



Information Service

Guide for integration
2019-04-04

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1 About Information Service

Information Service is a web service provided by eSett for the use of members of Nordic Balance Settlement.

The purpose of Information Service is to enable market parties to request information from Nordic Balance Settlement system in machine readable form.

This allows Market Participants to retrieve hourly data (Such as metered values in selected Consumption points, Reported Bilateral Trade values etc., see full list of supported data flows in Chapter 2) and structure data, to which Participant has access.

In order to access Information Service, user needs to be sure that IP address from which call to Information Service is whitelisted in eSett's firewalls (please contact eSett operators to do so) and that user which logs in has necessary permissions (this can be verified via Online Service / Administration / Users, user has to have "External interface access in Read or Read and Write level).

2 Information Service Integration

2.1 Interfaces

Information Service interface allows Market Party System to request data from Balance Settlement System. The request is represented by an ENTSO-E Status Request Message.

Based on the request, Balance Settlement System creates a response, consisting of according business document (one of the supported ENTSO-E or ebIX formats) and passes it back to Market Party System as a Message. Using this interface, Market Party System can retrieve information related to the Settlement process.

Information Service provides Web Service as a channel to access the information. Market Party System must implement specific WS Client in order to use Information Service. The details of the Web Service Channel are specified in section below.



Figure 7: Information Service Channel

2.1.1 Request Format

The Information Service uses ENTSO-E Status Request Document 2.0 as a request format. The document gives sufficient flexibility to request the data from Information Service. The identification of Data Flow and any parameters that need to be passed as data filtering criteria can be represented using the RequestComponent element (see example below).

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Example document (request for Bilateral Trades for given time period and given optional parameter (example shows also WS Security header)):

```
<soap:Envelope xmlns:inf="http://www.basse.eu/information-service-1.0"
xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
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-
F50D6C2297C7D81D1F1449669355941134">
  <wsse:Username>User_name</wsse:Username>
  <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
username-token-profile-1.0#PasswordText">password</wsse:Password><wsse:Nonce
EncodingType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-soap-
message-security-1.0#Base64Binary">GFoemDPGx9N0+tGnshjnGQ==</wsse:Nonce>
  <wsu:Created>2015-12-09T13:55:55.941Z</wsu:Created>
</wsse:UsernameToken></wsse:Security><wsa:Action>http://www.basse.eu/information
-service-
1.0/IIInformationService/GetData</wsa:Action><wsa:To>https://localhost:44301/Info
rmationService.svc</wsa:To></soap:Header>
  <soap:Body>
    <inf:GetData >
      <inf:request DtdVersion="1" DtdRelease="0">
        <urn:DocumentIdentification v="XYZ"/>
        <urn:DocumentType v=""/>
        <urn:SenderIdentification v="SENDER_CODE " codingScheme="A01"/>
        <urn:SenderRole v="A04"/>
        <urn:ReceiverIdentification v="44X-00000000004B"
codingScheme="A01"/>
        <urn:ReceiverRole v="A05"/>
        <urn:CreationDateTime v="2015-01-21T18:00Z"/> <urn:RequestComponent>
          <urn:RequestedAttribute v=" DataFlow "/>
          <urn:RequestedAttributeValue v="RPM" />
        </urn:RequestComponent>
        <urn:RequestComponent>
          <urn:RequestedAttribute v="TimeInterval"/>
          <urn:RequestedAttributeValue v="2014-11-25T22:00Z/2015-11-
30T23:00Z" codingScheme=""/>
        </urn:RequestComponent>
        <urn:RequestComponent>
          <urn:RequestedAttribute v="TimeResolution"/>
          <urn:RequestedAttributeValue v="PT1H" codingScheme=""/>
        </urn:RequestComponent>
        <urn:RequestComponent>
          <urn:RequestedAttribute v="OPTIONAL_PARAMETER "/>
          <urn:RequestedAttributeValue v="MBAEXAMPLECODE"
codingScheme="A01"/>
        </urn:RequestComponent>
      </inf:request>
    </inf:GetData>
  </soap:Body>
```

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```
</soap:Envelope>
```

The available attributes for given data flows are documented in detail below. The RequestComponent attributes is designed in order to use standard message attributes (e.g. DocumentType or ProcessType) where possible. For header construction, please note following security notes:

- Add into soap header wsse:Security element with username and plain password.
- Add default wsa:Action and add default wsa:To

Roles and the corresponding codes in requests:

- Balance Responsible Party (Sender role code A08)
- Retailer (Sender role code A12)
- Distribution System Operator (Sender role code A18)

2.1.2 Result Format

Response from method 'GetData' is in a XML format that corresponds to the data that is received. Please see following section for more details. For basic idea of how is message encapsulated see following example.

In this example a response for 'Production' dataflow is returned. Please see, that the actual response is a XML document encoded in the CDATA section.

