

## Annex 1 –Compliance with legal requirements

Pursuant to Article 37 of the NC CAM, the transmission system operators shall offer capacity by means of one or a limited number of joint web-based booking platforms.

On 5 June 2018, the Agency undertook a public consultation related to the selection of a booking platform on the German-Polish border. According to the results of the public consultation, at the time of selecting a Booking Platform, the following legal obligations were considered of relevance:

Legal compliance criteria		
<b>EU regulation</b>		
12	Allocation of firm capacity	12 Offer of competing capacity products
13	Allocation of interruptible capacity	13 Allocation of incremental capacity
14	Bundling of capacity products	14 Surrender of capacity
15	Ascending clock auctions (yearly, quarterly and monthly)	15 Buyback of capacity
16	Uniform price auctions (day-ahead, within-day)	16 REMIT reporting obligations
17	Day-ahead bid roll-over	17 Interoperability and data exchange obligations
18	Support of kWh/h and kWh/d as capacity unit	18 Avoidance of cross-subsidies between network users
19	Secondary capacity trading	<b>National regulation</b>
20	Automated bidding	19 Assignment to balancing groups (DE)
21	Reporting of platform transactions (bidders and public)	20 Support for capacity upgrade services (DE)
22	Bundling of capacity on 1:n situations	21 Use of protocol AS4 and data format Edig@s-XML (PL)
		22 Anonymity of all trading procedures (DE, best practice)

### Consultation questions:

1. Please confirm that these legal requirements are still relevant.

All are still relevant

Only some are relevant (Please mark only those numbers that you consider no longer relevant, using the table above.)

No. 21 (Use of protocol AS4 and data format Edig@s-XML) is not relevant. So far, we don't see any specific national legal obligation to use those kinds of protocol and format, apart from GSA's own platform requirements.

The requirement was not part of the previous evaluation as well, since the Agency came already then to the conclusion *"that the Polish national requirement refers to communication with the TSO, but does not explicitly impose the requirement on the booking platform's communication with platform users"*<sup>1</sup>.

1

Moreover, Article 5 (2) of NC CAM<sup>2</sup> foresees relevant standard communication procedures between the booking platform and network users. According to Article 21 NC INT<sup>3</sup>, the types of data exchange solutions, comprising protocol, format and the network are document-based data exchange, integrated data exchange and interactive data exchange. Therefore, the CNOT table<sup>4</sup> on common data exchange solutions as published by ENTSOG is setting standard procedures for communication with the booking platform (auction office), which is the interactive data exchange. Following those regulation, the protocol to be used is https. Thus, if there would be any conflicting national regulation, this would be violating the regulation on common data exchange solutions.

Compliance with interoperability and data exchange obligations according to NC INT as regulated within the CNOT table is already covered with criterion No. 17.

The following are missing. (Please specify which legal requirements are missing, including the legal text from which the requirement follows)

1. Capacity Conversion Service according to Article 21 (3) NC CAM<sup>5</sup>

According to Article 21 (3) NC CAM, capacity booking platforms may facilitate the capacity conversion service for network users holding mismatched unbundled capacity at one side of an interconnection point for annual, quarterly or monthly capacity products. The European requirement has been bindingly transferred into the German Cooperation Agreement of Gas Transmission System Operators (Kooperationsvereinbarung X, Anlage 1, as of 29 March 2018), § 8<sup>6</sup>. Thus, an implemented functionality for capacity conversion is a binding requirement and shall be available on the respective booking platform.

2. Displaying of all necessary information related to auctions and conclusion of gas transmission contracts, especially the respective terms and conditions of the TSO and all fees and charges concerned

According to Reg. (EU) 715/2009, Annex I, Section 3.1.2.<sup>7</sup>, Transmission System Operators shall publish at least a detailed and comprehensive description of the different service offered and their charges, the different types of transportation contracts available for these services and the network code and/or the standard conditions including harmonized transportation contracts and other relevant documents (Section 3.1.2. lit. a) – c).

In addition, according to Article 19 (4) NC CAM<sup>8</sup>, network users shall comply with the applicable terms and conditions of the transport contract(s) of the transmission system operator concerned as from the time the transport capacity is contracted.

