



European Network of
Transmission System Operators
for Electricity

ENTSO-E TRANSMISSION TRANSPARENCY PROCESS IMPLEMENTATION GUIDE

2023-10-19

APPROVED
VERSION 4 RELEASE 12

TABLE OF CONTENTS

1	INTRODUCTION	8
2	THE TRANSMISSION PROCESS OVERVIEW	9
2.1	BREAKDOWN OF THE TRANSMISSION PROCESS	9
3	THE TRANSMISSION PROCESSING SEQUENCE	11
3.1	GENERIC PROCESSING SEQUENCE	11
3.2	APPLICABLE ESMP DOCUMENTS	12
4	TRANSMISSION NETWORK MARKET DOCUMENT IMPLEMENTATION	12
4.1	THE TRANSMISSION OF NETWORK INFORMATION	12
4.2	STATUS INFORMATION	13
4.3	DOCUMENT INSTANCE IMPLEMENTATION	13
4.4	RULES GOVERNING THE NAME ATTRIBUTE	13
4.5	RULES GOVERNING THE SERIES PERIOD CLASS	13
4.6	DOCUMENT ATTRIBUTE DEPENDENCIES	14
5	PUBLICATION MARKET DOCUMENT IMPLEMENTATION	16
5.1	THE TRANSMISSION OF PUBLICATION INFORMATION	16
5.2	RULES GOVERNING THE NAME ATTRIBUTE	16
5.3	RULES GOVERNING THE SERIES PERIOD CLASS	16
5.4	RULES GOVERNING THE QUANTITY ATTRIBUTE	16
5.5	DOCUMENT ATTRIBUTE DEPENDENCIES	17

TABLE OF FIGURES

FIGURE 1: INFORMATION EXCHANGE FOR THE PROVISION OF TRANSMISSION INFORMATION	9
FIGURE 2: GENERIC TRANSMISSION PROCESS SEQUENCE	11
FIGURE 3: TRANSMISSION NETWORK DEPENDENCY TABLE	15
FIGURE 4: PUBLICATION DEPENDENCY TABLE FOR ARTICLE 11	18
FIGURE 5: PUBLICATION DEPENDENCY TABLE FOR ARTICLE 12	24

34

35

Copyright notice:

36

Copyright © ENTSO-E. All Rights Reserved.

37

38

39

40

41

42

43

This document and its whole translations may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works. However, this document itself may not be modified in any way, except for literal and whole translation into languages other than English and under all circumstances, the copyright notice or references to ENTSO-E may not be removed.

44

This document and the information contained herein is provided on an “as is” basis.

45

46

47

48

ENTSO-E DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

49

50

This document is maintained by the ENTSO-E CIM WG. Comments or remarks are to be provided at cim@entsoe.eu

Revision History

Version	Release	Date	Comments
1	0	2013-06-24	First version.
2	0	2013-09-12	Following the Manual of Procedure review
3	0	2014-01-24	Version taking into account comments in addition to correcting some typing errors. Alignment of the models and attribute names with the CIM model following integrity check. Addition of reference to 451-3 concerning the publication document. Addition of Winners_MarketParticipant class Dependency table clarification. Approved by Market Committee on 2014-02-04.
4	0	2015-01-08	This version takes into account the EMFIP corrigendum version 5. The following changes have been made: <ul style="list-style-type: none"> • Cardinality of association between Asset_RegisteredResource and Asset_MktPSRType has its multiplicity changed from "1..1" to "0..1" • Add, for the contract_MarketAgreement.Type attribute, "A05" as a possible code for use in the Publication Market document to satisfy an article 12.1(b) requirement. • Update of the Publication Market document dependency table as concerns the items related to 12.1(a), 12.1(b), 12.1(c) and 12.1€. • Add the resolution daily (P1D) as well as correct the monthly resolution description in section 5.6.2 of the Publication Market document • the definition of the attribute price_Measure_Unit.name is updated from "The unit of measure associated with the quantities in a TimeSeries" to "The unit of measure associated with the prices in a TimeSeries" • the dependency table for article 12
4	1	2015-09-22	Update the dependency table in section 5.3.2 for article 12.1(h) to handle implicit auctions as well as explicit auctions.
4	2	2016-04-28	Maintenance request EMFIP28: Add a new optional class Quantity associated to the class point in order to provide the total redispatch quantity Dependency table updated for article 13.a Redispatching.

