

APPROVED
by the Executive Board of the
Joint Stock Company LatRailNet
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REGULATIONS

30 June 2017

No. JALP-7.6/01-2017

The Charging Scheme

Issued under Article 11(1) and
Article 13.² of the Railway Law

I. General issues

1. These regulations (hereinafter referred to as the Scheme) lay down the procedure how the charging body sets charges for the minimum access package mentioned in Article 12.¹ of the Railway Law and for the access to the public-use railway infrastructure (hereinafter referred to as the railway infrastructure) connecting service facilities (hereinafter referred to as the infrastructure charges).

2. Following terms are used in the Scheme:

2.1. **activity** – one of several operations or the only operation that is necessary in order to provide service groups referred to in Paragraph 6 of the Scheme;

2.2. **assets register** – a register, developed and maintained by the infrastructure manager, of its assets and the assets it is responsible for;

2.3. **costs of performing the essential functions** – the amount of funding that is necessary in order to provide the essential functions (decision-making on capacity and train path allocation, including both the definition and the assessment of availability and the assignment of individual train paths; and decision-making on infrastructure charging, including determination and collection of the infrastructure charges) required by the charging body, taking into account the general financial and personnel management principles of the infrastructure manager's concern;

2.4. **performance indicators** – quantitative indicators that can be used in order to plan, determine and measure activity performance on the basis of efficient, transparent and non-discriminatory principles;

2.5. **contractual agreement** – an agreement concluded between the Ministry of Transport and the infrastructure manager in accordance with Article 10.² of the Railway Law;

2.6. **railroad yard** – a station where wagons or other rolling stock are assembled and coupled with one or more means of traction, and are assigned a train number;

2.7. **charge differentiation tools** – the differentiation tools referred to in the fifth, sixth, ninth, tenth, eleventh, fourteenth and fifteenth chapters of the Scheme which provide

a different charging level under different market conditions, depending on the railway infrastructure service quality, utilization rate and other features;

2.8. **infrastructure manager** – the railway infrastructure manager – SJSC “Latvian Railway”;

2.9. **through rate offer** – transport services provided under uniform payment conditions throughout the logistics chain;

2.10. **cost element** – a set of homogeneous costs that describe the impact of the production factor on full costs, such as payroll and social contributions, materials, fuel, electricity, other costs;

2.11. **cost group** – the costs of providing an activity;

2.12. **cost driver** – a factor linking cost elements with services based on a causal relationship (number of services provided or consumption of resources, etc.);

2.13. **pick-up train** – a train dispatched from railroad yards to intermediate stations or to the sidings of nearby sections; or accepted to railroad yards from intermediate stations or from sidings of nearby sections;

2.14. **capacity allocation plan** – a document approved by the capacity allocation body that reflects its decision on the allocation of railway infrastructure capacity, indicating the number of train paths assigned to the applicants, as well as the estimated train departure or arrival time, if such are indicated in the application;

2.15. **capacity allocation body** – the performer of the essential functions of the infrastructure manager declared in the railway infrastructure network statement, that in accordance with the Railway Law is responsible for the allocation of infrastructure capacity and the assignment of the train paths;

2.16. **charging body** – the performer of the essential functions of the infrastructure manager declared in the railway infrastructure network statement, that in accordance with the Railway Law is responsible for the infrastructure charging;

2.17. **service groups** – the volume of train services specified by the charging body, depending on the train service impact to the railway infrastructure when determining the average direct unit cost¹;

2.18. **current values** – the value of assets in the primary accounting system;

2.19. **reference period** – a calendar period equivalent to the length of the programming period prior to the programming period where the infrastructure manager has access to transparent, robust and objectively measurable data;

2.20. **full costs** – the part of total infrastructure manager’s costs that is attributed to the minimum access package and to the access to the railway infrastructure connecting service facilities in accordance with the method of cost allocation to the various categories of services provided to the railway undertakings developed by the infrastructure manager;

2.21. **programming period** – a period that is analyzed when making a decision on infrastructure charges;

2.22. **primary accounting system** – the infrastructure manager's accounting system and related management accounting systems;

2.23. **Implementing regulation** – 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;

¹ hereinafter referred in accordance to implementing Regulation

2.24. **regulatory body** – the authority that carries out regulatory functions in the field of railways in accordance with the Railway Law – the State Railway Administration;

2.25. **collecting trains** – trains dispatched from railroad yards to intermediate stations to forward and collect loaded and empty wagons;

2.26. **processing station** – a station where wagons are accepted to the railway network or removed from the railway network;

2.27. **historical values** – asset values determined on the basis of the amount paid by the infrastructure manager and recorded in the primary accounting system at the time of acquisition of the assets. Upon a reduction of liability (if all or part of the liability of the infrastructure manager is taken over by another entity), the infrastructure manager has to reduce the value of the assets and the corresponding direct costs on a network-wide basis accordingly;

2.28. **overhead costs** – costs that cannot be attributed to a specific activity, based on the principles of causality.

3. The Scheme is applied to the infrastructure manager, applicants, all railway undertakings and performers of individual technological processes (upon an assignment by a railway undertaking, the infrastructure manager, an operator of a service facility, a consignor or consignee) that are granted the rights to access the railway infrastructure in accordance with Article 5.¹ of the Railway Law.

4. The charging body sets the infrastructure charges in accordance with the direct cost of the service groups within the meaning of the Implementing regulations, levies mark-ups, if the market can bear this, and provides differentiation so that different railway undertakings providing comparable services in similar market segments are subjected to equivalent and non-discriminatory infrastructure charges.

5. The charging body determines the direct costs² without prejudice to the provisions on the balance between income and expenditure of the infrastructure manager as set forth in Article 9(4) of the Railway Law.

II. Assumptions for calculating infrastructure charges

6. The infrastructure manager, in accordance with the method of cost allocation to the various categories of service groups provided to the railway undertakings, from its total costs allocates the full costs necessary to ensure common access rights throughout the railway infrastructure to the minimum access package and to the access to railway infrastructure connecting service facilities (hereinafter marked as **PI**). **PI** is allocated to the following service groups *gr* using the cost drivers referred to in Annex 1:

6.1. a passenger minimum access package that includes the entire railway infrastructure that provides acceptance, handling and dispatching of passenger trains;

6.2. a freight minimum access package that includes the entire railway infrastructure that provides acceptance, handling and dispatching of freight trains, as well as an access to the railway infrastructure connecting service facilities where freight trains are assembled

² hereinafter referred in accordance to implementing Regulation

or disassembled and where rolling stock is transferred for loading, unloading or to the related sidings³.

7. If the charging body finds and justifies to the regulatory body that the values or parameters referred to in Article 5(2) of the Implementing regulation are significantly different in different parts of the infrastructure manager's railway network, the infrastructure manager provides the information for the calculation of the infrastructure charges referred to in Paragraph 16 for each such part of the railway network separately and indicates drivers for their allocation or alignment.

8. For the service groups referred to in Paragraph 6 of the Scheme, the infrastructure manager allocates the costs of railway infrastructure maintenance⁴ and renewal⁵ in accordance with their functional significance in compliance with the Railway Law, the Railway Technical Operation Rules, the indicative railway infrastructure development Strategy approved by the Cabinet of Ministers, the infrastructure manager's business plan (including investment and financial programs) and contractual agreement conditions.

9. If specified in the contractual agreement, the charging body either applies the incentives for the infrastructure manager to reduce the costs of railway infrastructure maintenance and renewal, as well as the level of infrastructure charges, with due regard to safety and to maintaining and improving the quality of the infrastructure service, or applies the costs of efficient service provision for the purposes of calculation.

10. The charging body for charging purposes uses documentation issued by the infrastructure manager regarding the use of railway infrastructure which is publicly available on the infrastructure manager's website on the internet at the time of charging.

11. The charging body for charging purposes uses the infrastructure manager's asset register accompanied by the details of expenditure on renewal and upgrading of the railway infrastructure to assess the financing necessary to repair or replace the assets included therein.

12. The infrastructure manager, in accordance with the requirements of the Implementing regulation, provides information on assets in historic values or, where such values are not available or where current values are lower, in current values.

³ the access to railway infrastructure connecting service facilities, where trains are suspended from movement and wagons are stored is provided in accordance with regulations of the Cabinet of Ministers No. 471 of July 15, 2016 on Basic Principles of the Performance Scheme applicable to the Railway Network.

⁴ hereinafter „maintenance” means a technological process that the infrastructure manager carries out in order to maintain the condition and capability of the existing infrastructure. The concept is equal to “*maintenance*” used in the Railway Law and in the Commission Implementing Regulation (EU) 2015/1100 of July 7, 2015 on the reporting obligations of the Member States in the framework of rail market monitoring.

⁵ hereinafter „renewal” means a technological process on a major substitution work on the existing infrastructure which does not change its overall performance. Renewal costs are recorded in full in the primary accounting system when the project is delivered and are written off gradually.

13. Only the costs made or forecasted by the infrastructure manager can be used for the calculation of the infrastructure charges. Costs or asset values that are financed by the state, a municipality, a foreign country, the European Union, other international organizations or institutions, are excluded from the calculation. The infrastructure manager may adjust normalization coefficients indicated in Annex 2 to relate the expenses of the reference period to the programming period.

14. The infrastructure manager can provide estimated, current or replacement values of costs for the infrastructure charging needs if they can be transparently, robustly and objectively measured in accordance with the qualitative parameters referred to in Paragraph 21 of the Scheme, and the following planning assumptions are respected:

14.1. the seasonal, technological and cyclical fluctuations of the programmed performance indicators;

14.2. the direct costs of maintenance and renewal on a network-wide basis correspond to the qualitative parameters set for the railway infrastructure in the contractual agreement;

14.3. the costs of risk management of activities that are not related to operating the train service (changes in external temperature above or below the forecasted values; cracks and defects in materials; natural corrosion, destruction of constructive materials or degradation by gravity), of unforecasted impacts of natural processes (earthquakes, landslides, water leaks, geological fractures, windstorms, snowstorms etc.), as well as of human factors (construction and operating staff errors, third parties' intentional or unintentional activity, etc.) are excluded;

14.4. no non-related to the infrastructure charges costs are incurred as a result of maintenance or renewal to the public, railway undertakings, applicants or railway infrastructure final consumers;

14.5. the stages of the railway infrastructure object lifecycle (postcreation, postmodernization, supposed for closure, etc.) are observed.

15. Efficient, transparent and non-discriminatory principles are adhered to if after consulting the applicants and the infrastructure manager, charging body, within the time limit indicated in the Scheme, develops and publishes on its website on the internet the quantitative criteria that can be assessed, predicted, controlled and influenced by the persons to whom they are applied to and which are used to bring the Scheme closer to the optimal use of the railway infrastructure in accordance with the legislation referred to in Paragraph 8 of the Scheme.

III. Information for calculating the infrastructure charges

16. The charging body, in order to decide on the infrastructure charges for a programming period, requires from the infrastructure manager information as follows:

16.1. a detailed description of the cost allocation method developed by the infrastructure manager referred to in Paragraph 6 of the Scheme;

16.2. actual full railway infrastructure maintenance costs in the reference period, following the structure of the cost groups referred to in Annex 1 of the Scheme;

16.3. full railway infrastructure maintenance costs in the programming period, following the structure of the cost groups referred to in Annex 1 of the Scheme and

indicating the payments or allocated funds for the infrastructure services, for maintenance and renewal, as well as for dealing with existing maintenance and renewal backlogs foreseen in the contractual agreement (if any);

16.4. costs that according to the Implementing regulation are considered ineligible (subject to the explanations set forth in Paragraph 17 of the Scheme) within the costs referred to in Sub-paragraphs 16.2, 16.3. and 16.8. of the Scheme, that are allocated to the cost groups using cost drivers referred to in Annex 1;

16.5. the analysis created by the infrastructure manager for the actual (or assessed, if historical data is not available) maintenance and renewal activities referred to in Sub-paragraph 17(1) of the Scheme and their costs at railway sections where the train movement has not taken place for at least two years. The information about attributable part of these activities to traffic if the volume of these activities changes partly, depending on the volume of operating trains;

16.6. the costs of backlogged maintenance (provided by the contractual agreement) of assets which will be phased out of use and, therefore, trigger different financial flows in the programming period, as well as the amount of previous maintenance and renewal backlog, indicating its reasons;

16.7. the terms of the contractual agreement, if they concern this Scheme, the amount of eligible costs or incentives to reduce the costs or the infrastructure charge level;

16.8. detailed information on the costs of renewal of the railway infrastructure in the programming and reference periods included in the infrastructure manager's assets register as well as the calculation of the value of assets, as referred to in Paragraph 12 of the Scheme, if it is necessary to ensure compliance with the Implementation regulation;

16.9. the forecasted performance indicators provided by the Scheme for the programming period, noting the differences (if any) compared to the volumes agreed in the contractual agreement, as well as actual performance indicators in the reference period;

16.10. the information necessary to assess the relevance and level of the markups;

16.11. the information necessary for the calculation of the infrastructure manager's profit margin:

16.11.1. actual infrastructure manager's average weighted long-term loan rate (r_a) for the reference period;

16.11.2. the value of the equity at the end of the reference period (E);

16.11.3. the value of the borrowed capital at the end of the reference period (D);

16.12. a capacity-enhancement plan, if any;

16.13. the distribution of PI_{gr} values by cost elements in the programming and reference periods as well as the explanation of the normalization coefficients used and events that create or explain deviations between the information provided for the programming and reference periods;

16.14. the payroll directly related to the provision of a train service on a specific section of the railway infrastructure if the applicant in the programming period requests it outside the working hours stated in the contractual agreement;

16.15. the information that is necessary for the charging body in case of the application of charge differentiation tools;

16.15.1. the information on the impact of the application of a charge differentiation tool on the performance indicators and infrastructure manager's costs in the programming period or in the period specified by the charging body;

16.15.2. the information on the planned changes in the performance of railway infrastructure in the programming period or in the period specified by the charging body, when it is planned to apply a charge differentiation tool;

16.15.3. other additional information that may be relevant for decision-making on the application of a specific charge differentiation tool;

16.16. other additional information and documents explaining and justifying the information listed in Paragraph 16 of the Scheme and which is required by the charging body for decision-making on infrastructure charges for the programming period.

