



Slovenske železnice  
SŽ-Infrastruktura

# NETWORK STATEMENT

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## 2022

## ANNEX 6A

FINANCIAL COMPENSATION FOR  
COSTS INCURRED BY RUS DUE TO  
DISRUPTIONS IN RAILWAY TRAFFIC  
AND RESULTING FROM INVESTMENTS

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## 1 USE OF THE ANNEX 6A

This annex sets out the method of calculating financial compensation for costs incurred by RUs as a result of unpunctual announced execution of investment works (engineering works and upgrades) on the public rail infrastructure (hereinafter: financial compensation of costs) and belongs to the Rus in accordance with Art. 43/II Decree on train path allocation, infrastructure charges and performance scheme on PRI (Official Gazette of the Republic of Slovenia, no. 44/2016, 16/2019 and 121/2020).

This Annex is used to calculate the financial compensation of freight undertakings. The calculation and compensation of the RU's costs in railway passenger transport is regulated by a special agreement concluded by the RU with the Slovenian Infrastructure Agency as the competent body for managing investments in public railway infrastructure.

## 2 DETERMINATION OF ACCOUNTING EVENTS, PRICE LIST AND LIMITATION OF THE AMOUNT OF FINANCIAL COMPESATION

### 2.1 ACCOUNTING EVENTS AND METHOD OF CALCULATION OF FINANCIAL COMPESATION

When calculating financial compensation for costs, unpunctual announced closures which were introduced on the PRI due to investment projects of upgrades and new constructions and in the accounting year represent more extensive investment works on the PRI are considered.

The calculation of the cost compensation shall consider temporary capacity restrictions, including related speed limits, axle load, train length, traction, or loading gauge, which result in changed conditions for train paths allocated to each RU by the network timetable. (hereinafter: accounting events). The accounting events that are considered in the calculation of financial compensation are described in the table below.

Table 1: Description of eligible events

| Accounting events |  | Description  |
|-------------------|--|--|
| 1.                | <b>Train delay</b>   | Train delay means an event causing damage to the RU («damage event») if a train exceeds the scheduled journey time for the train path concerned and this delay was caused by service disruptions (closures or speed restrictions) due to infrastructure works (engineering works and upgrades).  |
| 2.                | <b>Amendment of conditions of carriage</b>   | Amendment of conditions of carriage on the train path means any event where: <ul style="list-style-type: none"> <li>- the IM cancels, due to infrastructure-related disruptions, track access to service facilities for a particular train path, or when</li> <li>- the conditions of carriage are restricted in a way which requires changing the manner of transport originally planned or, alternatively, calls for additional measures to run the train service affected.</li> </ul> |
| 3.                | <b>Cancelled train path with alternative path or rail replacement bus service</b>    | Alternative train path is a damage event associated with service disruptions (closures or speed restrictions) due to investment works (engineering works and upgrades) where an alternative or other train path is allocated to replace the train path originally allocated or when the affected train path is replaced, completely or in part, by a rail replacement service.   |
| 4.                | <b>Cancelled train path without alternative path or rail replacement bus service</b> | Cancelled train path without alternative path is a damage event where a train path was cancelled due to service disruptions (closures or speed restrictions) attributable to investment works (engineering works and upgrades) and cannot be replaced by an alternative train path or when the alternative path is refused by the RU for good reason.  |

|           |                              |   |
|-----------|------------------------------|---|
| <b>5.</b> | <b>Additional train path</b> | Additional train path is a damage event which occurs when a restriction of carriage conditions (e.g. axle load) necessitates allocating an additional train path to complete the carriage of goods which would otherwise be carried by a single train on the train path originally allocated. |
|-----------|------------------------------|---|

Accounting events that are considered in the calculation of financial compensation in the accounting year are identified on the basis of records of the IM on the introduction of unpunctual announced closures of tracks or lines due to investment projects (constructions and upgrades), resulting temporary capacity restrictions. The following are considered unpunctual announced closures and related temporary restrictions due to the implementation of the investment works (constructions and upgrades) in the PRI:

- the introduction of closures or the introduction of speed restrictions or other capacity restrictions for more than 7 consecutive days, resulting in more than 30% of the volume of train paths planned in the network timetable cancelled, re-routed or replaced by other means of transport (long-term capacity restriction) and these capacity restrictions are not published at least 24 months before the relevant network timetable, if known, and secondly updated at least 12 months before the relevant network timetable.
- the introduction of a closure or the introduction of speed restrictions or other capacity restrictions of 7 or less consecutive days resulting in at least 10% of the volume of train paths planned in the network timetable cancelled, re-routed or replaced by other means of transport (short-term capacity restriction) and these capacity restrictions are not published at least 4 months before the relevant network timetable.