```
<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-
0.1/IIInformationService/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>2015-06-29T15:35:00.487Z</u:Created>
        <u:Expires>2015-06-29T15:40:00.487Z</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"?>
<ValidatedDataForSettlementForAggregator
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="un:unece:260:data:EEM-
ValidatedDataForSettlementForAggregator">
          .....
</ValidatedDataForSettlementForAggregator>
        ]]>
      </Content>
    </GetDataResult>
  </GetDataResponse>
</s:Body>
```

</s:Envelope>

2.1.3 Supported Data Flows

The table below describes

- *Name and Description* of the Data Flow supported by Information Service
- *Format* of document that is returned by the Information Service
- Available *Selection Parameters* which a Market Participant can use when querying the Information Service.

Table 1 Information Service data flows

Data Flow	Description	Counterparty / System	Result Format	Selection parameters
Bilateral Trades	Hourly/aggregated values of Bilateral Trade	BRP	ENTSO-E ESS Schedule Document v4r1	Chapter 5.1.3.1
PX Market Trades	Hourly/aggregated values of PX Market Trade	BRP, NPS	ENTSO-E ESS Schedule Document v4r1	Chapter 5.1.3.2
PX Market Flows	Hourly/aggregated values of PX Market Flow	BRP, NPS	ENTSO-E ESS Schedule Document v4r1	Chapter 5.1.3.3
MGA Exchanges	Hourly/aggregated values of MGA Exchanges.	DSO	NEG (ebIX® based) Aggregated Data per Neighbouring Grid for Settlement Responsible (E31, E44)	Chapter 5.1.3.4
MGA Exchange Trades	Hourly/aggregated values of MGA Exchange Trades	BRP, RE	ENTSO-E ESS Schedule Document	Chapter 5.1.3.5
Consumption	Hourly/aggregated values of Consumption	BRP, DSO	NEG (ebIX® based) Aggregated Data per MGA for Settlement Responsible (E31, E44)	Chapter 5.1.3.6
Production	Hourly/aggregated values of Production	BRP, DSO	NEG (ebIX® based) Validated Data for Settlement for Aggregator (E66, E44)	Chapter 5.1.3.7
Production Plan	Hourly/aggregated values of Production Plans	BRP	ENTSO-E ERRP Planned Resource Schedule Document v5r0	Chapter 5.1.3.8
Activated Reserves	Hourly/aggregated values of Activated Reserves	BRP	NEG (based on ENTSO-E ERRP) Reserve allocation result document	Chapter 5.1.3.9
Imbalance Adjustment	Hourly/aggregated values of Imbalance Adjustment	BRP	ENTSO-E ERRP Reserve Allocation Result Document	Chapter 5.1.3.10
Prices	Hourly/aggregated values of Prices that are used for settlement	BRP, DSO, NPS	NEG (based on ENTSO-E ECAN) Publication Document	Chapter 5.1.3.11

Data Flow	Description	Counterparty / System	Result Format	Selection parameters
Consumption Imbalance	Hourly/aggregated values of all settlement results – Consumption Imbalance (volumes, amounts, ...)	BRP	ENTSO-E Energy Account Report Document (EAR) v1r2	Chapter 5.1.3.12
Production Imbalance	Hourly/aggregated values of all settlement results – Production Imbalance (volumes, amounts, ...)	BRP	ENTSO-E Energy Account Report Document (EAR) v1r2	Chapter 5.1.3.13
MGA Imbalance	Hourly/aggregated values of all settlement results – MGA Imbalance (volumes, amounts, ...)	BRP, DSO	ENTSO-E Energy Account Report Document (EAR) v1r2	Chapter 5.1.3.14
Production per Production Unit Type and MGA	Hourly/aggregated values of production per Production Unit Type and MGA	TSO	Basse Time Series Document	Chapter 5.1.3.15
MGA-MBA Relations	Service provides MGA-MBA relations in country specified in the request.	DSO, TSO, BRP, RE	NBS BRS for Master Data v1r8A - 20180606 (Ediel.org)	Chapter 5.1.3.16

2.1.3.1 Bilateral Trades

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"BIT"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" – for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.
"InBRP" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of IN BRP of Bilateral Trade
"OutBRP" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of OUT BRP of Bilateral Trade
"AgreementID" Optional	Agreement ID of Bilateral Trade. 1 "1" – for Bilateral Trades only between BRPs 2 ID Number – for Bilateral Trades between Retailers
"MBA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<ScheduleDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="urn:entsoe.eu:wgedi:ess:scheduledocument:4:1">
  <DocumentIdentification v="INFS-BITI-1" />
  <DocumentVersion v="1" />
  <DocumentType v="A01" />
  <ProcessType v="Z05" />
```



```
<SenderId v="44X-0000000004B" codingScheme="A01" />
<SenderRole v="A05" />
<ReceiverId v="BRP1" codingScheme="A01" />
<ReceiverRole v="A08" />
<CreationDateTime v="2015-12-10T12:00Z" />
<ScheduleTimeInterval v="2015-08-14T22:00Z/2015-11-10T22:00Z" />
<Domain v="10Y1001A1001A91G" codingScheme="A01" />
<ScheduleTimeSeries>
  <SendersTimeSeriesIdentification v="v1" />
  <SendersTimeSeriesVersion v="1" />
  <BusinessType v="A08" />
  <Product v="8716867000030" />
  <ObjectAggregation v="A01" />
  <InArea v="MBA" codingScheme="A01" />
  <OutArea v="MBA" codingScheme="A01" />
  <InParty v="BRP2" codingScheme="A01" />
  <OutParty v="BRP1" codingScheme="A01" />
  <CapacityAgreementIdentification v="1" />
  <MeasurementUnit v="MWH" />
  <Period>
    <TimeInterval v="2015-09-10T15:00Z/2015-09-10T17:00Z" />
    <Resolution v="PT1H" />
    <Interval>
      <Pos v="1" />
      <Qty v="3" />
    </Interval>
    <Interval>
      <Pos v="2" />
      <Qty v="5" />
    </Interval>
  </Period>
</ScheduleTimeSeries>
</ScheduleDocument>
```