17. When determining the ineligible costs referred to in Sub-paragraph 16(4) of the Scheme, it should be assumed that:

17.1. the costs which the infrastructure manager must bear even in the absence of train movements (including those referred to in parts (h), (k), (l), (n) and (o) of Article 4(1) of the Implementing regulation) are maintenance and renewal costs on a network-wide basis according to their actual (or forecasted, if historical data is not available) amount in sections of the railway infrastructure where the train movement has not taken place for at least two years⁶;

17.2. the costs that do not relate to the payments made by the infrastructure manager are the costs covered by financing that the infrastructure manager does not have to repay (European Union funds, state co-financing, donations, etc.);

17.3. the costs or cost centers that are not directly linked to the provision of the minimum access package or to access to the railway infrastructure connecting service facilities are the costs incurred by the infrastructure manager providing other services and providing other business activities;

17.4. the costs of land acquisition are the costs of land acquisition, as well as the payments of taxes and levies for the land owned;

17.5. the costs of fixed asset acquisition are determined in accordance with the assets accounting policy of the infrastructure manager;

17.6. the costs of fixed asset selling include the write-down of the residual value of fixed assets, as well as the costs incurred in the sale of fixed assets, such as valuation services, the supply of sold fixed assets to the buyer;

17.7. the costs of fixed asset dismantling are the costs of dismantling the railway infrastructure elements;

17.8. the recultivation costs are the costs of land recultivating after the dismantling of the railway infrastructure elements;

17.9. the renting costs are lease payments for the railway infrastructure not owned by the infrastructure manager, used to provide services referred to in Paragraph 6 of the Scheme, except maintenance and renewal costs for the leased railway infrastructure. The

⁶ information on the train movement as referred to in this paragraph is derived from the capacity allocation plan. It is considered that the train movement at the railway infrastructure line no longer occurs if railway undertakings aren't using the allocated railway infrastructure capacity at least during the current period (year) of capacity allocation, nor have applied for the next period.

renting costs of machinery and tools related to the maintenance and renewal of the railway infrastructure are attributed to the relevant activities;

17.10. the network-wide overhead costs are administrative costs of the infrastructure manager, which, according to the method for cost allocation developed by the infrastructure manager, are attributed to the overhead costs of the services referred to in Paragraph 6 of the Scheme;

17.11. the financing costs are actual costs incurred by the infrastructure manager to attract funds (interest payments), as well as costs associated with fluctuations of exchange rates;

17.12. the costs related to technological progress or obsolescence are the value of the fixed assets written-down due to obsolescence as a result of depreciation or redemption;

17.13. the costs of intangible assets are costs of using licenses and trademarks;

17.14. the costs of information, non-track side located communication equipment or telecommunication equipment are costs of information technology and data transmission associated with the maintenance and renewal of the railway infrastructure and with the train movement;

17.15. the costs related to individual incidences of force majeure, accidents and service disruptions, among other are costs associated with the payment of a penalty and the liquidation of accidents;

17.16. the depreciation which is not determined on the basis of real wear and tear of the infrastructure due to the train service operation is the depreciation of railway infrastructure elements calculated in or outside of the accounting, considering the principle that the fixed asset depreciates irrespective to the physical degradation caused by train traffic. The depreciation of fixed assets that are not railway infrastructure elements but are related to the maintenance and renewal of the railway infrastructure are attributed to the relevant activities.

18. The charging body, in order to decide on the infrastructure charges for a programming period infrastructure charge, requires information from the applicants as follows:

18.1. the information on the impact of the railway infrastructure management principle (provided by the contractual agreement) and the capacity-enhancement plan to applicants' costs;

18.2. the completed questionnaires for evaluation of market conditions of transport services and evaluation of the performance indicators in the programming period;

18.3. the proposals for specific provisions (if railway undertakings provide services under public or local government contracts in accordance with the Railway Law) to ensure the benefits of the services to the final consumer;

18.4. the information that is necessary for the application of charge differentiation tools and assessment of their impact on the applicant's performance indicators in the programming period or in the period specified by the charging body;

18.5. other additional information and documents explaining and justifying the information listed in Paragraph 18 of the Scheme and which is required by the charging body for decision-making on infrastructure charges for the programming period.

19. The charging body, in order to decide on the infrastructure charges for a programming period, may request additional information from independent experts to assess transport service market conditions or to verify the compliance of the information with the parameters referred to in Paragraph 21 of the Scheme.

20. The charging body when requesting information:

20.1. observes the principle of equality – requires homogeneous data in the same way from all data holders;

20.2. verifies the relevance of the requested data with the information referred to in Paragraph 8;

20.3. provides data comparability with other time periods (including data seasonal and other fluctuations) and industries;

20.4. gives a reasonable time for data preparation and, if necessary, for clarifying.

21. The charging body determines whether the information provided is transparent, robust, and objective, regarding the following parameters:

21.1. completeness of data (transparency) – the amount of data submitted corresponds to the requested amount, the data structure corresponds to the requested structure, deviations are explained;

21.2. data reliability and consistency (robustness) – the data submitted interact with each other and with information held by the charging body;

21.3. data quality (objectiveness) – the data submitted correspond to the criteria for the optimal use of the railway infrastructure in accordance with the provisions of Paragraph 8 of the Scheme.

22. If the submitted data does not comply with the provisions of Paragraph 21 of the Scheme, the charging body requires the submitter of the relevant data to clarify the information. If the repeatedly requested information has not been submitted within the deadline set by the charging body or not submitted in accordance with Paragraph 21 of the Scheme, the charging body notifies the regulatory body for taking a decision.

IV. Calculation of direct costs

23. The charging body calculates average direct unit costs **TI** for each service group (hereinafter the service group referred to in Sub-paragraph 6.1 of the Scheme is marked as **pas**, while the one referred to in Sub-paragraph 6.2 of the Scheme is marked as – **krav**, but any of the two above-mentioned – **gr**) as a combination of four parameters **param** by dividing:

23.1. the network-wide direct maintenance and train operating costs of the railway infrastructure providing the minimum access package⁷ in the programming period **KTI_{cel uztur gr}** by the performance indicator **DR_{cel uztur gr}** that is the number of train km in the programming period:

$$\mathbf{TI}_{\text{cel uztur gr}} = \mathbf{KTI}_{\text{cel uztur gr}} / \mathbf{DR}_{\text{cel uztur gr}};$$

⁷ in the value of **KTI_{cel uztur pas}** including costs that are incurred by the passenger traffic in the sections of the railway lines where the access connecting infrastructure to the service facilities is provided

23.2. the network-wide direct maintenance and train operating costs of the railway infrastructure providing access to the railway infrastructure connecting service facilities in the programming period within freight traffic **KTI_{mez uztur krav}** by the performance indicator **DR_{mez uztur krav}** that is the number of wagons that are either loaded/unloaded or accepted in the last processing station in transit traffic in the programming period:

$$\mathbf{TI}_{\text{mez uztur krav}} = \mathbf{KTI}_{\text{mez uztur krav}} / \mathbf{DR}_{\text{mez uztur krav}};$$

23.3. the network-wide direct renewal costs of the railway infrastructure in the programming period **KTI_{atj gr}** by the performance indicator **DR_{atj gr}** that is the number of gross tonne km forecasted or actually traveled (consistently with the direct cost basis):

$$\mathbf{TI}_{\text{atj gr}} = \mathbf{KTI}_{\text{atj gr}} / \mathbf{DR}_{\text{atj gr}};$$

23.4. the network-wide costs of performing the essential functions of the infrastructure manager within freight traffic in the programming period **KTI_{bfv krav}** by the performance indicator **DR_{bfv krav}** that is the number of the assigned freight train paths in every direction in the programming period and the network-wide costs of performing the essential functions within passenger traffic in the programming period **KTI_{bfv pas}** by the performance indicator **DR_{bfv pas}** that is the number of the assigned passenger train paths in every route direction in the programming period:

$$\mathbf{TI}_{\text{bfv krav}} = \mathbf{KTI}_{\text{bfv krav}} / \mathbf{DR}_{\text{bfv krav}};$$

$$\mathbf{TI}_{\text{bfv pas}} = \mathbf{KTI}_{\text{bfv pas}} / \mathbf{DR}_{\text{bfv pas}}.$$

24. For passenger trains that use electric traction, the charging body calculates the additional average direct unit cost component **TI_{elektr pas}** dividing the network-wide direct maintenance and renewal costs of traction electrical supply equipment of the railway infrastructure in the programming period by the performance indicator **DR_{elektr pas}** that is the number of electric train km in the programming period:

$$\mathbf{TI}_{\text{elektr pas}} = \mathbf{KTI}_{\text{elektr pas}} / \mathbf{DR}_{\text{elektr pas}}.$$

25. The network-wide direct costs of the railway infrastructure **KTI_{gr}** are calculated as the difference between the full costs of each parameter **param** mentioned in Annex 1 of service groups **gr** referred to in Paragraph 6 of the Scheme **PI_{param gr}** and each **PI_{param gr}** cost parameter included costs **NI_{param gr}**, which according to the Implementing regulation are considered ineligible:

$$\mathbf{KTI}_{\text{ceļ uztur gr}} = \mathbf{PI}_{\text{ceļ uztur gr}} - \mathbf{NI}_{\text{ceļ uztur gr}};$$

$$\mathbf{KTI}_{\text{mez uztur krav}} = \mathbf{PI}_{\text{mez uztur krav}} - \mathbf{NI}_{\text{mez uztur krav}};$$

$$\mathbf{KTI}_{\text{atj gr}} = \mathbf{PI}_{\text{atj gr}} - \mathbf{NI}_{\text{atj gr}};$$

$$\mathbf{KTI}_{\text{elektr pas}} = \mathbf{PI}_{\text{elektr pas}} - \mathbf{NI}_{\text{elektr pas}}.$$

26. The costs of performing the essential functions of the infrastructure manager **KTI_{bfv gr}** are calculated as the difference between the amount of financing the essential functions of the infrastructure manager in the programming period set by the the charging body within the limits of Article 13¹(3) of the Railway Law **PI_{bfv gr}** and the costs included

in the amount of these costs $NI_{bfv\ gr}$, which according to the Implementing regulation are considered ineligible:

$$KTI_{bfv\ gr} = PI_{bfv\ gr} - NI_{bfv\ gr}.$$

V. Additional charge which reflects the scarcity of railway infrastructure capacity

27. The charging body decides to add a charge which reflects the scarcity of railway infrastructure capacity to the value $M_{param\ gr\ s}$, in a specified part of the railway infrastructure during congestion periods by setting the scarcity charge $M_{pārsłodz\ param\ gr\ s}$ (hereinafter – scarcity charge) if:

27.1. in the case referred to in Article 27(9) of the Railway Law, the capacity allocation body has notified the known applicants, railway undertakings and the infrastructure manager that over the course of coordination and consultation with applicants it has not been possible to meet the railway infrastructure capacity requests adequately;

27.2. a railway infrastructure capacity-enhancement plan is produced and the activities covered therein are executed or an authorization for the application of scarcity charges is received from the regulatory body in the case when the railway infrastructure capacity-enhancement plan cannot be executed due to the reasons that cannot be affected or the alternatives available are not economically or financially viable;

27.3. the full maintenance and renewal costs are reduced by the cost values incurred by the infrastructure manager upon its proposal to change the train path in a planned or other way. This condition does not apply if the infrastructure manager has reimbursed these additional costs for the railway undertakings or the train path change has resulted from coordination in accordance with regulations of the Cabinet of Ministers No. 472 of July 15, 2016 on the Capacity Allocation Regulations.

28. The scarcity charge does not apply if the capacity allocation body overcomes the reasons of the railway infrastructure congestion during the train path assignment process in accordance with the scheme for the allocation of the public-use railway infrastructure capacity issued by the capacity allocation body.

