HELLENIC RAILWAYS ORGANISATION

2023

NETWORK STATEMENT



A publication of the

Greek Railways Organisation

NETWORK STATEMENT
2023

ATHENS

List of amendments

No	Date	Section	Description
1	28/12/2021	Introduction and Chapters 1, 3, 4	Update of infrastructure data according to OSE/DISSY/28-12-2021/9170001
2	9/12/2022	3.3	Traffic restrictions

INTRODUCTION

The Greek Railways Organisation (OSE S.A.) publishes the Network Statement, in conformity with the provisions of Article 27 of Law 4408/27.07.2016, for the transposition of Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 in the Greek legislation.

The present Network Statement aims to describe the services offered by OSE to the Railway Undertakings that wish to provide services of passenger and freight transport within its railway network.

The present Network is valid for the annual timetable period 2023. It starts at midnight on the second Saturday (to Sunday) in December 2022, and more specifically it is valid from Sunday 11.12.2022 to Saturday 9.12.2023.

The Network Statement is updated and amended if required (par.3, art. 27, L. 4408/2016, 2012/34/EU).

In case of a difference between the greek and the english edition of the Network Statement, the interpretation of the greek text prevails.

CONTENTS

CHAPTER	***Chapter-Page***
1. GENERAL INFORMATION	
1.1 Introduction	1-1
1.2 Objective	1-1
1.3 Legal framework	1-1
1.4 Legal status	1-1
1.5 Contents of the Network Statement	1-2
1.6 Application and alterations	1-3
1.7 Regulations for publication and distribution	1-3
1.8 Competent services	1-3
1.9 Rail Freight Corridor 7	1-4
1.10 [blank for future use]	1-4
1.11 Definitions, points to note and abbreviations/symbols	1-4
2. CONDITIONS FOR ACCESS	
2.1 Legal framework	2-1
2.2 General conditions	2-1
2.3 General operational/commercial conditions	2-1
3. INFRASTRUCTURE	
3.1 Definition	3-1
3.2 Network description	3-1
3.3 Circulation restrictions	3-7
3.4 Service facilities	3-8
4. CAPACITY ALLOCATION	
4.1 Legal framework	4-1
4.2 Procedure description	4-1
4.3 Route request and allocation procedure	4-2
4.4 Capacity allocation	4-3
4.5 Capacity allocation for maintenance, renewal and upgrade	4-5
4.6 Regulations relevant to the use of railway routes	4-5
4.7 Special measures in the event of circulation disturbance	4-6
4.8 Capacity	4-6

5. SERVICES
5.1 Legal Framework 5-1
5.2 Access to services facilities 5-1
5.3 Additional services 5-2
5.4 Ancillary services 5-2

6. CHARGES
6.1 Legal framework 6-1
6.2 Charging principles 6-1
6.3 Charges of Minimum Access Package 6-1
6.4 Charges of Access to Facilities & Services 6-3
6.5 Charges of Auxiliary Services 6-3
6.6 Tourist-Historical Narrow-Gauge Lines (<1000mm) 6-4
6.7 Cancelling a Reserved Path 6-4
6.8 Special Charges - Additional Services 6-4
6.9 Performance Scheme 6-6

ANNEXES

ANNEX I-A:

Infrastructure Data/Routes – *Athens-Piraeus – Platy Segment* A-1

ANNEX I-B:

Infrastructure Data/Routes – *Peloponnese Metric Line* A-3

ANNEX I-C:

Infrastructure Data/Routes – *Florina – Platy - Alexandroupolis – Ormenio Segment* A-5

ANNEX I-D:

Infrastructure Data/Routes – *Airport – SKA – Kiato Segment* A-7

ANNEX I-E:

Infrastructure Data/Routes – *Kiato-Aigio Segment* A-8

ANNEX II:

Network/Stations Nodes Data A-10

ANNEX III-A:

Load and speed A-64

ANNEX III-B:

Loading and Clearance gauge A-67

ANNEX IV:

Tunnels over 1000 m. A-69

ANNEX V:

Technical Vehicle Inspection Charges A-70

ANNEX VI:

Draft of a Track Access Agreement A-71

ANNEX VII:

Form of request for capacity allocation A-76

ANNEX VIII

Service facilities A-78

CHAPTER 1
GENERAL INFORMATION

1.1 Introduction

The present Network Statement (NS) has been drafted by OSE, the Infrastructure Manager of the Hellenic Railway Network, with the aim to describe the services offered by the Organisation to Railway Undertakings that wish to provide services of passenger and freight railway transport within its network.

The primary target of the Network Statement (NS) is to constitute a manual-guide of relevant information, available to this date, regarding the services provided to Railway Undertakings.

Furthermore, it is provided that additional information will be added gradually to future editions of the NS.

1.2 Objective

The NS will constitute a unified source of information, useful and necessary to every Railway Undertaking that wishes to provide transportation services within the railway network, as this is described in the present NS. A basic concern during drafting of the NS was to ensure easy and unbiased access to information.

1.3 Legal framework

The NS was constructed in conformity with the provisions of Article 27 of Law 4408/27.07.2016, for the transposition of Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 in the Greek legislation.

1.4 Legal status

1.4.1 General remarks

The NS is intended to be a source of information for Railway Undertakings, thus and under this status it has no contractual validity. In the case that a Railway Undertaking and OSE have entered an agreement for access to the railway

network in question, contractual validity is immediately applied to all the documents comprising the NS.

1.4.2 Communication of scheduled modifications

The NS includes information regarding a particular time period, namely its validity period, prior to the construction of the next NS. When a modification of the physical network and/or any of its conditions of use takes place within the validity period of the NS, the modification in question must be included anew in the NS. Nevertheless, no commitment is incurred towards the Railway Undertakings for the application of the modifications in question, at the dates being presented or referred to.

1.4.3 Appeal procedures

The Railway Undertakings, which have applied for access to the railway network being described or have already entered into an agreement for access to the railway network being described, have the right to appeal to the Railways Regulatory Body (RRB) against decisions by the Infrastructure Manager regarding the NS.