Deriving from this European Regulation, booking platforms must offer respective functionalities to display all the relevant and up-to-date information necessary for the conclusion of a transportation contract, including the acceptance of the network users for the applicable terms and conditions of the transmission system operators. As well, a comprehensive overview on all charges and fees for the capacity contract to be concluded via an auction must be available and displayed on the platform to show all legally necessary details for the

---

<sup>2</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0459&from=EN>

<sup>3</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0703&from=EN>

<sup>4</sup> [https://entsog.eu/sites/default/files/files-old-website/as4/2018/INT0994-161026%20Common%20Data%20Exchange%20Solution%20Table\\_final.pdf](https://entsog.eu/sites/default/files/files-old-website/as4/2018/INT0994-161026%20Common%20Data%20Exchange%20Solution%20Table_final.pdf)

<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0459&from=EN>

<sup>6</sup> <https://www.bdew.de/service/standardvertraege/kooperationsvereinbarung-gas/>

<sup>7</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02009R0715-20181224&from=EN>

<sup>8</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0459&from=EN>

respective capacity contract. For interconnection points, in Germany those fees comprise the regulated tariff, the measurement fee as well as the Market Area Conversion Fee, according to Article 19a (1) German Energy Act (EnWG)<sup>9</sup>.

3. Submission of registration data to Market Area Operator

According to Article 6 (2) GasNZV (German Gas Network Ordinance)<sup>10</sup>, network users already registered with the TSO, don't need to register with the Market Area Operator again. Thus, the booking platform, where the registration of the network user is conducted<sup>11</sup>, needs to submit the registration data to the Market Area Operator.

4. Implementation of different firm capacity types (FZK, DZK, bFZK, BZK)

According to § 9 (3) GasNZV (German Gas Network Ordinance)<sup>12</sup>, TSOs are obliged to offer firm capacity, that is subject to certain conditions or restrictions, in order to maximize the free allocation of firm capacities within an Entry-Exit-system. The possibility for restrictions or conditions of capacity is also considered within the German Cooperation Agreement of Gas Transmission System Operators (Kooperationsvereinbarung X, Anlage 1, as of 29 March 2018), § 9<sup>13</sup>. The capacity types FZK, bFZK and DZK are also essential part of ordinance BK7-18-052 of BNetzA in its current consulted status, where the TSOs would be obliged to offer firm capacities via those types<sup>14</sup>.

Please explain your answer.

2. For each of the three Booking Platform currently active in the EU, please mark the numbers of the legal requirements next to it, which in your view are not complied with.

GSA – n.a.

PRISMA – fully compliant

RBP – n.a.

Please explain your answer.

---

<sup>9</sup> [http://www.gesetze-im-internet.de/enwg\\_2005/EnWG.pdf](http://www.gesetze-im-internet.de/enwg_2005/EnWG.pdf)

<sup>10</sup> [http://www.gesetze-im-internet.de/gasnzv\\_2010/\\_6.html](http://www.gesetze-im-internet.de/gasnzv_2010/_6.html)

<sup>11</sup> §2a German Cooperation Agreement, Anlage 1, <https://www.bdew.de/service/standardvertraege/kooperationsvereinbarung-gas/>

<sup>12</sup> [http://www.gesetze-im-internet.de/gasnzv\\_2010/\\_9.html](http://www.gesetze-im-internet.de/gasnzv_2010/_9.html)

<sup>13</sup> <https://www.bdew.de/service/standardvertraege/kooperationsvereinbarung-gas/>

<sup>14</sup> [https://www.bundesnetzagentur.de/DE/Service-Funktionen/Beschlusskammern/1\\_GZ/BK7-GZ/2018/2018-0001bis0999/2018\\_0001bis0099/BK7-18-0052/BK7-18-0052\\_2\\_Konsultation\\_download\\_BF.pdf?\\_blob=publicationFile&v=4](https://www.bundesnetzagentur.de/DE/Service-Funktionen/Beschlusskammern/1_GZ/BK7-GZ/2018/2018-0001bis0999/2018_0001bis0099/BK7-18-0052/BK7-18-0052_2_Konsultation_download_BF.pdf?_blob=publicationFile&v=4)

## Annex 2 – Basic governance structure: a qualitative criterion assessed based on the written answers

Pursuant to Article 37(1) of the CAM NC, TSOs shall offer capacity by means of one or a limited number of joint web-based booking platforms. In doing so, TSOs can either operate such platforms **directly** or **via an agreed party** that, where necessary, **acts on their behalf** towards the network users. The TSOs, regardless of whether they are operating booking platforms or not, are subject **to respect transparency and non-discrimination**.

