Multilateral Agreement on Participation in Regional Security Coordination Initiatives

BETWEEN:

Each of the TSOs listed in Annex 1 of this Agreement:

hereinafter collectively referred to as "TSOs" and individually referred to as "TSO";

and

European Network of Transmission System Operators for Electricity, an International non-profit association incorporated under the law of Belgium, having its registered office at Avenue Cortenbergh 100, B-100 Brussels, Belgium, with registered number 809.819.049 ENTSO-E –

hereinafter referred to as ENTSO-E

All together referred to as “Parties” and individually referred to as “Party”

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

Contents

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

WHEREAS

A. TSOs within ENTSO-E have decided to implement and enforce a higher level of coordination among the TSOs for operating the European transmission system, as an answer to the challenge of the transformation of the European electricity system according to the Core strategy for TSO Coordination, approved by ENTSO-E Assembly on 30 September 2014.

B. ENTSO-E's approach is based on the principle that this all-TSOs Multilateral Agreement makes participation in Regional Security Coordination Initiatives (RSCIs) mandatory for interconnected TSOs. This Agreement is hence the framework for the cooperation of TSOs through the RSCIs.

C. This Agreement together with Commission regulations (network codes and guidelines) adopted under Regulation (EC) No 714/2009 will create a Europe-wide harmonised power system operation framework with cross-regional and pan-European geographical coverage, setting up the fastest, most efficient, secure and reliable way to ensure the highest security of electricity supply standards in Europe.

D. The growing interdependencies in the power system behaviour make necessary to assess security at regional level through different services provided under RSCIs.

E. Reliability of the delivered services is very important with consideration of their expected outputs. All Parties recognize the need for defining minimum level of services which shall be targeted to the RSCIs and TSOs throughout Europe.

F. All Parties recognise that ENTSO-E does not undertake any operational tasks nor any duty and obligation under this Agreement other than those explicitly attributed to it in this Agreement. The obligations attributed to ENTSO-E under this Agreement are best efforts obligations.

G. Interdependencies between regions make necessary to develop coordination and interoperability principles between RSCIs.

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

Chapter I General Provisions

1. DEFINITIONS AND INTERPRETATION

All terms used in this Agreement, which are already defined in the Regulation 714/2009 and regulations based on the Regulation 714/2009 including those in project phase, shall be understood in the sense of the respective definition.

In this Agreement, the following terms shall have the following meaning:

"**Agreement**"	The present multilateral agreement, including its Annexes.
"**Annex**"	An annex to this Agreement which is considered to form an integral part of this Agreement.
"CACM"	Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management.
"Confidential Information"	Information considered as confidential including all commercially sensitive information (as defined in EU Directive 2009/72/EC of 13 July 2009), information clearly marked as "confidential" and information which by its nature must be considered or qualified as confidential.
"Effective Date"	The date on which the ENTSO-E Secretariat has received the last signature required for entry into force of this Agreement.
"ICC Rules of Arbitration"	The rules of arbitration of the International Chamber of Commerce.
Inter-RSCI Agreement"	Agreement to be signed between all RSCIs to ensure the coordination and interoperability between the RSCIs.
"MC"	Market Committee of ENTSO-E, established under the ENTSO Articles of Association and Internal Regulations.
"RSCI"	RSCI is a concept aimed at enhancing regional system security and structured as provided in §4.1.
"RSCI contracts"	Contracts on providing RSCI services as defined in Annex 2 for TSOs.
"SDC"	System Development Committee of ENTSO-E, established under the ENTSO Articles of Association and Internal Regulations.
"SDGS"	Strategic Data Governance Steering, in charge of taking decisions and providing guidance to fulfil the data governance and data management plans at ENTSO-E.
"SOC"	System Operation Committee of ENTSO-E, established under the ENTSO Articles of Association and Internal Regulations.
"**Termination of the Agreement**"	The termination of this Agreement as defined in Article 21.
"**TSO**"	A natural or legal person responsible for operating, ensuring the maintenance of and, if necessary, developing the transmission system in a given area and, where applicable, its interconnections with other systems and for ensuring the long term ability of the system to meet reasonable demands for the transmission of electricity.

2. PURPOSE OF THE AGREEMENT

TSOs need to implement further steps in operational coordination in the European electricity system. This Agreement sets up the framework and design of TSO coordination regarding the essential coordination functions. The framework shall strike a balance between regional flexibility (to allow for solutions tuned to the needs of this region) and a centralised approach (to ensure cross-regional coordination).

3. SCOPE OF THE AGREEMENT

The scope of this Agreement is to describe the framework of TSO coordination in the operational planning time frame regarding Coordinated Security Analysis (including Remedial Actions-related analysis), Short and Medium Term Adequacy Forecasts, Coordinated Capacity Calculation, Outage Planning Coordination and Individual Grid Model / Common Grid Model Delivery.

For the avoidance of doubt, this Agreement does not replace any provision of national or European law that may apply to any of the Parties. The provisions of this Agreement shall be complementary and interpreted in accordance with the applicable regulations. In case of contradictions between this Agreement and the applicable law and especially with the System Operation Guideline provisions coming into force after this Agreement and approved methodologies established pursuant to CACM and System Operation Guideline, the provisions of this Agreement shall be amended accordingly.

4. CONCEPT OF RSCIS

4.1 Definition

A RSCI is a scheme established by TSOs in order to make possible a coordinated provision of a service mentioned in Annex 2 in a specific geographic region. RSCI is formalized:

1. Through a contract between TSOs in a region or;
2. Through a legal entity incorporated by TSOs.

4.2 Legal form of RSCI

This Agreement is concluded without prejudice to the legal form of the RSCI.

In case of a separate legal entity, the RSCI shall be 100% owned by TSOs.

4.3 Role of RSCIs and TSO´s responsibility

The role of an RSCI for the different services is to provide coordination services for the secure operation of the European transmission system, build consistent regional data, perform analyses and make recommendations to help served TSOs to maintain security of supply.

The responsibility for secure system operation and any decision taken in the frame of this Agreement remains with the TSOs.

4.4 Minimum organization requirement

A RSCI shall be an identifiable structure with identified resources allocated and sufficient to perform RSCI tasks. This includes:

1. dedicated address and offices ;
2. identified main manager of the structure;
3. RSCI organizational structure and RSCI management distinguishable from the organisational structure and management of the TSOs involved in the RSCI;
4. dedicated budget;
5. dedicated human resources,
6. dedicated IT resources.
7. redundant setup of IT- and communication systems including power supply.

The internal organization for the resources shall be designed with respect to the capability to fulfil the service level targets stated in Annex 2 and the interoperability (Annex 3) and coordination requirements (Art.7).

Each RSCI shall be organised in a manner to ensure confidentiality of data.

IT resources access shall be professionally protected to minimise any potential threat such as risk of intrusion, operation disruption or data corruption.

Operational staff of RSCIs shall be trained. They shall regularly participate to common trainings with TSOs and other RSCIs staff.

5. GENERAL OBLIGATIONS

5.1 Ensuring minimum organization requirement, cooperation and interoperability of RSCIs

Each TSO shall take its responsibility within the limits of its own competences to ensure that the RSCI(s) it belongs to fulfils the minimum organization requirement stated in Art. 4.4 as well as the requirements regarding services as stated in Art. 8 and Annex 2 and all other tasks and requirements defined for RSCIs within this Agreement.

Each TSO shall take according to its responsibility within the limits of its own competences best effort to ensure that the RSCI(s) it belongs to signs latest at 30 June 2017 the Inter-RSCI-Agreement developed on the basis of the template provided in Annex 4 regarding cooperation and interoperability of RSCIs according to Art. 7.

5.2 Obligations for TSOs to procure the services

Each TSO has to procure at least the services mentioned in Annex 2 from one or more RSCI(s).

Each TSO has the obligation to provide all the available remedial actions in its control area for the services performed by the RSCI(s) according to Annex 2.

When implementing these services TSOs may decide to delegate additional tasks to RSCIs, remaining responsible for their proper fulfilment.

The regions are not necessarily the same for all services and a given RSCI can provide a given service to more than one region. Nevertheless, TSOs shall take into consideration geographical consistency of the RSCIs coverage when implementing this Agreement.

All TSOs taking part in a RSCI are obliged to commonly define the regional implementation schemes required for the provision of a relevant service mentioned in Annex 2.

Each TSO has to set up the needed organization to fulfil its roles in the processes described in the service description in Annex 2 and has the obligation to deliver timely and quality input data for these services as described in Annex 2.

Each TSO has the obligation to deliver updated/improved data for these services when required by RSCIs.

Each TSO shall make available all data required by the description of the services in Annex 2 to all other TSOs and RSCIs from which it procures services, except for data to be stored on Operational Planning Data Environment which are available to all TSOs and RSCIs.

Each TSO is obliged to use the pan-European systems identified in the service description (Annex 2).

5.3 Treatment of failure to procure services

Each TSO shall ensure that the provisions set out by this Agreement are implemented in compliance with the implementation deadlines (Art. 9). A TSO who cannot fulfil these obligations in due time in total or in parts or the fulfilment is generally at risk, has to inform SOC and the other TSOs without undue delay. In this case the TSO shall propose temporary solutions that minimize risks arising from this default and an action plan that will allow the removal of the non-compliance and a deadline (schedule) for the accomplishment of these actions (Art. 11).

6. REQUIREMENTS REGARDING RSCI CONTRACTS

The TSOs participating in a RSCI shall commonly define how the specific service is provided by the RSCI on the basis of the description of services according Annex 2. TSOs have to appoint the entity or entities providing the services of the RSCI with a clear assignment of tasks and responsibilities with defined mandate and an appropriate liability scheme.

The service(s) management will be based on a contract between the TSOs and the entity or entities providing the service(s) of the RSCI(s).

7. COORDINATION BETWEEN RSCIS

7.1 Principles of coordination of services to be applied by RSCIs

RSCIs shall aim at developing coordination between them for each service they provide. This coordination shall cover the following aspects at operational level:

1. Exchange all relevant operational information available useful to improve consistency and precision of analysis and recommendations provided to TSOs;

2. Update and share grid models with remedial actions or improvement of electrical system (at least PST tap choices and secure topology) already agreed by TSOs within one region;
3. Exchange results of analyses for checking and consolidating them, notably for cross-regional impact assessment;
4. Search for cross-regional coordinated remedial actions to be proposed to TSOs when these remedial actions are more efficient than remedial actions that can be coordinated among TSOs served by a single RSCI.

Beside the operation scope, this coordination shall also aim at facilitating the identification of contractual or regulatory provisions which potentially compromise cross-regional coordination, informing TSOs and providing them with proposals to address those provisions.

7.2 Principles for interoperability of services to be applied by RSCIs

RSCIs shall apply the inter-operability requirements defined in Annex 3. TSOs shall provide necessary information and resources needed to fulfil these requirements.

8. MANDATORY SERVICES TO BE PROCURED BY A TSO FROM A RSCI

8.1 Regional scope

TSOs shall coordinate their procurement from RSCIs for each service in order to get prepared for the compliance with the requirements which will be set in the coming System Operation Guideline.

8.2 Description of services

The list of services and their common features that TSOs shall procure for each service from a RSCI are described in Annex 2. This Annex describes the services' process (objectives, constraints, data input, expected outputs, respective roles of TSOs and RSCIs and common tools/format to be used, interaction with other services and links with other ENTSO-E projects.

8.3 Minimum common service level targets for each service

Annex 2 defines the targets for some of the services against which each RSCI shall evaluate its yearly performance and report towards its served TSOs and ENTSO-E. When those targets are not reached, RSCIs and TSOs shall analyze together the main causes and define and implement actions requested to improve.

9. IMPLEMENTATION DEADLINES

By 30 September 2016, each TSO shall set up with other TSOs in a common region an RSCI to make possible a coordinated provision of a service mentioned in Annex 2 or join, at least as a customer, an existing RSCI. TSOs joining this Agreement after 30 September 2016 shall procure the mandatory services defined in Article 8 within 2 months after becoming a Party of this Agreement. Implementation deadlines for procuring the mandatory services according to Art. 8 are stipulated in Annex 5.

10. ROLE OF ENTSO-E

ENTSO-E shall provide project management support, standards (methodologies and rules) for IT tools, IT-governance organisation as described in Art. 11, standards for CGM, methodologies in the field of the services according to Annex 2 and support the Compliance Monitoring process.

The tasks coming out of this Agreement shall be taken into account when establishing the budget of ENTSO-E.

Decisions to be made by ENTSO-E or its bodies shall be taken in accordance with the respective provisions of the ENTSO-E Articles of Association.