1.5 Contents of the Network Statement

The Network Statement includes the following information:

- information regarding the infrastructure available and the conditions for access to it,
- information regarding the charging principles and rates to be applied to the particular infrastructure, for specific services offered,
- information on the capacity allocation system, as well as the characteristics of the capacity itself,
- application deadlines and procedures,
- applicant requirements,
- capacity allocation timetable,
- principles of the coordination procedure *(for a definition see § 1.11.1.14)*,
- procedures and criteria applied in the event of a congested infrastructure,
- details of possible restrictions on the use of the infrastructure,

- priority conditions regarding the capacity allocation.
- detailed measures to ensure proper handling of freight, international and ad-hoc transports.

1.6 Application and amendments

The present NS is valid for time period from Sunday 11.12.2022 to Saturday 9.12.2023 (or timetable 2023 or TT2023). OSE shall draft the future editions of the NS. OSE shall also be updating the present NS at regular intervals, in order to include additional information or/and amendments of the existing information. Many of the documents that the NS is referring to (e.g. conditions for access to the network) are subject to the existing control and amendments procedures, which include consultations and/or agreements with Railway Undertakings.

1.7 Regulations of publication and distribution

The NS is published in two languages (Greek and English). The content and the interpretation of the Greek edition prevails. It is available in print and on the Internet at the website www.ose.gr.

Regulations for the publication, distribution and charging of related documents, such as conditions for access to the network, have been provided for. Anyone wishing to be included in the distribution list for these documents, should contact the competent executives of the Infrastructure Manager, at the address provided in paragraph 1.8.1 below.

1.8 Competent Services

1.8.1 OSE - Generally

The competent service for Railway Undertakings that wish to enter into an agreement with the Infrastructure Manager for access to the railway network is the Traffic Directorate:

OSE Traffic Directorate

1-3 Karolou st., 10437, Athens

Tel.: +30 210 5297665

Fax: +30 210 5297652

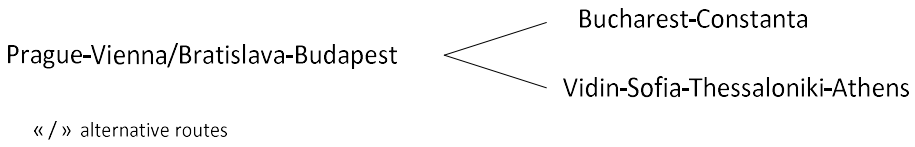
E-Mail: c.chrissagis@osenet.gr

1.8.2 OSE – NS

For issues regarding the content of the NS, the interested parties may write to the address of paragraph 1.8.1.

1.9 Freight Corridor 7

According to the Regulation 913/2010 (EU) of the European Parliament and of the Council, Freight Corridor 7 passes through the Greek Network. The principal routes of the corridor are the following:



The European Rail Freight Corridor 7 is in operation since November 2013. Further information and documents related to this corridor are available on the web site: www.rfc7.eu.

1.10 [blank for future use]

1.11 Definitions, Points to note and Abbreviations/Symbols

1.11.1 Definitions

1. *License*: the permission that the Regulatory Authority for Railways (RAS) grants to an undertaking in order to acknowledge its status as a railway undertaking.
2. *Applicant*: the railway undertaking and/or international group of railway undertakings, as well as freighters, transport order receivers, and undertakings of combined transports, which hold a license for the operation of railway services in the Greek territory.

3. *Network Statement*: the statement which specifies in detail the general rules, deadlines, procedures, and criteria concerning the charging and capacity allocation systems. The statement also includes all the information necessary for the submission of the application of infrastructure capacity allocation.
4. *Infrastructure Manager*: the undertaking responsible mainly for establishing and maintaining the railway infrastructure, as well as the control and safety systems.
5. *Network*: the entire railway infrastructure administered by the Infrastructure Manager.
6. *National Railway Infrastructure*: the Railway Infrastructure existing within the Greek territory, as well as any future expansion thereof.
7. *Allocation*: the allocation of railway infrastructure capacity by the Infrastructure Manager.
8. *Congested infrastructure*: a section of the infrastructure for which the request for capacity cannot be fully satisfied during certain periods after the completion of the coordination process.
9. *Regional services*: transport services aimed to accommodate the transportation needs of an area.
10. *Working timetable*: the data defining all planned train and rolling-stock movements which will take place on the relevant infrastructure during the period for which it is in force.
11. *Train path*: the infrastructure capacity required for the circulation of a train between two places at a given time period.
12. *Railway Undertaking*: any public or private undertaking licensed according to this Directive, the principal business of which is to provide services for the transport of goods and/or passengers by rail with a requirement that the undertaking ensure traction; this also includes undertakings which provide traction only.
13. *Framework Agreement*: a legally binding general agreement under public or private law, setting out the rights and obligations of an applicant and the infrastructure manager in relation to the infrastructure capacity to be allocated and the charges to be levied over a period longer than one working timetable period.

14. *Infrastructure capacity*: the potential to schedule train paths requested for an element of infrastructure for a certain period.
15. *Congested infrastructure*: means an element of infrastructure for which demand for infrastructure capacity cannot be fully satisfied during certain periods even after coordination of the different requests for capacity.
16. *Coordination*: the procedure through which the allocation body and the applicants attempt to resolve the cases of conflicting applications for infrastructure capacity.
17. *Loading gauge*: the dimensions of the maximum transverse cross-section of the vehicles circulating on the tracks of OSE must not exceed the respective dimensions presented in Figure 1 of Annex III-B, by which the loading gauge of OSE is designated.
18. *Free cross-section gauge*: the space surrounding the tracks of OSE that must remain free for the circulation of rolling stock, having the cross-section presented in Figure 2 of Annex III-B, by which the free cross-section perimeter of these tracks is designated.

1.11.2 Remarks and abbreviations

Remarks to note

It is necessary to draw attention to some points regarding the terms used in the present NS and are applicable, i.e. either there is no definition for them or their exact definition is not applied, yet they were defined in the present NS, for the purposes of the Statement.

1. *Line Code*: A code number for the identification of the line. The number is given according to AGC coding[1], once the line has been included in the AGC agreement.
2. *Path*: line or section of the line which comprises a discernible section of the network, when in between main/major transportation nodes of the network.
3. *Network Transportation Node*: a specific geographical position/network station which is used to ensure circulation or/and passenger servicing (passenger or/and freight).
4. *Terminal Station*: the station where railway lines terminate and it is connected to the remaining railway network by only one direction.

