.4 Tools for train information and monitoring

6.4.1 TIS (Train Information System)

TIS (Train Information System) is a network-based program that supports international administration of railway traffic by supplying real-time data relating to international trains. Relevant data is obtained directly from Bane NOR systems. Bane NOR sends data to TIS, where all the information from the various

managers is collated and combined so that it is possible to track the running of a train from departure or the initial destination to the final destination. This permits transboundary monitoring of the train, from start to finish.

Railway undertakings and terminal operators are also able to access TIS. They are invited to participate in the RNE TIS Advisory Board: all members of this board are given full access to TIS data if they are involved in the same train operations. If undertakings and the terminal operators are not members of the RNE TIS Advisory Board, mutual agreements may be signed between the individual undertaking and between the undertakings and terminal operators.

TIS may be accessed for free. If you would like a user account, please contact RNE TIS Support.

Contact TIS Support

E-mail:
support.tis@rne.eu

Website: rne.eu

6.5 Customer and traffic information

Bane NOR provides customer and traffic information through screens, speakers, apps, banenor.no and static signage. Facilities at each individual station are described in our overview of stations.

The customer and traffic information standard has been designed by Bane NOR in consultation with railway undertakings, with Bane NOR playing a coordinating role to ensure operator neutrality. The design of informational elements and rules relating to how information is provided at stations are based on customer insights and requirements for universal design governed by TSI PRM (Technical Specification for Interoperability for Persons with Reduced Mobility).

For a detailed description, see the Customer and Traffic Information Manual in Bane NOR's customer portal.

Bane NOR's customer portal

Do you work for a railway undertaking that has an agreement with Bane NOR? Log in to access useful information.

Log in

Customer and traffic information constitutes the sum of deliveries from core processes on the part of Bane NOR and railway undertakings. The data is created where decisions are made and supplied to those who require information in a machine-readable format. The "master data" owner is responsible for ensuring that the quality of the supplied data provides correct, consistent, fast and useful information for travellers.

Railway undertakings are obliged to provide data in accordance with the descriptions set down in AST. Bane NOR has a duty to provide data in line with the AST and applicable national and international standards. Bane NOR provides information that is relevant to travellers through open data provided to undertakings, Entur and other participants that require information. This is done

using established standards via open APIs in line with ITS legislation.

7 Service Facilities

7.1 Introduction

This part provides a detailed overview of the service facilities associated with Bane NOR's railway network, including information on access conditions, available services, and associated prices. Both Bane NOR's own service facilities and those operated by other entities are covered here. For external service facilities, you will either find information directly in the Network Statement or be referred to relevant websites with the necessary information, in line with the requirements of the Railway Regulations.

On our webpage Service Facilities at banenor.no you will find information about infrastructure and service facilities. This page replaces the relevant annexes in the Network Statement.

Bane NOR is part of Rail Facilities Portal, a platform where service facility operators can meet their legal obligations regarding information requirements and promote their services internationally, offering a simple and effective way to reach railway undertakings and other stakeholders.

We also provide useful guidance to operators of service facilities not managed by Bane NOR. The Common template for service facilities (rne.eu) can be used to provide infrastructure managers with the necessary information, along with details about submission deadlines.

7.2 Service facility overview

Service facilities connected to the railway network, and the services provided at these facilities, are described in the overview below and in the referenced annexes. The Regulation on the implementation of Regulation (EU) 2017/2177 sets the requirements for the content of service-facility descriptions.

Tabell 1: Service facilities overview

Section 4-2 of the Norwegian Railway Regulations	Service facility	Link/chapter
a)	Passenger stations	Station overview
b)	Freight terminals	Terminal overview
b)	Timber terminals	Terminal overview
c)	Shunting tracks	Terminal overview
d)	Stabling facilities	Stabling facilities overview
e)	Maintenance facilities	Maintenance facilities overview
f)	Other technical facilities	Chapter 7.3.7.
g)	Port facilities	Terminal overview (for port tracks, see Siding tracks)

h)	Relief facilities	Chapter 7.3.9
i)	Refuelling facilities	Chapter 7.3.10

7.3 Service facilities managed by Bane NOR

7.3.1 Common provisions

7.3.1.1 Access to service facilities and associated services

In accordance with the Railway Regulations § 4-2, all operators of service facilities must provide access, including track access, to all applicants on non-discriminatory terms. This applies to both the facilities and the services offered there.

For Bane NOR's service facilities (except maintenance facilities), pricing is based on the marginal cost principle. For stations, the price is included in the minimum package of services (see part 5 for more information), as the stations are located on the main tracks. Access to tracks managed by Bane NOR leading to other service facilities is also included in the minimum package of services.

Railway undertakings and other applicants have the right to access service facilities and services operated by Bane NOR, as described in the Railway Regulations § 4-2. For access to and services in service facilities not operated by Bane NOR, applicants must contact the operator of the relevant facility directly.

- For information about content requirements for applications for capacity and services in service facilities, see Chapter 4.2.6.
- For information about the processing of applications for access to service facilities, see Chapter 4.5.3.
- For an overview of the various deadlines connected to the TT26 capacity allocation process, see Chapter 4.5.1.9.

7.3.1.2 Charging of services at service facilities

In accordance with the Railway Regulations § 6-9 (3), Bane NOR sets the charges for services in its service facilities. The price may not exceed the cost required to provide the service (here referred to as the production cost), including a reasonable profit. The production cost includes all direct and indirect costs, as well as capital costs related to the service.

