

Analysis of ENTSOG decisions
for the
Capacity Allocation Mechanisms (CAM) Network Code

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A. Introduction

This document accompanies the final Network Code on Capacity Allocation Mechanisms (referred to throughout the rest of this document as CAM NC), reference CAP0210-12, which is available on the ENTSOG website. The document is for information purposes only; it is not part of the CAM NC and should not be interpreted as a commitment from ENTSOG nor an interpretation manual.

The CAM NC is written as a legal document, similar in style to the version that will eventually become law once the final CAM NC has passed through a review by ACER and the comitology process pursuant to Regulation (EC) No 715/2009 ('the Regulation'). The CAM NC does not contain explanatory material. ENTSOG has therefore produced this decision analysis document to explain, where deemed necessary, its rationale for certain decisions made during the preparation of the CAM NC including where relevant a short analysis of the issue at stake.

In the case of any doubt, the wording of the CAM NC itself takes precedence over this accompanying document.

ENTSOG has sought, as far as possible, to draft a CAM NC in line with the ACER Framework Guideline on CAM (FG).

In two instances, ENTSOG has included articles in the CAM NC in order to be as far as possible in line with the FG, but believes that it would be highly desirable to take into account for the CAM NC the following recommendations:

- **Completely remove article 5.2, the “Sunset Clause”, from the CAM NC**
- **Modify article 6.1 (7) of the CAM NC, and other articles referring to it, to enable the sale of within-day interruptible capacity via auctions**

B. Procedural issues and consultation of interested parties

B.1 Organisation and timing

The CAM NC and this present accompanying document have been prepared by ENTSOG, an organisation currently comprising 39 TSOs from 22 European countries, in line with its duties under article 6 of Regulation (EC) No 715/2009.

On 17 August 2011, the EC issued an invitation to ENTSOG to deliver a network code on Capacity Allocation Mechanisms, based on the ACER CAM FG published on 3 August 2011. The CAM NC must be delivered to ACER by 9 March 2012.

The timescales for this process are set out fully in ENTSOG's project plan and revised project plan, both available on the ENTSOG website.

The majority of the work on the documents has been carried out by members of ENTSOG's Capacity Working Group, with support from its technical sub-groups.

B.2 Consultation and expertise

In line with its internal process and in compliance with the Regulation, ENTSOG has engaged extensively with market participants and participated in events in order to publicise the process and encourage full stakeholder involvement, both prior to the start of the network code process and throughout the whole process.

In the network code project plan consultation, all market participants were invited to register to participate in the process of developing the CAM NC. Market participants, representing all levels of the gas value chain, including producers, traders, network users, and a range of end users, expressed strong support for ENTSOG's process and stated that they were very satisfied with the level of interaction between ENTSOG and stakeholders during the code development.

Additionally, ENTSOG has held regular working level discussions with ACER and the EC in order to clarify the intent of the Regulation and the CAM FG. It has aimed to ensure, as far as possible, that the CAM NC is compliant with the provisions of the Regulation and in line with the FG. It should also remain robust, technically and legally workable, supported by stakeholders, and contribute to non discrimination, effective competition and efficient functioning of the market pursuant to Article 6 (2) of the Regulation.

B.3 Stakeholder views

In accordance with the Regulation and ENTSOG's statutes, stakeholders' views have been integral to the decisions made during the development of the CAM NC and as such are described throughout this document when explaining the rationale for the options selected.

Detailed information on the stakeholder comments received is published on the ENTSOG website.

C. Scope and Objectives

C.1 Objectives

- **Objective 1: to be in line with the ACER FG on CAM**, as required by the Regulation and by the letter issued by the EC to ENTSG on 17 August 2011.
- **Objective 2: to take account, as far as possible, of the views of all market participants**
- **Objective 3: to take account of interactions between the CAM NC and other areas.**
- **Objective 4: to comply with all relevant legal requirements, particularly those relating to confidentiality and transparency**

In addition to complying with the above objectives, ENTSG sought to develop a CAM NC that, if introduced, would improve the functioning of the European gas market in particular by ensuring the efficient allocation of capacity and facilitating hub-to-hub trading, in line with the objectives set out in Regulation (EC) No 715/2009.

C.2 Relationship between CAM NC, FG and accompanying document

The table below lists the areas in which the present document provides further explanation and shows how the articles of those areas in the CAM NC correspond to the provisions of the FG.

Note that this accompanying document does not cover every article of the CAM NC. Rather, its focus is on areas where ENTSG considers that further explanation of key decisions that have been taken is necessary.

| CAM NC article | Topic | Relevant ACER FG provision | Accompanying document section |
|----------------|----------------------------------------------|-------------------------------------|-------------------------------|
| 3.2 | Standardisation of communication | 1.4; 1.5 | E.1 |
| 3.3 | Capacity calculation and maximisation | 1.5 | E.2 |
| N/A | Standard contract terms | 1.4 | E.3 |
| 4.1 (6) | Capacity reservation | 2.3 | F.1 |
| 4.2 | Standard Capacity Products | 2.1 | F.2 |
| 4.8; 6.1 (7) | Within-day capacity allocation | 2.1; 3.1.5; 2.2 | F.3 |
| 4.9-4.10 | Auction algorithm – longer duration products | 3.1.1 | F.4 |
| 5.2 | Amendment of existing capacity contracts | 2.4.2 | G.1, G.2 |
| 7.2 | Reserve price | 3.1.2 | H.2 |
| 7.3 | Revenue Equivalence Principle | <i>Needed to implement bundling</i> | H.3 |
| 7.4-7.5 | Split of revenues from bundled capacity | <i>Needed to implement bundling</i> | H.4 |
| 7.6 | Over and under recovery | 3.1.3 | H.5 |
| 8 | Booking platforms | 3.3 | I |

D. Interaction between the CAM NC and other areas

The optimal design of capacity allocation mechanisms depends on the rules applying in a range of other areas. In some of these areas, such as tariffs and congestion management procedures, the final form of rules has not yet been decided. In order to draft the CAM NC, ENTSOG had therefore to make assumptions about the eventual text of these other rules. Any change or deviation from such assumptions would require adjustment to the affected provisions of the CAM NC.

Congestion Management Procedures (CMPs)

The European Commission's (EC) proposed modifications to congestion management procedures are currently subject to a comitology procedure, following which they will become law. The CAM NC has been designed to be consistent with the form of the proposed modifications that was current at the time of drafting.

Up to the coming into force of such congestion management procedures, ENTSOG cannot guarantee that the CAM NC will not require adjustment due to the strong links between CMPs and capacity allocation mechanisms, particularly for shorter capacity durations. Articles 4.6 (5); 4.7 (7); and 4.8 (8) of the CAM NC are examples of linked provisions.

Other areas

Except in relation to CMPs, a general assumption was made that there will be no changes to the rules currently in place or any new rule introduced.

As mentioned before, ENTSOG cannot guarantee that the CAM NC will not require adjustment should any change render the framework set out in this code no longer appropriate. In this case, ENTSOG requests that the CAM NC is amended through the appropriate processes. Areas in which changes may affect the CAM NC as drafted include:

- **Tariff issues**, particularly any change to the critical and indispensable assumption set out in the CAM NC that reserve prices permit different product profiles to yield equivalent revenues, and that TSOs are allowed to recover their revenues. Any revision to this principle, particularly low or zero reserve prices for short term products, would generate an unsustainable regime, both from a TSO and from a network user perspective, and would necessitate reconsideration of the CAM NC where relevant.
- **Other network codes**. It is important that the provisions of framework guidelines in interconnected areas such as interoperability remain consistent with the key provisions of this CAM NC.
- **Other rules**. Developments in other areas, such as in relation to the Energy Infrastructure Package being developed by the EC, may have an impact on capacity allocation. If these developments introduce requirements that are not consistent with the provisions of the CAM NC as first drafted, the CAM NC will need to be amended accordingly.

E. Principles of co-operation – CAM NC section 3

E.1 Standardisation of communication

Article 3.2

Section 1.4 of the FG requires that the CAM NC define common communication procedures that are applied by TSOs to exchange information with network users.

There are three elements to a communication procedure:

1. The information to be communicated
2. The timing of the communication
3. The technical aspects of communication, including data format and data exchange protocol

The first two of these aspects are covered by the CAM NC, which specifies the information that must be exchanged and sets time limits within which this must be done. Examples of information that will need to be exchanged are:

- The information that must be contained in a bid, as specified in articles 4.10 (3) and 4.11 (3);
- Notification from TSOs to network users of the amount of capacity they have been allocated in an auction, as required by article 4.10 (21);
- Notification from TSOs to network users that the default rule for bundling of existing capacity contracts is in forces, as required by article 5.2 (10); and
- Notification that an interruption has been initiated, as required by article 6.3.