			<p>Update of dependency table for article 12.1.b, the attribute contract_MarketAgreement.type is set as “Used”.</p> <p>Update of dependency table for article 12.1.f, the attribute contract_MarketAgreement.type is set as “Used”.</p> <p>A new version of the schema is generated, urn:iec62325.351:tc57wg16:451-6:transmissionnetworkdocument:4:0</p>
4	3	2016-09-02	<p>Maintenance request EMFIP36:</p> <p>Backed out the introduction of the optional class Quantity for article 13.1.a, introduced by maintenance request EMFIP28.</p> <p>Update of dependency table in §4.6 for article 13.1.a, the attribute quantity_Measure_Unit.name is set as “MWH”.</p> <p>Update of §Error! Reference source not found., adding “MWH” to list of permitted values.</p>
4	3	2016-09-28	For maintenance request EMFIP 36, changed description of series period class and Quantity in chapters 4.7 and 4.8.2, respectively.
4	4	2016-11-25	<p>Maintenance request EMFIP38:</p> <p>Reference to a transmission asset made optional for article 13.1.a Redispatching. Added note explaining how to populate in_Domain and out_Domain in case of internal redispatching.</p>
4	5	2018-04-27	<p>Added docStatus attribute with cardinality 0..1 to the document header in 5.1 Contextual Model and 5.2 Information Model. Added new content to chapter 5.3.1.</p> <p>Added subchapter in section 5.4 describing the new docStatus element</p>
4	6	2018-08-14	Maintenance request EMFIP47: Sequence number (also referred to as round) may be declared when submitting and publishing results for implicit allocations. Updated dependency table in chapter 5.3.2, row for classificationSequence and columns for transparency regulation articles 11.1.a Offered capacity and 12.1.h Allocations with 3 rd countries.
4	7	2019-03-28	<p>Maintenance Requests EMFIP 53 and EMFIP 55. New attributes in Publication document to distinguish the updates for the intraday offered capacity publication and to distinguish the interconnectors on the same border for an allocation. In consequence, dependency tables and rules have been updated.</p> <p>Approved by MC.</p>

4	8	2019-05-21	Maintenance request EMFIP59: Clarification on the use of ConnectingLine_RegisteredResource in Publication Market document.
4	9	2020-01-03	Maintenance request EMFIP63: Schema allows for millisecond precision in attribute update_Date_AndOrTime.dateTime.
4	10	2022-06-28	<p>Maintenance request EMFIP72: Introduced support for additional contract types in Publication document.</p> <p>Maintenance request EMFIP76: Negative quantities permitted when Publication Market document describes offered capacity. Chapters 5.5 and 5.5.2 updated accordingly.</p> <p>Maintenance request EMFIP78: Introduction of continuous allocations, voluntary publication of intraday energy prices and clarifying net position publications. Chapters 3, 5.1.2 and 5.3.3, figures 1 and 2 updated accordingly.</p> <p>Added missing table of schema versions. Removed descriptions of schema attributes.</p> <p>Approved by MC.</p>
4	11	2023-05-21	<p>Maintenance request EMFIP82: Negative values permitted when publishing forecasted transfer capacities. Chapter 5.4 updated accordingly.</p> <p>Maintenance request EMFIP84: Publications under 12.1.e shall convey implicit allocations only – figures 1 and 2 updated accordingly. Publication under 12.1.f extended with net positions. Dependency table in chapter 5.5 updated accordingly, along with editorial simplification in the same table.</p> <p>Editorial corrections in figures 1 and 2 and in dependency table in chapter 5.5.</p>
4	12	2023-10-19	<p>Maintenance request EMFIP86: Classification Sequence attribute may be used when publishing energy prices under TR art. 12.1.d and congestion income under TR art. 12.1.e.</p> <p>Approved by ICTC.</p>

Reference Documents

- “Commission Regulation No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council. (note: all articles mentioned in the current document come from this regulation).
- Central Information Transparency Platform - Business Requirements Specification.
- The ENTSO-E Harmonised Role Model.
- A Common Identification System for the Energy Industry, The Energy Identification Coding Scheme – EIC.
- The ENTSO-E Code List.
- IEC 62325-301, Framework for energy market communications Common information model (CIM) Extensions for markets.
- IEC 62325-351, Framework for energy market communications CIM European market model exchange profile
- IEC 62325-450, Profile and context modelling rules.
- IEC 62361 part 100, Naming and design rules for CIM profiles to XML schema mapping.
- IEC 62325-451-1, Framework for energy market communications The acknowledgement document.
- IEC 62325-451-3, Transmission capacity allocation and nomination process. The publication document (note: the publication document schema shall be the schema generated in the context of the ECAN process. The description is provided in this document for information).
- IEC 62325-451-6, Framework for energy market communications – Part 451-6: Publication of information on market, contextual and assembly models for European-style markets.
- The introduction of different time series possibilities (CurveType) within ENTSO-E electronic documents.
- Estimated Net Transfer Capacity (NTC) Publication Business Requirement Specification v1r0
- ENTSO-E XML namespace reference document version 2 release 0. This reference shall ensure to have compliant electronic document instance files; and in particular to apply the following recommendations:
 - **In order to enable flexibility, it is recommended that the schema location instruction (and xsi definition) in the schema compliant instance should not be used.**

1 INTRODUCTION

This implementation guide is one of the implementation guides drafted by ENTSO-E to enable the establishment of a common level of fundamental data transparency as per the Regulation on transparency and provision of information in European electricity markets.