Indirect costs include accounting, debt collection, payroll, auditing, personnel services, health and safety, ICT services, mail, archive, and switchboard services. Capital costs include facility depreciation and the imputed interest rate, meaning the return Bane NOR could have achieved by investing the funds used for the service instead. Therefore, the cost on which the price is based is independent of the financing method chosen (whether through loans or equity).

A "reasonable profit" is defined in the Railway Regulations § 1-7 letter n), and the price should be proportional to the actual usage of the service.

Documentation reports

Station charges (NO)
Consultation annex to Network Statement 2022

Charging for the stabling of passenger trains (NO)
Consultation annex to Network Statement 2022

Charging for the stabling of freight trains (NO)
Consultation annex to Network Statement 2023

Annex 5: Access to freight terminals (NO)

7.3.2 Passenger stations

7.3.2.1 General information

There are 334 operational stations equipped for passenger exchange, with platforms for boarding and alighting. The stations are operated, maintained, renewed, and developed by Bane NOR as part of the services provided to passengers and train companies.

For details on each station, including the services available to both train operators and passengers, see our station overview. Contact information for each station is available through Bane NOR Property.

Below is a general description of the passenger services offered at stations.

7.3.2.2 Services

Station services include all elements associated with the operation and maintenance of the station, such as

- interior and exterior cleaning
- corrective/preventive interior and exterior maintenance
- interior and exterior lighting
- operation and maintenance of technical installations (including lifts, ventilation systems, heating, alarm systems)
- caretaker and security services
- snow clearing/gritting of platforms and access areas

Passenger platforms for boarding and alighting are considered part of the railway infrastructure according to the Railway Regulations § 4-1 c) and are included in the minimum package of services. This also applies to certain access roads for passengers, as well as safety and technical equipment related to the railway infrastructure.

Station services also include the provision of customer and traffic information. The service offerings vary between stations depending on their standard and size. For details about the facilities at each station, please refer to our station overview.

Bane NOR defines the standards at stations in accordance with the regulations in AST, Chapter 9.1.5. Railway undertakings cannot opt out of certain service elements that make up the station service.

7.3.2.3 Service facility description

An overview of public facilities, maps, tracks and platform information, as well as schematic track plans can be found in our overview of stations.

7.3.2.4 Charges

Services specified in Chapter 7.3.2.2 are charged at the cost required to provide the service, including a reasonable profit. Charges for station services at each station are determined based on service packages. For further information about the charging of station services, please refer to the report Charging for stations in Chapter 7.3.1.2.

In accordance with the Railway Regulations § 6-9 (3), Bane NOR sets the charges for services in its service facilities. The price may not exceed the cost required to provide the service (here referred to as the production cost), including a reasonable profit. The production cost includes all direct and indirect costs, as well as capital costs related to the service.

Indirect costs include accounting, debt collection, payroll, auditing, personnel services, health and safety, ICT services, mail, archive, and switchboard services. Capital costs include facility depreciation and the imputed interest rate, meaning the return Bane NOR could have achieved by investing the funds used for the service instead. Therefore, the cost on which the price is based is independent of the financing method chosen (whether through loans or equity).

A "reasonable profit" is defined in the Railway Regulations § 1-7 letter n), and the price should be proportional to the actual usage of the service.

- **Single-user stations:**
  The annual subscription is calculated in such a way that the railway undertaking that uses the station pays the costs.
- **Multi-user stations:**
  The costs are distributed between users based on each undertaking's share of the total number of departures in the timetable at multi-user stations.

Table 2: Charge estimates applied to single-user stations in 2026 (based on 2026-charges)

Portfolio	Total costs
Traffic package 1	51 554 974
Traffic package 2	124 168 733
Traffic package 3	45 710 681
Traffic package East: Share of Gjøvikbanen	16 290 779
Traffic package East: Other lines	185 821 416

Table 3: Charges applied to multi-user stations in 2026 (based on 2026 prices and actual passenger exchanges in 2024)

Portfolio	Total costs	Departures 2024	Estimated cost per departure
Multi-user stations	319 842 416	2 450 872	131

Charges in 2027 will be adjusted in line with Statistics Norway's price index for the operation and maintenance of road infrastructure. For more information, see Chapter 5.8.

Example calculation of the annual subscription for traffic package *j*:

> *Total costs for single-user stations in traffic package j + (Departures from multi-user stations in traffic package j × Cost per departure)*

For companies without a traffic package, the annual subscription is calculated as the number of departures from multi-user stations multiplied by the cost per departure.

7.3.2.5 Access conditions

Everyone is entitled to apply for a train path. Granted train paths must include access to stop at each station. See Parts 3 Access Conditions and 4 Capacity Allocation.

7.3.2.6 Capacity allocation

Capacity is allocated through the capacity allocation process. This process is described in Part 4 Capacity Allocation.

7.3.3 Freight terminals

7.3.3.1 General information

The geographical location of freight terminals, a more detailed description and contact details are provided in our overview of terminals and sidings.

