Information Service Guide

Integration and Data Flows

08 September 2025

PUBLIC

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Contents

About Information Service

eSett Information Service (INFS) is a web service that provides settlement data for market participants and operates with request-response principle. INFS is a SOAP API where the requests and responses are enclosed in a SOAP envelope, and the data is in XML format.

Market participants that can use INFS data flows include: BRP, BSP, Datahub, DSO, PX Market Operator, Retailer and TSO. Generally, the provided data is market party specific that only the associated market participants are entitled to see.

INFS has been included in services provided by eSett since the go-live of eSett's operations, and it will be upgraded to a modern RESTful web API in near future. The modernised eSett API will provide, but is not limited to, the same data flows that INFS currently provides.

Integration

1. Prerequisites

There are two pre-requisites which need to be fulfilled before user can make any queries towards Information Service and receive data:

1. Firewall configuration for traffic between the market participant and Information Service
2. User credentials for authenticating the market participant in the request

1.1. Firewall Configuration

The public IP address of the market participant's system (from which the INFS requests are sent) is needed to be added in eSett's firewall. If the IP address has already been added for data communications between market party and eSett and the IP address is the same for the system that sends requests to INFS, no separate configuration is needed.

Firewall configuration can be requested by contacting eSett's customer service via https://www.esett.com/contact-us/.

1.2. User Credentials

User credentials used in the Information Service are the same as credentials used in eSett's Online Service (ONLS) client portal. In INFS, the user is authenticated with username and password. Two-factor authentication is not used.

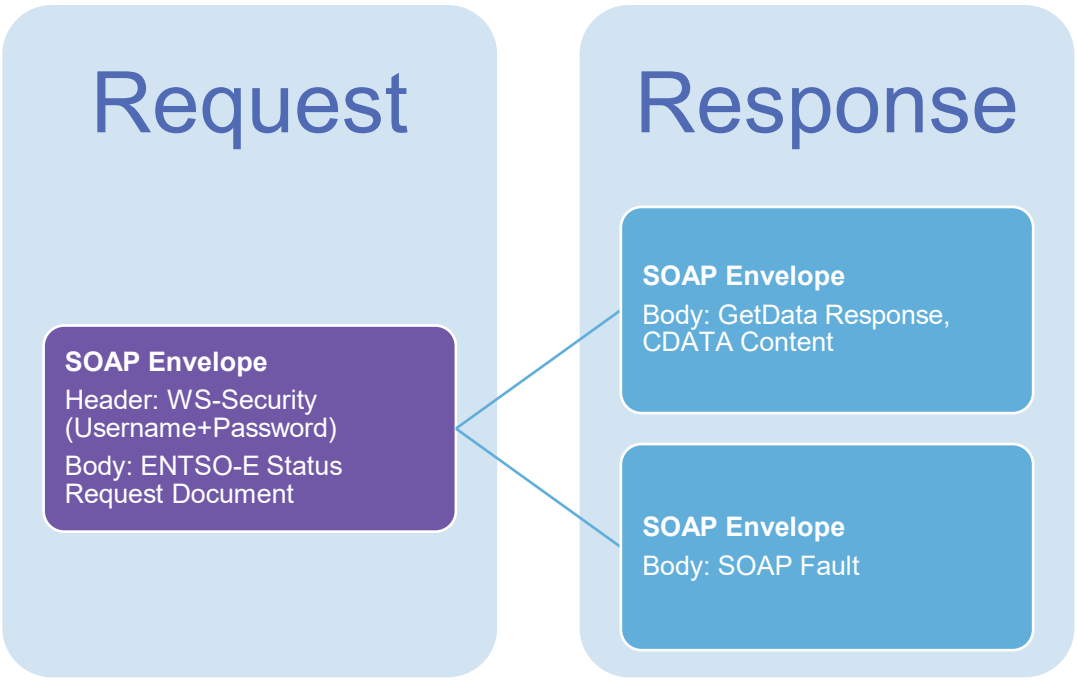
To make queries to Information Service, a user must have either of the following rights:

- External Interface Role - Read (R)
- External Interface Role - Read and Write (R/W)

The permissions can be verified via Online Service by the administrator user of a company (ADMINISTRATION → Users). An Online Service administrator can create new users as well as edit the rights of existing users of their company.

2. Web Service Interface

Information Service interface uses SOAP over HTTPS to receive and transmit data between machines. The following figure describes the composition of the web service interface in both successful response and fault cases.



2.1. WSDL Description

WSDL is an XML-based interface description language used to describe the functionalities of a web service.

The WSDL file for Information Service can be found by appending "?wsdl" to the Information Service Web Service URL that is found at the bottom-left section in the Dashboard view in Online Service.

INFS Endpoint:

- https://INFS_URI.svc

INFS WSDL File:

- https://INFS_URI.svc?wsdl

2.2. SOAP Envelope

SOAP header element contains:

- WS-Security extension, with the user credentials (username and password) in the UsernameToken element (also known as Basic Authentication)
- WS-Addressing extension with action (wsa:Action) and destination URI (wsa:To) information

SOAP body contains:

- GetData operation with the elements and sub-elements related to the specific data flow

2.3. Web Service Request

Information Service uses ENTSO-E Status Request Document 2.0 as a request format. The identification of Data Flow and any parameters that need to be passed as data filtering criteria can be represented using the RequestComponent element:

```
<urn:RequestComponent>
  <urn:RequestedAttribute v="Dataflow"/>
  <urn:RequestedAttributeValue v="ACR"/>
</urn:RequestComponent>
```

2.3.1. Code and Coding Scheme Attributes

Considering the following type of element (eSett as the recipient party):

```
<urn:ReceiverIdentification v="44X-00000000004B" codingScheme="A01"/>
```

the code is included in the “v” attribute, and the coding scheme is included in the “codingScheme” attribute.

Coding schemes are specified in the *NBS BRS* document available at Ediel.org.

2.3.2. Time Resolution and Interval

When 15-minute or hourly data is requested, the response will return data from the start datetime up to, but not including, the end datetime. I.e., the last time interval that ends at the end datetime is included but the first time interval that would start at the end datetime is not included.

Example 1

Time Interval in the request is “**2024-10-29T15:00:00Z/2024-10-29T17:00:00Z**” and Time Resolution is “**PT1H**”. Time Interval in the response will be “**2024-10-29T15:00Z/2024-10-29T17:00Z”** and there will be two Interval elements in the response (i.e., two hours of data).

When aggregated data is requested, the system automatically expands the requested time interval to fill the whole aggregation period. Aggregation period will be in CET/CEST time zone depending on daylight saving time.

Example 2

Time Interval in the request is “**2025-03-02T22:00:00Z/2025-03-03T22:00:00Z**” and Time Resolution is “**P1M**” – monthly aggregated data. Time Interval in the response will be “**2025-02-28T23:00Z/2025-03-31T22:00Z**”. The start datetime is 01.03.2025 00:00 CET and the end datetime is 01.04.2025 00:00 CEST.

2.3.3. Request Limitations

To ensure reliability of the service, the following parameters to limit the usage. In case any of these limitations is exceeded by the user of the Information Service, an appropriate exception is returned to the user.

Limitation	Default Value	Description
Maximum Data Values in Request	74 000	Maximum number of data values in a single request.
Maximum Number of Values per Minute	740 000	Maximum number of values requested by one user per minute.