The CAM NC does not specify the exact wording of the messages to be exchanged, as this would go beyond the level of detail appropriate for a network code. Instead, article 3.2 of the CAM NC requires that TSOs implement standard communication procedures for the exchange of such information. This commits TSOs to working together to develop the precise messages that must be sent to achieve the communication needs specified in the CAM NC.

The third aspect, technical aspects of communication, is not covered by the CAM NC. It was originally intended that such procedures would be included in a 'Data and Solutions Handbook', a separate document from the CAM NC. In their responses to the draft CAM NC consultation the concept of a handbook was strongly supported by stakeholders. Respondents argued it should be possible to modify details of technical processes, such as a move to a newer, more effective type of electronic communication standard as technology progresses, without passing through a full comitology process, providing the changes were widely supported by all market players.

ACER and the EC indicated that in theory they were also supportive of this approach. EC legal advisers, however, concluded that there was no way in which a handbook could be made legally binding on market participants without passing through a full comitology process. Similarly, any revisions to the handbook would need to pass through this process. The handling of these issues is under discussion but it is likely that they will be introduced via a future network code on Interoperability.

E.2 Capacity calculation and maximisation

Article 3.3

Section 1.4 of the FG requires the CAM NC to set out how Transmission System Operators cooperate with regard to capacity calculation and maximisation.

Article 3.3 of the CAM NC sets out the minimum requirements in this regard. In particular, TSOs are required to exchange relevant information with the aim of maximising technical capacity.

Reasons why it is not possible to introduce a common method for Capacity Calculation (CC)

CC is a highly sophisticated and complex expert task where a single optimal method does not exist and present models are constantly evolving according to scientific findings (non-linear optimization). The structure and characteristics of the grids are very different across EU (from single “transit” pipe to meshed supplier network) and the statistically relevant flow pattern scenarios for each of those grids also differ widely. Therefore, the definition of a common calculation method may lead to sufficient results in some networks while in other cases may lead to sub-optimal outcomes. ENTSOG therefore considers that harmonisation of process is likely to be counterproductive. A one-size-fits-all solution does not exist in this case.

A harmonised CC method would hamper possible evolutions in individual networks to the cost of the network users’ flexibility to obtain the maximum capacity each network could deliver under differentiated simulation approaches.

In the current environment, TSOs are calculating and offering the maximum amount of technical capacity, based on the simulated network capabilities and an assessed level of statistical probability of flow patterns arising in their networks, driven e.g. by temperature, demand scenario and potential supply sources. This is especially facilitated when appropriate incentive schemes are introduced that are able to cover potential risks which are involved in the TSOs decisions on CC parameters.

The overall target to the benefit of the network users should be a high level of transparency and appropriate incentives for the TSOs rather than imposing a harmonised CC equally over all EU networks.

E.3 Standard contract terms

Section 1.4 of the FG states that, “The network code(s) shall define the standardised content of transmission capacity contracts and of general terms and conditions for capacity allocation and capacity services.”

ENTSOG considers that the CAM NC fulfils this requirement of the FG by introducing detailed requirements regarding the allocation and bundling of capacity, which will need to be translated into the TSOs’ transmission terms and conditions during the nine month period foreseen by the FG (see section 10 of the CAM NC). ENTSOG does not consider that it would be appropriate to provide templates or standard contractual provisions to be ‘cut and pasted’ into the relevant contracts, in particular due to the absence of a full harmonisation in the legal systems throughout the EU.

F. Allocation of firm capacity – CAM NC section 4

F.1 Capacity reservation

Article 4.1 (6)

Determination of reserved capacity

Introduction

The FG specifies that at least 10% of ‘available’ capacity must be set aside for products with a duration of less than one quarter¹. This would imply that the 10% should be calculated on the basis of unsold capacity, rather than technical (total) capacity.

ENTSOG asked ACER to clarify the policy aim of this section of the FG. ACER explained that the intention was for 10% of technical capacity to be released for shorter duration products.

Policy Options

1. Specify that at least 10% of available² capacity must be set aside

Under this option the 10% is calculated on the basis of available capacity, that is, the amount of capacity that has not been sold.

2. Specify that at least 10% of technical³ capacity must be set aside, subject to a cap

Under this option the 10% is calculated on the basis of technical capacity, that is, the total amount of capacity to be made available whether or not it has already been sold. The amount of reserved capacity would need to be capped at the level of available capacity, to avoid placing an obligation on TSOs to seize capacity from existing holders and re-offer it to the market, which is not the aim of the FG.

¹ This represents a change from the ERGEG FG, which specified that at least 10% of available capacity must be set aside for firm short term capacity services. Short term services are defined in Regulation (EC) No 715/2009 as those with a duration of less than one year. References to ‘short term’ and ‘long term’ are not included in the CAM NC, due to the potential for confusion.

² As defined under Regulation (EC) No 715/2009

³ As defined under Regulation (EC) No 715/2009

Analysis of Impacts

| Option | Evaluation | Outcome |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Specify that at least 10% of 'available' capacity must be set aside | <ul style="list-style-type: none"> • Includes the same wording as in the FG • Does not match the intention of the FG as clarified by ACER • May result in very low levels of capacity being offered in shorter duration auctions at some IPs in the early years of the new regime • Unclear at what point in time the level of available capacity would be assessed. | Option rejected |
| 2. Specify that at least 10% of technical capacity must be set aside | <ul style="list-style-type: none"> • Technical deviation from the wording of the FG • In line with the intention of the FG as clarified by ACER • ENTSOG's objective is to comply with the spirit of the FG rather than mechanistically reacting to the exact words used • May result in no (or very low levels of) capacity being offered in <u>longer</u> duration auctions at some IPs in the early years of the new regime | Option adopted |

Release of set aside capacity

This issue is closely linked to the determination of the standard capacity products on offer and is covered below.

F.2 Standard Capacity Products

Articles 4.2 and 4.4

Longer term capacity products

Introduction

The FG requires ENTSOG to consult on the offer of yearly, quarterly, monthly, daily and within-day products, but does not specify which products must eventually be included in the CAM NC. The range of longer duration products to be offered has been the subject of intensive discussion within ENTSOG, and between ENTSOG and stakeholders, during the CAM NC development process.

Following support from network users at the stakeholder joint working sessions, the draft CAM NC specified that the longest product offered would be quarterly, via annual auctions for the next 60 quarters. This would be followed by annual monthly, rolling monthly, daily and within-day auctions.

The final CAM NC includes the following products and auctions:

Table 1: Capacity products and auctions

| Standard capacity product | Frequency of auctions | Number of products per auction per IP |
|---------------------------|-----------------------------------|---------------------------------------|
| Yearly | Annual | 15 |
| Quarterly | Annual | 4 |
| Monthly | Monthly (rolling monthly auction) | 1 |
| Daily | Every day | 1 |
| Within-day | Every hour | 1 (balance of day) |

The reasoning for this choice of products is explained below.

Policy Options

1. Yearly product only
2. Quarterly as longest
3. “Linked quarters”
4. Auction yearly and quarterly at the same time
5. Auction quarterly for the next available years, then yearly for later years
6. Yearly, then quarterly

Under each of these options, the longest term product on offer would be sold up to 15 years ahead, as 15 yearly or 60 quarterly products. A small minority of stakeholders said that they would prefer either a longer or shorter period, with no clear preference emerging for either, but most stakeholders have not challenged ENTSOG’s 15-year-ahead proposal.

Analysis of impacts

| Option | Evaluation | Outcome |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Yearly product only | <ul style="list-style-type: none"> • Not favoured by the market. Many said they would like both yearly and quarterly product to be auctioned. No consultation respondent favoured elimination of quarterly. • Removing quarterly product could make seasonal profiling more difficult, though a monthly product could also be valuable in this regard. | Option rejected |
| 2. Quarterly as longest | <ul style="list-style-type: none"> • Would allow more capacity to be made available for quarterly products, increasing opportunities for profiling | Option rejected |

| | | |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| | <ul style="list-style-type: none"> Quarterly products could be combined to form yearly products or longer System is considered by UK market participants to have worked well in that country Not favoured by the market. In both consultations on the draft CAM NC, around 2/3 of respondents favoured inclusion of a yearly product. Common arguments against quarterly as the longest product included the danger of gaps in bookings and/or strategic bidding, and the high costs of participation in large numbers of quarterly auctions | |
| 3. “Linked quarters” | <ul style="list-style-type: none"> Extremely complicated option, given the combinatorial nature of the problem and the complexity of the required algorithm to solve it. | Option rejected |
| 4. Auction yearly and quarterly at the same time | <ul style="list-style-type: none"> Not a feasible option. Overlapping auctions would mean that either the amount of capacity available in each auction would not be known (which would not be consistent with a fully transparent mechanism), or the available capacity would have to be split into smaller portions using arbitrary quotas that are unlikely to reflect true demand for each product. Neither effect would be in line with the objectives set forth in the Regulation. | Option rejected |
| 5. Auction quarterly for the next available years, then yearly for later years | <ul style="list-style-type: none"> Not favoured by the market. Only a small number of consultation respondents (5 of 56) requested this option. Most did not indicate that they would prefer to be able to buy only quarters in nearby years. | Option rejected |
| 6. Yearly, then quarterly | <ul style="list-style-type: none"> Meets demand of the market for a yearly product while maintaining the option to purchase quarterly products for profiling. At congested points, most capacity will be sold as a yearly product. Design must be carefully evaluated to ensure that capacity is available in auctions of quarterly product, otherwise there is a risk that no capacity would be offered in these auctions (see below) | Option adopted |

Shorter term capacity products and release of set aside capacity

Introduction

The requirements of the FG⁴ are construed as follows: daily and within-day products must be offered. ENTSOG considers that rolling monthly auctions are also valuable in order to allow any surrendered capacity to be re-offered.

