



European Network of
Transmission System Operators
for Electricity

ENTSO-E codelists

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1 Introduction

This document contains the description of the all the codes that may be used in the ENTSO-E XML instances based either on the ENTSO-E core components or on the IEC 62325-351 core components (CIM, common information model).

In order to know which codes are to be used in an electronic data interchange, reference to the appropriate ENTSO-E implementation guide is to be made or to the specific bilateral agreement.

2 ENTSO-E codelist 96 Release Date: 2026-08-05

2.1 AllocationModeType enumeration

The identification of the method of allocation in an auction.

Table 1 provides details of the Codelist AllocationModeType.

Table 1 - Codelist AllocationModeType

Code	Title	Description
A01	Order by price with pro rata	The allocation method is by price with eventual pro rata.
A02	Order by price with first come - first served	The allocation method is by price with eventual use of first come first served.
A03	First come - First served	The allocation method is first come first served.
A04	Pro rata	The allocation method is pro rata.

2.2 AnalogType enumeration

The identification of an analog value.

Table 2 provides details of the Codelist AnalogType.

Table 2 - Codelist AnalogType

Code	Title	Description
A01	Flow	This is the computed flow for the monitored element in the constraint situation ("N situation", "N-1 situation" ...) after the capacity calculation. The flow is expressed in A, %, or MW.
A02	Permanent admissible transmission limit (PATL)	The permanent load of transmission system elements which is allowed for an unlimited period and which does not cause physical damage to the transmission system elements as long as the defined threshold is respected.
A03	Flow reliability margin	This is the flow reliability margin for a given critical network element. The amount of MW or A that is reserved for this critical network element and shall not be used for the computed outage situation, in order to secure the power network.
A04	Spanning margin value	This is the margin that is taken into account when spanning (fall-back process) is applied. Spanning marginal value is an historical based parameter which specifies the amount of MW that reduces the RAM when spanning is applied.

Code	Title	Description
A05	Long term allocation margin	This is the amount of MW that is added to the capacity of the critical network element in order to automatically include the long term allocation domain into the flow based domain.
A06	Final adjustment margin value	This is the margin that is manually added or subtracted to the capacity of the critical network element. A negative value for final adjustment value simulates the effect of an additional margin due to complex remedial actions (RA) which cannot be modeled and so calculated in the flow based parameter calculation. A positive value for FAV as a consequence of the verification phase of the flow based domain, leading to the need to reduce the margin on one or more CBs for system security reasons.
A07	Transitory admissible transmission limit (TATL)	The temporary overload of transmission system elements which is allowed for a limited period and which does not cause physical damage to the transmission system elements as long as the defined duration and thresholds are respected.
A08	Long admissible flow	This is the value, expressed in A or MW, that the overload flow in a network element shall not exceed for a duration no longer than the long duration. The long duration value depends on the TSO network operating rules.
A09	Negative Final adjustment margin value	This is the margin that is manually added to the capacity of the critical network element in order to simulate the effect of an additional margin due to complex remedial actions (RA) which cannot be modeled and so calculated in the flow based parameter calculation.
A10	Minimum voltage level	This is the minimum voltage that can be supported by a network element without involving a risk for the security of supply.
A11	Maximum voltage level	This is the maximum voltage that can be supported by a network element without involving a risk for the security of supply.
A12	TATL after automatic RA	The Transitory admissible transmission limit (TATL) which is allowed after an automatic Remedial Action (RA) has been applied.
A13	TATL after curative RA	The Transitory admissible transmission limit (TATL) which is allowed after a curative Remedial Action (RA) has been applied.
A14	Computed Voltage	This is the computed voltage for a given monitored element.
A15	Zero-Balance flow	This is the amount of power affected by a contingency that reflects a situation with a scheduled exchange of zero.
A16	Available margin after remedial actions	This is the available flow margin adjusted for the consideration of remedial actions in capacity calculation.
A17	Loss Factor	This is the loss factor for an asset.
A18	Adjustment for minimum RAM	This is the adjustment applied to the capacity of a branch to have a minimum RAM (Remaining Available Margin) available for commercial exchanges.
A19	Tap changer	The position of a Tap changer.
A20	Regulator mode	A measurement type indicating the control mode of a regulator, i.e. from voltage regulation to fixed MVAR regulation.
A21	Regulator set-point	The set-point of a regulator. A regulator can be a tap changer, a synchronous machine, a SVC or a shunt.
A22	Reference Flow	This is the amount of power affected by a contingency that reflects a situation with scheduled exchanges from a reference situation.
A23	CO2 emission	This is the CO2 emission from one or several assets.
A24	Maximum admissible current (Imax)	The maximum admissible current of a critical network element or a critical network element and contingency.
A25	Individual value adjustment (IVA)	Individual value adjustment resulting from TSO validation process.

Code	Title	Description
A26	Linear flow approximation (F0)	The linear approximation of a flow in the reference net position in a situation without any cross-zonal exchanges.
A27	Flow without commercial exchanges (F0_Wce)	Flow per critical network element and contingency without commercial exchanges within a capacity calculation region.
A28	Flow without commercial exchanges between areas (F0_all)	Flow per critical network element and contingency without commercial exchanges between bidding zones within the same or different synchronous areas.
A29	Flow due to non-costly remedial actions (F_nrao)	Expected flow change due to non-costly remedial actions.
A30	Flow after long-term nominations (F_LTN)	Flow after consideration of long-term nominations.
A31	Coordinated value adjustment (CVA)	Coordinated value adjustment resulting from coordinated validation process.
A32	Minimum remaining available margin as ratio of maximum allowable power flow (Ramr)	Percentage of the maximum allowable power flow that needs to be available as minimum Remaining Available Margin.
A33	Flows from already allocated cross-zonal capacities (Faac)	Flows resulting from previously allocated cross-zonal capacities.
A34	Flow from remedial action (FRA)	Flow for increasing the Remaining Available Margin due to remedial action.
A35	Assumed external exchanges	Flow resulting from assumed commercial exchanges outside the region (F_uaf).
A36	Minimum remaining available margin target	Target capacity for exchanges by deducing the exchanges not related to the region.
A37	Average voltage	Average voltage on two connecting nodes of a critical network element resulting from AC load flow calculation with applied reactive power constraints (U).
A38	Average power factor	Average power factor on two connecting nodes of a critical network element resulting from AC load flow calculation (cos phi).
A39	Lower ramp rate	The maximum rate that the output can be lowered by.
A40	Raise ramp rate	The maximum rate that the output can be raised by.
A41	Negative reference flow	The amount of power negatively affected by a contingency that reflects a situation with scheduled exchanges from a reference situation.
A42	Negative flow due to non-costly remedial actions	Negative expected flow change due to non-costly remedial actions.
A43	Maximum flow from technical limits (F_max)	Maximum admissible flow per critical network element and contingency due to technical limits.
A44	Maximum flow from flow-based domain limitations (MaxFlow)	Maximum flow per critical network element and contingency due to limitations imposed by the calculated flow-based domain.

Code	Title	Description
A45	Minimum flow from flow-based domain limitations (MinFlow)	Minimum flow per critical network element and contingency due to limitations imposed by the calculated flow-based domain.
A46	Flow due to countertrading	Flow per critical network element and contingency resulting from previously allocated cross-zonal capacities due to countertrading.

153

154 **2.3 AreaType enumeration**

155 The coded identification of the type of area or domain.

156 Table 3 provides details of the Codelist AreaType.

157

Table 3 - Codelist AreaType

Code	Title	Description
A01	Bidding Zone	A Bidding Zone (BZ) is the largest geographical area within which market participants are able to exchange energy without capacity allocation.
A02	Metering Grid Area	A Metering Grid Area (MGA) is a physical area where consumption, production and exchange can be measured. It is delimited by the placement of meters for continuous measurement for input to, and withdrawal from the area. Additional information: It can be used to establish volumes that cannot be measured such as network losses.
A03	Capacity Calculation Region	HEMRM definition: The Capacity Calculation Region is the geographic area in which coordinated capacity calculation is applied. Based on: Consolidated text: Commission Regulation (EU) 2015/1222. Additional information: The transmission capacity between Bidding Zones, included in the Capacity Calculation Region, is given to the Balance Responsible Parties through an implicit capacity allocation process or through an explicit allocation auction.
A04	Control Area	HEMRM definition: A coherent part of the interconnected system, operated by a single System Operator and shall include connected physical loads and/or generation units if any. Source: Consolidated text: Commission Regulation (EU) No 543/2013.
A05	Coordination Center Zone	HEMRM definition: The composition of a number of LFC Blocks under the responsibility of the same Coordination Centre Operator.
A06	FRR Sharing Region	HEMRM definition: A set of LFC Areas of the same synchronous area, but not necessarily the same Bidding Zone. All LFC Areas of a FRR Sharing Region share a certain amount of FRR with each other. Based on: Consolidated text: Commission Regulation (EU) 2017/1485, Article 168.
A07	ITC	EIC definition: A cross border tariff market is composed of a group of System Operators that accept a common set of rules for the invoicing of energy flows over the border.
A08	LFC Area	HEMRM definition: A part of a synchronous area or an entire synchronous area, physically demarcated by points of measurement at interconnectors to other LFC Areas, operated by one or more TSOs fulfilling the obligations of load-frequency control. Source: Consolidated text: Commission Regulation (EU) 2017/1485.

Code	Title	Description
A09	LFC Block	HEMRM definition: A part of a synchronous area or an entire synchronous area, physically demarcated by points of measurement at interconnectors to other LFC Blocks, consisting of one or more LFC Areas, operated by one or more TSOs fulfilling the obligations of load-frequency control. Source: Consolidated text: Commission Regulation (EU) 2017/1485
A10	Local Market Area	EIC definition: A Market Area where there is no transmission capacity restrictions between the Market Balance Areas.
A11	Market Area	EIC definition: An area made up of several Market Balance Areas interconnected through AC or DC links. Trade is allowed between different Market Balance Areas with common market rules for trading across the interconnection.
A12	Outage Coordination Region	EIC definition: A combination of Control Areas for which all the System Operators directly involved define procedures to monitor and where necessary, coordinate the availability status of relevant assets in all timeframes.
A13	R G C E Interconnected Group	HEMRM definition: The composition of a number of Coordination Centre Zones, operating under RGCE (Regional Group Continental Europe) rules, where the exchange and compensation programmes within the zone must sum up to zero.
A14	Regional Outage Area	EIC definition: A combination of control areas for which TSOs implement outage coordination procedure.
A15	Scheduling Area	HEMRM definition: An area within which the TSOs' obligations regarding scheduling apply due to operational or organisational needs. Source: Consolidated text: Commission Regulation (EU) 2017/1485. Additional information: This area consists of one or more Metering Grid Areas with common market rules for which the settlement responsible party carries out an imbalance settlement and which has the same price for imbalance. This covers both Imbalance Area and Imbalance Price Area from the Consolidated text: Commission Regulation (EU) 2017/2195.
A16	Synchronous Area	HEMRM definition: An area covered by synchronously interconnected LFC blocks. Based on: Commission Regulation (EU) 2016/631, Art. 2 - Definitions. Additional information: Examples of Synchronous Areas are Continental Europe, Great Britain, Ireland - Northern Ireland, Nordic and the power systems of Lithuania, Latvia and Estonia, together referred to as 'Baltic' which are part of a wider synchronous area (IPS/UPS).
A17	Accounting Point	HEMRM definition: A domain under balance responsibility where Energy Supplier change can take place and for which commercial business processes are defined. Additional information: This is a type of Metering Point.
A18	Connection Point	EIC definition: The interface at which the power generating module, demand facility, distribution system or HVDC system is connected to a transmission system, offshore network, distribution system, including closed distribution systems, or HVDC system, as identified in the connection agreement.
A19	Exchange Point	HEMRM definition: A domain for establishing energy exchange between two Metering Grid Areas. Additional information: This is a type of Metering Point.
A20	Metering Point	HEMRM definition: An entity where energy products are measured or computed.

Code	Title	Description
A21	Virtual Interconnection Points	EIC definition: Two or more interconnection points which connect the same two adjacent entry-exit systems, integrated together for the purposes of providing a single capacity service.
A22	Virtual Trading Points	EIC definition: Virtual Trading Point: Trading location where (gas) energy can be traded between network users (Shippers) themselves and/or with traders.
A23	AC/DC Converter	EIC definition: AC/DC converters are electrical circuits that transform alternating current (AC) into direct current (DC) and vice versa.
A24	Busbar Coupler	EIC definition: Bus coupler is a device which is used to couple one bus to the other without any interruption in power supply and without creating hazardous arcs. Bus coupler is a breaker used to couple two busbars in order to perform maintenance on other circuit breakers associated with that busbar.
A25	Compressor Station	EIC definition: Facility in the gas transmission system that allows the control of the gas flow and to increase the pressure in the high pressure pipe lines.
A26	Corridor	EIC definition: Set of two or more tielines, describing a multi-circuit connection.
A27	Flow Control Station	EIC definition: Facility in the gas transmission system that allows the regulation of pressure and the gas flow in the high pressure pipe lines.
A28	Gas Treatment Facility	EIC definition: Facility in the gas transmission system that allows processing of the gas in order to meet the required physical and chemical specifications.
A29	Internal Line	EIC definition: A transmission line that does not cross different areas.
A30	Internal Tie-Line	EIC definition: Line is a line between two scheduling areas within the same bidding zone.
A31	Odorization Facility	EIC definition: Facility in the gas transmission system that allows the addition of odorant to natural gas for leak detection awareness.
A32	Transformer	EIC definition: A Static piece of apparatus with two or more windings which, by electromagnetic induction, transforms a system of alternating voltage and current into another system of voltage and current usually of different values and at the same frequency for the purpose of transmitting electrical power.
A33	Endpoint	EIC definition: Unique identification of Endpoint within single ECP network.
A34	IT-system	EIC definition: Common IT system for market parties.
A35	IT-topic	EIC definition: An IT-topic is a functional address, which allows a sender to address multiple recipients at the same time.
A36	Location	EIC definition: An endpoint, or IT-system.
A37	Busbar	EIC definition: A busbar is a system of electrical conductors in a generating or receiving substation on which power is concentrated for distribution.

Code	Title	Description
A38	Dynamic reactive power device	EIC definition: A dynamic reactive power device is an equipment capable of measuring the reactive power consumed in the phase in which it is installed and providing the reactive power required in a gradual way, from zero to maximum capacitive and/or from zero to the maximum inductive.
A39	Harmonic Filter	EIC definition: A harmonic filter reduces the harmonic currents flowing in the power system from the source and thereby reduce the harmonic voltage distortion in the system.
A40	Substation	EIC definition: Facility equipment that steps up or steps down the voltage in utility power lines. Voltage is stepped up where power is sent through long distance transmission lines, and stepped down where the power is to enter local distribution lines. They can be classified as normal outside substation, armoured substation and underground substation.
A41	Bidding Zone Border	HEMRM definition: Defines the aggregated connection capacity between two Bidding Zones. A market area (Which defines the aggregated connection capacity between two Bidding Zones) where the transmission capacity between the Bidding Zones is given to the Balance Responsible Parties according to rules carried out by a Transmission Capacity Allocator. Trade between Bidding Zones is carried out on a bilateral or unilateral basis.

158

159 **2.4 AssetType enumeration**

160 The identification of the type of asset.

161 Table 4 provides details of the Codelist AssetType.

162

Table 4 - Codelist AssetType

Code	Title	Description
A01	Tie line	A high voltage line used for cross border energy interconnections.
A02	Line	A specific electric line within a country.
A03	Resource Object	A resource that can either produce or consume energy.
A04	Generation	A resource that can produce energy.
A05	Load	A resource that can consume energy.
A06	Phase Shift Transformer	An electrical device for controlling the power flow through specific lines in a power transmission network.
A07	Circuit Breaker	An electrical switch designed to protect an electrical circuit from damage caused by overcurrent/overload or short circuit.
A08	Busbar	A specific element within a substation to connect grid elements for energy distribution purposes.
A09	Capacitor	A transmission element designed to inject reactive power into the transmission network.
A10	Inductor	A transmission element designed to compensate reactive power in the transmission network.
A11	Power plant connection	All the network equipment that link the generating unit to the grid.
A12	FACTS	Flexible Alternating Current Transmission System

Code	Title	Description
A13	Production unit	A production unit is a composition of one or several generation units.
A14	Internal tie line	An internal tie line is a line between two scheduling areas within the same bidding zone.
B01	Biomass	A resource using biomass for energy.
B02	Fossil Brown coal/Lignite	A resource using Fossil Brown coal/Lignite for energy.
B03	Fossil Coal-derived gas	A resource using Fossil Coal-derived gas for energy.
B04	Fossil Gas	A resource using Fossil Gas for energy.
B05	Fossil Hard coal	A resource using Fossil Hard coal for energy.
B06	Fossil Oil	A resource using Fossil Oil for energy.
B07	Fossil Oil shale	A resource using Fossil Oil shale for energy.
B08	Fossil Peat	A resource using Fossil Peat for energy.
B09	Geothermal	A resource using Geothermal for energy.
B10	Hydro-electric pure pumped storage head installation	Unit in which moving water energy is converted to electricity using flowing water to generate electricity with a large dam and reservoirs. Pure pumped storage plants store water in an upper reservoir with no natural inflows.
B11	Hydro Run-of-river head installation	Unit in which moving water energy is converted to electricity using flowing water to generate electricity in the absence of a large dam and reservoirs.
B12	Hydro-electric storage head installation	Unit in which moving water energy is converted to electricity using flowing water to generate electricity with a large dam and reservoirs.
B13	Marine unspecified	Unit in which marine energy is converted to electricity with equipment/devices not specified.
B14	Nuclear unspecified	A unit in which the heat source is a nuclear reactor of type that is not specified in other nuclear types.
B15	Other renewable	A resource using Other renewable for energy.
B16	Solar unspecified	Unit in which solar energy is converted to electricity with equipment/devices not specified.
B17	Waste	A resource using Waste for energy.
B18	Wind Offshore	Unit in which wind energy is converted to electricity using wind farms constructed in bodies of water, usually in the ocean.
B19	Wind Onshore	Unit in which wind energy is converted to electricity using wind farms constructed on land.
B20	Other unspecified	Other unspecified technology.
B21	AC Link	Overhead line or cable which is used to transmit electrical power via Alternative Current.
B22	DC Link	Overhead line or cable which is used to transmit electrical power via Direct Current.
B23	Substation	An assembly of equipment in an electric power system through which electric energy is passed for transmission, transformation, distribution or switching.
B24	Transformer	Electrical device that transfers energy from one voltage level to another voltage level.
B25	Energy storage	A resource that stores energy. It could be gas, electricity, etc.

