List of stereotye to categorize subProfiles ShortCircuit Description Operation European Abstract Entsoe

Concrete Classes

CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

EnvAsset

EnvAsset is an energy data space specific attribute referring to the Asset from which data is being requested

Native Members

meterId	0..1	String	meterId is an energy data space specific attribute that specifies the id of the meter that measures the asset.
operatorId	0..1	String	operatorId is an energy data space specific attribute that specifies the id operator of the asset refered to.
type	0..1	String	type is an energy data space specific attribute that specifies type of asset refered to.

CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

MessageDocumentHeader

MessageDocumentHeader is an energy data space specific entity with the creationDateTime of this document.

Native Members

creationDateTime	0..1	ESMP_DateTime	The date and time the MessageDocumenHeader was created.
MetaInformation	[0..1]	MetaInformation	

CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

MetaInformation

MetaInformation is an energy data space specific entity referring to the information concerning the technical and functional context of the MarketDocument.

Native Members

connectionId	0..1	String	connectionId is an energy data space specific attribute referring to the established connection used for the communication of this document.

dataNeedId	0..1	String	dataNeedId is an energy data space specific attribute holding the type of data need requested, like ‘last 24 hours at 1 hour interval”.
dataSourceId	0..1	String	dataSourceId is an energy data space specific attribute referring to the datasource from which the requested data is being queried.
defaultValues	0..1	String	defaultValues is a energy data space specific attribute to hold relevant default values. The format to use can freely be chosen based on the implementation. Most commonly you would expect a semi-colon separated name value pair, like: "minPower=value; maxPower=value; avgPower=value".
documentType	0..1	String	documentType is an energy data space specific attribute referring to the type of document, comparable to the MessageTypeList in the CIM part of the message. Note: This is applicable if you have the need to know the content without having to open the complete document. DocumentType might contain messages not (yet) part of the MessageTypeList.
finalCustomerId	0..1	String	The finalCustomerId is an energy data space specific attribute identifying the actor doing the request for data or data sharing.
regionConnector	0..1	String	regionConnector is an energy data space specific attribute that specifies the regional connector being used to retrieve the data requested.
regionCountry	0..1	String	regionCountry is an energy data space specific attribute that specifies the country where the regional connector is located.
requestPermissionId	0..1	String	The requestPermissionId is energy data space specific identification attribute holding an unique identifier issued by the energy data space to allow for tracing of the permission through serveral message

			exchanges. Note: the requestPermissionId is NOT the identifier issued by the Identity Service Provider as specified in the EU Implementing Act on access to Metering and Consumption Data.
EnvAsset	[0..1]	EnvAsset	

Position CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

The identification of the values being addressed within a specific interval of time.

Native Members

position	1..1	Position_Integer	A sequential value representing the relative position within a given time interval.

Quantity CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

Description of quantities needed in the data exchange.
The type of the quantity is described either by the role of the association or the quantityType attribute.
The quality attribute provides the information about the quality of the quantity (measured, estimated, etc.).

Native Members

quality	0..1	Quality_String	The description of the quality of the quantity.
quantity	1..1	Decimal	The quantity value. The association role provides the information about what is expressed.
quantityDefinition.commodityFlowOccurence	0..1	CommodityDirectionKind	The direction of flow, such as that of water or electricity, for the quantity. Quantities can be for measurements, or expected future values, e.g. forecast, schedule,

			instruction.
quantityDefinition.measure_Unit.name	1..1	MeasurementUnitKind_String	The identification of the formal code for a measurement unit (UN/ECE Recommendation 20).
quantityDefinition.mRID	0..1	String	Master resource identifier issued by a model authority. The mRID is unique within an exchange context. Global uniqueness is easily achieved by using a UUID, as specified in IETF RFC 4122, for the mRID. The use of UUID is strongly recommended. For CIMXML data files in RDF syntax conforming to IEC 61970-552, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.
quantityDefinition.quantityQualifier	0..1	String	Role or characteristic of the quantity type. For example: average measured value, minimum measured value, maximum measured value, forecast expected value, forecast lower bound, forecast upper bound, lower operational limit, upper operational limit.

quantityDefinition.quantityType	0..1	String	Describes an observable property that can be measured and quantified numerically. Electricity related examples are ActivePower, ReactivePower, ActiveEnergy, ReactiveEnergy.
type	0..1	String	The description of the type of the quantity.

RECMMOE_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

The envelope entity is a non-CIM object used in an energy data space environment to serve as a central top-level entity connecting the MarketDocumentHeader (energy data space specific context information block) with the regular CIM MarketDocument.

Native Members

RECMMOE_MarketDocument	[0..1]	RECMMOE_MarketDocument
MessageDocumentHeader	[0..1]	MessageDocumentHeader

RECMMOE_MarketDocument assembly model

An electronic document containing the information necessary to satisfy the requirements of a given business process.

Native Members

createdDateTime	0..1	ESMP_DateTime	The date and time of the creation of the document.
description	0..1	String	The description is a free human readable text describing or naming the object. It may be non unique and may not correlate to a naming hierarchy.

mRID	1..1	ID_String	The unique identification of the document being exchanged within a business process flow. In the ESMP context, the "model authority" is defined as a party (originator of the exchange) that provides an identification in the context of a business exchange such as document identification, ... Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.
process.processType	0..1	ProcessKind_String	The identification of the nature of process that the document addresses. --- The Process associated with an electronic document header that is valid for the whole document.
receiver_MarketParticipant.marketRole.type	1..1	MarketRoleKind_String	The identification

			of the role played by a market player. --- The MarketParticipant associated with an electronic document header. --- The role associated with a MarketParticipant.
receiver_MarketParticipant.mRID	1..1	PartyID_String	The identification of a party in the energy market. In the ESMP context, the "model authority" is defined as an authorized issuing office that provides an agreed identification coding scheme for market participant, domain, measurement point, resources (generator, lines, substations, etc.) identification. Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements. --- The

			MarketParticipant associated with an electronic document header.
receiver_MarketParticipant.name	0..1	String	The name is any free human readable and possibly non unique text naming the object. --- The MarketParticipant associated with an electronic document header.
revisionNumber	0..1	ESMPVersion_String	The identification of the version that distinguishes one evolution of a document from another.
sender_MarketParticipant.marketRole.type	1..1	MarketRoleKind_String	The identification of the role played by a market player. --- The MarketParticipant associated with an electronic document header. --- The role associated with a MarketParticipant.
sender_MarketParticipant.mRID	1..1	PartyID_String	The identification of a party in the energy market. In the ESMP context, the "model authority" is defined as an authorized issuing office that provides an agreed identification coding scheme for market participant, domain, measurement point, resources

			(generator, lines, substations, etc.) identification. Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements. --- The MarketParticipant associated with an electronic document header.
sender_MarketParticipant.name	0..1	String	The name is any free human readable and possibly non unique text naming the object. --- The MarketParticipant associated with an electronic document header.
time_Period.timeInterval	0..1	ESMP_DateTimeInterval	The start and end date and time for a given interval. --- The time interval that is associated with an electronic document and which is valid for the whole document.

type	0..1	MessageKind_String	The coded type of a document. The document type describes the principal characteristic of the document.

CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

A set of similar physical or conceptual objects defined for the same period or point of time.

Native Members

CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

The identification of the period of time corresponding to a given time interval and resolution.

Native Members

resolution	1..1	Duration	The definition of the number of units of time that compose an individual step within a period.
timeInterval	1..1	ESMP_DateTimeInterval	The start and end time of the period.

CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model

A set of similar physical or conceptual objects defined for the same period or point of time.

Native Members

businessType	0..1	BusinessKind_String	The identification of the nature of the time series.
curveType	0..1	CurveType_String	The identification of the coded representation of the type of curve being described.
flowDirection.direction	1..1	DirectionKind_String	The coded identification of the direction of energy flow. --- The flow direction

			associated with a TimeSeries.
mRID	0..1	ID_String	A unique identification of the time series. In the ESMP context, the "model authority" is defined as a party (originator of the exchange) that provides a unique identification in the context of a business exchange such as time series identification, bid identification, ... Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.
registeredResource.description	0..1	String	The description is a free human readable text describing or naming the object. It may be non unique and may not correlate to a naming hierarchy. --- The identification of a resource associated with a TimeSeries.
registeredResource.mRID	1..1	ResourceID_String	The unique identification of a resource. In the ESMP context, the "model authority" is defined as an

			authorized issuing office that provides an agreed identification coding scheme for market participant, domain, measurement point, resources (generator, lines, substations, etc.) identification. Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements. --- The identification of a resource associated with a TimeSeries.
registeredResource.name	0..1	String	The name is any free human readable and possibly non unique text naming the object. --- The identification of a resource associated with a TimeSeries.
resourceTimeSeries.value1ScheduleType	0..1	CommodityDirectionKind	Value1ScheduleType documents two key features for a specific resource operating mode: (a) the energy flow convention for a positive number as either production or consumption of service and (b) the sense of how the resource is planned to be used or was used as either a target or setpoint or as a relative change

to a defined level.

Enumerations

QualityTypeList ESMPEnumerations

The quality of an object.