On 5 June 2018, the Agency undertook a public consultation related to the selection of a booking platform on the German-Polish border. According to the results of the public consultation, the governance structure is of relevance. In particular, the governance structure should enable the Booking Platform to adapt to the changing market needs and the changing regulatory framework, independently from the priorities of the individual TSO in which it is embedded.

According to the results of the public consultation a clear, transparent and adequate governance structure would allow for a transparent and non-discriminatory decision-making process, ensuring absence of control of one or more shareholders of the Booking Platform. The Agency is called to select a Booking Platform for a limited period (i.e. three years). The Agency will consider whether the measures proposed by the consultation are proportionate.

### Consultation questions:

1. **Please indicate the measures** that you consider necessary for the governance of the booking platforms to offer users transparent and non-discriminatory services, in the light of the application of Union and national competition and regulatory framework.

To enable and to ensure the aim of Article 37 (1) NC CAM to offer capacity via a joint web-based booking platform, a clear governance structure and clearly defined related processes are necessary.

A governance structure should reflect the cooperative character of a booking platform as a service provider for all affected TSO. In addition, the market needs, the demands and requirements of the network users as well as the cooperation with all National and European Regulatory Authorities and Institutions must be considered properly.

Thus, a governance structure for a joint booking platform needs to ensure constant and continuous operation of the platform via an independent platform management, meaning without the sole control of one TSO. The implementation of existing and new European and/or national requirements related to capacity allocation must be ensured.

Thus, inter alia the following measures should be considered for a governance structure:

- Independent management (no sole or joint control of one or more TSOs)
- Possibility to acquire shares
- Independent service implementation
- Cooperative body to take decisions on service implementation
- Separated IT-administrators
- Contractual obligation to implement legal European and/or national requirements
- Involvement of customers and users in design and delivery process
- Established User Groups for specific users (TSOs, Shippers) for developments, releases and operative issues
- Established joint Working Groups for implementation of regulatory and/or legal requirements
- Establishment of an independent audit committee, where the participating TSOs are involved, that defines and continuously monitors the implementation of minimum business requirements and

- critical processes, that conducts to audits related to the platform, to consolidate TSOs' audit needs, to independently review audit reports and related measures and their implementation
- Obligation to provide an annual audit report to satisfy annual financial audit obligation of the customers (TSOs) of the service oriented internal control system according to ISAE3402

2. Do you consider that the legislation implicitly requires a governance structure for the Booking Platforms to ensure-, **as a minimum**, that a dedicated budget and a dedicated independent management ensures autonomous decisions on Platform developments, IT developments and maintenance, based on the market needs?

YES  (as minimum requirements together with measures as mentioned in No. 1 and No. 3)

NO

Please explain your answer.

Article 37 NC CAM requires TSOs to offer capacity on a joint web-based booking platform. Continuous operation of a booking platform is therefore a delegated obligation. Anyhow, each TSO stays responsible for compliance towards its NRA and (indirectly) to its customers. Thus, efficient measures need to be implemented to ensure compliance, cooperation, involvement and influence of each participating TSO, without dominating influence of one single TSO. A dedicated budget, an independent management and coordinated and transparent decisions on platform development and maintenance are necessary – next to additional measures as indicated in No. 1 above and No. 3 below – for continuous operation of the platform in a non-discriminatory, transparent way, according to Reg. (EC) 715/2009<sup>15</sup>, Dir. 2009/73/EC<sup>16</sup>.

3. Are there other areas/aspects in which you consider that the Booking Platform should be independent from the TSO(s) in which it is embedded?

YES

NO

Please explain your answer.

If you answered in the affirmative, please **enlist** those areas/aspects in which you consider that the Booking Platform should be independent and/or autonomous from the TSO in which is embedded.

Although Article 37 (1) NC CAM foresees the operation of a joint booking platform by a TSO themselves, that possibility does not waive further obligations of the participating TSOs, going beyond the obligation to cooperate.