2.3.4. Request Example with Headers

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:inf="http://www.basse.eu/information-service-1.0"
xmlns:urn="urn:entsoe.eu:wgedi:components">
   <soap:Header xmlns:wsa="http://www.w3.org/2005/08/addressing">
      <wsse:Security xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-utility-1.0.xsd">
         <wsse:UsernameToken wsu:Id="UsernameToken-EXAMPLE">
            <wsse:Username>EXAMPLE_USERNAME</wsse:Username>
            <wsse:Password Type="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">EXAMPLE_PASSWORD</wsse:Password>
         </wsse:UsernameToken>
      </wsse:Security>
      <wsa:Action>http://www.basse.eu/information-service-
1.0/IInformationService/GetData</wsa:Action>
      <wsa:To>INFS_URI.svc</wsa:To>
   </soap:Header>
   <soap:Body>
      <inf:GetData>
         <inf:request DtdVersion="?" DtdRelease="?">
            <urn:DocumentIdentification v="1"/>
            <urn:DocumentType v="A25"/>
            <urn:SenderIdentification v="MARKET_PARTY_CODE"
codingScheme="MARKET_PARTY_CODING_SCHEME"/>
            <urn:SenderRole v="MARKET_PARTY_ROLE"/>
            <urn:ReceiverIdentification v="44X-00000000004B"
codingScheme="A01"/>
            <urn:ReceiverRole v="A05"/>
            <urn:CreationDateTime v="2025-02-17T09:00:00Z"/>
            <urn:RequestComponent>
               <urn:RequestedAttribute v="Dataflow"/>
               <urn:RequestedAttributeValue v="ACR"/>
            </urn:RequestComponent>
            <urn:RequestComponent>
               <urn:RequestedAttribute v="TimeInterval"/>
               <urn:RequestedAttributeValue v="2024-09-03T22:00:00Z/2024-
09-04T22:00:00Z"/>
            </urn:RequestComponent>
            <urn:RequestComponent>
               <urn:RequestedAttribute v="TimeResolution"/>
               <urn:RequestedAttributeValue v="PT15M"/>
            </urn:RequestComponent>
            <urn:RequestComponent>
               <urn:RequestedAttribute v="BusinessType"/>
               <urn:RequestedAttributeValue v="A11"/>
            </urn:RequestComponent>
            <urn:RequestComponent>
               <urn:RequestedAttribute v="ReasonCode"/>
               <urn:RequestedAttributeValue v="Z29"/>
            </urn:RequestComponent>
         </inf:request>
      </inf:GetData>
   </soap:Body>
</soap:Envelope>
```

2.4. Web Service Response

The response is either an XML document in format defined by each data flow or, in case of error in processing, a SOAP fault document with detailed information about the error (e.g., user is not entitled to see given data).

2.4.5. Response Example

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
   <s:Header>
      <a:Action s:mustUnderstand="1">http://www.basse.eu/information-
service-1.0/IInformationService/GetDataResponse</a:Action>
      <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
         <u:Timestamp u:Id="_0">
            <u:Created>2025-02-17T13:21:13.929Z</u:Created>
            <u:Expires>2025-02-17T13:26:13.929Z</u:Expires>
         </u:Timestamp>
      </o:Security>
   </s:Header>
   <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
      <GetDataResponse xmlns="http://www.basse.eu/information-service-1.0">
         <GetDataResult>
            <Content><![CDATA[<?xml version="1.0" encoding="utf-8"?>
<ReserveAllocationResultDocument
xsi:schemaLocation="urn:ediel:org:neg:errp:reserveallocationresultdocument:
1:0 urn-ediel-org-neg-errp-reserveallocationresultdocument-1-0.xsd"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="urn:ediel:org:neg:errp:reserveallocationresultdocument:1:0">
  <DocumentIdentification v="1" />
  <DocumentVersion v="1" />
  <DocumentType v="A38" />
  <ProcessType v="A28" />
  <SenderIdentification v="44X-00000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="MARKET_PARTY_CODE"
codingScheme="MARKET_PARTY_CODING_SCHEME" />
  <ReceiverRole v="MARKET_PARTY_ROLE" />
  <CreationDateTime v="2025-02-17T13:20:46Z" />
  <ReserveBidTimeInterval v="2024-09-03T22:00Z/2024-09-04T22:00Z" />
  <Domain v="10Y1001A1001A91G" codingScheme="A01" />
  <AllocationTimeSeries>
  ...
  ...
  ...
  </AllocationTimeSeries>
</ReserveAllocationResultDocument>]]></Content>
         </GetDataResult>
      </GetDataResponse>
   </s:Body>
</s:Envelope>
```

2.5. Error Scenarios

Generally, the error cause is described in the response. However, in some cases an ”Unexpected internal error” is returned. In these cases, please contact eSett customer service to get the issue resolved.

Error / SOAP Fault	Reason
No response (Query timed out)	• No firewall opening (contact eSett) • Incorrect INFS endpoint URI
InvalidXml	• General error in parsing the request body due to incorrect text or symbols
UnknownUserOrInvalidCredentials	• Incorrect username or password in SOAP Header
InsufficientPrivileges	• Incorrect sender code and/or coding scheme • Incorrect sender role (in general or for the requested time interval) • Missing read rights to market party role
NoDataFound	• No data found for requested time interval
BadRequest	• Time interval too long • Error reason usually described in the response
TechnicalIssue	• System error, contact eSett customer service

2.6. Market Party Roles

Market Party Role	SenderRole / ReceiverRole
Balance Responsible Party (BRP)	A08
Balancing Service Provider (BSP)	A46
Datahub	A18 (Uses DSO Code)
Distribution System Operator (DSO)	A18
Imbalance Settlement Responsible (ISR)	A05
PX Market Operator (NEMO)	A11

Retailer (RE)	A12
Transmission System Operator (TSO)	A04

Data Flows

Data Flow	DataFlow Attribute	Market Party Role
Activated Reserves	ACR	BRP[1], BSP[2]
Bilateral Trades	BIT	BRP, RE
Capacity Reserves	CRE	BRP[1], BSP[2]
Consumption	REC	BRP, Datahub, DSO, RE
Consumption Imbalance	CIM	BRP
Imbalance	IM	BRP
Imbalance Adjustment	IBA	BRP
MGA Exchanges	MGX	Datahub, DSO
MGA Exchange Trades	MGT	BRP, RE
MGA Imbalance	MIM	BRP, Datahub, DSO
MGA-MBA Relations	ARE	BRP, BSP, DSO, TSO
Merged Production	MPR	BRP, Datahub, DSO, RE
Prices	REP	BRP, BSP, Datahub, DSO, TSO
Production	RPM	BRP, Datahub, DSO, RE
Production Imbalance	PIM	BRP
Production per Production Unit Type and MGA	GENERIC	TSO
Production Plan	PRP	BRP
PX Market Flows to TSO	PXP_TSO	TSO
PX Market Trades	PXT	BRP, NEMO, RE

[1] Only for data before BSP Go-Live Date (10.10.2022)
[2] Only for data after BSP Go-Live Date (10.10.2022)

3. Activated Reserves (ACR)

Property	Definition
Accessible by	Respective BRP for the data from period before BSP Go-Live Date • Only Activated Reserves that are related to requesting BRP Respective BSP for the data from period after BSP Go-Live Date • Only Activated Reserves that are related to requesting BSP System checks the Time Interval and the Sender Role. • **IF** Time Interval Start is before BSP Go-live Date **AND** Time Interval End is after BSP Go-Live Date **THEN** the request is rejected with [INVALID_TIME_INTERVAL] • **IF** Sender Role is BRP (A08) **AND** Time Interval is fully after BSP Go-Live Date, then the request is rejected with [INVALID_TIME_INTERVAL] • **IF** Sender Role is BSP (A46) **AND** Time Interval is fully before BSP Go-Live Date **THEN** the request is rejected with [INVALID_TIME_INTERVAL] **IF** Time Interval in combination with Time Resolution is expanded and the expanded period does not fulfil the conditions above **THEN** the request is rejected with [INVALID_TIME_INTERVAL]
Document standard	NEG (based on ENTSO-E ERRP) Reserve Allocation Result Document

3.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**ACR**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"BusinessType"	Business type is mandatory. Request can contain only one business type of Activated Reserves. Allowed combination of business type and reason codes are specified in the *NBS BRS* document available at Ediel.org.
"ReasonCode" **Optional**	
"ReasonCode" 2nd repetition	2nd Reason Code may be used to indicated balancing sub-services which use a combination of 2nd Reason Code

Optional	
“RegulationObject” **Optional**	Code and Coding Scheme of Regulation Object
“MBA” **Optional**	Code and Coding Scheme of desired MBA

3.2. Response Data Mapping

Element	Attribute Values
ReserveAllocationResultDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	“**1**”
[1] DocumentType	“**A38**” – Reserve Allocation Result
[1] ProcessType	Process Type is based on Business Type in the request. “**A28**” – Primary reserve process “**A29**” – Secondary reserve process “**A30**” – Tertiary reserve process
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	“**A05**” – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of requesting market party
[1] ReceiverRole	“**A08**” – Balance Responsible Party “**A46**” – Balancing Service Provider
[1] CreationDateTime	“**yyyy-MM-ddTHH:mm:ssZ**” Date and Time of creation of the document
[1] ReserveBidTimeInterval	“**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**”
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] AllocationTimeSeries This element together with its children will be in the document twice. Once for Up time series and second for down time series, see Direction element	
[2] TimeSeriesIdentification	Unique identification of time series within the document
[2] TenderingParty	Code and Coding Scheme of Tendering Party Described in the NBS BRS document available at Ediel.org.
[2] BusinessType	Response can contain only one business type of Activated Reserves. Allowed combination of business type and reason codes are specified in the *NBS BRS* document available at Ediel.org.