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

CommodityDirectionKind CEEDS_ESMP_DataTypes

CommodityDirectionKind is an enumeration that documents two key features for a specific DER operating mode: (a) the energy flow convention for a positive number as either production or consumption of service and (b) the sense of how the bid/offer amount is used as either a target or setpoint or as a relative change to a defined level.

production	The resource operates as a generation resource, where a positive amount corresponds to an injection of energy and/or grid support services to the grid. The amount of energy is an absolute level understood to be a production setpoint. Negative values are acceptable and represent an energy withdrawal setpoint. For energy storage resources, a positive amount represents a setpoint in the discharging state.
consumption	The resource operates as a load resource, where a positive amount corresponds to a withdrawal of energy and/or support services from the grid. The amount of energy is an absolute level understood to be a consumption setpoint. Negative values are acceptable and represent an energy injection setpoint. For energy storage resources, a positive amount represents a setpoint in the charging state.
consumptionIncrease	The resource operates as a variable load, where a positive amount corresponds

	to a relative load increase. The level is relative, generally as an upward offset to a reference level such as the current consumption or a calculated baseline consumption. Negative values are acceptable and represent a load reduction offset. For energy storage resources, a positive amount represents a faster rate of charge, a state change from discharging (or offline) to charge, or a slower rate of discharge.
consumptionDecrease	The resource operates as a curtailable load, where a positive amount corresponds to a relative load reduction. The level is relative, generally as an downward offset to a reference level such as the current consumption or a calculated baseline consumption. Negative values are acceptable and represent a load increase offset. For energy storage resources, a positive amount represents a slower rate of charge, a state change from charging (or offline) to discharging, or a faster rate of discharge.
productionIncrease	The resource operates primarily as a variable generation resource, where a positive amount corresponds to a relative generation increase.
productionDecrease	The resource operates primarily as a variable generation resource, where a positive amount corresponds to a relative generation reduction.

UnitOfMeasureTypeList ESMPEnumerations

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

ampere	The unit of electrical current in the International system of Units (SI) equivalent to one Coulomb per second.
megavolt-ampere	MVA unit as per UN/CEFACT recommendation 20.
One	A unit for dimensionless quantities, also called quantities of dimension one.
cubic hectometres	A unit of volume equal to one million cubic metres.
kilovolt	kV unit as per UN/CEFACT recommendation 20.
kilometre	km unit as per UN/CEFACT recommendation 20.
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.
gigawatt hour	GWh unit as per UN/CEFACT recommendation 20.
kilowatt hour	A total amount of electrical energy transferred or consumed in one hour.

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.
megavolt ampere reactive hours	Total amount of reactive power across a power system.
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.
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.
cubic metres per second	The volume flow rate of cubic metre per second.
cubic metre	A Cubic metre.
metre	The length of a metre.
megawatt hours	The total amount of bulk energy transferred or consumed.
percent	A unit of proportion equal to 0.01.
gigawatt	GW unit as per UN/CEFACT recommendation 20.
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.
meter per second	A unit of measurement of the speed expressed in m/s.
degree (unit of angle)	A unit of measurement of angles expressed in a 0 to 360 degree gradient.
watt per square meter	A unit of measurement of the density of heat flow rate expressed in watt per square meter.
Celsius	A unit of measurement of temperature expressed in degree Celsius.
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.
hectopascal	A unit of measurement of the pressure expressed in hectopascal.
millimeter	

	A unit of measurement of length expressed in millimeter.
K (Kelvin)	Temperature unit refer ISO 80000-5 (Quantities and units, Part 5: Thermodynamics).
Hertz	HTZ unit as per UN/CEFACT recommendation 20.
Megawatt per Hertz	A unit of energy expressed as the load change in million watts that will cause a frequency shift of one hertz.
millihertz	A unit of frequency equal to 0.001 cycle per second.
minute	A period of time equal to sixty seconds.
second	A period of time equal to one second.

ProcessTypeList ESMPEnumerations

Indicates the nature of process that the document addresses.

Day ahead	The information provided concerns a day ahead process.
Intra day incremental	The information provided concerns an intra day schedule.
Inter-area transit	The information provided concerns an inter area transit schedule. The rules governing this process are market dependent
System operation closure	The information provided concerns the closure of a given period of both scheduled and regulation information.
Metered data aggregation	The information provided concerns the aggregation process of metered information.
Imbalance settlement	The information provided concerns the imbalance settlement for a given period for a balance responsible party or parties.
Capacity allocation	The information provided concerns the capacity allocation process.
Central reconciliation	The process carried out to finalise the imbalance settlement based on actual metered values against provisional values from profiled metering points.
Released capacity allocation	The process concerns the notification of capacity rights that are being released.
Proposed capacity	

allocation	The process concerns the proposed capacity to be allocated for a given border.
Agreed capacity allocation	The process concerns the capacity that has been agreed for allocation for a border.
Long term	The process concerns scheduling all schedules except daily and intraday contracts.
Post scheduling adjustment	The process concerns the adjustments made to previous schedules after the period of execution.
Forecast	The data contained in the document are to be handled in short, medium, long term forecasting process.
Capacity determination	The process of determining the capacity for use.
Realised	The process for the treatment of realised data as opposed to forecast data.
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.
Intraday total	This process concerns an intraday schedule which contains the accumulated day ahead and intraday current position.
Intraday accumulated	This process concerns a single intraday schedule process where only intraday evolutions occur through version changes.
SOMA process	System Operator meter alignment process.
SOVM process	System Operator validated measurement process.
RGCE accounting process	The document provides ENTSO-E Regional Group Continental Europe accounting process information.
CCSR RGCE Settlement	The process concerns the control center settlement report for the whole of the ENTSO-E Regional Group Continental Europe.
CBSR Settlement	The process concerns the control block settlement report.
CASR Settlement	The process concerns the control area settlement report.
Outage information	The process concerns TSO publication of outages on its power system.
Reserve resource process	The process being described is for general reserve resources.

Primary reserve process	The process being described is for primary reserves.
Secondary reserve process	The process being described is for secondary reserves.
Tertiary reserve process	The process being described is for tertiary reserves.
Week ahead	The process being described is for the week ahead.
Month ahead	The process being described is for the month ahead.
Year ahead	The process being described is for the year ahead.
Contracted	The process being described is for contracted information.
Network information	The process being described is for network information.
Creation	The process being described is for the creation of information.
Modification	The process being described is for the modification of information.
Deactivation process	The process being described is for deactivation of information.
Synchronisation process	The process being described is for the synchronisation of information.
Intraday process	The process being described is for intraday process.
Redispatch process	The process being described is for redispatch activation.
Activation history process	The process being described is for the provision of an activation history.
Flow based domain constraint day-ahead	The information provided concerns the flow-based process in day ahead.
Flow based domain constraint intraday	The information provided concerns the flow-based process in intraday.
Two days ahead	Two days ahead.
Replacement reserve	A process being described is for replacement reserves (RR) to restore or support the required level of frequency restoration reserves.
Manual frequency	A process being described is for manual frequency restoration reserves (mFRR).

restoration reserve	
Day-ahead capacity determination	The process run at the day-ahead timeframe to determine the capacity for use.
Intraday capacity determination	The process run at the intraday timeframe to determine the capacity for use.
Long term capacity determination	The process run at the long term timeframe to determine the capacity for use.
Automatic frequency restoration reserve	A process being described is for automatic frequency restoration reserves (aFRR).
Frequency containment reserve	A process being described is for frequency containment reserves (FCR).
Common Grid Model (CGM) merging process	The process for merging individual grid models to form the common grid model.
Coordinated security analysis	The process being described is used for coordinated security analysis.
Exchange of master data	A process for exchanging master data.
Frequency restoration reserve	The process being described is for general frequency restoration reserve.
FSKAR settlement	The information provided concerns the Financial Settlement of K?f, ACE and ramping period settlement for a given period.
mFRR capacity market	Processes related to the Reserve option market to assure that there are enough available reserves for the manual FRR market.
Internal trade reporting	The process related to internal trade reporting.
Scheduled activation mFRR	mFRR being subject to scheduled activation.
Direct activation mFRR	mFRR being subject to direct activation.
Registration	A process related to the registration and management of object information.
Imbalance Netting	The process described is for imbalance netting.
Criteria application for instantaneous frequency	The process describes criteria application for instantaneous frequency.
Criteria application for	The process describes criteria application for frequency restoration.

frequency restoration	
Cost sharing	The process describes the cost sharing process for costly remedial actions.
Central selection aFRR	aFRR subject to central selection of bids for activation.
Local selection aFRR	aFRR subject to local selection of bids for activation.
Common grid model alignment	The process for aligning bidding zone net positions.
Pan-European verification function	The process for verifying bidding zone net positions.
Outage planning coordination	The process being described is used for outage planning coordination.
Short term adequacy	The process being described is used for short term adequacy calculations.
Coordinated capacity calculation	The process being described is used for coordinated capacity calculation.
Access to metered data	Access to meter readings of electricity consumption from or electricity feed into the grid.
Permission administration	Administration of permissions to access and/or use data.

RoleTypeList ESMPEnumerations

Identification of the role played by a party.

Trade responsible party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Consumption responsible party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Combined power exchange (not to be used)	This role is no longer in the ENTSO-E Harmonised Role Model Document.
System operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Imbalance settlement responsible	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.

Production responsible party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Transmission capacity allocator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Balance responsible party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Metered data aggregator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Billing agent	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Market operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Energy supplier	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Consumer	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Control area operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Control block operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Coordination centre operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Grid access provider	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Grid operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Meter administrator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Party connected to grid	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Producer	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.

Profile maintenance party	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Meter operator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Metered data collector	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Metered data responsible	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Metering point administrator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Resource Provider	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Scheduling coordinator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Capacity Trader	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Interconnection Trade Responsible	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
Nomination Validator	Refer to role model definitions in the ENTSO-E Harmonised Role Model Document.
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.
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.
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.
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.
Capacity Coordinator	A party, acting on behalf of the SOs involved, responsible for establishing a coordinated Offered Capacity and/or NTC and/or ATC between several Scheduling Areas.
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.
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.
Data provider	A party that is responsible for providing information to a central authority.
Local Issuing Office (LIO)	A party that is responsible for operating a Local Issuing Office (LIO).
Central Issuing Office (CIO)	A party that is responsible for operating a Central Issuing Office (CIO).
EIC Participant	A party that participates in the EIC environment.
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.
Regional Security Coordinator (RSC)	The RSC as defined in the System Operation guideline.
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.
Balancing Service Provider	A party with reserve-providing units or reserve-providing groups able to provide balancing services to LFC Operators.
Energy trader	A party that is selling or buying energy.
LFC Operator	A party that is responsible for the Load Frequency Control of its LFC Area or LFC Block.
Transmission System Operator (TSO)	The Transmission System Operator (TSO) is responsible for the transport of electricity on the extra high-voltage and high-voltage interconnected system. This is a market participant and not a role in Harmonised Role Model.

