

GUIDELINES FOR THE MODULATION OF THE PENALTIES

GUIDELINES FOR THE APPLICATION OF THE MODULATION OF THE PENALTY FOR CHANGES TO CAPACITY RIGHTS

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Introduction

A successful implementation of the new capacity management process requires to prevent the inefficient use of railway infrastructure capacity by infrastructure managers and applicants.

In particular, inefficiencies of the use of the railway infrastructure capacity arise due to:

- Unstable or excessively short-term planning of infrastructure availability, leading to changes in already allocated capacity.
- Capacity being blocked but only partially used—or not used at all—by stakeholders.

Several systems across Europe have been proposed and implemented in some railway networks. However, further measures are needed in order to reduce such inefficiencies, taking into account harmonised capacity planning and allocation procedures.

To this end, in July 2023 the European Commission published a new EU Regulation proposal for the use of rail infrastructure capacity. The draft proposal provided for the definition of a harmonised set of compensations which will form part of the European Framework for Capacity Management.

The final approved Regulation EU 2026/1184 sets up a system of penalties to be paid where either the infrastructure manager or the applicant does not fulfil their commitments with respect to an allocated capacity right and this results in a change categorized as significant. The level of the penalty due shall be effective, proportionate, dissuasive and non-discriminatory in order to ensure the respect of the planned use of capacity.

The key elements of the system of penalty for changes to capacity rights includes:

- Reciprocity of the penalty mechanism.
- National determination of level of penalties.
- Application of the penalty only for changes with significant impact.
- Differentiation of market segment for penalties paid by applicants and no differentiation for penalties paid by IMs.
- Respect of national railway network and traffic specificities.
- Consideration of all capacity products, including multiannual and multinetwork capacity.

The present guidelines are primarily concerned with the application of the modulation of the penalty for changes to capacity rights, as to be included in the European Framework for Capacity Management (EFCM). In this context, the chapters from 1 to 4 of the “Modulation scheme for the penalties”, in their final version, are intended to be integrated of the EFCM. On the other hand,

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the introduction section and the annexes are only intended to support the initial informal consultation phase of the Guidelines and are not foreseen to be part of the EFCM.

DRAFT

MODULATION SCHEME FOR PENALTIES

1 Overview

Infrastructure Managers (IMs) have to implement a penalty mechanism for applicants and IMs for changes of capacity already allocated, according to Article 42 of the Regulation EU 2026/1184. It shall consider the unit amount of the penalty set at national level, according to the ranges of value defined in the Annex IV of the same Regulation, the distance expressed in km of the change request and a modulation factor.

The scope of penalty schemes refers to changes categorised by infrastructure managers as significant, according to Article 41 (6) and taking into account the relevant procedures included in the European Framework for Capacity Management.

Changes of capacity rights refer both to modifications and alterations of allocated capacity, as well as cancellations.

Exemptions from the application of the penalties are, as described by the Regulation, foreseen in the following cases:

- force majeure
- withdrawal of capacity rights due to measures taken by Member States in accordance with Article 12
- cancellation of capacity right in accordance with Article 29 (3)
- amendment of framework agreements in accordance with Article 33 (7)
- use of derogations in accordance with Article 37 (5).

ENIM is required to develop guidelines for the application of the modulation to changes of capacity rights, which will be included in the European Framework for Capacity Management

2 Scope of application of the modulation

The penalty system applies to significant changes of capacity rights, including both capacity specifications and train paths.

It should consider all the capacity products available, such as

- Framework Agreements capacity
- Rolling planning capacity
- Annual timetable
- Ad-hoc paths.

The capacity right change can affect the whole capacity right or only part of it, depending on the type of change and its impact on the provision of the service. Further criteria can be defined in the procedure to manage changes to capacity rights included in the European Framework for Capacity Management.

3 Differentiation of market segments and modulation scheme

The Capacity Regulation requires to distinguish between market segment for the definition of the penalty value to be paid by the applicants. Such differentiation can be reflected in the unit amount value of the penalty for the applicants. The minimum market segment distinction is:

- Passenger segment
- Freight segment

Further segment distinction can be identified in line with Directive 2012/34. The penalty mechanism for infrastructure managers shall not be differentiated on the basis of market segments.

The modulation scheme also distinguishes between the applicants and the infrastructure managers, consistently with the differentiation of parameters required by the art. 42 (5) of the Regulation.

4 Modulation mechanism

The modulation mechanism (M) is meant to provide a value of the multiplier ranging from 0.1 to 2 in relation to the impact of the change, when classified as significant according to Article 41 (6) of the Capacity Regulation. This factor is considered in the calculation of the penalty in order to provide, together with the unit amount (V, in € or other currency) and length of the capacity right impacted (D, in km), the total amount of the penalty (P).

$$P = V (\text{€}) * D (\text{km}) * M (x.x)$$

The unit amount (V) is set at national level in a range between 1 €/km and 8 €/km (or the equivalent amount in the national currencies), as provided by Annex IV of Capacity Regulation.