11. COMPLIANCE MONITORING

SOC shall organize a Compliance Monitoring process in order to monitor the compliance of implementation with the requirements of this Agreement. In case non-compliance is detected the concerned Party or Parties shall provide and implement an action plan to reach compliance.

TSOs and RSCIs shall deliver to SOC all necessary information and data needed for Compliance monitoring (including IT Governance as outlined in article 12). SOC shall ensure confidentiality of the received information and data.

12. IT GOVERNANCE PRINCIPLES

Pan-European IT tools are fundamental components for TSOs cooperation, for the RSCIs implementation of the services listed in Annex 2 and for the RSCI cooperation. The governance of those IT tools shall therefore apply the following principles:

- Develop, promote and control standards for IT solutions that need to support Pan-European processes, thereby creating opportunities to reduce costs associated with duplication and integration of heterogeneous applications
- Budget control and cost efficiency

This will result in the following responsibilities

1. Necessary Pan-European IT software tools are owned or licensed by ENTSO-E
    - Development decision shall be made by the relevant ENTSO-E body;
    - Costs for development and software maintenance shall be covered by ENTSO-E budget;
    - Management and organisation of development, upgrade, correction shall be ensured by an ENTSO-E steering group, considering measures for a high level of reliability and security;
    - Interoperability, re-usage of existing solutions and best of market options shall be facilitated by ENTSO-E steering groups (i.e. expert / working groups as SDGS, DEG, EDI) including RSCI specialist(s).

2. RSCI's or TSOs agreed by all Parties provide the hosting services based on a contract with ENTSO-E for these IT Tools
   - Costs for IT hardware equipment and corresponding operational and maintenance services shall be supported by ENTSO-E;
   - Hosting entities shall have the competence and resources required for achieving needed level of reliability and security for each IT tool;
   - The nomination of hosting entities by ENTSO-E shall be based on a transparent process for all Parties;
3. High-level administration of necessary communication infrastructure is under responsibility of ENTSO-E
   - ENTSO-E is responsible for the governance of the pan-European communication network necessary for facilitating the services of the IT tools.

Those principles can be derogated on a case-by-case analysis and such derogation shall be agreed by all Parties.

Chapter II Legal Provisions

13. Accession of New Parties

The Parties may accept that third parties accede to this Agreement fulfilling at least the following conditions:

(1) the third party is a TSO operating a network connected to the network operated by at least one of the TSOs of this Agreement;
(2) the new party signs the application form attached in Annex 6 of this Agreement.

After receiving the signed application form a decision allowing the accession by SOC is needed in any case.

As from the date of SOC-decision allowing the adherence, the new Party shall assume all rights and obligations of a Party set forth in this Agreement.

14. Force Majeure

Neither Party shall be liable for any delay or failure to perform under this Agreement if such delay or failure is due to causes beyond its reasonable control (force majeure), such as, but not limited to, fire, storms, flood, strikes, labour disputes or other industrial disturbances, (declared or undeclared) war, embargoes, blockades, legal restrictions, riots, insurrections, governmental regulations, and the unavailability of means of transportation.

15. Dispute Settlement

15.1 Amicable Solution

In the event of any dispute arising between Parties in relation to any matter directly governed by this Agreement, the concerned Parties shall seek to resolve such dispute as follows:

The Parties will strive to resolve the issue amicably;

If the Parties fail to resolve the dispute within sixty (60) calendar days, the matter shall be submitted to the ENTSO-E System Operations Committee for guidance within three months.

If, following submission of the case for guidance to the ENTSO- E System Operations Committee, the Parties are still unable to resolve the dispute, they shall proceed in accordance with Article 15.2.

15.2 ICC Arbitration

Any dispute arising out of or in connection with this Agreement or its negotiation shall be finally settled following the Rules of Arbitration of the International Chamber of Commerce as in force at the time of initiation of the arbitral procedure, by arbitrators appointed in accordance with these Rules. The arbitration panel shall be composed of three arbitrators, unless the disputing Parties agree on a greater odd number of arbitrators.

The arbitration shall be held in Brussels. The proceedings and award shall be in the English language.

The arbitral award shall be final and binding on the Parties.

The Parties agree that the arbitrators validly appointed shall not be allowed to impose (without intervention of the Parties) the termination of this Agreement as the solution to said dispute.

16. LIABILITY

The TSOs undertake to carry out their duties and comply with their obligations under this Agreement with the diligence of a specialised professional in compliance with the applicable laws and regulations in the electricity sector.

Under the same standard of diligence, each TSO shall notify the other TSOs of all risks and dangers inherent to the performance of this Agreement. TSOs undertake to cooperate with each other to adequately identify such risks and dangers and mitigate those where possible.

The TSOs acknowledge that each TSO is liable for its own contractual obligations only. For avoidance of doubt, nothing in this Agreement shall be interpreted as considering the TSOs to bear joint and several liability unless it is stated otherwise in this Agreement. For the sake of legal clarity the liability of a TSO in breach of TSO´s contractual obligations is limited to direct damages caused by wilful misconduct or gross negligence only and as far as legally possible to the amount of € 1 Mio per case.

The Parties agree that the liability of RSCIs towards a TSO not served by this RSCI shall be limited to direct damages caused by wilful misconduct or gross negligence and to the amount of € 1 Mio per case.

17. CONFIDENTIALITY

To the extent of mandatory national or EU-law requiring disclosure of Confidential Information, no Party receiving Confidential Information shall use or otherwise process the Confidential Information obtained by it pursuant to this Agreement for any purpose except as strictly required for the performance of its obligations under this Agreement, or disclose any such information or

related information to any third party other than its suppliers, professional advisors and representatives, as well as RSCIs and regulatory authorities, which have a strict need to know such information for the proper performance of this Agreement and who are correspondingly bound in writing or by law by the same strict obligations of confidentiality.

The Parties are obliged to organise their data handling in such a way as to minimise the risk of misuse or unauthorised access or the disclosure of Confidential Information.

Nothing herein shall prevent a Party from disclosing Confidential Information: (i) upon the order of any court or administrative agency; (ii) upon the request or demand of, or pursuant to any regulation of, any regulatory agency or authority; (iii) to the extent reasonably required in connection with the exercise or any remedy hereunder; (iv) to a party's legal counsel or independent auditors; and (v) to any permitted assignee hereunder, provided that such assignee agrees in writing to be bound by the provisions of this Agreement regarding confidentiality.

18. NO LICENCE OR ASSIGNMENT OF INTELLECTUAL PROPERTY RIGHTS

Nothing in this Agreement shall be construed as an assignment or a licence of any intellectual property right (including, but not limited to patents, copyrights, database rights, trademarks). Such rights shall remain the sole property of their owner.

The provisions foreseen in Article 17 on confidentiality are also valid for the intellectual property rights.

19. APPLICABLE LAW

This Agreement, and the conclusion, performance and interpretation thereof, shall be governed by Belgian law.

20. SEVERABILITY

If any provision of this Agreement is declared - by an arbitral, judicial or regulatory decision - to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected.

The Parties hereby agree that in such case they will use their reasonable efforts to immediately and in good faith negotiate legally valid replacement provision(s) that have the same economic effect as the invalid, illegal or unenforceable provision(s).

21. TITLES AND HEADINGS

Titles and headings used in this Agreement are for convenience only and shall not define, limit or affect the scope, intent, construction or interpretation of this Agreement or any provision hereof.

22. NO WAIVER

The fact that any Party fails or delays to exercise any right or remedy under this Agreement and that any other Party does not require its exercise shall not be considered as a final waiver of it for the other Party.

23. AMENDMENTS

No amendment or modification of the main body of this Agreement shall take effect unless it is in writing, executed and delivered by the Parties. All annexes can be amended and modified by SOC-decision. In case a unanimous decision cannot be reached, the decision shall be taken by a two thirds majority as required by the ENTSO-E Articles of Associations and Internal Regulations. For calculating this majority only the votes of the representatives of the TSOs who are Parties to this Agreement shall be counted. If new services shall be added or main services deleted, the modification of Annex 2 shall take effect if it is in writing, executed and delivered by the Parties.

Annexes 2 and 3 shall be reviewed under the lead of ENTSO-E periodically at least every 2 years or earlier if in the light of the given situation necessary.

24. ASSIGNMENT OF RIGHTS AND OBLIGATIONS

Each Party is prohibited from transferring (including by means of merger, split-off or transfer or contribution of universality or a branch of activity or otherwise) all or part of its rights and obligations arising under this Agreement to a third party, without the prior, express and written consent of all other Parties which cannot be unreasonably withheld or delayed.

However, this Agreement and the rights and obligations which arise hereunder, can be freely transferred by a Party to any other Party of this Agreement or to any entity which succeeds it as TSO in accordance with the applicable laws and regulations, without the prior consent of the other Parties, subject only to at least ten (10) Business Days' prior written notification of such transfer to all other Parties.

Similarly, any Party which ceases to qualify as TSO under applicable laws and regulations shall be obliged to transfer its rights and obligations hereunder to the legal successor TSO, without requiring the prior written consent of the other Parties, subject only to the prior written notification referred to above.

From the time of such transfer, the assignee assumes, in its capacity of TSO, the full rights and obligations under this Agreement.

25. USE OF LANGUAGES

The Agreement and all related notices, legal procedures and communications thereunder and the dispute settlement procedures provided for in Article 15 of this Agreement shall be carried out in English, to the extent permitted by rules of public policy relating directly or indirectly to these procedures.

26. NATURE OF THE RELATIONSHIP

In no event this Agreement shall be considered as a partnership or a joint-venture or other association between the Parties, nor shall any Party be considered the agent of another Party.

27. TERM OF THE AGREEMENT

27.1 Entering into force

This Agreement will come into force for an unlimited duration once two thirds of the signatories listed in this Agreement, have signed the Agreement. The Parties signing the Agreement at a later date will not be retroactively obliged by this Agreement.

27.2 Termination

Any Party may withdraw from the Agreement with effect at the end of each calendar year following a written notification sent to the ENTSO-E Secretariat 6 months in advance.

Following the withdrawal of one or more Parties this Agreement will continue to be in force until the remaining Parties decide to terminate this Agreement.

28. INTERPRETATION AND AGREEMENT STRUCTURE

In case of conflict or inconsistency between a term in this Agreement and a term in its Annexes or other documents otherwise incorporated into this Agreement, the term of this Agreement should prevail unless clearly stated otherwise.

This Agreement is composed of the following Annexes, which all form an integral part of this Agreement:

Annex 1 – List of TSOs
Annex 2 – Description of services
Annex 3 – Interoperability of RSCIs
Annex 4 - Template of Inter RSCI-agreement
Annex 5 – Implementation deadlines
Annex 6 – Application form for new Parties

29. COUNTERPARTS

The Parties have executed this Agreement by their duly authorised representatives in thirty eight (38) original counterparts. Each of the Parties acknowledges receipt of its own original counterpart.

*****Reminder of page intentionally left blank – Signature Pages follow *****

30. SIGNATURE PAGES

SIGNATORY PAGE

1. Austrian Power Grid AG:
2. Vorarlberger Übertragungsnetz GmbH

"Austrian Power Grid also signs on behalf of Vorarlberger Übertragungsnetze GmbH, a company incorporated under the laws of Austria in the form of a GmbH, with registered office at Gallusstraße 48, 6900 Bregenz, Austria, and assumes its obligations out of this Agreement."