2.1.3.2 PX Market Trades

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"PXT"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" - for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.
"PXTrader" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of PX Trader (Retailer or BRP)
PartyBRP	CODE – in v attribute CODING SCHEME – in CodingScheme attribute
"ProcessType"	"A01" – for Elspot trades "A19" – for Elbas trades
"MBA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA
"PortfolioID" Optional	ID of PX Trading Agreement

Response example

```

<?xml version="1.0" encoding="utf-16"?>
<ScheduleDocument xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="urn:entsoe.eu:wgedi:ess:scheduledocument:4:1">
  <DocumentIdentification v="INFS-PXTI-1" />
  <DocumentVersion v="1" />
  <DocumentType v="A01" />
  <ProcessType v="A01" />

```

```
<ScheduleClassificationType v="A02" />
<SenderIdentification v="44X-00000000004B" codingScheme="A01" />
<SenderRole v="A05" />
<ReceiverIdentification v="BRP1" codingScheme="A01" />
<ReceiverRole v="A08" />
<CreationDateTime v="2016-05-03T07:18:52.5688577Z" />
<ScheduleTimeInterval v="2016-01-01T22:00:00Z/2016-06-22T22:00:00Z" />
<Domain v="10Y1001A1001A91G" codingScheme="A01" />
<SubjectParty v="BRP1" codingScheme="A01" />
<SubjectRole v="A08" />
<ScheduleTimeSeries>
  <SendersTimeSeriesIdentification v="PXT1" />
  <SendersTimeSeriesVersion v="1" />
  <BusinessType v="A08" />
  <Product v="8716867000030" />
  <ObjectAggregation v="A01" />
  <InArea v="MGA1" codingScheme="A01" />
  <InParty v="RE1" codingScheme="A01" />
  <MeasurementUnit v="MWH" />
  <Period>
    <TimeInterval v="2016-04-21T22:00:00Z/2016-04-22T22:00:00Z" />
    <Resolution v="PT1H" />
    <Interval>
      <Pos v="1" />
      <Qty v="5" />
    </Interval>
    ...
    <Interval>
      <Pos v="24" />
      <Qty v="120" />
    </Interval>
  </Period>
</ScheduleTimeSeries>
</ScheduleDocument>
```

2.1.3.3 PX Market Flows

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"PXF"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" - for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.
"ProcessType"	"A01" – for Elspot trades "A19" – for Elbas trades
"InArea" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA
"OutArea" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<ScheduleDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="urn:entsoe.eu:wgedi:ess:scheduledocument:4:1">
  <DocumentIdentification v="" />
  <DocumentVersion v="1" />
  <DocumentType v="A55" />
  <ProcessType v="A01" />
  <ScheduleClassificationType v="A02" />
  <SenderIdentification v="44X-00000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
```

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```

<ReceiverIdentification v="BRP1" codingScheme="A01" />
<ReceiverRole v="A08" />
<CreationDateTime v="2015-12-10T14:00Z" />
<ScheduleTimeInterval v="2015-10-01T00:00Z/2015-11-21T23:00Z" />
<Domain v="10Y1001A1001A91G" codingScheme="A01" />
<ScheduleTimeSeries>
  <SendersTimeSeriesIdentification v="PXF16" />
  <SendersTimeSeriesVersion v="1" />
  <BusinessType v="A66" />
  <Product v="8716867000030" />
  <ObjectAggregation v="A01" />
  <InArea v="MBA1" codingScheme="A01" />
  <OutArea v="MBA2" codingScheme="A01" />
  <MeasurementUnit v="MWH" />
  <Period>
    <TimeInterval v="2015-10-21T22:00Z/2015-10-27T22:00Z" />
    <Resolution v="PT1H" />
    <Interval>
      <Pos v="1" />
      <Qty v="1" />
    </Interval>
    ...
    <Interval>
      <Pos v="144" />
      <Qty v="1" />
    </Interval>
  </Period>
</ScheduleTimeSeries>
</ScheduleDocument>