Especially – but not limited to – the following rules must be complied with in addition to the above-mentioned minimum measures:

- Prohibition of restriction or distortion of competition, Article 101 TFEU<sup>17</sup>

---

<sup>15</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02009R0715-20181224>

<sup>16</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0073&from=de>

<sup>17</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02009R0715-20181224>

- the obligations related to the wholesale market integrity and transparency, especially the treatment of inside information, the prohibition of insider trading and market abuse and the obligations for a person professionally arranging transactions (PPAT), according to Reg. (EU) 1227/2011<sup>18</sup>
- obligations to treat commercially sensitive data confidential, Art. 16 Dir. 2009/73/EC<sup>19</sup>.

Therefore, we deem at least the following measures as further minimum requirements:

- Independent and separated Platform IT-administrators from TSO IT-administrators

Each platform IT-administrator, meaning every employee having access to platform data via several administrator level rights, must be different from the employees and IT-administrators of the embedded TSO and must be subject to dedicated confidentiality obligations, since the platform IT-administrators have access to non-public and commercially sensitive data. Such data comprises e.g. registration information of network users that are not active or registered with the TSO, where the platform is embedded. In addition the platform IT-administrator can access information to the bidding behavior of network users, especially to bidding curves, the maximum bids for capacity and the maximum price bids (willingness to pay) of network users for each capacity product and each side of a interconnection point, even if the embedded TSO itself is not concerned. Also, the platform IT-administrator might have access to capacity data of participating TSOs prior to all other market participants. As this kind of information is not publicly available, it is commercially sensitive information. TSOs would be prohibited to share this kind of information, as it could have a negative impact on competition by adopting behavior and would infringe antitrust regulation. Moreover, this information is also deemed as inside information according to REMIT, leading to the prohibition of the TSO to participate in capacity auctions for own procurement processes, in case of non-separation of roles of the IT-administrators.

- Separated REMIT Compliance Organizations for platform and TSO

A TSO, that is also acting as a platform operator, actually covers two roles that are subject to Reg. (EU) 1227/2011 (REMIT): one as a market participant (TSO) one as a PPAT (Person Professionally Arranging Transactions, acc. to Art. 15 REMIT). To ensure efficient REMIT-compliance and to avoid any conflict of interest as explicitly recommended in the ACER guidance on REMIT application<sup>20</sup>, the role as PPAT requires a separated REMIT governance organization, which is different from the TSO's. A conflict of interest might especially arise, if the TSO as PPAT would have to report suspicious market behavior or REMIT breaches of the TSO in which it is embedded or that TSO's (main) customers.

- Independent User Help Desk, dedicated for Platform User Support, separated from TSO User Support

To guarantee focus and prioritization for platform operational issues, the User Help Desk must be dedicated and independent from the TSO User Support. This is not only necessary to avoid again any conflict of interest, but also to comply with the obligation to keep commercially sensitive information confidential. Whenever operational issues and/or questions related to the platform and the TSO-systems would occur in parallel, only a dedicated platform User Help Desk guarantees to solve the platform related topics within reasonable time. Otherwise there could be the conflict or the instruction to focus on the embedded TSO's systems, which would affect the other participating TSOs and shippers in a discriminatory manner. Moreover, the platform User Help Desk also continuously

<sup>18</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R1227>

<sup>19</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0073&from=de>

<sup>20</sup> [https://acer.europa.eu/Official\\_documents/Other%20documents/4th%20Edition%20ACER%20Guidance%20REMIT.pdf](https://acer.europa.eu/Official_documents/Other%20documents/4th%20Edition%20ACER%20Guidance%20REMIT.pdf), p. 55 ff.

receives commercially sensitive data, e.g. registration information, planned and actual bids and market participants' behavior, via requests and information of platform users. Those data must not be shared within TSOs, including the embedded TSO to comply with the above-mentioned regulation.

4. Do you consider that the above-mentioned **minimum** set of measures would guarantee, by effect, a sufficient degree of independence to ensure the **transparent and non-discriminatory operation of a TSO-led booking platform** towards the network users?

YES

NO

Please explain your answer.

See answers and additional requirements according to No. 1 and No. 3 above.

5. Do you consider that an **agreed party acting on behalf of the TSOs** towards the network users as a booking platform should guarantee the same minimum set of conditions?

YES

NO

Please explain your answer.

An independent booking platform as agreed party might already fulfil those requirements without implementing additional measures such as Chinese walls, having dedicated employees for different roles or separated IT-systems. Priority and focus on platform operation are guaranteed as main business without conflict of interest, if the party acts as dedicated booking platform operator. In addition, a clear allocation of cost for the cooperation and operation of the booking platform is ensured.