This implementation guide focuses on defining the information to be exchanged for the publication of the transmission data as defined in the regulation, the EMFIP detailed description and the EMFIP Business Requirements Specification.

Its purpose is to facilitate the provision of transmission information to a central information platform. This platform should enable the establishment of a coherent and consistent view of the European wholesale electricity market by all the market participants as well as to interested European consumers.

The implementation guide is one of the building blocks for using UML (Unified Modelling Language) based techniques in defining processes and documents for interchange between actors in the electrical industry in Europe.

This guide provides a standard for enabling a uniform layout for the transmission of transmission data between the European electricity market participants and the Transparency platform via the Data Provider (who may be the Transmission System Operator). The information model within the guide shall ensure that a common interface can be provided between different software solutions.

2 THE TRANSMISSION PROCESS OVERVIEW

2.1 BREAKDOWN OF THE TRANSMISSION PROCESS

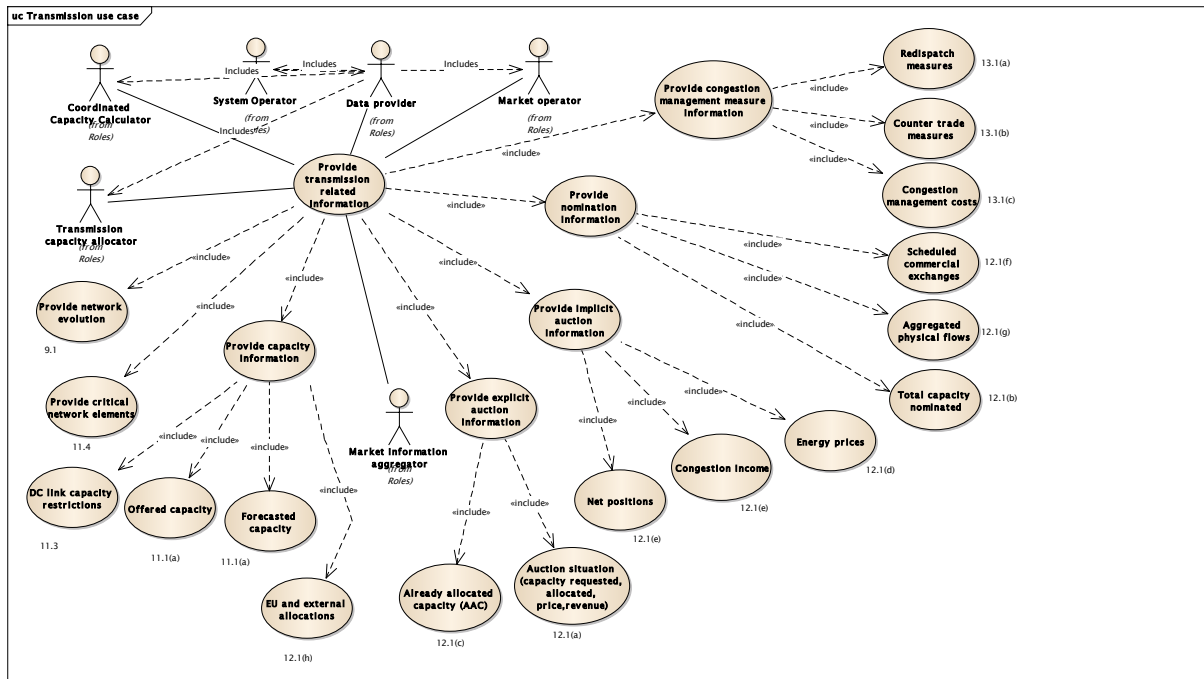


FIGURE 1: INFORMATION EXCHANGE FOR THE PROVISION OF TRANSMISSION INFORMATION

The provision of transmission information is relatively straightforward and is basically broken down into seven sub use cases and one publication use case. The seven sub use cases are as follows:

1. Provide network evolution information
2. Provide critical network elements.
3. Provide capacity information. This in its own right can be broken down into three further sub use cases:
 - a. DC link capacity restrictions
 - b. Offered capacity
 - c. Forecasted capacity
 - d. EU and external allocations
4. Provide explicit auction information
 - a. Energy prices
 - b. Already allocated capacity

- 126 c. Auction situation
- 127 5. Provide implicit auction information
- 128 6. Provide nomination information
- 129 a. Total capacity nominated
- 130 b. Aggregated physical flows
- 131 c. Scheduled commercial exchanges
- 132 7. Provide congestion management measure information.
- 133 a. Redispatch measures
- 134 b. Counter trade measures
- 135 c. Congestion management costs

136 The platform makes the information provided in the seven initial use cases available to the
137 public as soon as any information is received through the eighth use case “provide
138 transmission results”.