[1]European Agreement for major international railway lines, United Nations, 1985

5. *Passenger Station*: the station which services passenger traffic, yet without its operation/role being limited to the servicing of passengers.
6. *Freight Station*: the station which services freight traffic, yet without its operation/role being limited to the servicing of freight.
7. *Border Station*: the last station to be located before the end of the National Railway Network or equivalently the country borders.

Abbreviations/Symbols

The abbreviations found in the text and the Annexes are the following:

NS	:	Network Statement
Y	:	Yes
N	:	No
St	:	Stop
RS	:	Railway Station
KP	:	Kilometric Position
SC	:	Single Cross-section (in a tunnel)
DC	:	Double Cross-section (in a tunnel)
-	:	Blank
x	:	No available information
NGL	:	Narrow Gauge Line (Metric Line)
CL	:	Conventional Line (Standard Line)
UL	:	Line to be Upgraded
NL	:	New Line
C	:	Cog Railway
CLS	:	Color Light Signaling
ETCS	:	European Train Control System
*	:	Indicates a footnote

CHAPTER 2
CONDITIONS FOR ACCESS

2.1 Legal framework

Access to the railway network, as this is described in the present NS, is regulated by the acts of the Greek Parliament and the relevant legislation and regulations. The NS does provide general directions for the legal conditions for access to the railway network, cited in the previous chapter, yet it is neither conclusive nor exhaustive. OSE recommends that undertakings applying for an access license consult a specialized legal individual or entity.

2.2 General conditions

2.2.1 License for access to the network

Any Railway Undertaking wishing to provide transportation services within the railway network described in the present NS, must satisfy the relevant legal requirements. These requirements include:

- Railway Undertaking License
- Safety certificate
- Appropriate personnel and resources
- Full insurance
- Access agreement with OSE for access to the network
-

2.3 General operational/commercial conditions

2.3.1 Framework agreements

See paragraph 2.3.2 below.

2.3.2 Access Agreement

Every Railway Undertaking must enter into an agreement with OSE for access to its network, so that it may be fully covered as far as the planned transportation services are concerned. Separate agreements for access to stations and services facilities are also necessary. Framework agreements are submitted

for approval to the Regulatory Authority for Railways (RAS), in accordance with the Law 3891/2010.

CHAPTER 3
INFRASTRUCTURE

3.1 Definition

Infrastructure is defined by the catalogue of railway infrastructure elements of Annex I, article 62, Law 4408/2016, incorporating EU directive 2012/34/EU. The Hellenic Railways Organisation (OSE), the infrastructure manager, has the responsibility for the operation, maintenance, upgrade and renewal of railway infrastructure, and the responsibility for participating in its development, according to the framework defined by the Ministry of Infrastructure and Transportation, as part of its overall policy on development and financing the infrastructure (article 3, Law 4408/2016). A more detailed description of the infrastructure is available at the electronic address https://rinf.era.europa.eu/RINF (Register of Infrastructure, European Railway Agency).

3.2 Network description

Article 9 of the Law 3891/2010 defines the categories in which the National Railway Infrastructure is divided into (former National Railway Infrastructure of abolished Presidential Degree 41/2005), as well as the criteria for classifying segments under these categories, as applicable (OSE/GB/7.000.372/27-05-2021).

The above segmentation is the following:

I. Active Network

Network	Line segments
MAIN AXIS	**Piraeus-Athens-Platy-Thessaloniki** The Athens R.S.-Agioi Anargyroi R.S. segment shall operate in single-track mode due to construction works regarding the new underground tunnel with electrification. The Oinoi-Tithorea and Larisa-Evangelismos segments shall also operate in single-track mode due to public works.
	Platy-Polykastro-Idomeni
Branches	Leianokladi-Lamia-Stylida
	Tithorea-Leianokladi (old line)
	Palaiofarsalos-Kalampaka
	Larisa-Volos
	Ano Lehonia-Milies (line gauge 600mm)
CENTRAL & WESTERN MACEDONIA	**Thessaloniki-Platy-Edessa-Arnissa**
Branches	Arnissa-Amyntaio-Florina
EASTERN MACEDONIA	**Thessaloniki-Strymonas-Alexandroupolis-Dikaia-Ormenio**
Branches	Strymonas-Promahonas
PELOPONNESE (metric gauge) - Branches	Diakofto-Kalavryta (750 mm gauge rack railway)
	Rio-Patra-Ag.Andreas
	Ag.Andreas-Kato Achaia
	Katakolo-Alfeios
	Alfeios-Olympia
ATTICA SUBURBAN	Piraeus-Liosia-Kiato-Rododafni
	Airport (Eleftherios Venizelos)-SKA-Liosia-Kiato
	Athens-Chalkis
	Thriasio Pedio-N.Ikonio

II. Network under construction

Network	Segments
CENTRAL & WESTERN MACEDONIA	Polykastro-Idomeni (new segment)
	Kommanos-Kozani (DEI)
PELOPONNESE	Rododafni-Rio
	Isthmos-Loutraki
	Isthmos-Ag.Theodoroi (Motor Oil terminal)
	Kato Achaia-Pyrgos (metric gauge)
	Corinth-Argos-Naflpio (metric gauge)

III.Active Network under temporary suspension of operations

Network	Segments
CENTRAL GREECE	Pineios Bridge-Rapsani (old segment)
	Volos-Velestino-Palaiofarsalos (metric gauge)
	Volos Shunting Yard-Railway Ferry (metric gauge)

	Volos-Anavros (600m gauge)
	Agria-Ano Lechonia (600mm gauge)
STEREA ELLADA	Lianokladi-Domokos (old segment)
	Kryoneri-Agrinio (metric gauge)
	Ag.Dionisios (Pireas) -Pireas Service Facility
PELOPONNESE (metric gauge)	Elefsina-Corinth
	Argos-Tripoli
	Tripoli-Zeuktro-Zeugolatio
	Kiato-Diakofto
	Aigio-Rio
	Kavasila-Killini
	Kalonero-Kyparissia
	Lefktro-Megalopoli
	Asprohoma-Messini
	Zeugolatio-Kalamata
MACEDONIA & THRACE	Track segments between Lahanokipoi-Mouries
	New Zixni-Amfipolis Port
	R.S. Serres – Industrial District of Serres
	Potamos - Industrial District of Alexandroupolis
	Amyntaio-Ptolemaida-Kommanos
	Mesonisi (Florina)-Neos Kafkassos

IV. Abolished Network

Δίκτυο	**Τμήματα Γραμμής**
CENTRAL GREECE & MACEDONIA	Evangelismos-Pineios Bridge (not included)
	Rapsani-Neoi Poroi (old segment)
	Neoi Poroi-Platamonas (old segment)
	Platamonas (old station)
	Exit of existing R.S. Litochoro (old segment)
	Korinos-Aiginio (old segment)
PELOPONNESE (metric gauge)	Vartholomio-Killini Thermal Spa
	Old R.S. Corinth – Old R.S. Kiato
	Diakopto-Aigio

At the categories listed above, no private sidetracks are included.