Code	Title	Description
B26	Demand Side Response	A resource that change its electricity consumption patterns in response to a signal or incentive.
B27	Dispatchable hydro resource	A resource referring to dispatchable hydro generation.
B28	Solar photovoltaic	Unit in which solar energy is converted to electricity using a technology based on the photoelectric effect.
B29	Solar concentration	Unit in which solar energy is converted to electricity using mirrors to concentrate the sun's energy to drive traditional steam turbines or engines.
B30	Wind unspecified	Unit in which wind energy is converted to electricity with equipment/devices not specified.
B31	Hydro-electric unspecified	Unit in which moving water energy is converted to electricity with equipment/devices not specified.
B32	Hydro-electric mixed pumped storage head installation	Unit in which moving water energy is converted to electricity using flowing water to generate electricity with a large dam and reservoirs. Mixed pumped storage plants use a combination of pumped storage and conventional hydroelectric plants with an upper reservoir that is replenished in part by natural inflows from a stream or river.
B33	Marine tidal	Unit in which marine energy from tides is converted to electricity.
B34	Marine wave	Unit in which marine energy from waves is converted to electricity.
B35	Marine currents	Unit in which marine energy from currents is converted to electricity.
B36	Marine pressure	Unit in which marine energy from pressure is converted to electricity.
B37	Thermal unspecified	Unit in which heat energy is converted to electricity with equipment/devices not specified in other thermal types.
B38	Thermal combined cycle gas turbine with heat recovery	Unit in which heat energy is converted to electricity called Combined Cycle Gas Turbine. The power is generated by the single or multiple gas turbine(s) in combination with the steam turbine(s). The unit might be equipped with waste heat recovery (e.g. to district heating network).
B39	Thermal steam turbine with back-pressure turbine (open cycle)	Unit in which heat energy is converted to electricity. The power is generated with the steam that is expanded in the back-pressure steam turbine with or without heat output (e.g. to district heating network).
B40	Thermal steam turbine with condensation turbine (closed cycle)	Unit in which heat energy is converted to electricity. The power is generated with the steam that is expanded in the condensation steam turbine with or without heat output (e.g. to district heating network).
B41	Thermal gas turbine with heat recovery	Unit in which heat energy is converted to electricity called Simple Cycle Gas Turbine. The power is generated by the gas turbine and the flue gas waste heat is recovered (e.g. to district heating network).
B42	Thermal internal combustion engine	An internal combustion engine is a heat engine in which the combustion of a fuel occurs with an oxidizer (usually air) in a combustion chamber that is an integral part of the working fluid flow circuit (e.g. reciprocating engine). The unit might be equipped with waste heat recovery (e.g. to district heating network).
B43	Thermal micro-turbine	Unit in which heat energy is converted to electricity called Simple Cycle Gas Turbine. The power is generated by the gas turbine (capacity less than 500kWe). The unit might be equipped with waste heat recovery (e.g. to district heating network).
B44	Thermal Stirling engine	A Stirling engine is a heat engine that is operated by the cyclic compression and expansion of air or other gas (the working fluid) at different temperatures, resulting in a net conversion of heat energy to mechanical work.
B45	Thermal fuel cell	A fuel cell is an electrochemical cell that converts the chemical energy of a fuel (e.g. hydrogen) and an oxidizing agent (e.g. oxygen) into electricity through a pair of redox reactions.

Code	Title	Description
B46	Thermal steam engine	A steam engine is a heat engine that performs mechanical work using steam as its working fluid. The steam engine uses the force produced by steam pressure to push a piston back and forth inside a cylinder.
B47	Thermal organic Rankine cycle	The Organic Rankine Cycle (ORC) is named for its use of an organic, high molecular mass fluid with a liquid-vapor phase change, or boiling point, occurring at a lower temperature than the water-steam phase change. The fluid allows Rankine cycle heat recovery from lower temperature sources such as biomass combustion, industrial waste heat, geothermal heat, solar ponds etc. The low-temperature heat is converted into useful work, that can itself be converted into electricity.
B48	Thermal gas turbine without heat recovery	Unit in which heat energy is converted to electricity called Simple Cycle Gas Turbine. The power is generated by the gas turbine and there is no flue gas waste heat recovery.
B49	Nuclear heavy water reactor	A unit in which the heat source is a pressurized heavy-water reactor (PHWR) that is a nuclear reactor that uses heavy water (deuterium oxide D ₂ O) as its coolant and neutron moderator.
B50	Nuclear light water reactor	A unit in which the heat source is a light-water reactor (LWR) that is a type of thermal-neutron reactor that uses normal water, as both its coolant and neutron moderator □ furthermore a solid form of fissile elements is used as fuel.
B51	Nuclear breeder	A unit in which the heat source is a nuclear reactor that generates more fissile material than it consumes.
B52	Nuclear graphite reactor	A unit in which the heat source is a graphite-moderated reactor that is a nuclear reactor that uses carbon as a neutron moderator, which allows natural uranium to be used as nuclear fuel.
B53	Temporary energy storage	A resource that is temporarily connected to the grid and that may store energy when connected, such as an electric vehicle.
B54	Permanent energy storage	A resource that is permanently connected to the grid and that may store energy when connected, such as a pumped hydro.
B55	Electric vehicle battery	A resource using electric vehicle batteries, commercial and private. The reason for separating vehicle batteries and non-vehicle batteries is that the vehicle batteries not necessarily is connected to the charger.
B56	Heat pump specified	A heat pump is a device that uses work to transfer heat from a cool space to a warm space by transferring thermal energy using a refrigeration cycle
B57	Heat pump electrical	A heat pump is a device that uses electricity to transfer heat from a cool space to a warm space by transferring thermal energy using a refrigeration cycle.
B58	Heat pump absorption	A heat pump is a device that uses absorption technology to transfer heat from a cool space to a warm space by transferring thermal energy using a refrigeration cycle.
B59	Auxiliary power unit	A technology that provides energy as a backup.
B60	Water electrolysis unspecified	Unspecified water electrolysis.
B61	Water electrolysis low temperature unspecified	Unspecified water electrolysis at low temperature as in an Alkaline or Proton-Exchange Membrane (PEM) fuel cell.
B62	Water electrolysis low temperature main product	Main product water electrolysis at low temperature as in an Alkaline or Proton-Exchange Membrane (PEM) fuel cell.
B63	Water electrolysis high temperature unspecified	Unspecified water electrolysis at high temperature as in a Solid Oxide Electrolysis Cell (SOEC) fuel cell.
B64	Steam methane reforming unspecified	Unspecified methane reforming.

Code	Title	Description
B65	Steam methane reforming without CCS/CCU unspecified	Main product methane reforming without Carbon Capture and Sequestration (CCS)/Carbon Capture and Use (CCU).
B66	Steam methane reforming with CCS/CCU unspecified	Unspecified methane reforming with Carbon Capture and Sequestration (CCS)/Carbon Capture and Use (CCU).
B67	Steam methane reforming with CCS/CCU main product	Main product methane reforming with Carbon Capture and Sequestration (CCS)/Carbon Capture and Use (CCU).
B68	Partial oxidation unspecified	Unspecified partial oxidation.
B69	Autothermal reforming unspecified	Unspecified autothermal reforming.
B70	Methanol reforming unspecified	Unspecified methanol reforming.
B71	Ammonia reforming unspecified	Unspecified ammonia reforming.
B72	Ammonia gasification	Unspecified gasification.
B73	Chlor-alkali electrolysis unspecified	Unspecified alkali electrolysis.
B74	Chlor-alkali electrolysis by-product	Alkali electrolysis product.
B75	ACDC converter	ACDC converters are electrical circuits that transform alternating current (AC) into direct current (DC) and vice versa.
B76	Converter	Electrical device that converts current between AC and DC.

163

164 **2.5 AuctionType enumeration**

165 The coded representation of different types of auction.

166 Table 5 provides details of the Codelist AuctionType.

167

Table 5 - Codelist AuctionType

Code	Title	Description
A01	Implicit	The auction is an implicit auction.
A02	Explicit	The auction is an explicit auction.
A03	Rule Based	The auction is a rule based auction.
A04	Mixed	The auction is partially implicit and partially explicit.
A05	Explicit/split	The auction concerns two explicit auctions on a split border.
A06	Shadow auction	An explicit auction carried out in the case of the failure of an implicit auction.
A07	Flow-based	The allocation is an implicit auction using flow-based capacity calculation.

Code	Title	Description
A08	Continuous	The auction type is continuous, i.e. there is no gate closure time when bids from the market participants are collected. Instead allocation procedure takes place immediately.

168

169 **2.6 BusinessType enumeration**

170 The exact business nature identifying the principal characteristic of a time series.

171 Table 6 provides details of the Codelist BusinessType.

172

Table 6 - Codelist BusinessType

Code	Title	Description
A01	Production	The nature of the business being described is production details.
A02	Internal trade	The nature of the business being described is internal trade details.
A03	External trade explicit capacity	The nature of the business being described is external trade details between two areas with limited capacity requiring a capacity agreement identification.
A04	Consumption	The nature of the business being described is consumption details.
A05	External trade total	The nature of the business being described is external trade total.
A06	External trade without explicit capacity	The nature of the business being described is external trade details between two areas without requiring capacity allocation information.
A07	Net Production / Consumption	Net production/consumption - where signed values will be used. With the following rules: In area=Out area, In party=Out party, + means production and - means consumption.
A08	Net internal trade	Net internal trade - where the direction from out party (seller) to in party (buyer) is positive and the opposite direction is negative (with minus signs).
A09	IPP (Independent Power Producer)	A time series concerning the production schedule from an IPP.
A10	Tertiary control	A time series concerning tertiary reserve.
A11	Primary control	A time series concerning primary reserve.
A12	Secondary control	A time series concerning secondary reserve.
A13	Load profile	A time series concerning a load profile as calculated by a metered data aggregator.
A14	Aggregated energy data	A time series concerning adjusted metered readings received from a metered data collector and aggregated and validated by a metered data aggregator.
A15	Losses	A time series concerning losses that have been calculated for a tieline or an area.
A16	Transits (CBT)	A time series concerning inter area transit flows determined for CBT requirements.
A17	Settlement deviation	A time series concerning the imbalance energy calculated by an imbalance settlement responsible.
A18	Technical constraint deviation	A time series defining the imbalance between schedules accepted by the system operator due to technical constraints and schedules declared by the balance responsible party.
A19	Balance energy deviation	A time series defining the imbalance between the schedule of a balance responsible party that has been corrected by the system operator after using balance energy bids and the schedule that was accepted by the system operator due to technical constraints.

Code	Title	Description
A20	Imbalance volume	A time series defining the imbalance between the actual meter readings and the schedule of the balance responsible party corrected by the system operator after using balance energy bids.
A21	Unintended energy	A timeseries concerning the volume of an unintended cross-border exchange of energy.
A22	Frequency control	A time series concerning primary and secondary reserve.
A23	Balance management	A time series concerning energy balancing services.
A24	Total trade	A time series concerning the total of both the internal and external trades.
A25	General Capacity Information	A time series providing the total capacity available on a TSO border.
A26	Available transfer capacity (ATC)	Available transfer capacity for cross-border exchanges.
A27	Net transfer capacity (NTC)	Net transfer capacity for cross-border exchanges.
A28	Control Area Program	A time series providing the total exchanges between two TSOs (including the commercial transactions, the compensation program and the losses compensation program). Note this definition might change when UCTE brings forward its coding requirements.
A29	Already allocated capacity (AAC)	The already allocated capacity is the total amount of allocated transmission rights.
A30	Internal inter area trade	A trade that occurs between internal areas within a market balance area.
A31	Offered Capacity	The time series provides the offered capacity.
A32	Capacity transfer notification	The time series provides information concerning the notification of the transfer of capacity to another market participant.
A33	Authorised AAC	The time series in question provides the amount of transmission capacity rights to be nominated.
A34	Capacity rights	The time series in question provides the capacity rights allocated for a given border.
A35	Minimum authorised AAC	The time series in question provides the minimum amount of transmission capacity rights to be nominated.
A36	Maximum authorised AAC	The time series in question provides the maximum amount of transmission capacity rights to be nominated.
A37	Installed generation	The time series in question provides the installed generation.
A38	Available generation	The time series in question provides the available generation.
A40	Interconnection Trade Responsible Designation	The Time series in question provides the designation of the ITR that may nominate the capacity in question.
A41	Released AAC	The already allocated capacity (AAC) that has been released for resale.
A42	Requested capacity (with price)	The time series in question provides information concerning the requested capacity including price information.
A43	Requested capacity (without price)	The time series in question provides information concerning the requested capacity but excludes price information.
A44	Compensation program	Compensation of unintentional deviation is performed by exporting to / importing from the interconnected system during the compensation period by means of schedules as calculated during the accounting of unintentional deviations.

Code	Title	Description
A45	Schedule activated reserves	The cross border or internal reserves that are to be activated through schedule nomination.
A46	System Operator redispatching	The cross border redispatching between System Operators that are to be activated through schedule nomination.
A47	Market capacity price	The price of the capacity offered on a given market.
A48	Market capacity price differential	The difference between the price of capacity in a Market Balance Area receiving the capacity (In Area) and the price of capacity in a Market Balance Area providing the capacity (Out Area), i.e. In Area Price - Out Area price.
A49	Inflow	The volume of water that flows into a reservoir in a given interval.
A50	Water extraction	The volume of water that can be extracted from a reservoir in a given interval.
A51	Turbined water	The volume of water that can be turbined in a plant in a given interval.
A52	Water spillage	The volume of water that is not turbined going through the spillway in a given interval.
A53	Planned maintenance	Maintenance has been planned for the object in question with a forecast ending date.
A54	Unplanned outage	An unplanned outage has occurred on the object in question.
A55	Use it Or Sell it (UIOSI) pricing	The time series provides information on the capacity resold in the "use it or sell it" process and its corresponding price.
A56	Compensation for auction cancellation where capacity is for resale	The time series provides information on the compensation of the capacity for resale following an auction cancellation.
A57	Resale pricing	For each Physical Transmission Rights holder, this document contains the resold capacity and its corresponding price.
A58	Curtailed capacity compensation	The time series provides information to compensate a party when curtailment is applied on the capacity obtained in a previous auction, resale or transfer.
A59	Use it Or Sell it (UIOSI) compensation	The time series provides information on the compensation for the capacity following an auction cancellation.
A60	Minimum possible	The time series provides a schedule of minimum possible values for a Resource Object. The nature of the flow could be defined by the attribute Direction.
A61	Maximum available	The time series provides a schedule of maximum available values for a Resource Object. The nature of the flow could be defined by the attribute Direction.
A62	Spot price	The time series provides the market spot prices from an auction.
A63	Minimum ATC	The Available Transmission Capacity that must be guaranteed because of regulatory constraints.
A64	Meter Measurement data	The data as provided for a meter measurement source.
A65	Accounting Point Relevant data	The metered data that is to be considered relevant for accounting purposes.
A66	Energy flow	Energy flow information.
A67	Power plant energy Schedule	Energy flow scheduled for a power plant.
A68	Compensation Requirements for the compensation period	The time series provides the compensation requirements for a given compensation period.
A69	Market coupling results	The time series provides the results of a market coupling auction.

Code	Title	Description
A70	Production, unavailable	Production capacity that normally would be available, but due to maintenance or similar is temporarily unavailable.
A71	Supplementary available generation	The supplementary generation that is available.
A72	Interruptible consumption	The consumption that may be interrupted on request.
A73	Summarised Market Balance Area Schedule	A time series providing the total exchanges based on commercial transactions between two Market Balance Areas.
A74	Load Frequency Control Program Schedule	A time series providing the schedule information for the Load Frequency Control Program.
A75	Timeframe Independent Schedule	A time series providing the total exchanges of Timeframe Independent Schedules between two System Operators.
A76	Consumption curtailment	A time series providing the amount of voluntary consumption curtailed by the energy supplier of an end-consumer.
A77	Production, dispatchable	The nature of the business being described is dispatchable production details, i.e. generation output that can be changed by a request (activation order) of the TSO according with the applicable Market Rules.
A78	Consumption, dispatchable	The nature of the business being described is dispatchable consumption details, i.e. consumption output that can be changed by a request (activation order) of the TSO according with the applicable Market Rules.
A79	Production, non-dispatchable	The nature of the business being described is non-dispatchable production details, i.e. generation output that cannot be modified by an activation order.
A80	Consumption, non-dispatchable	The nature of the business being described is non-dispatchable consumption details, i.e. consumption output that cannot be modified by an activation order.
A81	Total Transfer Capacity (TTC)	The Total Transfer Capacity is the maximum exchange program between two areas compatible with operational security standards applicable at each system if future network conditions, generation and load patterns were perfectly known in advance.
A82	Mutual Emergency Assistance Service (MEAS)	The cross border Mutual Emergency Assistance Service between System Operators that are to be activated through schedule nomination.
A83	Auction cancellation	The time series covers auction cancellation right.
A84	Nomination curtailment	The time series covers nomination curtailment rights
A85	Internal redispatch	Redispatch to relieve Market Balance Area internal congestion.
A86	Control area balance energy	A sum of secondary, tertiary control as well as other energy that was used to balance a control area.
A87	Balancing energy price	Price of energy used to balance.
A88	Economised secondary reserve	The activated secondary reserve that had been economised due to pooled reserve management.
A89	Spinning reserve	The extra generating capacity that is available by increasing the production of generators that are already connected to the power system.
A90	Solar	The business being described concerns solar power.
A91	positive forecast margin	The business being described concerns a positive forecast margin.