29. The scarcity charge $M_{pārsłodz\ param\ gr\ s}$ for a particular part of the railway infrastructure during the period of congestion is determined in accordance with the following formula:

$$M_{pārsłodz\ param\ gr\ s} = M_{param\ gr\ s} + \Delta PI_{pārsłodz\ param\ gr} / DR_{pārsłodz\ param\ gr}, \text{ where}$$

- | | |
|-----------------------------------|--|
| $M_{pārsłodz\ param\ gr\ s}$ | – the scarcity charge for a particular part of the railway infrastructure for a specific charging parameter within a specific market segment of a relevant service group over the congestion period; |
| $M_{param\ gr\ s}$ | – the value of the charge for a specific charging parameter within a specific market segment of a relevant service group; |
| $\Delta PI_{pārsłodz\ param\ gr}$ | – changes in the full costs in the relevant programming period caused by the maintenance costs associated with the capacity- |

- enhancement plan and the costs of attracting borrowed capital for long-term investments foreseen by the infrastructure manager;
- DR** pārsłodz param gr – the performance indicator for evaluating a particular cost parameter of a relevant service group for a given part of the railway infrastructure over a congestion period;

VI. Charge differentiation due to the environmental effects caused by the operation of the train

30. The value of the charge for a specific charging parameter within a specific market segment of a relevant service group $M_{\text{param gr s}}$ can be changed by setting the environmental charge $M_{\text{vide param gr s}}$ in order to take into account the costs of the environmental impact of train traffic. The decision on the environmental charge is made in accordance with user-oriented performance targets in environmental protection foreseen in the contractual agreement, the decision of the Cabinet of Ministers (referred to in Article 11(11) of the Railway Law) on the order for the assignation of compensation, its value and payment conditions, as well as the railway environment policy and its action program issued by the regulatory body.

VII. Market segmentation and mark-ups

31. The charging body applies mark-ups to the following market segments as indicated in the list of market segments included in Annex 5 of the Scheme:

31.1. In the service group referred to in Sub-paragraph 6.1 of the Scheme:

31.1.1. passenger services within the framework of a public service contract;

31.1.2. other passenger services;

31.2. In the service group referred to in Sub-paragraph 6.2 of the Scheme:

31.2.1. domestic freight transportation with collecting and pick-up trains;

31.2.2. other freight transport services, except train services for the carriage of goods from and to the third countries operating on a network with track gauge 1520 where Article 11.¹(9) of the Railway Law provides an exception.

32. The charging body evaluates the relevance of the mark-ups to the market segments specified in Article 11.¹(2) of the Railway Law and also assesses the need for further distinguishing of market segments according to commodity or passengers transported, if:

32.1. applicants in the railway infrastructure capacity applications specify specific conditions of utilization of the railway infrastructure that allow them to adapt to the final customers' preferences (obtaining additional competitive advantages) or to their technological failures that causes the infrastructure manager costs which would otherwise be eliminated and not included in the services referred to in Paragraph 6 of the Scheme (the segmentation based on the impact of different types of utilization of the railway infrastructure on the cost of railway infrastructure);

32.2. based on efficient, transparent and non-discriminatory principles, it can be concluded that the infrastructure manager's services referred to in Paragraph 6 of the Scheme to improve the criteria of final customers' preferences compared to competing

modes of transport and infrastructure networks (railway undertakings' productivity based segmentation);

32.3. based on efficient, transparent and non-discriminatory principles, environmental, accident and infrastructure costs that are not paid by competing modes of transport can be observed and there is a decision of the Cabinet of Ministers referred to in Article 11(11) of the Railway Law on the assignation of compensation, its value and payment conditions (state decision-based segmentation).

33. Not later than four months before the deadline for the publication of the railway infrastructure network statement, applicants and the infrastructure manager may provide to the charging body evidences that:

33.1. within the current market segments, the criteria laid down in Annex 3 for the foreseen market conditions in the programming period are not equivalent for different types of utilization of the railway infrastructure;

33.2. the market cannot bear the existing charge (segmentation based on the charge impact to the competitiveness of the final services);

33.3. there are market segments in which railway undertakings are not currently operating but may provide services during the programming period.

34. The criteria for market segmentation based on efficient, transparent and non-discriminatory principles are laid down in Annex 3. If, in accordance with Paragraphs 32 and 33 of the Scheme, the charging body determines that it is necessary to amend the list of market segments included in Annex 5 of the Scheme, the charging body publishes those amendments as well as the amendments to Annex 3 containing the quantitative criteria for the determination of mark-ups in particular market segments on its website not later than 3 months before the deadline for the publication of the railway infrastructure network statement and submits the information to the infrastructure manager for publication in the railway infrastructure network statement not later than 30 days before the deadline for the publication of the railway infrastructure network statement or its amendments, which is declared by the infrastructure manager.

35. The level of mark-up $\mathbf{MU}_{\text{param gr s}}$ within a specific market segment is defined as the difference between each parameter's param adjusted full cost of providing the minimum access package as well as an access to the railway infrastructure connecting service facilities $\mathbf{PI}_{\text{param gr}}$ and the network-wide direct costs according to the direct cost calculation rules $\mathbf{KTI}_{\text{param gr}}$, divided by the performance indicator $\mathbf{DR}_{\text{param gr}}$ and multiplying this quotient by the market valuation ratio \mathbf{mcb}_s , criteria of which are set out in Annex 3, based on efficient, transparent and non-discriminatory principles, and published by the charging body on its website two months before the decision on the charge level:

$$\mathbf{MU}_{\text{param gr s}} = ((\mathbf{PI}_{\text{param gr}}' - \mathbf{KTI}_{\text{param gr}}) / \mathbf{DR}_{\text{param gr}}) * \mathbf{mcb}_s, \text{ where}$$

$\mathbf{PI}_{\text{param gr}}'$ – the adjusted full cost value of a relevant service group for a specific cost parameter, where the infrastructure manager's financing costs

are replaced with a reasonable profit margin in accordance with Sub-paragraph 35(1) of the Scheme;

mcb_s – a ratio characterizing the allowable level of mark-ups in the given market situation in the particular market segment which is determined as the maximum value from the valuation criteria **C_s** , **V_s** and **S_s** , where

C_s – a valuation criteria characterizing the impact of different types of utilisation of the railway infrastructure on the costs of railway infrastructure within a specific market segment;

V_s – a valuation criteria that characterizes the productivity achieved by railway undertakings within a specific market segment;

S_s – a valuation criteria that characterizes the optimal railway competitiveness within a specific market segment that consists of criteria **J_s** and **R_s** , where

J_s – a valuation criteria that characterizes the demand for railway infrastructure capacity within a specific market segment;

R_s – a valuation criteria that characterizes the impact of the allowable mark-up value on the competitiveness of the final consumer market within a specific market segment;

35.1. The charging body, when setting the adjusted **$PI_{param\ gr}$** ' value, replaces the infrastructure manager's financing costs **$F_{param\ gr}$** with reasonable profit margin **$P_{param\ gr}$** according to the following formula:

$$PI_{param\ gr}' = PI_{param\ gr} - F_{param\ gr} + P_{param\ gr}, \text{ where}$$

$F_{param\ gr}$ – costs mentioned in Paragraph 17.11. of the Scheme;

$P_{param\ gr}$ – the infrastructure manager's reasonable profit margin.

36. The infrastructure manager's reasonable profit margin which provides the infrastructure manager's income from investments made and interest on loans, is calculated in accordance with the following formula:

$$P_{param\ gr} = RAB_{param\ gr} * wacc, \text{ where}$$

$RAB_{param\ gr}$ – the value of asset register at the end of the reference period;

$wacc$ – weighted average cost of capital.

37. Weighted average cost of capital is calculated in accordance with the following formula:

$$wacc = r_e * E / (E + D) + r_d * D / (E + D), \text{ where}$$

$wacc$ – weighted average cost of capital;

r_e – return on equity, which consists of two components ($r_f + r_e$), where

- r_f** – risk-free rate – the average arithmetic interest rate of government long-term securities of the highest credit rating countries of the Organization for Economic Co-operation and Development (OECD), using the latest OECD report on government long-term bond rates;
- r_c** – pure premium, which includes a risk assessment of the country and of the industry. The country's risk is assessed as the difference between the latest 10-year bonds of the Republic of Latvia and the risk-free rate. The industry's risk is measured as the difference between the actual weighted average long-term loan rates of the infrastructure manager in the reference period and the latest 10-year Latvian government bond rate. If the actual weighted average long-term loan rates of the infrastructure manager in the reference period does not exceed the latest 10-year Latvian government bond rate, the industry's risk assessment values are not included in the calculation;
- r_a** – the actual weighted average long-term loan rates of the infrastructure manager;
- E** – the value of the equity at the end of the reference period;
- D** – the value of the borrowed capital at the end of the reference period.

VIII. Charges for freight train services for the carriage of goods from and to the third countries operating on a network with track gauge 1520

38. The charging body sets higher charges **M_{param 1520}** for the freight train services for the carriage of goods from and to the third countries operating on a network with track gauge 1520 (hereinafter – international freight transportation), to obtain full cost recovery of the costs incurred. Charging rules for these services are included in Annex 6.

IX. Charges in case of specific investment projects

39. The charging body may set higher charges **M_{infpr param gr s}** in case of specific investment projects that are not mentioned in the contractual agreement but increase efficiency or cost-effectiveness of applicants and if it could not otherwise be or have been achieved (hereinafter – project charges)

40. The charges referred to in Paragraph 39 of the Scheme **M_{infpr param gr s}** are determined based on efficient, transparent and non-discriminatory principles, criteria of which the charging body publishes on its website within three months from the moment when the decision to start a particular investment project is taken, and calculates according to the following formula:

$$\mathbf{M_{infpr\ param\ gr\ s}} = \mathbf{M_{param\ gr\ s}} + \Delta \mathbf{PI_{infpr\ param\ gr}} / \mathbf{DR_{infpr\ param\ gr}}, \text{ where}$$

- M_{infpr param gr s}** – the project charge regarding specific investment project for a particular part of the railway infrastructure for a specific charging parameter within a specific market segment of a relevant service group;

M _{param gr s}	– the value of the charge for a specific charging parameter within a specific market segment of a relevant service group;
ΔPI _{infpr param gr}	– the changes in the full costs caused by the specific investment project (e.g. the amortization of the part of the long-term investment in the programming period that does not exceed the efficiency of the applicant's savings);
DR _{infpr param gr}	– the performance indicator for evaluating a particular cost parameter in the relevant service group for a given part of the railway infrastructure where the specific investment project is executed.

X. Discounts

41. The charging body may levy a volume discount to a specific market segment **A**_{apj param gr s} if, during the programming period, the volume of traffic for a specific market segment exceeds the forecasted train km considered when determining the current charge. The volume discount for a specific charging parameter within a specific market segment of the relevant service group **A**_{apj param gr s} is determined on the level of relevant mark-up **MU**_{param gr s}.

42. A charging body may levy a network loading optimization discount **A**_{opt nosl param gr s} for a particular charging parameter in the relevant service group within a specific market segment for a specific part of the railway infrastructure where, after approving the capacity allocation plan, it is stated that the demand for the railway infrastructure capacity does not reach the optimal load and where, based on efficient, transparent and non-discriminatory principles, it can be established that the discount can stimulate the usage of the railway infrastructure capacity. Network loading optimization discount **A**_{opt nosl param gr s} is calculated according to the following formula:

$$A_{opt\ nosl\ param\ gr\ s} = \frac{\left((\Delta DR_{opt\ nosl\ param\ gr\ s} * M_{param\ gr\ s}) - KTI_{opt\ nosl\ param\ gr\ s} \right)}{\Delta DR_{opt\ nosl\ param\ gr\ s}}, \text{ kur}$$

A _{opt nosl param gr s}	– a network loading optimization discount for a particular charging parameter in the relevant service group within a specific market segment for a specific part of the railway infrastructure;
M _{param gr s}	– the value of the charge for a specific charging parameter within a specific market segment of the relevant service group, determined by the charging body, in a specific part of the railway infrastructure where it can be stated that the discount can stimulate the usage of the railway infrastructure capacity;
KTI _{opt nosl param gr s}	– the network-wide direct costs within a specific market segment of the relevant service group that are relevant to the forecasted increase of the performance indicator Δ DR _{opt nosl param gr s}

expected as a result of levying the network loading optimization discount;

Δ DR *opt nosl param gr s* – the forecasted increase of the performance indicator in the relevant service group within a specific market segment for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount.

XI. Network performance supporting charges

43. The charging body applies penalties **M** *sankc param gr s* for actions which disrupt the operation of the railway network, compensations **M** *komp param gr s* to those who suffer losses from disruptions and bonuses **M** *prēm param gr s*, if a delay exceeds the allowable delay limit specified in Paragraph 8 of the public-use railway infrastructure network performance scheme and if delays have caused the delays of other railway undertakings' trains:

43.1. for delays mentioned in paragraphs 8.1.1. and 8.2.1.2. – 5 minutes;

43.2. for delays mentioned in paragraphs 8.2.2. and 8.2.2.;

43.3. for delays mentioned in paragraph 8.2.1.1. – 15 minutes.