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

CodingSchemeTypeList ESMPEnumerations

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

EIC	The coding scheme is the Energy Identification Coding Scheme (EIC), maintained by ENTSO-E.
Coding scheme which are part of GS1 system	The coding schemes maintained by GS1.
Andorra National coding scheme	The National coding scheme of the country in question.
Albania National coding scheme	The National coding scheme of the country in question.
Armenia National coding scheme	The National coding scheme of the country in question.

Austria National coding scheme	The National coding scheme of the country in question.
Azerbaijan National coding scheme	The National coding scheme of the country in question.
Bosnia and Herzegovina National coding scheme	The National coding scheme of the country in question.
Belgium National coding scheme	The National coding scheme of the country in question.
Bulgaria National coding scheme	The National coding scheme of the country in question.
Switzerland National coding scheme	The National coding scheme of the country in question.
Serbia and Montenegro National coding scheme	The National coding scheme of the country in question.
Czech Republic National coding scheme	The National coding scheme of the country in question.
Germany National coding scheme	The National coding scheme of the country in question.
Denmark National coding scheme	The National coding scheme of the country in question.
Estonia National coding scheme	The National coding scheme of the country in question.
Spain National coding scheme	The National coding scheme of the country in question.
Finland National coding scheme	The National coding scheme of the country in question.
France National coding scheme	The National coding scheme of the country in question.
United Kingdom National coding scheme	The National coding scheme of the country in question.
Georgia National coding scheme	The National coding scheme of the country in question.
Gibraltar National coding scheme	The National coding scheme of the country in question.

Greece National coding scheme	The National coding scheme of the country in question.
Croatia National coding scheme	The National coding scheme of the country in question.
Hungary National coding scheme	The National coding scheme of the country in question.
Ireland National coding scheme	The National coding scheme of the country in question.
Italy National coding scheme	The National coding scheme of the country in question.
Kyrgyzstan National coding scheme	The National coding scheme of the country in question.
Kazakhstan National coding scheme	The National coding scheme of the country in question.
Liechtenstein National coding scheme	The National coding scheme of the country in question.
Lithuania National coding scheme	The National coding scheme of the country in question.
Luxembourg National coding scheme	The National coding scheme of the country in question.
Latvia National coding scheme	The National coding scheme of the country in question.
Morocco National coding scheme	The National coding scheme of the country in question.
Moldavia National coding scheme	The National coding scheme of the country in question.
Macedonia National coding scheme	The National coding scheme of the country in question.
Netherlands National coding scheme	The National coding scheme of the country in question.
Nordic Regional coding scheme	The coding scheme of the Nordic region which covers Denmark, Finland, Norway and Sweden.
Norway National coding scheme	The National coding scheme of the country in question.
Poland National coding scheme	The National coding scheme of the country in question.

Portugal National coding scheme	The National coding scheme of the country in question.
Romania National coding scheme	The National coding scheme of the country in question.
Russian Federation National coding scheme	The National coding scheme of the country in question.
Sweden National coding scheme	The National coding scheme of the country in question.
Slovenia National coding scheme	The National coding scheme of the country in question.
Slovakia National coding scheme	The National coding scheme of the country in question.
Turkey National coding scheme	The National coding scheme of the country in question.
Ukraine National coding scheme	The National coding scheme of the country in question.
CGM	The coding scheme used for Common Grid Model Exchange Standard (CGMES).
Cyprus National coding scheme	The National coding scheme of the country in question.
ISO	The coding scheme for the preceding attribute is a code maintained by International Organization for Standardization (ISO), such as “ISO 3166 *English country names and code elements*”.

MessageTypeList ESMPEnumerations

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.

Balance responsible schedule	A schedule which has been prepared by a balance responsible party providing planned schedule information.
Allocated capacity schedule	A schedule which has been prepared by a capacity allocator providing allocated capacity.
Balance area schedule	A schedule that provides the planned schedule information for a balance area.
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.

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.
Coordination center area schedule	A compilation of the exchange programs of all exchange blocks divided into UCTE south and north.
Intermediate confirmation report	An intermediate confirmation report that may be produced between final cutoffs.
Final confirmation report	A final confirmation report that is produced after a final cutoff.
Finalised schedule	A compilation of a set of schedules that have been finalized after a given cutoff.
Regulation data report	A compilation of the time series employed on a given day to ensure the balance of the system.
Aggregated energy data report	A compilation of the time series of all the meter readings or their equivalent for a given period.
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.
Interconnection Capacity	Document for cross-border capacity exchanges.
Resource Provider Resource Schedule	A document providing the schedules for resource objects submitted by a resource provider.
Acquiring System Operator Reserve Schedule	A document providing reserve purchases submitted by an Acquiring System Operator.
Anomaly Report	A document providing anomaly information for the receiving party to correct.
Acknowledgement Document	A document providing acknowledgement information.
Confirmation report	A document providing confirmation information.
Capacity for Resale	A document providing information about capacity for resale.
Approved Capacity Transfer	A document to approve a capacity transfer.
Capacity transfer notification	A document notifying a capacity transfer.
Transmission rights	

portfolio	A document providing the portfolio of the transmission capacity rights of a market participant.
Allocations	A document providing the capacity allocations for a border.
Bid document	A document providing bid information.
Allocation result document	A document providing the allocation results of an auction.
Capacity document	A document providing capacity information.
Rights document	A document providing transmission capacity rights information.
Generation availability schedule	This document contains information related to energy availability.
Cross border schedule	This document contains the cross border schedules for all the borders of a given country where energy is exchanged.
Agreed capacity	The capacity agreed between parties.
Proposed capacity	The capacity proposed for agreement between parties.
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.
Escalation document	A document which requesting the escalation of a situation.
Trouble shooting document	A document providing trouble shooting information for the resolution of a problem.
Deactivation document	A document providing deactivation information.
Reserve tender document	The document that is used for the tendering for reserves within the ERRP process.
Reserve Allocation Result Document	The document used to provide the results of a Reserve auction.
SATCR activation	The document is used to provide the activation of reserves through the SATCR process.
DATCR activation	The document is used to provide the activation of reserves through the DATCR process.

Activation response	The document is used to provide a response to a request to activate reserves.
Tender reduction	The document is used to provide information concerning the reduction of a previously submitted tender.
MOL Document	The document is used to provide Merit Order List information.
Price Document	The document is used to provide market price information.
Measurement Value Document	The document is used to provide measurement information from measurement devices.
SOAM Document	The document is used to provide system operator accounting data for matching.
SOVA Document	The document is used to provide system operator validated accounting data.
CCVA Document	The document is used to provide coordination center validated accounting data.
Daily settlement document	The document is used to provide daily settlement information.
Weekly settlement document	The document is used to provide weekly settlement information.
Capacity Auction Specification Document	The document is used to provide capacity auction specification information.
Market Coupling Results Document	The document is used to provide the results of a market coupling auction.
Outage publication Document	The document is used to provide the outage information for publication.
Forced generation outage Document	A document providing information on forced generation outages.
Summarised Market Schedule	A compilation of all external schedules concerning two Market Balance Areas of all balance responsible parties.
Compensation Program Schedule	A schedule that provides the schedule information for the compensation of unintended deviation.
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.
Timeframe Independent Schedule	A compilation of all external Timeframe Independent Schedules concerning two System Operators.

Information request	An information request being made concerning some specific information.
status request for a position independently from a specific process	A status request concerning the position of an object independently of any ongoing processes.
Estimated Net Transfer Capacity	The estimated net transfer capacity for a given border.
Compensation rights	The capacity rights that have been allocated as compensation.
Redispatch notice	A notice to confirm the actions agreed between System Operators to resolve a congestion situation through redispatch.
Tender reduction response	A response to a tender reduction request that provides corrections to the initial document.
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.
Final MOL	A document providing the information concerning the situation of the MOL at the end of an activation period.
Resource Provider Schedule for production/consumption	A document providing the schedules for production/consumption for resource objects submitted by a resource provider.
Installed generation per type	A document providing the installed generation per generation type.
Wind and solar forecast	A document providing the forecast of wind and solar generation.
Load forecast margin	A document providing the load forecast margin for a period.
Generation forecast	A document providing the generation forecast for a period.
Reservoir filling information	A document providing information concerning the filling of reservoirs.
Actual generation	A document providing the actual generation for a period.
Wind and solar generation	A document providing the generation of wind and solar energy for a period.
Actual generation per type	A document providing the actual generation per generation type for a period.
Load unavailability	A document providing the unavailability of units providing load on the network.

Production unavailability	A document providing the unavailability of production units providing energy to the network.
Transmission unavailability	A document providing the unavailability of transmission capacity on the network.
Offshore grid infrastructure unavailability	A document providing the unavailability of an offshore grid infrastructure to the network.
Generation unavailability	A document providing the unavailability of generation units providing energy to the network.
Contracted reserves	A document providing the reserves contracted for a period.
Accepted offers	A document providing the offers of reserves that have been accepted for a period.
Activated balancing quantities	A document providing the quantities of reserves that have been activated for balancing.
Activated balancing prices	A document providing the prices of the reserves that have been activated for balancing.
Imbalance prices	A document providing the prices of reserves due to imbalance for a period.
Imbalance volume	A document providing the volume of the imbalance for a period.
Financial situation	A document providing the financial situation for reserves.
Cross border balancing	A document providing the cross border balancing requirements for a period.
Contracted reserve prices	A document providing the price of reserves contracted for a period.
Interconnection network expansion	A document providing information on the expansion of the interconnection network.
Counter trade notice	A document providing information on counter trades for a period.
Congestion costs	A document providing the cost of congestion for a period.
DC link capacity	A document providing the DC links for a period.
Non EU allocations	A document providing allocations made to non EU member states.