The network is depicted on Map 1.

3.2.1 Geographical description

Routes

The existing routes *(for a definition see §1.11)* of the railway network of OSE are presented in **ANNEX I-A**: Infrastructure Data/Routes – *Piraeus - Athens – Platy Segment*, **ANNEX I-B**: Infrastructure Data/Routes – *Peloponnese Metric Line*, **ANNEX I-C:** Infrastructure Data/Routes – *Florina – Platy –*

Alexandroupolis – Ormenio Segment, **ANNEX I-D**: *Airport – SKA – Kiato Segment,* **ANNEX I-E:** *Kiato-Aigio Segment*.



Map 1 OSE's Railway Network

Network Transportation Nodes

The existing transportation Nodes *(for a definition see § 1.11)* of the OSE railway network -whether stations or not – are presented in **ANNEX II**: Data of Network Nodes/Stations.

3.2.2 Characteristics of the railway network

Loading gauge and free cross section perimeter

The loading gauge and free cross-section gauge *(for definitions see § 1.11)* are illustrated in Figures 1 and 2, respectively, of **ANNEX III-B**: Loading gauge and free cross-section gauge.

Axle load

The maximum acceptable axle load for the network is 22.5 tons. In more detail, the maximum acceptable axle load is presented in **ANNEX III-A**: Loading and Speed. A special written traffic license is required when the axle load exceeds the allowed values, taking into consideration the defined deviation of 2%. This license is granted after a specific carriage contract has been concluded between the competent organisations.

Load per running meter of track

The maximum acceptable load per running meter of track is 8 tons/meter of track, along the entire network.

Gradient

The maximum longitudinal gradient on the tracks of the existing network is 28,08‰ (excluding the DIAKOPTO-KALAVRYTA Cog railway line, where there is gradient of up to 202‰). More specifically, the maximum longitudinal gradients for the network are presented in **ANNEX I-A**: Infrastructure Data/Routes – *Piraeus – Athens – Platy Segment*, **ANNEX I-B**: Infrastructure Data/Routes – *Peloponnese Metric Line*, **ANNEX I-C**: Infrastructure Data/Routes – *Florina – Platy – Alexandroupolis – Ormenio Segment*, **ANNEX I-D**: *Segment Airport - SKA - Kiato*.

Speed

The maximum allowed speed on the network is 160 km/h for passenger trains and 120 km/h for freight trains. More specifically, the maximum speeds for the network are presented in **ANNEX III-A**: Loading and Speed.

Electrified network

The length of the powered network, is shown in **ANNEX I-A**: Infrastructure Data/Routes – *Piraeus – Athens – Platy Segment*, **ANNEX I-B**: Infrastructure Data/Routes – *Peloponnese Metric Line*, **ANNEX I-C**: Infrastructure Data/Routes – *Florina – Platy – Alexandroupolis – Ormenion Segment*, **ANNEX I-D**: *Segment Airport-SKA-Kiato*.

Maximum train length allowed

The maximum acceptable train length must be such that allows the train to stop at the stations of preference of the Railway Undertaking it belongs to. Therefore, the maximum acceptable train length of a passenger train must be compatible with the length of the station platforms and the maximum

acceptable train length of a freight train must be compatible with the length of the open line of the stations. The technical data of the stations are presented in Annexes: **ANNEX II**: Data of Network Nodes/Stations.

3.2.3 Traffic management and security

Signalling

Network signalling – where available – appears in a separate column and characterized as C.L.S. (Colour Light Signalling – Luminous signal) in annexes: **I-A**, **I-B**, **I-C**, **I-D, II**.

The train protection system installed in Greece is of ETCS Level 1 type (European Train Control System, part of ERTMS - European Rail Traffic Management System), and requires the prior existence of signalling along the line.

Traffic management system

The central traffic management (“remote command”) on the national network is performed by the Central Operators (CO) installed at the Traffic Control Centers (TCC). OSE avails Traffic Control Centers in Corinth (under temporary operation suspension), Athens (under temporary operation suspension), SKA (“Aharnais Railway Center”), Leianokladi, Larissa and Thessaloniki (under temporary operation suspension).

The CO of Corinth controls and regulates traffic on segment ANO LIOSIA - KIATO.

The CO of Athens controls and regulates traffic on segment AHARNAI - TITHOREA.

The CO of Lianokladi controls and regulates traffic on segment TITHOREA - DOMOKOS.

The CO of Larissa controls and regulates traffic on segment DOMOKOS - PLATY.

The CO of Thessaloniki controls and regulates traffic on segment THESSALONIKI - EIDOMENI, segment THESSALONIKI – STRYMONAS and segment THESSALONIKI - PLATY.

The CO of SKA controls and regulates traffic on segment AG. ANARGYROI–SKA - Airport El. Venizelos (temporarily METAMORFOSI - Airport EL. VENIZELOS).

The Traffic Control System is presented in **ANNEX II**: Data of Network Nodes/Stations.

3.3 Circulation restrictions

Dangerous cargo

There are no restrictions for the transportation of dangerous cargo on the network described in the present NS.

Environmental restrictions

There are no environmental restrictions on the network described in the present NS.

Priority in capacity allocation

See §4.4 – Capacity allocation.

Restrictions on tunnels

There are no restrictions on tunnels on the network described in the present NS.

Restrictions on bridges

There are no restrictions on bridges on the network described in the present NS.

Other restrictions

There are no other restrictions for on network described in the present NS.

Specialized infrastructure

See §4.4 – Capacity allocation.