Code	Title	Description
A92	Negative forecast margin	The business being described concerns a negative forecast margin.
A93	Wind generation	The business being described concerns wind generation.
A94	Solar generation	The business being described concerns solar generation.
A95	Frequency containment reserve	The business being described concerns frequency containment reserve.
A96	Automatic frequency restoration reserve	The business being described concerns automatic frequency restoration reserve.
A97	Manual frequency restoration reserve	The business being described concerns manual frequency restoration reserve.
A98	Replacement reserve	The business being described concerns replacement reserve.
A99	Financial information	The business being described concerns financial information.
B01	Interconnector network evolution	The business being described concerns interconnector network evolution.
B02	Interconnector network dismantling	The business being described concerns interconnector network dismantling.
B03	Counter trade	The business being described concerns counter trades.
B04	Congestion costs	The business being described concerns congestion costs.
B05	Capacity allocated (including price)	The business being described concerns capacity allocation and includes price information.
B06	DC link constraint	The business being described concerns DC link constraints.
B07	Auction revenue	The business being described concerns auction revenue.
B08	Total nominated capacity	The business being described concerns the total nominated capacity.
B09	Net position	The business being described concerns net position.
B10	Congestion income	The business being described concerns congestion income.
B11	Production unit	The business being described concerns a production unit.
B12	Rounded market coupling results	Rounded outputs of the market coupling to be sent to TSOs and Market Participants.
B13	Allocation Revenue	The time series provides information on the revenue generated by the allocations.
B14	Production deviation	A time series concerning the imbalance energy between the metered production and the schedules calculated by an imbalance settlement responsible.
B15	Consumption deviation	A time series concerning the imbalance energy between metered consumption and the forecasted consumption calculated by an imbalance settlement responsible.
B16	Transmission asset	The business being described concerns a transmission asset.
B17	Consumption unit	The business being described concerns a consumption unit.
B18	In-feed ATC	Available Transfer Capacity at the in-feed side of a DC tieline.
B19	Out-feed ATC	Available Transfer Capacity at the out-feed side of a DC tieline.
B20	Balance up regulation price	A time series concerning balance regulation market prices for up regulation.

Code	Title	Description
B21	Balance down regulation price	A time series concerning balance regulation market prices for down regulation.
B22	Main direction	A time series concerning the direction of balance regulations.
B23	Consumption imbalance price	A time series concerning imbalance prices for consumption.
B24	Production sales imbalance price	A time series concerning imbalance prices for production sales.
B25	Production purchase imbalance price	A time series concerning imbalance prices for production purchase.
B26	Average balance price between MBAs	A time series concerning the average prices between Market Balance Areas.
B27	Pumped	A time series concerning the electricity consumption related to pumping.
B28	Large installation consumption	A time series concerning consumption from large installation.
B29	Metering Grid Area (MGA) imbalance	A time series concerning imbalance between reported consumption, production and exchange in a Metering Grid Area.
B30	HVDC Link settings	The time series in question provides HVDC Link settings.
B31	Transmission Reliability Margin (TRM)	A time series concerning Transmission Reliability Margin (TRM).
B32	Imbalance component for a pool	This information is used to provide to a pool manager the combined imbalance of all the pool participants.
B33	Area Control error (ACE)	The sum of the instantaneous difference between the actual and the set-point value of the measured total power value and Control Program including Virtual Tie-Lines for the power interchange of a LFC Area or a LFC Block and the frequency bias given by the product of the K-Factor of the LFC Area or the LFC Block and the Frequency Deviation.
B34	Area Control Error after Imbalance Netting	A time series concerning the Area Control Error after applying the imbalance netting energy correction.
B35	Implicit and explicit trade total	The sum of cross border schedules based on implicit and explicit trades including long term, yearly, monthly, weekly, daily processes.
B36	Production units own consumption	The consumption of one or more production units.
B37	Constraint situation	The timeseries describes the constraint situation for a given TimeInterval. A constraint situation can be: - composed of a list of network elements in outage associated for each outage to a list of network elements on which remedial actions have been carried out accordingly to contingency process - or it can be an external constraint.
B38	Initial domain	The timeseries describe the full flow based domain for a given TimeInterval. Critical network elements are displayed in details and their impact on the market is quantified.
B39	Flow based domain adjusted to long term schedules	The timeseries describe the full flow based domain for a given TimeInterval adjusted to the latest update of the schedules. Critical network elements are displayed in details and their impact on the market is quantified.
B40	Network element constraint	The timeSeries describes limiting elements which are overloaded.

Code	Title	Description
B41	Calculation opposition (Red Flag)	The timeSeries describes a party who is opposed to the calculation result and imposes its transfer capacity value.
B42	Base case proportional shift key	The GSK or LSK are proportional to the base case generation or load.
B43	Proportional to participation factors shift key	The GSK or LSK are proportional to the participation factors.
B44	Proportional to the remaining capacity shift key	The GSK is proportional to the remaining available capacity.
B45	Merit order shift key	The GSK is proportional to a merit order list.
B46	Wind speed	The TimeSeries provides information on the wind speed.
B47	Wind direction	The TimeSeries provides information on the wind direction.
B48	Solar irradiance	The TimeSeries provides information on the power per unit area produced by the sun in the form of electromagnetic radiation.
B49	Air temperature	The TimeSeries provides information on the air temperature.
B50	Cloudiness	The TimeSeries provides information on the cloudiness, i.e. the level of coverage of the sky with clouds.
B51	Air humidity	The TimeSeries provides information on the level of humidity of the air.
B52	Atmospheric pressure	The TimeSeries provides information on the atmospheric pressure.
B53	Precipitation	The TimeSeries provides information on the amount of rain, snow, etc. that falls on the ground.
B54	Network constraint situation that constraints the market	The TimeSeries describes the network elements, that constraints the market, to be taken into account to simulate a network constraint during the network load flow studies. The network situation includes the contingencies, the remedial actions, the monitored network elements and the potential additional constraints.
B55	Contingency	The TimeSeries describes the network elements part of the contingency to be simulated for a given TimeInterval.
B56	Remedial Action	The TimeSeries describes a set of remedial actions for a given TimeInterval.
B57	Monitored Network Element	The TimeSeries describes the network elements to be monitored during the network load flow studies.
B58	Busbar	The TimeSeries describes the network elements that composed a busbar.
B59	Network Element	The TimeSeries describes network elements.
B60	SPS	The TimeSeries describes the network elements managed by a Special Protection System (automation).
B61	Aggregated netted external market schedule	The aggregated netted external market schedules for a given border.
B62	Aggregated netted external TSO schedule	The aggregated netted external TSO schedules for a given border.
B63	Aggregated netted external schedule	The aggregated netted external schedules for a given border.
B64	Netted area AC position	The AC position for a given area.

Code	Title	Description
B65	Netted area position	The netted aggregation of all AC external schedules of an area plus the aggregated External Netted Schedules of related HVDC links of an area.
B66	Interconnection shift key	The shift key series describes the amount of power to be shifted from a border area.
B67	DC flow with losses	DC flow with losses refers to the values at the importing end of the DC line.
B68	DC flow without losses	DC flow without losses refers to the values at the exporting end of the DC line.
B69	minimum value of netted area position	That value which a netted area position must not fall below for a given area.
B70	maximum value of netted area position	That value which a netted area position must not exceed for a given optimisation area.
B71	maximum value of DC flow	That value which a balanced DC flow must not exceed for a given DC line on exporting end. When aligning DC flows CGMA algorithm will respect this constraint.
B72	minimum value of DC flow	That value which a balanced DC flow must not fall below for a given DC line on exporting end. Currently this business type is only included for consistency reasons. It is always set to 0. This constraint might, however, be used in future. When aligning DC flows the CGMA algorithm will respect this constraint.
B73	indicative AC flow	It is the hypothetical flow on the aggregate of all AC tie lines of an electrical border between two optimisation areas. It results from the adjustments to the preliminary netted area positions of all optimisation areas made by the CGMA algorithm. Indicative AC flows are an artefact of the CGMA algorithm, and do not correspond to physical flows
B74	Offer	The time series provides an offer to provide reserves.
B75	Need	The time series provides a requirement for reserves.
B76	Opportunity costs or benefits	The time series describes any opportunity costs or benefits.
B77	Financial compensation or penalties	The time series describes any financial compensation or penalties
B78	Global radiation	The total short-wave radiation from the Global radiation is the total short-wave radiation from the sky falling onto a horizontal surface on the ground. It includes both the direct solar radiation and the diffuse radiation resulting from reflected or scattered sunlight.
B79	Diffuse radiation	Radiation resulting from reflected or scattered sunlight.
B80	Direct solar radiation	Radiation resulting from direct sunlight
B81	Outage (OUT)	Outage process where the element is out of operation due to planned maintenance or an unplanned outage. Outage may be used as a synonym for unavailability.
B82	Special switching state (SSS)	Outage Process: This state applies to grid elements which are in operation in an exceptional state (e.g. separated nodes operation).
B83	Testing (TEST)	Outage process: TESTING means any element status is possible - ON or OUT. This status applies either between first connection and final commissioning of the relevant asset, or directly following maintenance of the relevant asset.
B84	Auxiliary busbar operation	Outage process: Element is in operation but connected via auxiliary busbar
B85	Automatic reclosing	Outage process: Protection function Automatic reclosing is switched off for electric line
B86	Busbar protection	Protection function busbar protection is switched off

Code	Title	Description
B87	Phase Shift Angle	The maximum phase shift angle allowed between two network elements.
B88	Base Case Network Situation	The TimeSeries describes the network elements to be taken into account to simulate a base case network situation during the network load flow studies, without any contingency.
B89	Inter-TSO assistance	Cross border assistance schedule between TSOs not interconnected directly.
B90	FlexibleNeed	The business type indicates that the need is optional.
B91	GLSK Limitation	A constraint related to a GLSK maximum or minimum limitation in the production or/and consumption shift.
B92	Capacity ramping limitation	A constraint related to a ramping limitation on the capacity offered at a given border.
B93	interconnector capacity	The maximum capacity that can be exchanged on an interconnector, excluding external factor on both ends.
B94	Must Run	A time series concerning must run generation.
B95	Procured capacity	An accepted offer of balancing capacity.
B96	Used capacity	The used cross-zonal balancing capacity.
B97	Estimated costs	Estimated costs of the process.
B98	Estimated benefits	Estimated benefits of the process.
B99	Load Shedding	A time series concerning a load shedding used to avoid failure of the power system.
C01	Remaining Capacity	A time series concerning the remaining capacity.
C02	Indicator of generation capacity adequacy	Indicator of adequacy, it indicates if there is final generation remaining capacity after SMTA calculation.
C03	Income from price divergence without congestions	The time series describes income due to price divergence without congestion between bidding zones.
C04	Push-button	The cross-border Push-button service between System Operators.
C05	Intertripping	The cross-border Intertripping service between System Operators.
C06	Emergency instruction	The cross-border Emergency instruction service between System Operators.
C07	Ramp management	The schedule resulting from cross-border Ramp management service between System Operators.
C08	Profile smoothing	The schedule resulting from cross-border Profile smoothing service between System Operators.
C09	Emergency reallocation deselection	The schedule resulting from cross-border Emergency reallocation deselection service between System Operators.
C10	SO-SO-trade	The generic cross border trade between System Operators.
C11	Production reduction	A time series providing the volume of production reduced by an energy provider / producer / supplier.
C12	Maximum power exchange	The timeseries provides the maximum admissible power flow between two bidding zones respecting operational security limits taking into account N-1 criterion.
C13	Maximum power exchange after remedial actions	The timeseries provides the maximum admissible power flow between two bidding zones after remedial actions.

Code	Title	Description
C14	Network constraint situation that cannot limit the market	The TimeSeries describes the network elements, that cannot limit the market, to be taken into account to simulate a network constraint during the network load flow studies. The network situation includes the contingencies, the remedial actions, the monitored network elements and the potential additional constraints.
C15	Flat participation for all generators or loads	Flat GSK factors of all generators or loads, independently of the size.
C16	Proportional to installed capacity of generators	Generators participate relative to their maximum (installed) capacity (MW).
C17	Market price and total volume	A time series concerning market price and total volume.
C18	Import price	A time series concerning import price (the volume-weighted price average of all accepted bids).
C19	Capacity allocated (excluding price)	The business being described concerns capacity allocation and excludes price information.
C20	Common Grid Model Equipment	The timeseries provides equipment related to the Common Grid Model (CGM).
C21	Exchanged balancing reserve capacity	The balancing reserve capacity exchanged between areas.
C22	Shared balancing reserve capacity	The balancing reserve capacity shared between areas.
C23	Share of reserve capacity	A time series concerning the share of reserve capacity.
C24	Actual reserve capacity	A timeseries concerning actual reserve capacity.
C25	K-factor	K-factor as stated in the SO GL Art. 2 (45). It is also known as Frequency Bias.
C26	Frequency Containment Reserve-Normal (FCR-N)	FCR-N is a reserve that is automatically activated in both directions around a set point when the frequency varies between 50.10 Hz and 49.90 Hz after an imbalance.
C27	Frequency Containment Reserve-Disturbance (FCR-D)	FCR-D is a reserve that is automatically activated when the frequency falls below 49.90 Hz or rises above 50.1 Hz after an imbalance.
C28	Internal trade difference	A time series concerning internal trade difference, within an area, such as a Bidding Zone or Scheduling Area. The internal trade difference is the difference between trades reported from an out party (seller) and an in party (buyer).
C29	Small scale production	Production from small scale production plants.
C30	System price	The system price is an unconstrained market clearing reference price. It is calculated without any congestion restrictions by setting capacities to infinity.
C31	Wind gust	An increase in the speed of the wind lasting for a short period.
C32	Area imbalance	A time series concerning imbalance between planned consumption, production and exchange in an Area.
C33	Unintended energy price	A timeseries concerning the price of the unintended cross-border exchange of energy.
C34	Frequency containment process energy	A timeseries containing the volume of energy resulting from the frequency containment process.

Code	Title	Description
C35	Frequency containment process energy price	A timeseries containing the energy price from the frequency containment process.
C36	Ramping period energy	A timeseries containing the volume of energy exchanged as a result of ramping between different ANES values.
C37	Ramping period energy price	A timeseries containing the price of the energy exchanged as a result of ramping between different ANES values.
C38	Frequency deviation	A timeseries concerning the difference between the actual and the nominal frequency of a synchronous area.
C39	Day-Ahead market price	A timeseries concerning Day-Ahead market prices.
C40	Conditional bid	Standard product bid that is conditional on bids submitted outside of common platform.
C41	Thermal limit	The current causing a given network element to work outside of the range of safe operating temperatures.
C42	Frequency Limit	A constraint related to the containment of frequency deviations within a given area.
C43	Voltage limit	The maximum or minimum permissible voltage within normal operation state of a given network element.
C44	Current limit	The maximum permissible current within normal operation state of a given network element.
C45	Short circuit current limit	The maximum permissible short-circuit current within normal operation state of a given network element.
C46	Dynamic stability limit	A maximum permissible load ensuring the control of oscillations in the grid and avoiding the loss of synchronism.
C47	Disconnection	A timeseries describing disconnection of a TSO from a common platform.
C48	Intended energy with positive price	A timeseries concerning the amount of intended energy with prices higher than zero (and including zero).
C49	Intended energy with negative price	A timeseries concerning the amount of intended energy with prices lower than zero (excluding zero).
C50	Decoupling	A time series describing decoupling of an area.
C51	Resource capacity unit	A timeseries containing information about resource capacity units.
C52	Resource entry capacity data	A timeseries containing the resource capacity that can be allocated to an eligible resource capacity operator from another area.
C53	Resource capacity obligation data	A timeseries containing the resource capacity operator obligation to guarantee delivery.
C54	Available energy	A timeseries concerning the available energy.
C55	Production curtailment	A timeseries concerning the curtailment of production.
C56	Rounding error	A timeseries describing a rounding error.
C57	Metered frequency	The timeseries provides information about metered frequency.
C58	Adjusted TTC to the nominal criteria	The exchange program between two areas which guarantees that the Margin Available for Cross-Zonal Trade (MACZT) fulfils the nominal criteria at least on the most limiting Critical Network Element with Contingency (CNEC) which limits the transfer capacity.

Code	Title	Description
C59	Adjusted TTC to the nominal criteria with TSOs limitation	The exchange program between two areas which allows the Margin Available for Cross-Zonal Trade (MACZT) on, at least, the most limiting Critical Network Element with Contingency (CNEC) to get closer to the nominal criteria fulfilment with a limited impact on the rest of the network.
C60	Frequency deviation larger than standard deviation	Total time in which the absolute value of the instantaneous frequency deviation was larger than the standard frequency deviation.
C61	Frequency deviation larger than maximum deviation	Total time in which the absolute value of the instantaneous frequency deviation was larger than the maximum instantaneous frequency deviation.
C62	Frequency deviation not returned to 50%	Number of events in which the absolute value of the instantaneous frequency deviation of the synchronous area exceeded 200 % of the standard frequency deviation as stated in SO GL (EU) regulation Art 131.1.a.vi.
C63	Frequency deviation not returned to restoration range	Number of events in which the absolute value of the instantaneous frequency deviation of the synchronous area exceeded 200 % of the standard frequency deviation.
C64	Frequency deviation outside recovery range	Number of events for which the absolute value of the instantaneous frequency deviation was outside of the frequency recovery range.
C65	Frequency	A time series describing measurement frequency.
C66	Mean value	A time series describing mean values.
C67	Standard deviation	A time series describing standard deviation.
C68	Percentile	A time series describing percentiles.
C69	Measured frequency resolution	A time series describing the resolution of a measured frequency.
C70	Accuracy	A time series describing measurement accuracy.
C71	FRCE outside level 1 range	The number of time intervals in which the average value of the FRCE was outside the Level 1 FRCE range as stated in SO GL. (EU) regulation Art 131.1.b.i.
C72	FRCE outside level 2 range	The number of time intervals in which the average value of the FRCE was outside the Level 2 FRCE range as stated in SO GL (EU) regulation. Art 131.1.b.i.
C73	FRCE exceeded 60% of FRR capacity	The number of events for which the FRCE exceeded 60 % of the reserve capacity on FRR as stated in SO GL (EU) regulation Art 131.1.b.ii.
C74	FRCE exceeded steady state deviation	The number of events for which the absolute value of the FRCE exceeded the maximum steady-state frequency deviation.
C75	FRCE calculation and accuracy descriptor	A time series describing how FRCE is calculated and its accuracy.
C76	Forecasted capacity	A time series describing forecasted capacity.
C77	Minimum available capacity	A time series describing minimum available capacity.
C78	Average available capacity	A time series describing average available capacity.
C79	Maximum available capacity	A time series describing maximum available capacity.
C80	Frequency and accuracy descriptor	A time series describing how system frequency and accuracy are determined.