7.3.3.2 Services

Freight terminal services include

- issuance of licenses to operators for service activities at the terminal
- ICT solutions (including Terminal Operations System – TOS)
- sweeping, cleaning, and maintenance of the terminal area
- maintenance of tracks, overhead lines, signalling systems, and other technical equipment
- access/gate control and other security services
- outdoor lighting and electrical work (including track switch heating)
- snow clearing and salting (clearing tracks, loading docks, and access areas)
- storage area for cargo carriers

Traffic management, meaning management of train, locomotive, and wagon movements as well as trucks at the terminal – is included in the minimum package of services.

The service offerings vary between terminals depending on the standard and size. The terminals are divided into two categories: intermodal/container terminals and timber terminals.

Freight ramps adapted for loading and unloading are part of the railway infrastructure under the Railway Regulations § 4-1 c) and are included in the minimum package of services, even when the freight ramp is adjacent to or connected to a freight terminal. The access service also applies to the use of terminal tracks.

Bane NOR does not provide shunting, loading, or unloading services at the terminal. Railway undertakings must enter into contracts with approved terminal operators for these services. The scope of service offerings varies from terminal to terminal.

For information on which terminal operators provide services at individual terminals, see our overview of terminals.

For freight terminals with approved traffic according to the timetable, the arrival tracks are open to trains around the clock throughout the year. Opening hours for the handling of goods, as well as for vehicle entry and exit, may vary.

7.3.3.3 Service facility description

See our overview of terminals for descriptions of each terminal, including timber terminals and port terminals.

7.3.3.4 Charges

Access to freight terminals under the auspices of Bane NOR is priced in accordance with the marginal cost. Bane NOR has not had an economic model appropriate for cost charges for services of this type. In order to estimate the size of current operating and maintenance costs related to freight terminals and stabling sidings, Bane NOR used the cost figures for Alnabru as representative for older terminals, and Ganddal as representative for newer terminals. This gave an annual average cost of NOK 650 per metre in 2018 charges for combination/wagonload terminals, excluding tied-up capital.

Based on the track lengths at the terminals, the costs for each individual terminal were thus calculated. Based on the number of calls per terminal, the marginal costs for access to freight terminals were estimated using the ordinary least squares method. This is set out in Chapters 2.5 and 3.2.2 in Annex 5 Access to freight terminals, prepared in 2016 and revised in 2024.

The costs for timber terminals will be significantly lower.

The charges for the use of intermodal/rail freight terminals are twofold: terminal charges and terminal services.

Terminal charges

Bane NOR collects terminal charges in accordance with the rates described in Table 4 below.

Table 4: Charges for access to intermodal/rail freight terminals (2026 charges)

Terminal	Charge per train arrival
Alnabru	225
Rolvsøy	363
Kristiansand/Langemyr	363
Ganddal	363

Terminal	Charge per train arrival
Bergen/Nygårdstangen	363
Åndalsnes	363
Trondheim/Brattøra/Heimdal	150
Mosjøen	363
Mo i Rana	363
Fauske	314
Bodø	237
Narvik/Fagernes	363

Table 5: Charges for access to timber terminals (2026 charges)

Terminal	Charge per train arrival
Atna	30
Auma	30
Borgestad	30
Braskereidfoss	30
Bø	30
Flesberg	30
Formofoss	30
Hove	30
Hønefoss	30
Jevnaker	30
Koppang	30
Kvam	30
Lassemoen	30
Lunde	30
Nesbyen	30
Norsenga	30
Steinkjer	30
Støren	30
Sørli	30
Vestmo	30

Charges will only be applied to departure terminals and trains travelling at least 5 kilometres from the departure terminal.

Charges in 2027 will be adjusted in line with Statistics Norway's price index for the operation and maintenance of road infrastructure. For more information, see Chapter 5.8.

Terminal services

The terminal service provider charges for the services provided.

All services at freight terminals are provided by terminal operators approved by Bane NOR. Railway undertakings must enter into separate service agreements with these terminal operators.

For information about the operators at each terminal, please see our overview of terminals.

7.3.3.5 Access conditions

Access conditions for the use of freight terminals are twofold: Bane NOR's access conditions and the terminal operator's terms and conditions.

Bane NOR's access conditions

The access conditions for railway undertakings to loading and unloading areas at Bane NOR's freight terminals, beyond the allocated track paths through the capacity allocation process, are as follows:

- Data must be exchanged with Bane NOR's TOS. Details are described in the AST, Annex 2: Traffic data to Bane NOR.
- Railway undertakings must have an agreement with a terminal operator that has a valid access agreement with Bane NOR, or they must enter into such an agreement themselves.
- Additional provisions are found in the terminal handbook.

Terminal operators' conditions for services

For information on which terminal operators provide services at the individual terminals, see our overview of terminals. For further information on freight terminals and services, see chapter 7.3.3.2.

7.3.3.6 Capacity allocation

Capacity is allocated through the capacity allocation process. See Part 4 Capacity Allocation.

To facilitate effective use of Bane NOR's terminals, time limits for loading and unloading have been implemented. These time limits are the bases for capacity allocation. Deviations may be accepted in cases of available rail capacity or instances where deviation from the time limits allows for a more effective use of the terminal.

Tabell 6: Maximum time for terminals

Type of terminal	Activity	Maximum time
Combination terminal	Departing train	2:00
	Arriving train	2:15
	Turn-around-time	3:30
Timber terminal	Loading and unloading	5:00

7.3.3.7 Principles for coordination

Please note that the application procedures for track access and for access to service facilities are different.