The FG specifies that the capacity referred to in the previous section must be set aside for products with a duration of less than one quarter.

Policy Options

1. Capacity is released in rolling monthly auctions
2. Capacity is released in annual monthly auctions
3. Capacity is released in annual quarterly auctions

Figure 1 below shows the auctions that would be held under each option. ENTSOG has limited the number of auction types to five under each option, given the preference of stakeholders for a simple auction design and the practical disadvantages of large numbers of auctions.

Figure 1

| Option | Annual Yearly | Annual Quarterly | Annual monthly | Rolling monthly | Rolling day-ahead | Within-day |
|--------|---------------|-------------------|-------------------|-------------------|-------------------|------------|
| 1 | | | | Capacity released | | |
| 2 | | | Capacity released | | | |
| 3 | | Capacity released | | | | |

Analysis of Impacts

| Option | Evaluation | Outcome |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Capacity is released in rolling monthly auctions | <ul style="list-style-type: none"> • Technically in line with FG wording • At congested points, network users who were unable to acquire capacity in the annual yearly auctions would not have another chance to buy capacity until 1-2 weeks before gas flow. This could jeopardise effective competition by | Option rejected |

⁴ FG section 3.1.1: “In particular, the network code(s) shall set out a fully harmonised auction design for firm day-ahead capacity”; FG section 3.1.5: “The network code(s) shall allow Transmission System Operators to allocate within-day capacity, i.e. capacity not allocated after the day-ahead auction, via first-come-first-served or auctions. Interruptible within-day capacity services are allocated according to Section 2.2.”

| | | |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| | <p>disproportionately disadvantaging new entrants and would also affect the efficient functioning of the market by creating trouble for network users in balancing their portfolios.</p> <ul style="list-style-type: none"> • All 11 respondents to the 2nd consultation that commented on the release of set aside capacity indicated that they would like capacity to be released sooner than month-ahead | |
| 2. Capacity is released in annual monthly auctions | <ul style="list-style-type: none"> • Technically in line with FG wording • Involves deletion of a quarterly product which some stakeholders have indicated they find valuable (see previous section) • Ensures that capacity is released sufficiently far ahead of flow to enable new entrants to be allocated and use capacity, and existing active network users to balance their portfolios. Unlike option 1 this is likely to promote effective competition and the efficient functioning of the market. | Option rejected (unless option 3 is not later accepted) |
| 3. Capacity is released in annual quarterly auctions | <ul style="list-style-type: none"> • Technical deviation from the wording of the FG deemed by ACER as acceptable during an informal exchange⁵ • Ensures that capacity will be available in the form of a quarterly product, which stakeholders have indicated they would find valuable • Ensures that capacity is released sufficiently far ahead of flow to enable new entrants to gain and use capacity and existing network users to balance their portfolios. Unlike option 1 this is likely to promote effective competition and the efficient functioning of the market. | Option adopted |

Should the deviation from the FG associated with Option 2, the option adopted by ENTOSOG, not be held as acceptable throughout the comitology process, ENTOSOG would recommend as a ‘second choice’, removing the annual quarterly auction from the CAM NC and replacing it with an annual monthly, thus ensuring technical alignment with the FG. This option would in ENTOSOG’s view be significantly less appropriate, since stakeholders have indicated that they value a quarterly product, which satisfies their need for seasonal profiling of capacity requirements.

⁵ ACER has indicated informally that this approach may be acceptable, notwithstanding the technical deviation from the FG. This is due to the exceptional circumstances under which the CAM FG was produced (ACER was created and the FG produced once work on the CAM NC had started) and the effect that these circumstances had on the precise drafting of the FG.

F.3 Within-day capacity allocation

Articles 4.8, 6.1 (7)

Introduction

The FG specifies that “the network code(s) shall allow Transmission System Operators to allocate within-day [firm]⁶ capacity, i.e. capacity not allocated after the day-ahead auction, via first-come-first served or auctions”. Adjacent TSOs must implement the same allocation mechanism at each IP. For interruptible capacity, the CAM NC must “entitle registered network users to submit nominations on an interruptible basis at any time within day”. Given the strong interlinkages between firm and interruptible within-day capacity, the two services are considered together in this section.

Policy Options

1. Sell both WD firm and interruptible capacity via auctions
2. Sell both WD firm and interruptible capacity via a non-auction method
3. Allow WD firm capacity to be sold either via auctions or a non-auction method; sell interruptible WD capacity via a non-auction method
4. Sell within-day firm capacity via auctions and within-day interruptible capacity via a non-auction method.

Analysis of Impacts

| Option | Evaluation | Outcome |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Sell both WD firm and interruptible capacity via auctions | <ul style="list-style-type: none"> • Fully market-based system • Ensures consistent allocation methodology across all firm and interruptible capacity products, promoting simplicity and reducing costs • ACER has not confirmed that a deviation from the FG with regard to the sale of interruptible capacity would be acceptable. | Option rejected |
| 2. Sell both WD firm and interruptible capacity via a non auction method | <ul style="list-style-type: none"> • Some network users have indicated that they would prefer to purchase all WD capacity via a non-auction method (click-book-nominate) but most support a market-based allocation method at least for firm capacity • Network users’ experience likely to be very similar under either option 1 or 2, as bookings/nominations will be accepted every hour under either an auction or non-auction system. | Option rejected |

⁶ Although not explicitly stated in the FG, ENTSG understands that this sentence refers only to firm capacity, since the FG then states that the allocation of interruptible capacity is covered under another article.

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| | <p>Instantaneous acceptance is not technically feasible.</p> <ul style="list-style-type: none"> • Consistent allocation methodology for all WD products, though not consistent with allocation of longer duration products • Technical deviation from FG in respect of firm WD capacity | |
| <p>3. Allow WD firm capacity to be sold either via auctions or a non-auction method; sell interruptible WD capacity via a non-auction method</p> | <ul style="list-style-type: none"> • Technically in line with FG • Not consistent with views of market; approximately 2/3 of respondents to the first consultation supported ENTSG's proposed auction-based system for allocating firm WD capacity • Allows a widely varying set of allocation methodologies which does not meet the simple and consistent system requested by network users. Geographical variations may increase costs of pan-EU transport. | Option rejected |
| <p>4. Sell within-day firm capacity via auctions and within-day interruptible capacity via a non-auction method.</p> | <ul style="list-style-type: none"> • Consistent allocation methodology across all capacity products other than interruptible WD • Consistent with market's preference for auctions of WD firm capacity • ENSTOG considers that this option is in line with the FG in respect of interruptible capacity • Technical deviation from FG in respect of firm capacity. ENTSG believes it is fully in the interests of network users and end users for the CAM NC to specify a single allocation methodology for the same product at all IPs. | Option adopted |

Under the option adopted, network users will be able to submit nominations for interruptible WD capacity at any time within-day, as required by the FG. However, nominations will only be accepted once firm WD capacity is sold out. This is to avoid the sale of interruptible capacity restricting the allocation of firm capacity, which is prohibited by section 2.2 of the FG. If TSOs were to offer cheaper interruptible capacity while firm was still available, network users would be incentivised to purchase the interruptible product rather than the firm product, knowing that the chance of interruption is extremely low while firm capacity is still available. This would clearly restrict the sale of firm capacity.

ENTSG notes that for interruptible capacity, over-nomination is not a 'true' first come first served methodology due to the way in which nominations are accepted and the sequence of interruptions determined. While over-nominations may be made at any time, as set out above, TSOs' systems are not able to accept nominations continuously. Instead, they will do so hourly in order to ensure rapid processing of requests. This means that if two over-nominations are made within the same one-hour period and accepted on the same hour bar they will bear the same time stamp. If the TSO

subsequently needs to interrupt the capacity, the two network users will be interrupted pro rata, regardless of which nomination was submitted first.