Configuration document	A document providing configuration information.
Redispatch activation document	A document enabling the activation of a redispatch notice.
Detailed activation history document	A document enabling a detailed history of activations.
Aggregated activation history document	A document enabling an aggregated history of activations.
HVDC Link constraints	A document providing the information concerning the maximum and minimum active power flow through each link can limited.
HVDC Configuration	A document providing the information concerning the power set point. The mode in which the HVDC is managed.
HVDC Schedule	A document providing the information for operating DC links.
EIC code request	A document providing the information requesting a new EIC code.
EIC code information	A document providing EIC information in a central registry exchange or information to an EIC participant.
EIC code publication	A document providing EIC publication information in a web site publication of a limited set of information.
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.
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.
Flow based domain	A document providing the capacity domain and its limits available for the TSO.
Flow based domain publication	A document providing the capacity domain and its limits available for the market.
Flow based domain market impact publication	A document providing the capacity domain and its impacts on the market to be published.
Anonymized flow based parameters publication	A document providing all the relevant flow based parameters in case of flow based capacity allocation.
Critical network element market impact publication	A document providing the critical network elements and its impacts on the market to be published.

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.
Energy prognosis document	A document to provide the prognosis of energy production/load for a given period.
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.
Aggregated netted external market schedule document	A document used to report aggregated netted external market schedules for a given border.
Aggregated netted external TSO schedule document	A document used to report aggregated netted external TSO schedules for a given border.
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.
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.
Status request for a reporting information market document	A document requesting the provision of a reporting information document.
Reserve need document	Used by a TSO to send its reserve needs.
Generation and load shift keys document	A document providing the values of the generation and load shift keys to be used on network model.
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.
Clearing price	A document containing the outcome of the process, with the clearing prices for a period.
Security analysis report	A document providing a report on a performed security analysis.
Aggregated netted external schedule document	A document used to report aggregated netted external schedules for a given border.
External TSO schedule	A document used to report external TSO schedules for a given border or interconnector.

Move of scheduled production	A document indication a move of scheduled production.
PS&LC results document	A document providing Pole Splitting & Loss Calculation results.
Notification data market document	A document used to notify data to any information receiver.
Additional Constraint document	A document describing additional constraints for a capacity calculation process.
Operational state document	A document used for exchanging operational states for grid assets.
Published offered capacity	A document providing the most recent values of offered capacity.
Market result document	Published prices and volumes
Area Configuration document	A document containing the definition of areas.
Area Composition document	A document containing the relations between areas, i.e which Metering Grid Areas a Bidding Zone composed of.
Connected Areas document	A document containing which other areas an area is connected to i.e. which Metering Grid Areas a Metering Grid Area is connected to.
Settlement document	A document providing settlement information.
Imbalance prognosis document	A document to provide the prognosis of energy imbalances for a given period.
Complete set of bids	Submission of complete set of bids. If there are existing bids, they should be replaced.
Merged MOL notice	A notice providing information on the MOL merging process.
K-factor document	A document providing K-factor values.
Settlement coordination document	A document providing settlement information for coordination between different parties.
Financial settlement document	A document providing financial settlement information.
Bid availability document	A document providing the detailed reasons for changing the availability or volume of a bid.

Resource capacity unit document	A document providing information about resource capacity units.
Other market information	A document providing other market information.
Permission document	A document that contains detailed information about permissions.
Requested capacity	A document providing requested capacity (e.g. ATC, CZCL) value.
Voltage control activation document	A document providing the number of generating units to activate for voltage control, by means of their operation in synchronous condenser mode.
Transmission inventory document	A document providing a transmission inventory.
Transmission inventory	A document providing statistics on the transmission grid.

BusinessTypeList ESMPEnumerations

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

Production	The nature of the business being described is production details.
Internal trade	The nature of the business being described is internal trade details.
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.
Consumption	The nature of the business being described is consumption details.
External trade total	The nature of the business being described is external trade total.
External trade without explicit capacity	The nature of the business being described is external trade details between two areas without requiring capacity allocation information.
Net Production / Consumption	Net production/consumption - where signed values will be used. With the following rules: In area=Out area, In party=Out party, + means production and - means consumption.
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).
IPP (Independent Power Producer)	A time series concerning the production schedule from an IPP.

Tertiary control	A time series concerning tertiary reserve.
Primary control	A time series concerning primary reserve.
Secondary control	A time series concerning secondary reserve.
Load profile	A time series concerning a load profile as calculated by a metered data aggregator.
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.
Losses	A time series concerning losses that have been calculated for a tieline or an area.
Transits (CBT)	A time series concerning inter area transit flows determined for CBT requirements.
Settlement deviation	A time series concerning the imbalance energy calculated by an imbalance settlement responsible.
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.
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.
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.
Unintended energy	A timeseries concerning the volume of an unintended cross-border exchange of energy.
Frequency control	A time series concerning primary and secondary reserve.
Balance management	A time series concerning energy balancing services.
Total trade	A time series concerning the total of both the internal and external trades.
General Capacity Information	A time series providing the total capacity available on a TSO border.
Available transfer capacity (ATC)	Available transfer capacity for cross-border exchanges.

Net transfer capacity (NTC)	Net transfer capacity for cross-border exchanges.
Control Area Program	A time series providing the total exchanges between two TSOs (including the commercial transactions, the compensation program and the losses compensation program). Note this definition might change when UCTE brings forward its coding requirements.
Already allocated capacity (AAC)	The already allocated capacity is the total amount of allocated transmission rights.
Internal inter area trade	A trade that occurs between internal areas within a market balance area.
Offered Capacity	The time series provides the offered capacity.
Capacity transfer notification	The time series provides information concerning the notification of the transfer of capacity to another market participant.
Authorised AAC	The time series in question provides the amount of transmission capacity rights to be nominated.
Capacity rights	The time series in question provides the capacity rights allocated for a given border.
Minimum authorised AAC	The time series in question provides the minimum amount of transmission capacity rights to be nominated.
Maximum authorised AAC	The time series in question provides the maximum amount of transmission capacity rights to be nominated.
Installed generation	The time series in question provides the installed generation.
Available generation	The time series in question provides the available generation.
Interconnection Trade Responsible Designation	The Time series in question provides the designation of the ITR that may nominate the capacity in question.
Released AAC	The already allocated capacity (AAC) that has been released for resale.
Requested capacity (with price)	The time series in question provides information concerning the requested capacity including price information.
Requested capacity (without price)	The time series in question provides information concerning the requested capacity but excludes price information.

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.
Schedule activated reserves	The cross border or internal reserves that are to be activated through schedule nomination.
System Operator redispatching	The cross border redispatching between System Operators that are to be activated through schedule nomination.
Market capacity price	The price of the capacity offered on a given market.
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.
Inflow	The volume of water that flows into a reservoir in a given interval.
Water extraction	The volume of water that can be extracted from a reservoir in a given interval.
Turbined water	The volume of water that can be turbined in a plant in a given interval.
Water spillage	The volume of water that is not turbined going through the spillway in a given interval.
Planned maintenance	Maintenance has been planned for the object in question with a forecast ending date.
Unplanned outage	An unplanned outage has occurred on the object in question.
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.
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.
Resale pricing	For each Physical Transmission Rights holder, this document contains the resold capacity and its corresponding price.
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.
Use it Or Sell it (UIOSI) compensation	The time series provides information on the compensation for the capacity following an auction cancellation.
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.
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.
Spot price	The time series provides the market spot prices from an auction.
Minimum ATC	The Available Transmission Capacity that must be guaranteed because of regulatory constraints.
Meter Measurement data	The data as provided for a meter measurement source.
Accounting Point Relevant data	The metered data that is to be considered relevant for accounting purposes.
Energy flow	Energy flow information.
Power plant energy Schedule	Energy flow scheduled for a power plant.
Compensation Requirements for the compensation period	The time series provides the compensation requirements for a given compensation period.
Market coupling results	The time series provides the results of a market coupling auction.
Production, unavailable	Production capacity that normally would be available, but due to maintenance or similar is temporarily unavailable.
Supplementary available generation	The supplementary generation that is available.
Interruptible consumption	The consumption that may be interrupted on request.
Summarised Market Balance Area Schedule	A time series providing the total exchanges based on commercial transactions between two Market Balance Areas.
Load Frequency Control Program Schedule	A time series providing the schedule information for the Load Frequency Control Program.
Timeframe Independent Schedule	A time series providing the total exchanges of Timeframe Independent Schedules between two System Operators.
Consumption curtailment	A time series providing the amount of voluntary consumption curtailed by the energy supplier of an end-consumer.
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.
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.
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.
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.
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.
Mutual Emergency Assistance Service (MEAS)	The cross border Mutual Emergency Assistance Service between System Operators that are to be activated through schedule nomination.
Auction cancelation	The time series covers auction cancellation right.
Nomination curtailment	The time series covers nomination curtailment rights
Internal redispatch	Redispatch to relieve Market Balance Area internal congestion.
Control area balance energy	A sum of secondary, tertiary control as well as other energy that was used to balance a control area.
Balancing energy price	Price of energy used to balance.
Economised secondary reserve	The activated secondary reserve that had been economised due to pooled reserve management.
Spinning reserve	The extra generating capacity that is available by increasing the production of generators that are already connected to the power system.
Solar	The business being described concerns solar power.
positive forecast margin	The business being described concerns a positive forecast margin.
Negative forecast margin	The business being described concerns a negative forecast margin.
Wind generation	The business being described concerns wind generation.