Objective

These principles outline what Bane NOR will emphasise when proposing capacity allocation in freight terminals during the coordination process. The purpose is to ensure neutral, predictable, and societally efficient allocation of space in loading/unloading tracks at Bane NOR's freight terminals.

Background

Bane NOR aims to accommodate as many requests for tracks in freight terminals as possible. When receiving more requests than capacity allows for, Bane NOR will attempt to coordinate the applications (see more about the coordination process in Chapter 4.5.4). In the coordination process, Bane NOR may propose how the capacity should be allocated. The proposal may, within reason, deviate from what has been applied for.

Bane NOR's freight terminals have loading/unloading tracks with varying conditions, such as track length, need for shunting capacity, proximity to depots, etc. In order to achieve the most efficient utilisation of the terminal's capacity, Bane NOR will suggest capacity allocation, taking into account the characteristics of the freight terminal, as well as the purpose and attributes of the relevant freight trains.

If the applicants do not accept Bane NOR's proposed capacity allocation, the process will proceed to dispute resolution, and potentially declaration of congestion, along with the use of socio-economic analyses to resolve the specific conflict.

Prerequisites for capacity requests in freight terminals

- Indicative times in loading/unloading tracks are time slots allocated to the applicant in the respective loading/unloading track. The applicant cannot demand more time in loading/unloading tracks than the provided indicative time.
- Terminal-specific operating conditions are requirements that Bane NOR imposes on railway undertakings that use the terminal. Such operating conditions include, but are not limited to, the use of loading/unloading tracks, stabling sidings, depot areas, construction periods, etc. Terminal-specific operating conditions should be available through Bane NOR's Terminal Handbook and/or published via the start-up letter for the upcoming timetable process.
- To ensure efficient and safe terminal operations, it is necessary to have «air» between the trains. Therefore, Bane NOR may reserve some capacity for damaged wagons, or other conditions necessary for the safe operation of the terminal.

Prioritization of pre-arranged paths (PaPs)

PaPs are pre-constructed train paths through the European rail freight corridors. Norway is part of the ScanMed RFC corridor. PaPs include capacity both on the line and in loading/unloading tracks. Their capacity is determined before the regular capacity allocation process and is made available as predefined catalogue paths that train operators may apply for. Because PaPs – including terminal time – are fixed in advance, they are not subject to change during the capacity allocation process.

Principles for proposing capacity allocation during coordination

If Bane NOR determines that not all requests can be fully accommodated, capacity will be allocated based on the following principles, in order of priority:

1. **Train length relative to loading/unloading track length:**
   Longer tracks should preferably be used for longer trains.
2. **Timings (departure/arrival):**
   Loading should begin as close to departure as possible, and unloading as close to arrival as possible, to minimise waiting time and optimise capacity use.
3. **Minimisation of shunting:**
   Capacity allocation should aim to reduce the need for shunting to improve efficiency and reduce time.
4. **Proximity to depot:**
   Allocation of loading/unloading track capacity should consider the distance to the depot to optimise logistics and handling.
5. **Minimising changes to applications for international train paths:**
   Capacity allocation should avoid altering existing international paths as far as possible, to ensure continuity in international freight operations.
6. **Other relevant factors:**
   Any additional relevant considerations, including economic impacts raised by the applicant, will also be assessed.

If train operators request tracks that differ from those indicated by the principles above, Bane NOR will contact the operator to discuss possible alternative solutions.

Deviation from coordination principles

Terminals must have the option to deviate from the principles if there are operations that work better with alternative solutions. For instance, in some cases it may be more suitable to use all tracks, even if the principles will cause some tracks to be used less.

If Bane NOR bases proposals for capacity allocation on factors that deviate from the coordination principles, this should be done in consultation with the affected railway undertakings and documented with written justification.

7.3.4 Marshalling yards and train formation facilities, including shunting facilities

7.3.4.1 General information

Shunting may be performed at several locations throughout Bane NOR's network. Railway undertakings offer shunting as a commercial service at certain locations. Shunting may also be performed outside of these areas by the undertakings themselves, if permitted by railway conditions.

For an overview of locations where shunting is provided as a commercial service by railway undertakings, please refer to the table in Chapter 7.3.4.2.

7.3.4.2 Services

Table 7: Railway undertakings that offer shunting at various locations

Terminal	CargoNet	Grenland Rail	OnRail
Alnabru	X		X
Sundland (Drammen)	X	X	
Elverum		X	
Kongsvinger			
Hamar			
Halden		X	
Kongsberg/Flesberg		X	
Ørvik (Brevik)		X	
Borgestad			
Ganddal	X		X
Bergen/Nygårdstangen	X		X
Trondheim/Brattøra	X		
Narvik/Fagernes	X		
Heimdal	X		X
Langemyr	X		
Rolvsøy	X		
Sarpsborg	X		
Fauske	X		
Mo I Rana	X		
Mosjøen	X		

Operators that offer shunting

For more information about operators that offer shunting:

CargoNet

Grenland Rail

OnRail

At present, Bane NOR does not offer shunting. If necessary, Bane NOR can arrange contact with an undertaking that may be able to undertake shunting at locations other than those mentioned in the table above.

Contact Bane NOR OSS

E-mail
oss@banenor.no

7.3.4.3 Service facility description

For information about relevant facilities and tracks, see our overviews of terminals and sidings.