[2] AcquiringArea	Code and Coding Scheme of MBA Unique identification of the Market Balance Area (MBA) where the energy is purchased. This will be the same MBA as the Connecting Area.
[2] ConnectingArea	Same as Acquiring Area
[2] MeasureUnitQuantity	"**MWH**" – megawatt hours
[2] Currency	"**EUR**" – euros
[2] MeasureUnitPrice	"**MWH**" – megawatt hours
[2] ReserveObject	Code and Coding Scheme of Regulation Object
[2] Direction	"**A01**" – Up "**A02**" – Down
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Interval	
[4] Pos	Sequence number of the observation in the time series
[4] Qty	Activated Reserves Up/Down Quantity
[4] SettlementAmount	Activated Reserves Up/Down Amount
[2] Reason	See the *NBS BRS* document available at Ediel.org
[3] ReasonCode	
[2] 2nd Reason	
[3] 2nd ReasonCode	

4. Capacity Reserves (CRE)

Property	Definition
Accessible by	Respective BRP for the data from period before BSP Go-Live Date • Only Capacity Reserves that are related to requesting BRP Respective BSP for the data from period after BSP Go-Live Date • Only Capacity Reserves that are related to requesting BSP System checks the Time Interval and the Sender Role. • **IF** Time Interval Start is before BSP Go-live Date **AND** Time Interval End is after BSP Go-Live Date **THEN** the request is rejected with [INVALID_TIME_INTERVAL] • **IF** Sender Role is BRP (A08) **AND** Time Interval is fully after BSP Go-Live Date, then the request is rejected with [INVALID_TIME_INTERVAL] • **IF** Sender Role is BSP (A46) **AND** Time Interval is fully before BSP Go-Live Date **THEN** the request is rejected with [INVALID_TIME_INTERVAL] • **IF** Time Interval in combination with Time Resolution is expanded and the expanded period does not fulfil the conditions above **THEN** the request is rejected with [INVALID_TIME_INTERVAL]
Document standard	NEG (based on ENTSO-E ERRP) Reserve Allocation Result Document

4.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**CRE**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**" When aggregated data is requested, the system automatically expands the requested time interval to fill the whole aggregation period.
"BusinessType"	Business type is mandatory. Response can contain only one business type of Capacity Reserves. Allowed combination of business type and reason codes are specified in the NBS BRS document available at Ediel.org.
"ReasonCode" **Optional**	

“MBA” **Optional**	Code and Coding Scheme of MBA

4.2. Response Data Mapping

Element	Attribute Values
ReserveAllocationResultDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	“**1**”
[1] DocumentType	“**A81**” – Contracted Reserves
[1] ProcessType	Process Type is based on Business Type in the request. “**A28**” – Primary reserve process “**A29**” – Secondary reserve process “**A30**” – Tertiary reserve process
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	“**A05**” – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme requesting market party
[1] ReceiverRole	“**A08**” – Balance Responsible Party or “**A46**” – Balancing Service Provider
[1] CreationDateTime	“**yyyy-MM-ddTHH:mm:ssZ**” Date and Time of creation of the document
[1] ReserveBidTimeInterval	“**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**”
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] AllocationTimeSeries This element together with its children will be in the document either once or twice depending on supported direction for given reason code (either two time series for “UP” and “DOWN” or one time series for “UP AND DOWN” direction or for “UP”).	
[2] TimeSeriesIdentification	Unique identification of time series within the document
[2] TenderingParty	Code and Coding Scheme of BRP/BSP
[2] BusinessType	See table in chapter Business Type and Reason Code Mapping Table.
[2] AcquiringArea	Code and Coding Scheme of MBA Unique identification of the Market Balance Area (MBA) where the capacity is purchased. This will be the same MBA as the Connecting Area.
[2] ConnectingArea	Same as Acquiring Area
[2] MeasureUnitQuantity	“**MAW**” – Megawatt

[2] Currency	"**EUR**" – euros
[2] Direction	"**A01**" – Up "**A02**" – Down "**A03**" – Up and Down
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**" This period respects the chosen time aggregation. E.g., when monthly aggregated data is requested, full months are returned.
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data
[3] Interval	
[4] Pos	Sequence number of the observation in the time series
[4] Qty	Contracted Reserves Up Quantity or Down Quantity or Quantity
[4] SettlementAmount	Contracted Reserves Up Amount or Down Amount or Amount
[2] Reason	See the *NBS BRS* document available at Ediel.org
[3] ReasonCode	

5. Merged Production (MPR)

Property	Definition
Accessible by	Respective RE • Only Merged Production which is reported directly on requesting Retailer Respective BRP 1. Before the Go-Live: • Only Merged Production with Normal production type which is reported per Retailers for which requesting BRP has valid RBR for Production • Only Merged Production with Minor production type which is reported per Retailers for which requesting BRP has valid RBR for Consumption 2. After the Go-Live: • Any Merged Production regardless of their production type which is reported per Retailers for which requesting BRP has valid RBR for Production Respective DSO • Only Merged Production reported per MGA for which requesting DSO is responsible Respective Datahub • Only Merged Production reported per MGA for which requesting Datahub is responsible (there is valid MGA-Datahub relation). • Datahub can see only hourly or 15-minute data that are within the validity of MGA-Datahub relation
Document standard	NEG (ebIX® based) Aggregated Data per MGA (E31, E44) – production

5.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
“DataFlow”	“**MPR**”
“TimeResolution”	“**P1Y**” – yearly aggregated data “**P1M**” – monthly aggregated data “**P7D**” – weekly aggregated data “**P1D**” – daily aggregated data “**PT1H**” – hourly data “**PT15M**” – 15-minute data

"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"PartyRE" **Optional**	Code and Coding Scheme of Retailer
"MGA" **Optional**	Code and Coding scheme of MGA
"AssetType" **Optional**	"**B14**" – Nuclear "**B16**" – Solar "**B18**" – Wind offshore "**B19**" – Wind onshore (replaces Z05) "**B20**" – Other production "**B25**" – Energy storage "**B31**" – Hydro unspecified (replaces Z06) "**B37**" – Thermal unspecified (replaces Z04) "**Z04**" – Thermal (used until 10/2025) "**Z05**" – Wind (used until 10/2025) "**Z06**" – Hydro (used until 10/205)
"Production Type" **Optional**	"**Z01**" – Normal "**Z02**" – Minor

5.2. Response Data Mapping

Element	Attribute Values
AggregatedProductionPerMGAForSettlementForSettlementResponsible	
[1] Header	
[2] Identification	Same as Document Identification from Request
[2] DocumentType	"**E31**" – Aggregate metered data from the Metered data Aggregator
[2] Creation	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document
[2] SenderEnergyParty	Code and Coding Scheme of eSett
[2] RecipientEnergyParty	Code and Coding Scheme of requesting market party
[1] ProcessEnergyContext	
[2] EnergyBusinessProcess	"**E44**" – Imbalance Settlement
[2] EnergyBusinessProcessRole	"**DDX**" – Imbalance Settlement Responsible
[2] EnergyIndustryClassification	"**23**" – Electricity Supply Industry
[1] PayloadEnergyTimeSeries	