Signature: ……
Name: Thomas KARALL (in the name and on behalf of Ulrike BAUMGARTNER-GABITZER, CEO and Gerhard CHRISTINER, Member of the Board)
Title: Member of the Board
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

3. Nezavisni Operator Sistema u Bosni i Hercegovini

Signature: ……
Name: Damjan MEDIMOREC (in the name and on behalf of Josip DOLIĆ, General Manager, NOS BiH)
Title: Executive Office Director (HOPS d.o.o,)
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

4. ELIA System Operator NV/SA:

Signature: ……

Name: Pascale FONCK (in the name and on behalf of Mr. Chris PEETERS, CEO and Frank VANDENBERGHE, Chief Officer Customers, Market & System)

Title: Director Public & Regulatory Affairs and External Relations

Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

5. ELEKTROENERGIEN SISTEMEN OPERATOR (ESO) EAD:

Signature: ……
Name: Mitiu CHRISTOZOV (in the name and on behalf of Mr. Ivan YOTOV, Executive Director)
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

6. Swissgrid AG:

Signature: ……
Name: Yves ZUMWALD (in the name and on behalf of Dr. Jörg SPICKER, Lead Business Unit Market Operations and Maurice DIERICK, Lead Business Unit Grid Operations)
Title: CEO ad interim
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

7. ČEPS, a.s.:

Signature: ……
Name: Zbyněk BOLDIŠ (in the name and on behalf of Vladimír TOŠOVSKÝ, Chairman of the Board and Miroslav VRBA, Vice-Chairman of the Board)
Title: Member of the Board
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

8. TransnetBW GmbH:

Signature: ……
Name: Rainer JOSWIG
Title: Managing Director
Date and place: 10 December 2015, Brussels

Signature: ……
Name: Rainer JOSWIG (in the name and on behalf of Dr. Rainer PFLAUM, Managing Director)
Title: Managing Director
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

9. TenneT TSO GmbH:

Signature: ……
Name: Ben VOORHORST (in the name and on behalf of Dr. Urban KEUSSEN, CEO and Lex Hartman, CDO)
Title: CEO (TenneT TSO B.V.)
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

10. Amprion GmbH:

Signature: …….
Name: Joachim VANZETTA
Title: Director System Operation
Date and place: 10 December 2015, Brussels

Signature: …….
Name: Gerald KAENDLER
Title: Director Asset Management
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

11. 50Hertz Transmission GmbH:

Signature: …….
Name: Boris SCHUCHT
Title: CEO
Date and place: 10 December 2015, Brussels

Signature: …….
Name: Dr. Frank GOLLETZ (represented by Boris SCHUCHT, CEO)
Title: CTO Chief Technical Officer
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

12. Energinet.dk:

Signature: …….
Name: Søren Dupont KRISTENSEN
Title: Vice president, System Development and Electricity Market
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

13. ELERING AS:

Signature: …….
Name: Jukka RUUSUNEN (in the name and on behalf of Taavi Veskimägi, CEO Elering)
Title: President and CEO (Fingrid Oyj)
Title:
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

14. REE - Red Eléctrica de España, S.A.U.:

Signature: …….
Name: Santiago MARIN (in the name and on behalf of José FOLGADO, Chairman)
Title: Manager of Services for the System
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

15. Fingrid Oyj:

Signature: …….
Name: Jukka RUUSUNEN
Title: President and CEO
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

16. RTE – Réseau de transport d'électricité:

Signature: …….
Name: Jean VERSAILLE (in the name and on behalf of François BROTTES, President)
Title: Director of European affairs
Date and place:

SIGNATORY PAGE

17. National Grid Electricity Transmission plc:

Signature: …….
Name: Nicola MEDALOVA
Title: Head of Market Change Electricity
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

18. SONI Ltd. (System Operator Northern Ireland):

Signature: …….
Name: Fintan SLYE
Title: Director of SONI Limited
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

19. Independent Power Transmission Operator S.A.:

Signature: …….
Name: Ioannis BLANAS
Title: CEO
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

20. Croatian Transmission System Operator Ltd. (HOPS d.o.o.):

Signature: …….
Name: Miroslav MESIĆ
Title: President of the Management Board
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

21. MAVIR Hungarian Independent Transmission Operator Company Ltd.:

Signature: …….
Name: Kamilla CSOMAI (in the name and on behalf of Zoltán TIHANYI, Deputy CEO for System Operation and Intersystem Cooperation and Attila LENGYEL, Director Legal Affairs)
Title: CEO, authorized representative
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

22. EirGrid plc:

Signature: …….
Name: Fintan SLYE
Title: CEO
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

23. TERNA Rete Elettrica Nazionale S.p.A.:

Signature: …….
Name: Luigi DE FRANCISCI (in the name and on behalf of Matteo DEL FANTE, CEO)
Title: Regulatory Affairs Director
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

24. LITGRID AB:

Signature: …….
Name: Piotr RAK (in the name and on behalf of Daivis VIRBICKAS, CEO and Rimantas BUSILAS, Finance Department Director, Litgrid AB)
Title: Member of the Management Board (PSE S.A.)
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

25. CREOS Luxembourg S.A.:

Signature: …….
Name: Gerald KAENDLER (in the name and on behalf of Claude SEYWERT, CEO, Creos Luxembourg S.A.)
Title: Director Asset Management (Amprion GmbH)
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

26. AS Augstsprieguma tīkls:

Signature: …….
Name: Varis BOKS
Title: Chairman of the Board
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

27. CGES AD:

Signature: …….
Name: Branislav DUKIC (in the name and on behalf of Ivan BULATOVIĆ, Executive Director)
Title: Director - International and regulatory affairs
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

28. MEPSO - Operator na elektroprenosniot sistem na Makedonija, AD:

Signature: …….
Name: Borko ALEKSOVSKI (in the name and on behalf of Siniša SPASOV, Director)
Title: Head of National Control Center
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

29. TenneT TSO B.V.:

Signature: …….
Name: Ben VOORHORST
Title: Managing Director
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

30. Statnett SF:

Signature: …….
Name: Bente HAGEM (in the name and on behalf of Auke LONT, CEO)
Title: Executive Vice-President
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

31. PSE S.A.:

Signature: …….
Name: Piotr RAK
Title: Member of the Management Board
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

32. REN - Rede Eléctrica Nacional, S.A.:

Signature: …….
Name: Maria José CLARA
Title: General Manager
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

33. Compania Naţională de Transport al Energiei Electrice "Transelectrica" S.A.:

Signature: …….
Name: Adriana-Marcela CERNAT (in the name and on behalf of the Directorate of CNTEE Transelectrica SA)
Title: Manager International Cooperation and ENTSO-E relation
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

34. EMS - Javno Preduzeće Elektromreža Srbije Beograd:

Signature: …….
Name: Branislav DUKIC (in the name and on behalf Nikola PETROVIĆ, General Manager)
Title: Director - International and Regulatory Affairs
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

35. Affärsverket svenska kraftnät:

Signature: …….
Name: Mikael ODENBERG
Title: CEO
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

36. ELES, d.o.o:

Signature: …….
Name: Jurij KLANČNIK (in the name and on behalf of Aleksander MERVAR, M. Sc., CEO)
Title: Director of operations
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

37. Slovenská elektrizačná prenosová sústava, a.s.:

Signature: …….
Name: Jozef DOVALA (in the name and on behalf Miroslav STEJSKAL,Chairman of the Board of Directors and Michal POKORNY, Vice-chairman of the Board of Directors
Title: Executive Director for Strategy and International Cooperation
Date and place: 10 December 2015, Brussels

SIGNATORY PAGE

38. European Network Transmission System Operators for Electricity (ENTSO-E):

Signature: …….
Name: Konstantin STASCHUS
Title: Secretary-General
Date and place: 10 December 2015, Brussels

ANNEX 1 – LIST OF TSOS

List of TSOs

1. **Austrian Power Grid AG**, a company incorporated under the laws of Austria in the form of an AG, with registered office at IZD Tower, Wagramer Str.19, A-1220 Wien, Austria;

2. **Vorarlberger Übertragungsnetz GmbH**, a company incorporated under the laws of Austria in the form of a GmbH, with registered office at Gallusstrasse 48, 6900 Bregenz, Austria;

3. **Nezavisni Operator Sistema u Bosni i Hercegovini** (Independent System Operator in Bosnia and Herzegovina), **(NOS BiH)** Sarajevo, a company incorporated under the laws of Bosnia and Herzegovina, registered with registration number 03 at Ministry of Justice of Bosnia and Herzegovina, having the Unique Registration Code (Fiscal Code) 4200777780003, with registered office at Ul. Hamdije Ćemerlića 2 / V., Sarajevo, Zip Code 71000, Bosnia and Herzegovina;

4. **ELIA System Operator NV/SA,** a company incorporated under the laws of Belgium in the form of a naamloze vennootschap/société anonyme, with registered office at 20, Boulevard de l'Empereur B-1000 Brussels, Belgium;

5. **ELEKTROENERGIEN SISTEMEN OPERATOR (ESO) EAD** a company incorporated under the laws of Bulgaria, in the form of an "EAD" (sole-owner joint stock company), having the Unique Registration Code (Fiscal Code) 175201304, with registered office at 105 Gotse Delchev Blvd., Sofia 1404, Bulgaria;

6. **Swissgrid AG**, a company incorporated under the laws of Switzerland in the form of an AG, with registered office at Werkstrasse 12, 5080, Laufenburg, Switzerland;

7. **ČEPS a.s.**, a company incorporated under the laws of the Czech Republic, registered in the Commercial Register kept by the Municipal Court in Prague, Section B, Entry 5597; Company Registration Number (IC): 25702556, with registered office at Elektrárenská 774/2, 101 52 Praha 10, Czech Republic;

8. **TransnetBW GmbH**, a company incorporated under the laws of Germany in the form of a GmbH, with registered office at Osloer Straße 15-17, 70173, Stuttgart, Germany;

9. **TenneT TSO GmbH**, a company incorporated under the laws of Germany in the form of a GmbH, with registered office at Bernecker Straße 70, 95448 Bayreuth, Germany;

10. **Amprion GmbH**, a company incorporated under the laws of Germany in the form of a GmbH, with registered office at Rheinlanddamm 24, 44139, Dortmund, Germany;

11. **50Hertz Transmission GmbH**, a company incorporated under the laws of Germany in the form of a

GmbH, with registered office at Eichenstraße 3A,12435 Berlin, Germany.

12. **Energinet.dk**, a company incorporated under the laws of Denmark in the form of an independent public corporation, with registered office at Tonne Kjaersvej 65, 7000 Fredericia, Denmark;

13. **Elering AS**, a company incorporated under the laws of Estonia in the form of an AS, with registered office at Kadaka tee 42, 12915 Tallinn, Estonia;

14. **Red Eléctrica De España**, **S.A.U**., a company incorporated under the laws of Spain in the form of an S.A., with registered office at Paseo del Conde de los Gaitanes, 177, 28109 Madrid, Spain;

15. **Fingrid Oyj**, a company incorporated under the laws of Finland in the form of a public limited company, with registered office at Läkkisepäntie 21, P.O. Box 530, 00101 Helsinki, Finland;

16. **RTE - Réseau de transport d'électricité**, a limited company incorporated under the laws of France, with registered office located Tour Initiale, 1, terrasse Bellini, TSA 41 000, 92919 La Défense Cedex, France;

17. **National Grid Electricity Transmission plc**., a company incorporated under the English law, with registered office at 1-3 Strand, London WC2N 5EH, United Kingdom;

18. **SONI Ltd (System Operator Northern Ireland)**, a company incorporated under Northern Ireland law, with registered office at Castlereagh House, 12 Manse Road, Belfast, Nothern Ireland, BT6 9RT

19. **Independent Power Transmission Operator S.A**, **(IPTO)** a company incorporated under Greek law, having its registered office at 89 Dyrrachiou Str., Athens, 10443, Greece ;

20. **Croatian Transmission System Operator Ltd. (HOPS d.o.o.):** , a company incorporated under the Croatian Law, with registered office at Kupska 4,HR-10000 Zagreb, , Croatia;

21. **MAVIR Hungarian Independent Transmission Operator Company Ltd.**, a company incorporated under the laws of Hungary with registered office at Anikó u. 4., H-1031 Budapest, Hungary, registered with a registration number 01-10-044470 at Company Registry Court of Budapest – Capital Regional Court;

22. **EirGrid plc**, a company incorporated under Irish law, with registered office at The Oval, 160 Shelbourne Road, Ballsbridge, Dublin 4, Ireland;

23. **TERNA Rete Elettrica Nazionale S.p.A.**, a liability company incorporated under the laws of Italy in the form of a joint stock company, with registered office at Via Egidio Galbani, 70, 00156, Rome, Italy;

24. **Litgrid AB**, a company incorporated under Lithuanian law, with registered office at A. Juozapavičiaus st. 13, 09311 Vilnius, Lithuania;

25. **CREOS Luxembourg S.A.**, a company incorporated under the laws of Luxembourg in the form of a limited company, with registered office at 59-6, rue de Bouillon L-1248 Luxembourg, Grand-Duchy of Luxembourg;

26. **AS Augstsprieguma tīkls**, a company incorporated under Latvian law, with registered office Dārzciema iela 86, Riga, LV-1073, Latvia;

27. **CGES AD**, a company incorporated under the laws of Montenegro, in the form of a "akcionarsko drustvo" (joint stock company), registered with registered office at Bulevar Sv. Petra Cetinjskog br.18, 20000 Podgorica, Montenegro;

28. **MEPSO - Operator na elektroprenosniot sistem na Makedonija**, **AD**, vo drzavna sopstvenost (Macedonian Transmission System Operator, joint stock, state owned company) a company incorporated under the laws of FYROM, registered at Trade Register of Skopje, having the Unique Registration Code (Fiscal Code) 4030004529600, with registered office at4, Maksim Gorki Str.,., Skopje, 1000, FYROM;