7.3.4.4 Charges

Charges for the use of shunting facilities are twofold: terminal charges and service charges.

Terminal charges

Bane NOR collects terminal charges. For inforation about rates, see Chapter 7.3.3.4.

Service charges

The provider of the shunting service charges for the service. For information about which undertakings offer shunting services at which terminals, see Table 6 in Chapter 7.3.4.2.

7.3.4.5 Access conditions

Access conditions for shunting areas are as follows:

- **Allocated train path** – must comply with the capacity allocation process
- **Agreement with Bane NOR** – railway undertakings are granted the right to use Bane NOR's shunting areas by entering into an AST agreement with Bane NOR

Safety and other technical gear available in freight terminals is a part of the railway infrastructure according to Chapter 5.2 and is included in the minimum access package.

For information about which undertakings offer shunting services at which terminals, see Table 6 in Chapter 7.3.4.2.

7.3.4.6 Capacity allocation

Capacity is allocated through the capacity allocation process. This process is described in Part 4 Capacity Allocation.

7.3.5 Stabling facilities

7.3.5.1 General information

Bane NOR offers stabling at a number of locations throughout the country. For further information about each rail yard and stabling facility, please see our overview of stabling facilities.

7.3.5.2 Services

The service includes "parking" of both passenger and freight trains, both during operational breaks and long-term.

Bane NOR does not offer provisioning services such as interior cleaning, etc. but railway undertakings have the opportunity to arrange for such services at Bane NOR facilities themselves.

For information about the services that are or can be provided at each facility, please see our overview of stabling facilities.

Power supply for stabled vehicles at Bane NOR's facilities

For vehicles with their own pantographs

- Main solution: from the overhead contact line (including redundancy).
- Possible temporary backup solution: existing train heating posts for vehicles that can be connected.

For vehicles without their own pantographs

- Main solution: from train heating posts

Main terms and conditions

- Stabling under an energised overhead contact line must meet the requirements concerning electrical safety, regardless of whether power supply is received or not.
- Climbable rolling stock must not be left under energised overhead lines without proper area protection. For more details, see TRV's guidelines for stabling under energised overhead line .
- Stabling under an energised overhead contact line must meet the requirements concerning electrical safety, regardless of whether power supply is received or not.

7.3.5.3 Description of service facility

For descriptions of each facility, please see our overview of stabling facilities.

7.3.5.4 Charges

Access to Bane NOR's stabling sidings is priced in accordance with the marginal cost and is included in the minimum access package.

Charges for the stabling of passenger trains

Stabling (parking) of passenger trains will be priced at the cost charged for performing the service, including a reasonable profit.

The stabling/parking charge comprises

- operation and maintenance
- traffic management
- administration
- capital expenses

The need for stabling is also established in connection with the capacity allocation process. The charges are initially a one-year "subscription" and are set on a per-metre of train material basis. There are two stabling areas: Lodalen and Drammen, the use of which is charged by the hour. The charges for these two stabling areas are also based on subscriptions but determined based on the number of hours allocated.

Parking for less than one hour is free at multi-user facilities.

For further information about stabling areas, please see the report Charging for the stabling of passenger trains in Chapter 7.3.1.2.

Tabell 8: Subscription charges for stabling/parking (2026 charges)

Stabling area	Annual charge per metre	Hourly charge per metre
Eastern Norway	5 238	1,45
Rest of country	2 972	0,82

Stabling is charged based on the length of the vehicle.

Charges in 2027 will be adjusted in line with Statistics Norway's price index for the operation and maintenance of road infrastructure. For more information, see Chapter 5.8.

Charging for the stabling of freight trains

The charges for stabling of freight trains are based on a pricing model that was implemented in 2023. For documentation, please see the report Charges for the stabling of freight trains in Chapter 7.3.1.2.

Operational stabling

The use of stabling sidings will be free for the first 48 hours after arrival at the terminal/stabling area.

Segmentation

There will be one rate for the use of stabling sidings in A-areas and one for the rest of the country, B-areas. The rate in the A-areas will be higher than the rate in the B-areas. In this instance, only Alnabru will be defined as an A-area.

Charge unit

There will be a subscription-based charge for the use of stabling sidings for freight trains. This means that railway undertakings will pay an annual charge based on the stabling scheduled in the timetable.

Railway undertakings will pay one charge per hour per commenced 100 metres of stabled stock, depending on whether it is an operational stabling or long-term stabling and whether stabling takes place in an A- or a B-area.

Stabling outside of the timetable

In the event of a need arising that is not included in the timetable, the railway undertakings must pay an hourly rate corresponding to the hourly rate for assigned stabling.

Cost basis and charges

The cost comprises

- operation and maintenance
- depreciation
- traffic management

The charge shall not exceed the costs of providing the services, plus a mark-up for reasonable profit. In this case, the charges set much lower than the costs associated with providing the services. The charges described in Table 8 below, will apply from 2027.

Tabell 9: Charge per hour per commenced 100 metres of stock in NOK (2026 charges)

Stabling area	Charge for the first 48 hours	Charge after the first 48 hours
Alnabru	0	31
Other areas	0	6

Charges in 2027 will be adjusted in line with Statistics Norway's price index for the operation and maintenance of road infrastructure. For more information, see Chapter 5.8.