The Capacity Regulation defines three key criteria for establishing the impact of the change:

1. **Timing** of the notification of the change, which should be adjusted according to the capacity product
2. **Quality** of the alternative capacity provided by the infrastructure manager, when available
3. **Marketability** of the capacity subject to change, based on whether that capacity can be requested and re-used by another applicant.

Such differentiation of the criteria leads to two different modulation mechanisms for infrastructure managers and for the applicants. Each mechanism includes some common factors as well as specific elements for the part concerned. Infrastructure managers are required to implement the modulation mechanism on the basis of the information and data available.

The modulation value is calculated using an algorithm based on scores assigned to each component and sub-component of the scheme. The conversion of these scores shall be defined at national level to determine the final modulation value for the penalty calculation which ranges between 0.1 and 2. The maximum modulation value (up to 2) may only be applied when the capacity right is cancelled.

In order to evaluate the impact of timing, different capacity products are monitored. According to the capacity planning and allocation process, the main capacity products are the following:

- **Framework agreements**
Capacity reserved through Framework Agreement to be allocated to the Applicants in the annual allocation process. Flexibility thresholds of capacity not requested by the Applicants and/or not assigned by the IMs can be included in the Agreement which may exempt from the application of the penalty.
- **Annual timetable capacity**
Annual timetable requests consider the capacity rights requested and allocated for the next timetable in the period between X-9.5 and X-5.25.
- **Rolling Planning**
Rolling Planning capacity rights can be both short-term capacity needs for services running between 4 months and 1 month after the requests, as well as longer term planning up to 36 months from the first train run.
As the Rolling Planning represents a new capacity product on which the experience is very limited, further improvements of the criteria are expected after the first implementation.
- **Ad hoc requests**
Ad hoc requests are submitted during the working timetable from its start date until the final day. The capacity right allocated is a short term planned capacity, which should be less subject to changes than the annual timetable.

Further information and details on the capacity products will be provided according to the process described in the European Framework for Capacity Management.

4.1 Modulation for applicants

Modulation scheme for applicants is applied to significant changes of the allocated capacity requested by applicants and should consider (at least) two factors:

- **Timing** of the change
- **Marketability** of the capacity subject to change

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The timing of the changes refers to the time when the applicant sends the change request to the IM. Procedures and timelines between the moment of the change request and the allocation of the changed capacity right are described in the European Framework for Capacity Management and in the Network Statements.

Scoring values result in national modulation values for the time thresholds depending on the capacity product. The same national modulation value may also be applied to more than one capacity product for the same time threshold. The values are listed in the table below:

	Framework agreements	Annual allocation	Rolling Planning	Ad hoc capacity
Before X-5.25 before the train run	A		A	
Between X-5.25 and 120 days before the train run	A	A	A	A
Between 120 days and 61 days before the train run	B	B	B	B
Between 60 days and 30 days before the train run	C	C	C	C
Between 29 days and 5 days before the train run	D	D	D	D
Between 4 days and 24h before the train run	E	E	E	E
Less than 24h until train departure time	E	E	E	E
After train departure time	F	F	F	F

The thresholds take into account the timelines for IMs and applicants described in Annex I of the Capacity Regulation.

The scoring value assigned reflects the impact of the change of capacity right, with score A assigned to changes with lowest impacts and score F to those with the highest, and defines the timing component **T**. Infrastructure managers can propose to assign different conversion values to the same scores in case of different capacity products in order to reflect the impact of the timing of the change.

Non-usage shall be considered the same as a request for capacity change sent after the planned train departure time.

The **marketability** is mainly linked to the timing of the request (“the earlier, the better”). Therefore, the **component T** shall already include this aspect in the modulation for the applicants, representing the key criteria for the value of the modulation scheme also for what concerns marketability. Therefore, the proposed modulation values shall consider both aspects during their definition at national level. The modulation for the applicants should be calculated as follows:

$$M_{app} = T$$

4.2 Modulation for infrastructure managers

Modulation scheme for infrastructure managers is applied to significant changes to the allocated capacity provided by infrastructure managers and should consider (at least) three factors:

- **Timing** of the change
- **Quality** of the alternative capacity offered, when available
- **Non-availability** of the alternative capacity.

The **timing** of the changes refers to the time when the IM communicates the need for the change to the applicant. Procedures and timelines between the moment of the communication of the need of a change and the allocation of the changed capacity right are described in the European Framework for Capacity Management and in the Network Statements.