29. **TenneT TSO B.V**., a company incorporated under the laws of The Netherlands in the form of a B.V., with registered office at Utrechtseweg 310, P.O. Box 718, 6800 AS, Arnhem, The Netherlands;

30. **Statnett SF**, a company incorporated under the laws of Norway in the form of a state-owned enterprise , with registered office at Nydalen Alle 33, Postbox 4904 Nydalen, 0423 Oslo, Norway;

31. **PSE S.A.**, a company incorporated under the laws of Poland in the form of a S.A., with registered office at Warszawska 165 St, 05-520 Konstancin Jeziorna, Poland;

32. **REN - Rede Eléctrica Nacional**, **S.A**., a company incorporated under the laws of Portugal in the form of an S.A., with registered office at Av. Dos Estados Unidos da América 55-12°, 1700, Lisbon, Portugal;

33. **Compania Naţională de Transport al Energiei Electrice Transelectrica S.A.**, a company incorporated under the laws of Romania in the form of a "societate pe acţiuni" (joint stock company), registered with registration number J40/8060/2000 at Trade Register of Bucharest, having the Unique Registration Code (Fiscal Code) R13328043, with registered office at 33, General Gheorghe Magheru Blvd., Bucharest – 1, 010325, Romania;

34. **EMS - Javno Preduzeće Elektromreža Srbije Beograd,** a company incorporated under the laws of Serbia, in the form of a public enterprise (javno preduzeće), registered in Register of the Agency for commercial registers of the Republic of Serbia No. 80469/2005 dated 01/07/2005, with registered

office at 11, Kneza Miloša Str., Beograd 11000, Serbia;

35. **Affärsverket svenska kraftnät**, a Swedish state utility, with office at Box 1200, SE-172 24, Sundbyberg, Sweden;

36. **ELES, d.o.o**, **sistemski operater prenosnega elektroenergetskega omrežja,** a company incorporated under the laws of Slovenia in the form of a d.o.o.(company with limited liablility), with registered office at Hajdrihova 2, 1000 Ljubljana, Slovenia;

37. **Slovenská elektrizačná prenosová sústava, a.s.**, a company incorporated under the laws of Slovak Republic in the form of an a.s. (joint stock company), Trade register Sa 2906B, Registration No 35 829 141 with registered office at Mlynské Nivy 59/A, 824 84 Bratislava 26, Slovak Republic.

ANNEX 2 – DESCRIPTION OF SERVICES

Part 1: Description & high level process for the services

Introduction

This document gives a detailed functional description of the 5 services introduced in the ENTSO-E Policy Paper "Future TSO Coordination for Europe".

The regions are not necessarily the same for all services and a given RSCI can provide a given service to more than one region.

Part I provides the description of five mandatory services: improved individual grid models/common grid model delivery; coordinated security analysis; coordinated capacity calculation; short and medium term adequacy; outage planning coordination.

1. Improved Individual Grid Models / Common Grid Model Delivery

1.1 SERVICE DESCRIPTION/OBJECTIVE & CONSTRAINTS

This service consists in an iterative process starting from the collection of IGMs shared by TSOs on the Operational Planning Data Environment and aiming at delivering to all pan-European TSOs and RSCIs, CGMs adequate for the other services listed in this Annex, for all necessary timeframes as specified in their description. This service includes (at least for the timeframes from year-ahead to intraday):

- Checking quality and plausibility of IGMs provided by TSOs and facilitating their improvement to meet the criteria of quality and plausibility.

- Merging of IGMs into CGM.

- CGM model improvement based on the CGM methodology pursuant to GL CACM Art 17 and on agreed procedure pursuant to draft NC OPS Art 12 and 15. Examples of model improvements are given in the description of the following services.

In addition, if regionally required for timeframes close to real-time (from h-1 to h), this service can be simplified when creating the corresponding CGMs, e.g. based on TSOs snapshots. At this timeframe, RSCIs-TSOs iterations regarding IGM are not relevant in most situations.

1.2 PAN-EUROPEAN COMMON TOOLS/FORMAT

Target: this service will require:

- the implementation of CGMES.
- the implementation of the Operational Planning Data Environment: platform allowing to store and share at a pan-European level the relevant information listed in GL OPS Chapter 8. The hosting will be arranged by RSCIs (subject to approval by SOC of Project Team (PT) CGM proposal to be submitted before end of 2015).
- the extension of Quality Assessment Portal to all ENTSO-E area: platform allowing TSOs to check the quality of their IGMs and supporting the needed iterations between RSCIs and TSOs to get high quality IGMs and CGMs. The hosting will be arranged by RSCIs.
- the extension/implementation in all ENTSO-E area of the necessary Verification Platform to exchange and check consistency of schedules such as Aggregated Netted External Schedules, etc.

Today, in Continental Europe, this service has been implemented using ftp servers for the sharing of IGM/CGM, Vulcanus/3CV and the Quality Assessment Portal developed by Coreso, TSC and SCC. The service can be temporary implemented on the basis of intermediate formats (UCTE for CE) or on a mix of UCTE and CGMES files (hybrid merge) if considered appropriate at regional level, the alternative being direct implementation of the target.

1.3 REGIONAL TOOLS

Merging tools are needed for RSCIs: merging of IGMs applying automatic treatments required by the merging rules (see Figure 1) and power flow calculations. They can be different from a RSCI to another in order to fit with regional needs (model improvement) but shall fulfil requirements to be defined by PT CGM.

1.4 INTERACTIONS WITH OTHER SERVICES

This service is an absolute pre-requisite for the execution of all other services.

1.5 LINKS WITH OTHER ENTSO-E PROJECTS

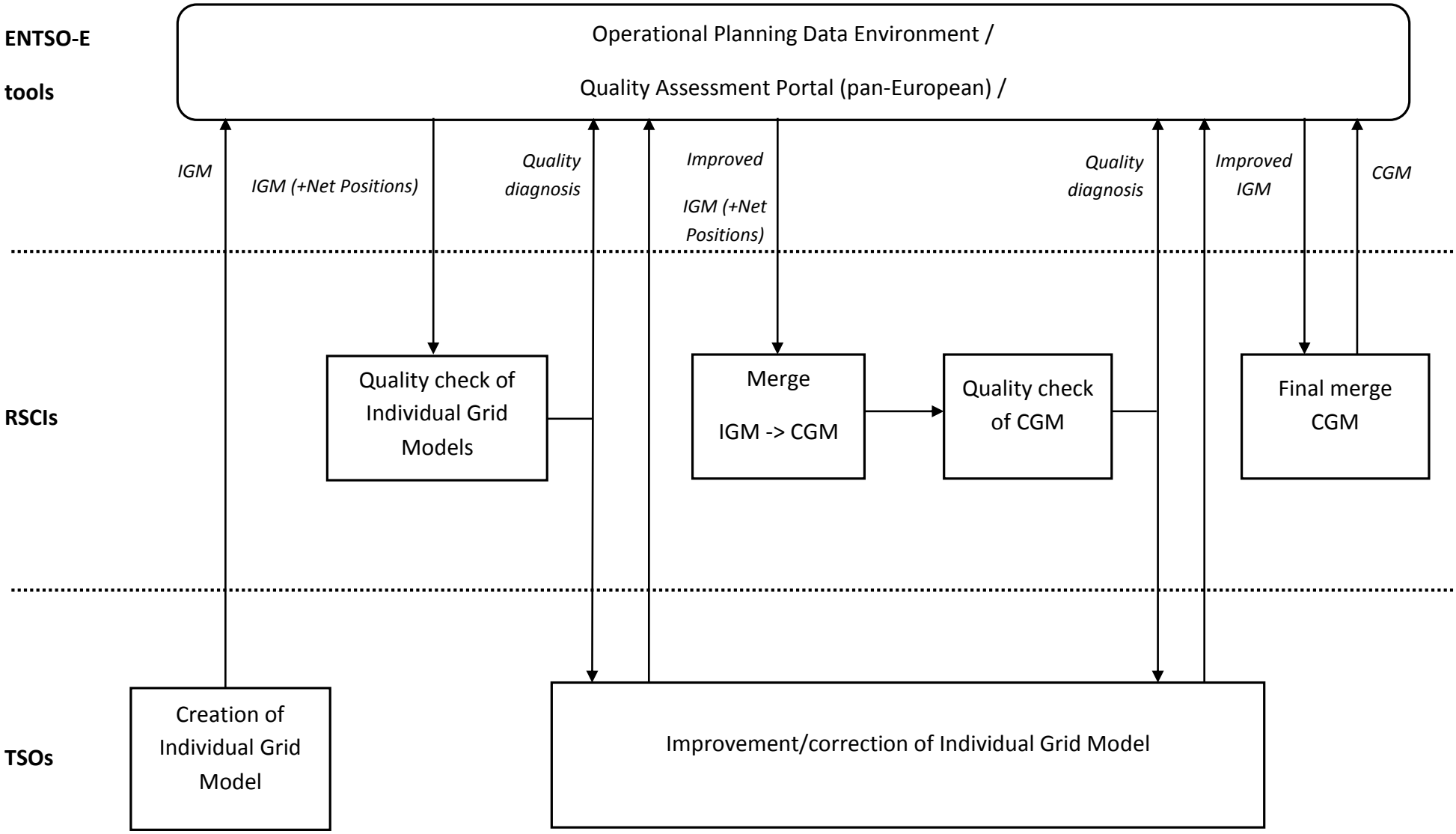
This service will be based on the detailed rules and quality criteria defined within the P T CGM with the aim to fulfil deadlines from GL CACM and GL OPS. In the meantime, quality criteria defined by the SG NMFT are already used in Continental Europe and may be applicable for other regions.

The development of the Operational Planning Data Environment and the implementation of CGMES are also managed by the PT CGM with the aim to fulfil deadlines from GL CACM and GL OPS.

1.6 PROCESS

See Figure 1 below.

Figure 1


ENTSO-E
tools
Operational Planning Data Environment /
Quality Assessment Portal (pan-European) /
IGM
IGM (+Net Positions)
Quality diagnosis
Improved IGM (+Net Positions)
Quality diagnosis
Improved IGM
CGM
RSCIs
Quality check of Individual Grid Models
Merge
IGM -> CGM
Quality check of CGM
Final merge CGM
TSOs
Creation of Individual Grid Model
Improvement/correction of Individual Grid Model

2. Coordinated Security Analysis

2.1 SERVICE DESCRIPTION / OBJECTIVE & CONSTRAINTS

This service aims at:

- Identifying risks of operational security limit violations in any part of the regional area (mainly triggered by cross-border interdependencies) by applying common Security Analysis methodology according to draft NC OPS Art 19 and, as required by TSOs, checking robustness of results against uncertainties (e.g. study of variants with different level of RES generation).
- Finding relevant Remedial Actions (cross-border relevant ones).
- Coordinating findings and Remedial Actions proposal with other adjacent RSCIs.

This service is requested for at least the following timeframes:

- Day-ahead: systematic.
- Intraday: systematic for the timestamps regionally agreed.

To implement this service, RSCIs need inputs detailed in Figure 2.

2.2 PAN-EUROPEAN COMMON TOOLS

Target: apart from Operational Planning Data Environment, no common tool is mandatory.

2.3 REGIONAL TOOLS

Security analysis tools are needed for RSCIs: power flow calculation and contingency simulation (at least static / dynamic if needed). They can be different from one RSCI to another in order to fit with regional needs but shall fulfil the CGMES conformity assessment. The exchange of additional data necessary to support this process shall be based on international standards when existing.

The implementation of a regional communication/validation tool could ease the performance of the process (e.g. web interface facilitating the Remedial Actions decision making process).

2.4 INTERACTIONS WITH OTHER SERVICES

This service is linked with Coordinated Capacity Calculation, Outage Planning Coordination and Short/Medium Term Adequacy (depending on the regional implementation of this last service) that include specific security analysis sub-processes. The specificities of the Coordinated Security Analysis service are the potential use of all kind of remedial actions (including costly measures that are not used for the above mentioned services) and the disposal of more precise and robust hypotheses due to the fact that part of the studies are being performed closer to real-time (at least last available generation/load forecasts and network situation, long term & day-ahead nominated cross-border exchanges).

At each instance of the service executed at a given time, the efficient and secure activation of closer to real-time instances of the service and/or of capacity calculation service requires the update of IGM with the remedial actions implemented pre-fault and the update of accompanying information with the decided remedial actions to be activated post-fault in case of a given contingency if this contingency occurs.