ENTSOG considers that it would be highly desirable to allow all capacity products to be sold via auctions, for the following reasons:

- A more market-based system is, from an economic perspective, more appropriate than a less market-based one
- Implementing two different systems for firm and interruptible WD capacity will create additional costs.
- A single allocation methodology for all standard capacity products benefits network users and creates a more level playing field between small, large, experienced and inexperienced users, as a single interface can be used to book any product.
- Network users' experience of booking and being allocated capacity is likely to be similar whichever method is used, so there is no significant disadvantages of an auction system to outweigh the advantages outlined above.

Given the arguments above, ENTSOG recommends to remove the provision to sell WD interruptible via over- nomination and instead allow it to be sold via auctions in line with all other products

F.4 Auction algorithm – longer duration products

Articles 4.9, 4.10

Introduction

Auction algorithms describe the process that bidders will follow to participate in an auction, and the process that the TSO will follow to determine which bidders are allocated the capacity on offer and the price paid.

The FG specifies that “The network code(s) shall set out the principles of anonymous, transparent online-based auction procedures, which should avoid any abuse of a dominant market position” and that “The network code(s) shall set out a harmonised auction design, which is applicable at every interconnection point within the EU”.

Stakeholders expressed a preference for a simple, consistent auction design, both at the stakeholder joint working sessions and in their consultation responses. ENTSOG has followed this principle when assessing options. However, it has considered auction design for longer duration products (yearly, quarterly, monthly) separately from shorter duration (day-ahead, within-day) as the characteristics of these auctions and products are different and may require different designs.

This section first considers the choice of overall auction design, before examining important related issues including the number of price steps in a volume-based auction, the use of a cleared price versus a pay-as-bid methodology, and the minimisation of unsold capacity.

The FG does not prescribe a particular auction design. ENTSOG considers that as network users will be most affected by the choices made in this respect, their needs should be paramount when designing an auction and therefore the CAM NC should make a choice, fully informed by stakeholder views, as to the auction design. From a TSO perspective, no specific design is inherently preferable. ENTSOG has therefore worked closely with network users over a seven month period to develop a design that is both well grounded in economic theory and supported by market participants. Auction design has been discussed in detail at a number of stakeholder workshops and has also been the subject of two dedicated interactive sessions at which different designs were tested by market participants. It has also formed a significant part of both consultation documents on the CAM NC, which set out potential designs in detail. Many consultation respondents gave very detailed written views on auction design.

ENTSOG has taken all views and arguments fully into account in arriving at the auction design included in the CAM NC, and has considered the needs of all network users, including those of small network users who may be under-represented among consultation respondents.

General principle for auction algorithm

Policy Options

1. 'Pure' single round (no bid adjustment)

A pure single round auction consists of a single, relatively short bidding round. Bids are submitted once, and may request capacity at any price that is at least equal to the reserve price. There are no mechanisms to promote price discovery, and no information is published during the bidding round.

2. Single round volume based auction with bid adjustment, no price discovery measures

This option involves a single, longer bidding round during which bids can be submitted against a series of pre-announced price steps, and may be withdrawn and adjusted freely. Information is published regularly throughout the round (for example, at the end of each day if the bidding round lasts several days) to allow network users to decide whether to adjust their bids.

3. Single round volume based auction with bid adjustment and price discovery measures

This option is similar to option 2, but there are some restrictions on the submission, withdrawal and/or amendment of bids in order to promote early price discovery. These could include a provision for early closure of the auction if certain conditions are met, restrictions on upward and/or downward revision of bids, and a requirement to bid early in the auction.

4. Multiple round ascending clock

A MRAC auction takes place over several bidding rounds. In the first round, network users may bid for capacity at the reserve price. In each subsequent round the price is increased by a pre-announced increment. The auction may close after any bidding round, if the conditions are met. Bidders must participate in all rounds in order to be allocated capacity, and interim information is published at the end of each round in order to allow network users to decide how to bid in the next round.

The aim of any capacity auction design is to determine the market clearing price, at which supply is (at least approximately) equal to demand. Therefore under each of the above options, the total

quantity of capacity demanded by each network user’s bids must stay constant or decrease as the price increases.

Analysis of Impacts

| Option | Evaluation | Outcome |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Pure single round | <ul style="list-style-type: none"> • Requested by only a minority of network users in ENTSSOG’s first consultation. • Simple system with free choice of price and rapid allocation • Non-volume based system not compatible with allocation of incremental capacity • Inability to adjust bids so that network users cannot react to the behaviour of other bidders, or to the progress of other auctions, which would undermine the market-based nature of an auction system | Option rejected |
| 2. Single round volume based auction with bid adjustment, no price discovery measures | <ul style="list-style-type: none"> • Ability to adjust bids allows network users to react to the behaviour of others, and volume based system is compatible with future system for incremental capacity release • Without price discovery mechanisms this may lead to large swings in the price and quantity bid, without converging towards the ‘true’ market price. Tests of this auction design at ENTSSOG’s workshop on 20 July 2011 showed this design to be vulnerable to deliberate disruption by bidders. • Largely for this reason, the design was not favoured by respondents to ENTSSOG’s first consultation. The majority of respondents said that some mechanisms to promote price discovery and discourage disruptive bidding would be necessary. | Option rejected |
| 3. Single round volume based auction with bid adjustment, and price discovery measures | <ul style="list-style-type: none"> • Option was first favoured by the majority of respondents to the first consultation on the draft CAM NC but following further development of both single and MRAC models and testing at the workshop on 3 November 2011, the large majority of respondents to the second CAM NC consultation favoured the MRAC model. • A similar model has been in place in the UK for more than 10 years and is considered by most UK market players to have worked well. • Volume based system is compatible with future system for | Option rejected |

| | incremental capacity release | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 4. Multiple round ascending clock | <ul style="list-style-type: none"> • Option was favoured by the majority of respondents to the second CAM NC consultation: 28 in favour of this model versus 6 in favour of the single round. • Arguments in favour of the model include greater perceived : <ul style="list-style-type: none"> ○ simplicity which may be useful for network users new to auctions, ○ lower vulnerability to strategic bidding since price discovery measures are embedded in the design ○ ability to adjust bids or step out of an auction in response to progress of auctions at other IPs. • Volume based system may be compatible with future system for incremental capacity release • Similar model has recently been introduced in Germany and early results indicate that it is working well. The model has also been used successfully at one Austrian IP. | Option adopted |

The option adopted is by design a cleared-price auction model, in which all successful bidders pay the same per unit of capacity obtained. This is in line with the overwhelming preference of stakeholders, in their responses to the first CAM NC consultation, for a cleared-price model over a pay-as-bid model.

Number of price steps in a volume based auction

Policy Options

1. Limited number of price steps

Under this option, the reserve price, the increment and the number of price steps would be defined. This means that there would be a maximum price at which the auction could close, equal to the reserve price plus the number of price steps multiplied by the increment.

2. Unlimited number of price steps

Under this option, only the reserve price and the increment would be defined. There would be no maximum price.

Analysis of Impacts

| Option | Evaluation | Outcome |
|-------------------|-----------------------------------------------------------------------------------------------------|---------|
| 1. Limited number | <ul style="list-style-type: none"> • Slightly simpler system to administrate and use | Option |

| | | |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| of price steps | <ul style="list-style-type: none"> Limits the price at which the auction can close and hence the extent of possible over-recovery at congested points. For these reasons ENTSOG originally proposed to limit the number of price steps. This limit implies that if demand was greater than supply at the highest price step, it would be necessary to apply pro rata to allocate the capacity, which is strongly rejected by network users This approach was overwhelmingly rejected by market participants; 30 respondents to the second consultation favoured an unlimited number of price steps while only 1 wanted a limit | rejected |
| 2. Unlimited number of price steps | <ul style="list-style-type: none"> Approach overwhelmingly supported by stakeholders. Most argued that pro rata should not be used and that there should be no maximum price, as both of these measures would undermine the market-based nature of an auction system A MRAC auction with no limit to the number of price steps could theoretically last an unlimited amount of time. The CAM NC must include a practical limit to avoid overlap with the next relevant auction. | Option adopted |

Minimisation of unsold capacity

Introduction

Given the discrete nature of network users' capacity demand curve (particularly under a volume-based system with stepped prices), it is unlikely that demand will exactly equal supply at any price. If capacity is available, and if there are bidders willing to acquire that capacity at a price at least equal to the reserve price, it is desirable that the capacity should be sold. Therefore, some mechanism may need to be found to reduce the gap between the amount of capacity on offer and the amount bid for.

Policy Options

1. Pro rata approach

Under this option, the clearing price of the auction would be equal to the highest price at which demand was greater than supply. Bidders at this price would receive a portion of the capacity they requested. ENTSOG developed an option under which the amount received would be determined based on their bids at the clearing price and at the next highest price step.

2. Roll-forward of unsold capacity

Under this option, the clearing price would be the lowest price at which demand was less than supply. The 'undersell' would be rolled forward and sold in the next relevant auction.