[2] Identification	Randomly generated string
[2] RegistrationDateTime	Same as Document Creation Time
[2] ObservationPeriodTimeSeriesPeriod	
[3] ResolutionDuration	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Start	"**yyyy-MM-ddTHH:mm:ssZ**"
[3] End	"**yyyy-MM-ddTHH:mm:ssZ**"
[2] BalanceResponsibleInvolvedEnergyParty	
[3] Identification	Code and Coding Scheme of BRP from Merged Production entity
[2] BalanceSupplierInvolvedEnergyParty	
[3] Identification	Code and Coding Scheme of Retailer from Merged Production entity
[2] ProductIncludedProductCharacteristic	
[3] Identification	"**8716867000030**" – Active Energy
[3] UnitType	"**MWH**" – megawatt hours
[2] MPDetailMeasurementMeteringPointCharacteristic	
[3] MeteringPointType	"**E18**" – Production
[3] SettlementMethodType	"**E02**" – Non-profiled
[3] BusinessType	"**A01**" – Production
[3] Asset Type	"**B14**" – Nuclear "**B16**" – Solar "**B18**" – Wind offshore "**B19**" – Wind onshore (replaces Z05) "**B20**" – Other production "**B25**" – Energy storage "**B31**" – Hydro unspecified (replaces Z06) "**B37**" – Thermal unspecified (replaces Z04) "**Z04**" – Thermal (used until 10/2025) "**Z05**" – Wind (used until 10/2025) "**Z06**" – Hydro (used until 10/205)
[3] Production Type	"**Z01**" – Normal "**Z02**" – Minor

[2] MeteringGridAreaUsedDomainLocation	
[3] Identification	Code and Coding Scheme of MGA
[2] ObservationIntervalObservationPeriod	
[3] Sequence	Sequence number of the observation in the time series
[3] ObservationDetailEnergyObservation	
[4] EnergyQuantity	Merged Production Quantity
[4] QuantityQuality	Merged Production Quality if other than Metered Not used for hourly, daily, weekly, monthly and yearly aggregations

6. Bilateral Trades (BIT)

Two types of Market Participant report Bilateral Trades – BRPs and TSOs. If BIT is reported by BRPs then both sides of a trade report their values and then from these values is created matched value using matching rule. Matched value is the one, which enters to imbalance calculation. Matched values are directly reported by TSO in some countries (e.g. Sweden). Information Service will work only with matched value quantities for both cases.

Property	Definition
Accessible by	Respective BRP • Bilateral Trades reported directly per requesting BRP or per Retailers for which requesting BRP has valid RBR for Consumption Respective RE • Bilateral Trades reported directly per requesting Retailer
Document standard	ENTSO-E ESS Schedule Document

6.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**BIT**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"InBRP" **Optional**	Code and Coding Scheme of In BRP of Bilateral Trade
"OutBRP" **Optional**	Code and Coding Scheme of Out BRP of Bilateral Trade
"AgreementID" **Optional**	Agreement ID of Bilateral Trade. • "**1**" – for Bilateral Trades only between BRPs • *ID Number* – for Bilateral Trades between Retailers
"MBA" **Optional**	Code and Coding Scheme of MBA

6.2. Response Data Mapping

Element	Attribute Values
ScheduleDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A01**" – Balance Responsible Schedule
[1] ProcessType	"**Z05**" – Bilateral Trade (used until 10/2025) "**A59**" – Internal Trade Reporting (starting from 10/2025)
[1] ScheduleClassificationType	"**A02**" – Summary Type
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP/Retailer
[1] ReceiverRole	"**A08**" – Balance Responsible Party "**A12**" – Retailer (Balance Supplier)
[1] CreationDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document
[1] ScheduleTimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] ScheduleTimeSeries	
[2] SendersTimeSeries Identification	Bilateral Trade ID
[2] SendersTimeSeries Version	"**1**"
[2] BusinessType	"**A08**" – Net Internal Trade
[2] Product	"**8716867000030**" – Active Energy
[2] ObjectAggregation	"**A01**" – Area
[2] InArea	Code and Coding Scheme of MBA
[2] OutArea	Code and Coding Scheme of MBA
[2] InParty	In BRP
[2] OutParty	Out BRP
[2] CapacityAgreementIdentification	Agreement Identification Present only if Bilateral Trade is between Retailers (Agreement ID is higher than 1). If the trade is between BRPs (BRP level), then agreement ID is not present.
[2] MeasurementUnit	"**MWH**" – megawatt hours

[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Interval	
[4] Pos	Sequence number of the observation in the time series
[4] Qty	Matched Quantity of Bilateral Trade

7. PX Market Trades (PXT)

Property	Definition
Accessible by	Respective BRP • PX Market Trades that are reported directly on requesting BRP or per Retailer for which requesting BRP has valid RBR for Consumption Respective RE • PX Market Trades that are reported directly on requesting Retailer PX Market Operator • All PX Market Trades in the system
Document standard	ENTSO-E ESS Schedule Document

7.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**PXT**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"ProcessType"	"**A01**" – Day-ahead "**A02**" – Intraday Auction "**A19**" – Intraday Continuous "**Z15**" – External trade (Trade outside the Capacity Calculation Region)
"PartyBRP" – for PX Market Trades linked to BRPs **"PartyRE" – for PX Market Trades linked to Retailers** **Optional**	Code and Coding Scheme of BRP or Retailer
"MBA" **Optional**	Code and Coding Scheme of MBA

7.2. Response Data Mapping

Element	Attribute Values
ScheduleDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A01**" – Balance Responsible Schedule
[1] ProcessType	"**A01**" – Day-ahead "**A02**" – Intraday Auction "**A19**" – Intraday Continuous "**Z15**" – External trade (Trade outside the Capacity Calculation Region)
[1] ScheduleClassification Type	"**A02**" – Summary Type
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP/Retailer
[1] ReceiverRole	"**A08**" – Balance Responsible Party "**A12**" – Retailer (Balance Supplier)
[1] CreationDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document
[1] ScheduleTimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] SubjectParty	If trade is related only to BRP, then PX Market Trade for BRP/BRP If trade is related only to RE, then PX Market Trade for Retailer/BRP Code and Coding Scheme of BRP or Retailer
[1] SubjectRole	"**A08**" – BRP "**A12**" – RE
[1] ScheduleTimeSeries	
[2] SendersTimeSeries Identification	PX Market Trade ID
[2] SendersTimeSeriesVersion	"**1**"
[2] BusinessType	"**A06**" – External trades without explicit capacity (used for the North Sea Link cable) "**A08**" – Net Internal Trade

[2] Product	"**8716867000030**" – Active Energy
[2] ObjectAggregation	"**A01**" – Area
[2] InArea	Code and Coding Scheme of MBA
[2] InParty	Only if PX Market Trade is related to Retailer Code and Coding Scheme of Retailer
[2] MeasurementUnit	"**MWH**" – megawatt hours
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Interval	
[4] Pos	Sequence number of the observation in the time series
[4] Qty	PX Market Trade Quantity

8. PX Market Flows (PXF)

Property	Definition
Accessible by	Respective BRP • Only PX Market Flows that are reported per MBA Border within a country for which requesting BRP is listed as a responsible for internal trade • Only PX Market Flows that are reported per MBA Border between different countries for which BRP is listed as a responsible for external trade PX Market Operator • All PX Market Flows in the system
Document standard	ENTSO-E ESS Schedule Document

8.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**PXF**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"ProcessType"	"**A01**" – Day-ahead "**A02**" – Intraday Auction "**A19**" – Intraday Continuous "**Z15**" – External trade (Trade outside the Capacity Calculation Region)
"InArea" **Optional**	Code and Coding Scheme of MBA
"OutArea" **Optional**	

8.2. Response Data Mapping

Element	Attribute Values
ScheduleDocument	

[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A55**" – Summarised Market Schedule
[1] ProcessType	"**A01**" – Day-ahead "**A02**" – Intraday Auction "**A19**" – Intraday Continuous "**Z15**" – External trade (Trade outside the Capacity Calculation Region)
[1] ScheduleClassification Type	"**A02**" – Summary Type
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP/NEMO
[1] ReceiverRole	"**A08**" – Balance Responsible Party (BRP) "**A11**" – PX Market Operator
[1] CreationDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document
[1] ScheduleTimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] ScheduleTimeSeries	
[2] SendersTimeSeries Identification	PX Market Flow ID
[2] SendersTimeSeriesVersion	"**1**"
[2] BusinessType	"**A06**" – External trades without explicit capacity (used for the North Sea Link cable) "**A66**" – Energy Flow "**B67**" – DC flow with losses, i.e., importing end "**B68**" – DC flow without losses, i.e., exporting end
[2] Product	"**8716867000030**" – Active Energy
[2] ObjectAggregation	"**A01**" – Area
[2] InArea	Code and Coding Scheme of MBA
[2] OutArea	Code and Coding Scheme of MBA
[2] MeasurementUnit	"**MWH**" – megawatt hours
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"

[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Interval	
[4] Pos	Sequence number of the observation in the time series
[4] Qty	PX Market Flow Quantity

9. MGA Exchanges (MGX)

In case of MGA Exchanges, DSOs send quantities for MGA Exchanges from their perspective. Also, Datahubs send quantities for MGA Exchanges from the perspective of DSO.