Code	Title	Description
C81	Long-Term internal redispatch	A time series describing long-term redispatch to relieve Scheduling Area internal congestion.
C82	Other unavailability	This is an unplanned unavailability. Not considered by market participants as a planned maintenance.
C83	Faster than standard FAT	Bids that can support a □ Full Activation Time□ (FAT) that is faster than standard FAT. Fast activation can be done for bids with activation time shorter than the minimum requirement for the standard product. When circumstances call for it, the TSO can order activation of such bids on a shorter notice.
C84	Faster than standard deactivation time	Fast deactivation can be done for bids with activation time shorter than the minimum requirement for the standard product. When circumstances call for it, the TSO can order activation of such bids on a shorter notice.
C85	Slower than standard FAT	Bids that can support a Full Activation Time (FAT) that is slower than standard FAT.
C86	Remedial action cost summary	A timeseries summarizing all incurred costs and/or revenues per party related to the activated remedial actions eligible to Cost Sharing.
C87	Settlement result	A timeseries representing the cost sharing settlement results between parties (i.e. which party will be paying and/or receiving money for the concerned period).
C88	Reserved cross zonal capacity	The reserved cross zonal capacity for system operator needs (EBGL art. 38(1)(b) and art. 41.).
C89	Energy reserves	A timeseries describing energy reserves.
C90	Combined dynamic constraint	The time series describes a combined dynamic constraint, being defined as a limit on the sum of power flows on a set of network elements or partial flows on a set of network elements for the purpose to respect dynamic stability limits.
C91	Anonymised constraint	The time series describes an anonymised constraint.
C92	Synchronous condenser activation	Activates a number of generators or other units in synchronous condenser mode.
C93	Permission administration details	A timeseries describing permission details such as authorisations, licenses or related regulatory requirements.
C94	Maximum capacity value of AC border flow	Maximum flow on an AC border between two areas (capacity)
C95	Initial forecast value of AC border flow	Initial flow on an AC border between two areas (forecast)
C96	Forced outage (FO)	Outage process where the element is out of operation due to a forced outage.

173

174 **2.7 CategoryType enumeration**

175 The product category of an auction.

176 Table 7 provides details of the Codelist CategoryType.

177

Table 7 - Codelist CategoryType

Code	Title	Description
A01	Base	The auction is for a base period.
A02	Peak	The auction is for a peak period.

Code	Title	Description
A03	Off peak	The auction is for an off peak period.
A04	Hourly	The auction is for an hourly period.

178

179 **2.8 ClassificationType enumeration**

180 Indicates the classification mechanism used to group a set of objects together. The grouping
181 may be of a detailed or a summary nature.

182 Table 8 provides details of the Codelist ClassificationType.

183 **Table 8 - Codelist ClassificationType**

Code	Title	Description
A01	Detail type	The Time Series content provides detailed information.
A02	Summary type	The Time Series content provides aggregated information.

184

185 **2.9 CodingSchemeType enumeration**

186 Codification scheme used to identify the coding scheme used for the set of coded values to
187 identify specific objects.

188 Table 9 provides details of the Codelist CodingSchemeType.

189 **Table 9 - Codelist CodingSchemeType**

Code	Title	Description
A01	EIC	The coding scheme is the Energy Identification Coding Scheme (EIC), maintained by ENTSO-E.
A02	CGM	The coding scheme used for Common Grid Model Exchange Standard (CGMES).
A03	ISO	The coding scheme for the preceding attribute is a code maintained by International Organization for Standardization (ISO), such as "ISO 3166 <i>English country names and code elements</i> ".
A10	Coding scheme which are part of GS1 system	The coding schemes maintained by GS1.
NAD	Andorra National coding scheme	The National coding scheme of the country in question.
NAL	Albania National coding scheme	The National coding scheme of the country in question.
NAM	Armenia National coding scheme	The National coding scheme of the country in question.
NAT	Austria National coding scheme	The National coding scheme of the country in question.
NAZ	Azerbaijan National coding scheme	The National coding scheme of the country in question.

Code	Title	Description
NBA	Bosnia and Herzegovina National coding scheme	The National coding scheme of the country in question.
NBE	Belgium National coding scheme	The National coding scheme of the country in question.
NBG	Bulgaria National coding scheme	The National coding scheme of the country in question.
NCH	Switzerland National coding scheme	The National coding scheme of the country in question.
NCS	Serbia and Montenegro National coding scheme	The National coding scheme of the country in question.
NCY	Cyprus National coding scheme	The National coding scheme of the country in question.
NCZ	Czech Republic National coding scheme	The National coding scheme of the country in question.
NDE	Germany National coding scheme	The National coding scheme of the country in question.
NDK	Denmark National coding scheme	The National coding scheme of the country in question.
NEE	Estonia National coding scheme	The National coding scheme of the country in question.
NES	Spain National coding scheme	The National coding scheme of the country in question.
NFI	Finland National coding scheme	The National coding scheme of the country in question.
NFR	France National coding scheme	The National coding scheme of the country in question.
NGB	United Kingdom National coding scheme	The National coding scheme of the country in question.
NGE	Georgia National coding scheme	The National coding scheme of the country in question.
NGI	Gibraltar National coding scheme	The National coding scheme of the country in question.
NGR	Greece National coding scheme	The National coding scheme of the country in question.
NHR	Croatia National coding scheme	The National coding scheme of the country in question.
NHU	Hungary National coding scheme	The National coding scheme of the country in question.
NIE	Ireland National coding scheme	The National coding scheme of the country in question.
NIT	Italy National coding scheme	The National coding scheme of the country in question.

Code	Title	Description
NKG	Kyrgyzstan National coding scheme	The National coding scheme of the country in question.
NKZ	Kazakhstan National coding scheme	The National coding scheme of the country in question.
NLI	Liechtenstein National coding scheme	The National coding scheme of the country in question.
NLT	Lithuania National coding scheme	The National coding scheme of the country in question.
NLU	Luxembourg National coding scheme	The National coding scheme of the country in question.
NLV	Latvia National coding scheme	The National coding scheme of the country in question.
NMA	Morocco National coding scheme	The National coding scheme of the country in question.
NMD	Moldavia National coding scheme	The National coding scheme of the country in question.
NMK	Macedonia National coding scheme	The National coding scheme of the country in question.
NNL	Netherlands National coding scheme	The National coding scheme of the country in question.
NNN	Nordic Regional coding scheme	The coding scheme of the Nordic region which covers Denmark, Finland, Norway and Sweden.
NNO	Norway National coding scheme	The National coding scheme of the country in question.
NPL	Poland National coding scheme	The National coding scheme of the country in question.
NPT	Portugal National coding scheme	The National coding scheme of the country in question.
NRO	Romania National coding scheme	The National coding scheme of the country in question.
NRU	Russian Federation National coding scheme	The National coding scheme of the country in question.
NSE	Sweden National coding scheme	The National coding scheme of the country in question.
NSI	Slovenia National coding scheme	The National coding scheme of the country in question.
NSK	Slovakia National coding scheme	The National coding scheme of the country in question.
NTR	Turkey National coding scheme	The National coding scheme of the country in question.
NUA	Ukraine National coding scheme	The National coding scheme of the country in question.

2.10 ConnectionCategoryType enumeration

The coded identification of the connection category, e.g. low voltage, where the meter operates..

Table 10 provides details of the Codelist ConnectionCategoryType.

Table 10 - Codelist ConnectionCategoryType

Code	Title	Description
E03	Maximum voltage	A maximum voltage connection category.
E04	High voltage	A high voltage connection category.
E05	Medium voltage	A medium voltage connection category.
E06	Low voltage	A low voltage connection category.
E07	High voltage / transformation	A high voltage connection category with transformation.
E08	Medium voltage / transformation	A medium voltage connection category with transformation
E09	Low voltage / transformation	A low voltage connection category with transformation
E10	Low pressure	A low pressure connection category
E11	High pressure	A high pressure connection category
E12	Medium pressure	A medium pressure connection category

2.11 CustomerType enumeration

The coded identification of the type of customer such as household customer or company customer.

Table 11 provides details of the Codelist CustomerType.

Table 11 - Codelist CustomerType

Code	Title	Description
A01	Household customer	The customer is a household customer.
A02	Deceased household customer	The customer is a deceased household customer. May be used for handling an estate of a deceased person, because the market parties often handle these customers in a different way as other customers.
A03	Company customer	The customer is a company customer.
A04	Estate company customer	The customer is an estate company customer. May be used when a company customer is bankrupt and the debtor's contract must be terminated.

2.12 CoordinateSystemType enumeration

The identification of the coordinate system used for the location position.

Table 12 provides details of the Codelist CoordinateSystemType.

206

Table 12 - Codelist CoordinateSystemType

Code	Title	Description
A01	ED50	ED 50 (European Datum 1950) is a geodetic datum which was defined after World War II for the international connection of geodetic networks.
A02	OSGB36	Ordnance Survey Great Britain 1936. The Ordnance Survey (OS) devised the national grid reference system, and it is heavily used in their survey data, and in maps (whether published by the Ordnance Survey or commercial map producers) based on those surveys.
A03	WGS84	The World Geodetic System version 1984. for use in cartography, geodesy, and navigation including by GPS. It comprises a standard coordinate system for the earth, a standard spheroidal reference surface (the datum or reference ellipsoid) for raw altitude data, and a gravitational equipotential surface (the geoid) that defines the nominal sea level.
A04	GTRF	Galileo Terrestrial Reference Frame

207

2.13 ContractType enumeration

209 The contract type defines the conditions under which the capacity is allocated and handled, e.g.
 210 daily auction, weekly auction, monthly auction, yearly auction, etc.

211 The significance of this type is dependent on area specific coded working methods.

212 Table 13 provides details of the Codelist ContractType.

213

Table 13 - Codelist ContractType

Code	Title	Description
A01	Daily contract	The condition under which capacity is allocated and handled is by daily auction or a daily transmission allocation procedure.
A02	Weekly contract	The condition under which capacity is allocated and handled is by weekly auction or a weekly transmission allocation procedure.
A03	Monthly contract	The condition under which capacity is allocated and handled is by monthly auction or a monthly transmission allocation procedure.
A04	Yearly contract	The condition under which capacity is allocated and handled is by yearly auction or a yearly transmission allocation procedure.
A05	Total contract	This is the sum of all capacity contract types for the period covered.
A06	Long term contract	The condition under which capacity is allocated and handled is by long term trade agreements according to European regulations (EU Directive 1228/2003).
A07	Intraday contract	The condition under which the capacity is allocated and handled is through an intraday auction and allocation process.
A08	Quarter yearly contract	The condition under which capacity is allocated and handled is by quarter yearly auction or a quarter yearly transmission allocation procedure.
A09	Semestrial contract	The condition under which capacity is allocated and handled is by half yearly auction or a half yearly transmission allocation procedure.
A10	Multiple year contract	The condition under which capacity is allocated and handled is by multiple year auctions.
A11	Intraday balancing mechanism contract	The condition under which the capacity is allocated and handled is through intraday energy balancing services.

Code	Title	Description
A12	Historical contract	A Contract established before the EU directive that are valid until the term of the contract.
A13	Hourly contract	The condition under which capacity is allocated and handled is by hourly auctions.
A14	First intraday auction contract	The first intraday auction contract (IDA1).
A15	Second intraday auction contract	The second intraday auction contract (IDA2).
A16	Third intraday auction contract	The third intraday auction contract (IDA3).

214

215 **2.14 CurrencyType enumeration**

216 The coded identification of legal tender using ISO 4217 3 alpha codes.

217 Table 14 provides details of the Codelist CurrencyType.

218 **Table 14 - Codelist CurrencyType**

Code	Title	Description
BAM	Bosnian convertible marka	The Legal tender of Bosnia and Herzegovina.
BGN	Bulgarian lev	The Legal tender of Bulgaria.
CHF	Swiss Franc	The Legal tender of Switzerland.
CZK	Czech Koruna	The legal tender of the Czech Republic.
DKK	Danish Kroner	The Legal tender of Denmark.
EUR	EURO	The European legal tender.
GBP	Pound Sterling	The Legal tender of the United Kingdom.
HRK	Croatian kuna	The legal tender of Croatia.
HUF	Hungarian Forint	The Legal tender of Hungary.
ISK	Icelandic krona	The Legal tender of Iceland.
LEK	Albanian lek	The Legal tender of Albania.
LTL	Lithuanian litas	The Legal tender of Lithuania
MKD	Macedonian denar	The Legal tender of FYROM.
NOK	Norwegian Kroner	The Legal tender of Norway.
PLN	Polish zloty	The Legal tender of Poland.
RON	Romanian Leu	The Legal tender of Romania.
RSD	Serbian dinar	The Legal tender of Serbian Republic.
SAR	Saudi Arabian Riyal	The Legal tender of Saudi Arabia.
SEK	Swedish kroner	The Legal tender of Sweden.
SKK	Slovak Koruna	The legal tender of Slovakia.

Code	Title	Description
TRY	New Turkish Lira	The Legal tender of Turkey.
UAH	Ukrainian hryvnia	The legal tender of Ukraine.
USD	US Dollar	The legal tender of the USA.

219

220 **2.15 CurveType enumeration**

221 The type of curve being defined in the time series.

222 Table 15 provides details of the Codelist CurveType.

223 **Table 15 - Codelist CurveType**

Code	Title	Description
A01	Sequential fixed size block	The curve is made of successive Intervals of time (Blocks) of constant duration (size), where the size of the Blocks is equal to the Resolution of the Period.
A02	Point	The curve is made of successive instants of time (Points).
A03	Variable sized Block	The curve is made of successive Intervals of time (Blocks) of variable duration (size), where the end date and end time of each Block are equal to the start date and start time of the next Interval. For the last Block the end date and end time of the last Interval would be equal to EndDateTime of TimeInterval.
A04	Overlapping breakpoint	The curve is made of successive Intervals of time of variable duration (size), where the end date and end time of each interval are equal to the start date and start time of the next Interval.
A05	Non-overlapping breakpoint	This curve is a restriction of the curve type A04, i.e. overlapping breakpoints. The restriction is that a single Period is allowed.

224

225 **2.16 DirectionType enumeration**

226 The coded identification of the direction of energy flow.

227 Table 16 provides details of the Codelist DirectionType.

228 **Table 16 - Codelist DirectionType**

Code	Title	Description
A01	UP	Up signifies that the available power can be used by the Purchasing area to increase energy.
A02	DOWN	Down signifies that the available power can be used by the Purchasing area to decrease energy.
A03	UP and DOWN	Up and Down signifies that the UP and Down values are equal.
A04	Stable	The direction at a given instant in time is considered to be stable.

229

230 **2.17 EicType enumeration**

231 The coded identification of the type of an EIC code.

232 Table 17 provides details of the Codelist EicType.

233

Table 17 - Codelist EicType

Code	Title	Description
A	Substation	An EIC code to substations.
T	Tieline	An EIC code to identify tielines.
V	Location	An EIC code to identify locations.
W	Resource Object	An EIC code to identify resource objects.
X	Party	An EIC code to identify parties.
Y	Area or Domain	An EIC code to identify areas or domains.
Z	Measurement point	An EIC code to identify measurement points.

234

2.18 EnergyProductType enumeration

236 The identification of the nature of an energy product such as power, energy, reactive power,
237 etc.

238 Table 18 provides details of the Codelist EnergyProductType.

239

Table 18 - Codelist EnergyProductType

Code	Title	Description
8716867000016	Active power	The product of voltage and the in-phase component of alternating current measured in units of watts and standard multiples thereof.
8716867000023	Reactive power	The product of voltage and current and the sine of the phase angle between them, measured in units of voltamperes reactive and standard multiples thereof. (not used for planned schedules).
8716867000030	Active energy	The electrical energy produced, flowing or supplied by an electrical circuit during a time interval, being the integral with respect to time of instantaneous active power, measured in units of watt-hours, or standard multiples thereof.
8716867000047	Reactive energy	The integral with respect to time of reactive power (not used for planned schedules).
8716867000115	Capacitive reactive power	Capacitive reactive power.
8716867000122	Inductive reactive power	Inductive reactive power.
8716867000139	Capacitive Reactive energy	Capacitive reactive energy.
8716867000146	Inductive Reactive energy	Inductive reactive energy.
8716867009911	Water	For hydro power stations, this enables the identification of the quantity of water stored behind a dam (volume, head level, etc.), or the constraints in the flow of water.

240

2.19 FlowCommodityOptionType enumeration

The option of flow commodity, such as production, consumption, combined or exchange.

Table 19 provides details of the Codelist FlowCommodityOptionType.