44. Till the deadline specified in paragraph 2 of the decision Part of the decision of the board of directors No. JALP-1.3/04-2017 of June 30, 2017 on 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, the infrastructure manager records the information about the delays specified in the public-use railway infrastructure network performance scheme and their causes, but does not calculate payments for them.

(Amended by regulations of 29.09.2017.)

XII. Charges for capacity used for railway infrastructure maintenance

45. Charges are not applied to infrastructure manager's designated trains and rolling stock that are not involved in freight or passenger transportation by rail, but are related to the prevention or elimination of the consequences of disruption, the maintenance of the railway infrastructure, the performance of all repair operations, if the provisions of the scheme for the allocation of railway infrastructure capacity regarding maintenance notices are complied.

XIII. Charges for capacity used for railway technological processes

46. Charges for railway infrastructure capacity used by the rolling stock and trains of railway undertakings' and performers of individual technological processes (which operate upon an assignment by a railway undertaking, the infrastructure manager, an operator of a service facility, a consignor or consignee and which are granted access to the

railway infrastructure by the agreement with the infrastructure manager) that are not involved in transportation of railway freight or passengers by railway but provide technological processes (construction, renewal and maintenance of railway infrastructure equipment, modernization and repairs of railway rolling stock, preparation of trains and locomotives for transportation, locomotive movements, etc.) $M_{tehp\ gr}$ are determined by the direct unit maintenance cost $TI_{cel\ uztur\ gr}$ level.

XIV. Charge for capacity that is allocated, but not used

47. The charging body determines the charge for capacity that is allocated, but not used $M_{rezer\ gr}$ (hereinafter – reservation charge) at the level of the direct unit costs of performing the essential functions of the infrastructure manager:

$$M_{rezer\ gr} = PI_{bfv\ gr} / DR_{bfv\ gr}.$$

XV. Charge for the through rate offer market segment

48. If a market segment based on the through rate offer criteria mentioned in Annex 3 of the Scheme is separated, the charging body determines a reservation charge $M_{rezer\ param\ gr\ integr\ pied}$ for the specific charging parameter of the relevant service group in the through rate offer market segment at the level of the value of the determined charge $M_{param\ gr\ integr\ pied}$.

XVI. Charge for the operation of train services which cross more than one infrastructure network of the railway system within the European Union

49. If the charging body cooperates with another public-use railway infrastructure manager, to coordinate the charging for the operation of train services which cross more than one infrastructure network of the railway system within the European Union, it publishes related information on the website which is jointly established by the respective charging bodies (infrastructure managers).

XVII. Calculation of the charge values

50. The charging body calculates the values of the charges for each specific charging parameter $param$ of the relevant service group gr within a specific market segment s by adding a mark-up of each specific charging parameter within a specific market segment s to the direct unit costs:

$$M_{param\ gr\ s} = TI_{param\ gr} + MU_{param\ gr\ s}.$$

51. The differentiated charges mentioned in Chapters five, six, nine, ten, eleven, fourteen and fifteen do not add to the value of the charge, but are applied in accordance with the collection scheme or with the decision taken by the charging body. The charges mentioned in Chapters twelve and thirteenth do not add to the value of the charge but are applied in accordance with the collection scheme or with the decision taken by the charging body.

XVIII. Closing questions

52. The Scheme is graphically presented in Annex 4.

53. The abbreviations used in the Scheme and in its calculation formulas are indicated in Annex 7 of the Scheme.

54. The charging body publishes the Scheme on its website and submits it to the infrastructure manager for inclusion in the railway infrastructure network statement. The charging body publishes Annex 6 to the Scheme regarding the charging rules for the freight train services for the transportation of goods from and to the third countries operating on a network with track gauge 1520 on its website on the Internet at least two months before the corresponding infrastructure charge enters force and it is not included in the railway infrastructure network statement.

55. The Scheme enters into force upon its publication in the railway infrastructure network statement.

56. The Scheme is applied in accordance with the deadline set in Paragraph 2 of the decision part of the charging body's executive board No. JALP-1.3/04-2017 of 30 June, 2017 on gradual adaptation of 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.

57. If the charging body cannot balance the programmed costs of the infrastructure manager with the revenue from the calculated charges, it notifies the Ministry of Transport.

58. Complaints concerning the Scheme, its separately published Annexes and amendments may be submitted to the regulatory body by the owner of the railway infrastructure, the infrastructure manager, the applicant or the railway undertaking not later than one month from the date of their publication.

JSC LatRailNet
Director of Legal and
Administrative Affairs

J.Šulcs

Cost drivers used for the allocation of activity costs to the service groups

Nr.	Activity cost groups	Cost drivers used for the allocation of activity cost to the service groups
1.	Full railway infrastructure maintenance and overhead costs	
1.1.	Maintenance and train operating costs of railway infrastructure that provides a minimum access package (ceġ uztur) ⁸	<i>Costs in switching and stopping points primary allocated in accordance with technological documents⁹ and secondary in accordance with cost drivers indicated in this table</i>
1.1. 1.	Maintenance of tracks, civil infrastructure and related fixed installations and security objects used for the train acceptance, handling and dispatching	tonne km bruto
1.1. 2.	Maintenance of external illumination equipment used for the train acceptance, handling and dispatching	train km
1.1. 3.	Maintenance of fixed installations of automatic train control systems used for the train acceptance, handling and dispatching	train km
1.1. 4.	Maintenance of fixed installations used for the transmission of information and communication in the train acceptance, handling and dispatching process	train km
1.1. 5.	Provision of train and traction vehicle movement organization and coordination process	train km
1.1. 6.	Maintenance of buildings and structures used for the activities that provide a minimum access package	allocated to the activity in proportion of the activity used area and applied to the activity appropriate cost driver
1.1. 7.	Maintenance and train operating overhead costs of railway infrastructure that provide a minimum access package	train km ¹⁰
1.2.	Overhead costs	
1.2. 1.	Costs attributable to the sector administration by the standard regulation	train km or other unit used in standard regulation ¹¹
1.2. 2.	Infrastructure manager's costs related to the implementation of the decision of the regulatory body referred to in Section 8 of Article 7.1 of the Railway Law	train km or other unit used in standard regulation ¹²
1.2. 3.	The part of total infrastructure manager's overhead costs that is attributed to a minimum access package and to an access to the railway infrastructure connecting service facilities in accordance with the method of cost allocation to the various categories of services	train km ¹³

⁸ according to the railway infrastructure boundaries for provision of the minimum access package specified in the infrastructure manager's railway infrastructure network statement; when applying costs of switching points uses technological documents such as stations' Technological instructions (TRA)

⁹ for instance, stations' Technological instructions (TRA)

¹⁰ the cost items that relate to a specific service group in full are primarily attributed to the related service group, while in other cases, using the cost driver indicated in the table

¹¹ the cost items that relate to a specific service group in full are primarily attributed to the related service group, while in other cases, using the cost driver indicated in the table

¹² the cost items that relate to a specific service group in full are primarily attributed to the related service group, while in other cases, using the cost driver indicated in the table

¹³ the cost items that relate to a specific service group in full are primarily attributed to the related service group, while in other cases, using the cost driver indicated in the table

2.	Maintenance and train operating costs of railway infrastructure that provides an access to the railway infrastructure connecting service facilities (mez uztur) ¹⁴	<i>Costs in switching and stopping points primary allocated in accordance with technological documents¹⁵, and secondary in accordance with cost drivers indicated in this table</i>
2.1.	Maintenance of tracks, civil infrastructure and related fixed installations and security objects where freight train sets are assembled/disassembles as well as the rolling stock is transferred for loading, unloading or to related sidings	to freight traffic
2.2.	Maintenance of external illumination equipment used in objects where freight train sets are assembled/disassembled as well as the rolling stock is transferred for loading, unloading or to related sidings	to freight traffic
2.3.	Maintenance of fixed installations of automatic train control systems used in objects where freight train sets are assembled/disassembled as well as the rolling stock is transferred for loading, unloading or to related sidings	to freight traffic
2.4.	Maintenance of fixed installations used for the transmission of information and communication during the process where trainsets are assembled/disassembled as well as the rolling stock is transferred for loading, unloading or to related sidings	to freight traffic
2.5.	Maintenance of buildings and structures used for the activities where freight train sets are assembled/disassembled as well as the rolling stock is transferred for loading, unloading or to related sidings	to freight traffic
2.6.	Maintenance and train operating overhead costs of railway infrastructure that provides access to the railway infrastructure connecting service facilities	to freight traffic
3.	Renewal costs of railway infrastructure that provides a minimum access package and an access to the railway infrastructure connecting service facilities (atj) ¹⁶	
3.1.	Renewal of tracks, civil infrastructure and related fixed installations and security objects	tonne km bruto
3.2.	Renewal of external illumination equipment	train km
3.3.	Renewal of fixed installations of automatic train control systems	train km
3.4.	Renewal of fixed installations of automatic train control systems used in objects where freight train sets are assembled/disassembled as well as the rolling stock is transferred for loading, unloading or to related sidings	to freight traffic
3.5.	Renewal of fixed installations used for the transmission of information and communication in the train traffic	train km
3.6.	Renewal of buildings and structures that provide a minimum access package and an access to the railway infrastructure connecting service facilities	allocated to the activity in proportion of the activity used area and applied the activity appropriate cost driver
4.	Traction electrical supply equipment costs (elektr)	
4.1.	Traction electrical supply equipment maintenance costs	to trains that use electro traction
4.2.	Traction electrical supply equipment renewal costs	to trains that use electro traction

¹⁴ according to the railway infrastructure boundaries for provision access to the railway infrastructure connecting service facilities specified in the infrastructure manager's railway infrastructure network statement

¹⁵ for instance, stations' Technological instructions (TRA)

¹⁶ for instance, Stations' Technological instructions (TRA)

Normalization coefficients

Cost elements	Normalization coefficients
Payrolls	Output-dependent premiums
	Consumer price index
	Assessment of the causes of structural changes and other identified facts
Social contributions	Payroll influencing values
	Tax rates
Materials, fuel, electricity	Producer price index or tariff rates
	Assessment of the causes of modernization work and other identified facts
Other costs	Producer price index
	Assessment of the causes of other identified facts

**Market segmentation and mark-up determination criteria, based on efficient,
transparent and non-discriminatory principles**

I Market segmentation criteria

1. The segmentation based on the impact of different types of utilization of the railway infrastructure on the cost of railway infrastructure:

Criteria	Justification of the criteria
Impact on a specialized infrastructure	The applicant requests to utilize a specialized railway infrastructure for other types of transport, which increases the maintenance, renewal or operating costs of the infrastructure manager
Impact on an annual time schedule	The applicant requests specific departure or arrival times for combined transport, which increase the cost of train control
Impact on a railway infrastructure	The technical specifications of the applicant's application for railway infrastructure capacity are different from those indicated in the railway infrastructure network statement, which increases / decreases the maintenance, renewal or operating costs of the infrastructure manager
Impact on environment	The applicant's traffic incurs environmental protection costs
Impact on traffic	The technological clearances requested by the applicant in the application for a railway infrastructure capacity are different from that indicated in the railway infrastructure network statement, which increases / decreases the maintenance, renewal or operating costs of the infrastructure manager

2. The segmentation based on the productivity achieved by railway undertakings:

Criteria	Justification of the criteria
Train priority	The priority given to the transport service improves the service provided compared to competing modes of transport
Density of service consumers	The train crosses the railway infrastructure sections with different service density (population or loading / unloading)
Through rate offer	Transportation services are provided in accordance with uniform payment conditions throughout the logistics chain

3. The segmentation based on the impact of the allowable mark-up value on the competitiveness of the final consumer market:

Criteria	Justification of the criteria
Market conditions	Cargo price level, population density and income level
Competitive level	Proportion in particular traffic volume, accumulated market share of major enterprises (C-n index), market concentration (Herfindahl index)
Terms of operating	Price level of main production resources (consumer price index, the producer price index, etc.), exchange rate ratio
Terms of logistic chain	Value-added share in the total added value of the logistics chain, degree of integration of the logistics chain (independent companies, affiliated companies, alliance, group, etc.)