Accounting events are identified on the basis of the date of implementation of unpunctual announced closures on the PRI, which were introduced due to the implementation of works within an individual investment project.

The calculation of financial compensation for costs considers accounting events that can be identified on the basis of available data and records of the IM. Settlement events are identified separately by individual RUs and the calculation of financial compensation for each settlement event is performed according to the calculation methodology described in Chapter 3 of this Annex.

The processing of data on accounting events is performed after the considered investment projects and is shown in the specification of the calculation of financial compensation for costs for the considered investment works on the PRI by RUs and types of accounting events. The specification shows the scope of accounting events and the amount of calculated financial compensation for each RU.

## 2.2 COMPESATION CALCULATION EVENTS

Compensation recognised by the IM for infrastructure works is calculated using the basic items of compensation listed below.

Table 2: List of basic items of compensation

| Type of transport        | Basic items of compensation |  |                     |
|--------------------------|-----------------------------|--|---------------------|
|                          | Minute of delay             | Compensation item per km for cancelling a train path |                     |
|                          |                             | Alternative path                                     | No alternative path |
| <b>Rail freight (PT)</b> | $PT_{min} = € 3,07$         | $PT_{KMn} = € 10,45$                                 | $PT_{KM} = € 8,56$  |

The list of basic items of compensation is comprised according to:

- Public data published in RUs' reports; compensation items factor in the cost of material, cost of services, labour costs, write-offs and other expenses relating to the supply of train services, with the compensation item for train path cancellation also taking into account a portion of the revenue,



- RUs' timetable data (train service volume in minutes and kilometres) on scheduled services actually operated (train movement), and
- A coefficient for differentiation of compensation items, which factors in the business interest of RUs affected by a particular damage event and is recognised by the IM.

The IM, in cooperation with investor, reserves the right to adjust the amount of compensation according to the impact of infrastructure works (scale and duration) on the timetable by using the coefficient for differentiation of impact of track closure duration ( $k_{tz}$ ).

The coefficient for differentiation of closure duration impact ( $k_{tz}$ ) that is used in the calculation of the compensation is listed in the sheet of the calculated financial compensation.

### 2.3 LIMITATION OF FINANCIAL COMPENSATION

Railway freight undertakings, considering all RUs together, shall be granted financial compensation in the accounting year ( $OD_{PT}$ ) up to a limit of total annual amount of user charge ( $U_{PT}$ ) charged jointly by the IM to the RUs in the accounting year based on the realization of the annual network timetable and is determined on the basis of the following formula:

$$OD_{PT} \leq U_{PT}$$

$$OD_{PT} = \sum OD_{PTi}$$

where it means:

- $OD_{PTi}$  - recognized annual financial compensation of the costs of each freight RU for the accounting year.

Recognized annual financial compensation of individual RU costs for the accounting year ( $OD_{PTi}$ ) shall be determined on the basis of:

- the calculated total annual financial compensation of the costs of each freight RU in the accounting year according to the accounting methodology described in Chapter 3 of this Annex ( $OD_{PTRi}$ ), and
- the adjustment coefficient ( $k_B$ ), which limits the amount of the recognized annual financial compensation of individual RU costs in the accounting year  $OD_{PTi}$  by the amount of the total annual user charges charged to all RUs in the accounting year ( $U_{PT}$ ).

The recognized annual financial compensation of the costs of an individual RU in the accounting year ( $OD_{PTi}$ ) shall be calculated according to the following formula:

$$OD_{PTi} = k_B * OD_{PTRi}$$

The coefficient of adjustment ( $k_B$ ) is determined as shown in the table below:

| <b>Comparison of the amount of the total annual financial compensation of all freight RUs calculated according to the accounting methodology described in Chapter 3 of this Annex (<math>OD_{PTR}</math>) and the amount of user charges charged to all RUs in the accounting year (<math>U_{PT}</math>)</b> | <b>Adjustment coefficient (<math>k_B</math>)</b>              |
|--|---|
| $OD_{PTR} > U_{PT}$  | $k_B = \frac{U_{PT}}{OD_{PTR}}$ $OD_{PTR} = \sum_i OD_{PTRi}$ |
| $OD_{PTR} \leq U_{PT}$   | $k_B = 1$   |