Table 19 - Codelist FlowCommodityOptionType

Code	Title	Description
E17	Consumption	The coded identification of the type of entity, e.g. consumption metering point.
E18	Production	The coded identification of the type of entity, e.g. production metering point.
E19	Combined	The coded identification of the type of entity, e.g. combined consumption and production metering point.
E20	Exchange	The coded identification of the type of entity, e.g. exchange metering point.

2.20 FuelType enumeration

The identification of the type of fuel.

Table 20 provides details of the Codelist FuelType.

Table 20 - Codelist FuelType

Code	Title	Description
A01	Unspecified	Fuel that cannot be associated with any of available fuel codes.
A02	Renewable solid unspecified	Fuel produced in a solid form from renewable resources that cannot be associated with any of available renewable solid fuel codes.
A03	Renewable solid municipal waste	Solid waste of biological material produced by households, hospitals and the tertiary sector (in general all waste that resembles household waste).
A04	Renewable solid industrial and commercial waste	Solid waste generated by businesses, production units, bureaus and offices.
A05	Renewable solid wood	Solid wood energy resource.
A06	Renewable solid animal fats	Solid animal fats energy resource.
A07	Renewable solid biomass from agriculture	Solid by-products and residues from agriculture.
A08	Renewable liquid unspecified	Fuel produced in form of liquid from renewable resources that cannot be associated with any of available renewable liquid fuel codes.
A09	Renewable liquid municipal biodegradable waste	Liquid municipal waste capable of undergoing anaerobic or aerobic decomposition.
A10	Renewable liquid black liquor	Alkaline-spent liquor obtained from the digesters during the production of sulphate or soda pulp.
A11	Renewable liquid pure plant oil	Oil produced from plants, mainly from rapeseed and sunflower crops.
A12	Renewable liquid waste plant oil	Oil produced from plants that is no longer usable for its originally intended purpose.

Code	Title	Description
A13	Renewable liquid refined vegetable oil	Oil produced from plants and transformed into fuel by refining process (hydrocracking or hydrogenation).
A14	Renewable gaseous unspecified	Fuel produced in form of gas from renewable resources that cannot be associated with any of available renewable gaseous fuel codes.
A15	Renewable gaseous landfill gas	Gas produced by digestion of land filled waste.
A16	Renewable gaseous sewage gas	Gas produced from the anaerobic fermentation of sewage sludge.
A17	Renewable gaseous agricultural gas	Gas produced from agricultural processes.
A18	Renewable gaseous gas from organic waste digestion	Gas produced by anaerobic digestion process from organic waste.
A19	Renewable gaseous process gas	Gas produced by an industrial process as a consequence.
A20	Renewable gaseous other biogenic sources	Gas produced by form of biogenic resource transformation that cannot be associated with any of available renewable gaseous fuel codes that use biogenic energy resource.
A21	Renewable heating and cooling solar	Sunlight energy source.
A22	Renewable heating and cooling geothermal	Geothermal energy source.
A23	Renewable heating and cooling aerothermal	Thermal energy obtained from air.
A24	Renewable heating and cooling hydrothermal	Thermal energy obtained from large body of water.
A25	Renewable heating and cooling process heat	Thermal energy obtained from process heat.
A26	Renewable mechanical unspecified	Energy from renewable resource transformed into mechanical energy that cannot be associated with any of available renewable mechanical fuel codes.
A27	Renewable mechanical wind	Kinetic energy of wind transformed into mechanical energy.
A28	Renewable mechanical hydro and marine	Falling or flowing water energy or energy derived from tidal movement, wave motion or ocean current.
A29	Fossil unspecified	Unspecified fossil energy source.
A30	Fossil solid unspecified	Unspecified fossil solid energy source.
A31	Fossil solid hard coal	Hard coal solid fossil energy source. This includes Anthracite, Bituminous coal, Coking coal, Coke-oven coke and Lignite coke.
A32	Fossil solid brown coal	Brown coal solid fossil energy source. This includes Sub-bituminous coal, Lignite, Brown coal briquette and Peat briquette.
A33	Fossil solid peat	Solid fossil peat energy source.

Code	Title	Description
A34	Fossil solid municipal waste	Solid fossil municipal waste energy source.
A35	Fossil solid industrial and commercial waste	Solid fossil industrial and commercial waste energy source.
A36	Fossil liquid unspecified	Unspecified fossil liquid energy source.
A37	Fossil liquid crude oil	Liquid crude oil fossil energy source. This includes shale oil or other types.
A38	Fossil liquid natural gas liquids (NGL)	Liquid natural gas liquids (NGL) fossil energy source.
A39	Fossil liquid petroleum products	Liquid petroleum products energy source. This includes Ethane, Naphtha, Aviation gasoline, Motor gasoline, Aviation turbine fuel, Other kerosene, Gas/diesel oil, Fuel oil, low sulphur, Fuel oil, high sulphur, Liquid Petroleum Gas, Orimulsion, Bitumen, Lubricants, Petroleum coke, Refinery Feedstock.
A40	Fossil gaseous unspecified	Unspecified fossil gaseous energy source.
A41	Fossil gaseous natural gas	Fossil gaseous natural gas energy source.
A42	Fossil gaseous coal-derived gas	Fossil gaseous coal-derived gas energy source. This includes Blast furnace gas, Coke-oven gas or other types.
A43	Fossil gaseous petroleum products	Fossil gaseous petroleum products energy source. This includes Propane, Butane, Refinery gas, Chemical waste gas or other types.
A44	Fossil gaseous municipal gas plant	Fossil gaseous municipal gas plant energy source.
A45	Fossil gaseous process gas	Fossil gaseous process gas energy source. This includes Carbon monoxide, Methane, Hydrogen (fossil sourced), Phosphor gas, Oxy gas and other types.
A46	Fossil heat unspecified	Unspecified fossil heat energy source.
A47	Fossil heat process heat	Fossil process heat energy source.
A48	Nuclear solid radioactive fuel	Solid Nuclear radioactive energy source. This includes UOX, AGR, MOX or other types.
A49	Gas synthesis unspecified	Unspecified gas synthesis energy source.
A50	Gas synthesis furnace gas	Gas synthesis from furnace gas energy source.
A51	Waste heat and cold unspecified	Unspecified Waste heat and cold energy source.
A52	Waste heat and cold By-product in industrial installation	Waste heat and cold from by-product in industrial installation energy source.
A53	Waste heat and cold By-product in power generation	Waste heat and cold from by-product in power generation energy source.
A54	Waste heat and cold By-product in tertiary sector	Waste heat and cold from by-product in tertiary sector energy source.
A55	Hydrogen	Hydrogen energy source.

250

251 **2.21 GridAgreementType enumeration**

252 Contract directly

253 Table 21 provides details of the Codelist GridAgreementType.

254 **Table 21 - Codelist GridAgreementType**

Code	Title	Description
E01	Grid usage contract directly between Grid Access Provider and Customer	The grid usage contract is a contract directly between the grid access provider and the customer.
E02	Grid usage contract directly between Energy Supplier and Grid Access Provider	The grid usage contract is a contract directly between the energy supplier and the grid access provider.
E03	Grid usage contract between Grid Access Provider and Customer through Energy Supplier	The grid usage contract is a contract between the grid access provider and customer through the energy supplier.
E04	No grid usage contract	There is no grid usage contract that must be signed by the customer.

255

256 **2.22 HVDCModeType enumeration**

257 The coded identification of the HVDC mode.

258 Table 22 provides details of the Codelist HVDCModeType.

259 **Table 22 - Codelist HVDCModeType**

Code	Title	Description
A01	Setpoint schedule	The code for the "power setpoint" mode of operation of the HVDC link.
A02	Proportional external signal	The code for the "Proportional external signal" mode of operation of the HVDC link.
A03	AC emulation	The code for the "AC emulation" mode of operation of the HVDC link.

260

261 **2.23 IndicatorType enumeration**

262 A boolean indicator to express Yes or No or True or False.

263 Table 23 provides details of the Codelist IndicatorType.

264 **Table 23 - Codelist IndicatorType**

Code	Title	Description
A01	YES	A positive indication.
A02	NO	A negative indication.

265

266 **2.24 MessageType enumeration**

267 The coded type of a document. The message type describes the principal characteristic of a
268 document.

269 This enumeration is used in the XML instances based on IEC 62325.

270 Table 24 provides details of the Codelist MessageType.

271

Table 24 - Codelist MessageType

Code	Title	Description
A01	Balance responsible schedule	A schedule which has been prepared by a balance responsible party providing planned schedule information.
A02	Allocated capacity schedule	A schedule which has been prepared by a capacity allocator providing allocated capacity.
A03	Balance area schedule	A schedule that provides the planned schedule information for a balance area.
A04	System Operator area schedule	A compilation of all external schedules concerning two System Operator areas or a connector concerning two System Operator of all balance responsible parties.
A05	Control block area schedule	A compilation of all the exchange programs of all control areas for one control block with all neighbouring control areas of a neighbouring control block.
A06	Coordination center area schedule	A compilation of the exchange programs of all exchange blocks divided into UCTE south and north.
A07	Intermediate confirmation report	An intermediate confirmation report that may be produced between final cutoffs.
A08	Final confirmation report	A final confirmation report that is produced after a final cutoff.
A09	Finalised schedule	A compilation of a set of schedules that have been finalized after a given cutoff.
A10	Regulation data report	A compilation of the time series employed on a given day to ensure the balance of the system.
A11	Aggregated energy data report	A compilation of the time series of all the meter readings or their equivalent for a given period.
A12	Imbalance report	The report containing the complete situation of a given period for a party and including the schedules, regulation data and actual or calculated readings.
A13	Interconnection Capacity	Document for cross-border capacity exchanges.
A14	Resource Provider Resource Schedule	A document providing the schedules for resource objects submitted by a resource provider.
A15	Acquiring System Operator Reserve Schedule	A document providing reserve purchases submitted by an Acquiring System Operator.
A16	Anomaly Report	A document providing anomaly information for the receiving party to correct.
A17	Acknowledgement Document	A document providing acknowledgement information.
A18	Confirmation report	A document providing confirmation information.
A19	Capacity for Resale	A document providing information about capacity for resale.

Code	Title	Description
A20	Approved Capacity Transfer	A document to approve a capacity transfer.
A21	Capacity transfer notification	A document notifying a capacity transfer.
A22	Transmission rights portfolio	A document providing the portfolio of the transmission capacity rights of a market participant.
A23	Allocations	A document providing the capacity allocations for a border.
A24	Bid document	A document providing bid information.
A25	Allocation result document	A document providing the allocation results of an auction.
A26	Capacity document	A document providing capacity information.
A27	Rights document	A document providing transmission capacity rights information.
A28	Generation availability schedule	This document contains information related to energy availability.
A30	Cross border schedule	This document contains the cross border schedules for all the borders of a given country where energy is exchanged.
A31	Agreed capacity	The capacity agreed between parties.
A32	Proposed capacity	The capacity proposed for agreement between parties.
A33	System vertical load	The sum of all flows out of the transmission grid via directly connected transformers and lines to distribution grids and end consumers as known by the System Operator.
A34	Escalation document	A document which requesting the escalation of a situation.
A35	Trouble shooting document	A document providing trouble shooting information for the resolution of a problem.
A36	Deactivation document	A document providing deactivation information.
A37	Reserve tender document	The document that is used for the tendering for reserves within the ERRP process.
A38	Reserve Allocation Result Document	The document used to provide the results of a Reserve auction.
A39	SATCR activation	The document is used to provide the activation of reserves through the SATCR process.
A40	DATCR activation	The document is used to provide the activation of reserves through the DATCR process.
A41	Activation response	The document is used to provide a response to a request to activate reserves.
A42	Tender reduction	The document is used to provide information concerning the reduction of a previously submitted tender.
A43	MOL Document	The document is used to provide Merit Order List information.
A44	Price Document	The document is used to provide market price information.
A45	Measurement Value Document	The document is used to provide measurement information from measurement devices.
A46	SOAM Document	The document is used to provide system operator accounting data for matching.
A47	SOVA Document	The document is used to provide system operator validated accounting data.
A48	CCVA Document	The document is used to provide coordination center validated accounting data.

Code	Title	Description
A49	Daily settlement document	The document is used to provide daily settlement information.
A50	Weekly settlement document	The document is used to provide weekly settlement information.
A51	Capacity Auction Specification Document	The document is used to provide capacity auction specification information.
A52	Market Coupling Results Document	The document is used to provide the results of a market coupling auction.
A53	Outage publication Document	The document is used to provide the outage information for publication.
A54	Forced generation outage Document	A document providing information on forced generation outages.
A55	Summarised Market Schedule	A compilation of all external schedules concerning two Market Balance Areas of all balance responsible parties.
A56	Compensation Program Schedule	A schedule that provides the schedule information for the compensation of unintended deviation.
A57	Load Frequency Control Program Schedule	A schedule that provides the schedule information for the Load Frequency Control Program of a Control Area or a Control Block.
A58	Timeframe Independent Schedule	A compilation of all external Timeframe Independent Schedules concerning two System Operators.
A59	Information request	An information request being made concerning some specific information.
A60	status request for a position independently from a specific process	A status request concerning the position of an object independently of any ongoing processes.
A61	Estimated Net Transfer Capacity	The estimated net transfer capacity for a given border.
A62	Compensation rights	The capacity rights that have been allocated as compensation.
A63	Redispatch notice	A notice to confirm the actions agreed between System Operators to resolve a congestion situation through redispatch.
A64	Tender reduction response	A response to a tender reduction request that provides corrections to the initial document.
A65	System total load	Total load', including losses without power used for energy storage, is equal to generation deducted with exports, added with imports and deducted with power used for energy storage.
A66	Final MOL	A document providing the information concerning the situation of the MOL at the end of an activation period.
A67	Resource Provider Schedule for production/consumption	A document providing the schedules for production/consumption for resource objects submitted by a resource provider.
A68	Installed generation per type	A document providing the installed generation per generation type.
A69	Wind and solar forecast	A document providing the forecast of wind and solar generation.
A70	Load forecast margin	A document providing the load forecast margin for a period.
A71	Generation forecast	A document providing the generation forecast for a period.

Code	Title	Description
A72	Reservoir filling information	A document providing information concerning the filling of reservoirs.
A73	Actual generation	A document providing the actual generation for a period.
A74	Wind and solar generation	A document providing the generation of wind and solar energy for a period.
A75	Actual generation per type	A document providing the actual generation per generation type for a period.
A76	Load unavailability	A document providing the unavailability of units providing load on the network.
A77	Production unavailability	A document providing the unavailability of production units providing energy to the network.
A78	Transmission unavailability	A document providing the unavailability of transmission capacity on the network.
A79	Offshore grid infrastructure unavailability	A document providing the unavailability of an offshore grid infrastructure to the network.
A80	Generation unavailability	A document providing the unavailability of generation units providing energy to the network.
A81	Contracted reserves	A document providing the reserves contracted for a period.
A82	Accepted offers	A document providing the offers of reserves that have been accepted for a period.
A83	Activated balancing quantities	A document providing the quantities of reserves that have been activated for balancing.
A84	Activated balancing prices	A document providing the prices of the reserves that have been activated for balancing.
A85	Imbalance prices	A document providing the prices of reserves due to imbalance for a period.
A86	Imbalance volume	A document providing the volume of the imbalance for a period.
A87	Financial situation	A document providing the financial situation for reserves.
A88	Cross border balancing	A document providing the cross border balancing requirements for a period.
A89	Contracted reserve prices	A document providing the price of reserves contracted for a period.
A90	Interconnection network expansion	A document providing information on the expansion of the interconnection network.
A91	Counter trade notice	A document providing information on counter trades for a period.
A92	Congestion costs	A document providing the cost of congestion for a period.
A93	DC link capacity	A document providing the DC links for a period.
A94	Non EU allocations	A document providing allocations made to non EU member states.
A95	Configuration document	A document providing configuration information.
A96	Redispatch activation document	A document enabling the activation of a redispatch notice.
A97	Detailed activation history document	A document enabling a detailed history of activations.
A98	Aggregated activation history document	A document enabling an aggregated history of activations.

Code	Title	Description
A99	HVDC Link constraints	A document providing the information concerning the maximum and minimum active power flow through each link can limited.
B01	HVDC Configuration	A document providing the information concerning the power set point. The mode in which the HVDC is managed.
B02	HVDC Schedule	A document providing the information for operating DC links.
B03	EIC code request	A document providing the information requesting a new EIC code.
B04	EIC code information	A document providing EIC information in a central registry exchange or information to an EIC participant.
B05	EIC code publication	A document providing EIC publication information in a web site publication of a limited set of information.
B06	Critical network element determination	A document providing all the elements necessary for the capacity coordinator to determine the transfer capacity and the associated critical network elements.
B07	Critical network element publication	A document providing all the elements necessary for the market information aggregator and TSOs to know the critical network elements which limit the transfer capacity.
B08	Flow based domain	A document providing the capacity domain and its limits available for the TSO.
B09	Flow based domain publication	A document providing the capacity domain and its limits available for the market.
B10	Flow based domain market impact publication	A document providing the capacity domain and its impacts on the market to be published.
B11	Anonymized flow based parameters publication	A document providing all the relevant flow based parameters in case of flow based capacity allocation.
B12	Critical network element market impact publication	A document providing the critical network elements and its impacts on the market to be published.
B13	Weather document	An estimation or prediction in advance of the weather by analysis of meteorological data and the results of what actually happened with the weather.
B14	Energy prognosis document	A document to provide the prognosis of energy production/load for a given period.
B15	Network constraint document	A document providing the network constraint situations used for the load flow studies. A network constraint situation includes contingencies, monitored elements and remedial actions.
B16	Aggregated netted external market schedule document	A document used to report aggregated netted external market schedules for a given border.
B17	Aggregated netted external TSO schedule document	A document used to report aggregated netted external TSO schedules for a given border.
B18	Reporting status market document	A document used to report the status of aggregated netted external market schedules, aggregated netted external TSO schedules and compensation program schedules on a given border.
B19	Reporting information market document	A document used to report the information concerning aggregated netted external schedules, aggregated netted external market schedules, aggregated netted external TSO schedules, compensation program schedules, netted area position schedules and netted area AC position schedules to an interested party.