2.5 LINKS WITH OTHER ENTSO-E PROJECTS

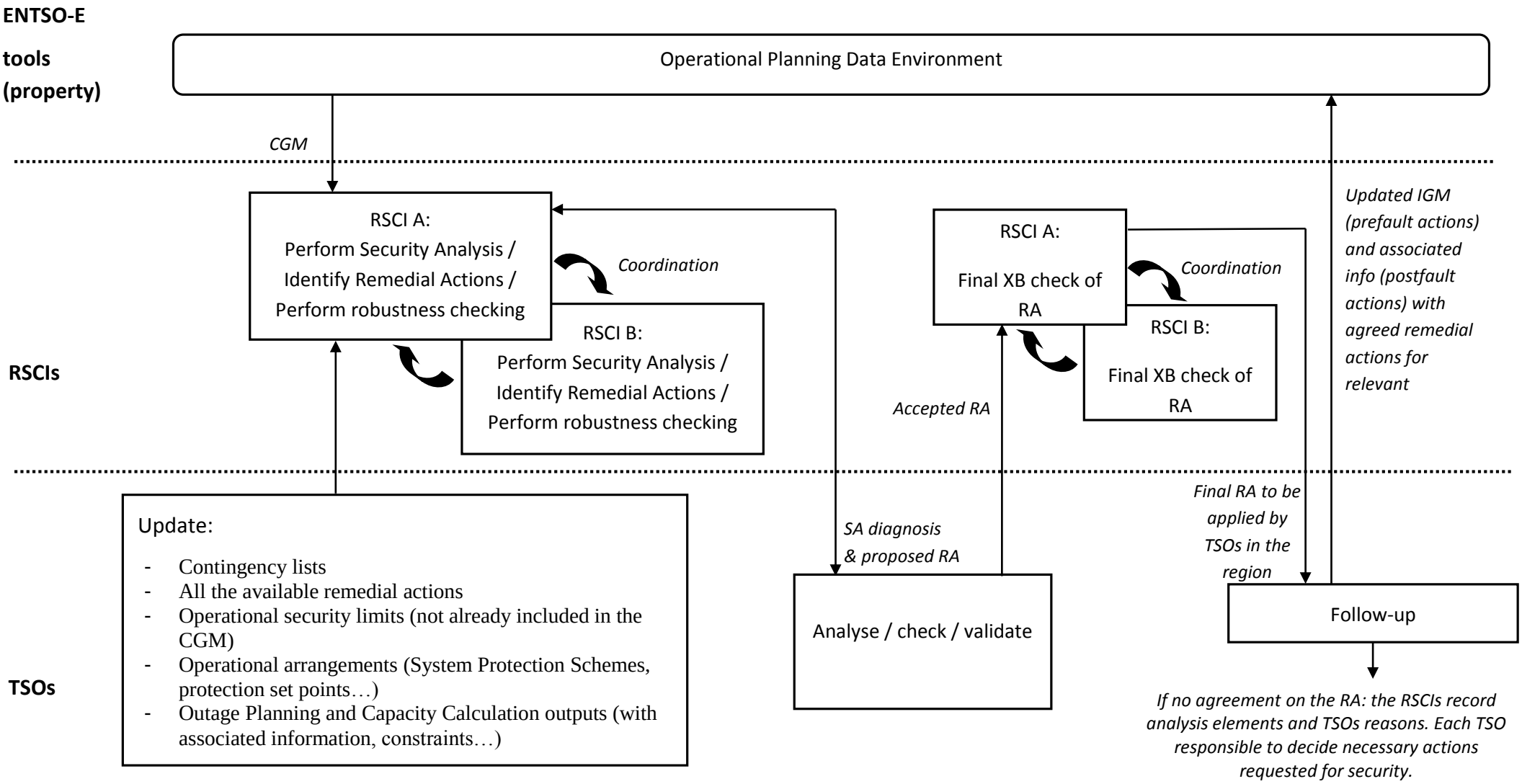
TSOs and RSCIs will have to apply agreed Operational Security methodologies to be developed pursuant to OPS requirements, at least at Synchronous Area level.

2.6 PROCESS

See Figure 2 below.

Figure 2

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES



3. Coordinated Capacity Calculation

3.1 SERVICE DESCRIPTION / OBJECTIVE & CONSTRAINTS

This service aims at:

- Applying approved regional coordinated methodologies to compute parameters defining available capacity (NTC or FB parameters), based on CGM. The previously mentioned methodologies aim at optimising cross-border capacities while ensuring operational security.
- Including improvement proposals to increase computation quality (such as coordination of net positions of each IGM, if part of the regional methodology) and/or available capacity (such as PST coordination and proposal of at least non-costly Remedial Actions if part of the regional methodology).

This service includes possible coordination between RSCIs for alignment/improvement of hypotheses between CCRs.

This service is requested for at least the following timeframes:

- D-2 (for Day-Ahead capacity allocation): systematic.
- D-1/Intraday (for intraday capacity allocation): systematic.

To implement this service, RSCIs need inputs detailed in the following flowchart.

3.2 PAN-EUROPEAN COMMON TOOLS

Target: apart from Operational Planning Data Environment, no common tool is mandatory.

3.3 REGIONAL TOOLS

Regional tools for Coordinated Capacity Calculation may be developed by a CCR (e.g. “Common System” in CWE region).

In addition, regional tools required for Coordinated Security Analysis are also required for Coordinated Capacity Calculation.

The exchange of additional data necessary to support this process shall be based on international standards when existing.

3.4 INTERACTIONS WITH OTHER SERVICES

See Coordinated Security Analysis.

3.5 LINKS WITH OTHER ENTSO-E PROJECTS

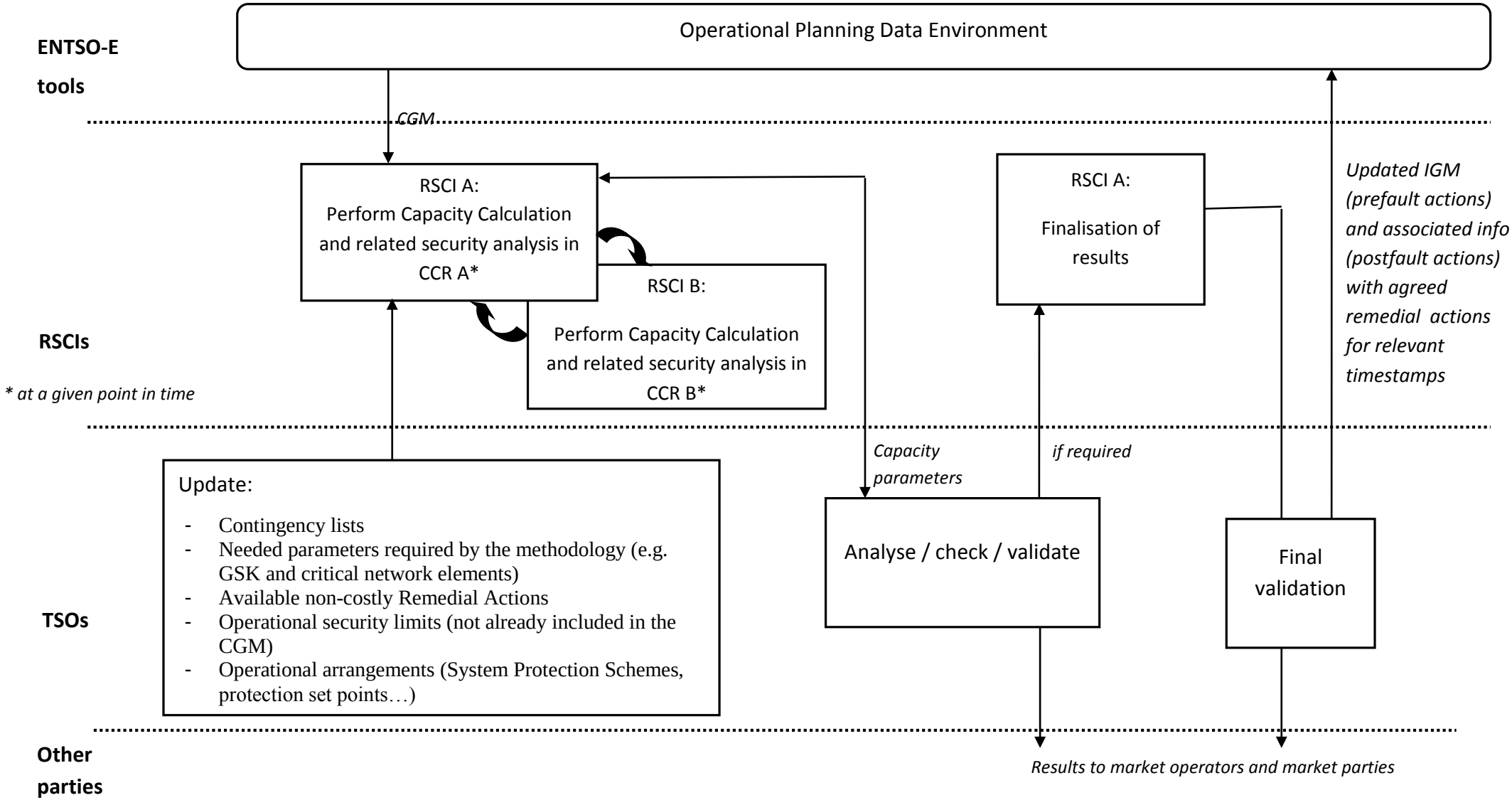
Not identified.

3.6 PROCESS

See Figure 3 below.

Figure 3

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES



4. Short and Medium Term Adequacy (SMTA)

4.1 SERVICE DESCRIPTION / OBJECTIVE & CONSTRAINTS

The definition of this service is still under development and subject to evolutions depending on the outcomes of the experimentation to be performed by the dedicated SMTA sub-group. The service described in three steps outlined below is the initial start setup for the SMTA implementation between the TSO and RSCIs. A more granular timeframe or an extension to other aspects than active power and Cross-Zonal capacity is possible and subject to further investigations. It is as well the target to consolidate all views on adequacy – short, medium and long term – in ENTSO-E into one document in the coming quarters. Therefore, the requirements described under this point are not to be interpreted as mandatory. This Annex may be amended after the full development of this service takes place.

This SMTA service aims at:

- Performing a regional check/update of short/medium term active power adequacy diagnosis, in line with agreed ENTSOE methodologies, for shorter timeframes than seasonal outlooks. This adequacy review shall be made comparing local adequacy inputs and grid capacity to carry cross-border exchanges. This diagnosis can include recommendations such as remedial actions to optimize cross-border exchanges, request to Balancing Service Providers in the Coordinated Balancing Area (CoBA) to change their availability status.
- When needed (at least regional scarcity issue, cross-zonal capacities insufficient), performing a dedicated complementary security analysis and extending coordination to other regions/RSCIs. The resulting recommendations may consist in cross-zonal capacities adaptations/combinations in addition to the previously mentioned recommendations.

Implementation stepwise approach:

1st step/ Regional adequacy assessment based on individual TSOs assessments respecting precise common rules and methodology. RSCIs shall collect these individual TSO adequacy assessments and confront them to the grid capacity to carry cross-border exchanges.

The above mentioned common adequacy assessment methodology to be applied by each individual TSO shall be in line with agreed ENTSO-E methodologies, for shorter timeframes than seasonal outlooks and shall precise: load/generation forecast methodology (including methodology for RES forecast and defining rules to take into account Balancing Service Providers availability status), handling of Demand Side Response (DSR) and adequacy alert criteria (upward/downward generation margins).

Timeframe: week-ahead

2nd step/ Regional adequacy assessment based on individual TSOs assessments respecting precise common rules and methodology.

Timeframe: week-ahead to day-ahead (in day-ahead, the complete process would be performed only in case of hypotheses change compared to week-ahead).

As a last implementation step, depending on the experimentation to be performed by the dedicated SMTA sub-group:

3rd step/ Regional adequacy assessment performed by the RSCIs based on raw inputs from TSOs (apply and update at regional level, methodologies and data used for seasonal outlooks).

Timeframe: week ahead (till day-ahead only in case of scarcity being detected or in case of relevant hypotheses change compared to week-ahead).

4.2 PAN-EUROPEAN COMMON TOOLS

Operational Planning Data Environment may be required (subject to the SMTA experimentation).

The exchange of additional data necessary to support this process shall be based on international standards when existing.

4.3 REGIONAL TOOLS

At this stage, no regional tool has been identified as mandatory (subject to the SMTA experimentation).

4.4 INTERACTIONS WITH OTHER SERVICES

The outputs from the Coordinated Capacity Calculation service (when available depending on the timeframe) will be the main inputs for the regional diagnosis on the ability for the grid to carry potential cross-border flows triggered by local scarcity issues. Assuming that market flows will follow a logical direction (from areas with generation surplus to areas facing scarcity); dedicated security analysis could refine the results of Coordinated Capacity Calculation.