### 3 METHODOLOGY OF CALCULATING COST COMPENSATION FOR FREIGHT RUs

The calculation of financial compensation for the costs of an individual RU in the accounting year ( $OD_{PTRi}$ ) is the sum of individual accounting events that are calculated for all restricted train paths ( $VPI$ ) for an individual RU in the accounting year. It is calculated according to the following formula:

$$OD_{PTRi} = \sum_{VPI} OD_{zamT} + \sum_{VPI} OD_{omej} + \sum_{VPI} ODT_{odpN} + \sum_{VPI} ODT_{odp} + \sum_{VPI} ODT_{dod}$$

where:

- $OD_{PTRi}$  – total annual financial compensation of individual freight RU costs in the accounting year, calculated according to the accounting methodology described in Chapter 3 of this Annex;
- $VPI$  – restricted train paths of the RU (i) in the accounting year;
- $OD_{zamT}$  – financial compensation for costs of delay in freight transport;
- $OD_{omej}$  – financial compensation of costs for limiting the conditions of transport;
- $ODT_{odpN}$  – financial compensation of costs for the cancellation of a train path in freight transport with an alternative train path;
- $ODT_{odp}$  – financial compensation of costs for cancellation of a train path in freight transport without a replacement train path;
- $ODT_{dod}$  – financial compensation for the additional train path;

The model of calculating financial compensation for costs in individual accounting events includes variation factors that ensure that the specifics of the provision of transport services in rail freight transport are considered, as well as different business aspects.

The calculation of the financial compensation for delay costs is limited by the cap and the length of the train path, which is recognized in the accounting event of a cancellation of the train path.

The model of calculating financial compensation for costs considers the impact of the duration of the limited use of the PRI on the RU's operations due to the indirect impact on business. The length of the closure influences the decision of the customers of the transport of goods on the use of rail transport and the consequent reduction of their demand. The duration of the closure affects the long-term diversion of transport users to other modes of transport, which means the occurrence of business damage to the carrier. The impact of the duration of the closure is determined by the PRI manager.

The RU is entitled to financial compensation for the costs of delay because he cannot perform the transport service in accordance with the timetable on the allocated train path. Due to the delay, the RU incurs operational transport costs due to the extension of the train running, the changed organization of the work of train and technical-wagon staff and the provision of additional locomotives. The damage to the RU increases with the duration of the obstacle, there are short-term and long-term business losses of all participants in the implementation of the service.

In the following, a calculation model is presented for each individual accounting event that is considered in the calculation of the total annual financial compensation of costs of an individual freight RU in the accounting year ( $OD_{PTRi}$ ).

#### 3.1 FINANCIAL COMPESATION FOR THE DELAY

Financial compensation for delay in rail freight ( $OD_{zamT}$ ) is calculated using the following formula:

$$OD_{zamT} = F_{tt} * PT_{min} * (ZK_{inv})_{\substack{ZK_{inv} \leq 300min \\ ZK_{inv} > 0min}} * (k_{tzt})_{DTR > 60} * (F_{vl})_{=DZ}$$

where:

- $F_{tt}$  – time progression factor for freight trains:

| Train delay ( $ZK_{inv}$ )                | Time progression factor ( $F_{tt}$ ) |
|---|--------------------------------------|
| $ZK_{inv} \leq 120$ min                   | $F_{tt} = 1$                         |
| $120 \text{ min} < ZK_{inv} \leq 180$ min | $F_{tt} = 1,1$                       |
| $180 \text{ min} < ZK_{inv} \leq 240$ min | $F_{tt} = 1,2$                       |
| $240 \text{ min} < ZK_{inv} \leq 300$ min | $F_{tt} = 1,3$                       |

- $PT_{min}$  – base calculation item for a minute of delay in rail freight
- $ZK_{inv}$  – final delay owing to engineering works and upgrades is calculated by dividing the sum of delays due to engineering works and upgrades ( $Z_{inv}$ ) by the sum of all delays on the train path ( $Z_{sum}$ ) and multiplying the ratio by the delay at final destination ( $ZK$ ), as follows:

$$ZK_{inv} = \frac{Z_{inv}}{Z_{sum}} * ZK k_{tzt}$$

- coefficient for differentiation of closure duration impact ( $k_{tzt} \geq 1$ ); determined by the IM,
- $DTR$  – total days of track closure anywhere on the network;  $k_{tzt}$  is factored in if a track closure exceeds a period of 60 days,
- $F_{vl}$  – traction factor;  $F_{vl} = 1,4$ , when diesel traction is used, the traction factor is applied for those section of train path.

### 3.2 FINANCIAL COMPENSATION FOR AMENDMENT OF THE CARRIAGE CONDITIONS FOR THE TRAIN PATH

When an amendment of the technical conditions of carriage is issued for a train path allocated, RUs are eligible to a financial compensation for changes which include a restriction on train mass or axle-load, restriction on train length, restriction on clearance gauge, and restriction due to failure of the overhead lines.