If you answered in the negative, please enlist those additional measures that the agreed party acting on behalf of the TSOs should establish to maintain its independence from the TSOs.

## Annex 3 – First stage selection criterion: minimum pass-mark IT requirements

### *PLATFORM's IT SELF-ASSESSMENT and IT AUDIT*

In order to enhance the IT assessment criteria for the booking platform assessment, the Agency proposes the **self-assessment principle** followed by a formal audit, performed by an experienced and certified auditor (with ISO 27000 standard family expertise), to confirm the results of the self-assessment of the respective booking platform. The focus of the IT self-assessment and the audit is to check that the principles of ISO 27000 standard series or the best practice in the information technology service management (ITSM) are covered by the platforms.

The Agency's proposed methodology assures that the methods and criteria for the IT assessment of booking platforms allow assessing if the platforms reach a common level in all the requested IT domains. The self-assessment avoids discriminating the solutions based on technical and non-technical details, and it favours the verification of existing IT principles, as implemented. The methodology is used by the Agency when providing IT services for its own needs and it has its own foundation on ISO/IEC international standards.

#### **Consultation questions:**

1. Please let the Agency know whether the domains presented below are:

All relevant.

Some are not relevant (Please explain which ones are not relevant and why not.) **X**

- a.175: Question should be rephrased by “Does your platform enable to use current standards for Secure Connections and Secure Authentication?”

Platform should enable to use current market standards.

- a.178: Question is not relevant.

AS4 protocol and edig@s-xml are not relevant, since the preferred data exchange solution for platform operators (auction office) according to ENTSOG CNOT<sup>21</sup> is interactive, and thus the protocol to be used is HTTP/S, according to Article 21 (2) (c) NC INT<sup>22</sup>. (see also answer to Annex 1, question 1 above)

- a.180: Delete “physical” and rephrase question to: “Can your platform scale adding more devices to existing architecture?”.

Reason: Cloud architecture needs to be considered.

- a.184: Rephrase to: “Is your system highly available and fault tolerant?”.

Reason: Wording is incorrect. Also, the actual implementation of no single point of failure should be analyzed, not only design.

- a.91, a.92: Between those questions, there is an empty line, missing the respective question.

---

<sup>21</sup> [https://entsog.eu/sites/default/files/files-old-website/as4/2018/INT0994-161026%20Common%20Data%20Exchange%20Solution%20Table\\_final.pdf](https://entsog.eu/sites/default/files/files-old-website/as4/2018/INT0994-161026%20Common%20Data%20Exchange%20Solution%20Table_final.pdf)

<sup>22</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0703&from=EN>



The following critical domains are missing. (Please describe the missing domain clearly, with reference to existing IT standards. Explain as well why the missing domains are critical for the IT assessment of the platform.)

General remarks to Annex 3:

The IT-self assessment allows a quantitative analysis of the status of the platforms only. This quantitative analysis does not allow quality assessment, since quality criteria such as benchmarks, minimum standards, thresholds, requirements are missing.

To allow a proper price/quality rating as described in Section 5 (2) of the consultation, clear quality criteria need to be predefined and must be considered in the respective price offer. It is unclear, whether those criteria will be considered in the case study (see remarks to Annex 4), which is necessary to define a clear and transparent quality benchmark.

All domains of the IT-self assessment must be explicitly platform specific. Company-wide implemented policies, that do not cover the platform explicitly, are not sufficient, since they would not guarantee a prioritization in favor of the platform's systems compared to the embedded TSO's systems; e.g. a company-wide implemented BCM organization would not guarantee that in case of a distortion or disaster, the system necessary for the platform will be recovered prior to the residual embedded TSO's systems. Additionally, the quantitative analysis does not guarantee actual implementation of the domains and related policies related to the platform operation, if company-wide policies instead of platform-specific policies would be accepted.

## Annex 4 – Case Study, scored qualitative criteria

The candidates for the platform shall submit a detailed proposal in writing based on the case study presented below, with the assumption that the services are provided to TSOs for a period of three (3) years from the contract signature.