For medium term timeframes (from seasonal outlooks to week-ahead), this service will have interactions with Outage Planning Coordination service.

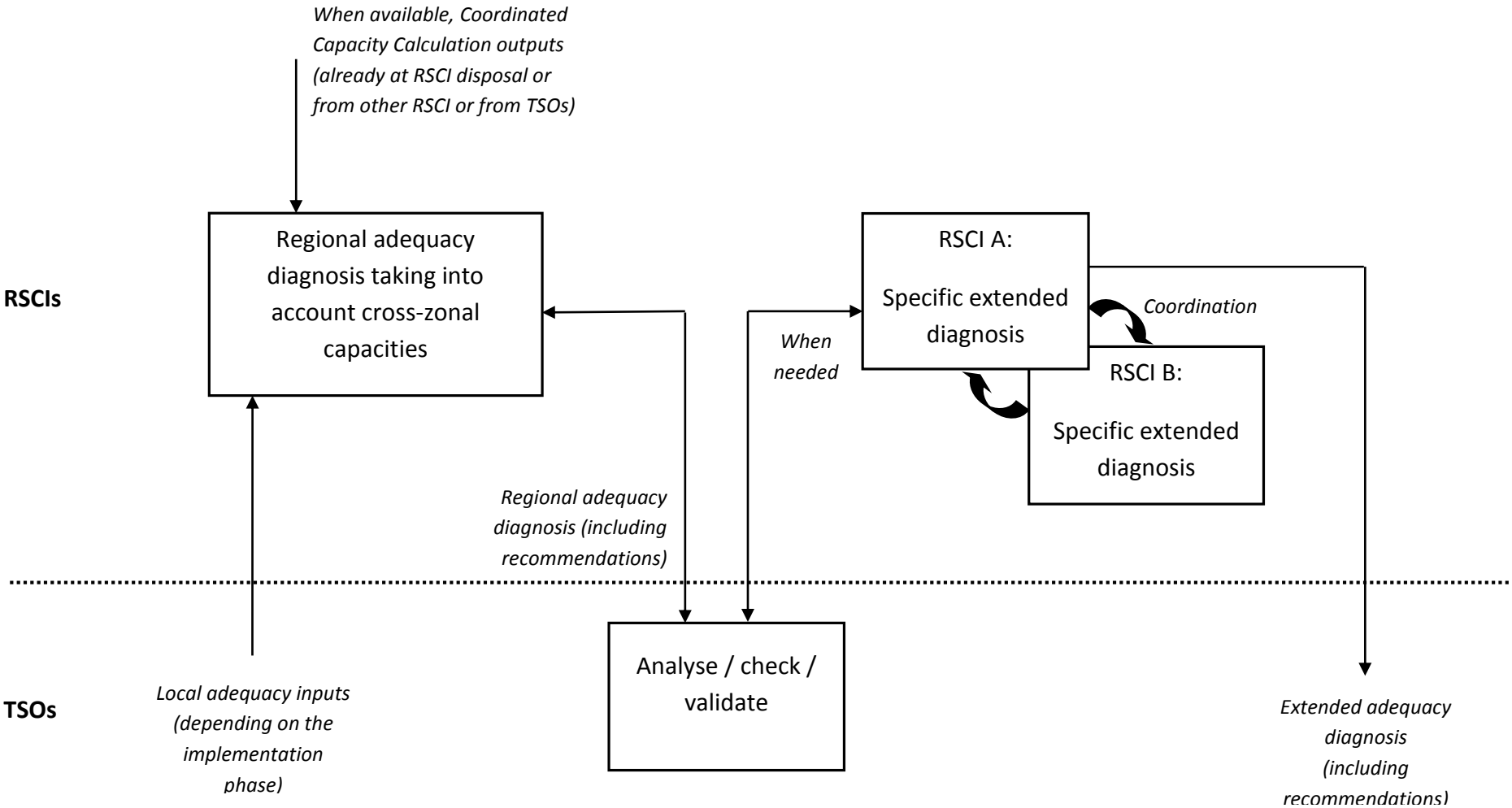
4.5 LINKS WITH OTHER ENTSO-E PROJECTS

This service implementation is strongly related to the long-term / mid-term outlook methodologies developed under the System Development Committee (SDC).

4.6 PROCESS

See Figure 4 below.

Figure 4


When available, Coordinated Capacity Calculation outputs (already at RSCI disposal or from other RSCI or from TSOs)
RSCIs
Regional adequacy diagnosis taking into account cross-zonal capacities
When needed
RSCI A:
Specific extended diagnosis
Coordination
RSCI B:
Specific extended diagnosis
Regional adequacy diagnosis (including recommendations)
TSOs
Local adequacy inputs (depending on the implementation phase)
Analyse / check / validate
Extended adequacy diagnosis (including recommendations)

5. Outage Planning Coordination (OPC)

5.1 SERVICE DESCRIPTION / OBJECTIVE & CONSTRAINTS

The service described below is still under development and the initial start setup for the OPC implementation between the TSO and RSCIs. The definition of this service is subject to evolutions depending on the outcomes of the experimentation to be performed by the dedicated OPC sub-group. Therefore, the requirements described under this point are not to be interpreted as mandatory. This Annex may be amended after the full development of this service takes place.

This service aims at:

- Identifying outage incompatibilities between relevant assets (according to OPS: grid elements, generators, loads) whose availability status has cross-border impact and limiting pan-European consequence of necessary outages in grid and production by relevant coordination of planned outages timing.

- Proposing solutions in order to relieve these incompatibilities: at least non costly remedial actions, adaptations of availability and outages´ planning (firstly on grid elements, secondly on other elements if no solution is available).

- Coordinating findings and Remedial Actions proposals with other adjacent RSCIs.

- This service is requested for at least the following timeframes:

- Year-ahead (to be performed in October - November of Y-1): systematic.

- Updates up to week-ahead: on TSO requests, based on requests for planning modifications or significant changes on expected operational conditions (e.g. important forced outages for long periods, dry periods...).

- To implement this service, RSCIs need: common reference scenarios established by TSOs and corresponding CGMs (as required by OPS1), knowledge of all preliminary planned outages on main transmission network – AC and DC - (not only the preliminary plannings for Relevant Assets).

TSOs and RSCIs shall define how the system security is evaluated, for a given period of outages located between two reference scenarios (e.g. several intermediate dates).

5.2 PAN-EUROPEAN COMMON TOOLS

This service requires the implementation of the Operational Planning Data Environment.

5.3 REGIONAL TOOLS

Besides the storage of data, a central tool to display/analyse certain information with some intelligence could ease coordination between RSCIs and TSOs (subject to the OPC experimentation).

The exchange of additional data necessary to support this process shall be based on international standards when existing.

[1] PT CGM proposal to be validated by SOC before end of 2015 foresees 8 scenarios/year.

5.4 INTERACTIONS WITH OTHER SERVICES

This service is mainly linked with long term Coordinated Capacity Calculation. Outage Plans have to be taken into account when computing the capacity made available for long term allocation. A general principle is to reduce the impacts of those plans on this capacity, including using non costly remedial actions. Nevertheless the first objective remains to be able to efficiently realize all needed maintenance actions.

5.5 LINKS WITH OTHER ENTSO-E PROJECTS

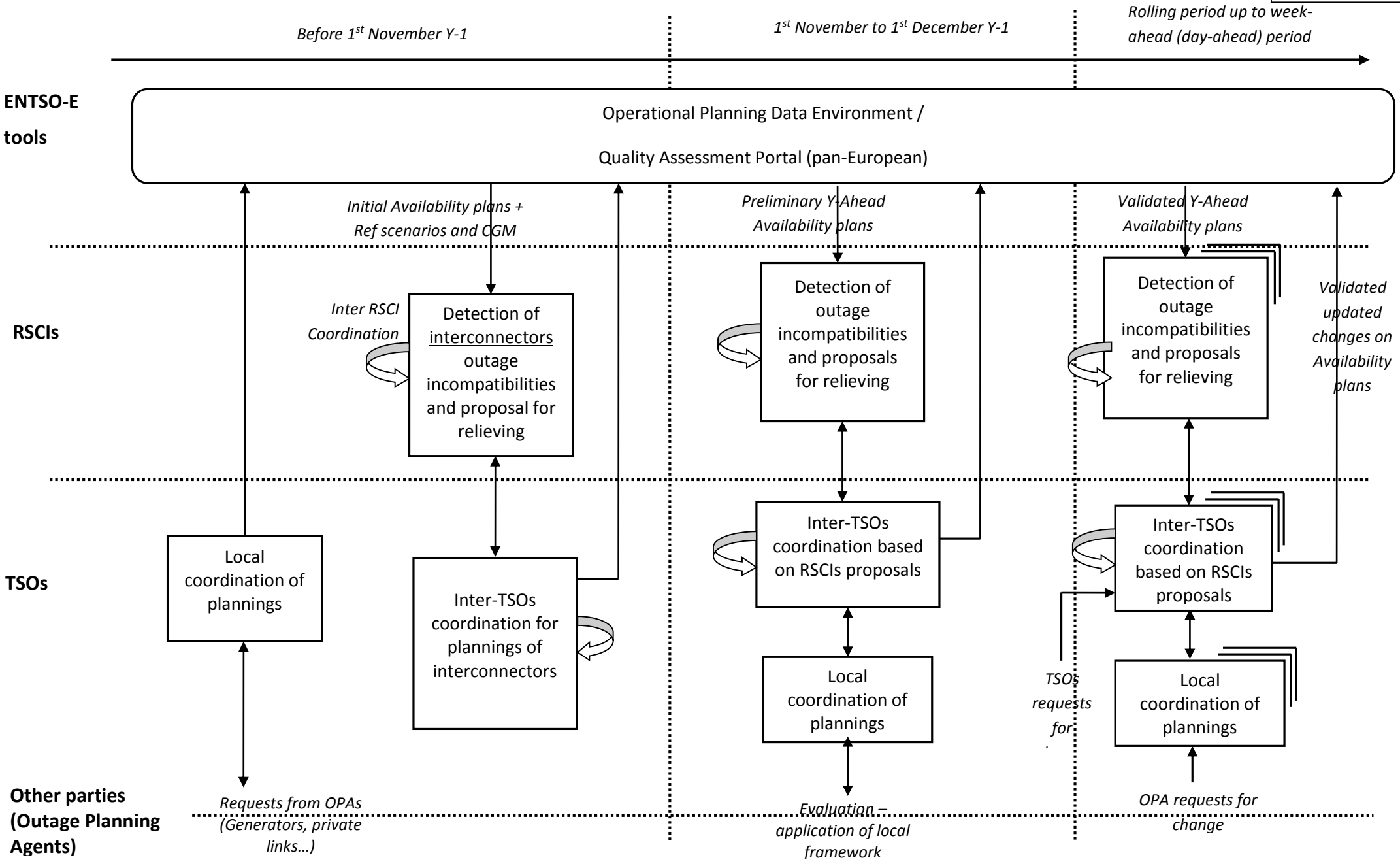
Not identified.

5.6 PROCESS

See Figure 5 below.

Figure 5

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES



Part 2: Service level targets

This part provides the definition of service level targets for some of the services defined in part I.

The effective service that an RSCI can provide depends on its own organization and resources and on the input of TSOs and other RSCIs coordination capability.

The service level targets are therefore defined below on the following basis:

- global targets which shall be reached by TSOs and RSCIs together in order to ensure proper implementation of the regional coordination
- individual targets to allow further precise analysis and ensure each contributor performs at the right level in order to facilitate reaching the global targets.

The targets are defined based on the fact that the service can be delivered in a nominal way or in a degraded way, with the following meanings:

- Nominal delivery: delivery of the service has been done in compliance with service description and agreed schedules or processes
- Degraded delivery: delivery of the service has been done but without respecting the agreed schedules or processes or based on backup processes
- Failed delivery: the service has not been delivered or the results were definitively unusable. It should be noted that, whereas failed delivery cannot be excluded, the Nominal delivery is the target to be reached; Failed delivery has to be avoided and shall only be the consequence of a critical situation.

At present, the service level targets are defined for the three most stable services: improved IGM/CGM delivery, coordinated security analysis and coordinated capacity calculation.

1. SERVICE LEVEL TARGETS FOR IGM/CGM DELIVERY SERVICE

Global target:

Nominal delivery	Degraded delivery	Failed delivery
>= 97 %	<= 2.7%	<= 0.3%

NB: percentages are evaluated with reference to the total number of IGM/CGM to be delivered in a calendar year (eg: 365 in D-1 and (24*365) in intraday).