Financial compensation for restriction on carriage conditions ( $OD_{omej}$ ) is a fixed sum:

$$OD_{omej} = 120 \text{ EUR.}$$

RUs are eligible to this kind of financial compensation because of the costs associated with arranging and operating replacement tractive units, additional shunting, goods handling and other unplanned train movement. Financial compensation for a carriage condition restriction is set according to the average cost of shunting, which includes an hour of shunting work done by a shunting locomotive and a shunter.

### 3.3 COMPENSATION FOR CANCELLED TRAIN PATH WITH ALTERNATIVE PATH

Financial compensation for a train path in rail freight that was cancelled and replaced by an alternative train path ( $ODT_{odpN}$ ) is calculated using the following formula:

$$ODT_{odpN} = (PT_{KMn} * NR + ST_D) * (k_{tzt})_{DTR > 60}$$

$$ST_D = (KM_N - KM_0)_{>0} * PT_{KMn}$$

in which:

- $PT_{KMn}$  – base compensation item per km for cancellation involving an alternative train path in rail freight,
- $NR$  – normalised distance;  $NR=30\text{km}$ ,
- $ST_D$  – cost of increase in the length of alternative train path for freight train,
- $KM_N$  – length of alternative train path,
- $KM_0$  – length of train path originally allocated,
- $k_{tzt}$  – coefficient for differentiation of closure duration impact ( $k_{tzt} \geq 1$ ); determined by the IM,
- $DTR$  – total days of track closure anywhere on the network;  $k_{tzt}$  is factored in if a track closure exceeds a period of 60 days.

RUs are eligible to a compensation of costs associated with the length of alternative train path ( $ST_D$ ) that is greater than the length of the train path originally allocated. RUs are not eligible to compensation for an alternative train path shorter than the path originally allocated ( $ST_D=0$ ). The cost increase relating to diesel traction or to banking / double heading required on the alternative train path is included in the base compensation item per km ( $PT_{KM}$ ).

When the alternative train path has the same point of departure and destination as the train path originally allocated or when the alternative path does not enter a foreign rail network, only the difference in train path lengths on the Slovenian rail network ( $KM_N - KM_0 > 0$ ) is factored in.

When the alternative train path enters a foreign network, the calculation includes the additional distance the train covers there owing to a change of the train path on the Slovenian rail network. For each change of train path on the Slovenian network (i.e. change of border crossing), the calculation factors in the relevant alternative train paths (via alternative border crossings) on the foreign network which lead up to stations of destination or transport hubs most frequently travelled to via these border crossings. The combinations of alternative train paths and differences in path length are shown in Table 3 below. When greater than the original, the length of alternative train path, is calculated through the sum of length of alternative train path on Slovenian rail network and the normalised difference in path length on foreign rail network when this difference is greater than 0 (according to Table 3):

$$KM_N = (KM_{NS})_{>0} + (KM_{NT})_{>0}$$

in which:

- $KM_N$  – length of alternative train path
- $KM_{NS}$  – length of alternative train path on Slovenian rail network
- $KM_{NT}$  – length of alternative train path on foreign rail network

**Table 3: Difference in length of train paths on foreign networks owing to a change in the point of handover (FROM/TO)**

| Foreign hub of destination |                                   |     | Šentilj border (Spielfeld) | Jesenice border (Rosenbach) | Hodoš border (Orizentpeter) | Dobova border (Savski Marof) |
|----------------------------|-----------------------------------|-----|----------------------------|-----------------------------|-----------------------------|------------------------------|
|                            | FROM*                             | TO* |                            |                             |                             |                              |
| Vienna                     | Šentilj border (Spielfeld)        |     |                            | 107                         | -6                          |                              |
| Salzburg                   | Jesenice border (Rosenbach)       |     | 133                        |                             |                             |                              |
| Budapest                   | Hodoš border (Orizentpeter)       |     | 200                        |                             |                             | 110                          |
| Tovarnik                   | Dobova border (Savski Marof)      |     |                            |                             |                             |                              |
| Rijeka                     | Ilirska Bistrica border (Šapjane) |     |                            |                             |                             | 233                          |
| Budapest                   | Središče border (Čakovec)         |     |                            |                             | 0                           | 110                          |
| Cervignano                 | Sežana border (Vila Opicina)      |     |                            | 163                         |                             |                              |
| Cervignano                 | Nova Gorica border (Gorizia)      |     |                            |                             |                             |                              |

\*New alternative path combinations are added to the table as appropriate to accommodate a change in the point of handover (border) points.