7.3.5.5 Access conditions

Railway undertakings and other applicants are given the right to use tracks to rail yards/stabling facilities by entering an AST with Bane NOR. Railway undertakings and other applicants may apply to Bane NOR for the use of Bane NOR's rail yards and any services provided by Bane NOR at such yards at the charges applicable at any time.

Use of sidings for vehicle storage:

- **Short-term storage:**
  Applicants needing a track for storage of vehicles used in daily and regular operations must report this need during the capacity allocation process, see Part 4 Capacity Allocation.
- **Long-term storage:**
  Applicants that need track space for long-term storage of vehicles must discuss this requirement with Bane NOR's OSS.

The following information must be included in the request:

- need for track space, in metres
- any need for additional services (such as electricity for train heating)
- preferred storage location
- axle load

All need for access to tracks for work on vehicles, including cleaning, must take place in accordance with the rules set down in Bane NOR's Operational Regulations (ORV).

Contact Bane NOR OSS

E-mail
oss@banenor.no

7.3.5.6 Capacity allocation

Capacity is allocated through the capacity allocation process. This process is described in part 4 Capacity Allocation.

7.3.6 Maintenance facilities

7.3.6.1 General information

Bane NOR has different roles at the various maintenance facilities in Norway. Several of Bane NOR's maintenance facilities are leased under agreements, either with train operators or maintenance providers. In these facilities, Bane NOR does not manage the capacity. The following facilities are governed by such agreements:

- Bergen
- Bodø
- Brattøra (Trondheim)
- Fagernes (Narvik)
- Filipstad (Oslo)
- Flåm
- Kongsvinger
- Kvaleberg (Stavanger)
- Lodalen mountain stable (Oslo)
- Marienborg motor vehicle workshop
- Marienborg locomotive shed
- Støren Workshop

At other maintenance facilities, the capacity of the facility is provided and managed by Bane NOR. Maintenance service providers operating at these maintenance facilities do not have exclusive access. Railway undertakings that enter into agreements for access with Bane NOR are free to use other maintenance service providers at the facilities. This applies to the following facilities:

- Alnabru (Oslo)
- Grorud (Oslo)
- Lodalen (Oslo)
- Marienborg defrosting and pressure washer hall, locomotive workshop, and diagnosis
- Marienborg Train washer and sanitation building 1
- Skien
- Sundland (Drammen)

An overview of all maintenance facilities can be found in our overview of maintenance facilities.

Main principles for capacity allocation where Bane NOR operates the facility

Bane NOR is obligated to provide access to and use of facilities on objective and equal (transparent) terms for railway undertakings and other railway actors in accordance with the Railway Regulations, particularly § 4-2 and 4-3, and based on the railway undertakings' legitimate preparation and maintenance needs.

Bane NOR shall ensure the fair allocation of tracks, access to workshop buildings, and other workshop facilities, and shall ensure that unjustified discrimination does not take place.

However, Bane NOR may carry out necessary coordination and prioritisation to ensure optimal utilisation of workshop capacity.

7.3.6.2 Services

Bane NOR does not offer maintenance of train materials (maintenance services). Bane NOR accommodates self-provision of maintenance services at the facilities where the capacity is provided and managed by Bane NOR. Railway undertakings are responsible for entering into their own agreements with maintenance service providers concerning such services or must use their own resources.

For information about services at facilities where capacity is not managed by Bane NOR, please see our overview of maintenance facilities.

7.3.6.3 Description of service facility

For information about the services offered at each maintenance facility, please see our overview of maintenance facilities. Note that discrepancies may occur as services are being developed.

7.3.6.4 Charges

To the extent that use of the facility necessitates the use of railway infrastructure charged at a rate equivalent to the minimum access package, it will be charged as part of the minimum access package. This applies regardless of who the service facility is owned by and who manages the capacity of the facility concerned.

Workshop access charges are calculated after a request for access is received and depends on several factors that are clarified during such a request. Workshop access is priced according to the principle of cost price with the addition of a reasonable profit.

7.3.6.5 Access conditions

Bane NOR's general access conditions are described in Part 3 Access Conditions.

For maintenance facilities where capacity is managed by Bane NOR, applicants must enter into an agreement with Bane NOR for access. Railway undertakings and other applicants wishing to enter into an agreement may contact the service facilities unit via Bane NOR.

Contact Bane NOR OSS

E-mail
oss@banenor.no

Maintenance service providers determine their own terms and conditions for the services provided.

Bane NOR does not determine access conditions for facilities where the capacity is not managed by Bane NOR. Please refer to Chapter 7.3.6.1 for an overview of the facilities concerned.

7.3.6.6 Capacity allocation

Track access to maintenance facilities is allocated through the capacity allocation process. This process is described in Part 4 Capacity Allocation.

The capacity at the maintenance facilities for which Bane NOR manages capacity is allocated in accordance with the "procedures for management and administration of the track use plan." For more information, please see our overview of maintenance facilities and Chapter 7.3.6.1.

Capacity allocation at maintenance facilities for which Bane NOR does not manage capacity is determined and described by the party responsible for managing capacity. For information about each maintenance facility, see our overview of maintenance facilities

7.3.7 Other technical facilities

7.3.7.1 General information

All cleaning and washing facilities are connected to maintenance facilities. For an overview of available services at other technical facilities, including cleaning and washing facilities, see our overview of service facilities.