Scoring values result in national modulation values for the time thresholds depending on the capacity product. The same national modulation value may also be applied to more than one capacity product for the same time threshold. The values are listed in the table below:

	Framework agreements	Annual allocation	Rolling Planning	Ad hoc capacity
Before X-5.25 before the train run	A	-	A	-
Between X-5.25 and 120 days before the train run	A	A	A	A
Between 120 days and 61 days	B	B	B	B
Between 60 days and 30 days	C	C	C	C
Between 29 days and 5 days before the train run	D	D	D	D

Between 4 days and 24h before the train run	E	E	E	E
Between 24h until train departure time	F	F	F	F

The thresholds take into account the timelines for IMs and applicants described in Annex I of the Capacity Regulation.

The scoring value assigned reflects the impact of the change of capacity right, with A assigned to changes with lowest impacts and F to those with the highest, and defines the timing component **T**. Infrastructure managers can propose to assign different conversion values to the same scores in case of different capacity products in order to reflect the impact of the timing of the change.

The **quality** of the alternative capacity should consider the following factors compared to the original capacity:

- **Travel time** increase of the alternative capacity
- **Path length** increase of the alternative capacity (as percentage)
- **Reduction or change** of the **infrastructure characteristics or planning requirements**.

The reduction or change of the infrastructure characteristics or planning requirement (CP_{spec}) is calculated taking into account the estimated impacts for the applicant of the change. Details and criteria to estimate the potential impact are still under discussion.

$$Q = T_{time} + P_{length} + CP_{spec}$$

Q factor is applicable only when alternative capacity is provided; otherwise, Q is equal to 0.

T_{time} – increased travel time and **P_{length}** – increased distance

Distance↓ / Time →	0 to 29'	30' to <60 min	60<120 min	≥120 min
Between 0 and +10% path length	0–1	2–3	3–4	5–6
Between +11% and +30% path length	2–3	4	5	6
+31 - +49% path length	--	5	6	7
+50% path length	--	--	7	8

CP_{spec} - reduction or change of infrastructure characteristics or planning requirements

Classification	Scoring value
Reduction or changes	1-4
Traction change	3
No changes	0

The sum of the previous components of the alternative provided are subsequently used to classify the overall quality of the alternative capacity, according to the following scoring ranges and conversion rule.

Conversion of alternative capacity quality

Classification of the alternative capacity	Scoring value ranges	Conversion for modulation
High quality alternative - limited deviation	1-3	A
Medium quality alternative – limited deviation	4-6	B
Medium quality alternative – significant deviation	7-9	C
Low quality alternative – significant deviation	10-12	D

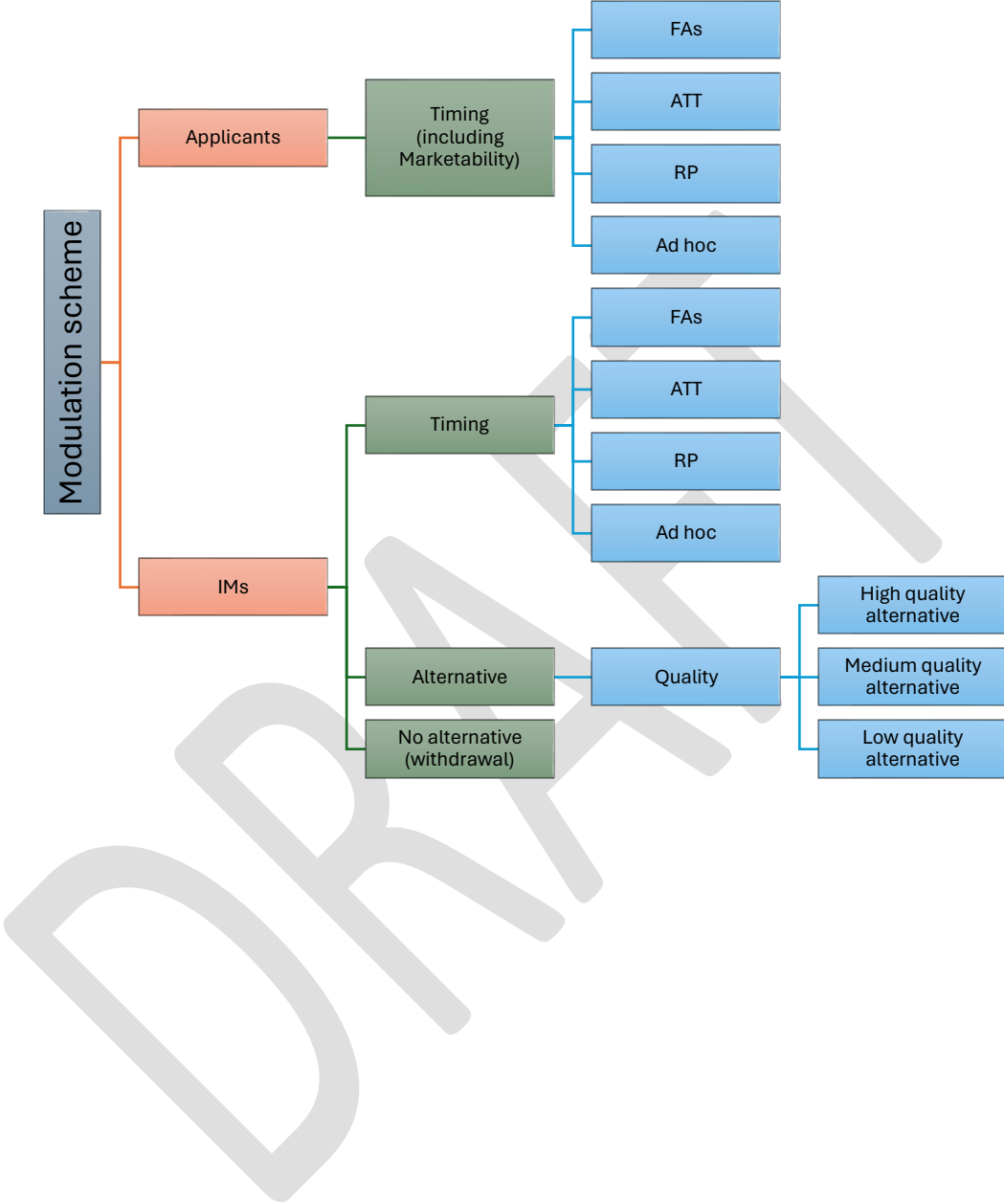
In case no alternative capacity is available (NA_{alt}), the IM withdraws the capacity. It is included in the algorithm with a value assigned comparable at least to the one assigned for alternative paths with significant deviations. If one part of the allocated capacity remains available, it can be considered as partial cancellation of the capacity, where applicable according to the procedures described in the EFCM.