Quality of logistic chain's service	Conformity with technological requirements of the market, travel time, document drawing, commercial risks, reliability (brand), environmental impact
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II Quantitative mark-up determination criteria in a particular market segment

1. The value of the criteria C_s for all market segments is 0.
2. The value of the criteria V_s for all market segments is 0.
3. The value of the criteria $S_{\text{sab pak pas}}$ for the market segment sab pak pas , is set to 1¹⁷, while the value of the criteria S_s for other market segments is determined based on expert assessment, observing the following procedure:
 - 3.1. The charging body establishes, by an order, an expert group, which includes:
 - 3.1.1. all known applicants within a specific market segment s ;
 - 3.1.2. the infrastructure manager;
 - 3.1.3. the capacity allocation body;
 - 3.1.4. two independent experts (eg representatives of the relevant industry associations or competent scientific institutions).
 - 3.2. The charging body requires from the experts:
 - 3.2.1. forecasts for assessment of the value J_s - the potential transport volume of a given market segment, expressed in gross tonne km;
 - 3.2.2. forecasts for assessment of the value R_s by the following competitiveness factors:
 - 3.2.2.1. for the market segment citi pas :
 - 3.2.2.1.1. the total population of the inhabited stopping points on the route;
 - 3.2.2.1.2. the administrative significance of the inhabited stopping points on the route;
 - 3.2.2.1.3. passenger purchasing power;
 - 3.2.2.1.4. railway transport prices compared to other operators on the route;
 - 3.2.2.1.5. the quality of the railway service compared to the charges;
 - 3.2.2.1.6. industry competition;
 - 3.2.2.1.7. compatibility with other modes of transport and/or access to the destination of passengers;
 - 3.2.2.2.8. marketing activities of other transport service operators.
 - 3.2.2.2. for the market segments sviv krav and citi krav :
 - 3.2.2.2.1. the total cost of cargo recipient (offering to assess the route as a whole, including other members of the supply chain (costs of foreign railways and inland modes of transport, port tariffs and maritime costs));
 - 3.2.2.2.2. transportation time;
 - 3.2.2.2.3. industry competition;
 - 3.2.2.2.4. the competition in the mode of transport;
 - 3.2.2.2.5. cooperation between logistic chain members;
 - 3.2.2.2.6. world demand on transported cargo;
 - 3.2.2.2.7. political relations;
 - 3.2.2.2.8. marketing activities of other transport service operators.
 - 3.2.3. The experts assess competitiveness factors R_s on the grounds of two attributes:
 - 3.2.3.1. The significance from 0 to 1 of the competitiveness factor in terms of the potential transport volume provided by the experts referred to in Paragraph 3.2.1:

¹⁷ according to the procedure of compensation of operators' losses related to the provision of public transport services provided by the Law on Public Transport Services

Significances degree		Interpretation
0	insignificant factor	The factor does not significantly affect the conditions of the transport services market
> 0, < 1	significant factor	The factor influences transport services market conditions - the higher the rating, the more significant impact
1	direct correlation	The factor directly affects the market conditions of transport services

3.2.3.2. The assessment from 0 to 1 of the development of the competitiveness factor, in terms of the potential transport volume provided by the experts referred to in Paragraph 3.2.1:

Development degree	Interpretation
0	The factor development is expected as the lowest in the region
> 0, < 1	The factor development is comparable to competing modes of transport and transport corridors - the higher the assessment, the better the assessment
1	The factor development is expected as the highest in the region

3.3. The charging body summarizes the expert assessment and performs the evaluation of the reliability of the data in the following order:

3.3.1. If an expert's assessment of \mathbf{R}_s or \mathbf{J}_s criteria is significantly different from the point of view of other experts, then the expert is requested to justify his or her opinion. If the justification includes factors not mentioned in Paragraph 3.2.2. then the assessment is repeated, including non-assessed factors in the reassessment;

3.3.2. Calculates each expert's deviation from the average expert assessment:

$$S^2_{v_{is}} = \sum (v_{ij s} - \bar{v}_{i s})^2 / m_s, \text{ where}$$

$S^2_{v_{is}}$ - the deviation of the expert's i-th criteria evaluation for a specific segment from the average of all experts' judgment;

v_{ij} - the evaluation of the i-th criteria of an j-th expert for a particular segment;

\bar{v}_i - the average of the i-th criteria of all experts within a specific segment;

m - the number of assessment within a specific segment.

3.3.3. Using the Fisher criteria or other statistical method, checks whether any expert judgment differs significantly from the views of other experts. If the result of the formula is true, the result of the evaluation differs significantly from the other evaluations, and such expert judgment is not considered:

$$S^2_{v_{\max}} / S^2_{v_{is}} \geq F(0.1 ; m_s - 1), \text{ where}$$

$F(0.1; m-1)$ - Fisher's criteria at a significance level of 0.1 and the degrees of freedom $m-1$.

3.4. The remaining statistically significant estimates are multiplied by the degree of significance of the factor and the average \mathbf{R}_s value is obtained:

$$\mathbf{R}_s = \sum v_{ij s} * k_{ij s} / m_s, \text{ where}$$

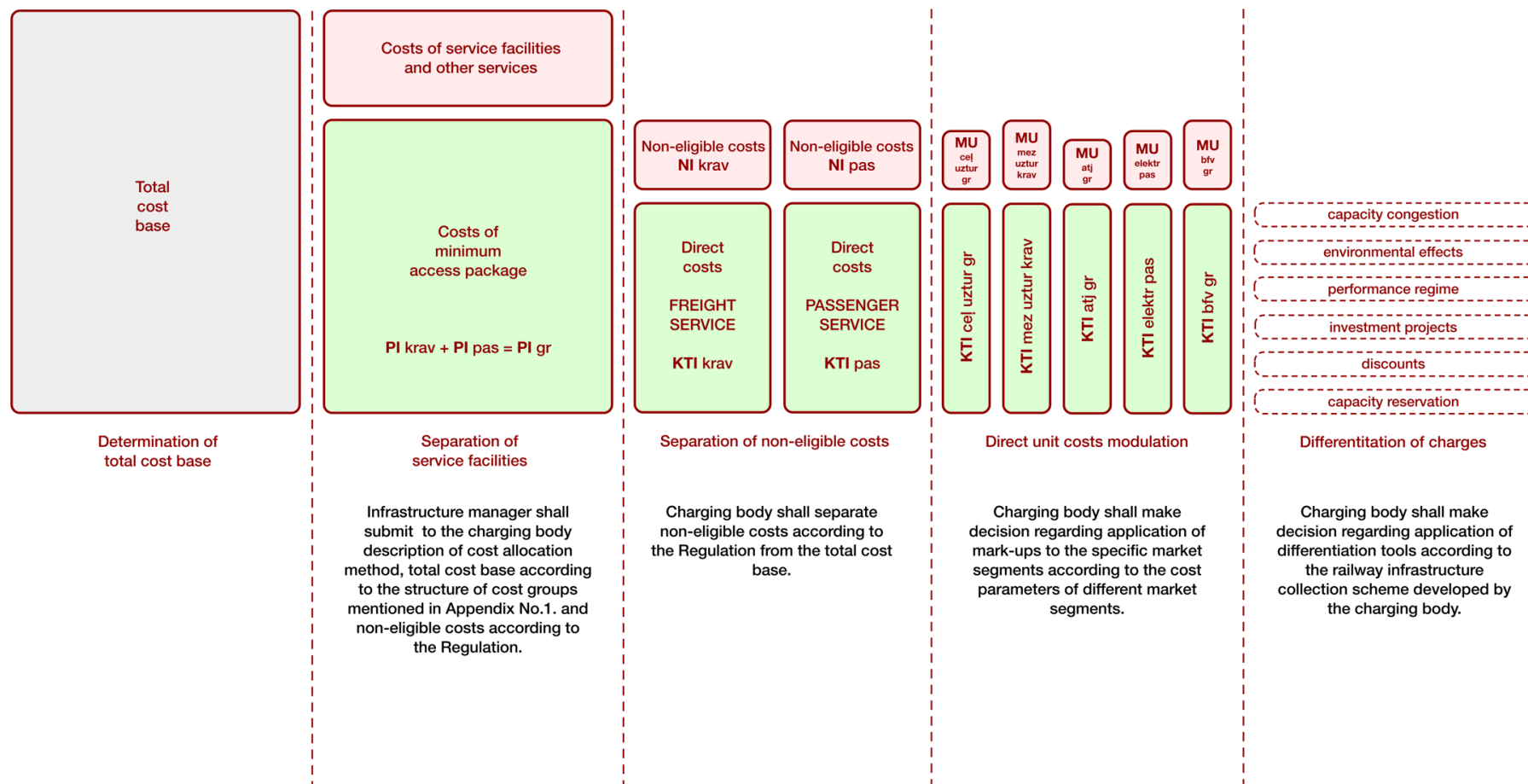
k_{ij} - the significance degree of the i-th criteria of an expert within a specific segment.

3.5. The \mathbf{J}_s value is obtained by comparing the average of the statistically significant forecasts referred to in Paragraph 3.2.1 with the actual capacity applied in gross tonne km.

3.6. The \mathbf{S}_s value is determined by choosing between the values of \mathbf{R}_s un \mathbf{J}_s , considering the objectives of the planning documents referred to in Paragraph 8 of the Scheme and the national transport policy.

3.7. The criteria for \mathbf{R}_s and \mathbf{J}_s are expressed in decimal numbers rounded to 2 decimal places.

Graphical representation of the Scheme



List of market segments

Name of market segment	Legend of market segment s
1. passenger services within the framework of a public service contract	sab pak pas
2. other passenger services	citi pas
3. domestic freight transportation with collecting and pick-up trains	sviv krav
4. other freight transport services, except train services for freight transportation from and to the third countries operating on a network with track gauge 1520 where Article 11. ¹ (9) of the Railway Law provides an exception.	citi krav

Charging rules for the freight transportation services from and to the third countries operating on a network with track gauge 1520

As referred to in Article 26(6) of the Railway Law, the charging body publishes Annex 6 on its website on the Internet for at least two months before the corresponding infrastructure charges enter into force and it is not included in the railway infrastructure network statement.

Abbreviations used in the Scheme and in their calculation formulas

1) Infrastructure manager's full costs:

PI – the full costs necessary to ensure common access rights throughout the railway infrastructure which the infrastructure manager, in accordance with the method of cost allocation to the various categories of services provided to the railway undertakings, allocates from its total costs to the minimum access package and to the access to railway infrastructure connecting to service facilities;

PI_{gr} – the full costs (PI) allocated to the relevant service groups (_{gr}) referred to in Paragraphs 6.1 or 6.2;

PI_{param gr} – the full costs (PI) of the specific parameter (_{param}) of the related service group (_{gr});

PI_{cel uztur gr} – the railway infrastructure maintenance and train operating full costs (PI) of the relevant service group (_{gr});

PI_{cel uztur krav} – the railway infrastructure maintenance and train operating full costs (PI) of the freight traffic;

PI_{cel uztur pas} – the railway infrastructure maintenance and train operating full costs (PI) of the passenger traffic;

PI_{mez uztur gr} – the maintenance and train operating full costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (PI) of the relevant service group (_{gr});

PI_{mez uztur krav} – the maintenance and train operating full costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (PI) of the freight traffic;

PI_{atj gr} – the railway infrastructure renewal full costs (PI) of the relevant service group (_{gr});

PI_{atj krav} – the railway infrastructure renewal full costs (PI) of the freight traffic;

PI_{atj pas} – the railway infrastructure renewal full costs (PI) of the passenger traffic;

PI_{elektr gr} – the railway infrastructure electro traction supply equipment maintenance and renewal full costs (PI) of the relevant service group (_{gr}), where electro traction is used;

PI_{elektr pas} – the railway infrastructure electro traction supply equipment maintenance and renewal full costs (PI) of the passenger traffic where electro traction is used;

PI_{bfv gr} – the essential function performing full costs (PI) of the relevant service group (_{gr});

PI_{bfv krav} – the essential function performing full costs (PI) of the freight traffic;

PI_{bfv pas} – the essential function performing full costs (PI) of the passenger traffic;

PI_{param gr} – the adjusted full costs (PI) of the specific parameter (**param**) of the related service group (**gr**) where infrastructure manager's financing costs are replaced with reasonable profit margin in accordance with the Paragraph 37.1 of the Scheme

PI_{ceļ uztur krav} – the railway infrastructure maintenance and train operating adjusted full costs (PI) of the freight traffic;

PI_{ceļ uztur pas} – the railway infrastructure maintenance and train operating adjusted full costs (PI) of the passenger traffic;

PI_{mez uztur gr} – the maintenance and train operating adjusted full costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (PI) of the relevant service group (**gr**);

PI_{mez uztur krav} – the maintenance and train operating adjusted full costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (PI) of the freight traffic;

PI_{atj gr} – the railway infrastructure renewal adjusted full costs (PI) of the relevant service group (**gr**);

PI_{atj krav} – the railway infrastructure renewal adjusted full costs (PI) of the freight traffic;

PI_{atj pas} – the railway infrastructure renewal adjusted full costs (PI) of the passenger traffic;

PI_{elektr gr} – the railway infrastructure electro traction supply equipment maintenance and renewal adjusted full costs (PI) of the relevant service group (**gr**), where electro traction is used;

PI_{elektr pas} – the railway infrastructure electro traction supply equipment maintenance and renewal adjusted full costs (PI) of the passenger traffic where electro traction is used;

PI_{bfv gr} – the essential function performing adjusted full costs (PI) of the relevant service group (**gr**);

PI_{bfv krav} – the essential function performing adjusted full costs (PI) of the freight traffic;

PI_{bfv pas} – the essential function performing adjusted full costs (PI) of the passenger traffic;

ΔPI_{pārsłodz param gr} – changes in the full costs (PI) in the relevant programming period caused by the maintenance costs associated with the capacity-enhancement plan and the costs of attracting borrowed capital for long-term investments foreseen by the infrastructure manager:

ΔPI_{pārsłodz ceļ uztur gr} – changes in the maintenance and train operating full costs (PI) associated with the capacity-enhancement plan of the relevant service group (**gr**):

ΔPI_{pārsłodz ceļ uztur krav} – of the freight traffic;

ΔPI_{pārsłodz ceļ uztur pas} – of the passenger traffic;

ΔPI_{pārsłodz mez uztur gr} – changes in the maintenance and train operating full costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (PI) associated with the capacity-enhancement plan of the relevant service group (**gr**):

ΔPI_{pārsłodz mez uztur krav} – of the freight traffic;

ΔPI_{pārsłodz atj gr} – changes in the railway infrastructure renewal full costs (PI):

$\Delta PI_{\text{pārsloz atj krav}}$ – of the freight traffic;

$\Delta PI_{\text{pārsloz atj pas}}$ – of the passenger traffic;

$\Delta PI_{\text{pārsloz elektr gr}}$ – changes in the railway infrastructure electro traction supply equipment maintenance and renewal full costs (PI) of the relevant service group ($_{gr}$) where electric traction is used:

$\Delta PI_{\text{pārsloz elektr pas}}$ – of the passenger traffic where electro traction is used:

$\Delta PI_{\text{pārsloz bfv gr}}$ – changes in the essential function performing full costs (PI):

$\Delta PI_{\text{pārsloz bfv krav}}$ – of the freight traffic;

$\Delta PI_{\text{pārsloz bfv pas}}$ – of the passenger traffic;

$\Delta PI_{\text{infpr param gr}}$ – changes in the full costs (PI) caused by the specific investment project (e.g. the amortization of the part of the long-term investment in the programming period that does not exceed the efficiency of the applicant's savings).