3. Small price steps

Under this option, the size of price steps would be reduced in order to reduce the gap between the amount demanded and the amount on offer at the clearing price.

Analysis of Impacts

| Option | Evaluation | Outcome |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Pro rata approach | <ul style="list-style-type: none"> • Ensures that all capacity is sold, providing demand is at least equal to supply at the reserve price • Needs to have a system of ‘minimum bids’ to ensure no network user is allocated less capacity than they are prepared to accept • Overwhelmingly rejected by network users in response to the second consultation • Pro rata was felt to be inappropriate for the sale of longer duration capacity products as it undermined the market-based nature of an auction system and would lead to no network user receiving exactly the capacity they wanted. | Option rejected |
| 2. Roll-forward of unsold capacity | <ul style="list-style-type: none"> • Option was preferred by network users over a pro rata approach by network users in response to the second consultation. • However many network users stated that they would favour prefer some mechanisms other than pro rata to ensure sale of capacity at the earliest opportunity • ACER has also indicated informally that it would prefer that unsold capacity was not rolled over | Option rejected |
| 3. Small price steps | <ul style="list-style-type: none"> • Specifically supported by many network users in response to the second consultation while none were against the use of small price steps. • Approach reduces unsold capacity while avoiding pro rata • Given network user opposition to pro rata, any capacity remaining unsold despite the use of small price steps would be rolled over to the next relevant auction. | Option adopted |

At the shortest auction durations, a pro rata approach is applied to ensure that all capacity is sold if sufficient demand exists, as unsold capacity cannot then be rolled over to another auction.

G. Cross-border capacity – CAM NC section 5

Introduction

A bundled service is a combined firm entry and exit capacity at a specific IP sold as one bundled product. This means that at a given IP, the shipper books a single firm capacity product (via the auction procedures described in this document) and is allocated a bundled entry/exit capacity product. On this basis, the shipper avoids two separate allocations on each side of the country/market area border, removing the risk of being allocated different capacities.

ENTSOG notes stakeholders' strong preference for bundling to be voluntary. However, the draft CAM NC fully implements the provisions set out in the FG for cross-border bundling of available capacity at IPs, which is therefore mandatory.

This section focuses on the mandatory bundling of existing capacity contracts – the so-called 'sunset clause'.

G.1 Amendment of existing capacity contracts

Article 5.2

For the first consultation, the draft CAM NC did not include any provision due to the legal issues raised by the ERGEG FG and upon which ENTSOG had to base its work before the official publication of the ACER FG, as further explained below.

Introduction

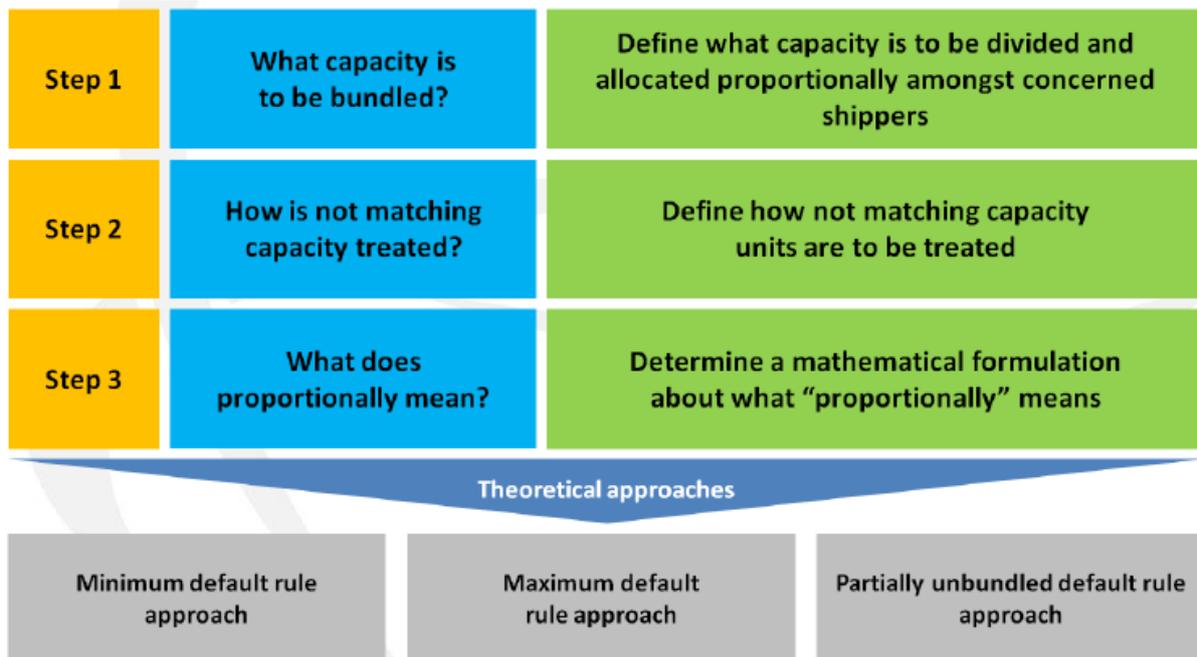
Despite ENTSOG's position as to the insertion of such provision, in order to be in line with the FG dated 3 August 2011, ENTSOG has co-operated with stakeholders to develop a clause to be included in the CAM NC.

The approach taken is justified below as an analysis of technical and legal issues, upon which ENTSOG's rationale for suggesting the removal of the clause is based.

Given the arguments below, ENTSOG strongly recommends removal of the Sunset Clause, article 5.2

Choice of default rule

ENTSOG used a 3-step-approach to arrive at the policy options:



Analysis of Impacts

| Approach | Evaluation | Outcome |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Minimum default rule approach | <ul style="list-style-type: none"> The majority of workshop participants considered that this approach was not appropriate as contracted capacity would have to be set aside at one side of the border Booking levels are not maintained Unless otherwise agreed by the NRA, there would be lost revenue associated with set aside contracts (i.e. under-recovery by TSOs) which must be recovered from remaining users. This issue is more significant the greater the mismatch between firm bookings at entry and exit of the respective IP Previously booked capacity would be freed up and if capacity were available on the other side of the IP it might be possible to offer this to the market as bundled capacity. | Option rejected |
| Maximum default rule approach | <ul style="list-style-type: none"> Booking levels are maintained and there is no under-recovery problem Some users would be forced to take on additional units of capacity to make the bundling feasible which would be legally questionable Technical constraints restrict the maximum capacity that can be bundled. In the case of technical constraints, capacity may either be left unbundled or matched with interruptible capacity. | Option rejected |

| | | |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| | <ul style="list-style-type: none"> • Approach was somewhat more supported in the second CAM NC consultation although most respondents did not express a view (12 of 36 respondents preferred this approach versus 5 for the partially unbundled approach). Arguments in favour of this approach included that it would allow for better optimisation of the capacity sold so a shipper doesn't lose capacity; that it would maintain booking levels and doesn't adversely impact revenue recovery; that it would avoid that network users are left with unbundled capacity (assuming that there is no shortage of technical capacity on either side of the flange); and that it would support a pure hub to hub market with no trading at the flange via interruptible. • Capacity would need to be allocated outside the auction process, and only among shippers already active at the respective IP. Therefore at least those units filling up the non-matching part have to be allocated in a discriminatory manner. The greater the mismatch between bookings at entry and exit side, the more significant this issue. • ACER has indicated that discriminatory allocation of capacity outside the auction process is not appropriate | |
| Partially unbundled default rule approach | <ul style="list-style-type: none"> • No capacity bookings are lost (from a TSO perspective) and no party is forced to take on additional capacity. From this perspective the option has the least impact on the respective parties out of all the options considered • ACER confirmed that capacity beyond the matching amount can remain unbundled • From a legal point of view a contracting party cannot be forced to commit more than initially consented; | Option adopted |

ENTSOG notes that all possible approaches will affect existing capacity contracts.

Partial agreements

Introduction

If, following the 'voluntary' stage of the sunset clause, capacity holders have reached agreement regarding the bundling of some but not all capacity at an IP, a rule needs to be defined on whether such 'partial agreements' should be respected.

Policy options

1. Do not respect partial agreements (apply default rule to all capacity)
2. Respect partial agreements (apply default rule only to portion of capacity not agreed upon)

Analysis of Impacts

| Option | Evaluation | Outcome |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Do not respect partial agreements | <ul style="list-style-type: none"> Potentially allows a single capacity holder to block all voluntary agreements and may therefore make application of the default rule more likely | Option rejected |
| 2. Respect partial agreements | <ul style="list-style-type: none"> More in line with the views of stakeholders; 5 respondents to the second consultation said that partial agreements should be respected while none said that they should not. Provides an incentive for capacity holders to reach agreement and may therefore make the application of the default rule less likely. Would respect any agreement reached on the bundling arrangement | Option adopted |

G.2 ENTSOG's concerns with the Sunset Clause

1. Rationale for inclusion of the Sunset Clause

The draft CAM NC was published for consultation on 21 June 2011, pursuant to the official invitation letter on 27 January 2011 and on the basis of the ERGEG CAM Framework Guideline dated 7 December 2010.