3 THE TRANSMISSION PROCESSING SEQUENCE

3.1 GENERIC PROCESSING SEQUENCE

The transmission process basically follows the periodicities defined in the regulation.

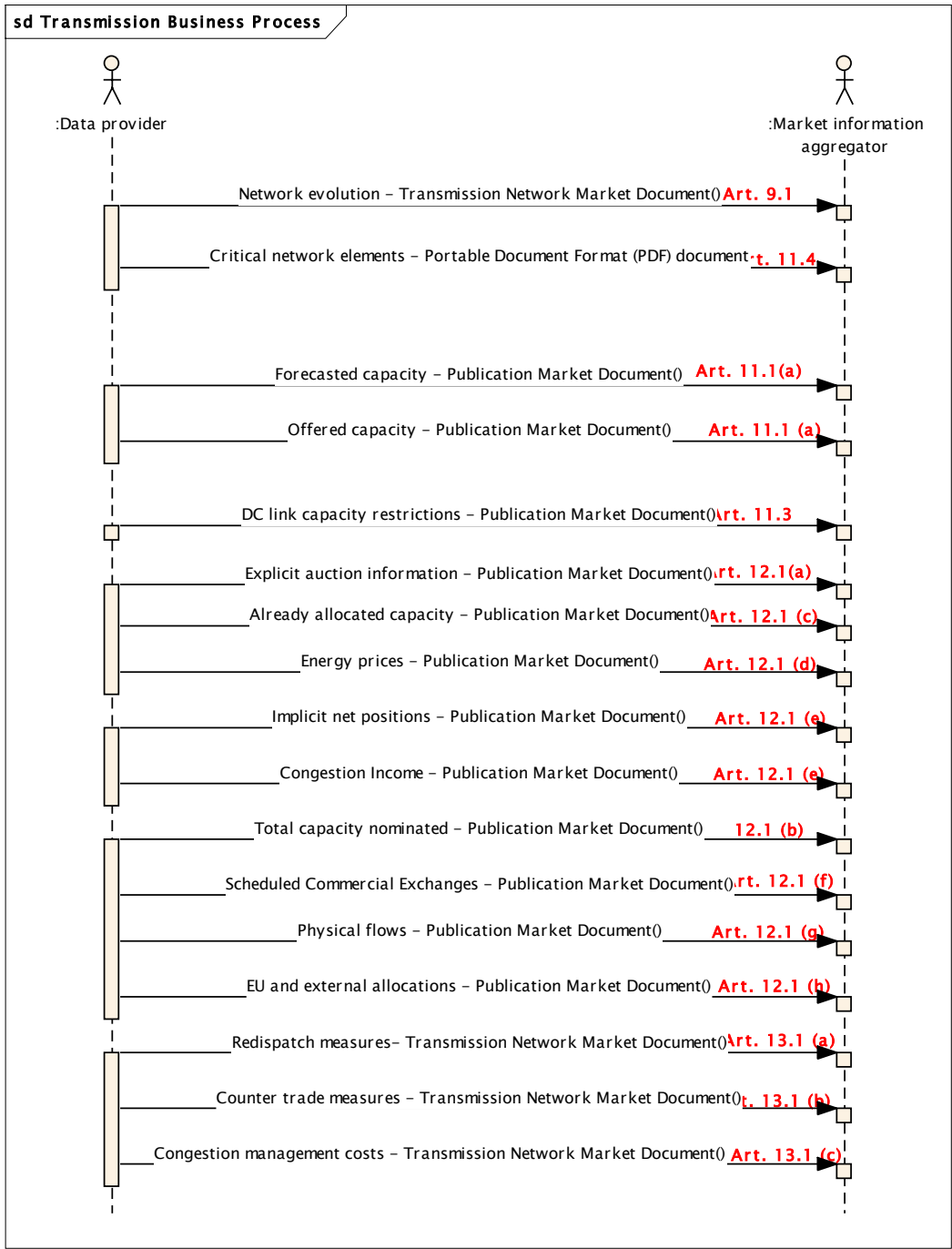


FIGURE 2: GENERIC TRANSMISSION PROCESS SEQUENCE

Following the reception of a transmission network market document or a publication market document, the acknowledgement business process as per IEC 62325-451-1 shall be applied. In particular, the Data provider shall receive an acknowledgement stating whether the document has been accepted or rejected and the reasons for the rejection.

Note: A Portable Document Format (PDF) document is a freeform document for which the content or structure is not defined in this document. It can be assimilated to a picture of a Microsoft Word document.