The case study does not commit the Agency or any other party to place a request for such a services. It is the Agency's intention to use the case study for assessing the current degree of the platforms ability of implementation of good practices in IT service management when including new points, namely Mallnow and GCP VIP. The case study is not part of the consultation: only the booking platforms will receive the case study in full. The Agency only share in the framework of this consultation the evaluation methods.

The booking platforms reaching the pass-mark for the IT self-assessment have to demonstrate how the booking platform can offer the basic implementation and improve functionalities **through continuous development, user friendliness, secure access, change management and data security and backup.**

The case study thus covers the project proposal of the booking platform. The Agency will evaluate the quality of the proposal:

### **Completeness**

The proposal for the case study should include all the requested information in detail. The scope of the case study should duly consider all constraints described.

### **Consistency**

The information provided should describe a workable and realistic project that could be implemented in practice with means staff, skills and contracts which are already available to your platform and which may deliver a reasonable and meaningful contribution to the project.

### **Robustness**

The proposal for the case study should be robust to allow adjustments in scope and in time, to properly prevent and mitigate for unexpected delays/issues in any phase of the project.

### **Relevance**

The proposal for the case study should be in line with the existing way of working of the platform and shall consider the existing practices for governance and IT processes.

### **Efficiency**

In respect to efficiency, the proposal for the case study should be, as a minimum, in line with the constraints and delivered timely.

The scoring is at the discretion of the Agency. The booking platforms will be duly informed about the scoring methodology

### **Consultation question:**

1. Do you consider that the evaluation method outlined above, analysing completeness, consistency, robustness, relevance and efficiency of the case study proposal, is fit for the assessment on how the booking platforms improve functionalities **through continuous development, user friendliness, secure access, change management and data security and backup?**

YES

NO **X**

Please explain your answer.

It is unclear, how the quality ratio actually will be assessed, since clear quality requirements, benchmarks, thresholds and required service standards are missing. The quantitative IT-self assessment is not sufficient for a quality rating.

Either those criteria are considered within the IT-self assessment or the case study as must have minimum standards, that also need to be considered in the price offer. Minimum standards should be at least market standards as defined by ENTSOG or standards as recommended by the respective European and/or National Authorities, such as ENISA or similar.

The following minimum requirements should be considered within the respective domains, supplementing the quantitative IT-self assessment:

### **- Continuous Development**

#### Continuous development process

Since different methods for continuous development are existing and applicable, a qualitative analysis might be difficult to evaluate. Nevertheless, any continuous development process should strive for maximum customer and user involvement, allowing efficient and transparent development and must be underlined with corresponding continuously available workforce and working processes. Thus, to identify and assess a proper continuous development process, a number of tools and processes should be employed to ensure that as much value is brought to the gas market as possible:

- Ideas Backlog
  - The ideas backlog is used to keep track of various potential improvements to and issues with the platform
  - Prioritised ideas are researched, interrogated and reviewed in consultation with users
- Product Roadmap
  - The product roadmap sets out which topics are expected to be addressed
  - Reprioritisation occurs whenever market or business conditions have changed
- Design Testing
  - Surveys, Workshops, User Observation sessions (in-situ and remote), and Interviews are used to test potential solutions at different stages of design
  - The outcomes of design testing are used to either review, improve or eliminate design
- Design Reviews
  - Multiple reviews are undertaken during the Solution Design phase
- Development backlog
  - Once a design has been identified as ready for development, the various components to be built in the platform are managed through the development backlog
  - The development backlog is used to ensure that there is an appropriate balance of new feature development, bug-fixing, and infrastructure maintenance and optimization
- Business Intelligence
  - Following release to production, various business intelligence tools are employed to track value delivered to customers and users
- Development capabilities
  - Actual development capability needs to be proven, e.g. by number of product managers and developers contracted and available on a continuous basis.