Solar generation	The business being described concerns solar generation.
Frequency containment reserve	The business being described concerns frequency containment reserve.
Automatic frequency restoration reserve	The business being described concerns automatic frequency restoration reserve.
Manual frequency restoration reserve	The business being described concerns manual frequency restoration reserve.
Replacement reserve	The business being described concerns replacement reserve.
Financial information	The business being described concerns financial information.
Interconnector network evolution	The business being described concerns interconnector network evolution.
Interconnector network dismantling	The business being described concerns interconnector network dismantling.
Counter trade	The business being described concerns counter trades.
Congestion costs	The business being described concerns congestion costs.
Capacity allocated (including price)	The business being described concerns capacity allocation and includes price information.
DC link constraint	The business being described concerns DC link constraints.
Auction revenue	The business being described concerns auction revenue.
Total nominated capacity	The business being described concerns the total nominated capacity.
Net position	The business being described concerns net position.
Congestion income	The business being described concerns congestion income.
Production unit	The business being described concerns a production unit.
Rounded market coupling results	Rounded outputs of the market coupling to be sent to TSOs and Market Participants.
Allocation Revenue	The time series provides information on the revenue generated by the allocations.
Production deviation	A time series concerning the imbalance energy between the metered production

	and the schedules calculated by an imbalance settlement responsible.
Consumption deviation	A time series concerning the imbalance energy between metered consumption and the forecasted consumption calculated by an imbalance settlement responsible.
Transmission asset	The business being described concerns a transmission asset.
Consumption unit	The business being described concerns a consumption unit.
In-feed ATC	Available Transfer Capacity at the in-feed side of a DC tieline.
Out-feed ATC	Available Transfer Capacity at the out-feed side of a DC tieline.
Balance up regulation price	A time series concerning balance regulation market prices for up regulation.
Balance down regulation price	A time series concerning balance regulation market prices for down regulation.
Main direction	A time series concerning the direction of balance regulations.
Consumption imbalance price	A time series concerning imbalance prices for consumption.
Production sales imbalance price	A time series concerning imbalance prices for production sales.
Production purchase imbalance price	A time series concerning imbalance prices for production purchase.
Average balance price between MBAs	A time series concerning the average prices between Market Balance Areas.
Pumped	A time series concerning the electricity consumption related to pumping.
Large installation consumption	A time series concerning consumption from large installation.
Metering Grid Area (MGA) imbalance	A time series concerning imbalance between reported consumption, production and exchange in a Metering Grid Area.
HVDC Link settings	The time series in question provides HVDC Link settings.
Transmission Reliability Margin (TRM)	A time series concerning Transmission Reliability Margin (TRM).
Imbalance component for a pool	This information is used to provide to a pool manager the combined imbalance of

	all the pool participants.
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.
Area Control Error after Imbalance Netting	A time series concerning the Area Control Error after applying the imbalance netting energy correction.
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.
Production units own consumption	The consumption of one or more production units.
Constraint situation	The timeseries describes the constraint situation for a given TimeInterval. A constraint situation can be: - composed of a list of network elements in outage associated for each outage to a list of network elements on which remedial actions have been carried out accordingly to contingency process - or it can be an external constraint.
Initial domain	The timeseries describe the full flow based domain for a given TimeInterval. Critical network elements are displayed in details and their impact on the market is quantified.
Flow based domain adjusted to long term schedules	The timeseries describe the full flow based domain for a given TimeInterval adjusted to the latest update of the schedules. Critical network elements are displayed in details and their impact on the market is quantified.
Network element constraint	The timeSeries describes limiting elements which are overloaded.
Calculation opposition (Red Flag)	The timeSeries describes a party who is opposed to the calculation result and imposes its transfer capacity value.
Base case proportional shift key	The GSK or LSK are proportional to the base case generation or load.
Proportional to participation factors shift key	The GSK or LSK are proportional to the participation factors.
Proportional to the remaining capacity shift key	The GSK is proportional to the remaining available capacity.
Merit order shift key	The GSK is proportional to a merit order list.

Wind speed	The TimeSeries provides information on the wind speed.
Wind direction	The TimeSeries provides information on the wind direction.
Solar irradiance	The TimeSeries provides information on the power per unit area produced by the sun in the form of electromagnetic radiation.
Air temperature	The TimeSeries provides information on the air temperature.
Cloudiness	The TimeSeries provides information on the cloudiness, i.e. the level of coverage of the sky with clouds.
Air humidity	The TimeSeries provides information on the level of humidity of the air.
Atmospheric pressure	The TimeSeries provides information on the atmospheric pressure.
Precipitation	The TimeSeries provides information on the amount of rain, snow, etc. that falls on the ground.
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.
Contingency	The TimeSeries describes the network elements part of the contingency to be simulated for a given TimeInterval.
Remedial Action	The TimeSeries describes a set of remedial actions for a given TimeInterval.
Monitored Network Element	The TimeSeries describes the network elements to be monitored during the network load flow studies.
Busbar	The TimeSeries describes the network elements that composed a busbar.
Network Element	The TimeSeries describes network elements.
SPS	The TimeSeries describes the network elements managed by a Special Protection System (automation).
Aggregated netted external market schedule	The aggregated netted external market schedules for a given border.
Aggregated netted external TSO schedule	The aggregated netted external TSO schedules for a given border.
Aggregated netted	The aggregated netted external schedules for a given border.

external schedule	
Netted area AC position	The AC position for a given area.
Netted area position	The netted aggregation of all AC external schedules of an area plus the aggregated External Netted Schedules of related HVDC links of an area.
Interconnection shift key	The shift key series describes the amount of power to be shifted from a border area.
DC flow with losses	DC flow with losses refers to the values at the importing end of the DC line.
DC flow without losses	DC flow without losses refers to the values at the exporting end of the DC line.
minimum value of netted area position	That value which a netted area position must not fall below for a given area.
maximum value of netted area position	That value which a netted area position must not exceed for a given optimisation area.
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.
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.
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
Offer	The time series provides an offer to provide reserves.
Need	The time series provides a requirement for reserves.
Opportunity costs or benefits	The time series describes any opportunity costs or benefits.
Financial compensation or penalties	The time series describes any financial compensation or penalties
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.

Diffuse radiation	Radiation resulting from reflected or scattered sunlight.
Direct solar radiation	Radiation resulting from direct sunlight
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.
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).
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.
Auxiliary busbar operation	Outage process: Element is in operation but connected via auxiliary busbar
Automatic reclosing	Outage process: Protection function Automatic reclosing is switched off for electric line
Busbar protection	Protection function busbar protection is switched off
Phase Shift Angle	The maximum phase shift angle allowed between two network elements.
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.
Inter-TSO assistance	Cross border assistance schedule between TSOs not interconnected directly.
FlexibleNeed	The business type indicates that the need is optional.
GLSK Limitation	A constraint related to a GLSK maximum or minimum limitation in the production or/and consumption shift.
Capacity ramping limitation	A constraint related to a ramping limitation on the capacity offered at a given border.
interconnector capacity	The maximum capacity that can be exchanged on an interconnector, excluding external factor on both ends.
Must Run	A time series concerning must run generation.
Procured capacity	An accepted offer of balancing capacity.

Used capacity	The used cross-zonal balancing capacity.
Estimated costs	Estimated costs of the process.
Estimated benefits	Estimated benefits of the process.
Load Shedding	A time series concerning a load shedding used to avoid failure of the power system.
Remaining Capacity	A time series concerning the remaining capacity.
Indicator of generation capacity adequacy	Indicator of adequacy, it indicates if there is final generation remaining capacity after SMTA calculation.
Income from price divergence without congestions	The time series describes income due to price divergence without congestion between bidding zones.
Push-button	The cross-border Push-button service between System Operators.
Intertripping	The cross-border Intertripping service between System Operators.
Emergency instruction	The cross-border Emergency instruction service between System Operators.
Ramp management	The schedule resulting from cross-border Ramp management service between System Operators.
Profile smoothing	The schedule resulting from cross-border Profile smoothing service between System Operators.
Emergency reallocation deselection	The schedule resulting from cross-border Emergency reallocation deselection service between System Operators.
SO-SO-trade	The generic cross border trade between System Operators.
Production reduction	A time series providing the volume of production reduced by an energy provider / producer / supplier.
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.
Maximum power exchange after remedial actions	The timeseries provides the maximum admissible power flow between two bidding zones after remedial actions.
Network constraint situation that cannot	The TimeSeries describes the network elements, that cannot limit the market, to

limit the market	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.
Flat participation for all generators or loads	Flat GSK factors of all generators or loads, independently of the size.
Proportional to installed capacity of generators	Generators participate relative to their maximum (installed) capacity (MW).
Market price and total volume	A time series concerning market price and total volume.
Import price	A time series concerning import price (the volume-weighted price average of all accepted bids).
Capacity allocated (excluding price)	The business being described concerns capacity allocation and excludes price information.
Common Grid Model Equipment	The timeseries provides equipment related to the Common Grid Model (CGM).
Exchanged balancing reserve capacity	The balancing reserve capacity exchanged between areas.
Shared balancing reserve capacity	The balancing reserve capacity shared between areas.
Share of reserve capacity	A time series concerning the share of reserve capacity.
Actual reserve capacity	A timeseries concerning actual reserve capacity.
K-factor	K-factor as stated in the SO GL Art. 2 (45). It is also known as Frequency Bias.
Frequency Containment Reserve-Normal (FCR-N)	FCR-N is a reserve that is automatically activated in both directions around a set point when the frequency varies between 50.10 Hz and 49.90 Hz after an imbalance.
Frequency Containment Reserve-Disturbance (FCR-D)	FCR-D is a reserve that is automatically activated when the frequency falls below 49.90 Hz or rises above 50.1 Hz after an imbalance.
Internal trade difference	A time series concerning internal trade difference, within an area, such as a Bidding Zone or Scheduling Area. The internal trade difference is the difference between trades reported from an out party (seller) and an in party (buyer).
Small scale production	Production from small scale production plants.
System price	