3.2 APPLICABLE ESMP DOCUMENTS

This implementation guide assumes the use of the following EDI documents and contextual and assembly models (also referred to as XSD or schema versions):

Table 1 – Applicable ESMP documents

ESMP document		version
Transmission network market document		urn:iec62325.351:tc57wg16:451-6:transmissionnetworkdocument:3:0
Publication market document		urn:iec62325.351:tc57wg16:451-3:publicationdocument:7:3

All schemas are available for download from the ENTSO-E website.

A01 = EIC coding scheme is the single supported coding scheme.

4 TRANSMISSION NETWORK MARKET DOCUMENT IMPLEMENTATION

4.1 THE TRANSMISSION OF NETWORK INFORMATION

The Transmission Network Market Document is used to transmit the transmission network information concerning future changes to the network elements including expansion and dismantling of the transmission grids over a three year period.

The Transmission Network Market Document is also used to transmit information relating to congestion management.

A Transmission Network Market Document may be revised through the use of the revision number. The latest revision of the document provides the current state of the network information.

4.2 STATUS INFORMATION

Network information when transmitted may have two states, either it is active or it has been cancelled.

Two other cases are foreseen:

- A status of cancelled where the planned network evolution will not take place,
- A status of withdrawn where there has been an error in the transmission of the information (in this case, a "proper" reason should be given).

4.3 DOCUMENT INSTANCE IMPLEMENTATION

The XML documents described in this implementation guide are to be used for the upload of information to the central transparency platform; they may also be used for the download of information to market participants in order to enable automatic processing of the information within their systems.

Consequently attributes that describe basic configuration information (such as name, voltage level, etc.) have been included in the XML documents as optional attributes that may be used only in the case where information is downloaded from the platform. This information shall not be used in the case where information is uploaded to the platform.

4.4 RULES GOVERNING THE NAME ATTRIBUTE

The maximum length of the name is 35 alphanumeric characters. This is due to Transparency Platform limitations and not the schema. rules governing the time series class

A time series shall exist to describe a specific piece of a transmission network structure or congestion management information. It conveys the data related to the evolution of a network or provides congestion management measures. It identifies the impact on cross zonal capacity per direction.

4.5 RULES GOVERNING THE SERIES PERIOD CLASS

The series period class provides the market time unit information for the impact on cross zonal capacity or the redispatched energy.

At least one series period class shall exist.

The number of periods within a time series as characterized by the resolution must completely cover the period's time interval. rules governing the quantity attribute

Negative values are not allowed.

4.6 DOCUMENT ATTRIBUTE DEPENDENCIES

Article involved Attribute		Art. 9.1 Transmission infrastructure	Art. 13(a) Redispatch	Art. 13(b) Countertrading	Art. 13(c) Congestion costs
	type	A90: interconnector network expansion	A63: redispatch mode	A91: countertrade notice	A92: congestion costs
	process.processType	A35: network information	A16: realised	A16: realised	A16: realised
	sender_MarketParticipant.mar ketRole.type	A04 = System Operator or TSO A07 = Transmission Capacity Allocator A11 = Market Operator A39 = Data Provider A32 = Market Information Aggregator A36 = Capacity Coordinator			
	receiver_MarketParticipant.ma rketRole.type	A04 = System Operator or TSO A32 = Market Information Aggregator A33 = Information receiver			
	period.timeInterval	the period that the transmission network document is covering			
TimeSeries	businessType	B01: interconnector network evolution B02: interconnector network dismantling	A46: system operator redispatching A85: internal requirements See Note 1 below.	B03: countertrade	B04: congestion costs B03: countertrade A46: system operator redispatch See Note 2 below.
	in_Domain.mRID	Used	Used	Used	in_Domain.mRID is the same as out_Domain.mRID
	out_Domain.mRID	Used	Used	Used	out_Domain.mRID is the same as in_Domain.mRID
	quantity_Measure_Unit.name	MAW	MWH	MAW	Not used
	currency_Unit.name	Not used	Not used	Not used	Used
	mktPSRType.psrType	Not used	Used	Not used	Not used
	curveType	A01 = Sequential fixed size block A02 = Point A03 = Variable sized blocks			
	end_DateAndOrTime.date	Used	Not used	Not used	Not used
Asset_RegisteredReso urce	mRID	Used	May be used	Not used	Not used
	asset_PSRType.psrType	Used only for download transmissions Not used for upload transmissions	May be used for download transmissions Not used for upload transmissions	Not used	Not used
	location.name	Used only for download transmissions Not used for upload transmissions	May be used for download transmissions Not used for upload transmissions	Not used	Not used
	timeInterval	Used	Used	Used	Used
Period	resolution	P1Y P1M P7D PT60M PT30M PT15M	PT15M PT30M PT60M	PT15M PT30M PT60M	P1M
	position	Used	Used	Used	Used
Poi nt	quantity	Impact	Impact	Impact	Not used

Article involved Attribute	Art. 9.1 Transmission infrastructure	Art. 13(a) Redispatch	Art. 13(b) Countertrading	Art. 13(c) Congestion costs
congestionCost_Price.amount	Not used	Not used	Not used	Used

201

202

FIGURE 3: TRANSMISSION NETWORK DEPENDENCY TABLE

203 Note 1: In the case of internal redispatching, i.e. when Business Type is A85=internal
204 requirements, the in and out domain shall always be the same.