Since MGA Exchange is bilateral, then every MGA Exchange consists of two time series, which are reported by each DSO (or Datahub on behalf of this DSO) and then one time series, which includes matched data from these two time series. Information Service in this case will send only times series including matched data.

Property	Definition
Accessible by	Respective DSO • Only MGA Exchanges between MGAs, where requesting DSO must be responsible for at least one of these MGAs Respective Datahub • Only MGA Exchanges between MGAs, where requesting Datahub must be responsible for at least one of these MGAs
Document standard	NEG (ebIX® based) Aggregated Data per Neighbouring Grid for Settlement Responsible (E31, E44)

9.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**MGX**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"InMGA" **Optional**	Code and Coding Scheme of In MGA from MGA Oriented Border
"OutMGA" **Optional**	Code and Coding Scheme of Out MGA from MGA Oriented Border

9.2. Response Data Mapping

Element	Attribute Values
AggregatedDataPerNeighboringGridForSettlementForSettlementResponsible	
[1] Header	
[2] Identification	Same as Document Identification from Request

[2] DocumentType	"**E31**" – Aggregate metered data from the Metered data Aggregator
[2] Creation	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document
[2] SenderEnergyParty	Code and Coding Scheme of eSett
[2] Recipient EnergyParty	Code and Coding Scheme of Party which requested the message
[1] ProcessEnergyContext	
[2] EnergyBusinessProcess	"**E44**" – Imbalance Settlement
[2] EnergyBusinessProcessRole	"**DDX**" – Imbalance Settlement Responsible
[2] EnergyIndustryClassification	"**23**" – Electricity Supply Industry
[1] PayloadEnergyTimeSeries	
[2] Identification	MGA Exchanges ID
[2] RegistrationDateTime	Same as Document Creation Time
[2] ObservationPeriodTimeSeriesPeriod	
[3] ResolutionDuration	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Start	"**yyyy-MM-ddTHH:mm:ssZ**"
[3] End	"**yyyy-MM-ddTHH:mm:ssZ**"
[2] ProductIncludedProductCharacteristic	
[3] Identification	"**8716867000030**" – Active Energy
[3] UnitType	"**MWH**" – megawatt hours
[2] MPDetailMeasurementMeteringPointCharacteristic	
[3] MeteringPointType	"**E20**" – Exchange
[2] MeteringGridAreaUsedDomainLocation	
[3] Identification	MGA for which is DSO responsible. It can be In or Out MGA of the exchange.
[2] InAreaUsedDomainLocation	
[3] Identification	Code and Coding Scheme of In MGA
[2] OutAreaUsedDomainLocation	
[3] Identification	Code and Coding Scheme of Out MGA
[2] ObservationIntervalObservationPeriod	

[3] Sequence	Sequence number of the observation in the time series
[3] ObservationDetailEnergyObservation	
[4] Quantity	MGA Exchanges Matched Quantity
[4] QuantityQuality	MGA Exchanges Quality if other than Metered Not used for hourly, daily, weekly, monthly and yearly aggregations

10. MGA Exchange Trades (MGT)

Property	Definition
Accessible by	Respective BRP • BRP responsible for Consumption for In Retailer or Out Retailer Respective RE • Retailer that is listed in In Retailer or Out Retailer attribute
Document standard	ENTSO-E ESS Schedule Document

10.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**MGT**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"InRE" **Optional**	Code and Coding Scheme of In Retailer
"OutRE" **Optional**	Code and Coding Scheme of Out Retailer
"InMGA" **Optional**	Code and Coding Scheme of In MGA
"OutMGA" **Optional**	Code and Coding Scheme of Out MGA

10.2. Response Data Mapping

Element	Attribute Values
ScheduleDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A01**" – Balance Responsible Schedule

[1] ProcessType	"**Z05**" – Bilateral Trade, based on Mats's input this is ok
[1] ScheduleClassificationType	"**A02**" – Summary Type
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP/Retailer
[1] ReceiverRole	"**A08**" – Balance Responsible Party "**A12**" – Retailer (Balance Supplier)
[1] CreationDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document
[1] ReserveBidTimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	"**10Y1001A1001A91G**" – Nordic Market Area
[1] ScheduleTimeSeries	
[2] SendersTimeSeriesIdentification	MGA Exchange Trade ID
[2] SendersTimeSeriesVersion	"**1**"
[2] BusinessType	"**A03**" – External Trade explicit capacity
[2] Product	"**8716867000030**" – Active Energy
[2] ObjectAggregation	"**A01**" – Area
[2] InArea	Code and Coding Scheme of In MGA
[2] OutArea	Code and Coding Scheme of Out MGA
[2] InParty	MGA Exchange Trade/In Retailer Code and Coding Scheme
[2] OutParty	MGA Exchange Trade/Out Retailer Code and Coding Scheme
[2] MeasurementUnit	"**MWH**" – megawatt hours
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Interval	

[4] Pos	Sequence number of the observation in the time series
[4] Qty	MGA Exchange Trade Quantity

11. Consumption (REC)

Property	Definition
Accessible by	Respective RE • Only Consumption which is reported directly on requesting Retailer Respective BRP • Only Consumption excluding Pumped Storage type which is reported directly on requesting BRP or per Retailers for which requesting BRP has valid RBR for Consumption • Pumped Storage Consumptions which are reported directly on requesting BRP or per Retailers for which requesting BRP has valid RBR for Production Respective DSO • Only Consumption reported per MGA for which requesting DSO is responsible Respective Datahub • Only Consumption reported per MGA for which requesting Datahub is responsible (there is valid MGA-Datahub relation). • Datahub can see only hourly or 15-minute data that are within the validity of MGA-Datahub relation
Document standard	NEG (ebIX® based) Aggregated Data per MGA for Settlement Responsible

11.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
“DataFlow”	“**REC**”
“TimeResolution”	“**P1Y**” – yearly aggregated data “**P1M**” – monthly aggregated data “**P7D**” – weekly aggregated data “**P1D**” – daily aggregated data “**PT1H**” – hourly data “**PT15M**” – 15-minute data
“TimeInterval”	“**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**”
“PartyBRP” – for Consumption linked to BRP **“PartyRE” – for Consumption linked to RE**	Code and Coding Scheme of BRP or Retailer

Optional	
“MGA” **Optional**	Code and Coding scheme of MGA
“SettlementMethodType” **Optional**	“**E01**” – Profiled “**E02**” – Metered **“E15”** – Non-profiled with special rules (Flex settled)
“BusinessType” **Optional**	“**A04**” – General “**A07**” – Net production/consumption (Pumped Storage (from combined generator/pump – Only in Norway)) “**A15**” – Losses “**A72**” – Interruptible “**B28**” – Large Installation “**B27**” – Pumped “**B36**” – Production Unit’s Own Consumption (Only in Finland)
“AssetType” **Optional**	“**B25**” – Energy Storage (Only used in combination with BusinessType A04)

11.2. Response Data Mapping

Element	Attribute Values
AggregatedDataPerMGAForSettlementForSettlementResponsible	
[1] Header	
[2] Identification	Same as Document Identification from Request
[2] DocumentType	“**E31**” – Aggregated metered data from the metered data Aggregator
[2] Creation	Date and Time of creation of the document
[2] SenderEnergyParty	Code and Coding Scheme of eSett
[2] RecipientEnergyParty	Code and Coding Scheme of requesting market party
[1] ProcessEnergyContent	
[2] EnergyBusinessProcess	“**E44**” – Imbalance Settlement
[2] EnergyBusinessProcessRole	“**DDX**” – Imbalance Settlement Responsible
[2] EnergyIndustryClassification	“**23**” – Electricity Supply Industry
[1] PayloadEnergyTimeSeries	
[2] Identification	Consumption ID
[2] RegistrationDateTime	Same as Document Creation Time