Line Strymonas-Promahonas-Border with Bulgaria

Line reconstruction works. The works will be carried out with a complete and continuous stoppage of traffic for 83 hours per week. Commercial traffic will be served during the remaining 85 hours weekly between Wednesday 18.00 and Sunday 7.00. Train exchange will be served with Bulgaria shall be based on special arrangements with the Bulgarian Railways (NRIC/НКЖИ). It starts on 08.01.2023, duration ~ 10 months.

Thessaloniki-Dialogi station, TX1. ERGOSE Contract 713

Works at TX1. The entry and exit of trains at the direction of Plateos, Idomeni and Alexandroupoli to/from the preparation & reception lines of Dialogi will be impossible. It starts in April 2023, duration ~ 6 months.

Signaling works. ERGOSE Contract 717

Signaling works in the Oinoi-Tithorea section shall continue in 2023 in single line traffic. Completion in March 2023.

Electrification works in the Kiato-Aigio section. ERGOSE Contract 1511

Installation of line electrification infrastructure. Traffic will be carried out on a single line between Kiato and Aigio. It starts in January 2023. Duration throughout the year.

3.4 Service facilities

Shunting yards

The following RS serve as shunting yards:

- Agios Ioannis Rendis (A.I.R.)
- Neo Ikonio
- Thriasio Pedio
- Mezourlos
- Leianokladi
- Thessaloniki – Marshalling

- Thessaloniki – Old Freight Station
- Thessaloniki – New Passenger Station
- Idomeni
- Strymonas
- Alexandroupoli
- Dikea
- Pithio
- Komanos
- Veria/Skidra
- Oinoe
- Volos
- Corinth (NGL)
- Agios Andreas (NGL)
- Kalamata (NGL)
- Tripoli (NGL)

Stabling grounds

The following RS serve as stabling grounds:

- Agios Ioannis Rendis (A.I.R.)
- Mezourlos
- Lianokladi
- Thessaloniki – Marshalling
- Thessaloniki – Old Freight Station
- Thessaloniki – New Passenger Station
- Idomeni
- Strymonas
- Alexandroupoli
- Dikea
- Pithio

- Veria/Skidra
- Corinth (NGL)
- Agios Andreas(NGL)
- Kalamata(NGL)
- Tripoli (NGL)

Border stations

The border stations (*for definitions see §1.11*) of the network are presented respectively in **ANNEX II:** Data of Network Nodes/Stations.

Termini

The termini (*for definitions see §1.11*) of the network are presented in the respective annexes: **ANNEX II**: Data of Network Nodes/Stations.

Passenger stations

The passenger Stations (*for definitions see §1.11*) of the network are presented in the respective annexes: **ANNEX II**: Data of Network Nodes/Stations.

Freight Stations

The Freight Stations (*for definitions see §1.11*) of the network are presented in the respective annexes: **ANNEX II**: Data of Network Nodes/Stations.

CHAPTER 4
CAPACITY ALLOCATION

4.1 Legal framework

The legal framework for the capacity allocation procedure is described in Section 3 (“Distribution of Railway Infrastructure Capacity”) of Chapter IV of Law 4408/2016 “Harmonization of the legislation with Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 for the creation of a single European Railway area”, as currently in effect.

4.2 Description of the procedure

OSE establishes capacity allocation regulations which it communicates to the RAS, and applies the relevant allocation procedures. More specifically, OSE ensures that infrastructure capacity is allocated on a just and non-discriminatory basis and according to Community law.

The infrastructure manager shall, as far as possible, meet all requests for infrastructure capacity including requests for train paths crossing more than one network, and shall, as far as possible, take account of all constraints on applicants, including the economic effect on their business (Art. 45, p.1, L. 4408/2016, 2012/34/EU). The priority criteria shall take account of the importance of a service to society relative to any other service which will consequently be excluded (Art. 47, p.4, L. 4408/2016, 2012/34/EU).

Infrastructure capacity is available for use to the applicants (see 1.11.1) that have submitted the relevant application.

Infrastructure capacity is allocated and may be requested solely from OSE, for each period of the working timetable and within the period defined in paragraph 4.3 below.

Infrastructure capacity may not be transferred by the recipient to another undertaking. Any commercial transaction concerning the scope of infrastructure capacity is forbidden and leads to exclusion from any further granting of infrastructure capacity.

Submission of exceptional requests is possible for individual train paths.

4.3 Capacity requests and allocation procedure

The working timetable is established once each calendar year according to the following procedure.

The working timetable changes at the midnight on the second Saturday of December or the month set each time as the month for the change of the services. When changes or readjustments are to be made after the winter, particularly so that changes in the timetable of passenger trains at regional level are taken into consideration, these take place at midnight on the second Saturday of June, as well as, in separate cases, at other time instances between these dates. When changes or readjustments are to be made before or after the summer, these take place at midnight, on the second Saturday of the month for the change of the services.

OSE may agree on different dates. In that case it has to notify the European Commission accordingly.

The exact time period of validity for the working timetable of the year 2023 (TT2023) starts on Sunday 11.12.2022 and ends on Saturday 9.12.2023.

No later than 11 months before the change of the working timetable, OSE ensures that provisional international train paths have been established in cooperation with other relevant infrastructure managers. OSE ensures that as far as possible these are adhered to during the subsequent processes.

Requests for capacity which have to be incorporated in the working timetable must be received at the earliest twelve (12) months and at the latest five (5) months before the beginning of the timetable's validity, i.e. from 11.12.2022 until 11.05.2022. Requests received after the deadline are also considered by OSE (Commission Delegated Decision (EU) 2017/2075).

Applications should include at least:

1. Necessary operational details for a sufficient train path design.
2. Usage period of the requested capacity.
3. Contact info of competent representatives of the applicant.

Form of request for capacity allocation may be found in ANNEX VII.

At the latest three (3) months before the beginning of the timetable period, i.e. on 11.09.2022, OSE compiles a draft working timetable.

Applicants can present their objection within one (1) month, i.e. until 11.10.2022).

OSE updates the draft working timetable one month before its application, i.e. until 11.11.2022, taking into account, if possible, any potential objections or requests submitted after the initial deadline (Commission Delegated Decision (EU) 2017/2075). Subsequently follows the final working timetable acceptance by the applicants and the signing of the access agreement.