7.3.7.2 Services

7.3.7.2.1 De-icing facilities

There is one de-icing facility in Norway, located at the Alnabru freight terminal. This facility is designed to handle up to 4,000 meters of freight trains per day.

7.3.7.2.2 Installations in connection with "Condition monitoring of rolling stock"

Four locations with wheel defect detectors and three with acoustic bearing detectors (2025) are connected to a central monitoring system (as of December 2025), which is owned and operated by Bane NOR. Each detector provides status information on all wheels and wheel bearings of a train, enabling the detection of wheel flats, bearing damage, and other wheel defects.

Regular monitoring of the condition of rolling stock using this service is the responsibility of the train operator, who is also responsible for utilising the benefits of the system. Bane NOR encourages operators to make use of this service.

An additional wheel flat detector is connected to other systems (not available outside of Bane NOR). Its primary function is to detect overheated bearings.

In cases where infrastructure is damaged and there is suspicion that the damage was caused by rolling stock, the system may be used to assess responsibility, which could result in a claim for compensation from the responsible party, potentially a train operator.

The current service is nearing the end of its lifespan and may therefore be vulnerable to loss of measurements if individual detectors fail.

Principles for RFID-labelling of trains/wagons

All rolling stock must be equipped with RFID tags. The railway undertaking is responsible for ensuring that all trains and wagons are fitted with RFID tags in accordance with applicable principles and that the ID structure of the tags is correct. RFID is used to identify rolling stock within the monitoring system,

enabling clear and rapid notifications to the railway undertaking in cases of wheel flats and/or bearing defects.

Since RFID tagging is mandatory, Bane NOR may impose sanctions on railway undertakings that fail to comply with this requirement.

Download guidelines for RFID (NO)

Principles for RFID-labelling of trains/wagons (PDF 164,61 KB)

Overheating detectors

As of October 2024, Bane NOR has one operational overheating detector, located at Gravhalsen on Bergensbanen.

Data from this detector is not available outside of Bane NOR.

7.3.7.3 Description of service facility

Table 9: Available wheel damage detectors/wheel flat detectors

Location	Line	Details	FleetOne
Langum	Sørlandsbanen	Betwen Gulskogen station and Mjøndalen station	Yes
Huseby	Drammensbanen, left main track	Between Brakerøya station and Lier station	Yes
Skatval	Nordlandsbanen	Between Skatval station and Langstein station	Yes
Straumsnes	Ofotbanen	Between Djupvik station and Straumsnes station	Yes
Gravhalsen	Bergensbanen	Between Myrdal station and Upsete stop	No

Tabell 10: Available acoustic-bearing damage detectors

Location	Line	Details	FleetOne
Huseby	Drammensbanen, both main tracks	Between Lier station and Brakerøya station	Yes
Skatval	Nordlandsbanen	Between Skatval station and Langstein station	Yes
Straumsnes	Ofotbanen	Between Djupvik station and Straumsnes station	Yes

Tabell 11: Available hot box detectors

Location	Line	Details	FleetOne
Myrdal	Bergensbanen	Før Gravhalstunellen retning Bergen	Myrdal

7.3.7.4 Charges

As the owner of the detectors, Bane NOR will cover the costs associated with the operation and maintenance of the detectors, as well as the operation and support of FleetONE. Costs related to setting up and customising the system for individual railway undertakings must be covered by each railway undertaking.

7.3.7.5 Access conditions

FleetONE is accessible through a WEB interface. To gain access, follow the link and click “Register” in the top right corner. Access must be approved by an administrator, so it is also necessary to contact OPM user support and provide a justification for access.

Access to condition monitoring of rolling stock

The system is available via a web interface for FleetONE.

Log in

7.3.7.6 Capacity allocation

Not applicable.

7.3.8 Port facilities

7.3.8.1 General information

For information about port facilities linked to railway activities, see our overview of terminals. For information about port tracks, see our overview of sidings.

7.3.8.2 Services

Bane NOR does not offer any services at port facilities. Please see our overviews of terminals and sidings for information about the services that are offered at each facility.

7.3.8.3 Description of service facility

For information concerning port terminals with railway links has been provided for each port, see our overviews of terminals and sidings.

7.3.8.4 Charges

Each port facility provider will determine the charges for its services. For more information, see our overviews of terminals and sidings.

7.3.8.5 Access conditions

For information concerning access conditions to port facilities, see our overviews of terminals and sidings.

7.3.8.6 Capacity allocation

Track access to and from port facilities is allocated through the capacity allocation process. This process is described in Part 4 Capacity Allocation.

7.3.9 Relief facilities

7.3.9.1 General information

The main purpose of the contingency terminal is for loading and unloading operations for freight trains in instances where freight trains are unable to reach the destination terminal due to unforeseen circumstances.

Bane NOR has an emergency response portal (Beredskapsportalen) containing information about emergency response, available via the portal.

Bane NOR's emergency response portal

Emergency response information covering alerting protocols, incident handling, communication procedures, and coordination during emergencies.

Log in

Contact Bane NOR's emergency response portal

E-mail
beredskap@banenor.no

7.3.9.2 Services

Bane NOR facilitates independent delivery of loading/unloading services at its relief facilities.

7.3.9.3 Description of service facility

Locations with relief facilities

Kvam
Kvam station in Nord-Fron along Dovrebanen.