205 Note 2: For TR art. 13.1.c it is necessary to distinguish between costs for redispatching
206 (A46), countertrading (B03) and any other remedial actions. The other remedial actions are
207 the difference between the total congestion costs (B04) and the total redispatch and counter
208 trade costs (i.e. $B04 - (A46 + B03)$).

5 PUBLICATION MARKET DOCUMENT IMPLEMENTATION

5.1 THE TRANSMISSION OF PUBLICATION INFORMATION

All publication information for one of the given categories of information should be transmitted in a single document with the identification of the document being used as the identification of the publication in question.

A Publication Market Document may be revised through the use of the revision number. The latest revision of the document provides the current state of the publication information being reported and cancels and replaces all previous versions of the document in question. It should be noted that every document version has a creation date and time that could be effectively used as the document timestamp.

A Publication Market Document when transmitted may have two states, it is by default always active or it has the status of withdrawn. A withdrawal is foreseen where there has been an error in the transmission of the information.

5.2 RULES GOVERNING THE NAME ATTRIBUTE

The maximum length of the name is 35 alphanumeric characters. This is due to Transparency Platform limitations and not the schema.

5.3 RULES GOVERNING THE SERIES PERIOD CLASS

The series period class provides the market time unit information for the time series identified above. At least one series period class shall exist.

There may be several series period classes for a time series per object type. The overall time interval covered by the period shall be within the complete Time Interval of the series period.

The number of periods within a time series as characterized by the resolution must completely cover the period's time interval.

5.4 RULES GOVERNING THE QUANTITY ATTRIBUTE

Negative values are not allowed except when intraday transit limits or forecasted and offered capacities are being provided.

5.5 DOCUMENT ATTRIBUTE DEPENDENCIES

Article involved Attribute		Art. 11(a) Information relating to the estimation of cross border capacity	Art. 11.1(a) bis Information relating to the offer of cross border capacity	Art. 11.3 Intraday transit limits
	type	A61: estimated capacity	A31: agreed capacity B33: published offered capacity ⁽¹⁾	A93: DC link capacity
	sender_MarketParticipant.mRID	Used		
	sender_MarketParticipant.marketRole.type	A04 = System Operator or TSO A39 = Data Provider A07 = Transmission Capacity Allocator A11 = Market Operator A32 = Market Information Aggregator A36 = Capacity Coordinator		
	receiver_MarketParticipant.mRID	Used		
	receiver_MarketParticipant.marketRole.type	A32 = Market Information Aggregator A04 = System Operator or TSO A11 = Market Operator A33 = Information receiver		
	period.timeInterval	The period will define whether the document refers to yearly, monthly, weekly or daily information	Used	Used
	domain.mRID	Not used	Not used	Not used
TimeSeries	auction.mRID	Not used	Used if explicit auction	Not used
	auction.type	Not used	A01: implicit auction A02: explicit auction A08: continuous allocation	Not used
	auction.category	Not used	Used if explicit auction: A01 = Base A02 = Peak A03 = Offpeak A04 = Hourly	Not used
	businessType	A27: NTC (estimated capacity)	A31: offered capacity	B06: DC link constraint
	in_Domain.mRID	In bidding zone	In bidding zone	In bidding zone
	out_Domain.mRID	Out bidding zone	Out bidding zone	Out bidding zone
	contract_MarketAgreement.type	Not used	A01 = Daily A02 = Weekly A03 = Monthly A04 = Yearly A06 = Long term A07 = Intraday A08 = Quarter yearly A09 = Semestrial When auction.type=A01 only A01 and A07 permitted. When auction.type=A08 only A07 permitted.	Not used
	quantity_Measure_Unit.name	MAW	MAW	MAW
	currency_Unit.name	Not used	Not used	Not used
	price_Measure_Unit.name	Not used	Not used	Not used
	classificationSequence_AttributeInstanceComponent.position	Not used	Used if explicit auction May be used if implicit auction	Not used
	participantNumber_AttributeInstanceComponent.position	Not used	Not used	Not used

Article involved Attribute		Art. 11(a) Information relating to the estimation of cross border capacity	Art. 11.1(a) bis Information relating to the offer of cross border capacity	Art. 11.3 Intraday transit limits
	winnerParticipantNumber_AttributeIn stanceComponent.position	Not used	Not used	Not used
	curveType	A01 = Sequential fixed size block A03 = Variable sized blocks		
	update_DateAndOrTime.dateTime	Not used	May be used when submitting offered capacity related to continuous allocations	Not used
	connectingLine_registeredResource. mRID	Not used	Not used	Not used
Period	Resolution	P1M P1D PT60M PT30M PT15M	P1Y P1M P7D P1D PT60M PT30M PT15M	PT60M PT30M PT15M
Point	Quantity	Used	Used	Used
	price.amount	Not used	Not used	Not used

⁽¹⁾ B33 is applicable only when data consumer downloads the most recent published offered capacity values related to intraday allocations.