In any case, the working timetable may be modified beyond the above deadlines based on general traffic needs or in particular following the publication of an amendment to the Network Statement.

4.4 Capacity allocation

Specialized infrastructure

If appropriate alternative routes are available and after consulting the interested Railway Undertakings, OSE may characterize an infrastructure as special for use by specific kinds of circulation. Where such a characterization is made, OSE may give priority to the specific kind of circulation, when allocating infrastructure capacity. Such a characterization does not obstruct the use of the infrastructure by other kinds of circulation, when capacity is available and when the rolling stock has the technical characteristics required for its operation on the specific line.

To this date, OSE has not indicated any section of the network or line in Greece as specialized infrastructure. Nonetheless, according to applied practice, priority is given to passenger trains in relation to freight trains, and among passenger trains to suburban, high-speed trains.

Coordination procedure

OSE satisfies, as far as possible, all the requests for infrastructure capacity. During the time-programming and coordination procedures, OSE may give priority to certain services, but only under the conditions described above in

"Specialised infrastructure" and below in "Congested capacity and priority criteria".

In the case that conflicting requests arise, during the time-programming of the above article, OSE, by coordinating the requests, tries to guarantee the best possible combination of them all and achieve the reconciliation of any conflicts. In this framework, OSE, during the train path design period, may communicate the applicants an alternative capacity other than the requested.

In the event of disputes relating to the allocation of infrastructure capacity, a dispute resolution system shall be made available in order to resolve such disputes promptly. This system shall be set out in the network statement. If this system is applied, a decision shall be reached within a time limit of 10 working days (Article 46, p.6, L. 4408/2016, EU Directive 2012/34/EU).

Congested capacity and priority criteria

When, after the coordination of the paths requested and consultation with the applicants, it is not possible to meet the requests for infrastructure capacity, OSE characterizes the section of the infrastructure, for which this occurs, as congested. Also congested is the infrastructure anticipated to exhibit inadequate capacity in the near future.

Upon decision by OSE, which is approved by the Minister of Infrastructure, Transport and Networks, priority criteria for certain services are determined, so that the development of appropriate transport services is ensured and the social significance of a certain service is considered, in relation to any other that might be excluded due to this. The above priority criteria are determined by OSE based on the principle of equal treatment. In any case, however, priority is given to passenger services, if they are covered by a public service contract, as well as international freight services.

The basic priority criteria are:

Priority	***Service***
1st	Intercity
2nd	Suburban
3rd	Standard Passenger
4th	Freight

In order to account for the societal importance of a service the above criteria maybe altered after proper justification (Article 47, p.4, L.4408/2016, EU Directive 2012/34/EU).

Exceptional requests

OSE responds to exceptional requests for individual train paths, as soon as possible, and, in any case, within five (5) working days. The information provided in relation to the capacity available must be communicated to all the applicants that may wish to use this capacity.

Ad-hoc capacity is allocated on a first-come first-served basis. In any case, these requests should be submitted no later than 15 days before the date concerned.

If deemed necessary, OSE attempts to evaluate the need to reserve additional capacity within the final working timetable, so that it may respond swiftly to foreseen, exceptional requests for capacity. The same applies to the cases of congested infrastructure.

4.5 Capacity allocation for maintenance, renewal and upgrade

The effects of maintenance, renewal and upgrade works on the infrastructure capacity are considered by OSE during the construction of the working timetable.

4.6 Regulations concerning the use of railway routes

OSE demands, particularly in the case of congested infrastructure, the disengagement of a train path which, for a period of at least one month, has been used less than the marginal quota designated, unless insufficient use is due to non-financial reasons independent of the undertaking.

OSE has not yet determined the marginal quota in question.

OSE also stipulates the conditions under which it will take into consideration the former levels of use of train paths, during the determination of priorities for the allocation procedure.

OSE has not yet determined these conditions.

4.7 Special measures in the case of traffic disruption

In the case of railway circulation disruption, due to technical failure or accident, OSE takes the appropriate measures to reinstate regularity. For this purpose, it draws up an emergency plan which lists all the public bodies that should be notified in the case of serious incidents or serious disruption of railway circulation.

To reinstate regularity in real time, the priority criteria of paragraph 4.4 apply.

The same applies to traffic on the freight corridor 7.

In case of emergency due to failure which temporarily obstructs the use of the infrastructure, it is possible for services to be modified without prior notification until the system has been restored. If deemed necessary, OSE may request that the Railway Undertakings set to its disposal the means that it considers as absolutely appropriate for the speediest possible reinstatement of regularity.

4.8 Capacity

The Capacity Table per line segment is based on UIC Leaflet No. 405:

Rough capacity estimation for line segments in OSE's network according to UIC Leaflet No. 405				
Segment	Tracks	Critical segment	L_{st}-Pairs	L_{Tag}-Pairs
Piraeus-Athens	1	Piraeus-Airport	2,3	39,5
Athens-SKA	1	Athens-Ag. Anargyroi	3,3	58,5
SKA-Oinoi	2	Afidnes-Oinoi	1,8	31,3
Oinoi-Tithorea-Leianokladi	2	Oinoi-Tithorea	0,9	17,5
Leianokladi-Domokos	2	Leianokladi-Ag. Stefanos	3,2	61,2
Domokos-Larissa	2	Pal/los-Mezourlos	2,4	45,8
Larissa-Platy	2	Katerini-Platy	2,0	38,5
Platy-Thessaloniki	2	Sindos-Axios	7,4	130,5
SKA-Kiato	2	Liossia-Corinth	0,9	14,2
Kiato-Aigio	1		4,5	64,7
SKA-Plakentias	2		11,3	179,6
Liossia-SKA (701)	1	Liossia-SKA	2,1	32,7
Plakentias-Airport	2		11,3	179,6
Oinoi-Chalkida	1	Oinoi-Chalkida	1,0	16,3
Tithorea-Leianokladi	1		0,4	5,4
Leianokladi-Stylis	1		0,6	8,1
Palaiofarsalos-Kalambaka	1	Pal.-Kalambaka	0,4	5,1
Larissa-Volos	1	Larissa-Volos	0,4	4,8
Platy-Edessa	1		0,3	4,1
Edessa-Amyntaio	1		0,5	6,8
Thessaloniki-Strymon	1	TX1-Gallikos	1,5	19,3
Strymon-Alexandroupoli	1	Drama-Xanthi	0,3	3,9
Alexandroupoli-Ormenio	1	Alexandroupoli-Dikaia	0,2	3,1
Thessaloniki-Eidomeni	1	Aghialos-Eidomeni	0,5	7,6

L_{st} – Pairs Capacity at peak time in terms of pairs.
L_{Tag} – Pairs Capacity during the day in terms of pairs.