Code	Title	Description
B20	Status request for a reporting information market document	A document requesting the provision of a reporting information document.
B21	Reserve need document	Used by a TSO to send its reserve needs.
B22	Generation and load shift keys document	A document providing the values of the generation and load shift keys to be used on network model.
B23	Offers to be activated	A document containing the outcome of the process, with the list of offers that are to be activated by the TSO concerned and the results for its reserve needs.
B24	Clearing price	A document containing the outcome of the process, with the clearing prices for a period.
B25	Security analysis report	A document providing a report on a performed security analysis.
B26	Aggregated netted external schedule document	A document used to report aggregated netted external schedules for a given border.
B27	External TSO schedule	A document used to report external TSO schedules for a given border or interconnector.
B28	Move of scheduled production	A document indication a move of scheduled production.
B29	PS&LC results document	A document providing Pole Splitting & Loss Calculation results.
B30	Notification data market document	A document used to notify data to any information receiver.
B31	Additional Constraint document	A document describing additional constraints for a capacity calculation process.
B32	Operational state document	A document used for exchanging operational states for grid assets.
B33	Published offered capacity	A document providing the most recent values of offered capacity.
B34	Market result document	Published prices and volumes
B35	Area Configuration document	A document containing the definition of areas.
B36	Area Composition document	A document containing the relations between areas, i.e which Metering Grid Areas a Bidding Zone composed of.
B37	Connected Areas document	A document containing which other areas an area is connected to i.e. which Metering Grid Areas a Metering Grid Area is connected to.
B38	Settlement document	A document providing settlement information.
B39	Imbalance prognosis document	A document to provide the prognosis of energy imbalances for a given period.
B40	Complete set of bids	Submission of complete set of bids. If there are existing bids, they should be replaced.
B41	Merged MOL notice	A notice providing information on the MOL merging process.
B42	K-factor document	A document providing K-factor values.
B43	Settlement coordination document	A document providing settlement information for coordination between different parties.

Code	Title	Description
B44	Financial settlement document	A document providing financial settlement information.
B45	Bid availability document	A document providing the detailed reasons for changing the availability or volume of a bid.
B46	Resource capacity unit document	A document providing information about resource capacity units.
B47	Other market information	A document providing other market information.
B48	Permission document	A document that contains detailed information about permissions.
B49	Requested capacity	A document providing requested capacity (e.g. ATC, CZCL) value.
B50	Voltage control activation document	A document providing the number of generating units to activate for voltage control, by means of their operation in synchronous condenser mode.
B51	Transmission inventory document	A document providing a transmission inventory.
B52	Transmission inventory	A document providing statistics on the transmission grid.

272

273 **2.25 MarketProductType enumeration**

274 The identification of the type of a product on a market view

275 Table 25 provides details of the Codelist MarketProductType.

276

Table 25 - Codelist MarketProductType

Code	Title	Description
A01	Standard balancing product	A harmonised balancing product defined by all TSOs for the exchange of balancing services.
A02	Specific balancing product	A product different from a standard product.
A03	Product from integrated scheduling process	From the EBGL Article 2 (19), means an iterative process that uses at least integrated scheduling process bids that contain commercial data, complex technical data of individual power generating facilities or demand facilities and explicitly includes the start-up characteristics, the latest control area adequacy analysis and the operational security limits as an input to the process.
A04	Local balancing product	A balancing product that is neither standard nor specific. This type may be applicable only in the interim period until standard and specific products have been defined within the given scheduling area.
A05	Standard mFRR product eligible for scheduled activation	Standard mFRR product eligible for scheduled activation.
A06	Standard mFRR product eligible for direct activation	Standard mFRR product eligible for direct activation.
A07	Standard mFRR product eligible for direct and scheduled activation	Standard mFRR product eligible for direct as well as scheduled activation.

Code	Title	Description
A08	Market wide resource capacity mechanism	This is a market-wide resource capacity mechanism where all resource capacity required to ensure security of supply receives payment. These mechanisms are open for participation to all capacity resources contributing to adequacy.
A09	Strategic reserve resource capacity mechanism	This is a market resource capacity mechanism that is kept outside of the electricity market and only used if the market participants do not offer enough generation to meet short-term demand.
A10	Other resource capacity mechanism	This is any other kind of market resource capacity mechanism.
A11	Fast activation product	The fast activation product shall be considered as a fall-back solution for situations where coordination with all parties is no longer possible due to insufficient time and the regular product could not be properly applied.
A12	Remedial Action Cost Sharing Polluter Pays	Cost sharing of coordinated remedial action measures (redispatch and countertrading) under the polluter pays principle.
A13	Static product	The market product type is static. E.g. used in the Frequency Containment Reserve (FCR) market for entities that have difficulties to comply with dynamic requirements, such as activation/deactivation performance and dynamic stability.
A14	Dynamic product	The market product type is dynamic. E.g. used in the Frequency Containment Reserve (FCR) market for entities that can provide continuous response and comply with dynamic requirements.
A15	Deprecated (Redispatch)	Deprecated (Added by mistake, hence not to be used: "Indicates the redispatch product").
A16	Deprecated (Capacity Steering)	Deprecated (Added by mistake, hence not to be used: "Indicates the capacity steering product").
A17	Specific mFRR product eligible for scheduled activation	Specific mFRR product eligible for scheduled activation.
A18	Specific mFRR product eligible for direct and scheduled activation	Specific mFRR product eligible for direct and scheduled activation.
A19	Local mFRR product eligible for scheduled activation	Local mFRR product eligible for scheduled activation.
A20	Local mFRR product eligible for direct and scheduled activation	Local mFRR product eligible for direct and scheduled activation.

277

278 **2.26 ObjectAggregationType enumeration**

279 The identification of the domain that is the common dominator used to aggregate a time series.

280 Table 26 provides details of the Codelist ObjectAggregationType.

281 **Table 26 - Codelist ObjectAggregationType**

Code	Title	Description
A01	Area	The object being described concerns an area.
A02	Metering point	The object being described concerns a metering point.
A03	Party	The object being described concerns a party.

Code	Title	Description
A04	Agreement Identification	The object being described concerns an agreement identification.
A05	Accounting point	The object being described concerns an accounting point.
A06	Resource Object	The object being described concerns a resource object.
A07	Tieline	The object being described concerns a tieline.
A08	Resource type	The object being described concerns a resource type.
A09	DC link	The object being described concerns a DC link.
A10	AC link	The object being described concerns an AC link.
A11	Merchant line	The object being described concerns a merchant line.
A12	Bidding zone	The largest geographical area within which market participants are able to exchange energy without capacity allocation.
A13	Virtual bidding zone	A non-geographical bidding zone to be able to apply extra constraints to Bidding Zones.
A14	Metering grid area	A physical area where consumption, production and exchange can be measured. It is delimited by the placement of meters for continuous measurement for input to, and withdrawal from the area.
A15	Scheduling area	An area within which the TSOs' obligations regarding scheduling apply due to operational or organisational needs.
A16	Exchange point	The object being described concerns an exchange point.

282

283 **2.27 PaymentTermsType enumeration**

284 The identification of the different terms of payment.

285 Table 27 provides details of the Codelist PaymentTermsType.

286 **Table 27 - Codelist PaymentTermsType**

Code	Title	Description
A01	Pay as bid	The amount to be paid shall correspond to the amount bid.
A02	Pay as cleared	The amount to be paid shall correspond to the amount calculated for clearing.
A03	No payment terms	There are no payment terms to be used.

287

288 **2.28 PriceCategoryType enumeration**

289 Indicates the category of the calculation to be applied to a price.

290 Table 28 provides details of the Codelist PriceCategoryType.

291 **Table 28 - Codelist PriceCategoryType**

Code	Title	Description
A01	Category 1	A category one price calculation is to be applied.
A02	Category 2	A category two price calculation is to be applied.

Code	Title	Description
A03	Category 3	A category three price calculation is to be applied.
A04	Excess balance	The category concerns excess balance.
A05	Insufficient balance	A category concerns insufficient balance.
A06	Average bid price	The average bid price for a given product.
A07	Single marginal bid price	The downwards activated bid price or the upwards activated bid price for activated balancing reserves.
A08	Cross-border marginal price	The price determined in accordance with article 3 of the methodology for pricing balancing energy.

292

293 **2.29 PriceComponentType enumeration**

294 Indicates the component type for a price.

295 Table 29 provides details of the Codelist PriceComponentType.

296 **Table 29 - Codelist PriceComponentType**

Code	Title	Description
A01	Scarcity	A scarcity component to be used in nationally defined scarcity situations.
A02	Incentive	An incentive component to be used to fulfil nationally defined boundary conditions.
A03	Financial neutrality	A component related to the financial neutrality of the connecting TSO.

297

298 **2.30 PriceDirectionType enumeration**299 The nature of a price, i.e. an impacted area system operator pays to internal market parties or
300 inverse.

301 Table 30 provides details of the Codelist PriceDirectionType.

302 **Table 30 - Codelist PriceDirectionType**

Code	Title	Description
A01	Expenditure.	Expenditure, i.e. the Impacted Area System Operator pays to the internal Market Parties.
A02	Income.	Income, i.e. The Impacted Area System Operator receives from the internal Market Parties.

303

304 **2.31 ProcessType enumeration**

305 Indicates the nature of process that the document addresses.

306 Table 31 provides details of the Codelist ProcessType.

307

Table 31 - Codelist ProcessType

Code	Title	Description
A01	Day ahead	The information provided concerns a day ahead process.
A02	Intra day incremental	The information provided concerns an intra day schedule.
A03	Inter-area transit	The information provided concerns an inter area transit schedule. The rules governing this process are market dependent
A04	System operation closure	The information provided concerns the closure of a given period of both scheduled and regulation information.
A05	Metered data aggregation	The information provided concerns the aggregation process of metered information.
A06	Imbalance settlement	The information provided concerns the imbalance settlement for a given period for a balance responsible party or parties.
A07	Capacity allocation	The information provided concerns the capacity allocation process.
A08	Central reconciliation	The process carried out to finalise the imbalance settlement based on actual metered values against provisional values from profiled metering points.
A09	Released capacity allocation	The process concerns the notification of capacity rights that are being released.
A10	Proposed capacity allocation	The process concerns the proposed capacity to be allocated for a given border.
A11	Agreed capacity allocation	The process concerns the capacity that has been agreed for allocation for a border.
A12	Long term	The process concerns scheduling all schedules except daily and intraday contracts.
A13	Post scheduling adjustment	The process concerns the adjustments made to previous schedules after the period of execution.
A14	Forecast	The data contained in the document are to be handled in short, medium, long term forecasting process.
A15	Capacity determination	The process of determining the capacity for use.
A16	Realised	The process for the treatment of realised data as opposed to forecast data.
A17	Schedule day	The process concerns the day ahead, intraday and eventually ex-post scheduling in a single document. The schedule will be transferred within the total position including historic information.
A18	Intraday total	This process concerns an intraday schedule which contains the accumulated day ahead and intraday current position.
A19	Intraday accumulated	This process concerns a single intraday schedule process where only intraday evolutions occur through version changes.
A20	SOMA process	System Operator meter alignment process.
A21	SOVM process	System Operator validated measurement process.
A22	RGCE accounting process	The document provides ENTSO-E Regional Group Continental Europe accounting process information.
A23	CCSR RGCE Settlement	The process concerns the control center settlement report for the whole of the ENTSO-E Regional Group Continental Europe.
A24	CBSR Settlement	The process concerns the control block settlement report.
A25	CASR Settlement	The process concerns the control area settlement report.

Code	Title	Description
A26	Outage information	The process concerns TSO publication of outages on its power system.
A27	Reserve resource process	The process being described is for general reserve resources.
A28	Primary reserve process	The process being described is for primary reserves.
A29	Secondary reserve process	The process being described is for secondary reserves.
A30	Tertiary reserve process	The process being described is for tertiary reserves.
A31	Week ahead	The process being described is for the week ahead.
A32	Month ahead	The process being described is for the month ahead.
A33	Year ahead	The process being described is for the year ahead.
A34	Contracted	The process being described is for contracted information.
A35	Network information	The process being described is for network information.
A36	Creation	The process being described is for the creation of information.
A37	Modification	The process being described is for the modification of information.
A38	Deactivation process	The process being described is for deactivation of information.
A39	Synchronisation process	The process being described is for the synchronisation of information.
A40	Intraday process	The process being described is for intraday process.
A41	Redispatch process	The process being described is for redispatch activation.
A42	Activation history process	The process being described is for the provision of an activation history.
A43	Flow based domain constraint day-ahead	The information provided concerns the flow-based process in day ahead.
A44	Flow based domain constraint intraday	The information provided concerns the flow-based process in intraday.
A45	Two days ahead	Two days ahead.
A46	Replacement reserve	A process being described is for replacement reserves (RR) to restore or support the required level of frequency restoration reserves.
A47	Manual frequency restoration reserve	A process being described is for manual frequency restoration reserves (mFRR).
A48	Day-ahead capacity determination	The process run at the day-ahead timeframe to determine the capacity for use.
A49	Intraday capacity determination	The process run at the intraday timeframe to determine the capacity for use.
A50	Long term capacity determination	The process run at the long term timeframe to determine the capacity for use.
A51	Automatic frequency restoration reserve	A process being described is for automatic frequency restoration reserves (aFRR).
A52	Frequency containment reserve	A process being described is for frequency containment reserves (FCR).

Code	Title	Description
A53	Common Grid Model (CGM) merging process	The process for merging individual grid models to form the common grid model.
A54	Coordinated security analysis	The process being described is used for coordinated security analysis.
A55	Exchange of master data	A process for exchanging master data.
A56	Frequency restoration reserve	The process being described is for general frequency restoration reserve.
A57	FSKAR settlement	The information provided concerns the Financial Settlement of K ₂ f, ACE and ramping period settlement for a given period.
A58	mFRR capacity market	Processes related to the Reserve option market to assure that there are enough available reserves for the manual FRR market.
A59	Internal trade reporting	The process related to internal trade reporting.
A60	Scheduled activation mFRR	mFRR being subject to scheduled activation.
A61	Direct activation mFRR	mFRR being subject to direct activation.
A62	Registration	A process related to the registration and management of object information.
A63	Imbalance Netting	The process described is for imbalance netting.
A64	Criteria application for instantaneous frequency	The process describes criteria application for instantaneous frequency.
A65	Criteria application for frequency restoration	The process describes criteria application for frequency restoration.
A66	Cost sharing	The process describes the cost sharing process for costly remedial actions.
A67	Central selection aFRR	aFRR subject to central selection of bids for activation.
A68	Local selection aFRR	aFRR subject to local selection of bids for activation.
A69	Common grid model alignment	The process for aligning bidding zone net positions.
A70	Pan-European verification function	The process for verifying bidding zone net positions.
A71	Outage planning coordination	The process being described is used for outage planning coordination.
A72	Short term adequacy	The process being described is used for short term adequacy calculations.
A73	Coordinated capacity calculation	The process being described is used for coordinated capacity calculation.
A74	Access to metered data	Access to meter readings of electricity consumption from or electricity feed into the grid.
A75	Permission administration	Administration of permissions to access and/or use data.
A76	Congestion Management Settlement	The information provided concerns the Financial Settlement of congestion management for a given period.

308

309 **2.32 QualityType enumeration**

310 The quality of an object.

311 Table 32 provides details of the Codelist QualityType.

312

Table 32 - Codelist QualityType

Code	Title	Description
A01	Adjusted	The contents of the object have been adjusted.
A02	Not available	The contents of the object are not available.
A03	Estimated	The contents of the object are estimated. The code is typically used when measured values are missing and an estimate is made based on historical data.
A04	As provided	The contents of the object are as provided.
A05	Incomplete	The contents of the object are calculated based on incomplete data.
A06	Calculated	The contents of the object are calculated. The code is typically used when a value is calculated based on several other known values.
A07	Temporary	The content of the object is temporary. The code is typically used when there is communication trouble to a meter and a more correct value is expected later.

313

314 **2.33 ReasonCodeType enumeration**

315 The coded motivation of an act.

316 Table 33 provides details of the Codelist ReasonCodeType.

317

Table 33 - Codelist ReasonCodeType

Code	Title	Description
999	Errors not specifically identified	This code is used to identify errors that have not been specifically addressed in the Reason code list. It can be used at any level and refers to the level for which it has been identified.
A01	Message fully accepted	The message has been fully accepted for application processing.
A02	Message fully rejected	No part of the message has been accepted for application processing, e.g. Global position incomplete.
A03	Message contains errors at the time series level	Part of the message contents, i.e. certain time series, has been accepted for application processing. It is necessary to look at the time series level to determine the time series that have been rejected. The time series is excluded from the global position.
A04	Time interval incorrect	The schedule time interval is not within the contractual agreement or the period does not agree with the schedule time interval.
A05	Sender without valid contract	The sender has no current valid contract with the TSO. The message consequently will be fully rejected.
A06	Schedule accepted	The schedule of the recipient as presented has been completely accepted.
A07	Schedule partially accepted	The schedule of the recipient as presented has been partially accepted. It is necessary to look at the time series level to determine the changes (time series rejected, modified, etc.).