FIGURE 4: PUBLICATION DEPENDENCY TABLE FOR ARTICLE 11

Article involved Attribute		Art. 12.1(a) Explicit allocation information (capacity)	Art. 12.1(a) Explicit allocation information (revenue only)	Art. 12.1(b) Total capacity nominated
	type	A25: allocation results	A25: allocation results	A26: capacity document
	sender_MarketParticipant.mRID	Used		
	sender_MarketParticipant.marketRole.type	A04 = System Operator or TSO A39 = Data Provider A07 = Transmission Capacity Allocator A11 = Market Operator A32 = Market Information Aggregator A36 = Capacity Coordinator		
	receiver_MarketParticipant.mRID	Used		
	receiver_MarketParticipant.marketRole.type	A32 = Market Information Aggregator A04 = System Operator or TSO A11 = Market Operator A33 = Information receiver		
	domain.mRID	Not used	Not used	Not used
TimeSeries	auction.mRID	Used	Used	Not used
	auction.type	A02: explicit auction	A02: explicit auction	Not used
	auction.category	Used: A01 = Base A02 = Peak A03 = Offpeak A04 = Hourly	Not used	Not used
	businessType	A43: requested capacity (without price) B05: capacity allocated (including price) B07: auction revenue	B07: auction revenue	B08: total nominated capacity
	in_Domain.mRID	In bidding zone	In bidding zone	In bidding zone
	out_Domain.mRID	Out bidding zone	Out bidding zone	Out bidding zone
	contract_MarketAgreement.type	A01 = Daily A02 = Weekly A03 = Monthly A04 = Yearly A06 = Long term A07 = Intraday A08 = Quarter yearly A09 = Semestrial		A01 = Daily A06 = Long term A07 = Intraday
	quantity_Measure_Unit.name	MAW if businessType is A43 or B05	Not used	MAW
	currency_Unit.name	Used if businessType is B05 or B07	Used	Not used
	price_Measure_Unit.name	MWH if businessType is B05	Not used	Not used
	classificationSequence_AttributeInstanceComponent.position	Used	Not used	Not used
	participantNumber_AttributeInstanceComponent.position	Not used	Not used	Not used
	winnerParticipantNumber_AttributeInstanceComponent.position	Not used	Not used	Not used
	curveType	A01 = Sequential fixed size block A03 = Variable sized blocks		
	update_DateAndOrTime.dateTime	Not used	Not used	Not used
	connectingLine_registeredResource.mRID	Not used	Not used	Not used
Period	Resolution	PT60M PT30M PT15M	PT60M PT30M PT15M	PT60M PT30M PT15M

Article involved Attribute		Art. 12.1(a) Explicit allocation information (capacity)	Art. 12.1(a) Explicit allocation information (revenue only)	Art. 12.1(b) Total capacity nominated
Point	Quantity	Used, if businessType is A43 or B05	Not used	Used
	price.amount	Used, if businessType is B05 or B07	Used	Not used

Article involved Attribute		Art. 12.1(c) Total capacity already allocated	Art. 12.1(d) Energy prices	Art. 12.1(e) net positions and congestion income
	type	A26: capacity document	A44: price document	A25: allocation results
	sender_MarketParticipant.mRID	Used		
	sender_MarketParticipant.marketRole.type	A04 = System Operator or TSO A39 = Data Provider A07 = Transmission Capacity Allocator A11 = Market Operator A32 = Market Information Aggregator A36 = Capacity Coordinator		
	receiver_MarketParticipant.mRID	Used		
	receiver_MarketParticipant.marketRole.type	A32 = Market Information Aggregator A04 = System Operator or TSO A11 = Market Operator A33 = Information receiver		
	domain.mRID	Not used	Not used	Not used
TimeSeries	auction.mRID	Used	Not used	Not used
	auction.type	A02: explicit auction	A01: implicit auction	A01: implicit auction
	auction.category	Used: A01 = Base A02 = Peak A03 = Offpeak A04 = Hourly	Not used	Not used
	businessType	A29: AAC	A62: spot price	B09: net position B10: congestion income (shall be in a different document)
	in_Domain.mRID	In bidding zone	In bidding zone (same as out bidding zone)	In bidding zone. See notes below.
	out_Domain.mRID	Out bidding zone	Out bidding zone (same as in bidding zone)	Out bidding zone . See notes below.
	contract_MarketAgreement.type	A01 = Daily A02 = Weekly A03 = Monthly A04 = Yearly A06 = Long term A07 = Intraday A08 = Quarter yearly A09 = Semestrial	A01 = Daily A07 = Intraday	When business type=B09: A01 = Daily A05 = Total When business type=B10: A01 = Daily A07 = Intraday
	quantity_Measure_Unit.name	MAW	Not used	MAW if businessType is B09
	currency_Unit.name	Not used	Used	Used if price.amount
	price_Measure_Unit.name	Not used	MWH	MWH if price.amount
	classificationSequence_AttributeInstanceComponent.position	Not used	May be used	May be used when businessType=B10
	participantNumber_AttributeInstanceComponent.position	Not used	Not used	Not used
	winnerParticipantNumber_AttributeInstanceComponent.position	Not used	Not used	Not used
	curveType	A01 = Sequential fixed size block A03 = Variable sized blocks		
	update_DateAndOrTime.dateTime	Not used	Not used	Not used
	connectingLine_registeredResource.mRID	Not used	Not used	Not used