[2] ObservationPeriodTimeSeriesPeriod	
[3] ResolutionDuration	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Start	"**yyyy-MM-ddTHH:mm:ssZ**"
[3] End	"**yyyy-MM-ddTHH:mm:ssZ**"
[2] BalanceResponsibleInvolvedEnergyParty	
[3] Identification	Code and Coding Scheme of BRP from BRP Consumption entity
[2] BalanceSupplierInvolvedEnergyParty	
[3] Identification	Code and Coding Scheme of Retailer from RE Consumption entity
[2] ProductIncludedProductCharacteristic	
[3] Identification	"**8716867000030**" – Active Energy
[3] UnitType	"**MWH**" – megawatt hours
[2] MPDetailMeasurementMeteringPointCharacteristic	
[3] MeteringPointType	"**E17**" – Consumption
[3] SettlementMethodType	"**E01**" – for Profiled "**E02**" – for Metered "**E15**" – Non-profiled with special rules (Flex settled)
[3] BusinessType	"**A04**" – General "**A07**" – Net production/consumption (Pumped Storage (from combined generator/pump – Only in Norway)) "**A15**" – Losses "**A72**" – Interruptible "**B28**" – Large Installation "**B27**" – Pumped "**B36**" – Production Unit's Own Consumption (Only in Finland)
[2] MeteringGridAreaUsedDomainLocation	
[3] Identification	Code and Coding scheme of MGA from (BRP or Retailer) Consumption entity
[2] ObservationIntervalObservationPeriod	
[3] Sequence	Sequence number of the observation in the time series
[3] ObservationDetailEnergyObservation	

[4] EnergyQuantity	Consumption Quantity
[4] QuantityQuality	Consumption Quality if other than Metered Not used for hourly, daily, weekly, monthly and yearly aggregations

12. Production (RPM)

Property	Definition
Accessible by	Respective RE • Only Production per Production Units for which Retailer is responsible based on PU-RE relation Respective BRP • Only Normal Production per Production Units for which are responsible Retailers under BRPs based on RBR for Production • Only Minor Production per Production Units for which are responsible Retailers under BRPs based on RBR for Consumption Respective DSO • Only Production per Production Units located in MGAs for which requesting DSO is responsible Respective Datahub • Only Production per Production Units located in MGAs for which requesting Datahub is responsible (there is valid MGA-Datahub relation). • Datahub can see only hourly or 15-minute data that are within the validity of MGA-Datahub relation
Document standard	NEG (ebIX® based) Validated Data for Settlement for Aggregator

12.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
“DataFlow”	“**RPM**”
“TimeResolution”	“**P1Y**” – yearly aggregated data “**P1M**” – monthly aggregated data “**P7D**” – weekly aggregated data “**P1D**” – daily aggregated data “**PT1H**” – hourly data “**PT15M**” – 15-minute data
“TimeInterval”	“**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**”
“ProductionUnit” **Optional**	Code and Coding Scheme of Production Unit

12.2. Response Data Mapping

Element	Attribute Values
ValidatedDataForSettlementForAggregator	
[1] Header	
[2] Identification	Same as Document Identification from Request
[2] DocumentType	"**E66**" – Validated metered data, time series
[2] Creation	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document
[2] SenderEnergyParty	Code and Coding Scheme of eSett
[2] RecipientEnergyParty	Code and Coding Scheme of requesting market party
[1] ProcessEnergyContext	
[2] EnergyBusinessProcess	"**E44**" – Imbalance Settlement
[2] EnergyBusinessProcessRole	"**DEA**" – Metered Data Aggregator
[2] EnergyIndustryClassification	"**23**" – Electricity Supply Industry
[1] PayloadEnergyTimeSeries	
[2] Identification	Production ID
[2] RegistrationDateTime	Same as Document Creation Time
[2] ObservationPeriodTimeSeriesPeriod	
[3] ResolutionDuration	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Start	"**yyyy-MM-ddTHH:mm:ssZ**"
[3] End	"**yyyy-MM-ddTHH:mm:ssZ**"
[2] ProductIncludedProductCharacteristic	
[3] Identification	"**8716867000030**" – Active Energy
[3] UnitType	"**MWH**" – megawatt hours
[2] MPDetailMeasurementMeteringPointCharacteristic	
[3] MeteringPointType	"**E18**" – Production
[2] MeteringPointUsedDomainLocation	
[3] Identification	Code and Coding Scheme of Production Unit
[2] ObservationIntervalObservationPeriod	

[3] Sequence	Sequence number of the observation in the time series
[3] ObservationDetailEnergyObservation	
[4] EnergyQuantity	Production Quantity
[4] QuantityQuality	Production Quality if other than Metered Not used for hourly, daily, weekly, monthly and yearly aggregations

13. Production Plan (PRP)

Property	Definition
Accessible by	Respective BRP • Only Production Plan reported on Regulation Objects related to requesting BRP
Document standard	ENTSO-E ERRP Planned Resource Schedule Document

13.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**PRP**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"RegulationObject" **Optional**	Code and Coding Scheme of Regulation Object
"MBA" **Optional**	Code and Coding Scheme of MBA

13.2. Response Data Mapping

Element	Attribute Values
PlannedResourceScheduleDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A14**" – Resource Provider Resource Schedule
[1] ProcessType	"**A17**" – Schedule Day
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP
[1] ReceiverRole	"**A08**" – Balance Responsible Party
[1] CreationDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document

[1] TimePeriodCovered	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] PlannedResourceScheduleTimeSeries	
[2] TimeSeriesIdentification	Production Plan ID
[2] BusinessType	"**A01**" – Production
[2] Product	"**8716867000030**" – Active Energy
[2] ConnectingArea	Code and Coding Scheme of MBA
[2] ResourceObject	Code and Coding Scheme of Regulation Object
[2] ResourceProvider	Code and Coding Scheme of RO's BRP
[2] MeasurementUnit	"**MWH**" – Megawatt hours
[2] ObjectAggregation	"**A06**" – Resource Object
[2] Period	
[3] Time Interval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Interval	
[4] Pos	Sequence number of the observation in the time series
[4] Qty	Production Plan Quantity

14. Imbalance Adjustment (IBA)

Property	Definition
Accessible by	Respective BRP • Only Imbalance Adjustments reported per Regulation objects which are related to requesting BRP
Document standard	NEG (based on ENTSO-E ERRP) Reserve Allocation Result Document

14.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**IBA**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"RegulationObject" **Optional**	Code and Coding Scheme of Regulation Object
"MBA" **Optional**	Code and Coding Scheme of MBA

14.2. Response Data Mapping

Element	Attribute Values
ReserveAllocationResultDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A38**" – Reserve Allocation Result
([1] ProcessType)	**NOTE!** Omitted for Imbalance Adjustment (exception to XSD)
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP
[1] ReceiverRole	"**A08**" – Balance Responsible Party
[1] CreationDateTime	"**yyyy-MM-ddTHH:mm:ssZ**"

	Date and Time of creation of the document
[1] ReserveBidTimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter/NBS Domain Code and Coding Scheme
[1] AllocationTimeSeries This element together with its children will be in the document twice. Once for Up time series and second for Down time series, see Direction element.	
[2] TimeSeriesIdentification	Imbalance Adjustment MEC ID
[2] TenderingParty	Code and Coding Scheme of BRP
([2] BusinessType)	NOTE! Omitted for Imbalance Adjustment (exception to XSD)
[2] AcquiringArea	Code and Coding Scheme of MBA Unique identification of the Market Balance Area (MBA) where the energy is purchased. This will be the same MBA as the Connecting Area.
[2] ConnectingArea	Same as Acquiring Area
[2] MeasureUnitQuantity	"**MWH**" – megawatt hours
[2] Currency	"**EUR**" – euros
[2] MeasureUnitEnergy Price	"**MWH**" – megawatt hours
[2] ReserveObject	Code and Coding Scheme of Regulation Object
[2] Direction	"**A01**" – Up "**A02**" – Down
([2] ReasonCode)	NOTE! Omitted for Imbalance Adjustment (exception to XSD)
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Interval	
[4] Pos	Sequence number of the observation in the time series
[4] Qty	Imbalance Adjustments (Up or Down) Quantity

15. Prices (REP)

Property	Definition
Accessible by	All Market Participants, except RE
Document standard	Ediel (based on ENTSO-E ECAN) Publication Document