$\Delta PI_{\text{infpr ceļ uztur gr}}$ – changes in the maintenance and train operating full costs (PI):

$\Delta PI_{\text{infpr ceļ uztur krav}}$ – of the freight traffic;

$\Delta PI_{\text{infpr ceļ uztur pas}}$ – of the passenger traffic;

$\Delta PI_{\text{infpr mez uztur gr}}$ – changes in the maintenance and train operating full costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (PI);

$\Delta PI_{\text{infpr mez uztur krav}}$ – of the freight traffic;

$\Delta PI_{\text{infpr atj gr}}$ – changes in the railway infrastructure renewal full costs (PI):

$\Delta PI_{\text{infpr atj krav}}$ – of the freight traffic;

$\Delta PI_{\text{infpr atj pas}}$ – of the passenger traffic;

$\Delta PI_{\text{infpr elektr gr}}$ – changes in the railway infrastructure electro traction supply equipment maintenance and renewal full costs (PI):

$\Delta PI_{\text{infpr elektr pas}}$ – of the passenger traffic where electro traction is used;

$\Delta PI_{\text{infpr bfv gr}}$ – changes in the essential function performing full costs (PI):

$\Delta PI_{\text{infpr bfv krav}}$ – of the freight traffic;

$\Delta PI_{\text{infpr bfv pas}}$ – of the passenger traffic;

2) the infrastructure manager's ineligible costs:

NI – costs which according to the Implementing regulation are considered as ineligible (considering the explanations referred to in Paragraph 17 of the Scheme);

NI_{gr} – the ineligible costs (NI) of the relevant service group ($_{gr}$);

NI_{param gr} – the ineligible costs (PI) of the specific parameter ($_{param}$) of the related service group ($_{gr}$);

NI_{cel uztur gr} – the railway infrastructure maintenance and train operating ineligible costs (NI) of the relevant service group (_{gr});

NI_{cel uztur krav} – the railway infrastructure maintenance and train operating ineligible costs (NI) of the freight traffic;

NI_{cel uztur pas} – the railway infrastructure maintenance and train operating ineligible costs (NI) of the passenger traffic;

NI_{mez uztur gr} – the maintenance and train operating ineligible costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (NI) of the relevant service group (_{gr});

NI_{mez uztur krav} – the maintenance and train operating ineligible costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (NI) of the freight traffic;

NI_{atj gr} – the railway infrastructure renewal ineligible costs (NI) of the relevant service group (_{gr});

NI_{atj krav} – the railway infrastructure renewal ineligible costs (NI) of the freight traffic;

NI_{atj pas} – the railway infrastructure renewal ineligible costs (NI) of the passenger traffic;

NI_{elektr gr} – the railway infrastructure electro traction supply equipment maintenance and renewal ineligible costs (NI) of the relevant service group (_{gr}), where electro traction is used;

NI_{elektr pas} – the railway infrastructure electro traction supply equipment maintenance and renewal ineligible costs (NI) of the passenger traffic where electro traction is used;

NI_{bfv gr} – the essential function performing ineligible costs (NI) of the relevant service group (_{gr});

NI_{bfv krav} – the essential function performing ineligible costs (NI) of the freight traffic;

NI_{bfv pas} – the essential function performing ineligible costs (NI) of the passenger traffic;

3) the infrastructure manager's network-wide direct costs:

KTI – railway infrastructure network-wide direct costs within the meaning of the Implementing regulation;

KTI_{gr} – the network-wide direct costs (KTI) of the relevant service group (_{gr});

KTI_{param gr} – the network-wide direct costs (KTI) of the specific parameter (_{param}) of the related service group (_{gr});

KTI_{cel uztur gr} – the railway infrastructure maintenance and train operating network-wide direct costs (KTI) of the relevant service group (_{gr});

KTI_{cel uztur krav} – the railway infrastructure maintenance and train operating network-wide direct costs (KTI) of the freight traffic;

KTI_{cel uztur pas} – the railway infrastructure maintenance and train operating network-wide direct costs (KTI) of the passenger traffic;

KTI_{mez uztur gr} – the maintenance and train operating network-wide direct costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (KTI) of the relevant service group (_{gr});

KTI_{mez uztur krav} – the maintenance and train operating network-wide direct costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (KTI) of the freight traffic;

KTI_{atj gr} – the railway infrastructure renewal network-wide direct costs (KTI) of the relevant service group (_{gr});

KTI_{atj krav} – the railway infrastructure renewal network-wide direct costs (KTI) of the freight traffic;

KTI_{atj pas} – the railway infrastructure renewal network-wide direct costs (KTI) of the passenger traffic;

KTI_{elektr gr} – the railway infrastructure electro traction supply equipment maintenance and renewal network-wide direct costs (KTI) of the relevant service group (_{gr}), where electro traction is used;

KTI_{elektr pas} – the railway infrastructure electro traction supply equipment maintenance and renewal network-wide direct costs (KTI) of the passenger traffic where electro traction is used;

KTI_{bfv gr} – the essential function performing network-wide direct costs (KTI) of the relevant service group (_{gr});

KTI_{bfv krav} – the essential function performing network-wide direct costs (KTI) of the freight traffic;

KTI_{bfv pas} – the essential function performing network-wide direct costs (KTI) of the passenger traffic;

KTI_{opt nosl param gr s} – the network-wide direct costs of the relevant service group (_{gr}) within a specific market segment (_s) that are relevant to the forecasted increase of the performance indicator ($\Delta DR_{opt nosl param gr s}$) expected as a result of levying the network loading optimization discount:

KTI_{opt nosl cel uztur gr} – the maintenance and train operating network-wide direct costs (KTI) of the relevant service group (_{gr}) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt nosl param gr s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl cel uztur krav} – the maintenance and train operating network-wide direct costs (KTI) of the freight traffic that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt nosl param gr s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl cel uztur pas} – the maintenance and train operating network-wide direct costs (KTI_{cel uztur})

within a specific market segment of the passenger traffic (s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl mez uztur gr s} – the maintenance and train operating network-wide direct costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (KTI_{mez uztur}) of the relevant service group (gr) within a specific market segment (s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl mez uztur krav s} – the maintenance and train operating network-wide direct costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (KTI_{mez uztur}) within a specific market segment of the freight traffic (s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl atj gr s} – the renewal network-wide direct costs (KTI_{atj}) of the relevant service group (gr) within a specific market segment (s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl atj krav gr s} – the renewal network-wide direct costs (KTI_{atj}) within a specific market segment of the freight traffic (s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl atj pas gr s} – the renewal network-wide direct costs (KTI_{atj}) within a specific market segment of the passenger traffic (s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl elektr gr s} – the railway infrastructure electro traction supply equipment maintenance and renewal network-wide direct costs (KTI_{elektr}) of the relevant service group (gr) within a specific market segment (s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl elektr pas s} – the railway infrastructure electro traction supply equipment maintenance and renewal network-wide direct costs (KTI_{elektr}) of the passenger traffic within a specific market segment (s) that are relevant to the forecasted

increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl bfv gr s} – the essential function performing network-wide direct costs (KTI_{bfv}) of the relevant service group (_{gr}) within a specific market segment (_s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl bfv krav s} – the essential function performing network-wide direct costs (KTI_{bfv}) within a specific market segment of the freight traffic (_s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

KTI_{opt nosl bfv pas s} – the essential function performing network-wide direct costs (KTI_{elektr}) within a specific market segment of the passenger traffic (_s) that are relevant to the forecasted increase of the performance indicator $\Delta DR_{opt\ nosl\ param\ gr\ s}$ expected as a result of levying the network loading optimization discount;

TI_{param gr} – the direct unit costs (TI) of the specific parameter (_{param}) of the related service group (_{gr});

TI_{cel uztur gr} – the railway infrastructure maintenance and train operating direct unit costs (TI_{cel uztur}) of the relevant service group (_{gr});

TI_{cel uztur krav} – the railway infrastructure maintenance and train operating direct unit costs (TI_{cel uztur}) of the freight traffic;

TI_{cel uztur pas} – the railway infrastructure maintenance and train operating direct unit costs (TI_{cel uztur}) of the passenger traffic;

TI_{mez uztur gr} – the maintenance and train operating direct unit costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (TI_{mez uztur}) of the relevant service group (_{gr});

TI_{mez uztur krav} – the maintenance and train operating direct unit costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (TI_{mez uztur}) of the freight traffic;

TI_{atj gr} – the railway infrastructure renewal direct unit costs (TI_{atj}) of the relevant service group (_{gr});

TI_{atj krav} – the railway infrastructure renewal direct unit costs (TI_{at}) of the freight traffic;

TI_{atj pas} – the railway infrastructure renewal direct unit costs (TI_{at}) of the passenger traffic;

TI_{elektr gr} – the railway infrastructure electro traction supply equipment maintenance and renewal direct unit costs (TI_{elektr}) of the relevant service group (gr), where electro traction is used;

TI_{elektr pas} – the railway infrastructure electro traction supply equipment maintenance and renewal direct unit costs (TI_{elektr}) of the passenger traffic where electro traction is used;

TI_{bfv gr} – the essential function performing direct unit costs (TI_{bfv}) of the relevant service group (gr);

TI_{bfv krav} – the essential function performing direct unit costs (TI_{bfv}) of the freight traffic;

TI_{bfv pas} – the essential function performing direct unit costs (TI_{bfv}) of the passenger traffic;

4) Other costs of the infrastructure manager:

F – the railway infrastructure financing costs e.c. actual costs incurred by the infrastructure manager to attract funds (interest payments), as well as costs associated with fluctuations of exchange rates;

F_{gr} – the railway infrastructure financing costs (F) of the related service group (gr);

F_{param gr} – the railway infrastructure financing costs (F) of the specific parameter (param) of the related service group (gr);

F_{cel uztur gr} – the railway infrastructure maintenance and train operating financing costs (F_{cel uztur}) of the relevant service group (gr);

F_{cel uztur krav} – the railway infrastructure maintenance and train operating financing costs (F_{cel uztur}) of the freight traffic;

F_{cel uztur pas} – the railway infrastructure maintenance and train operating financing costs (F_{cel uztur}) of the passenger traffic;

F_{mez uztur gr} – the maintenance and train operating financing costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (F_{mez uztur}) of the relevant service group (gr);

F_{mez uztur krav} – the maintenance and train operating financing costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities (F_{mez uztur}) of the freight traffic;

F_{atj gr} – the railway infrastructure renewal financing costs (F_{atj}) of the relevant service group (gr);

F_{atj krav} – the railway infrastructure renewal financing costs (F_{atj}) of the freight traffic;

F_{atj pas} – the railway infrastructure renewal financing costs (F_{atj}) of the passenger traffic;

$F_{\text{elektr gr}}$ – the railway infrastructure electro traction supply equipment maintenance and renewal financing costs (F_{elektr}) of the relevant service group ($_{\text{gr}}$), where electro traction is used;

$F_{\text{elektr pas}}$ – the railway infrastructure electro traction supply equipment maintenance and renewal financing costs (F_{elektr}) of the passenger traffic where electro traction is used;

$F_{\text{bfv gr}}$ – the essential function performing financing costs (F_{bfv}) of the relevant service group ($_{\text{gr}}$);

$F_{\text{bfv krav}}$ – the essential function performing financing costs (F_{bfv}) of the freight traffic;

$F_{\text{bfv pas}}$ – the essential function performing financing costs (F_{bfv}) of the passenger traffic;

5) Performance indicators and their deviations:

$DR_{\text{param gr}}$ – the performance indicator of the specific parameter ($_{\text{param}}$) of the related service group ($_{\text{gr}}$);

$DR_{\text{cel uztur gr}}$ – train km performance indicator for assessment of the maintenance and train operating costs of the relevant service group ($_{\text{gr}}$);

$DR_{\text{cel uztur krav}}$ – train km performance indicator for assessment of the maintenance and train operating costs of the freight traffic;

$DR_{\text{cel uztur pas}}$ – train km performance indicator for assessment of the maintenance and train operating costs of the passenger traffic;

$DR_{\text{mez uztur gr}}$ – wagons performance indicator for assessment of the maintenance and train operating costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities of the relevant service group ($_{\text{gr}}$);

$DR_{\text{mez uztur krav}}$ – wagons performance indicator for assessment of the maintenance and train operating costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities of the freight traffic;

$DR_{\text{atj gr}}$ – gross tonne km performance indicator for assessment of the renewal costs of the relevant service group ($_{\text{gr}}$);

$DR_{\text{atj krav}}$ – gross tonne km performance indicator for assessment of the renewal costs of the freight traffic;

$DR_{\text{atj pas}}$ – gross tonne km performance indicator for assessment of the renewal costs of the passenger traffic;

$DR_{\text{elektr gr}}$ – train km performance indicator for assessment of the electro traction supply equipment maintenance and renewal costs of the relevant service group ($_{\text{gr}}$), where electric traction is used;

$DR_{\text{elektr pas}}$ – train km performance indicator for assessment of the electro traction supply equipment maintenance and renewal costs of the passenger traffic, where electro traction is used;

$DR_{\text{bfv gr}}$ – allocated trains performance indicator for assessment of the essential function performing costs of the relevant service group ($_{\text{gr}}$);

$DR_{\text{bfv krav}}$ – allocated freight trains performance indicator for assessment of the essential function performing costs of the freight traffic;

DR_{bfv pas} – allocated passenger trains performance indicator for assessment of the essential function performing costs of the passenger traffic;

DR_{pārslodz param gr} – the performance indicator of the specific parameter (*param*) of the related service group (*gr*) in a specified railway infrastructure part during congestion periods, e.g.:

DR_{pārslodz ceļ uztur krav} – the freight train km performance indicator of the maintenance and train operating costs of the freight traffic in a specified railway infrastructure part during congestion periods;

DR_{pārslodz ceļ uztur pas} – the passenger train km performance indicator of the maintenance and train operating costs of the passenger traffic in a specified railway infrastructure part during congestion periods;

DR_{pārslodz mez uztur krav} – the freight wagon performance indicator of the maintenance and train operating costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities of the freight traffic in a specified railway infrastructure part during congestion periods;

DR_{pārslodz atj krav} – the freight gross tonne km performance indicator of the renewal costs of the freight traffic in a specified railway infrastructure part during congestion periods;

DR_{pārslodz atj pas} – the passenger gross tonne km performance indicator of the renewal costs of the passenger traffic in a specified railway infrastructure part during congestion periods;

DR_{pārslodz elektr pas} – train km performance indicator of the electro traction supply equipment maintenance and renewal costs of the passenger traffic, where electro traction is used in a specified railway infrastructure part during congestion periods;

DR_{pārslodz bfv krav} – allocated freight trains performance indicator of the essential function performing costs of the freight traffic in a specified railway infrastructure part during congestion periods;

DR_{pārslodz bfv pas} – allocated passenger trains performance indicator of the essential function performing costs of the passenger traffic in a specified railway infrastructure part during congestion periods;

DR_{infpr param gr} – the performance indicator of the specific parameter (*param*) of the related service group (*gr*) in a specified railway infrastructure part where the investment project is implemented, e.g.:

DR_{infpr ceļ uztur krav} – the freight train km performance indicator of the maintenance and train operating costs of the freight traffic in a specified railway infrastructure part where the investment project is implemented;

DR_{infpr ceļ uztur pas} – the passenger train km performance indicator of the maintenance and train operating costs of the passenger traffic in a specified railway infrastructure part where the investment project is implemented;

DR_{infpr mez uztur krav} – the freight wagon performance indicator of the maintenance and train operating costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities of the freight traffic in a specified railway infrastructure part where the investment project is implemented;

DR_{infpr atj krav} – the freight gross tonne km performance indicator of the renewal costs of the freight traffic in a specified railway infrastructure part where the investment project is implemented;

DR_{infpr atj pas} – the passenger gross tonne km performance indicator of the renewal costs of the passenger traffic in a specified railway infrastructure part where the investment project is implemented;

DR_{infpr elektr pas} – train km performance indicator of the electro traction supply equipment maintenance and renewal costs of the passenger traffic, where electro traction is used in a specified railway infrastructure part where the investment project is implemented;

DR_{infpr bfv krav} – allocated freight trains performance indicator of the essential function performing costs of the freight traffic in a specified railway infrastructure part where the investment project is implemented;

DR_{infpr bfv pas} – allocated passenger trains performance indicator of the essential function performing costs of the passenger traffic in a specified railway infrastructure part where the investment project is implemented;

ΔDR_{opt nosl param gr s} – the forecasted increase of the performance indicator in the relevant service group (_{gr}) within a specific market segment (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount.

ΔDR_{opt nosl cel uztur krav s} – the forecasted increase of the freight train km performance indicator of the maintenance and train operating costs within a specific market segment of the freight traffic (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount;

ΔDR_{opt nosl cel uztur pas s} – the forecasted increase of the passenger train km performance indicator of the maintenance and train operating costs within a specific market segment of the passenger traffic (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount;

ΔDR_{opt nosl mez uztur krav s} – the forecasted increase of the freight wagon performance indicator of the maintenance and train operating costs of railway infrastructure that provides access to the railway infrastructure connecting to service facilities within a specific market segment of the freight traffic (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount;

ΔDR_{opt nosl atj krav s} – the forecasted increase of the freight gross tonne km performance indicator of the renewal costs within a specific market segment of the freight traffic (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount;

ΔDR_{opt nosl atj pas s} – the forecasted increase of the passenger gross tonne km performance indicator of the renewal costs within a specific market segment of the passenger traffic (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount;

ΔDR_{opt nosl elektr pas s} – the forecasted increase of train km performance indicator of the electro traction supply equipment maintenance and renewal costs of the passenger traffic, where electro traction is used within a specific market segment (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount;

ΔDR_{opt nosl bfv krav s} – the forecasted increase of allocated freight trains performance indicator of the essential function performing costs within a specific market segment of the freight traffic (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount;

ΔDR_{opt nosl bfv pas s} – the forecasted increase of allocated passenger trains performance indicator of the essential function performing costs within a specific market segment of the passenger traffic (_s) for a specific part of the railway infrastructure expected as a result of levying the network loading optimization discount;

6) The values of charges, mark-ups and differentiated charges:

$M_{param\ gr\ s}$ – the value of the charge for a specific charging parameter ($_{param}$) of the relevant service group ($_{gr}$) within a specific market segment ($_s$), determined by the charging body:

$M_{ceļ\ uztur\ krav\ s}$ – the value of the charge for the maintenance and train management within a specific market segment of the freight traffic ($_s$);

$M_{ceļ\ uztur\ pas\ s}$ – the value of the charge for the maintenance and train management within a specific market segment of the passenger traffic ($_s$);

$M_{mez\ uztur\ krav\ s}$ – the value of the charge for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities within a specific market segment of the freight traffic ($_s$);

$M_{atj\ krav\ s}$ the value of the charge for the renewal within a specific market segment of the freight traffic ($_s$);

$M_{atj\ pas\ s}$ – the value of the charge for the renewal within a specific market segment of the passenger traffic ($_s$);

$M_{elektr\ pas\ s}$ – the value of the charge for the electric traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used within a specific market segment ($_s$);

$M_{bfv\ krav\ s}$ – the value of the charge for the essential function performing within a specific market segment of the freight traffic ($_s$);

$M_{bfv\ pas\ s}$ – the value of the charge for the essential function performing within a specific market segment of the passenger traffic ($_s$);

$M_{pārslodz\ param\ gr\ s}$ – the value of the scarcity charge for a specific charging parameter ($_{param}$) of the relevant service group ($_{gr}$) within a specific market segment ($_s$), determined by the charging body:

$M_{pārslodz\ ceļ\ uztur\ krav\ s}$ – the value of the scarcity charge for the maintenance and train management within a specific market segment of the freight traffic ($_s$);

$M_{pārslodz\ ceļ\ uztur\ pas\ s}$ – the value of the scarcity charge for the maintenance and train management within a specific market segment of the passenger traffic ($_s$);

$M_{pārslodz\ mez\ uztur\ krav\ s}$ – the value of the scarcity charge for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities within a specific market segment of the freight traffic ($_s$);

$M_{pārslodz\ atj\ krav\ s}$ the value of the scarcity charge for the renewal within a specific market segment of the freight traffic ($_s$);

$M_{pārslodz\ atj\ pas\ s}$ – the value of the scarcity charge for the renewal within a specific market segment of the passenger traffic ($_s$);

$M_{pārslodz\ elektr\ pas\ s}$ – the value of the scarcity charge for the electric traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used within a specific market segment ($_s$);

$M_{pārslodz\ bfv\ krav\ s}$ – the value of the scarcity charge for the essential function performing within a specific market segment of the freight traffic ($_s$);

$M_{pārslodz\ bfv\ pas\ s}$ – the value of the scarcity charge for the essential function performing within a specific market segment of the passenger traffic ($_s$);

$M_{vide\ param\ gr\ s}$ – the value of the environmental charge for a specific charging parameter ($_{param}$) of the relevant service group ($_{gr}$) within a specific market segment ($_s$), determined by the charging body:

- M_{vide cel uztur krav s}** – the value of the environmental charge for the maintenance and train management within a specific market segment of the freight traffic (_s);
- M_{vide cel uztur pas s}** – the value of the environmental charge for the maintenance and train management within a specific market segment of the passenger traffic (_s);
- M_{vide mez uztur krav s}** – the value of the environmental charge for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities within a specific market segment of the freight traffic (_s);
- M_{vide atj krav s}** the value of the environmental charge for the renewal within a specific market segment of the freight traffic (_s);
- M_{vide atj pas s}** – the value of the environmental charge for the renewal within a specific market segment of the passenger traffic (_s);
- M_{vide elektr pas s}** – the value of the environmental charge for the electric traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used within a specific market segment (_s);
- M_{vide bfv krav s}** – the value of the environmental charge for the essential function performing within a specific market segment of the freight traffic (_s);
- M_{vide bfv pas s}** – the value of the environmental charge for the essential function performing within a specific market segment of the passenger traffic (_s);
- M_{infr param gr s}** – the value of the project charge for a specific charging parameter (_{param}) of the relevant service group (_{gr}) within a specific market segment (_s), determined by the charging body:
- M_{infr cel uztur krav s}** – the value of the project charge for the maintenance and train management within a specific market segment of the freight traffic (_s);
- M_{infr cel uztur pas s}** – the value of the project charge for the maintenance and train management within a specific market segment of the passenger traffic (_s);
- M_{infr mez uztur krav s}** – the value of the project charge for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities within a specific market segment of the freight traffic (_s);
- M_{infr atj krav s}** the value of the project charge for the renewal within a specific market segment of the freight traffic (_s);
- M_{infr atj pas s}** – the value of the project charge for the renewal within a specific market segment of the passenger traffic (_s);
- M_{infr elektr pas s}** – the value of the project charge for the electric traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used within a specific market segment (_s);
- M_{infr bfv krav s}** – the value of the project charge for the essential function performing within a specific market segment of the freight traffic (_s);
- M_{infr bfv pas s}** – the value of the project charge for the essential function performing within a specific market segment of the passenger traffic (_s);
- M_{sank/komp/prēm param gr s}** – the value of the charge for a specific charging parameter (_{param}) of the relevant service group (_{gr}) within a specific market segment (_s), determined by the charging body in case when penalties for actions which disrupt the operation of the railway network, compensations or bonuses (charge reductions to applicants with better-than-planned performance of the parameters specified in the network performance scheme) are applied on the basic principles of the performance scheme applicable to the railway network, t.i. :