ENTSOG did not include in the first draft CAM NC any provision in respect of the bundling of existing capacity contracts. ENTSOG communicated it was unwilling to include a Sunset Clause on the basis of the preliminary ERGEG CAM Framework Guideline given the legal risks embedded that render the drafting of a clause in line with the FG not legally acceptable. In addition a strong opposition from stakeholders as to the concept of mandatory bundling applied to the existing contract was highlighted and supported by ENTSOG.

On 3 August 2011 ACER published its final CAM Framework Guideline (FG) containing an amended Sunset Clause after having consulted the market. In parallel a legal impact assessment was published on the ACER website dated 21 July 2011 assessing legal concerns raised. The study concludes that, given a suggested amendment, the sunset clause could in principle be inserted into a network code.

ENTSOG analysed the amended provision which confirms the requirement for mandatory bundling for the existing contracts to be amended after five years, introduces a default rule mechanism and clarifies NRAs' roles throughout the process including enforcement monitoring. However, the amendment does not eliminate certain legal risks nor technical issues set out below.

ENTSOG therefore included a provision despite the renewal of the reluctance of the stakeholders for such clause due to the impacts triggered by the implementation and doubts as to the effectiveness of a sunset clause in fostering effective competition and efficient functioning of the market.

2. Bundling existing contracted capacity (Sunset Clause)

The proposed drafting seeks to introduce provisions within a legal framework.

It is a two-stage process to be implemented with certain limits identified. The limits and the nature of the two stages are explained below.

a. Context: Assumptions and limits to the bundling

The drafting is based on several assumptions as explained during a stakeholder workshop on 6 October 2011.

The main limits to be taken into account are the differences in terms of volume and in terms of duration. As a matter of fact, the existing contracts are not matching; therefore the bundling will be limited by essence to what exists and what can be bundled practically speaking.

In addition, the FG expressly prohibits the extension in the term of duration for any contracted capacity. Therefore part of the contracted capacity will remain unbundled as a consequence.

Another element of complexity is the number of scenarios possible. The context leads to a lack of visibility and to legal uncertainty for the parties concerned up to the end of the 5 year period, which may have consequences for business planning and tariff calculations.

In addition, the monitoring by the TSOs is essential to ensure the technical and contractual feasibility of the bundling arrangement, as the TSO may not be involved in the discussions but is party to the existing contract that is the subject of such arrangement.

b. Stage 1a: Bundling arrangement

The first stage of the process puts an obligation upon the capacity holders who are parties to existing contracts to aim to reach agreement(s) on the bundling of the contracted capacity before amending the existing contracts to translate the bundling mechanism and its consequences.

From a legal point of view, the first stage is a negotiation period amongst the capacity holders which shall lead to one or more arrangements regarding the bundling of the contracted capacity.

As already mentioned, due to the number of possible scenarios, once the bundling arrangements are agreed between the capacity holders, their feasibility will have to be checked by the TSO in the context of the existing capacity contracts before amending the relevant existing contract.

Therefore the CAM NC specifies that the capacity holders shall inform the TSO with whom they hold an existing contract of the final bundling arrangements reached, without undue delay.

c. Stage 1b: Default rule

By inserting default rule provisions, the FG confirmed the mandatory bundling for any and all existing contracted capacity through the introduction of a default rule. This means, should no voluntary bundling arrangement be reached, that a default rule shall apply in order to bundle the capacity concerned.

Such bundling will be limited as already mentioned to the extent it matches contracted capacities in term of duration and volume. In addition, the FG specifies that the bundling split shall be proportional to the contracted rights of the capacity holders.

The capacity holders affected by the application of the default rule to any portion of the capacity contracted by them will be informed by the TSO with whom they signed the existing capacity contract, once an analysis by the TSOs and NRAs of all the bundling arrangements between the capacity holders has been completed.

The proposed default rule intends to function as a rule splitting unbundled capacities at both sides of a flange among network users holding these unbundled capacities and is based on the following principles:

- It should ensure a proportional and non discriminatory allocation of bundled capacity, in line with the requirements of the FG;
- It should rely on objective criteria and leave no room for interpretation; and
- Technical constraints should always restrict the maximum amount of capacity to be bundled at a specific interconnection point (IP).

Since ENTSG was of the opinion that the development of the default rule should take place in a transparent manner, theoretically possible approaches were discussed at a dedicated ENTSG Sunset Clause Workshop (held on 6 October 2011 in Brussels).

ENTSG has selected a 'partially unbundled' default rule approach. Under this approach, the capacity to be bundled after implementation of the default rule would be determined by the lower of the aggregated bookings on either side of the IP. Non-matching capacity would remain unbundled and would be split proportionally amongst network users holding the capacities that are subject to the default rule at the IP. As such, no capacity bookings are lost and no party is forced to take on additional capacity.

As to the remaining unbundled capacity, ACER confirmed the possibility for such capacity to be traded as unbundled, in order to reduce any potential for the application of the default rule to lead to unused capacity.

The CAM NC foresees that the TSOs will provide information to the capacity holders concerned on where the default rule will apply, based on the information received from the capacity holders mentioned above.

d. Stage 2: Existing contract amendment

The second stage will be between the parties to an existing contract, who must amend the contract to the extent necessary in accordance with the bundling arrangement(s) reached and/or the default rule.

At that time, the contract will have to be amended accordingly to remain legally valid. This shall not prevent a party from exercising its right to terminate the existing contract due to the principle of freedom of contract. Indeed it shall not expose any party to accepting any damaging consequences which would affect substantially the equilibrium of a contract signed.

This issue is of very significant concern to ENTSOG, as the application of the sunset clause could lead to negative impacts, due to the end of commitments by holders of contracted capacity, should any existing contract be legally terminated.

e. Enforcement

The enforcement duties lie with the NRA, which will control the due compliance with the sunset clause provision.

3. Summary of legal and technical reasons why ENTSOG believes the sunset clause should be removed from the CAM NC

- The sunset clause by nature would interfere with capacity contracts concluded at a time when such significant impacts were not foreseeable. If mandatory bundling for existing contracts was imposed, it could lead to the simultaneous reopening of contractual agreements across Europe. Moreover, no party could be prevented from exercising its right to terminate an existing contract due to the legal principle that no party to a contract shall be forced to accept any damaging consequences which would affect substantially the equilibrium of the contract originally signed. This issue is of utmost importance to ENTSOG, as the application of the sunset clause could lead to highly negative impacts due to the end of commitments by existing holders of contracted capacity, should any existing contract be terminated on grounds of the above-mentioned reasons.
- Since the sunset clause would have impact on existing contracts, while the right to terminate such contracts cannot be excluded via the CAM NC, TSOs are exposed to the risk that capacity holders take the opportunity to get rid of contracts they no longer need. Depending on the national regulatory regime, such a loss of bookings will have to be compensated by increased tariffs and thus socialised among all (including uninvolved) network users, or lead to stranded investments and substantial losses for the TSOs.
- A similar argument applies in the case of supply contracts. Although the provisions of the ACER FG CAM are not meant to regulate supply contracts, in practice, commodity contracts would also be affected as a result of the impact of the sunset clause on the capacity contracts linked to them and their underlying commercial arrangements, especially in terms of the point of delivery and the bearing of transportation costs. This would therefore alter the nature of the negotiations regarding the change of existing commodity contracts ahead of the application of a default rule and would trigger an indirect legal risk that such contracts could be terminated, with consequent severe impacts on shippers' businesses.
- While supply contracts will likely need to be reopened and renegotiated, large suppliers (usually not bound to EU law) might have an advantage in such negotiations as they generally have the stronger position. Producers might even wish to widen discussions beyond the point of delivery changes, against the wish of the other party.
- Since the level of commercial risk that the retroactive bundling of capacity places on shippers was not perceived at the time when the original capacity was acquired, network users would likely have made different decisions regarding their capacity requirements. Retrospective

obligations are rarely, if ever, appropriate and undermine stability and confidence in the markets. This would have a number of negative results, including that price signals used to make investment decisions could no longer be relied on.

- By nature, the results of the sunset clause results will force capacity holders at one side of the flange to become active at a hub located in a member state where they might not be willing to become active. Market participants raised potential problems regarding tax legislation as well as necessary costs and efforts in order to become licensed as reasons for their unwillingness to become active in an additional member state.
- The sunset clause set out in the CAM NC includes only the basic requirements for implementing the bundling of existing capacity. Intensive discussions within ENTSG and with stakeholders have not been able to resolve all of the possible issues that might arise as a result of the application of the sunset clause. For example, if there is a price difference between the capacities to be bundled as a result of the default rule, there is no clear way forward on how this should be dealt with.