CHAPTER 5
SERVICES

5.1 Legal framework

The legal framework for access to the railway infrastructure and related services, is described in Section 4 (“Access to Railway Infrastructure and Services”) of Chapter II of Law 4408/2016 “Harmonization of the legislation with Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 for the creation of a single European Railway area”, as currently in effect.

5.2 Access to services facilities

5.2.1 Minimum access package

The minimum access package, which OSE provides to the Railway Undertakings, includes:

a) handling of requests for infrastructure capacity;

b) the right to utilise capacity which is granted;

c) use of the railway infrastructure, including track points and junctions;

d) train control including signalling, regulation, dispatching and the communication and provision of information on train movement,

e) use of electrical supply equipment for traction current, where available;

f) all other information required to implement or operate the service for which capacity has been granted.

5.2.2 Rolling access to services facilities and service provision

Rolling access to services facilities and service provision includes:

a) passenger stations, their buildings and other facilities

b) freight transport termini

c) refuelling facilities

d) shunting facilities and marshalling yards

e) stabling depots

f) maintenance facilities

g) other technical facilities including cleaning and washing,

h) refuelling facilities

5.3 Additional services

Apart from the minimum access package and rolling access to service facilities, OSE may offer additional and ancillary services to be used by Railway Undertakings on a commercial basis.

Additional services may include.

a) traction current

b) pre-heating of passenger trains

c) supply of fuel, shunting, and all other services provided at the access services facilities mentioned above

d) tailor-made contracts for:

- control of transport of dangerous goods,
- assistance in the running abnormal trains.

5.4 Ancillary services

Ancillary services may comprise:

a) access to the telecommunication network

b) provision of supplementary information

c) technical inspection of rolling stock.

CHAPTER 6
CHARGES

6.1 Legal framework

The legal framework for the charging of the use of railway infrastructure and related services, is described in Section 2 (“Infrastructure and Services Charges”) of Chapter IV of Law 4408/2016 “Harmonization of the legislation with Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 for the creation of a single European Railway area”, and in the Ministerial Decision F4/54510/4872 dated 30.11.2006 “Rules and criteria governing the billing of railway infrastructure usage charges”. The Commission Implementing Regulation (EU) 2015/909 of 12 June 2015 on the modalities for the calculation of the cost that is directly incurred as a result of operating the train service also applies.

6.2 Charging principles

The charging principles, as defined in Article 31, L. 4408/2016, prescribe, for the minimum access package, that the charges for the minimum access package and for access to infrastructure connecting service facilities shall be set at the cost that is directly incurred as a result of operating the train service (direct cost).

6.3 Charges of Minimum Access Package

The charge of the Minimum Access Package C_{MAP} per path is calculated as follows:

$$C_{MAP} = \Pi_{z=2019}^{y-1} [1+i_z] \cdot p \cdot (c_t \cdot d + c_{wt} \cdot m \cdot d + c_{wte} \cdot m \cdot d_e + c_{pss} \cdot n_{pss})$$

where:

C_{MAP} Total charge for the minimum access package for one path (€). In particular, for passenger transport is defined as $C_{MAP,p}$ and for freight transport it is defined as $C_{MAP,f}$.

d Path length (km).

d_e Length of path (km) which was powered by an electric locomotive. For diesel and other non-electrified forms of traction energy d_e=0.

m Total train mass (tonne).

n_{pss} Number of passenger stops at passenger stations for the boarding or deboarding of passengers. For commercial and other trip types n_{pss}=0.

c_t Direct cost per kilometer for traffic management (€/km).

c_{wt} Direct cost per tonnekilometer for the maintenance of the line infrastructure (€/tonnekm).

c_{wte} Direct cost per tonnekilometer of the route traveled by electrification and concerns the physical wear of the equipment of the infrastructure of the electrification (€/tonnekm).

c_{pss} Direct cost per passenger stop at passenger stations boarding or deboarding of passengers (€/passenger station stop).

p The phasing-in parameter for the recovery of direct costs (phasing-in plan, EC 2015/909). A parameter p_p is set for passenger transport and a parameter p_f is set for freight transport.

i_z Inflation for year z according to the Hellenic Statistical Authority.

y The year of validity of the present Network Statement.

The numerical values of the fixed direct cost rates (base year 2019) are: c_t = 2.64 €/km, c_{wt} = 0.00560 €/tonnekm, c_{wte} = 0.00210 €/tonnekm, c_{pss} = 4.21 €/passenger station stop. In order to ensure a smoother transition per transport market, the phasing-in parameter for the recovery of direct costs is set p_p=0.60 for the passenger transport market and p_f=0.31 for the freight transport market.

In total, the minimum access package charges $C_{MAP,p}$ for the passenger transport market and $C_{MAP,f}$ for the freight transport market are:

$$C_{MAP,p} = \Pi_{z=2019}^{y-1} [1+i_z] \cdot 0{,}60 \cdot (2{,}64 \cdot d + 0{,}00560 \cdot m \cdot d + 0{,}00210 \cdot m \cdot d_e + 4{,}21 \cdot n_{pss})$$

$$C_{MAP,f} = \Pi_{z=2019}^{y-1} [1+i_z] \cdot 0{,}31 \cdot (2{,}64 \cdot d + 0{,}00560 \cdot m \cdot d + 0{,}00210 \cdot m \cdot d_e)$$

6.4 Charges for Access to Service Facilities and Services

For the service facilities and services, as defined in Annex II, Art. 2 of Law 4408/2016, OSE SA defines the following charges:

6.4.1 Shunting Service Charge

The Shunting Service is provided on a track indicated by the Railway Undertaking and approved by competent traffic personnel. The charge applies exclusively to the services of the Maneuvering Team without including the services of a locomotive and a train driver.