```

2.1.3.4 MGA Exchanges

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"MGX"

"TimeResolution"	<p>"P1Y" – for yearly aggregated data</p> <p>"P1M" – for monthly aggregated data</p> <p>"P7D" – for weekly aggregated data</p> <p>"P1D" – for daily aggregated data</p> <p>"PT1H", "PT60M" – for hourly data</p>
"TimeInterval"	<p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ</p> <p>System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.</p>
<p>"InMGA"</p> <p>Optional</p>	<p>PARTY CODE – in v attribute</p> <p>CODING SCHEME – in CodingScheme attribute</p> <p>Code and Coding Scheme of In MGA from MGA Oriented Border</p>
<p>"OutMGA"</p> <p>Optional</p>	<p>PARTY CODE – in v attribute</p> <p>CODING SCHEME – in CodingScheme attribute</p> <p>Code and Coding Scheme of Out MGA from MGA Oriented Border</p>

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<AggregatedDataPerNeighboringGridForSettlementForSettlementResponsible
xmlns:xsd="http://www.w3.org/2001/XMLSchema"      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="un:unece:260:data:EEM-AggregatedDataPerNeighboringGridForSettlementForSettlementResponsible">
  <Header>
    <Identification>test</Identification>
    <DocumentType listAgencyIdentifier="260">E31</DocumentType>
    <Creation>2016-02-01T14:00:00Z</Creation>
    <SenderEnergyParty>
      <Identification schemeAgencyIdentifier="305">BASSE</Identification>
    </SenderEnergyParty>
    <RecipientEnergyParty>
      <Identification schemeAgencyIdentifier="305">DSO</Identification>
    </RecipientEnergyParty>
  </Header>
  <ProcessEnergyContext>
    <EnergyBusinessProcess listAgencyIdentifier="260">E44</EnergyBusinessProcess>
  </ProcessEnergyContext>
</AggregatedDataPerNeighboringGridForSettlementForSettlementResponsible>
```

```
<EnergyBusinessProcessRole listAgencyIdentifier="330">DDX</EnergyBusinessProcessRole>
<EnergyIndustryClassification listAgencyIdentifier="330">23</EnergyIndustryClassification>
</ProcessEnergyContext>
<PayloadEnergyTimeSeries>
  <Identification>1</Identification>
  <RegistrationDateTime>0001-01-01T00:00:00</RegistrationDateTime>
  <ObservationPeriodTimeSeriesPeriod>
    <ResolutionDuration>PT1H</ResolutionDuration>
    <Start>2015-08-31T22:00:00Z</Start>
    <End>2015-09-01T22:00:00Z</End>
  </ObservationPeriodTimeSeriesPeriod>
  <ProductIncludedProductCharacteristic>
    <Identification schemeAgencyIdentifier="9">8716867000030</Identification>
    <UnitType listAgencyIdentifier="330">MWH</UnitType>
  </ProductIncludedProductCharacteristic>
  <MPDetailMeasurementMeteringPointCharacteristic>
    <MeteringPointType listAgencyIdentifier="260">E20</MeteringPointType>
  </MPDetailMeasurementMeteringPointCharacteristic>
  <InAreaUsedDomainLocation>
    <Identification schemeAgencyIdentifier="305">MGA02</Identification>
  </InAreaUsedDomainLocation>
  <OutAreaUsedDomainLocation>
    <Identification schemeAgencyIdentifier="305">MGA01</Identification>
  </OutAreaUsedDomainLocation>
  <ObservationIntervalObservationPeriod>
    <Sequence>1</Sequence>
    <ObservationDetailEnergyObservation>
      <EnergyQuantity>1</EnergyQuantity>
    </ObservationDetailEnergyObservation>
  </ObservationIntervalObservationPeriod>
  <ObservationIntervalObservationPeriod>
    ...
    <Sequence>264</Sequence>
    <ObservationDetailEnergyObservation>
```

```

    <EnergyQuantity>1</EnergyQuantity>
  </ObservationDetailEnergyObservation>
</ObservationIntervalObservationPeriod>
</PayloadEnergyTimeSeries>
</AggregatedDataPerNeighboringGridForSettlementForSettlementResponsible>

```

2.1.3.5 MGA Exchange Trades

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"MGT"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H" – for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MM:SSZ/YYYY-MM-DDTHH:MM:SSZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00:00Z/2015-02-01T02:00:00Z" system will return data for January 2015 and February 2015.
"InRE" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of In Retailer of MGA Exchange Trade
"OutRE" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of Out Retailer of MGA Exchange Trade
"InMGA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of In MGA of MGA Exchange Trade
"OutMGA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of Out MGA of MGA Exchange Trade

Response example

