
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 Current version 64 Release Date: 2019-06-20

## 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. |
| A05 | Continuous | The allocation method is continuous, i.e. there is no gate closure time when bids from the market participants are collected. Instead allocation procedure takes place immediately. |

## 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |

## 2.3 AssetType enumeration

The identification of the type of asset.

Table 3 provides details of the Codelist AssetType.

**Table 3 - Codelist AssetType**

| Code | Title | Description |
|---|---|---|
| A01 | Tieline | 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. |



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| Code | Title | Description |
|---|---|---|
| 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 |
| 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 Pumped Storage | A resource using Hydro Pumped Storage for energy. |
| B11 | Hydro Run-of-river and pondage | A resource using Hydro Run-of-river and pondage for energy. |
| B12 | Hydro Water Reservoir | A resource using Hydro Water Reservoir for energy. |
| B13 | Marine | A resource using Marine for energy. |
| B14 | Nuclear | A resource using Nuclear for energy. |
| B15 | Other renewable | A resource using Other renewable for energy. |
| B16 | Solar | A resource using Solar for energy. |
| B17 | Waste | A resource using Waste for energy. |
| B18 | Wind Offshore | A resource using Wind Offshore for energy. |
| B19 | Wind Onshore | A resource using Wind Onshore for energy. |
| B20 | Other | A resource using other sources for producing energy. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| B24 | Transformer | Electrical device that transfers energy from one voltage level to another voltage level. |

## 2.4 AuctionType enumeration

The coded representation of different types of auction.

Table 4 provides details of the Codelist AuctionType.

**Table 4 - 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. |

## 2.5 BusinessType enumeration

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

Table 5 provides details of the Codelist BusinessType.

**Table 5 - 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.<br>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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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 | Inadvertent deviation | A time series concerning tieline deviation. |
| 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).<br>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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |

| Code | Title | Description |
|---|---|---|
| A69 | Market coupling results | The time series provides the results of a market coupling auction. |
| 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 cancelation | 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. |
| A92 | Negative forecast margin | The business being described concerns a negative forecast margin. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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.<br>A constraint situation can be:<br>- 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<br>- or it can be an external constraint. |
| B38 | Initial domain | The timeseries describe the full flow based domain for a given TimeInterval.<br>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.<br>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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| B65 | Netted area position | The AC and DC position for a given 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. |



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| Code | Title | Description |
|---|---|---|
| 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: Element is out of operation due to planned maintenance or due to an unplanned/forced 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 |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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). |

## 2.6 CategoryType enumeration

The product category of an auction.

Table 6 provides details of the Codelist CategoryType.

**Table 6 - Codelist CategoryType**

| Code | Title | Description |
|---|---|---|
| A01 | Base | The auction is for a base period. |

| Code | Title | Description |
|---|---|---|
| A02 | Peak | The auction is for a peak period. |
| A03 | Off peak | The auction is for an off peak period. |
| A04 | Hourly | The auction is for an hourly period. |

## 2.7 ClassificationType enumeration

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

Table 7 provides details of the Codelist ClassificationType.

**Table 7 - 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. |

## 2.8 CodingSchemeType enumeration

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

Table 8 provides details of the Codelist CodingSchemeType.

**Table 8 - 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). |
| A10 | GS1 | The coding scheme for the preceding attribute is the Global Location Number (GLN 13) or Global Service Relation Number (GSRN 18), 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| NCS | Serbia and Montenegro 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |

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## 165 2.9 CoordinateSystemType enumeration

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

167 Table 9 provides details of the Codelist CoordinateSystemType.

168 **Table 9 - 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 | Ordinance Survey Great Britain 1936. The Ordinance Survey (OS) devised the national grid reference system, and it is heavily used in their survey data, and in maps (whether published by the Ordinance 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 |

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## 2.10 ContractType enumeration

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

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

Table 10 provides details of the Codelist ContractType.

**Table 10 - Codelist ContractType**

| Code | Title | Description |
|---|---|---|
| A01 | Daily | The condition under which capacity is allocated and handled is by daily auction or a daily transmission allocation procedure. |
| A02 | Weekly | The condition under which capacity is allocated and handled is by weekly auction or a weekly transmission allocation procedure. |
| A03 | Monthly | The condition under which capacity is allocated and handled is by monthly auction or a monthly transmission allocation procedure. |
| A04 | Yearly | The condition under which capacity is allocated and handled is by yearly auction or a yearly transmission allocation procedure. |
| A05 | Total | 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 | The condition under which capacity is allocated and handled is by quarter yearly auction or a quarter yearly transmission allocation procedure. |
| A09 | Semestrial | The condition under which capacity is allocated and handled is by half yearly auction or a half yearly transmission allocation procedure. |
| A10 | Multiple year | The condition under which capacity is allocated and handled is by multiple year auctions. |
| A11 | Intraday balancing mechanism | The condition under which the capacity is allocated and handled is through intraday energy balancing services. |
| A12 | Historical contract | A Contract established before the EU directive that are valid until the term of the contract. |
| A13 | Hourly | The condition under which capacity is allocated and handled is by hourly auctions. |

## 2.11 CurrencyType enumeration

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

Table 11 provides details of the Codelist CurrencyType.

**Table 11 - 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |

## 2.12 CurveType enumeration

The type of curve being defined in the time series.

Table 12 provides details of the Codelist CurveType.

**Table 12 - 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. |

## 2.13 DirectionType enumeration

The coded identification of the direction of energy flow.

Table 13 provides details of the Codelist DirectionType.