Palmafoss
Palmafoss terminal in Voss, Hordaland, an extension of Bergensbanen.

Støren
Støren stabling facility in Midtre Gauldal municipality, where Dovrebanen and Rørosbanen meets/splits.

Steinkjer
Steinkjer stabling facility in Steinkjer municipality, along Nordlandsbanen.

7.3.9.4 Charges

The user of the terminal shall cover Bane NOR's costs for operation and maintenance of the contingency terminal, unless otherwise agreed. Costs that will be invoiced are variable and shall cover operations and maintenance as a result of use (including snow removal, paving/gritting and repair of damage).

7.3.9.5 Access conditions

Conditions for the use of relief facilities for contingency terminals:

1. **Main purpose:**
   The contingency terminal is for loading and unloading operations for freight trains in instances where freight trains are unable to reach the destination terminal due to unforeseen circumstances.
2. **Secondary use:**
   The contingency terminal may also be used for other purposes. Conditions for secondary use are that operations that use the contingency terminal shall make the area available within four hours upon receipt of notification that the terminal needs to be used for its main purpose.

7.3.9.6 Capacity allocation

Track access is allocated through the capacity allocation process. This process is described in Part 4 Capacity Allocation.

7.3.10 Refuelling facilities

7.3.10.1 General information

Fuel refuelling facilities (diesel) for passenger and freight traffic are owned by Togdiesel AS. Circle K supplies diesel at all locations. Togdiesel AS provides refuelling facilities at the locations listed in Table 12.

Table 12: Locations where Togdiesel AS offers refuelling facilties

Location	Line	Owner	Information
Alnabru	Hovedbanen	Bane NOR	Alnabru refuelling facility and AdBlue
Røros	Rørosbanen	Bane NOR	Røros refuelling facility and AdBlue
Åndalsnes	Raumabanen	Bane NOR	Åndalsnes refuelling facility and AdBlue
Hamar	Dovrebanen	Bane NOR	Hamar refuelling facility and AdBlue
Støren	Dovrebanen	Bane NOR	Støren refuelling facility and AdBlue
Marienborg	Dovrebanen	Bane NOR	Marienborg refuelling facility and AdBlue
Steinkjer	Nordlandsbanen	Bane NOR	Steinkjer refuelling facility and AdBlue
Mo i Rana	Nordlandsbanen	Bane NOR	Mo i Rana refuelling facility and AdBlue
Bodø	Nordlandsbanen	Bane NOR	Bodø refuelling facility and AdBlue

7.3.10.2 Services

The service provided by Togdiesel AS consists of access to pumps for refuelling of rolling stock, as well as the associated supply of fuel supplied by Circle K. The service is the same at all facilities mentioned in Chapter 7.3.10.1.

7.3.10.3 Descripion of service facility

All facilities mentioned in Chapter 7.3.10.1 are compatible with all locomotives and motor vehicles that currently operate in the railway network, as well as the new Type 76.

In the event of questions concerning technical compatibility, please contact Serviceanlegg via Bane NOR.

Kontakt Bane NOR OSS

E-post
oss@banenor.no

7.3.10.4 Charges

The railway undertaking pays for diesel in accordance with the prevailing market price, as well as a fee for the operation and maintenance of diesel tank facilities. This fee covers the railway undertaking's share of the total costs for technical and administrative operations, which are shared between Togdiesel AS, Circle K Norge AS, and Circle K's subcontractors.

These fixed costs are invoiced to the railway undertaking in addition to the prevailing price per litre. In addition to the price per litre, which is adjusted monthly based on market prices and government fees, operational measures may affect costs. Examples of such costs include

- long-term depreciation of existing and new investments in technical facilities, and rental of diesel tank facilities
- land rental for the required area for the diesel tank facility, including access for tanker lorries
- costs for technical operations, corrective and certified maintenance of diesel refuelling facilities
- administrative and accounting management of the diesel tank facilities, including specific consumption reporting carried out by Circle K Norge AS, as well as costs for Circle K's use of operational services provided by its subcontractors
- ongoing procurement of diesel at market price (Platts quote for ULSD 10 PPM construction diesel)
- applicable taxes and fees, supply and infrastructure costs, quality surcharges, and transportation surcharges

These costs are adjusted annually in line with the Consumer Price Index (CPI), along with a reasonable profit margin. The railway operator is hereby notified that this adjustment will occur every year.

Togdiesel AS applies a margin of 20 øre per litre for pre-financing and bulk purchasing of diesel. This margin can be adjusted and renegotiated every two years, with the first review scheduled for 1 January 2026.

7.3.10.5 Access conditions

To use railway infrastructure that provides access to fuel filling facilities, applicants must enter into an access rights agreement (AST) with Bane NOR.

Applicants must also enter into agreements with Togdiesel AS and the fuel supplier Circle K to gain access to the fuel facilities. These agreements apply to all relevant facilities. Access is only granted to railborne equipment, and rail/road machines do not have access to these facilities. Once the agreement with Togdiesel AS and Circle K is signed, an electronic card will be issued, which must be kept in the vehicle and used during refuelling.

Contact Bane NOR OSS

E-mail
oss@banenor.no

7.3.10.6 Capacity allocation

Track access is allocated through the capacity allocation process. This process is described in Part 4 Capacity Allocation.