15.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**REP**"
"TimeResolution"	"**PT1H**" – hourly data "**PT15M**" – 15-minute data • 15-minute data are available only for business period after 15MTP. • If the PT1H is used for interval that contains 15-minute data (data for business period after the 15-minute ISP go-live), 15-minute data is aggregated with use of average (AVG) function into hours. AVG function is applied to all business types except B22. Business type B22 is not aggregated into hours from 15-minute data and is excluded from the response (not part of the response for business interval after the 15-minute ISP go-live).
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**" Due to the introduction of Single Balance Settlement model, certain business types will not be available for interval before the Single balance transition date (Z74, Z75). Some others will not be available after the Single balance transition date (B23, B24, B25).
"MBA" **Optional**	Code and Coding Scheme of desired MBA
"BusinessType" **Multiple allowed**	"**A06**" – Day-ahead NSL Price "**A62**" – Spot Price "**A69**" – Intraday Auction Price "**B20**" – Balance Up Regulation Price "**B21**" – Balance Down Regulation Price "**B22**" – Main Direction "**B23**" – Consumption Imbalance Price "**B24**" – Production Sales Imbalance Price "**B25**" – Production Purchase Imbalance Price "**Z74**" – Imbalance Sales Price

	“**Z75**” – Imbalance Purchase Price
“ContractType” **Optional**	Used only (and mandatory) when BusinessType is “A69” – Intraday Auction Price “**A14**” – Intraday 1st auction “**A15**” – Intraday 2nd auction “**A16**” – Intraday 3rd auction
“Currency”	“**EUR**”, “**NOK**”, “**SEK**”, “**DKK**” – ISO Code of currency

15.2. Response Data Mapping

Element	Attribute Values
PublicationDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	“**1**”
[1] DocumentType	“**A44**” – Price Document
[1] ProcessType	“**A01**” – Day-ahead “**A30**” – Tertiary reserves process “**A51**” – Automatic frequency restoration reserve “**Z15**” – External trade (Trade outside the Capacity Calculation Region)
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	“**A05**” – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of RE/BRP/DSO
[1] ReceiverRole	“**A12**” – Retailer (Balance Supplier) “**A08**” – Balance Responsible Party “**A09**” – Distribution System Operator (Grid Operator) “**A04**” – Transmission System Operator (TSO)
[1] CreationDateTime	“**yyyy-MM-ddTHH:mm:ssZ**” Date and Time of creation of the document
[1] PublicationTimeInterval	“**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**”
[1] Domain	Global Parameter/NBS Domain Code and Coding Scheme
[1] PublicationTimeSeries	
[2] TimeSeriesIdentification	Unique time series ID
[2] BusinessType	“**A06**” – Day-ahead NSL Price “**A62**” – Spot Price “**A69**” – Intraday Auction Price

	"**B20**" – Balance Up Regulation Price "**B21**" – Balance Down Regulation Price "**B22**" – Main Direction "**B23**" – Consumption Imbalance Price "**B24**" – Production Sales Imbalance Price "**B25**" – Production Purchase Imbalance Price "**Z74**" – Imbalance Sales Price "**Z75**" – Imbalance Purchase Price
[2] InArea	Code and Coding Scheme of In MBA
[2] OutArea	Code and Coding Scheme Out MBA
[2] ContractType	Used only when BusinessType is "A69" – Intraday Auction Price "**A14**" – Intraday 1st auction "**A15**" – Intraday 2nd auction "**A16**" – Intraday 3rd auction
[2] Currency	"**EUR**", "**NOK**", "**SEK**", "**DKK**" – ISO Code of currency
[2] MeasureUnitPrice	"**MWH**" – megawatt hours
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] Interval	
[4] Pos	Sequence number of the observation in the time series
[4] Price	Price value Omitted when BusinessType is "Z57" – Main Direction
[4] Direction	Used only when BusinessType is "Z57" – Main Direction "**A01**" – send when value is 1 (Up) "**A02**" – send when value is -1 (Down) "**A04**" – send when value is 0 (Stable)

16. Consumption Imbalance (CIM)

Property	Definition
Accessible by	Respective BRP • Only BRP Consumption Imbalance calculated per requesting BRP
Document standard	ENTSO-E Energy Account Report Document

16.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**CIM**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**" Only data for period before transition point will be sent (further data will not be available due to the introduction of Single Balance Settlement introduction).
"BRP" **Optional**	Code and Coding Scheme of BRP
"MBA" **Optional**	Code and Coding Scheme of MBA
"Currency"	"**EUR**", "**NOK**", "**SEK**", "**DKK**" – ISO Code of currency

16.2. Response Data Mapping

Element	Attribute Values
EnergyAccountReport	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A12**" – Imbalance Report
[1] DocumentStatus	"**A01**" – Intermediate "**A02**" – Final
[1] ProcessType	"**A06**" – Imbalance settlement
[1] ClassificationType	"**A02**" – Summary type
[1] SenderIdentification	Code and Coding Scheme of eSett

[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP
[1] ReceiverRole	"**A08**" – Balance Responsible Party
[1] DocumentDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and time of creation of the document
[1] AccountingPeriod	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter/NBS Domain Code and Coding Scheme
[1] AccountTimeSeries	
[2] SendersTimeSeriesIdentification	Unique time series ID
[2] BusinessType	"**B15**" – Consumption deviation
[2] Product	"**8716867000030**" – Active Energy
[2] ObjectAggregation	"**A01**" – Area
[2] Area	Code and Coding Scheme of MBA
[2] Party	Code and Coding Scheme of BRP
[2] MeasurementUnit	"**MWH**" – megawatt hours
[2] Currency	"**EUR**", "**NOK**", "**SEK**", "**DKK**" – ISO Code of currency
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data
[3] AccountInterval	
[4] Pos	Sequence number of the observation in the time series
[4] InQty	Consumption Imbalance Purchase Quantity
[4] OutQty	Consumption Imbalance Sales Quantity
[4] SettlementAmount	Consumption Imbalance Amount Amount will respect chosen currency in the request

17. Production Imbalance (PIM)

Property	Definition
Accessible by	Respective BRP • Only BRP Production Imbalance calculated per requesting BRP
Document standard	ENTSO-E Energy Account Report Document

17.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**PIM**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**" Only data for period before transition point will be sent (further data will not be available due to the introduction Single Balance Settlement introduction).
"BRP" **Optional**	Code and Coding Scheme of BRP
"MBA" **Optional**	Code and Coding Scheme of MBA
"Currency"	"**EUR**", "**NOK**", "**SEK**", "**DKK**" – ISO code of currency

17.2. Response Data Mapping

Element	Attribute Values
EnergyAccountReport	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A12**" – Imbalance Report
[1] DocumentStatus	"**A01**" – Intermediate "**A02**" – Final
[1] ProcessType	"**A06**" – Imbalance settlement
[1] ClassificationType	"**A02**" – Summary type
[1] SenderIdentification	Code and Coding Scheme of eSett

[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP
[1] ReceiverRole	"**A08**" – Balance Responsible Party
[1] DocumentDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and time of creation of the document
[1] AccountingPeriod	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] AccountTimeSeries	
[2] SendersTimeSeriesIdentification	Unique time series ID
[2] BusinessType	"**B14**" – Production deviation
[2] Product	"**8716867000030**" – Active Energy
[2] ObjectAggregation	"**A01**" – Area
[2] Area	Code and Coding Scheme of MBA
[2] Party	Code and Coding Scheme of BRP
[2] MeasurementUnit	"**MWH**" – megawatt Hours
[2] Currency	"**EUR**", "**NOK**", "**SEK**", "**DKK**" – ISO code of currency
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data
[3] AccountInterval	
[4] Pos	Sequence number of the observation in the time series
[4] InQty	Production Imbalance Purchase Quantity
[4] OutQty	Production Imbalance Sales Quantity
[4] SettlementAmount	Production Imbalance Amount Amount will respect chosen currency in the request

18. Imbalance (IM)

Property	Definition
Accessible by	Respective BRP • Only BRP Imbalance calculated per requesting BRP
Document standard	ENTSO-E Energy Account Report Document

18.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**IM**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**" Only data for period after the transition date will be sent (data for periods preceding the transition date will not be available).
"BRP" **Optional**	Code and Coding Scheme of BRP
"MBA" **Optional**	Code and Coding Scheme of MBA
"Currency"	"**EUR**", "**NOK**", "**SEK**", "**DKK**" – ISO code of currency

18.2. Response Data Mapping

Element	Attribute Values
EnergyAccountReport	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A12**" – Imbalance Report
[1] DocumentStatus	"**A01**" – Intermediate "**A02**" – Final
[1] ProcessType	"**A06**" – Imbalance settlement
[1] ClassificationType	"**A02**" – Summary type
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	"**A05**" – Imbalance Settlement Responsible