Individual targets:

RSCI

Availability in time of CGM target: 100%

Quality of CGM OK target: 97%

TSOs

Availability in time of IGM target: 100%

Quality of IGM OK target: 97%

2. SERVICE LEVEL TARGETS FOR SECURITY ANALYSIS SERVICE

Global target:

Nominal delivery	Degraded delivery	Failed delivery
>= 97 %	<= 2.7%	<= 0.3%

NB: percentages are evaluated with reference to the total number of security analyses to be performed in a calendar year (eg: 365 in D-1 and (x*365) in intraday, x being defined regionally).

Individual targets:

RSCI

Availability in time of security analyses results, provided CGM is available target: 100%

TSOs

No specific targets defined.

3. SERVICE LEVEL TARGETS FOR CAPACITY CALCULATION SERVICE

Global target:

Nominal delivery	Degraded delivery	Failed delivery
>= 97 %	<= 2.7%	<= 0.3%

NB: percentages are evaluated with reference to the total number of capacity calculations to be performed in a calendar year (eg: 365 in Day-ahead and (x*365) in intraday, x being defined per CCR).

Individual targets:

RSCI

Availability in time of capacity calculation results, provided CGM is available target: 100%

TSOs

No specific targets defined.

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

ANNEX 3 – INTEROPERABILITY OF RSCIS

1. General

The concept of interoperability is developed in order to achieve the following objectives:

- Facilitate the implementation of the coordination between RSCIs where this coordination is requested in the services description (Annex II)
- Facilitate the operational interactions of a TSO with different RSCIs when this TSO has chosen to procure the services from more than one RSCI
- Facilitate the operational relations between RSCIs and between RSCI and TSOs when a Capacity Calculation Region is being served by more than one RSCI
- Define the services where back-up capabilities are required at European level between RSCIs (see 2.2. of this Annex).
- Facilitate implementation of back-up functions where it is decided that a RSCI shall provide such back-up to another one.

In this context, interoperability means the ability of RSCIs to implement a set of harmonized requirements in order to enable them to operate effectively together, communicate and exchange data and information and provide consistent services to the TSOs served by two or more RSCIs, despite the fact that service implementation processes between a RSCI and its served TSOs can differ from one RSCI to another one.

This concerns all means that make this interoperability effective, such as IT tools, common resources (tools, means and facilities), common data, common communication platform, common platform for storage, sharing and retrieving of data exchange, common or coordinated processes and procedures, synchronized tasks or resources availability, common training.

In the following are listed minimum requirements established by TSOs to be applied as soon as possible but at the latest by end 2017 by all existing and future RSCIs to reach the interoperability level needed for the present agreement and for its implementation. Further more advanced requirements for interoperability could be studied and designed in the scope of ENTSO-E bodies work, before introducing them in a revised version of this Annex.

2. Minimum Requirements

2.1 COMMON DATA AND PROCESSES

Coordination of services needs that the studies made by RSCIs to produce those services are done with consistent assumptions and available data sets of defined quality. For comparability and exchange reasons, the same input data and the same timestamps have to be used.

The following requirements apply:

1. Last Common Grid Model Exchange Standard (CGMES) format adopted by ENTSO-E shall be exclusively used by TSOs and RSCIs when exchanging IGMs and CGMs
2. TSOs and RSCIs shall systematically use the Operational Planning Data Environment (OPDE) for storage, sharing and retrieving of data required by the services
3. TSOs and RSCIs shall apply the rules for IGM/CGM quality checking, correction, improvement defined and validated by SOC
4. RSCIs shall use tools for load-flow (LF) calculations, able to provide comparable LF results on the same CGM. Those tools shall have received a positive CGMES conformity assessment from ENTSO-E.
5. RSCIs shall apply a common process to generate CGMs at standardized hours and for standardized timestamps.
6. RSCIs shall agree on a common process to execute synchronized coordinated security analyses on the CGMs defined in requirement 5, exchange on the results and cross-regionally handle remedial actions based on the results of the analyses. This common process shall define a minimum set of common time schedules applicable by all RSCIs and allow for different frequencies and time schedules of such coordinated exchanges between RSCIs for different regions of Europe.

NB: Technical implementation of points 1 to 5 are expected to be an output of the current Common Grid Model Program currently developed by ENTSO-E and followed by the amendment of this Annex if needed.

2.2 COMMON RESOURCES (TOOLS, MEANS AND FACILITIES)

Requirements have to be fulfilled in terms of availability, redundancy, reliability and support for effective professional work. They are necessary to allow a RSCI (or a TSO) to communicate with another RSCI when necessary and without delay. For example this is necessary when a RSCI has identified:

- a potential constraint/risk in the system which has to be dealt with through RSCI coordination, or
- a material problem which prohibits coordination and has to be solved (e.g.: data quality problem, IT/communication infrastructure failure).

These requirements are:

1. RSCI operator shall be available for coordination (notably for cross-regional security analysis, identification and coordination of cross-regional remedial actions, IGM/CGM improvement) on a 24 hours / 7 days basis. Nevertheless, it is accepted that a given RSCI, notably a recently established one, does not fulfil this target, provided that an alternative solution has been organised. Such a situation, with the relevant reasoning, shall be notified to SOC. The alternative solution shall ensure that, during the RSCI uncovered periods, the RSCI contact is substituted by a clearly defined contact (eg. in the control room of one of the served TSOs). Such a contact shall be able to answer and interact with the calling RSCI regarding technical coordination, at least for proceeding to an IGM correction, assessing the cross-regional impact of a possible remedial action and ensuring its validation by the concerned TSOs.
2. During working periods of a RSCI, this RSCI shall have a technical support available to treat in the most efficient way any failure in the procured services.
3. RSCIs shall agree on common communication systems ensuring the capacity to exchange information (voice and data) between RSCIs required to enable inter-RSCI coordination for the different services as described in Annex II, with an availability target consistent with the minimum service level targets defined in Annex II.
4. All inter RSCI voice and written exchanges shall systematically use English language

In addition, with consideration that the “improved IGM/CGM delivery” service is a key basis for the delivery of the other services and that this service is not dependant to regional arrangements, the following requirement also apply:

RSCIs shall organise their operation and processes in order to ensure a back-up capability for the “improved IGM/CGM delivery” service between them. It means that when a RSCI in charge of delivering “improved IGM/CGM delivery” service to a set of served TSOs is not capable to delivering it, it shall have the possibility to request another RSCI to replace it during its failing period, in the most transparent possible way for those served TSOs. This back-up capability shall ensure at least that IGMs sent by those served TSOs are validated and made available on OPDE.

Any other form of back-up between RSCIs for the other services is out of the scope of the requirements defined in this annex. Various forms of such back-ups could be considered to be organized between two or more RSCIs, taking into account regional initiatives and local organizations and needs.

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

ANNEX 4 – TEMPLATE OF INTER RSCI AGREEMENT ON COORDINATION AND MINIMUM STANDARDS OF REGIONAL SECURITY COORDINATION INITIATIVES

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

Inter RSCI Agreement on Coordination and Minimum Standards of Regional Security Coordination Initiatives

BETWEEN:

Each of the RSCIs listed in Annex 1 of this Agreement:

hereinafter collectively referred to as "RSCIs" or “Parties” and individually referred to as "RSCI" or “Party”;

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

WHEREAS

H. MLA exits stipulating that Inter RSCI Agreement shall be signed

I. The MLA defines objectives and requirements for RSCI coordination and interoperability, therefore RSCIs conclude this Agreement to deal with these topics.

J. This Agreement shall be updated when a new RSCI is established and this new RSCI shall become a Party of this Agreement.

K. .

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

General Provisions

1. DEFINITIONS AND INTERPRETATION

– In this Agreement, the following terms shall have the following meaning:

Remark: This table shall be filled in as necessary and taking over the definitions of the MLA

"Agreement"	The present Agreement between the RSCIs (Inter-RSCI Agreement)
"ENTSO-E"	European Network of Transmission System Operators for Electricity
"MLA"	Multilateral Agreement on Participation in Regional Security Coordination Initiatives between interconnected TSOs and ENTSO-E
"RSCI"	Regional Security Coordination Initiative

2. PURPOSE OF THE AGREEMENT

This Agreement sets up the framework and design for coordination and interoperability of RSCIs.

3. SCOPE OF THE AGREEMENT

The scope of this Agreement is the description of the framework of RSCIs particularly with regard to coordination and interoperability in the operational planning time frame regarding Coordinated Security Analysis (including Remedial Actions-related analysis), Short and Medium Term Adequacy Forecasts, Coordinated Capacity Calculation, Outage Planning Coordination and Individual Grid Model / Common Grid Model Delivery.

For the avoidance of doubt, this Agreement does not replace any provision of national or European law that may apply to any of the Parties. The provisions of this Agreement shall be complementary and interpreted in accordance to the applicable regulations. In case of

contradictions between this Agreement and the applicable law and especially with the System Operation guideline provisions, the provisions of this Agreement shall be amended accordingly.

4. COORDINATION

RSCIs shall coordinate between them for each service they provide. This coordination shall implement the principles in Art. 7.1 of the MLA. *To be further developed by RSCIs.*

5. INTEROPERABILITY

RSCIs shall apply the inter-operability requirements defined in Appendix II. This interoperability shall implement the principles in Art. 7.2 and Annex 3 of the MLA. *To be further developed by RSCIs.*

6. COMPLIANCE MONITORING

RSCI agree that Compliance Monitoring process established in the MLA will apply to monitor the RSCI compliance to coordination and interoperability requirements of this Agreement.

RSCIs agree to provide an action plan to reach compliance in case non-compliance is detected by this process.

7. RESOURCES (MEANS AND FACILITIES IT)

To be further developed by RSCIs.

8. ACCESSION OF NEW PARTIES

The Parties may accept other RSCIs (new RSCI) or entities providing services of the RSCI accede to this Agreement. To accede this Agreement the party wishing to accede signs the adherence form attached in Appendix III of this Agreement.

After receiving the signed adherence form a decision allowing the accession by all Parties shall be taken.

As from the date of the decision allowing the adherence, the new Party shall assume all rights and obligations of a Party set forth in this Agreement.

9. FORCE MAJEURE

Neither Party shall be liable for any delay or failure to perform under this Agreement if such delay or failure is due to causes beyond its reasonable control (force majeure), such as, but not limited to, fire, storms, flood, strikes, labour disputes or other industrial disturbances, (declared or undeclared) war, embargoes, blockades, legal restrictions, riots, insurrections, governmental regulations, and the unavailability of means of transportation.

10. DISPUTE SETTLEMENT

10.1 Amicable Solution

In In the event of any dispute arising between Parties in relation to any matter directly governed by this Agreement, the concerned Parties shall seek to resolve such dispute as follows:

The Parties will strive to resolve the issue amicably;

If the Parties fail to resolve the dispute within sixty (60) calendar days, the matter shall be submitted for guidance within three month to the TSOs to whom they deliver services.

If, following submission of the case for guidance to the TSOs, the Parties are still unable to resolve the dispute, they shall proceed in accordance with Article 15.2.

10.2 ICC Arbitration

Any dispute arising out of or in connection with this Agreement or its negotiation shall be finally settled following the Rules of Arbitration of the International Chamber of Commerce as in force at the time of initiation of the arbitral procedure, by arbitrators appointed in accordance with these Rules. The arbitration panel shall be composed of three arbitrators, unless the disputing parties agree on a greater odd number of arbitrators.

The arbitration shall be held in Brussels. The proceedings and award shall be in the English language.

The arbitral award shall be final and binding on the Parties.

The Parties agree that the arbitrators validly appointed shall not be allowed to impose (without intervention of the Parties) the termination of this Agreement as the solution to said dispute.

11. LIABILITY

The RSCIs undertake to carry out their duties and comply with their obligations under this Agreement with the diligence of a specialised professional in compliance with the applicable laws and regulations in the electricity sector.
Under the same standard of diligence, each RSCI shall notify the other RSCI of all risks and dangers inherent to the performance of this Agreement. RSCIs undertake to cooperate with each other to adequately identify such risks and dangers and mitigate those where possible.

The RSCIs acknowledge that each RSCI is liable for its own contractual obligations only. For avoidance of doubt, nothing in this agreement shall be interpreted as considering the RSCIS to bear joint and several liability. For the sake of legal clarity the liability of a RSCI in breach of RSCI´s contractual obligations due to wilful misconduct or gross negligence is limited to direct damages only and as far as legally possible to the amount of € 1 Mio per case.