```
<?xml version="1.0" encoding="utf-8"?>
```


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```
<ScheduleDocument xsi:schemaLocation="urn:entsoe.eu:wgedi:ess:scheduledocument:4:1 urn-entsoe-eu-wgedi-ess-scheduledocument-4-1.xsd"
                    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="urn:entsoe.eu:wgedi:ess:scheduledocument:4:1">
  <DocumentIdentification v="INFS-MGT-1" />
  <DocumentVersion v="1" />
  <DocumentType v="A01" />
  <ProcessType v="Z05" />
  <ScheduleClassificationType v="A02" />
  <SenderIdentification v="44X-00000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP01" codingScheme="A01" />
  <ReceiverRole v="A08" />
  <CreationDateTime v="2018-10-17T11:34:46Z" />
  <ScheduleTimeInterval v="2018-07-01T00:00Z/2018-07-02T00:00Z" />
  <Domain v="10Y1001A1001A91G" codingScheme="A01" />
  <ScheduleTimeSeries>
    <SendersTimeSeriesIdentification v="MnmXCA0ccESpFXO6T2YruA" />
    <SendersTimeSeriesVersion v="1" />
    <BusinessType v="A03" />
    <Product v="8716867000030" />
    <ObjectAggregation v="A01" />
    <InArea v="MGA04" codingScheme="A01" />
    <OutArea v="MGA03" codingScheme="A01" />
    <InParty v="RE04" codingScheme="A01" />
    <OutParty v="RE03" codingScheme="A01" />
    <MeasurementUnit v="MWH" />
    <Period>
      <TimeInterval v="2018-07-01T00:00Z/2018-07-02T00:00Z" />
      <Resolution v="PT1H" />
      <Interval>
        <Pos v="1" />
        <Qty v="5" />
      </Interval>
    </Period>
  </ScheduleTimeSeries>
</ScheduleDocument>
```

```
<Pos v="2" />
<Qty v="10" />
</Interval>
<Interval>
  <Pos v="3" />
  <Qty v="15" />
</Interval>
<Interval>
  <Pos v="4" />
  <Qty v="20" />
</Interval>
<Interval>
  <Pos v="5" />
  <Qty v="25" />
</Interval>
<Interval>
  <Pos v="6" />
  <Qty v="30" />
</Interval>
<Interval>
  <Pos v="7" />
  <Qty v="35" />
</Interval>
<Interval>
  <Pos v="8" />
  <Qty v="40" />
</Interval>
<Interval>
  <Pos v="9" />
  <Qty v="45" />
</Interval>
<Interval>
  <Pos v="10" />
  <Qty v="50" />
```

```
</Interval>
<Interval>
  <Pos v="11" />
  <Qty v="55" />
</Interval>
<Interval>
  <Pos v="12" />
  <Qty v="60" />
</Interval>
<Interval>
  <Pos v="13" />
  <Qty v="65" />
</Interval>
<Interval>
  <Pos v="14" />
  <Qty v="70" />
</Interval>
<Interval>
  <Pos v="15" />
  <Qty v="75" />
</Interval>
<Interval>
  <Pos v="16" />
  <Qty v="80" />
</Interval>
<Interval>
  <Pos v="17" />
  <Qty v="85" />
</Interval>
<Interval>
  <Pos v="18" />
  <Qty v="90" />
</Interval>
<Interval>
```

```

    <Pos v="19" />
    <Qty v="95" />
  </Interval>
  <Interval>
    <Pos v="20" />
    <Qty v="100" />
  </Interval>
  <Interval>
    <Pos v="21" />
    <Qty v="105" />
  </Interval>
  <Interval>
    <Pos v="22" />
    <Qty v="110" />
  </Interval>
  <Interval>
    <Pos v="23" />
    <Qty v="115" />
  </Interval>
  <Interval>
    <Pos v="24" />
    <Qty v="120" />
  </Interval>
</Period>
</ScheduleTimeSeries>
</ScheduleDocument>

```

2.1.3.6 Consumption

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"REC"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data

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	<p>"P1D" – for daily aggregated data</p> <p>"PT1H", "PT60M" - for hourly data</p>
"TimeInterval"	<p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ</p> <p>System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.</p>
<p>"PartyBRP" - for Consumption linked to BRPs</p> <p>"PartyRE" – for Consumption linked to Res</p> <p>Optional</p>	<p>PARTY CODE – in v attribute</p> <p>CODING SCHEME – in CodingScheme attribute</p> <p>Code and Coding Scheme of desired party. In case of Consumption it might be BRP or Retailer.</p>
<p>"MGA"</p> <p>Optional</p>	<p>MGA CODE – in v attribute</p> <p>MGA CODING SCHEME – in CodingScheme attribute</p> <p>Code and Coding scheme of MGA</p>
<p>"SettlementMethodType"</p> <p>Optional</p>	<p>"E01" – for Profiled</p> <p>"E02" – for Non-profiled</p>
<p>"BusinessType"</p> <p>Optional</p>	<p>"A04" – for Consumption (total consumption)</p> <p>"A07" – for Net production/consumption</p> <p>"A15" – for Losses</p> <p>"A72" – for Interruptible Consumption</p> <p>"B27" – for Pumped</p> <p>"B28" – for Large installation consumption</p> <p>"B36" – for Large installation consumption (Only used in Finland)</p>