H. Tariffs – CAM NC section 7

H.1 Introduction

The purpose of article 7 is to ensure that the CAM NC contains all the relevant provision to function as a stand-alone document and therefore shall cover essential tariff issues that directly impact and/or interact with the provisions set forth in the CAM NC.

Despite some respondents' comments during the consultation suggesting the CAM NC should not contain any such tariff provisions, ENTSOG maintained its position as solutions for the implementation of the CAM NC are required. Therefore, to be fully consistent and to ensure the implementation of the provisions set forth, some assumptions were taken as to the tariff issues involved, which ENTSOG considers important to expressly state in the CAM NC itself. In addition, the CAM NC will certainly be implemented before a network code on rules regarding harmonised transmission tariff structures or a commission guideline on the details of a tariff methodology related to cross-border trade of natural gas is in place.

H.2 Fixed and Variable Reserve Prices

Article 7.2

This provision is required to reflect the differences in cost recovery mechanisms of regulatory regimes across the EU, which are deeply rooted in their respective designs. The harmonisation of these is not feasible within a CAM network code and without clear prior guidance by ACER and the NRAs. Therefore, the network code clarifies that no decision has been taken on whether the payable prices determined in an auction are fixed, variable ("floating") or other; and the approaches of fixed and variable Reserve Prices or other arrangements according to regulatory rules in each Member State shall continue to be possible under the CAM network code.

H.3 Revenue Equivalence Principle: Relative Relationship between Reserve Prices

Article 7.3

As there is not yet a common definition of the "regulated tariff" for each of the specific and newly introduced Standard Capacity Products of the CAM NC in any regulatory regime in the EU, a general rule is necessary to define how Regulated Tariffs shall be used as Reserve Prices of capacity products of different durations, within the regulatory framework of each Member State.

Policy Options

Other tariff structures suggested by consultation respondents and NRAs included:

- Same unit price on average for all product durations (prices of shorter duration capacities sum up to the prices of the longer duration capacities)
- Marginal or no reserve prices on short term capacity

The following policy option was chosen by ENTSOG:

- Revenue Equivalence Principle

Analysis of Impacts

Rejected option: same unit price for different capacity durations

Some respondents to the consultation on the draft CAM network code called for the application of the same unit price for all capacity products. Such an approach would give a strong incentive to network users to optimise their bookings by waiting for sub-annual products to reduce their capacity booking volume and thus the costs they incur. Such a pricing structure involves an arbitrary discount (prohibited by Art. 14 (2) of Regulation (EC) No 715/2009), due to the fact that closer to the time of flow users can fully profile their bookings as they then know their short term requirements which has the following effects:

- The reduction of capacity sales volume requires the raising of the unit price for capacity in turn, driving even more users to short term optimisation, leading to a vicious circle, particularly where there is expectation of little contractual congestion (which CAM and CMP are addressing across Europe).
- A substitution of long term capacity bookings by sub-annual products has a harmful effect with regards to the identification of physical congestion, as bookings would move towards reflecting short term usage only, with no further indication of peak capacity requirements to the TSO and a loss of investment signals.
- Tariffs would become volatile, due to necessary adjustments corresponding to the evolution of booking volumes which would more closely align to usage volumes.
- The pricing of sub-annual capacity at a discount will not particularly benefit new entrants and small system users, but rather bigger system users who have the resources to take part in all the auctions necessary for short term optimised booking. This affects non-discrimination and efficient competition.
- Network users who require flows for relatively flat profiles and book accordingly (e.g. industrial consumers) would be at a disadvantage, resulting in a cross-subsidy between classes of network users, which affects non-discrimination and efficient competition.
- Most importantly, such a pricing structure would be a move away from the logic that the costs of the transmission system are determined mainly by the peak flow. Due to the fact that most costs are fixed in the long run, users should be charged according to their peak flow requirements signalled for the long run (because these determine the sizing of the system). A pricing system based on fully optimised profiled booking, which would in effect be a charge on actual flow volumes, counters that logic and would constitute a pay-as-use system.
- Finally, a discount on sub-annual capacity destroys the value of it and therefore negatively affects the secondary market for capacity, which is also an effective CMP measure.

Rejected Option: Marginal or no reserve price on short term capacity

The considerations of the preceding paragraphs hold even more weight in the case of an application of short term marginal prices or no reserve prices on short term products offered in auctions (which some consultation respondents called for). Experience, particularly from Great Britain, where bookings before the year at many points are at levels of only 40% of flow requirements, and increasingly also from Germany, where demand for longer term products is very weak (certainly in expectation of the zero reserve price on day ahead capacity), shows that the flight to short term products does in fact take place in such a setting. This has extremely detrimental effects on the avoidance of cross-subsidisation and deprives the market and TSOs of timely and efficient investment signals.

It should furthermore be noted that, in contrast to electricity, where only a small proportion of commodity is exchanged cross-border, a great proportion of natural gas crosses (often several) borders. Without cost-reflective charging for such cross-border transports, domestic end-consumers would be left paying for transports across their market areas – clearly an unpalatable situation, both economically and politically. Finally, an attempt to recover revenue shortfalls with a commodity charge will hamper cross-border flows, because it adds a volume dependent cost to flows, which has the effect of a tax.

Preferred Option: Revenue Equivalence Principle

The revenue equivalence principle was chosen, for being the sole pricing structure that complies with articles 13 and 14 (2) of Regulation (EC) No 715/2009 prohibiting cross-subsidies and arbitrarily higher or lower tariffs not reflecting the market value of the service but based on the duration of the commitment. Starting from these provisions, ENTSOG has defined the revenue equivalence principle, which introduces a non-arbitrary and reasoned approach to setting the tariffs for different product durations. The revenue equivalence principle is based on the following considerations:

- It is incentive neutral as to the time of capacity procurement considering the preferences of the network users to take or avoid risks of unavailability of certain capacity products at the time of the expected transport. It allows network users to procure capacity according to their identified need by minimising any undue incentives to book capacity before such a need is identified and minimising any undue incentives to wait for sub-annual capacity auctions after such a need is identified (enabling investment signals).
- The revenue equivalence principle avoids cross-subsidies between network users. The network users requiring highly variable gas flows, the levels of which are only known shortly before the actual gas flow, will be able to match capacity bookings to their requirements by building a highly variable product profile. The unit prices need to be higher than for long term capacity products, in order to avoid cross-subsidies, because the users of sub-annual products procure less units of capacity to cover their peaks.
- The revenue equivalence principle is a tariff structure that allows for recovery of required capacity revenues *ex ante*, in order not to create a systematic need for corrective mechanisms *ex post*, which would have distortive effects.

The below table summarises the main features of the policy options:

| Policy Options Overview | Allows identification of physical congestion (investment signals) | Contributes to cost-reflectivity | Avoids cross subsidies between network users by profile |
|-----------------------------------------------------|-------------------------------------------------------------------|----------------------------------|---------------------------------------------------------|
| Revenue equivalence principle | + | + | + |
| Same unit price for different capacity durations | -- | - | - |
| Marginal or no reserve price on short term capacity | -- | -- | -- |

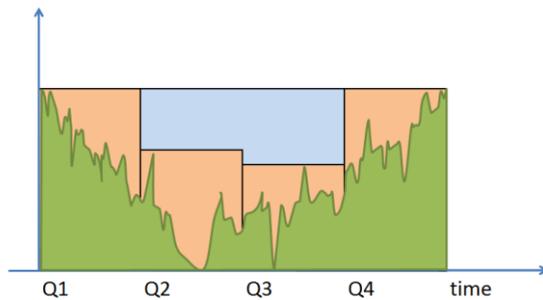
The aim of the next section is to illustrate the Revenue Equivalence Principle.

The average unit reserve price for any set of the same product duration across a period (year) shall aim to achieve revenue equivalence across that period. Due to booking profiles along market requirements, a shortfall in capacity sales volume may occur in that period. Therefore, the payment effect of procuring either a longer term product or a set of shorter term products to match the profile of flows should be broadly neutral for an average network user. To clarify: for users whose flow requirements are more variable than the aggregate usage, it is still beneficial to profile their bookings, while flat users who anticipate their flow requirements with relative accuracy are not kept from booking well in advance.

Below, the Revenue Equivalence Principle is illustrated via the simplified assumption that capacity bookings are fully profiled. The first picture shows a hypothetical profile fully booked with yearly products.



The next picture then shows a fully optimised booking profile of quarterly products, under the simplifying assumption that all capacity is booked via this product. The average unit price for the quarterly products would have to be increased relative to the price of the yearly product by the proportion that “fills up” the loss in capacity sales volume. In the picture, this loss of sales volume would correspond to the area above the booking profile (shaded blue).