12. CONFIDENTIALITY

To the extent of mandatory national or EU-law permitting disclosure of Confidential Information, no Party receiving Confidential Information shall use or otherwise process the Confidential Information obtained by it pursuant to this Agreement for any purpose except as strictly required for the performance of its obligations under this Agreement, or disclose any such information or related information to any third party other than its suppliers, professional advisors and representatives, as well as regulatory authorities, which have a strict need to know such information for the proper performance of this Agreement or by law and who are correspondingly bound in writing by the same strict obligations of confidentiality.

The Parties are obliged to organise their data handling in such a way as to minimise the risk of misuse or unauthorised access or the disclosure of Confidential Information.

Nothing herein shall prevent a Party from disclosing Confidential Information: (i) upon the order of any court or administrative agency; (ii) upon the request or demand of, or pursuant to any regulation of, any regulatory agency or authority; (iii) to the extent reasonably required in connection with the exercise or any remedy hereunder; (iv) to a party's legal counsel or independent auditors; and (v) to any permitted assignee hereunder, provided that such assignee agrees in writing to be bound by the provisions of this Agreement regarding confidentiality.

13. APPLICABLE LAW

This Agreement, and the conclusion, performance and interpretation thereof, shall be governed by Belgian law.

14. SEVERABILITY

If any provision of this Agreement is declared - by an arbitral, judicial or regulatory decision - to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected.

The Parties hereby agree that in such case they will use their reasonable efforts to immediately and in good faith negotiate legally valid replacement provision(s) that have the same economic effect as the invalid, illegal or unenforceable provision(s).

15. TITLES AND HEADINGS

Titles and headings used in this Agreement are for convenience only and shall not define, limit or affect the scope, intent, construction or interpretation of this Agreement or any provision hereof.

16. NO WAIVER

The fact that any Party fails or delays to exercise any right or remedy under this Agreement and that any other Party does not require its exercise shall not be considered as a final waiver of it for the other Party.

17. AMENDMENTS

No amendment or modification of this Agreement shall take effect unless it is in writing, executed and delivered by the Parties. Appendix II on minimal requirements of interoperability is taken over from the MLA. Every amendment and modification of this appendix done in the frame of the MLA will be automatically adopted within this agreement. Changes regarding coordination and interoperability of RSCIs in the main body of the MLA shall be adopted by the Parties in this Agreement in every case.

18. ASSIGNMENT OF RIGHTS AND OBLIGATIONS

Each Party is prohibited from transferring (including by means of merger, split-off or transfer or contribution of universality or a branch of activity or otherwise) all or part of its rights and obligations arising under this Agreement to a third party, without the prior, express and written consent of all other Parties which cannot be unreasonably withheld or delayed.

19. USE OF LANGUAGES

The Agreement and all related notices, legal procedures and communications thereunder and the dispute settlement procedures provided for in Article 15 of this Agreement shall be carried out

in English, to the extent permitted by rules of public policy relating directly or indirectly to these procedures.

20. NATURE OF THE RELATIONSHIP

In no event this Agreement shall be considered as a partnership or a joint-venture or other association between the Parties, nor shall any Party be considered the agent of another Party.

21. TERM OF THE AGREEMENT

21.1.Entering into force

This Agreement shall enter into force on the Date the first two Parties have signed this Agreement for an unlimited duration.

21.2 Termination

Any Party may withdraw from the Agreement with effect at the end of each calendar year following a written notification sent to the other Parties 6 months in advance.

Following the withdrawal of one or more Parties this Agreement will continue to be in force until the remaining Parties decide to terminate this Agreement.

22. INTERPRETATION AND AGREEMENT STRUCTURE

In case of conflict or inconsistency between the term and this Agreement and a term in its or other documents otherwise incorporated into this Agreement, the term of this Agreement should prevail unless clearly stated otherwise.

This Agreement is composed of the following Appendices, which all form an integral part of this Agreement:

Appendix I – List of Parties

Appendix II – Interoperability of RSCI

Appendix III– Adherence form for new Parties

23. COUNTERPARTS

The Parties have executed this Agreement by their duly authorised representatives in XXX original counterparts. Each of the Parties acknowledges receipt of its own original counterpart.

*****Remainder of page intentionally left blank – Signature Pages follow *****

24. SIGNATURE PAGE

RSCI 1

Represented by

In case of an RSCI as result of a contract between TSOs (e.g cooperation) this RSCI shall be represented by duly authorised persons (or entity)

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

APPENDIX I - LIST OF PARTIES

1. **TSC,** a cooperation of TSOs in …..
2. **Coreso,** a company incorporated under the law of ……
3. **TSCNET Services GmbH,** a company incorporated under the law of Germany, …, Providing services of TSC (Service provider)
4. **SCC a cooperation of TSOs in…..**

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

APPENDIX II - INTEROPERABILITY OF RSCIS

1. GENERAL

The concept of interoperability is developed in order to achieve the following objectives:

- Facilitate the implementation of the coordination between RSCIs where this coordination is requested in the services description (Appendix II)
- Facilitate the operational interactions of a TSO with different RSCIs when this TSO has chosen to procure the services from more than one RSCI
- Facilitate the operational relations between RSCIs and between RSCI and TSOs when a Capacity Calculation Region is being served by more than one RSCI
- Define the services where back-up capabilities are required at European level between RSCIs (see 2.2. of this Appendix).
- Facilitate implementation of back-up functions where it is decided that a RSCI shall provide such back-up to another one.

In this context, interoperability means the ability of RSCIs to implement a Set of harmonized requirements in order to enable them to operate effectively together, communicate and exchange data and information and provide consistent services to the TSOs served by two or more RSCIs, despite the fact that service implementation processes between a RSCI and its served TSOs can differ from one RSCI to another one.

This concerns all means that make this interoperability effective, such as IT tools, common resources (tools, means and facilities), common data, common communication platform, common platform for storage, sharing and retrieving of data exchange, common or coordinated processes and procedures, synchronized tasks or resources availability, common training.

In the following are listed minimum requirements established by TSOs to be applied as soon as possible but at the latest by end 2017 by all existing and future RSCIs to reach the interoperability level needed for the present agreement and for its implementation. Further more advanced requirements for interoperability could be studied and designed in the scope of ENTSO-E bodies work, before introducing them in a revised version of this Appendix.

2. MINIMUM REQUIREMENTS

2.1 COMMON DATA AND PROCESSES

Coordination of services needs that the studies made by RSCIs to produce those services are done with consistent assumptions and available data sets of defined quality. For comparability and exchange reasons, the same input data and the same timestamps have to be used.

The following requirements apply:

1. Last Common Grid Model Exchange Standard (CGMES) format adopted by ENTSO-E shall be exclusively used by TSOs and RSCIs when exchanging IGMs and CGMs
2. TSOs and RSCIs shall systematically use the Operational Planning Data Environment (OPDE) for storage, sharing and retrieving of data required by the services
3. TSOs and RSCIs shall apply the rules for IGM/CGM quality checking, correction, improvement defined and validated by SOC
4. RSCIs shall use tools for load-flow (LF) calculations, able to provide comparable LF results on the same CGM. Those tools shall have received a positive CGMES conformity assessment from ENTSO-E.
5. RSCIs shall apply a common process to generate CGMs at standardized hours and for standardized timestamps.
6. RSCIs shall agree on a common process to execute synchronized coordinated security analyses on the CGMs defined in requirement 5, exchange on the results and cross-regionally handle remedial actions based on the results of the analyses. This common process shall define a minimum set of common time schedules applicable by all RSCIs and allow for different frequencies and time schedules of such coordinated exchanges between RSCIs for different regions of Europe.

NB: Technical implementation of points 1 to 5 are expected to be an output of the current Common Grid Model Program currently developed by ENTSO-E and followed by the amendment of this Appendix if needed.

2.2 COMMON RESOURCES (TOOLS, MEANS AND FACILITIES)

Requirements have to be fulfilled in terms of availability, redundancy, reliability and support for effective professional work. They are necessary to allow a RSCI (or a TSO) to communicate with another RSCI when necessary and without delay. For example this is necessary when a RSCI has identified:

- a potential constraint/risk in the system which has to be dealt with through RSCI coordination, or
- a material problem which prohibits coordination and has to be solved (e.g.: data quality problem, IT/communication infrastructure failure).

These requirements are:

1. RSCI operator shall be available for coordination (notably for cross-regional security analysis, identification and coordination of cross-regional remedial actions, IGM/CGM improvement) on a 24 hours / 7 days basis. Nevertheless, it is accepted that a given RSCI, notably a recently established one, does not fulfil this target, provided that an alternative solution has been organised. Such a situation, with the relevant reasoning, shall be notified to SOC. The alternative solution shall ensure that, during the RSCI uncovered periods, the RSCI contact is substituted by a clearly defined contact (eg. in the control room of one of the served TSOs). Such a contact shall be able to answer and interact with the calling RSCI regarding technical coordination, at least for

proceeding to an IGM correction, assessing the cross-regional impact of a possible remedial action and ensuring its validation by the concerned TSOs.

2. During working periods of a RSCI, this RSCI shall have a technical support available to treat in the most efficient way any failure in the procured services.
3. RSCIs shall agree on common communication systems ensuring the capacity to exchange information (voice and data) between RSCIs required to enable inter-RSCI coordination for the different services as described in Appendix II, with an availability target consistent with the minimum service level targets defined in Appendix II.
4. All inter RSCI voice and written exchanges shall systematically use English language

In addition, with consideration that the "improved IGM/CGM delivery" service is a key basis for the delivery of the other services and that this service is not dependant to regional arrangements, the following requirement also apply:

RSCIs shall organise their operation and processes in order to ensure a back-up capability for the "improved IGM/CGM delivery" service between them. It means that when a RSCI in charge of delivering "improved IGM/CGM delivery" service to a set of served TSOs is not capable to delivering it, it shall have the possibility to request another RSCI to replace it during its failing period, in the most transparent possible way for those served TSOs. This back-up capability shall ensure at least that IGMs sent by those served TSOs are validated and made available on OPDE.

Any other form of back-up between RSCIs for the other services is out of the scope of the requirements defined in this appendix. Various forms of such back-ups could be considered to be organized between two or more RSCIs, taking into account regional initiatives and local organizations and needs.

MULTILATERAL AGREEMENT ON PARTICIPATION IN REGIONAL SECURITY COORDINATION INITIATIVES

APPENDIX III - ADHERENCE FORM FOR NEW PARTIES

Inter RSCI Agreement

The undersigned RSCI [NAME], a company / a cooperation incorporated under the laws of [COUNTRY], having its registered office at [ADDRESS], [COUNTRY], registered under the number [NUMBER], hereby accepts to be bound by the Inter RSCI Agreement signed on [date] as of [starting date].

Further, the undersigned accepts all the rights and assumes all obligations of a Party under the Agreement as from the date of the decision of the Parties in accordance with Article 8 of this Agreement.

This adherence form has been executed in [number of Parties] originals, to be duly signed by the undersigned authorised representatives, with such originals to be and shall be sent to all the other Parties.

For the avoidance of doubt, all capitalized terms in this adherence form shall have the meaning set forth in the Multilateral Agreement on Participation in Regional Security Coordination Initiatives.

[Date and Place]

[INSERT NAME OF THE NEW PARTY]
Signature(s)
Name(s)
Title(s)

ANNEX 5 – IMPLEMENTATION DEADLINES

Implementation Deadlines

The implementation deadline for establishing RSCIs is 30 September 2016 according to Art. 9 of the Agreement. The implementation deadline for all services is 31st December 2017.

After establishing the RSCIs the deadlines for implementation of the services shall be reviewed and this annex amended accordingly.

ANNEX 6 –ADHERENCE FORM FOR NEW PARTIES

Adherence form for new parties

Multilateral Agreement on Participation in Regional Security Coordination Initiatives

The undersigned [COMPANY NAME], a company incorporated under the laws of [COUNTRY], having its registered office at [ADDRESS], [COUNTRY], registered under the number [NUMBER], hereby accepts to be bound by the Multilateral Agreement on Participation in Regional Security Coordination Initiatives signed on [date] as of [starting date].

Further, the undersigned accepts all the rights and assumes all obligations of a Party under the Agreement as from the date of the SOC decision in accordance with Article 13 of this Agreement.

This adherence form has been executed in [number of Parties] originals, to be duly signed by the undersigned authorised representatives, with such originals to be and shall be sent to the ENTSO-E Secretariat, which shall forward an original copy to all the other Parties.

For the avoidance of doubt, all capitalized terms in this adherence form shall have the meaning set forth in the Multilateral Agreement on Participation in Regional Security Coordination Initiatives.

[Date and Place]

[INSERT NAME OF THE NEW PARTY]
Signature(s)
Name(s)
Title(s)