| Foreign hub of destination | TO*<br>FROM*                      | Ilirska Bistrica border (Šapjane) | Središče border (Čakovec) | Sežana border (Villa Opicina) | Nova Gorica border (Gorizia) |
|----------------------------|-----------------------------------|-----------------------------------|---------------------------|-------------------------------|------------------------------|
| Vienna                     | Šentilj border (Spielfeld)        |                                   |                           |                               |                              |
| Salzburg                   | Jesenice border (Rosenbach)       |                                   |                           | 163                           |                              |
| Budapest                   | Hodoš border (Oriszentpeter)      |                                   | 0                         |                               |                              |
| Tovarnik                   | Dobova border (Savski Marof)      | 225                               | 70                        |                               |                              |
| Rijeka                     | Ilirska Bistrica border (Šapjane) |                                   |                           |                               |                              |
| Budapest                   | Središče border (Čakovec)         |                                   |                           |                               |                              |
| Cervignano                 | Sežana border (Villa Opicina)     |                                   |                           |                               | 2                            |
| Cervignano                 | Nova Gorica border (Gorizia)      |                                   |                           | -2                            |                              |

\* New alternative path combinations are added to the table as appropriate to accommodate a change in the point of handover (border) points.

### 3.4 FINANCIAL COMPENSATION FOR CANCELLED TRAIN PATH WITHOUT ALTERNATIVE PATH

Financial compensation for a train path that was cancelled and was not replaced by an alternative path ( $ODT_{odp}$ ) is calculated using the following formula:

$$ODT_{odp} = PT_{KM} * (D; 120)_{min} * (k_{tzt})_{DTR>60}$$

in which:

- $PT_{KM}$  – base calculation item per km for cancellation without alternative train path in rail freight
- $D$  – length of cancelled train path; the length of cancelled train path is capped at 120km,
- $k_{tzt}$  – coefficient for differentiation of closure duration impact ( $k_{tzt} \geq 1$ ); determined by the IM,
- $DTR$  – total days of track closure anywhere on the network;  $k_{tzt}$  is factored in if a track closure exceeds a period of 60 days.

### 3.5 FINANCIAL COMPENSATION FOR ADDITIONAL TRAIN PATH

RUs are eligible to financial compensation for additional train path ( $ODT_{dod}$ ) when a restriction on carriage conditions necessitates allocating an additional train path to complete the carriage of goods planned on the train path originally allocated, which would otherwise be carried out without an additional train path. This financial compensation covers the length of additional train path travelled by the RU – excluding any surcharges – and is calculated using the following formula:

$$ODT_{dod} = PT_{KMn} * KM_D * (k_{tzt})_{DTR>60}$$

in which:

- $PT_{KMn}$  – base calculation item per km for cancellation without alternative train path in rail freight,
- $KM_D$  – length of additional train path travelled,
- $k_{tzt}$  – coefficient for differentiation of closure duration impact ( $k_{tzt} \geq 1$ ); determined by the IM,

- **DTR** – total days of track closure anywhere on the network;  $k_{tzt}$  is factored in if a track closure exceeds a period of 60 days.

The length of additional train path ( $KM_D$ ) is calculated as a sum of the train path length on Slovenian rail network and the normalised distance for the foreign network.

In case an additional train path on Slovenian network also necessitates an additional path abroad, the compensation for the latter will be calculated using the distance from the border crossing where the train service exited Slovenian network to the closest marshalling yard on the foreign network, as shown in Table 4.

Table 4: Distances between the border crossing on Slovenian network and the closest marshalling yard on the foreign network

| Border crossing on Slovenian rail network | Marshalling yard of destination | $KM_{DT}$ |
|---|---------------------------------|-----------|
| Šentilj border (Spielfeld)                | Graz (ÖBB)                      | 49        |
| Jesenice border (Rosenbach)               | Villach (ÖBB)                   | 31        |
| Hodoš border (Oriszentpeter)              | Zalaegerszeg (MÁV)              | 44        |
| Dobova border (Savski Marof)              | Zagreb (HŽ)                     | 35        |
| Ilirska Bistrica border (Šapjane)         | Rijeka (HŽ)                     | 31        |
| Središče border (Čakovec)                 | Zagreb (HŽ)                     | 151       |
| Sežana border (Vila Opicina)              | Cervignano (RFI)                | 44        |
| Nova Gorica border (Gorizia)              | Cervignano (RFI)                | 46        |

The length of additional train path ( $KM_D$ ) is calculated using the following formula:

$$KM_D = KM_{DS} + KM_{DT}$$

in which:

- $KM_{DS}$  – length of additional train path on Slovenian rail network
- $KM_{DT}$  – length of additional train path on foreign rail network