NA_{alt} is applicable only when no alternative capacity is available (i.e. in case of cancellation); otherwise, the value assigned to NA_{alt} is 0.

Therefore, the modulation for the infrastructure managers should be calculated as follows:

$$M_{IM} = T + Q + NA_{alt}$$

Annex I - Modulation scheme tree



Annex II - Use case of practical implementation of the modulation scheme for the penalty

The present annex provides two examples of calculation of the penalty with the modulation scheme.

Case A – Cancellation of an ad hoc path by the Applicant

Preconditions

We assume that an applicant providing freight services requests a cancellation of an ad-hoc capacity 20 days before the train run. The distance (D) covered by the train is 350 km and the national value (V) set for freight transports is 1,5 €/km.

Calculation of the modulation

The infrastructure manager will apply the modulation taking into account the components T as in the following formula: $M_{app} = T$

The value of T associated to the cancellation of ad-hoc requested between 29 days and 5 days before the train run is 0,5 (T=0,5)

Final calculation of the penalty

The formula for the calculation of the penalty is: $P = V(x\text{€}) * D(km) * M(x.x)$

The final value is the penalty is, therefore: $P = 1,5\text{€} * 350 * 0.5 = 262,5 \text{€}$

Case B - modification of annual capacity by the infrastructure manager

Preconditions

We assume that the infrastructure manager has to provide an alternative path due to replanning of infrastructure works. The impacted capacity is a path requested under the annual timetable, and the need to change the capacity is communicated 150 days before the train run. The original path length is 830 km, and the alternative path considers a rerouting on a parallel line leading to an increased distance of 145 km and 80' of additional running time. The line characteristics are identical as the original line. The national value (V) set for IMs is 2 €/km.

Calculation of the modulation

In order to assess the quality of the alternative path, the IM provides a scoring according to the different characteristics listed below:

$$Q = T_{time} + P_{length} + CP_{spec}$$

$T_{time} = 80'$ and $P_{length} = 145 \text{ km} = +17\%$, which is equivalent to a score of 5

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$CP_{spec} = 0$

Therefore, according to the previous formula, $Q = 5 \rightarrow B$, which we assume corresponds to a value set of 0,3.

The need to change the capacity is requested 150 days in advance, and we assume it corresponds to a value of 0,2. As an alternative path is available and it can be measured following the criteria set under the Q formula, NA_{alt} is equal to 0.

Therefore, following $M_{IM} = T + Q + NA_{alt} = 0,3 + 0,2 + 0 = 0,5$

Final calculation of the penalty

The formula for the calculation of the penalty is: $P = V(x\text{€}) * D(km) * M(x.x)$

According to the available information, $P = 2\text{€} * 830\text{km} * 0.5 = 830 \text{€}$