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<AggregatedDataPerMGAForSettlementForSettlementResponsible
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"      xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="un:unece:260:data:EEM-AggregatedDataPerMGAForSettlementForSettlementResponsible">
  <Header>
    <Identification>INFS-RECI-1</Identification>
    <DocumentType listAgencyIdentifier="260">E31</DocumentType>
    <Creation>2015-12-10T12:00Z</Creation>
    <SenderEnergyParty>
```

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```

<Identification schemeAgencyIdentifier="305">BASSE</Identification>
</SenderEnergyParty>
<RecipientEnergyParty>
  <Identification schemeAgencyIdentifier="305">DSO</Identification>
</RecipientEnergyParty>
</Header>
<ProcessEnergyContext>
  <EnergyBusinessProcess listAgencyIdentifier="260">E44</EnergyBusinessProcess>
  <EnergyBusinessProcessRole listAgencyIdentifier="330">DDX</EnergyBusinessProcessRole>
  <EnergyIndustryClassification listAgencyIdentifier="330">23</EnergyIndustryClassification>
</ProcessEnergyContext>
<PayloadEnergyTimeSeries>
  <Identification>CNS62</Identification>
  <RegistrationDateTime>0001-01-01T00:00:00</RegistrationDateTime>
  <ObservationPeriodTimeSeriesPeriod>
    <ResolutionDuration>PT1H</ResolutionDuration>
    <Start>2015-08-31T22:00Z</Start>
    <End>2015-09-03T22:00Z</End>
  </ObservationPeriodTimeSeriesPeriod>
  <BalanceResponsibleInvolvedEnergyParty>
    <Identification schemeAgencyIdentifier="305">RE</Identification>
  </BalanceResponsibleInvolvedEnergyParty>
  <BalanceSupplierInvolvedEnergyParty>
    <Identification schemeAgencyIdentifier="305">BRP</Identification>
  </BalanceSupplierInvolvedEnergyParty>
  <ProductIncludedProductCharacteristic>
    <Identification schemeAgencyIdentifier="9">8716867000030</Identification>
    <UnitType listAgencyIdentifier="330">MWH</UnitType>
  </ProductIncludedProductCharacteristic>
  <MPDetailMeasurementMeteringPointCharacteristic>
    <MeteringPointType listAgencyIdentifier="260">E17</MeteringPointType>
    <SettlementMethodType listAgencyIdentifier="260">E02</SettlementMethodType>
    <BusinessType listAgencyIdentifier="330">A04</BusinessType>
  </MPDetailMeasurementMeteringPointCharacteristic>

```

```

<MeteringGridAreaUsedDomainLocation>
  <Identification schemeAgencyIdentifier="305">MGA</Identification>
</MeteringGridAreaUsedDomainLocation>
<ObservationIntervalObservationPeriod>
  <Sequence>1</Sequence>
  <ObservationDetailEnergyObservation>
    <EnergyQuantity>0</EnergyQuantity>
  </ObservationDetailEnergyObservation>
</ObservationIntervalObservationPeriod>
...
<Sequence>72</Sequence>
<ObservationDetailEnergyObservation>
  <EnergyQuantity>0</EnergyQuantity>
</ObservationDetailEnergyObservation>
</ObservationIntervalObservationPeriod>
</PayloadEnergyTimeSeries>
</AggregatedDataPerMGAForSettlementForSettlementResponsible>

```

2.1.3.7 Production

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"RPM"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" - for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.
"ProductionUnit"	CODE – in v attribute
Optional	CODING SCHEME – in CodingScheme attribute

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Code and Coding Scheme of desired production unit.

Response example

```

<?xml version="1.0" encoding="utf-8"?>
<ValidatedDataForSettlementForAggregator xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="un:unece:260:data:EEM-
ValidatedDataForSettlementForAggregator">
  <Header>
    <Identification>1</Identification>
    <DocumentType listAgencyIdentifier="260">E66</DocumentType>
    <Creation>2015-12-10T12:00Z</Creation>
    <SenderEnergyParty>
      <Identification schemeAgencyIdentifier="305">BASSE</Identification>
    </SenderEnergyParty>
    <RecipientEnergyParty>
      <Identification schemeAgencyIdentifier="305">DSO</Identification>
    </RecipientEnergyParty>
  </Header>
  <ProcessEnergyContext>
    <EnergyBusinessProcess listAgencyIdentifier="260">E44</EnergyBusinessProcess>
    <EnergyBusinessProcessRole listAgencyIdentifier="330">DDX</EnergyBusinessProcessRole>
    <EnergyIndustryClassification listAgencyIdentifier="330">23</EnergyIndustryClassification>
  </ProcessEnergyContext>
  <PayloadEnergyTimeSeries>
    <Identification>PROD1</Identification>
    <RegistrationDateTime>0001-01-01T00:00:00</RegistrationDateTime>
    <ObservationPeriodTimeSeriesPeriod>
      <ResolutionDuration>PT1H</ResolutionDuration>
      <Start>2015-10-18T00:00Z</Start>
      <End>2015-10-20T00:00Z</End>
    </ObservationPeriodTimeSeriesPeriod>
    <ProductIncludedProductCharacteristic>
      <Identification schemeAgencyIdentifier="9">8716867000030</Identification>
      <UnitType listAgencyIdentifier="330">MWH</UnitType>
    </ProductIncludedProductCharacteristic>
  </PayloadEnergyTimeSeries>
</ValidatedDataForSettlementForAggregator>