	Freight train	Passenger train
Shunting service	60 €/train	30 €/train
Intermediate maneuvers	40 €/train	30 €/train

6.4.2 Stabling Service Charge

The Stabling Service Charge concerns the stabling of a train in complexes and stations indicated by the Railway Undertaking and approved by the competent traffic personnel. The charge is equal to the charge for intermediate maneuvers (par.6.4.1), that is 40 €/train for freight trains and 30 €/train for passenger trains. For the purposes of this paragraph, that is concerning the charges to Railway Undertakings, it is defined that exactly one maneuver is charged to support the entire movement of the train entering the stabling track and one exactly maneuver is charged to support the entire movement of the train exiting the stabling track. Accordingly, the charge concerns exclusively the service of the Maneuvering Team without including the services of a locomotive and a train driver.

6.5 Charges of Auxiliary Services

Concerning the ancillary services, as defined in Annex II, Article 4 of Law 4408/2016, OSE SA determines a charge for the Technical Inspection of Rolling Stock, which amounts to 30 €/hour/technical inspector and is provided on a track indicated by the Railway Undertaking and approved for traffic

purposes by the competent traffic personnel. The distribution of technical inspection services on the railway network is described in Annex V.

6.6 Tourist-Historical Narrow-Gauge Lines (<1000mm)

These particular lines are excluded from the general methodology for the charges of access and use of infrastructure and facilities, and are calculated as follows:

Diakopto-Kalavryta Cog Train	5.0 €/trainkm
Ano Lehonia – Milies (Pilio Train)	5.0 €/trainkm

This particular fixed charge includes the access and use of infrastructure, access to stations and facilities, as well as the overall services already provided by OSE SA, except for the cost of fuel supply.

6.7 Cancelling a Reserved Path

In case a Railway Undertaking has requested and reserved a specific traffic path that it later requests not to use, the Railway Undertaking shall be exempted from the C_{MAP} total charge. In case that cancellations systemically lead to inefficient use of capacity by all Railway Undertakings requesting the same reserved capacity, then a cancellation charge $C_C = p \cdot c_t \cdot d$ shall be levied, which corresponds to the cost of the scheduled traffic management services. The numerical values of the parameters follow par. 6.3. The cancellation charge does not apply when a partial modification of the routing of the reserved path is requested.

6.8 Special Charges – Additional Services

6.8.1 Traction Power Consumption

Railway Companies that have installed certified energy meters on their traction material will be charged based on these measurements. The devices will have to comply with:

- Annex D of Technical Interoperability Specification CR LOC&PAS.

- Standard EN 50463:2012 “Railway applications. Energy measurement on board trains”.
- UIC Code 930 “Exchange of Data for Cross-border Railway Energy Settlement”.

In general, the devices must:

- Be certified for billing by a Railway Authority from an EU member state.
- Ensure a measurement accuracy of Class 0.5R in terms of standard EN 50463-2.
- Record the active and reactive power.
- Carry out sampling with a time-regulated step.
- Store data for at least 60 days.
- Record the local coordinates for each measurement, pursuant to standard EN 50463-3.
- Allow for wireless data transmission.

The total traction current cost E (€) as provided in the billing statements of the provider (DEI AE) is divided into two parts depending on whether it is recorded by a certified meter.

The first part concerns the transport work of electric locomotives recorded by certified meters, that is the part [Σ(Ki)/N] · E of the total traction current cost E in euro (€), where Σ(Ki) is the sum of the recordings Ki of the traction current in KWh of each Railway Undertaking i as recorded by certified meters and N the total traction current consumption in KWh across the network as provided in the billing statements of the provider (DEI AE). Each Railway Undertaking is charged [Ki/Σ(Ki)] · [Σ(Ki)/N] · E (€) for its transport work recorded with certified meters, that is [Ki/N]·E (€) annually and prepays monthly 0,0868€/KWh (base year 2019) uniformly throughout the network. The Railway Undertakings provide OSE AE with access to the recorded data of the meters (sampling), exclusively for the purpose of documenting the pricing parameters of the charges (e.g. monthly recordings of certified meters, power, geographical positions, etc.).

The second part concerns the transport work of electric locomotives which is not recorded with certified meters, that is the part (1-[Σ(Ki)/N]) · E of the total traction current cost E in euro (€). Each Railway Undertaking for its transport

work not recorded with certified traction current meters calculates its Ti tonnekilometers and pays [Ti/Σ(Ti)] · (1-[Σ(Ki)/N]) · E annually and prepays monthly 0,00265 €/tonnekm (base year 2019) uniformly throughout the network.

6.8.2 Special – Dangerous Consignments

The criteria of Chapter 3 apply to special and dangerous consignments, yet beyond those a special agreement will be signed between the Infrastructure Manager and the Railway Companies executing such consignments, depending on their kind and characteristics.

6.8.3 Fuel Supply

Traffic access to the facilities of oil fuel supply is considered part of the minimum access package and is not charged. The active facilities are described in Annex VIII.

6.9 Performance Scheme

The infrastructure charging scheme, according to Article 35 L. 4408/2016, shall encourage railway undertakings and the infrastructure manager to minimise disruption and improve the performance of the railway network through a performance scheme. As “disruption” for the above mentioned system is defined any delay caused during train running which leads to delaying the arrival at the final destination.

During a train journey, delays of various origins occur. These are known from the information originating at stations (Athens, Lianokladi, Larissa, Platy, Thessaloniki, Alexandroupolis) and provided to the dispatching office. Then an analysis of delays is made, using the codification described in UIC leaflet 450-2, tailored to the needs of OSE.

(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
[route number]	[date]	[FD]	[IM]	[RU]	[E]	[S]	[U]

[FD] = Delay at final destination

[IM] = Delay fault of Infrastructure Manager (IM)

[RU] = Delay fault of Railway Undertaking (RU)

[E] = Delay of exogenous origin causes which are not attributed to the infrastructure manager of the railway undertaking

[S] = Secondary causes delay which are not attributed to the infrastructure manager of the railway undertaking

[U] = Delay of undetermined origin

The system considers the following assumptions:

1 Cancellations are not considered. If a route is cancelled, it is not included in the system.

2 Recovery is not considered.

The above categories of liability are divided into further sub-categories, as described in Annex VI, Article 2 of Law 4408/2016.

In the case of disputes relating to the performance scheme, a dispute resolution meeting shall take place in order to settle such matters promptly. A decision shall be reached within a time limit of 10 working days.