- M_{sankc/komp/prēm ceļ uztur krav s}** – the value of the charge for the maintenance and train management within a specific market segment of the freight traffic (_s) in case when penalties, compensations or bonuses are applied;
- M_{sankc/komp/prēm ceļ uztur pas s}** – the value of the charge for the maintenance and train management within a specific market segment of the passenger traffic (_s) in case when penalties, compensations or bonuses are applied;
- M_{sankc/komp/prēm mez uztur krav s}** – the value of the charge for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities within a specific market segment of the freight traffic (_s) in case when penalties, compensations or bonuses are applied;
- M_{sankc/komp/prēm atj krav s}** the value of the charge for the renewal within a specific market segment of the freight traffic (_s) in case when penalties, compensations or bonuses are applied;
- M_{sankc/komp/prēm atj pas s}** – the value of the charge for the renewal within a specific market segment of the passenger traffic (_s) in case when penalties, compensations or bonuses are applied;
- M_{sankc/komp/prēm elektr pas s}** – the value of the charge for the electro traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used within a specific market segment (_s) in case when penalties, compensations or bonuses are applied;
- M_{sankc/komp/prēm bfv krav s}** – the value of the charge for the essential function performing within a specific market segment of the freight traffic (_s) in case when penalties, compensations or bonuses are applied;
- M_{sankc/komp/prēm bfv pas s}** – the value of the charge for the essential function performing within a specific market segment of the passenger traffic (_s) in case when penalties, compensations or bonuses are applied;
- M_{tehpr gr}** – charges for railway infrastructure capacity used for providing technological processes of the relevant service group (_{gr}), determined by the charging body:
- M_{tehpr krav}** – charges for railway infrastructure capacity used for providing technological processes of the freight traffic;
- M_{tehpr pas}** – charges for railway infrastructure capacity used for providing technological processes of the passenger traffic;
- M_{rezer gr}** – the reservation charge for capacity of the relevant service group (_{gr}) that is allocated, but not used;
- M_{rezer krav}** – the reservation charge for capacity of the freight traffic that is allocated, but not used;
- M_{rezer pas}** – the reservation charge for capacity of the passenger traffic that is allocated, but not used;
- M_{rezer gr integr pied}** – the reservation charge for capacity of the relevant service group (_{gr}) in the through rate offer market segment;
- M_{rezer krav integr pied}** – the reservation charge for capacity of the freight traffic in the through rate offer market segment;
- M_{rezer pas integr pied}** – the reservation charge for capacity of the passenger traffic in the through rate offer market segment;
- A_{apj param gr s}** – the value of the volume discount for a specific charging parameter (_{param}) of the relevant service group (_{gr}) within a specific market segment (_s), determined by the charging body:
- A_{apj ceļ uztur krav s}** – the value of the volume discount for the maintenance and train management within a specific market segment of the freight traffic (_s);
- A_{apj ceļ uztur pas s}** – the value of the volume discount for the maintenance and train management within a specific market segment of the passenger traffic (_s);

- $A_{apj\text{ mez } uztur\text{ krav } s}$ – the value of the volume discount for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities within a specific market segment of the freight traffic (s);
- $A_{apj\text{ atj } krav\text{ } s}$ the value of the volume discount for the renewal within a specific market segment of the freight traffic (s);
- $A_{apj\text{ atj } pas\text{ } s}$ – the value of the volume discount for the renewal within a specific market segment of the passenger traffic (s);
- $A_{apj\text{ elektr } pas\text{ } s}$ – the value of the volume discount for the electric traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used within a specific market segment (s);
- $A_{apj\text{ bfv } krav\text{ } s}$ – the value of the volume discount for the essential function performing within a specific market segment of the freight traffic (s);
- $A_{apj\text{ bfv } pas\text{ } s}$ – the value of the volume discount for the essential function performing within a specific market segment of the passenger traffic (s);
- $A_{opt\text{ nosl } param\text{ } gr\text{ } s}$ – the value of the network loading optimization discount for a specific charging parameter ($param$) of the relevant service group (gr) within a specific market segment (s) for a specific part of the railway infrastructure, determined by the charging body:
- $A_{opt\text{ nosl } cel\text{ } uztur\text{ krav } s}$ – the value of the network loading optimization discount for the maintenance and train management within a specific market segment of the freight traffic (s) for a specific part of the railway infrastructure;
- $A_{opt\text{ nosl } cel\text{ } uztur\text{ pas } s}$ – the value of the network loading optimization discount for the maintenance and train management within a specific market segment of the passenger traffic (s) for a specific part of the railway infrastructure;
- $A_{opt\text{ nosl } mez\text{ } uztur\text{ krav } s}$ – the value of the network loading optimization discount for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities within a specific market segment of the freight traffic (s) for a specific part of the railway infrastructure;
- $A_{opt\text{ nosl } atj\text{ } krav\text{ } s}$ the value of the network loading optimization discount for the renewal within a specific market segment of the freight traffic (s) for a specific part of the railway infrastructure;
- $A_{opt\text{ nosl } atj\text{ } pas\text{ } s}$ – the value of the network loading optimization discount for the renewal within a specific market segment of the passenger traffic (s) for a specific part of the railway infrastructure;
- $A_{opt\text{ nosl } elektr\text{ } pas\text{ } s}$ – the value of the network loading optimization discount for the electro traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used within a specific market segment (s) for a specific part of the railway infrastructure;
- $A_{opt\text{ nosl } bfv\text{ } krav\text{ } s}$ – the value of the network loading optimization discount for the essential function performing within a specific market segment of the freight traffic (s) for a specific part of the railway infrastructure;
- $A_{opt\text{ nosl } bfv\text{ } pas\text{ } s}$ – the value of the network loading optimization discount for the essential function performing within a specific market segment of the passenger traffic (s) for a specific part of the railway infrastructure;
- $MU_{param\text{ } gr\text{ } s}$ – the value of the mark-up for a specific charging parameter ($param$) of the relevant service group (gr) within a specific market segment (s), determined by the charging body:
- $MU_{cel\text{ } uztur\text{ krav } s}$ – the value of the mark-up for the maintenance and train management within a specific market segment of the freight traffic (s);

- MU_{cel uztur pas s}** – the value of the mark-up for the maintenance and train management within a specific market segment of the passenger traffic (_s);
- MU_{mez uztur krav s}** – the value of the mark-up for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities within a specific market segment of the freight traffic (_s);
- MU_{atj krav s}** the value of the mark-up for the renewal within a specific market segment of the freight traffic (_s);
- MU_{atj pas s}** – the value of the mark-up for the renewal within a specific market segment of the passenger traffic (_s);
- MU_{elektr pas s}** – the value of the mark-up for the electric traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used within a specific market segment (_s);
- MU_{bfv krav s}** – the value of the mark-up for the essential function performing within a specific market segment of the freight traffic (_s);
- MU_{bfv pas s}** – the value of the mark-up for the essential function performing within a specific market segment of the passenger traffic (_s);
- MU_{param gr integr pied}** – the value of the mark-up for a specific charging parameter (_{param}) of the relevant service group (_{gr}) in the through rate offer market segment, determined by the charging body:
- MU_{cel uztur krav integr pied}** – the value of the mark-up for the maintenance and train management of the freight traffic in the through rate offer market segment;
- MU_{cel uztur pas integr pied}** – the value of the mark-up for the maintenance and train management of the passenger traffic in the through rate offer market segment;
- MU_{mez uztur krav integr pied}** – the value of the mark-up for the maintenance and train operating of railway infrastructure that provides access to the railway infrastructure connecting service facilities of the freight traffic in the through rate offer market segment;
- MU_{atj krav integr pied}** – the value of the mark-up for the renewal of the freight in the through rate offer market segment;
- MU_{atj pas integr pied}** – the value of the mark-up for the renewal of the passenger traffic in the through rate offer market segment;
- MU_{elektr pas integr pied}** – the value of the mark-up for the electric traction supply equipment maintenance and renewal of the passenger traffic, where electro traction is used in the through rate offer market segment;
- MU_{bfv krav integr pied}** – the value of the mark-up for the essential function performing of the freight traffic in the through rate offer market segment;
- MU_{bfv pas integr pied}** – the value of the mark-up for the essential function performing of the passenger traffic in the through rate offer market segment;
- 7) Indicators for calculation of a reasonable profit margin for the infrastructure manager:
- P_{param gr}** – the infrastructure manager's reasonable profit margin for a specific charging parameter (_{param}) of the relevant service group (_{gr}):
- P_{cel uztur gr}** – the infrastructure manager's reasonable profit margin of the railway infrastructure maintenance and train operating of the relevant service group (_{gr});
- P_{cel uztur krav}** – the infrastructure manager's reasonable profit margin of the railway infrastructure maintenance and train operating of the freight traffic;

- P_{cel uztur pas}** – the infrastructure manager’s reasonable profit margin of the railway infrastructure maintenance and train operating of the passenger traffic;
- P_{mez uztur gr}** – the infrastructure manager’s reasonable profit margin of the maintenance and train operating of the railway infrastructure that provides access to the railway infrastructure connecting service facilities of the relevant service group (_{gr});
- P_{mez uztur krav}** – the infrastructure manager’s reasonable profit margin of the maintenance and train operating of the railway infrastructure that provides access to the railway infrastructure connecting service facilities of the freight traffic;
- P_{atj gr}** – the infrastructure manager’s reasonable profit margin of the railway infrastructure renewal of the relevant service group (_{gr});
- P_{atj krav}** – the infrastructure manager’s reasonable profit margin of the railway infrastructure renewal of the freight traffic;
- P_{atj pas}** – the infrastructure manager’s reasonable profit margin of the railway infrastructure renewal of the passenger traffic;
- P_{elektr gr}** – the infrastructure manager’s reasonable profit margin of the railway infrastructure electro traction supply equipment maintenance and renewal of the relevant service group (_{gr}), where electric traction is used;
- P_{elektr pas}** – the infrastructure manager’s reasonable profit margin of the railway infrastructure electro traction supply equipment maintenance and renewal of the passenger traffic where electric traction is used;
- P_{bfv gr}** – the infrastructure manager’s reasonable profit margin of the essential function performing of the relevant service group (_{gr});
- P_{bfv krav}** – the infrastructure manager’s reasonable profit margin of the essential function performing of the freight traffic;
- P_{bfv pas}** – the infrastructure manager’s reasonable profit margin of the essential function performing of the passenger traffic;
- RAB_{param gr}** - the value of asset register (RAB value) at the end of the reference period for a specific charging parameter (_{param}) of the relevant service group (_{gr}):
- RAB_{cel uztur gr}** – the RAB value of the railway infrastructure maintenance and train operating of the relevant service group (_{gr});
- RAB_{cel uztur krav}** – the RAB value of the railway infrastructure maintenance and train operating of the freight traffic;
- RAB_{cel uztur pas}** – the RAB value of the railway infrastructure maintenance and train operating of the passenger traffic;
- RAB_{mez uztur gr}** – the RAB value of the maintenance and train operating of the railway infrastructure that provides access to the railway infrastructure connecting service facilities of the relevant service group (_{gr});
- RAB_{mez uztur krav}** – the RAB value of the maintenance and train operating of the railway infrastructure that provides access to the railway infrastructure connecting service facilities of the freight traffic;
- RAB_{atj gr}** – the RAB value of the railway infrastructure renewal of the relevant service group (_{gr});
- RAB_{atj krav}** – the RAB value of the railway infrastructure renewal of the freight traffic;

RAB_{atj pas} – the RAB value of the railway infrastructure renewal of the passenger traffic;

RAB_{elektr gr} – the RAB value of the railway infrastructure electro traction supply equipment maintenance and renewal of the relevant service group (_{gr}), where electric traction is used;

RAB_{elektr pas} – the RAB value of the railway infrastructure electro traction supply equipment maintenance and renewal of the passenger traffic where electric traction is used;

RAB_{bfv gr} – the RAB value of the essential function performing of the relevant service group (_{gr});

RAB_{bfv krav} – the RAB value of the essential function performing of the freight traffic;

RAB_{bfv pas} – the RAB value of the essential function performing of the passenger traffic;

wacc – weighted average cost of capital percentage;

r_e – return on equity, which consists of two components (**r_f** + **r_c**), where

r_f – risk-free rate – the average arithmetic interest rate of government long-term securities of the highest credit rating countries of the Organization for Economic Co-operation and Development (OECD), using the latest OECD report on government long-term bond rates;

r_c – pure premium, which includes a risk assessment of the country and of the industry. The country's risk is assessed as the difference between the latest 10-year bonds of the Republic of Latvia and the risk-free rate. The industry's risk is measured as the difference between the actual weighted average long-term loan rates of the infrastructure manager in the reference period and the latest 10-year Latvian government bond rate. If the actual weighted average long-term loan rates of the infrastructure manager in the reference period does not exceed the latest 10-year Latvian government bond rate, the industry's risk assessment values are not included in the calculation;

r_a – the actual weighted average long-term loan rates of the infrastructure manager;

E – equity at the end of the reference period;

D – the value of the borrowed capital at the end of the reference period.

8) Other abbreviations used in the Scheme:

mcb_s – a ratio characterizing the allowable level of mar-ups in the given market situation in the particular market segment which is determined as the maximum value from the valuation criteria **C_s**, **V_s** and **S_s**, where

C_s – a valuation criteria characterizing the impact of different types of utilization of the railway infrastructure on the cost of railway infrastructure in a particular market segment;

V_s – a valuation criteria that characterizes the productivity achieved by railway undertakings in a particular market segment;

S_s – a valuation criteria that characterizes the optimal rail competitiveness in a particular market segment that consists of criteria **J_s** and **R_s**, where

J_s – a valuation criteria that characterizes the demand for railway infrastructure capacity in a particular market segment;

R_s – a valuation criteria that characterizes the impact of the allowable mark-up value on the competitiveness of the final consumer market in a particular market segment;