Code	Title	Description
A08	Schedule rejected	The schedule of the recipient as presented has been totally rejected. The cause could be the non presentation of a counter part for the involved trades.
A09	Time series not matching	Time series mismatches.
A10	Credit limit exceeded	The contractual credit limit has been exceeded and as such the message has been rejected.
A20	Time series fully rejected	The time series has been fully rejected. In the case of a confirmation report, this reason code is used in conjunction with either A26 or A30.
A21	Time series accepted with specific time interval errors	The time series has been accepted but some time interval quantities have been rectified or zeroed out.
A22	In party/Out party invalid	There is no contract for the parties indicated or the rules for cross border nominations are not being respected. The time series has been rejected.
A23	Area invalid	The area is unknown or not allowed. The time series has been rejected.
A24	A24 not applicable	This code is no longer applicable.
A25	A25 not applicable	This code is no longer applicable.
A26	Default time series applied	The time series has been rejected and replaced with a default time series profile. This reason code may not be used in conjunction with A30.
A27	Cross border capacity exceeded	The cross border capacity has been exceeded. The time series has been rejected or adjusted.
A28	Counterpart time series missing	This provides an indication that the time series has not got a counterpart time series. In the case of an Intermediate Confirmation Report this is advising the recipient that the time series may be rejected at nomination closure if the counterpart time series is not received. In the case of a Final Confirmation Report this is informing the recipient that the time series has been rejected because the counterpart time series has not been forthcoming.
A29	Counterpart time series quantity differences	The time series has been rejected as it does not match that of the counterpart who is considered by market rules to be correct.
A30	Imposed Time series from nominated party's time series (party identified in reason text)	The nominated party's time series has replaced the current time series. This reason code may not be used in conjunction with A26.
A41	Resolution inconsistency	The resolution is not coherent with the time interval, or resolution not valid.
A42	Quantity inconsistency	The quantity is not coherent. For example a time period with the same version number but different quantities or an non permitted number of digits after the decimal point, etc.
A43	Quantity increased	The quantity has been increased in order to satisfy minimum constraints.
A44	Quantity decreased	The quantity has been decreased in order to satisfy congestion constraints.
A45	Default quantity applied	The default quantity has been applied as the current quantity does not satisfy contractual obligations.
A46	Quantities must not be signed values	The quantity proposed is illegal since signed values are only permitted in specific circumstances.
A47	A47 not applicable	This code is no longer applicable.

Code	Title	Description
A48	Modification reason	In an intraday transmission, the reason for the modification is as follows (in the reason text).
A49	Position inconsistency	A position is missing or too many.
A50	Senders time series version conflict	There is an error in the sender time series version, i.e. it could be superior to the message version or is inconsistent with the existing data. The time series has been rejected.
A51	Message identification or version conflict	The message identification is already in the receiving system. Or a higher version already exists. Message rejected.
A52	Time series missing from new version of message	A time series is not contained in a new version of the message. Message rejected.
A53	Receiving party incorrect	The receiving party is incorrect. Message rejected.
A54	Global position not in balance	The message does not balance out to zero. Market rules might require that the message is rejected.
A55	Time series identification conflict	The identification of the time series is duplicated or incorrect. Time series will be rejected.
A56	Corresponding Time series not netted	All corresponding time series must be netted. Time series rejected.
A57	Deadline limit exceeded/Gate not open	The deadline for receiving schedule messages has passed. Message or time series rejected.
A58	One to one nomination inconsistency	There is a one to one nomination inconstancy with the in/out parties or areas. Time series rejected.
A59	Not compliant to local market rules	The level in which this is identified is not in compliance with local market rules. The level in question has been rejected.
A60	Inter-area transit schedule exceeds nominated schedule	The inter-area transit schedule exceeds the nominated schedule for the same time interval. The inter-area transit schedule is rejected.
A61	Currency invalid	The currency is not in compliance with ISO 4217.
A62	Invalid business type	The business type does not belong to the valid set of business types for the process in question.
A63	Time Series modified	The time series has been modified.
A64	Resource Object Invalid	The Resource Object defined in the document is not valid.
A65	Reserve object Technical limits exceeded	Reserve objects aggregated values are not within technical/prequalified limits
A66	Planned reserves do not correspond with contractual data	Planned reserves do not correspond with contractual data.
A67	Limit Data is not available	Limit Data is not available.
A68	Reserve Object not qualified for reserve type	Reserve Object is not qualified for reserve type.

Code	Title	Description
A69	Mandatory attributes missing	Mandatory attributes missing.
A70	Curtailment	The capacity in question has been curtailed.
A71	Linked bid rejected due to associated bid unsuccessful	The bid in question has been rejected because an associated bid has been unsuccessful.
A72	Original bid divided to permit acceptance	The original bid quantity has been divided to enable it to be accepted.
A73	Bid accepted	The bid in question has been accepted.
A74	Auction Status	The information in the Reason Text provides auction status information.
A75	Right status information	The information in the Reason Text provides status information concerning the transmission rights in question.
A76	Agreement identification inconsistency	There is an inconsistency between the contract type and the agreement identification.
A77	Dependency matrix not respected	There is an inconsistency between the document contents and the dependency matrix.
A78	Sender identification and/or role invalid	The identification of the sender or the sender/role combination is invalid.
A79	Process type invalid	The process type does not figure in the list of valid process types for this document.
A80	Domain invalid	The domain does not figure in the list of valid domains for this document and process.
A81	Matching period invalid	The period is not within the expected limits.
A82	In/Out area inconsistent with domain	The in and out area does not figure within the domain specified.
A83	Disagree with matching results	The matching results provided are not consistent.
A84	Confirmation ignored due to higher version already received	The report has been ignored since a higher version has been received.
A85	Confirmation without adjustment (time series have been matched without change)	The report has been successfully matched without any changes.
A86	Confirmation with adjustment (time series have been modified)	The report has been matched but required adjustment.
A87	For action (only in intermediate confirmation - time series need mutual agreement and action)	The report in question is only for action in an intermediate stage.
A88	Time series matched	The time series has been successfully matched.

Code	Title	Description
A89	Time series ignored (note: this can only apply to time series that are set to zero - see matching principles)	The time series has been ignored and not matched since it does not figure in a counterparty transmission. All are correctly equal to zero.
A90	Modification proposal (intermediate confirmation)	The document is a proposal for change before finalization.
A91	Expected document not received	The document that is expected has not been received within the expected timeframe.
A92	Not possible to send document on time, but estimated delivery time is provided	The document that is due cannot be transmitted within the required timeframe. An estimated time of transmission is provided.
A93	Not possible to send document on time, and furthermore no expected time of return to normal situation	The document that is due cannot be transmitted within the required timeframe. The time of transmission of the document is unknown.
A94	Document cannot be processed by receiving system	The receiving system cannot process that document in question.
A95	Complementary information	Additional text is provided in order to further explain a condition, for example to provide details of an outage.
A96	Technical constraint	A technical constraint has been applied.
A97	Force majeure curtailment	Curtailment due to Force Majeure. A code that enables the identification of the curtailment reason for settlement purposes.
A98	Network security curtailment	Curtailment due to network security reasons A code that enables the identification of the curtailment reason for settlement purposes.
A99	Auction cancelled	The auction has been cancelled.
B01	Incomplete document	The document is incomplete and cannot be processed.
B02	Accounting Point (tie-line) Time Series missing	The document is incomplete as a time series for an accounting point is missing.
B03	Meter data Time series missing	The document is incomplete as a time series for meter data is missing.
B04	Estimated values not allowed in first transmission	The document is in its initial form and estimated values are not allowed.
B05	No quantity values allowed for a quality that is not available	No quantity values are allowed for a quality that is not available.
B06	Time series accepted	Time series accepted.
B07	Auction without bids being entered	The auction has terminated without any bids being submitted. The ReasonText may provide the identification of the auction in question.
B08	Data not yet available	It is not possible to perform the necessary action since the required data for this action is not yet available.

Code	Title	Description
B09	Bid not accepted	The bid in question has not been accepted.
B10	Initiator area problem	The problem concerns the initiator area.
B11	Cooperating area problem	The problem concerns the cooperating area.
B12	Communication status currently active	The status within the system indicates that the communication capability is currently active.
B13	Communication status currently inactive	The status within the system indicates that the communication capability is currently inactive.
B14	Communication status currently restricted	The status within the system indicates that the communication capability is currently restricted.
B15	Problem associated with both areas	The problem concerns both areas.
B16	Tender unavailable in MOL list	A tender that has been requested is no longer available in the MOL.
B17	Price based on preliminary exchange rate	The price is based on a preliminary exchange rate.
B18	Failure	A failure has occurred.
B19	Foreseen maintenance	Maintenance is foreseen.
B20	Shutdown	A shutdown has occurred.
B21	Official exchange rate approved	The official exchange rate has been approved.
B22	System regulation	The information provided regards a regulation for system purposes.
B23	Frequency regulation	The information provided regards a regulation for frequency purposes.
B24	Load flow overload	Situation in the grid, where loading of a certain grid element, e.g. overhead line, is above defined technical limits.
B25	Voltage level adjustment	A TSO activity to maintain an acceptable voltage profile throughout the network. This is achieved by balancing of the respective reactive power requirements of the network and the customers.
B26	Emergency situation curtailment	Curtailment due to emergency situation. A code that enables the identification of the curtailment reason for settlement purposes.
B27	Calculation process failed	The calculation has not been performed.
B28	No capacity constraint impact on the market	The market position is such as no capacity constraint is applied to limit the cross border exchanges.
B29	Special Condition	Special condition need to be fulfilled.
B30	Unverified	Missing or not validated data.
B31	Verified	Data has successfully passed the verification process.
B32	CGM inconsistency	Describes an element which was not found in the CGM.
B33	Network dictionary inconsistency	Describes an element which was not found in the network dictionary.
B34	Capacity reduced by TSO	Describes a capacity that was reduced by a TSO.

Code	Title	Description
B35	Overload	Describes an N-k or N state overload.
B36	GLSK limitation	Describes a situation in which there is not enough power adjustment in the GLSK file to cover the capacity.
B37	Voltage constraint	Describes an N-k or N state voltage violation.
B38	Angle constraint	Describes an N-k or N state angle violation.
B39	Stability	Describes a situation in which the dynamic behaviour of the network violated.
B40	Loadflow divergence	Describes a network situation in which the provided capacity values are part of a load flow divergence situation.
B41	Exclusion for SoS reasons	This is the adjustment applied to the capacity of a branch to have a minimum RAM (Remaining Available Margin) available for commercial exchanges.
B42	Constraint by the market	A constraint due to market restrictions.
B43	Ordinary	The contingency is ordinary (methodology for coordinating operational security analysis, article 6).
B44	Exceptional	The contingency is exceptional (methodology for coordinating operational security analysis, article 6).
B45	Out of range	The contingency is out of range (methodology for coordinating operational security analysis, article 6).
B46	Internal congestion	A temporary congestion within a bidding zone or scheduling area.
B47	Operational security constraints	Operational security constraints identified by TSOs.
B48	Estimated value	Describes a situation where a calculation process has failed and extrapolated or interpolated values will be applied.
B49	Balancing	Activated for balancing purposes.
B50	Values shared	Values of this time series are also valid for counter-party.
B51	Outside price limits	The offered price is not within the valid limits.
B52	Previous timeframe data	In case of processing issue, sent data are based on the previous timeframe.
B53	MOL merging succesful	The merging of the Merit Order List has been successfully processed.
B54	MOL merging failed	The merging of the Merit Order List has failed.
B55	Because of redispatching	Because of redispatching according to Article 2(26) of Commission Regulation (EU) 543/2013
B56	Because of countertrading	Because of countertrading according to Article 2(13) of Commission Regulation (EU) 543/2013
B57	Because of other remedial action	Not available because of any remedial action.
B58	Insufficiency of reserves	The reserve capacity is not sufficient.
B59	Unavailability of reserve providing unit	The unit providing the reserve is subject to technical unavailability.

Code	Title	Description
B60	Unavailability of automatic protection systems	Unavailability of tools to detect predetermined system conditions that have a high probability of causing unusual stress on the power system, for which pre-planned remedial action is considered necessary or for which automatic protective actions may be triggered such as special protection schemes or automatic load shedding.
B61	Physical cable or converter restrictions	Limitation due to physical cable or converter restrictions.
B62	Constraints in controller systems	Limitation due to constraints in controller systems.
B63	Adjusted because of expected violation of operational security	The capacity is adjusted because of an expected violation of operational security limits of physical transmission assets.
B64	Adjusted because already considered remedial actions are assessed as not sufficient	The capacity is adjusted because the remedial actions were assessed as not sufficient or ineffective to avoid the expected violation of operational security limit(s).
B65	Time series partially accepted	The time series is partially accepted.
B66	Demand fully netted	Demand was fully netted against other demand(s).
B67	Bid activated in same direction	One or several bids were activated in the same direction within the same uncongested area as the demand.
B68	Optimization in progress	The activation optimisation framework is being executed.
B69	Wrong energy market timeframe	The given energy market timeframe is invalid or wrong.
B70	Message partially accepted	The detailed transactions of the received document are partially accepted. It is necessary to look at the detailed (transaction) level to determine if the transaction is accepted, rejected etc.
B71	(Explicit) Permission from the customer	Based on the regulation (EU) 2016/679 (GDPR) Article 6, Lawfulness of processing: The data subject has given consent to the processing of his or her personal data for one or more specific purposes.
B72	In execution of a contract with the customer (Execution of contract)	Based on the regulation (EU) 2016/679 (GDPR) Article 6, Lawfulness of processing: Processing is necessary for the performance of a contract to which the data subject is party or in order to take steps at the request of the data subject prior to entering in to a contract.
B73	Legal obligations	Based on the regulation (EU) 2016/679 (GDPR) Article 6, Lawfulness of processing: Processing is necessary for compliance with a legal obligation to which the controller is subject.
B74	In protection of vital interests of the customer	Based on the regulation (EU) 2016/679 (GDPR) Article 6, Lawfulness of processing: Processing is necessary in order to protect the vital interests of the data subject or of another natural person.
B75	In order to perform a duty of common (national) interest	Based on the regulation (EU) 2016/679 (GDPR) Article 6, Lawfulness of processing: Processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller.
B76	Justified interest of the dataprocsee	Based on the regulation (EU) 2016/679 (GDPR) Article 6, Lawfulness of processing: Processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child
B77	Fulfilment of purpose	The purpose of the object or action has been fulfilled.

Code	Title	Description
B78	Reach of end timestamp	The object or action has reached its end timestamp.
B79	Revocation	Revocation of the action or object.
B80	Termination	Termination of the action or object.
B81	No valid grid access contract	There is no valid grid access contract for a specific metering point. There is no valid grid access contract for a specific metering point.
B82	Customer move-out	A customer has moved out.
B83	Capacity increased by TSO	Describes a capacity that was increased by a TSO
B84	Reference values applied	Reference values applied on time series through reconciliation
B85	Reference missing or outdated	Reference values missing or outdated.

318

319 **2.34 RightsType enumeration**

320 The rights of use that is accorded to what is acquired in an auction.

321 Table 34 provides details of the Codelist RightsType.

322

Table 34 - Codelist RightsType

Code	Title	Description
A01	Use It Or Lose It	Any rights not nominated shall be lost.
A02	Use It Or Sell It	Any rights that are not nominated shall be sold.
A03	Allocation curtailment possible	Rights acquired may be curtailed.
A04	Nomination curtailment possible	Rights acquired may be curtailed at nomination.
A05	Resale possible	Acquired rights may be resold.
A06	Transfer possible	Acquired rights may be transferred.

323

324 **2.35 RoleType enumeration**

325 Identification of the role played by a party.

326 Table 35 provides details of the Codelist RoleType.

327

Table 35 - Codelist RoleType

Code	Title	Description
A01	Trade responsible party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A02	Consumption responsible party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.

Code	Title	Description
A03	Combined power exchange (not to be used)	This role is no longer in the ENTSO-E Harmonised Role Model Document.
A04	System operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A05	Imbalance settlement responsible	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A06	Production responsible party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A07	Transmission capacity allocator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A08	Balance responsible party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A09	Metered data aggregator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A10	Billing agent	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A11	Market operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A12	Energy supplier	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A13	Consumer	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A14	Control area operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A15	Control block operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A16	Coordination centre operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A17	Grid access provider	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A18	Grid operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A19	Meter administrator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A20	Party connected to grid	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A21	Producer	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A22	Profile maintenance party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A23	Meter operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A24	Metered data collector	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A25	Metered data responsible	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A26	Metering point administrator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A27	Resource Provider	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A28	Scheduling coordinator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A29	Capacity Trader	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A30	Interconnection Trade Responsible	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.

Code	Title	Description
A31	Nomination Validator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
A32	Market information aggregator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document. A party that collects information from different sources and assembles it to provide a summary of the market.
A33	Information receiver	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document. A party, not necessarily a market participant, which receives information about the market.
A34	Reserve Allocator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document. A party that informs the market of reserve requirements, receives tenders against the requirements and in compliance with the prequalification criteria, determines what tenders meet requirements and assigns tenders.
A35	MOL Responsible	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document. A party that informs the market of reserve requirements, receives tenders against the requirements and in compliance with the prequalification criteria, determines what tenders meet requirements and assigns tenders.
A36	Capacity Coordinator	A party, acting on behalf of the SOs involved, responsible for establishing a coordinated Offered Capacity and/or NTC and/or ATC between several Scheduling Areas.
A37	Reconciliation Accountable	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document. A party that is financially accountable for the reconciled volume of energy products for a profiled local metering point.
A38	Reconciliation Responsible	A party that is responsible for reconciling, within a metering grid area, the volumes used in the imbalance settlement process for profiled metering points and the actual metered quantities.
A39	Data provider	A party that has a mandate to provide information to other parties in the energy market.
A40	Local Issuing Office (LIO)	A party that is responsible for operating a Local Issuing Office (LIO).
A41	Central Issuing Office (CIO)	A party that is responsible for operating a Central Issuing Office (CIO).
A42	EIC Participant	A party that participates in the EIC environment.
A43	Weather analyser	A party that analyses the current and forecast weather situation and establishes a prognosis of its impact on the renewable energy environment as well as the overall load.
A44	Regional Security Coordinator (RSC)	The RSC as defined in the System Operation guideline.
A45	Energy Service Company (ESCO)	A party offering energy-related services to the Party Connected to Grid, but not directly active in the energy value chain or the physical infrastructure itself. The ESCO may provide insight services as well as energy management services.
A46	Balancing Service Provider	A party with reserve-providing units or reserve-providing groups able to provide balancing services to LFC Operators.
A47	Energy trader	A party that is selling or buying energy.
A48	LFC Operator	A party that is responsible for the Load Frequency Control of its LFC Area or LFC Block.
A49	Transmission System Operator (TSO)	The Transmission System Operator (TSO) is responsible for the transport of electricity on the extra high-voltage and high-voltage interconnected system. This is a market participant and not a role in Harmonised Role Model.