**Table 13 - 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. |

## 2.14 EicType enumeration

The coded identification of the type of an EIC code.

Table 14 provides details of the Codelist EicType.

**Table 14 - 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. |

## 2.15 EnergyProductType enumeration

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

Table 15 provides details of the Codelist EnergyProductType.

**Table 15 - 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |

## 2.16 HVDCModeType enumeration

The coded identification of the HVDC mode.

Table 16 provides details of the Codelist HVDCModeType.

**Table 16 - 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. |

## 2.17 IndicatorType enumeration

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

Table 17 provides details of the Codelist IndicatorType.

**Table 17 - Codelist IndicatorType**

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

## 2.18 MessageType enumeration

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

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

Table 18 provides details of the Codelist MessageType.

**Table 18 - 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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 | The capacity proposed for agreement between parties. |
| 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 spot 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. |
| 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 | Status request for a status within a process | A status request being made concerning the status of information within the context of a specific ongoing process. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |

| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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 |

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220 ## 2.19 MarketProductType enumeration

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

222 Table 19 provides details of the Codelist MarketProductType.



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**Table 19 - 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. |

## 2.20 ObjectAggregationType enumeration

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

Table 20 provides details of the Codelist ObjectAggregationType.

**Table 20 - 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. |
| 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. |

## 2.21 PaymentTermsType enumeration

The identification of the different terms of payment.

Table 21 provides details of the Codelist PaymentTermsType.

**Table 21 - 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. |



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## 2.22 PriceCategoryType enumeration

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

Table 22 provides details of the Codelist PriceCategoryType.

**Table 22 - 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. |
| 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. |

## 2.23 PriceDirectionType enumeration

The nature of a price, i.e. an impacted area system operator pays to internal market parties or inverse.

Table 23 provides details of the Codelist PriceDirectionType.

**Table 23 - 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. |

## 2.24 ProcessType enumeration

Indicates the nature of process that the document addresses.

Table 24 provides details of the Codelist ProcessType.

**Table 24 - 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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). |
| A53 | Common Grid Model (CGM) merging process | The process for merging individual grid models to form the common grid model. |
| A54 | Coordinated operational security analysis | The process to perform an operational security analysis in a coordinated manner. |

## 2.25 QualityType enumeration

The quality of an object.

Table 25 provides details of the Codelist QualityType.

**Table 25 - 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. |
| A04 | As provided | The contents of the object are as provided. |
| A05 | Incomplete | The contents of the object are calculated based on incomplete data. |



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## 2.26 ReasonCodeType enumeration

The coded motivation of an act.

Table 26 provides details of the Codelist ReasonCodeType.

**Table 26 - 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.). |
| 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.<br>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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |



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| 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. |

## 2.27 RightsType enumeration

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

Table 27 provides details of the Codelist RightsType.

**Table 27 - 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. |

## 2.28 RoleType enumeration

Identification of the role played by a party.

Table 28 provides details of the Codelist RoleType.



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## Table 28 - 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. |
| 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 | Balance 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 center 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. |



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| Code | Title | Description |
|---|---|---|
| A30 | Interconnection Trade Responsible | Refer to role model definitions in the ENTSO-E Harmonised Role Model Document. |
| 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 | Refer to role model definitions in the ENTSO-E Harmonised Role Model Document. A party, acting on behalf of the SOs involved, responsible for establishing a coordinated Offered Capacity and/or NTC and/or ATC between several Market Balance 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 is responsible for providing information to a central authority. |
| 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. |

## 2.29 StatusType enumeration

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

Table 29 provides details of the Codelist StatusType.

**Table 29 - 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 tender indicated in the time series has the indicated quantities 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.<br>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 | No longer available | The tender indicated in the time series is no longer available (in the case where this is in an activation response document the resources are no longer available to the Acquiring System Operator). |
| A12 | RGCE agreed | The information has been agreed within the ENTSO-E Regional Group Continental Europe process. |
| A13 | Withdrawn | The information 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |

## 2.30 TarifTypeType enumeration

The standard tariff types as defined in the RGCE policies.

Table 30 provides details of the Codelist TarifTypeType.

**Table 30 - Codelist TarifTypeType**

| 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. |



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## 2.31 UnitMultiplier enumeration

The unit multipliers defined for the CIM.

Table 31 provides details of the Codelist UnitMultiplier.

**Table 31 - Codelist UnitMultiplier**

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

## 2.32 UnitOfMeasureType enumeration

(synonym MeasurementUnit) The unit of measure that is applied to a quantity. The measurement units shall be in compliance with UN/ECE Recommendation 20.

Table 32 provides details of the Codelist UnitOfMeasureType.

**Table 32 - 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. |
| GWH | gigawatt hour | GWh unit as per UN/CEFACT recommendation 20. |
| HMQ | cubic hectometres | A unit of volume equal to one million cubic metres. |
| 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. |
| 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. |



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| Code | Title | Description |
|---|---|---|
| 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. |
| 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. |
| 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. |
| 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. |

## 2.33 UnitSymbol enumeration

The coded representation of different units from IEC 61970.

Table 33 provides details of the Codelist UnitSymbol.

**Table 33 - 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. |
| KVT | kV | The symbol of kV |
| MAR | MVAr | The symbol of MVAr |
| MAW | MW | The symbol of MW |
| OHM | Ohm | The symbol of Ohm Unit |
| P1 | Percent | A unit of proportion equal to 0.01. |

## 2.34 DocumentType enumeration

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

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



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