```



```

<MPDetailMeasurementMeteringPointCharacteristic>
  <MeteringPointType listAgencyIdentifier="260">E18</MeteringPointType>
</MPDetailMeasurementMeteringPointCharacteristic>
<MeteringPointUsedDomainLocation>
  <Identification schemeAgencyIdentifier="305">PU</Identification>
</MeteringPointUsedDomainLocation>
<ObservationIntervalObservationPeriod>
  <Sequence>1</Sequence>
  <ObservationDetailEnergyObservation>
    <EnergyQuantity>240</EnergyQuantity>
    <QuantityQuality listAgencyIdentifier="330">21</QuantityQuality>
  </ObservationDetailEnergyObservation>
</ObservationIntervalObservationPeriod>
<ObservationIntervalObservationPeriod>
  <Sequence>2</Sequence>
  <ObservationDetailEnergyObservation>
    <EnergyQuantity>240</EnergyQuantity>
    <QuantityQuality listAgencyIdentifier="330">21</QuantityQuality>
  </ObservationDetailEnergyObservation>
</ObservationIntervalObservationPeriod>
</PayloadEnergyTimeSeries>
</ValidatedDataForSettlementForAggregator>

```

2.1.3.8 Production Plan

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"PRP"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" - for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ

	System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.
"RegulationObject" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired Regulation Object.
"MBA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<PlannedResourceScheduleDocument xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="urn:entsoe.eu:wgedi:errp:plannedresourcescheduledocument:5:0">
  <DocumentIdentification v="1" />
  <DocumentVersion v="1" />
  <DocumentType v="A14" />
  <ProcessType v="A17" />
  <SenderIdentification v="44X-00000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP" codingScheme="A01" />
  <CreationDateTime v="2015-12-10T12:00Z" />
  <TimePeriodCovered v="2014-01-01T00:00Z/2019-09-21T00:00Z" />
  <Domain v="10Y1001A1001A91G" codingScheme="A01" />
  <PlannedResourceTimeSeries>
    <TimeSeriesIdentification v="PP61" />
    <BusinessType v="A01" />
    <Product v="8716867000030" />
    <ConnectingArea v="MBA" codingScheme="A01" />
    <ResourceObject v="RO" codingScheme="A01" />
    <ResourceProvider v="BRP" codingScheme="A01" />
    <MeasurementUnit v="MWH" />
    <ObjectAggregation v="A06" />
  </PlannedResourceTimeSeries>
</PlannedResourceScheduleDocument>
```

```

<Period>
  <TimeInterval v="2015-10-18T22:00Z/2015-12-09T23:00Z" />
  <Resolution v="P1D" />
  <Interval>
    <Pos v="1" />
    <Qty v="1" />
  </Interval>
  ...
  <Interval>
    <Pos v="52" />
    <Qty v="1" />
  </Interval>
</Period>
</PlannedResourceTimeSeries>
</PlannedResourceScheduleDocument>

```

2.1.3.9 Activated Reserves

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"ACR"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" - for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.
"BusinessType"	See table 9 in Business Requirement Specification, TSO/NPS communication, version 1.4.A.
Optional	
"ReasonCode"	
Optional	

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"RegulationObject" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired Regulation Object.
"MBA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA

Response example

```

<?xml version="1.0" encoding="utf-8"?>
<ReserveAllocationResultDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="urn:ediel.org:neg:errp:reserveallocationresultdocument:1:0">
  <DocumentIdentification v="" />
  <DocumentVersion v="1" />
  <DocumentType v="A38" />
  <SenderIdentification v="44X-00000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP" codingScheme="A01" />
  <ReceiverRole v="A08" />
  <CreationDateTime v="2015-12-10T12:00Z" />
  <ReserveBidTimeInterval v="2015-03-01T22:00Z/2015-11-02T22:00Z" />
  <Domain v="10Y1001A1001A91G" codingScheme="A01" />
  <AllocationTimeSeries>
    <TimeSeriesIdentification v="v1" />
    <TenderingParty v="BRP" codingScheme="A01" />
    <BusinessType v="A12" />
    <AcquiringArea v="MBA" codingScheme="A01" />
    <MeasureUnitQuantity v="MWH" />
    <Currency v="EUR" />
    <MeasureUnitPrice v="MWH" />
    <ReserveObject v="RO" codingScheme="A01" />
    <Direction v="A01" />
    <Period>
      <TimeInterval v="2015-10-20T22:00Z/2015-10-27T22:00Z" />
      <Resolution v="PT1H" />
    