Code	Title	Description
A50	Distribution System Operator (DSO)	Distribution System Operator (DSO) is responsible for transport of electricity on high-voltage (optionally), medium-voltage and low-voltage distribution systems. This is a market participant and not a role in Harmonised Role Model.
A51	Resource Capacity Mechanism Operator	Resource capacity mechanism operator is the party responsible to operate the resource capacity mechanism in a member state. It can either be the TSO or an independent party.
A52	Resource aggregator	A party that aggregates resources for usage by a service provider for energy market services.
A53	Cost sharing calculator	A party responsible for the mapping of the costs between areas and parties.
A54	Settlement responsible	A party responsible for settling the costs.
A55	Coordinated Capacity Calculator	Coordinated Capacity Calculator is the entity or entities with the task of calculating transmission capacity, at regional level or above.
A56	Flexibility service provider	A party that offers flexibility services based on acquired (aggregated) resources.
A57	Data access provider	A party responsible for facilitating access to data.
A58	Metered data administrator	A party responsible for storing and distributing validated measured data.
A59	Permission administrator	A party responsible for administrating a register of data access permissions for a set of metering points, making this information available to final customers and eligible parties in the sector, on request.
A60	Deprecated (Data Provider)	Deprecated (Use "A39 Data Provider" instead)
WK	Value added network provider	A party that provides interconnectivity services in an electronic data interchange environment.

328

329 **2.36 SettlementMethodType enumeration**

330 Table 36 provides details of the Codelist SettlementMethodType.

331 **Table 36 - Codelist SettlementMethodType**

Code	Title	Description
E01	Profiled	The settlement method regards profiled metered accounting points.
E02	Non-profiled	The settlement method regards continuous metered (non-profiled) accounting points.

332

333 **2.37 StatusType enumeration**

334 The condition or position of an object with regard to its standing.

335 Table 37 provides details of the Codelist StatusType.

336 **Table 37 - Codelist StatusType**

Code	Title	Description
A01	Intermediate	The document is in a non finalized state.

Code	Title	Description
A02	Final	The document is in a definitive state.
A03	Deactivated	The object being reported has been deactivated.
A04	Reactivated	The object being reported has been reactivated.
A05	Active	The object being reported is currently active.
A06	Available	The volumes (one or more) are available.
A07	Activated	The quantities in the time series have been activated.
A08	In process	The quantities in the time series are in the process of activation (an activation request has been made).
A09	Cancelled	The tender indicated in the time series has been completely cancelled. In this case the resources are no longer available to all Acquiring System Operators
A10	Ordered	The quantities in the time series are to be activated.
A11	Unavailable	The volumes (one or more) are unavailable.
A12	RGCE agreed	The information has been agreed within the ENTSO-E Regional Group Continental Europe process.
A13	Withdrawn	The information or action has been withdrawn by the submitter.
A14	Creation	The action requested to be carried out is the creation of a new object.
A15	Update	The action requested to be carried out is the update an existing object.
A16	Deactivation	The action requested to be carried out is to deactivate an existing object.
A17	Reactivation	The action requested to be carried out is to reactivate a previously deactivated object.
A18	Preventive	The remedial action is applied to prevent an outage.
A19	Curative	The remedial action is applied after an outage has occurred, in order to maintain the operational security.
A20	Automatic	The remedial action being described is applied by an automation when an outage occurs.
A21	Open	The action being described consists of disconnecting the network element to the transmission network.
A22	Close	The action being described consists of connecting the network element to the transmission network.
A23	Stop	The action being described consists of stopping the production or consumption connected to a network element.
A24	Start	The action being described consists of starting the production or consumption connected to a network element.
A25	Relative	The quantity being described is a relative value to an initial state.
A26	Absolute	The quantity being described is an absolute value.
A27	Curative or preventive	The remedial action can be applied to prevent an outage or after an outage has occurred in order to maintain the operational security.
A28	Unshared bid	Used to indicate that the bid cannot be shared.
A29	Pre Processed	to be process
A30	Substituted	Substituted pre-processing data.

Code	Title	Description
A31	Modified	Modified pre-processing data by RSC or CGMA platform.
A32	Result	Result
A33	Not satisfied	The need described in the time series cannot be satisfied.
A34	Rejected	The document rejected by one or more parties.
A35	Preliminary	Indicative information only for initial planning purposes.
A36	Planned	Is planned.
A37	Confirmed	The status is confirmed.
A38	Shall Be Used	The object defined in the series shall be used.
A39	Could Be Used	The object defined in the series could be used.
A40	Proposed	The status of the information is proposed.
A41	Individual Network Data	The network data provided in the document or series concerns the the unique TSO area describes by the document or series.
A42	Common Network Data	The network data provided in the document or series concerns the whole area describes by the document or series.
A43	Setpoint schedule	The code for the power setpoint mode of operation of the HVDC link.
A44	Proportional external signal	The code for the proportional external signal mode of operation of the HVDC link.
A45	AC emulation	The code for the AC emulation mode of operation of the HVDC link.
A46	Importing element	An importing network element in which the flow measurement enters.
A47	Exporting element	An exporting network element from which the flow measurement comes out.
A48	To be optimized	Describes an element which needs to be optimized by an optimization process.
A49	To be monitored	Describes an element which needs to be monitored by an optimization process.
A50	To be included in capacity calculation	Describes an element which needs to be taken into account in a capacity calculation process.
A51	Relative to previous point in time	The quantity being described is a relative value to a previous point in time.
A52	For flow optimization	Describes an element which needs to be optimized by a flow optimization process.
A53	For voltage optimization	Describes an element which needs to be optimized by a voltage optimization process.
A54	Presolved	Describes an active constraint that limits the exchanges. It is part of the presolved domain.
A55	Not available if linked bid activated	Bid not available if linked bid activated.
A56	Not available if linked bid rejected	Bid not available if linked bid rejected.
A57	Not available for DA if linked bid subject to DA	Bid not available for direct activation if linked bid subject to direct activation.
A58	Not available for DA if linked bid subject to SA	Bid not available for direct activation if linked bid subject to scheduled activation.

Code	Title	Description
A59	Not available if linked bid subject to SA	Bid not available if linked bid subject to scheduled activation.
A60	Not available if linked bid subject to DA	Bid not available if linked bid subject to direct activation.
A61	Primary market	A value is traded for the first time.
A62	Secondary market	A value is traded for the second or next times between two parties.
A63	Interesting	Describes an asset which is considered as interesting.
A64	Relevant	Describes an asset which is considered as relevant.
A65	Conditionally available	Bid available as long as none of the conditions associated with the linked bids materialise.
A66	Conditionally unavailable	Bid unavailable as long as none of the conditions associated with the linked bids materialise.
A67	Available if linked bid activated	Bid available if linked bid activated.
A68	Available if linked bid rejected	Bid available if linked bid rejected.
A69	Available if linked bid subject to SA	Bid available if linked bid subject to scheduled activation.
A70	Available if linked bid subject to DA	Bid available if linked bid subject to direct activation.
A71	Available for DA if linked bid subject to DA	Bid available for direct activation if linked bid subject to direct activation.
A72	Available for DA if linked bid subject to SA	Bid available for direct activation if linked bid subject to scheduled activation.
A73	Delta	Describes a status representing a difference between two values.
A74	Validated	The object or action was validated.
A75	Invalid	The object or action was invalid.
A76	Timed out	The object or action was timed out.

337

338 **2.38 SubAreaType enumeration**

339 The coded identification of the area sub-type, such as the type of Metering Grid Area.

340 Table 38 provides details of the Codelist SubAreaType.

341

Table 38 - Codelist SubAreaType

Code	Title	Description
A01	Regional	The domain represents a regional grid.
A02	Industrial	The domain represents an industrial grid.
A03	Distribution	The domain represents a distribution grid.
A04	Non-concessional	The domain represents a non-concessional grid.

Code	Title	Description
A05	Production	The domain represents the production in a grid.
A06	Transmission (main/central grid)	The domain represents a transmission (main/central grid).
A07	Sub-Grid Area	The domain represent a sub-grid area, i.e. a domain that is not part of the imbalance settlement, but where a supplier change can take place.

342

343 **2.39 TariffType enumeration**

344 The standard tariff types as defined in the RGCE policies.

345 Table 39 provides details of the Codelist TariffType.

346 **Table 39 - Codelist TariffType**

Code	Title	Description
A01	Winter HT	Winter HT tariff.
A02	Winter HHT	Winter HHT tariff.
A03	Winter NT	Winter NT tariff.
A04	Summer HT	Summer HT tariff.
A05	Summer HHT1	Summer HHT1 tariff.
A06	Summer HHT2	Summer HHT2 tariff.
A07	Summer NT	Summer NT tariff.

347

348 **2.40 TimeframeType enumeration**

349 The identification of the timeframe.

350 Table 40 provides details of the Codelist TimeframeType.

351 **Table 40 - Codelist TimeframeType**

Code	Title	Description
A01	Real time	The information provided concerns real time timeframe.
A02	Intraday	The information provided concerns an intra day timeframe.
A03	Hour-1	The information provided concerns 1 hour ahead for given delivery hour.
A04	Hour-2	The information provided concerns 2 hours ahead for given delivery hour.
A05	Hour-3	The information provided concerns 3 hours ahead for given delivery hour.
A06	Hour-4	The information provided concerns 4 hours ahead for given delivery hour.
A07	Hour-5	The information provided concerns 5 hours ahead for given delivery hour.
A08	Hour-6	The information provided concerns 6 hours ahead for given delivery hour.
A09	Hour-7	The information provided concerns 7 hours ahead for given delivery hour.
A10	Hour-8	The information provided concerns 8 hours ahead for given delivery hour.

Code	Title	Description
A11	Hour-9	The information provided concerns 9 hours ahead for given delivery hour.
A12	Hour-10	The information provided concerns 10 hours ahead for given delivery hour.
A13	Hour-11	The information provided concerns 11 hours ahead for given delivery hour.
A14	Hour-12	The information provided concerns 12 hours ahead for given delivery hour.
A15	Hour-13	The information provided concerns 13 hours ahead for given delivery hour.
A16	Hour-14	The information provided concerns 14 hours ahead for given delivery hour.
A17	Hour-15	The information provided concerns 15 hours ahead for given delivery hour.
A18	Hour-16	The information provided concerns 16 hours ahead for given delivery hour.
A19	Hour-17	The information provided concerns 17 hours ahead for given delivery hour.
A20	Hour-18	The information provided concerns 18 hours ahead for given delivery hour.
A21	Hour-19	The information provided concerns 19 hours ahead for given delivery hour.
A22	Hour-20	The information provided concerns 20 hours ahead for given delivery hour.
A23	Hour-21	The information provided concerns 21 hours ahead for given delivery hour.
A24	Hour-22	The information provided concerns 22 hours ahead for given delivery hour.
A25	Hour-23	The information provided concerns 23 hours ahead for given delivery hour.
A26	Hour-24	The information provided concerns 24 hours ahead for given delivery hour.
A27	Hour-25	The information provided concerns 25 hours ahead for given delivery hour.
A28	Hour-26	The information provided concerns 26 hours ahead for given delivery hour.
A29	Hour-27	The information provided concerns 27 hours ahead for given delivery hour.
A30	Hour-28	The information provided concerns 28 hours ahead for given delivery hour.
A31	Hour-29	The information provided concerns 29 hours ahead for given delivery hour.
A32	Hour-30	The information provided concerns 30 hours ahead for given delivery hour.
A33	Hour-31	The information provided concerns 31 hours ahead for given delivery hour.
A34	Day ahead	The information provided concerns day ahead timeframe.
A35	Day-2	The information provided concerns two days ahead timeframe.
A36	Day-3	The information provided concerns three days ahead timeframe.
A37	Day-4	The information provided concerns four days ahead timeframe.
A38	Day-5	The information provided concerns five days ahead timeframe.
A39	Day-6	The information provided concerns six days ahead timeframe.
A40	Day-7	The information provided concerns seven days ahead timeframe.
A41	Week ahead	The information provided concerns next week ahead timeframe.
A42	Week-0	The information provided concerns current week timeframe.
A43	Week+1	The information provided concerns previous week timeframe.
A44	Month ahead	The information provided concerns month ahead timeframe.
A45	Year ahead	The information provided concerns year ahead timeframe.

Code	Title	Description
A46	Year-10	The information provided concerns 10 years ahead timeframe.

352

353 **2.41 UnitMultiplier enumeration**

354 The unit multipliers defined for the CIM.

355 Table 41 provides details of the Codelist UnitMultiplier.

356 **Table 41 - Codelist UnitMultiplier**

Code	Title	Description
1	none	No multiplier or equivalently multiply by 1.

357

358 **2.42 UnitOfMeasureType enumeration**359 (synonym MeasurementUnit) The unit of measure that is applied to a quantity. The
360 measurement units shall be in compliance with UN/ECE Recommendation 20.

361 Table 42 provides details of the Codelist UnitOfMeasureType.

362 **Table 42 - Codelist UnitOfMeasureType**

Code	Title	Description
A59	OKTA unit	A unit of measurement of the cloudiness expressed in OKTA or OCTA, i.e. A unit of count defining the number of eighth-parts as a measure of the celestial dome cloud coverage.
A90	gigawatt	GW unit as per UN/CEFACT recommendation 20.
A97	hectopascal	A unit of measurement of the pressure expressed in hectopascal.
AMP	ampere	The unit of electrical current in the International system of Units (SI) equivalent to one Coulomb per second.
C62	One	A unit for dimensionless quantities, also called quantities of dimension one.
CEL	Celsius	A unit of measurement of temperature expressed in degree Celsius.
D54	watt per square meter	A unit of measurement of the density of heat flow rate expressed in watt per square meter.
DD	degree (unit of angle)	A unit of measurement of angles expressed in a 0 to 360 degree gradient.
E08	Megawatt per Hertz	A unit of energy expressed as the load change in million watts that will cause a frequency shift of one hertz.
GWH	gigawatt hour	GWh unit as per UN/CEFACT recommendation 20.
HMQ	cubic hectometres	A unit of volume equal to one million cubic metres.
HTZ	Hertz	HTZ unit as per UN/CEFACT recommendation 20.
KEL	K (Kelvin)	Temperature unit refer ISO 80000-5 (Quantities and units, Part 5: Thermodynamics).
KMT	kilometre	km unit as per UN/CEFACT recommendation 20.

Code	Title	Description
KVR	kilovolt ampere reactive	A unit of electrical reactive power represented by a current of one thousand amperes flowing due to a potential difference of one thousand volts where the sine of the phase angle between them is 1. The unity power factor is expressed in thousands of a volt ampere reactive.
KVT	kilovolt	kV unit as per UN/CEFACT recommendation 20.
KWH	kilowatt hour	A total amount of electrical energy transferred or consumed in one hour.
KWT	kilowatt	A unit of bulk power flow, which can be defined as the rate of energy transfer /consumption when a current of 1000 amperes flows due to a potential of 1000 volts at unity power factor expressed in thousands of a watt.
MAH	megavolt ampere reactive hours	Total amount of reactive power across a power system.
MAR	megavolt ampere reactive	A unit of electrical reactive power represented by a current of one thousand amperes flowing due to a potential difference of one thousand volts where the sine of the phase angle between them is 1.
MAW	megawatt	A unit of bulk power flow, which can be defined as the rate of energy transfer /consumption when a current of 1000 amperes flows due to a potential of 1000 volts at unity power factor expressed in millions of a watt.
MIN	minute	A period of time equal to sixty seconds.
MMT	millimeter	A unit of measurement of length expressed in millimeter.
MQS	cubic metres per second	The volume flow rate of cubic metre per second.
MTQ	cubic metre	A Cubic metre.
MTR	metre	The length of a metre.
MTS	meter per second	A unit of measurement of the speed expressed in m/s.
MTZ	millihertz	A unit of frequency equal to 0.001 cycle per second.
MVA	megavolt-ampere	MVA unit as per UN/CEFACT recommendation 20.
MWH	megawatt hours	The total amount of bulk energy transferred or consumed.
P1	percent	A unit of proportion equal to 0.01.
SEC	second	A period of time equal to one second.
WTT	watt	The watt is the International System of Units (SI) standard unit of power (energy per unit time), the equivalent of one joule per second.

363

364 **2.43 UnitSymbol enumeration**

365 The coded representation of different units from IEC 61970.

366 Table 43 provides details of the Codelist UnitSymbol.

367

Table 43 - Codelist UnitSymbol

Code	Title	Description
AMP	Ampere	The unit of electrical current in the International system of Units (SI) equivalent to one Coulomb per second.
C62	One	A unit for dimensionless quantities, also called quantities of dimension one.

Code	Title	Description
DD	degree (unit of angle)	A unit of measurement of angles expressed in a 0 to 360 degree gradient.
GKH	grams per kilowatt hour	It represents the mass rate of emissions per unit of work accomplished.
HTZ	Hertz	HTZ unit as per UN/CEFACT recommendation 20
KVT	kV	The symbol of kV
MAR	MVAr	The symbol of MVAr
MAW	MW	The symbol of MW
MVA	megavolt-ampere	MVA unit as per UN/CEFACT recommendation 20
OHM	Ohm	The symbol of Ohm Unit
P1	Percent	A unit of proportion equal to 0.01.
Q35	megawatts per minute	It represents the power flow rate (MW/min).

368

369 **2.44 DocumentType enumeration**

370 The DocumentTypeList is only used in XML instances using deprecated ENTSO-E schema;
 371 otherwise for XML instances based CIM, the codelist is MessageTypeList.

372 Therefore, you are kindly advised to refer to the MessageType enumeration, which includes the
 373 same enumeration codes.

374