## - User friendliness

- Active monitoring on key processes:
  - Are Auctions and Secondary market functions on the platform actively and automatically monitored and malfunctions alerted?
  - Are interfaces actively and automatically monitored and malfunctions alerted?
  - Does the platform monitor the number of auctions occurring every hour and is alerting the TSOs in case of missing auctions immediately?
- User Helpdesk
  - A dedicated User Helpdesk for platform users is mandatory to efficiently provide support to the customers and users on a non-discriminatory basis.
  - Measurement
    - Is there a continuous measurement for user satisfaction rate implemented?
    - How high is the user satisfaction rate?
      - Not measured - very bad
      - Below 90 % - satisfactory
      - 90 – 95 % - good
      - Higher than 95 % - very good
  - Ticketing system
    - Is there a ticketing system implemented?
    - Does the ticketing system provide full transparency to users on status of request?
  - Response times
    - Are response times measured?
    - First reply time
      - ≤ 3 hrs very good
      - > 3 hrs satisfactory
      - > 5 hrs bad
    - Average No. of replies to resolution
      - ≤ 2 very good
      - > 2 satisfactory
      - > 4 bad
      - Not measured: very bad
  - Dedicated support portal
    - Description of functionalities
    - How-to Articles
    - Video tutorials
  - Platform trainings by certified trainers available for users
- Test system
  - Is a test system available for customers to test functionalities?

## - Secure Access

- Two factor authentication is considered as mandatory minimum standard<sup>23</sup>.

---

<sup>23</sup> [https://entsog.eu/sites/default/files/files-old-website/as4/pdf/INT1072-170328\\_Interactive%20Data%20Exchange%20Usage%20Profile\\_Rev\\_0.pdf](https://entsog.eu/sites/default/files/files-old-website/as4/pdf/INT1072-170328_Interactive%20Data%20Exchange%20Usage%20Profile_Rev_0.pdf) , ENTSOG Interactive Data Exchange Profile, Rec. 241 ff.

## - Change Management

- Is there a quality assurance process for software development implemented?
- Is testing conducted continuously, integrated and automated and the development process test-driven??

## - Data security and back-up

- Business continuity:  
The description in the IT-self assessment lacks qualitative criteria. Therefore, the following additional quality assessment is necessary:
  - What is your actual Recovery Time Objective for the platform?
    - $\leq 3$  hrs very good
    - $\leq 12$  hrs satisfactory
    - $< 24$  hrs bad
    - $> 24$  hrs very bad
  - Is the recovery of the platform in case of a disaster 1st priority in your Disaster Recovery Plan in comparison to other services?
  - Is the disaster recovery site more than 200 km away from the used data centre<sup>24</sup>?
- Peak service load:  
The description in the IT-self assessment lacks qualitative criteria, whereas even with full amount of points it could mean, that there are high differences in quality related to the actual ability and timeframe and the related costs. Therefore, the following additional quality assessment is necessary:
  - How fast can you scale your database and servers:
    - Within minutes
    - Within hours
    - Within days
    - Within months
  - Do the costs scale within the same timeframe, i.e. in case less performance is needed within next hour, will the costs also be reduced within the next hour?
  - Expected response time per transaction
    - in average and with high load scenarios?
      - $\leq 1$  min good
      - $> 1$  min satisfactory
      - $\geq 2$  min bad
- Platform availability:  
A highly available platform is fundamental for the proper functioning and implementation of an integrated market. Considered standard minimum availability (e.g. contractually guaranteed by respective service providers) must be not lower than 99.7 % (meaning not more than 24 hrs per year, not more than 1 h per downtime, not more than 2 downtimes per month)

---

<sup>24</sup> [https://www.bsi.bund.de/SharedDocs/Downloads/DE/BSI/Sicherheitsberatung/Standort-Kriterien\\_HV-RZ/Standort-Kriterien\\_HV-RZ.pdf?\\_\\_blob=publicationFile&v=5](https://www.bsi.bund.de/SharedDocs/Downloads/DE/BSI/Sicherheitsberatung/Standort-Kriterien_HV-RZ/Standort-Kriterien_HV-RZ.pdf?__blob=publicationFile&v=5), page 14, published by BSI (German Federal Office for Information Security), minimum distance for georedundant and highly available data centers is 200 km

## General Remarks

1. Price/Quality ratio

The intended 40/60 ratio for the assessment of offers might lead to unintended loss of quality, e.g. related to IT-security, platform performance and user support. Respectively required high standards naturally come with a higher price. Thus, Quality should be rated higher than 60 %. A ratio of 20/80 or at least 30/70 seems more reasonable.

2. Precisely pre-defined quality criteria

Since the IT-self assessment is quantitative, precisely defined quality criteria as well as minimum standards and benchmarks need to be included in the case study and the required price offer to get comparable offers.

3. Implementation time for potentially missing requirements

A reasonable implementation time for potentially missing requirements (after conclusion of the contract) should be considered, whereas the platform operator has to prove its actual capabilities for development.