It is to be noted that this does not mean that the price of each *individually* sold product should make up for its capacity sales volume shortfall, which would mean that e.g. the summer quarters in the above example would be more expensive than the winter quarters – the requirement is rather on the sum of the revenues from all products of a specific duration across a year, independent of if they are charged at the same unit price or if they are seasonally priced.

H.4 Split of revenues from Bundled Products

Article 7.4 and 7.5

These articles are necessary to provide clarity on the respective receivables of TSOs contributing to Bundled Capacity sold in an auction. In article 7(5) it is stated that the revenues that are realised in an auction are attributed to the contributing TSOs after each capacity transaction. This rules out approaches where revenues from several transactions involving bundled products would accrue, over a period of time, and then the revenues are attributed to the TSOs after all transactions in this period have taken place. Furthermore, it is clarified that each TSO can invoice the reserve price of their respective capacity in the bundle. The reserve price, which is the regulated tariff, can still be subject to changes between the auction and the time when the capacity can be used, in line with the respective regulatory regime (ref. article 7.2). This is of course assuming that the recovery of allowed revenues or regulated tariffs is ensured for each TSO.

Article 7.5 then rules that any revenue from auction prices above the reserve price, namely the auction premium, shall be attributed to the TSOs contributing to a bundled product according to agreement between these TSOs and if applicable subject to NRA approval. A default rule is required to avoid a situation where an auction is scheduled but no agreement on a split of the auction premium is in place yet, leading in the worst case to receivables not being invoiced or to invoices with contradicting claims.

Two options for the default rule were consulted with stakeholders: A split proportional to the reserve prices and a split of equal shares. The consultation yielded a slight preference for the proportional split.

ENTSOG has thus chosen the default rule to be a split of the auction premium proportional to the Reserve Prices of the capacity elements in the bundle at the time of the auction. (It should be noted that the Reserve Prices at the time of the auction could be different to the Reserve Prices for the capacity finally invoiced, due to variable reserve prices as set out in article 7.2).

Fictitious example of possible price elements of a bundled product

| Point in time | TSO1 (fixed reserve price) | TSO2 (variable reserve price) | Bundled price |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Time of the auction | Reserve Price for capacity in bundle: £ 5 Price steps, e.g.: £ 0.05; £ 0.1; ... (in this example: split proportional to Reserve Price at time of auction – agreement on any other split possible) | Reserve Price for capacity in bundle: € 4 Price steps, e.g.: € 0.04; € 0.08; ... (in this example: split proportional to Reserve Price at time of auction – agreement on any other split possible) | Bundled price steps: £ 0.05 + € 0.04; £ 0.1 + € 0.08; ... Auction clears at e.g. the 10 th price step: £ 0.5 + € 0.4 (fixed at time of auction), plus reserve price = Σ Reserve Prices (one fixed, one variable) |
| Time when capacity can be used | Reserve price is still: £ 5 | Reserve price (=regulated tariff) has changed (e.g. due to productivity gains): € 3.7 | Reserve Price £ 5 + € 3.7 Auction Premium £ 0.5 + € 0.4 Final payable price: <u>£ 5.5 + € 4.1</u> |

H.5 Over and under recovery

Article 7.6

This provision is in line with the FG provision on over recovery and, for the sake of symmetry, additionally points to the fact that under recovery can occur and should be remedied. The special provision on price cap regimes is necessary because in these the concept of allowed revenues does not exist.

I. Booking platforms – CAM NC section 8

Article 8 (4), Article 8 (5)

Introduction

The FG specifies that the CAM NC must include an action plan and timetable for reducing the number of booking platforms and eventually establishing a single EU platform.

The CAM NC needs to allow flexibility in platforms to enable auctions to start as soon as possible using existing systems. In the interim, therefore, TSOs may choose whether to use one of the already existing regional platforms, to develop a new platform, or to use some other approach.

However, TSOs recognise the benefits in eventually reducing the number of platforms.

Policy options

1. Specify detailed action plan and timetable within the CAM NC

Under this option, a detailed action plan and timetable would be developed in parallel with the CAM NC, would pass through the comitology process as an annex to the CAM NC and would become part of EU law.

2. Include next steps and timings in the CAM NC but not a full action plan
3. Do not include commitments on steps towards a single EU platform in the CAM NC.

Analysis of Impacts

| Option | Evaluation | Outcome |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Specify detailed action plan and timetable within the CAM NC | <ul style="list-style-type: none"> • Would not be practically achievable: <ul style="list-style-type: none"> ○ A number of different approaches are theoretically possible. The development of a single EU platform will be a major IT project. Planning, budgeting for and tendering such projects depends critically upon detailed specifications, it is not possible to say which specifications will be most suitable until the form of the final CAM NC is known. ○ Existing systems differ considerably between Member States and hence the time needed for transition to an EU-wide solution may vary greatly. | Option rejected |
| 2. Include next steps and timings in the CAM NC but not a full action plan | <ul style="list-style-type: none"> • TSOs and network users would not be bound to a timescale and action plan which could be inappropriately long or short, depending on the final form of the CAM NC. • Under this option the CAM NC would set out next steps in the process to achieving a single EU platform, with associated | Option adopted |

| | | |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| | <p>timescales. This will include an examination of existing platforms, consultation on network user requirements and production of a detailed action plan.</p> <ul style="list-style-type: none"> • Option requires TSOs to make significant progress on this major undertaking within relatively short timescales but does not legally commit them to finishing the project within a certain period • Option involves a technical deviation from the wording of the FG, which requires that the CAM NC include an action plan and timetable for achieving a single EU platform. | |
| <p>3. Do not include commitments on steps towards a single EU platform in the CAM NC</p> | <ul style="list-style-type: none"> • Would not be in line with the CAM FG • While stakeholders have not given specific views on this issue, network users present at the first SJWS believed that ENTSG should work towards a single EU platform as quickly as possible and would probably not therefore support this option. | <p>Option rejected</p> |

Annex: Corresponding provisions

| CAM NC article | Topic | Relevant ACER FG provision |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 1.1 | Subject matter | <i>Needed for legal reasons</i> |
| 1.2 (j) | Harmonisation of gas day | 2.1 |
| 1.2 (a)-(i); (k)-(z) | Definitions | Various |
| 1.3-1.6 | Legal provisions: <ul style="list-style-type: none"> • Equal treatment, non-discrimination and transparency • Confidentiality • Relationship with European and national legislation • Entitlement to participate in capacity allocation processes | <i>Needed for legal reasons</i> |
| 2 (1)-2 (2) | Application of the Network Code | 1.2 |
| 2 (3) | Incremental capacity | 1.2 |
| 2 (4) | Capacity contracts | 1.3 |
| 2 (5)-2 (6) | Interaction with other areas | <i>Needed to deal with future network codes</i> |
| 2 (7) | Modification of the CAM NC | <i>Needed for legal reasons</i> |
| 2 (8) | Implicit auctions | 3.1.1 |
| 3.1 | Coordination of maintenance | 1.5 |
| 3.2 | Standardisation of communication | 1.4; 1.5 |
| 3.3 | Capacity calculation and maximisation | 1.5 |
| 4.1 | Allocation methodology | 2.3; 3; 3.1.1 |
| 4.2 | Standard Capacity Products | 2.1 |
| 4.3 | Applied booking unit | 2 |
| 4.4-4.7 | Annual yearly capacity auctions; annual quarterly capacity auctions; rolling monthly capacity auctions; rolling day ahead capacity auctions | 2.3; 3.1.1; 3.2 |
| 4.8 | Within-day capacity auctions | 2.1; 3.1.5 |
| 4.9-4.11 | Auction algorithms | 3.1.1 |
| 5.1 (1) - (4) | Offer of bundled capacity | 2.4.1 |
| 5.1 (5) - (7) | Treatment of divergent capacity | <i>Needed to allow TSOs to meet obligation to maximise capacity offer</i> |
| 5.1 (8) | Single nomination | 2.4.1 |
| 5.1 (9) | Bundled capacity and secondary markets | 2.4.1 |
| 5.1 (10) | Virtual Interconnection Points | 2.4.3 |
| 5.2 | Amendment of existing capacity contracts | 2.4.2 |
| 6.1 | Allocation of interruptible services | 2; 2.2; 3.1.4 |
| 6.2-6.4 | Minimum interruption lead times; coordination of interruption process; defined sequence of | 2.2 |

| | | |
|---------|-----------------------------------------------|-------------------------------------|
| | interruptions; reasons for interruptions | |
| 7.1-7.3 | Reserve price | 3.1.2 |
| 7.4-7.5 | Split of revenues from bundled capacity | <i>Needed to implement bundling</i> |
| 7.6 | Over and under recovery | 3.1.3 |
| 8 | Booking platforms | 3.3 |
| 9 | Exceeding required decisions | 1.6 |
| 10 | Adaptation, implementation and interim period | 1.3; 3.1.6 |
| 11 | Entry into force | <i>Needed for legal reasons</i> |