	The system price is an unconstrained market clearing reference price. It is calculated without any congestion restrictions by setting capacities to infinity.
Wind gust	An increase in the speed of the wind lasting for a short period.
Area imbalance	A time series concerning imbalance between planned consumption, production and exchange in an Area.
Unintended energy price	A timeseries concerning the price of the unintended cross-border exchange of energy.
Frequency containment process energy	A timeseries containing the volume of energy resulting from the frequency containment process.
Frequency containment process energy price	A timeseries containing the energy price from the frequency containment process.
Ramping period energy	A timeseries containing the volume of energy exchanged as a result of ramping between different ANES values.
Ramping period energy price	A timeseries containing the price of the energy exchanged as a result of ramping between different ANES values.
Frequency deviation	A timeseries concerning the difference between the actual and the nominal frequency of a synchronous area.
Day-Ahead market price	A timeseries concerning Day-Ahead market prices.
Conditional bid	Standard product bid that is conditional on bids submitted outside of common platform.
Thermal limit	The current causing a given network element to work outside of the range of safe operating temperatures.
Frequency Limit	A constraint related to the containment of frequency deviations within a given area.
Voltage limit	The maximum or minimum permissible voltage within normal operation state of a given network element.
Current limit	The maximum permissible current within normal operation state of a given network element.
Short circuit current limit	The maximum permissible short-circuit current within normal operation state of a given network element.
Dynamic stability limit	A maximum permissible load ensuring the control of oscillations in the grid and

	avoiding the loss of synchronism.
Disconnection	A timeseries describing disconnection of a TSO from a common platform.
Intended energy with positive price	A timeseries concerning the amount of intended energy with prices higher than zero (and including zero).
Intended energy with negative price	A timeseries concerning the amount of intended energy with prices lower than zero (excluding zero).
Decopuling	A time series describing decoupling of an area.
Resource capacity unit	A timeseries containing information about resource capacity units.
Resource entry capacity data	A timeseries containing the resource capacity that can be allocated to an eligible resource capacity operator from another area.
Resource capacity obligation data	A timeseries containing the resource capacity operator obligation to guarantee delivery.
Available energy	A timeseries concerning the available energy.
Production curtailment	A timeseries concerning the curtailment of production.
Rounding error	A timeseries describing a rounding error.
Metered frequency	The timeseries provides information about metered frequency.
Adjusted TTC to the nominal criteria	The exchange program between two areas which guarantees that the Margin Available for Cross-Zonal Trade (MACZT) fulfils the nominal criteria at least on the most limiting Critical Network Element with Contingency (CNEC) which limits the transfer capacity.
Adjusted TTC to the nominal criteria with TSOs limitation	The exchange program between two areas which allows the Margin Available for Cross-Zonal Trade (MACZT) on, at least, the most limiting Critical Network Element with Contingency (CNEC) to get closer to the nominal criteria fulfilment with a limited impact on the rest of the network.
Frequency deviation larger than standard deviation	Total time in which the absolute value of the instantaneous frequency deviation was larger than the standard frequency deviation.
Frequency deviation larger than maximum deviation	Total time in which the absolute value of the instantaneous frequency deviation was larger than the maximum instantaneous frequency deviation.
Frequency deviation not returned to 50%	Number of events in which the absolute value of the instantaneous frequency deviation of the synchronous area exceeded 200 % of the standard frequency

	deviation as stated in SO GL (EU) regulation Art 131.1.a.vi.
Frequency deviation not returned to restoration range	Number of events in which the absolute value of the instantaneous frequency deviation of the synchronous area exceeded 200 % of the standard frequency deviation.
Frequency deviation outside recovery range	Number of events for which the absolute value of the instantaneous frequency deviation was outside of the frequency recovery range.
Frequency	A time series describing measurement frequency.
Mean value	A time series describing mean values.
Standard deviation	A time series describing standard deviation.
Percentile	A time series describing percentiles.
Measured frequency resolution	A time series describing the resolution of a measured frequency.
Accuracy	A time series describing measurement accuracy.
FRCE outside level 1 range	The number of time intervals in which the average value of the FRCE was outside the Level 1 FRCE range as stated in SO GL. (EU) regulation Art 131.1.b.i.
FRCE outside level 2 range	The number of time intervals in which the average value of the FRCE was outside the Level 2 FRCE range as stated in SO GL (EU) regulation. Art 131.1.b.i.
FRCE exceeded 60% of FRR capacity	The number of events for which the FRCE exceeded 60 % of the reserve capacity on FRR as stated in SO GL (EU) regulation Art 131.1.b.ii.
FRCE exceeded steady state deviation	The number of events for which the absolute value of the FRCE exceeded the maximum steady-state frequency deviation.
FRCE calculation and accuracy descriptor	A time series describing how FRCE is calculated and its accuracy.
Forecasted capacity	A time series describing forecasted capacity.
Minimum available capacity	A time series describing minimum available capacity.
Average available capacity	A time series describing average available capacity.
Maximum available capacity	A time series describing maximum available capacity.

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

of AC border flow

CurveTypeList ESMPEnumerations

The type of curve being defined in the time series.

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.
Point	The curve is made of successive instants of time (Points).
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.
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.
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.

DirectionTypeList ESMPEnumerations

The coded identification of the direction of energy flow.

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

Compound types

ESMP_DateTimeInterval ESMPDataTypes

This datatype enables to express the start date and time, and the end date and time of a time interval with a specific pattern. This pattern is the YYYY-MM-DDThh:mmZ.

start	1..1	YMDHM_DateTime	The start date and time of the interval with a minute resolution.
end	1..1	YMDHM_DateTime	The end date and time of the interval with a minute resolution.

Datatypes

ESMP_DateTime — ESMPDataTypes

In ESMP, the dateTime shall be expressed in UTC as YYYY-MM-DDThh:mm:ssZ.

value	1..1	DateTime	Main Core value Space.

Position_Integer — ESMPDataTypes

An integer value, this value is used as a sequential value representing the relative position of an entity within a space such as a time interval.

value	1..1	Integer	Main Core value Space.

Quality_String — ESMPDataTypes

The coded identification of the quality of the information.

value	1..1	QualityTypeList	Main Core value Space.

MeasurementUnitKind_String — ESMPDataTypes

The coded identification of a unit of measure that is applied to a quantity. The measurement units shall be in compliance with UN/ECE Recommendation 20.

value	1..1	UnitOfMeasureTypeList	Main Core value Space.

ID_String — ESMPDataTypes

A code to uniquely distinguish one occurrence of an entity from another.

In the ESMP context, the code is defined either by:
- an emitting company that provides an agreed identification unique within a business context such as capacity

auction identification, market agreement identification, etc.
- a party (originator of the exchange) that provides a unique identification in the framework of a business exchange such as document identification, time series identification, bid identification, ...

value	1..1	String	Main Core value Space.

ProcessKind_String — ESMPDataTypes

The coded identification of the nature of process.

value	1..1	ProcessTypeList	Main Core value Space.

MarketRoleKind_String — ESMPDataTypes

The identification of the role played by a party.

value	1..1	RoleTypeList	Main Core value Space.

PartyID_String — ESMPDataTypes

The identification of an actor in the energy market.

In the ESMP context, it is an authorized issuing office that provides an agreed identification coding scheme for market participant identification.

codingScheme	1..1	CodingSchemeTypeList	DomainQualification.
value	1..1	String	Main Core value Space.

ESMPVersion_String — ESMPDataTypes

In ESMP, the coded value is restricted to digits.

A code that distinguishes one evolution of an identified object from another. Information about a specific object may be sent several times, each transmission being identified by a different version number.

value	1..1	String	Main Core value Space.

YMDHM_DateTime — ESMPDataTypes

In ESMP, the date and time is expressed as "YYYY-MM-DDThh:mmZ", which conforms with ISO 8601 UTC time zone. This date and time is without the seconds.

value	1..1	DateTime	The date and time as "YYYY-MM-DDThh:mmZ", which conforms with the ISO 8601 UTC time zone.

MessageKind_String — ESMPDataTypes

The coded type of a document.

value	1..1	MessageTypeList	Main Core value Space.

BusinessKind_String — ESMPDataTypes

The coded identification of the business type.

value	1..1	BusinessTypeList	Main Core value Space.

CurveType_String — ESMPDataTypes

The coded identification of the type of curve.

value	1..1	CurveTypeList	Main Core value Space.

DirectionKind_String — ESMPDataTypes

The coded identification of the direction of energy flow.

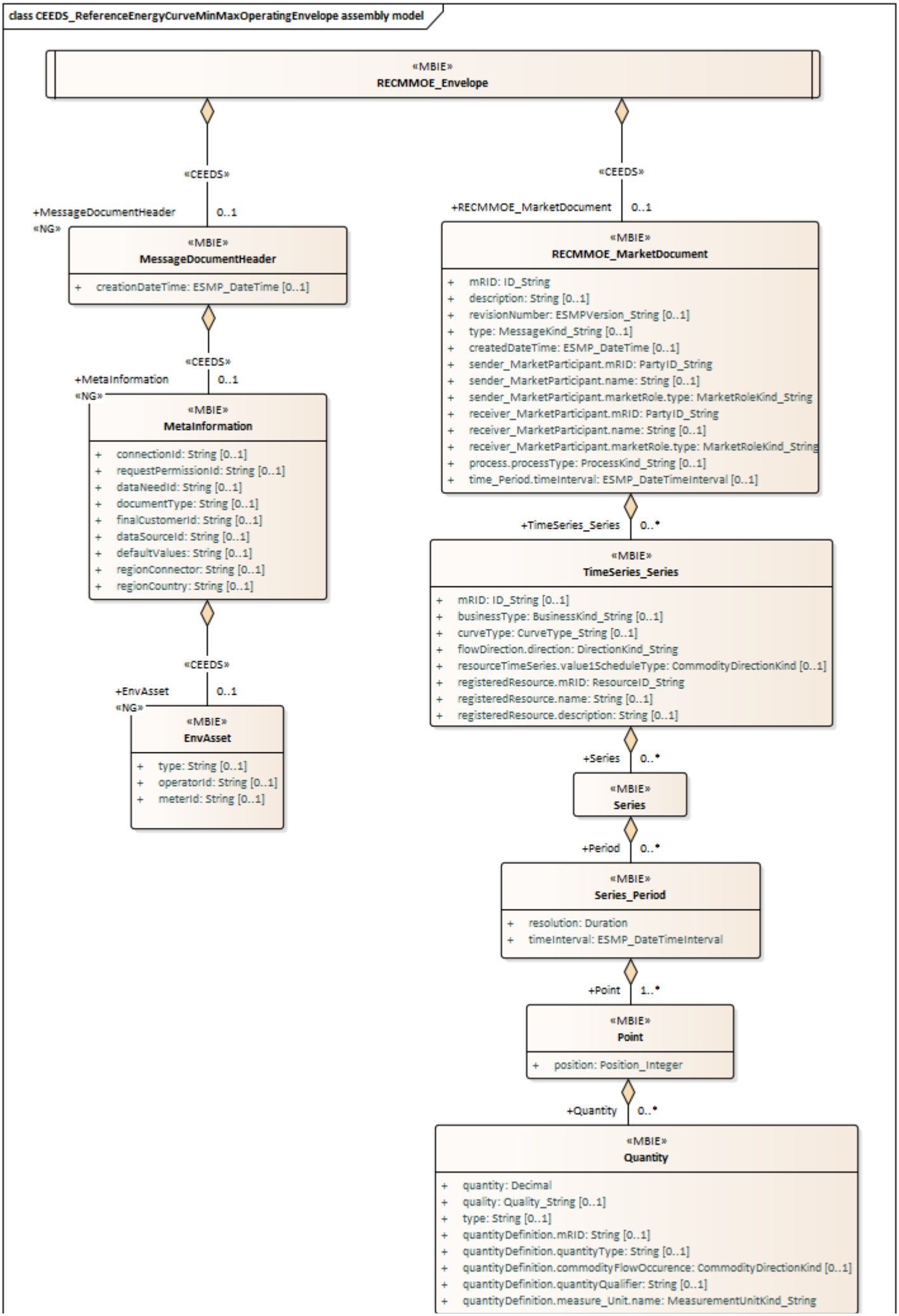
value	1..1	DirectionTypeList	Main Core value Space.