Article involved Attribute		Art. 12.1(c) Total capacity already allocated	Art. 12.1(d) Energy prices	Art. 12.1(e) net positions and congestion income
Period	Resolution	PT60M PT30M PT15M	PT60M PT30M PT15M	PT60M PT30M PT15M
Point	Quantity	Used	Not used	Used if businessType is B09
	price.amount	Not used	Used	Used if businessType is B10

Article involved Attribute		Art. 12.1(f) Scheduled commercial exchanges	Art. 12.1(g) Physical flows	Art. 12.1(h) Capacity allocated outside EU
	Type	A09: finalised schedule	A11: aggregated energy data report	A94: non EU allocation
	sender_MarketParticipant.mRID	Used		
	sender_MarketParticipant.marketRole.type	A04 = System Operator or TSO A39 = Data Provider A07 = Transmission Capacity Allocator A11 = Market Operator A32 = Market Information Aggregator A36 = Capacity Coordinator		
	receiver_MarketParticipant.mRID	Used		
	receiver_MarketParticipant.marketRole.type	A32 = Market Information Aggregator A04 = System Operator or TSO A11 = Market Operator A33 = Information receiver		
	domain.mRID	Not used	Not used	Not used
TimeSeries	auction.mRID	Not used	Not used	Used if explicit auction
	auction.type	Not used	Not used	A01: implicit auction A02: explicit auction
	auction.category	Not used	Not used	Used if explicit auction: A01 = Base A02 = Peak A03 = Offpeak A04 = Hourly
	businessType	A06: external trade without explicit capacity B09: net position (used in downloads only)	A66: energy flow	A34: capacity rights
	in_Domain.mRID	In bidding zone. See note below when businessType = B09.	In bidding zone	In bidding zone
	out_Domain.mRID	Out bidding zone See note below when businessType = B09.	Out bidding zone	Out bidding zone
	contract_MarketAgreement.type	A01 = Daily A05 = Total	Not used	A01 = Daily A02 = Weekly A03 = Monthly A04 = Yearly A06 = Long term A07 = Intraday A08 = Quarter yearly A09 = Semestrial When auction.type=A01 only A01 and A07 permitted.
	quantity_Measure_Unit.name	MAW	MAW	MAW
	currency_Unit.name	Not used	Not used	Not used
	price_Measure_Unit.name	Not used	Not used	Not used
	classificationSequence_AttributeInstanceComponent.position	Not used	Not used	Used if explicit auction May be used if implicit auction
	participantNumber_AttributeInstanceComponent.position	Not used	Not used	Not used
	winnerParticipantNumber_AttributeInstanceComponent.position	Not used	Not used	Not used
	curveType	A01 = Sequential fixed size block A03 = Variable sized blocks		

Article involved Attribute		Art. 12.1(f) Scheduled commercial exchanges	Art. 12.1(g) Physical flows	Art. 12.1(h) Capacity allocated outside EU
	update_DateAndOrTime.dateTime	Not used	Not used	Not used
	connectingLine_registeredResource.mRID	Not used	Not used	Not used
Period	Resolution	PT60M PT30M PT15M	PT60M PT30M PT15M	P1Y P1M P7D P1D PT60M PT30M PT15M
Point	Quantity	Used	Used	Used
	price.amount	Not used	Not used	Not used

244

245

FIGURE 5: PUBLICATION DEPENDENCY TABLE FOR ARTICLE 12

246

Note: in the case of net position the in bidding zone and the out bidding zone shall contain depending on the direction the “Regional Market Area” and the “Bidding Zone”

247

248

Note: in the case of congestion income the in and out bidding zone should always be the same.

249

250

Note: For implicit allocations, the use of attribute

251

classificationSequence_AttributeInstanceComponent.position is mandatory when there are

252

allocations with identical delivery periods.

253