[1] ReceiverIdentification	Code and Coding Scheme of BRP
[1] ReceiverRole	"**A08**" – Balance Responsible Party
[1] DocumentDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and time of creation of the document
[1] AccountingPeriod	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] AccountTimeSeries	
[2] SendersTimeSeriesIdentification	Unique time series ID
[2] BusinessType	"**A17**" – Settlement deviation
[2] Product	"**8716867000030**" – Active Energy
[2] ObjectAggregation	"**A01**" – Area
[2] Area	Code and Coding Scheme of MBA
[2] Party	Code and Coding Scheme of BRP
[2] MeasurementUnit	"**MWH**" – megawatt Hours
[2] Currency	"**EUR**", "**NOK**", "**SEK**", "**DKK**" – ISO code of currency
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data **PT15M**" – 15-minute data
[3] AccountInterval	
[4] Pos	Sequence number of the observation in the time series
[4] InQty	Imbalance Purchase Quantity
[4] OutQty	Imbalance Sales Quantity
[4] SettlementAmount	Imbalance Amount Amount will respect chosen currency in the request

19. MGA Imbalance (MIM)

Property	Definition
Accessible by	Respective BRP • Only MGA Imbalance calculated in MGA for which Retailer is listed as responsible for imbalance and is under requesting BRP based on RBR for Consumption Respective DSO • Only MGA Imbalance calculated for MGA for which requesting DSO is responsible Respective Datahub • Only MGA Imbalance calculated for MGA for which requesting Datahub is responsible (there is valid MGA-Datahub relation). • Datahub can see only hourly or 15-minute data that are within the validity of MGA-Datahub relation
Document standard	ENTSO-E Energy Account Report Document

19.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**MIM**"
"TimeResolution"	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data **PT15M**" – 15-minute data
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"MGA" **Optional**	Code and Coding Scheme of MGA

19.2. Response Data Mapping

Element	Attribute Values
EnergyAccountReport	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentVersion	"**1**"
[1] DocumentType	"**A12**" – Imbalance Report
[1] DocumentStatus	"**A01**" – Intermediate

	"**A02**" – Final
[1] ProcessType	"**A06**" – Imbalance settlement
[1] ClassificationType	"**A02**" – Summary type
[1] SendesIdentification	Code and Coding Scheme of eSett
[1] SenderRole	"**A05**" – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of BRP/DSO
[1] ReceiverRole	"**A08**" – Balance Responsible Party "**A18**" – Distribution System Operator
[1] Document date and time	"**yyyy-MM-ddTHH:mm:ssZ**" Date and time of creation of the document
[1] Accounting period	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] Domain	Global Parameter / NBS Domain Code and Coding Scheme
[1] AccountTimeSeries	
[2] SendersTimeSeriesIdentification	Unique time series ID
[2] BusinessType	"**B29**" – MGA Imbalance
[2] Product	"**8716867000030**" – Active energy
[2] ObjectAggregation	"**A01**" – Area
[2] Area	Code and Coding Scheme of MGA
[2] Party	Code and Coding Scheme of BRP The Balance Responsible Party for which the imbalance settlement is calculated. BRP is one of the dimensions of MGA Imbalance (MGA, DSO, RE, BRP).
[2] MeasurementUnit	Fixed value "**MWH**"
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**P1Y**" – yearly aggregated data "**P1M**" – monthly aggregated data "**P7D**" – weekly aggregated data "**P1D**" – daily aggregated data "**PT1H**" – hourly data "**PT15M**" – 15-minute data
[3] AccountInterval	
[4] Pos	Sequence number of the time interval
[4] InQty	MGA Imbalance Deficit Quantity

[4] OutQty	MGA Imbalance Surplus Quantity

20. MGA-MBA Relations (ARE)

Property	Definition
Accessible by	• BRP • BSP • DSO • TSO • Retailer
Document Standard	NEG Area Specification Document

20.1. Request Attributes

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"**ARE**"
"TimeInterval" **Optional**	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**" If time interval is set in the request, then only MGA-MBA relations valid sometime within this interval are selected. If no time interval is set, then all relations (also historical & future) are returned.
"Country"	Country ISO code – in v attribute Permitted values: **FI**, **SE**, **NO** codingScheme attribute is omitted

20.2. Response Document Attribute Usage

NEG Area Specification Document is used for MBA-MGA structure.

Element	Attribute Values
NEGAreaSpecificationDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentType	**"Z11"** – Market Balance Area (MBA) Master Data document
[1] ProcessType	**"Z07"** – Master data
[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	**A05** – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of request sender
[1] ReceiverRole	Role of request sender
[1] CreationDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and time of creation of the document

[1] ValidityPeriod	Contains MBA-MGA relations for requested country. Section is repeated per MGA-MBA validity difference. It means that MBA-MGA relations with the same validity are grouped together.
[2] ValidityStart	"**yyyy-MM-ddTHH:mm:ssZ**" MBA-MGA Relation's Validity Start
[2] ValidityEnd	"**yyyy-MM-ddTHH:mm:ssZ**" MBA-MGA Relation's Validity End – if not present then validity is unlimited
[2] AreaSpecificationDetails	Repeated for each MBA
[3] AreaIdentification	Code and Coding Scheme of MBA
[3] TypeOfArea	**Z01** – MBA
[3] RelatedArea	Repeated for each MGA connected to MBA above.
[4] AreaIdentification	Code and Coding Scheme of MGA
[4] TypeOfArea	**Z02** – MGA

21. Production per Production Unit Type and MGA (PROD_MGA_PUT)

Property	Definition
Accessible by	TSO • TSO will only receive data for MGAs where the TSO is responsible via MBA – MGA relation.
Document Standard	Basse Time Series Document

21.1. Request Attributes

Requested Attribute	Requested Attribute Value
"DataFlow"	"**GENERIC**"
"DocumentType"	"**PROD_MGA_PUT**"
"TimeResolution"	"**PT1H**" – hourly data (before 15-minute ISP go-live) "**PT15M**" – 15-minute data (after 15-minute ISP go-live)
"TimeInterval"	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
"MGA" **Optional / Multiple**	Code and Coding Scheme of MGA
"PU_TYPE" **Optional / Multiple**	"**B14**" – Nuclear "**B16**" – Solar "**B18**" – Wind offshore "**B19**" – Wind onshore (replaces Z05) "**B20**" – Other production "**B25**" – Energy storage "**B31**" – Hydro unspecified (replaces Z06) "**B37**" – Thermal unspecified (replaces Z04) "**Z04**" – Thermal (used until 10/2025) "**Z05**" – Wind (used until 10/2025) "**Z06**" – Hydro (used until 10/205)

21.2. Response Data Mapping

Element Attribute	Description
BasseTimeSeriesDocument	
[1] DocumentIdentification	Same as Document Identification from Request
[1] DocumentType	"**PROD_MGA_PUT**"

[1] SenderIdentification	Code and Coding Scheme of eSett
[1] SenderRole	**A05** – Imbalance Settlement Responsible
[1] ReceiverIdentification	Code and Coding Scheme of TSO
[1] ReceiverRole	"**A04**" – TSO
[1] CreationDateTime	"**yyyy-MM-ddTHH:mm:ssZ**" Date and Time of creation of the document
[1] DocumentTimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[1] TimeSeries	
[2] TimeSeriesIdentification	Unique time series ID
[2] BusinessDimensions	Definition of business dimensions of data. The basis of the generic Basse format. The list of these business dimensions determines the time series data.
[3] BusinessDimension	A reference of business dimension to which the data is bound. Business dimension contains name, value and coding scheme if it is used. Time Series *Aggregated Production per Production Unit Type and MGA* has two dimensions – PU_TYPE and MGA
[2] Period	
[3] TimeInterval	"**yyyy-MM-ddTHH:mm:ssZ/yyyy-MM-ddTHH:mm:ssZ**"
[3] Resolution	"**PT1H**" – hourly data (before 15-minute ISP go-live) "**PT15M**" – 15-minute data (after 15-minute ISP go-live)
[3] Interval	
[4] Pos	This information provides the relative position of a period within a time interval. The relative position must be expressed as a numeric integer. Value beginning with 1.
[4] Value	A value specified for the given position. The resolution is in MWh with max 6 decimals for value of type **Q** Quantity.