ResourceID_String — ESMPDataTypes

The identification of a resource object in the energy market.

In the ESMP context, it is an authorized issuing office that provides an agreed identification coding scheme for resources (generator, lines, substations, etc.) identification.

codingScheme	1..1	CodingSchemeTypeList	DomainQualification.
value	1..1	String	Main Core value Space.


class CEEDS_ReferenceEnergyCurveMinMaxOperatingEnvelope assembly model
«MBIE»
RECMMOE_Envelope
«CEEDS»
+MessageDocumentHeader
«NG»
0..1
«MBIE»
MessageDocumentHeader
+ creationDateTime: ESMP_DateTime [0..1]
«CEEDS»
+MetaInformation
«NG»
0..1
«MBIE»
MetaInformation
+ connectionId: String [0..1]
+ requestPermissionId: String [0..1]
+ dataNeedId: String [0..1]
+ documentType: String [0..1]
+ finalCustomerId: String [0..1]
+ dataSourceId: String [0..1]
+ defaultValues: String [0..1]
+ regionConnector: String [0..1]
+ regionCountry: String [0..1]
«CEEDS»
+EnvAsset
«NG»
0..1
«MBIE»
EnvAsset
+ type: String [0..1]
+ operatorId: String [0..1]
+ meterId: String [0..1]
«CEEDS»
+RECMMOE_MarketDocument
0..1
«MBIE»
RECMMOE_MarketDocument
+ mRID: ID_String
+ description: String [0..1]
+ revisionNumber: ESMPVersion_String [0..1]
+ type: MessageKind_String [0..1]
+ createdDateTime: ESMP_DateTime [0..1]
+ sender_MarketParticipant.mRID: PartyID_String
+ sender_MarketParticipant.name: String [0..1]
+ sender_MarketParticipant.marketRole.type: MarketRoleKind_String
+ receiver_MarketParticipant.mRID: PartyID_String
+ receiver_MarketParticipant.name: String [0..1]
+ receiver_MarketParticipant.marketRole.type: MarketRoleKind_String
+ process.processType: ProcessKind_String [0..1]
+ time_Period.timeInterval: ESMP_DateTimeInterval [0..1]
+TimeSeries_Series
0..*
«MBIE»
TimeSeries_Series
+ mRID: ID_String [0..1]
+ businessType: BusinessKind_String [0..1]
+ curveType: CurveType_String [0..1]
+ flowDirection.direction: DirectionKind_String
+ resourceTimeSeries.value1ScheduleType: CommodityDirectionKind [0..1]
+ registeredResource.mRID: ResourceID_String
+ registeredResource.name: String [0..1]
+ registeredResource.description: String [0..1]
+Series
0..*
«MBIE»
Series
+Period
0..*
«MBIE»
Series_Period
+ resolution: Duration
+ timeInterval: ESMP_DateTimeInterval
+Point
1..*
«MBIE»
Point
+ position: Position_Integer
+Quantity
0..*
«MBIE»
Quantity
+ quantity: Decimal
+ quality: Quality_String [0..1]
+ type: String [0..1]
+ quantityDefinition.mRID: String [0..1]
+ quantityDefinition.quantityType: String [0..1]
+ quantityDefinition.commodityFlowOccurence: CommodityDirectionKind [0..1]
+ quantityDefinition.quantityQualifier: String [0..1]
+ quantityDefinition.measure_Unit.name: MeasurementUnitKind_String

class ENTSO-E-code-list-examples

«enumeration»
AllocationModeTypeList

literals

Order by price with pro rata = A01
Order by price with first come - first served = A02
First come - First served = A03
Pro rata = A04

«enumeration»
AuctionTypeList

literals

Implicit = A01
Explicit = A02
Rule Based = A03
Mixed = A04
Explicit/split = A05
Shadow auction = A06
Flow-based = A07
Continuous = A08

«enumeration»
CustomerTypeList

literals

Household customer = A01
Deceased household customer = A02
Company customer = A03
Estate company customer = A04

«enumeration»
BusinessTypeList

literals

Production = A01
Internal trade = A02
External trade explicit capacity = A03
Consumption = A04
External trade total = A05
External trade without explicit capacity = A06
Net Production / Consumption = A07
Net internal trade = A08
IPP (Independent Power Producer) = A09
Tertiary control = A10
Primary control = A11
Secondary control = A12
Load profile = A13
Aggregated energy data = A14
Losses = A15
Transits (CBT) = A16
Settlement deviation = A17
Technical constraint deviation = A18
Balance energy deviation = A19
Imbalance volume = A20
Unintended energy = A21
Frequency control = A22
Balance management = A23
Total trade = A24
General Capacity Information = A25
Available transfer capacity (ATC) = A26
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Control Area Program = A28
Already allocated capacity (AAC) = A29
Internal inter area trade = A30
Offered Capacity = A31
Capacity transfer notification = A32
Authorised AAC = A33
Capacity rights = A34
Minimum authorised AAC = A35
Maximum authorised AAC = A36
Installed generation = A37
Available generation = A38
Interconnection Trade Responsible Designation = A40
Released AAC = A41
Requested capacity (with price) = A42
Requested capacity (without price) = A43
Compensation program = A44
Schedule activated reserves = A45
System Operator redispatching = A46
Market capacity price = A47
Market capacity price differential = A48
Inflow = A49
Water extraction = A50
Turbined water = A51
Water spillage = A52
Planned maintenance = A53
Unplanned outage = A54
Use it Or Sell it (UIOSI) pricing = A55
Compensation for auction cancellation where capacity is for resale = A56
Resale pricing = A57
Curtailed capacity compensation = A58
Use it Or Sell it (UIOSI) compensation = A59
Minimum possible = A60
Maximum available = A61
Spot price = A62
Minimum ATC = A63
Meter Measurement data = A64
Accounting Point Relevant data = A65
Energy flow = A66
Power plant energy Schedule = A67
Compensation Requirements for the compensation period = A68
Market coupling results = A69
Production, unavailable = A70
Supplementary available generation = A71
Interruptible consumption = A72
Summarised Market Balance Area Schedule = A73
Load Frequency Control Program Schedule = A74
Timeframe Independent Schedule = A75
Consumption curtailment = A76

«enumeration»
UnitMultiplier

literals

none = 1

«enumeration»
connectionCategoryTypeList

literals

Maximum voltage = E03
High voltage = E04
Medium voltage = E05
Low voltage = E06
High voltage / transformation = E07
Medium voltage / transformation = E08
Low voltage / transformation = E09
Low pressure = E10
High pressure = E11
Medium pressure = E12

«enumeration»
UnitSymbol

literals

Ampere = AMP
One = C62
kV = KVT
MW = MAW
Percent = P1
Ohm = OHM
MVAr = MAR
Hertz = HTZ
megavolt-ampere = MVA
degree (unit of angle) = DD
grams per kilowatt hour = G

«enumeration»
CategoryTypeList

literals

Base = A01
Peak = A02
Off peak = A03
Hourly = A04

«enumeration»
PriceCategoryTypeList

literals

Category 1 = A01
Category 2 = A02
Category 3 = A03
Excess balance = A04
Insufficient balance = A05
Average bid price = A06
Single marginal bid price = A07
Cross-border marginal price = A08

«enumeration»
AssetTypeList

literals

Tie line = A01
Line = A02
Resource Object = A03
Generation = A04
Load = A05
Phase Shift Transformer = A06
Circuit Breaker = A07
Biomass = B01
Fossil Brown coal/Lignite = B02
Fossil Coal-derived gas = B03
Fossil Gas = B04
Fossil Hard coal = B05
Fossil Oil = B06
Fossil Oil shale = B07
Fossil Peat = B08
Geothermal = B09
Hydro-electric pure pumped storage head installation = B10
Hydro Run-of-river head installation = B11
Hydro-electric storage head installation = B12
Marine unspecified = B13
Nuclear unspecified = B14
Other renewable = B15
Solar unspecified = B16
Waste = B17
Wind Offshore = B18
Wind Onshore = B19
Other unspecified = B20
AC Link = B21
DC Link = B22
Substation = B23
Transformer = B24
Busbar = A08
Capacitor = A09
Inductor = A10
Power plant connection = A11
FACTS = A12
Energy storage = B25
Demand Side Response = B26
Production unit = A13
Dispatchable hydro resource = B27
Solar photovoltaic = B28
Solar concentration = B29
Wind unspecified = B30
Hydro-electric unspecified = B31
Hydro-electric mixed pumped storage head installation = B32

Marine tidal = B33
Marine wave = B34
Marine currents = B35
Marine pressure = B36
Thermal unspecified = B37
Thermal combined cycle gas turbine with heat recovery = B38
Thermal steam turbine with back-pressure turbine (open cycle) = B39
Thermal steam turbine with condensation turbine (closed cycle) = B40
Thermal gas turbine with heat recovery = B41
Thermal internal combustion engine = B42
Thermal micro-turbine = B43
Thermal Stirling engine = B44
Thermal fuel cell = B45
Thermal steam engine = B46
Thermal organic Rankine cycle = B47
Thermal gas turbine without heat recovery = B48
Nuclear heavy water reactor = B49
Nuclear light water reactor = B50
Nuclear breeder = B51
Nuclear graphite reactor = B52
Internal tie line = A14
Temporary energy storage = B53
Permanent energy storage = B54
Electric vehicle battery = B55
Heat pump specified = B56
Heat pump electrical = B57
Heat pump absorption = B58
Auxiliary power unit = B59
Water electrolysis unspecified = B60
Water electrolysis low temperature unspecified = B61
Water electrolysis low temperature main product = B62
Water electrolysis high temperature unspecified = B63
Steam methane reforming unspecified = B64
Steam methane reforming without CCS/CCU unspecified = B65
Steam methane reforming with CCS/CCU unspecified = B66
Steam methane reforming with CCS/CCU main product = B67
Partial oxidation unspecified = B68
Autothermal reforming unspecified = B69
Methanol reforming unspecified = B70
Ammonia reforming unspecified = B71
Ammonia gasification = B72
Chlor-alkali electrolysis unspecified = B73
Chlor-alkali electrolysis by-product = B74
ACDC converter = B75
Converter = B76

Production, dispatchable = A77
Consumption, dispatchable = A78
Production, non-dispatchable = A79
Consumption, non-dispatchable = A80
Total Transfer Capacity (TTC) = A81
Mutual Emergency Assistance Service (MEAS) = A82
Auction cancelation = A83
Nomination curtailment = A84
Internal redispatch = A85
Control area balance energy = A86
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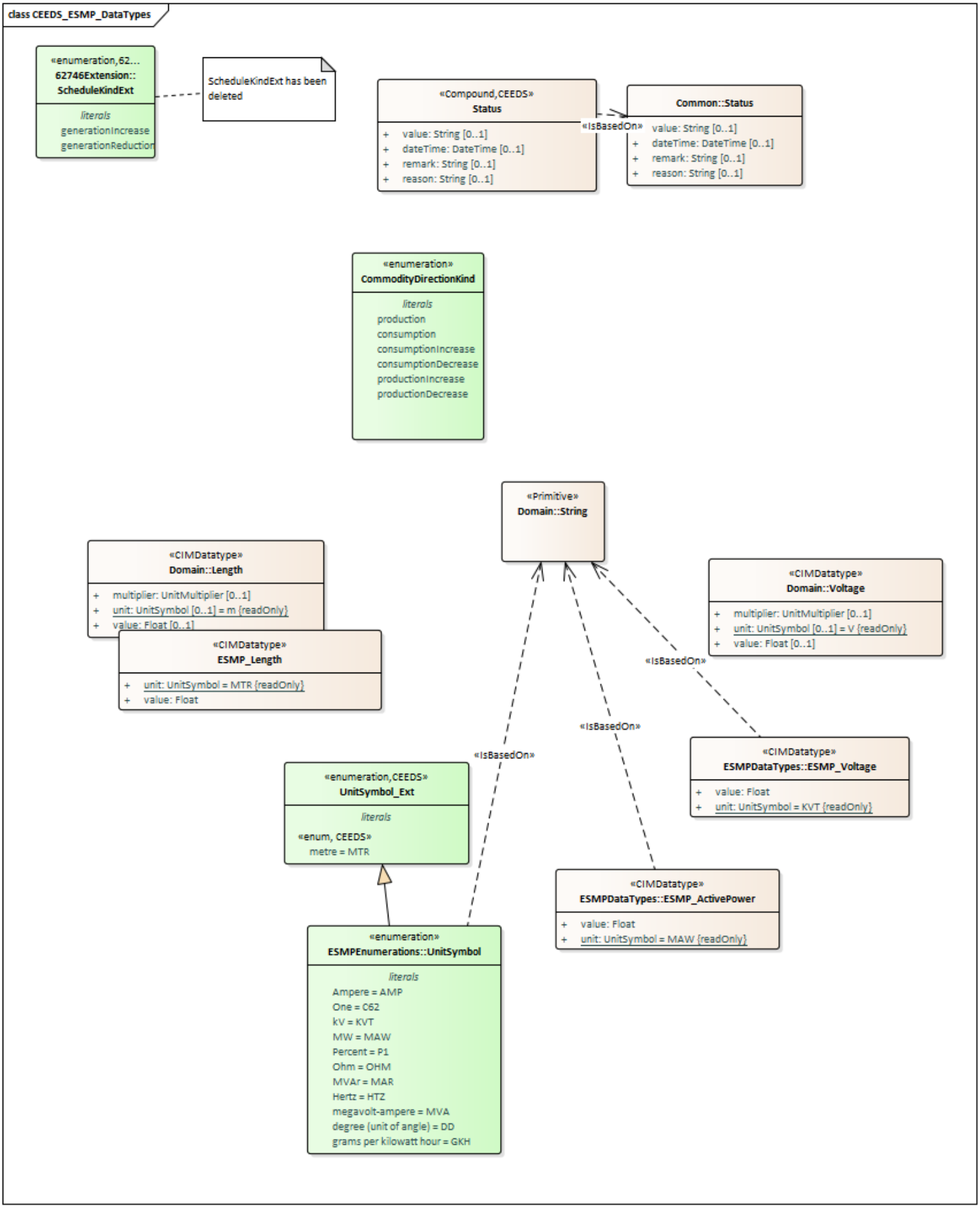
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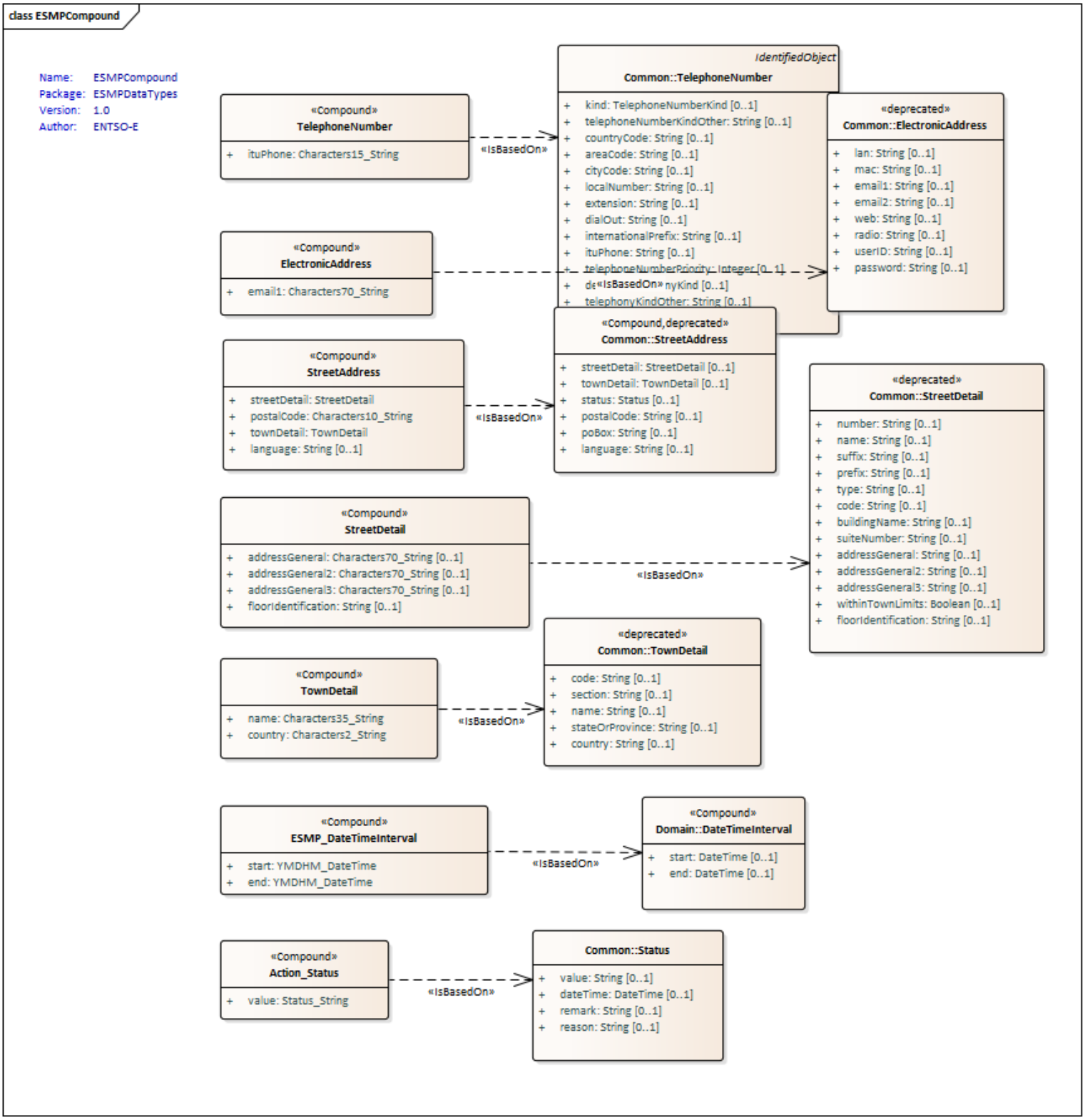
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+ cityCode: String [0..1]
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