```

```
<Interval>
  <Pos v="1" />
  <Qty v="1" />
  <SettlementAmount v="1" />
</Interval>
  ...
</Interval>
<Interval>
  <Pos v="168" />
  <Qty v="1" />
  <SettlementAmount v="1" />
</Interval>
</Period>
<Period>
  <TimeInterval v="2015-10-27T23:00Z/2015-11-02T22:00Z" />
  <Resolution v="PT1H" />
<Interval>
  <Pos v="1" />
  <Qty v="1" />
  <SettlementAmount v="1" />
</Interval>
  ...
<Interval>
  <Pos v="143" />
  <Qty v="1" />
  <SettlementAmount v="1" />
</Interval>
</Period>
<Reason>
  <ReasonCode v="Z30" />
</Reason>
</AllocationTimeSeries>
</ReserveAllocationResultDocument>
```

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2.1.3.10 Imbalance Adjustment

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"IBA"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" - for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.
"RegulationObject" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired Regulation Object.
"MBA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA

Response example

```

<?xml version="1.0" encoding="utf-8"?>
<ReserveAllocationResultDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="urn:ediel:org:neg:errp:reserveallocationresultdocument:1:0">
  <DocumentIdentification v="" />
  <DocumentVersion v="1" />
  <DocumentType v="A38" />
  <SenderIdentification v="44X-00000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP" codingScheme="A01" />
  <ReceiverRole v="A08" />
  <CreationDateTime v="2015-12-10T12:00Z" />
  <ReserveBidTimeInterval v="2015-09-01T00:00Z/2015-10-21T23:00Z" />

```

```

<Domain v="10Y1001A1001A91G" codingScheme="A01" />
<AllocationTimeSeries>
  <TimeSeriesIdentification v="IA61" />
  <TenderingParty v="BRP" codingScheme="A01" />
  <AcquiringArea v="MBA" codingScheme="A01" />
  <MeasureUnitQuantity v="MWH" />
  <Currency v="EUR" />
  <MeasureUnitPrice v="MWH" />
  <ReserveObject v="RO" codingScheme="A01" />
  <Direction v="A01" />
  <Period>
    <TimeInterval v="2015-09-01T00:00Z/2015-10-21T23:00Z" />
    <Resolution v="PT1H" />
    <Interval>
      <Pos v="1" />
      <Qty v="0" />
      <SettlementAmount v="0" />
    </Interval>
    ...
    <Interval>
      <Pos v="1223" />
      <Qty v="1" />
      <SettlementAmount v="1" />
    </Interval>
  </Period>
</AllocationTimeSeries>
</ReserveAllocationResultDocument>

```

2.1.3.11 Prices

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"REP"
"TimeResolution"	"PT1H", "PT60M" - for hourly data <i>Only hourly data will be available for Prices</i>

"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ
"MBA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA
"BusinessType"	"A62" – for Spot price "B20" – for Balance up regulation price "B21" – for Balance down regulation price "B22" – for Main direction (no price) "B23" – for Consumption imbalance price "B24" – for Production sales imbalance price "B25" – for Production purchase imbalance price "B26" – for MBAs prices between Market Balance Areas
<i>BusinessType can be listed in the request file multiple times. For example if market participant requests Spot Prices and Consumption Imbalance Prices then the BusinessType will be listed twice, first with "A62" value and second with "Z58" value.</i>	
"Currency"	"EUR" – stands for EURO "NOK" – stands for Norwegian Krone "SEK" – stands for Swedish Krona

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<PublicationDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="urn:ediel.org:neg:ecan:publicationdocument:1:0">
  <DocumentIdentification v="" />
  <DocumentVersion v="1" />
  <DocumentType v="A44" />
  <ProcessType v="A30" />
  <SenderIdentification v="44X-0000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP" codingScheme="A01" />
  <ReceiverRole v="A08" />
  <CreationDateTime v="2015-12-10T12:00Z" />
  <PublicationTimeInterval v="2014-01-01T00:00Z/2019-09-21T23:00Z" />
  <Domain v="10Y1001A1001A91G" codingScheme="A01" />
```



```

<PublicationTimeSeries>
  <TimeSeriesIdentification v="v1" />
  <BusinessType v="A62" />
  <InArea v="MBA" codingScheme="A01" />
  <OutArea v="MBA" codingScheme="A01" />
  <Currency v="EUR" />
  <MeasureUnitPrice v="MWH" />
<Period>
  <TimeInterval v="2015-10-20T22:00Z/2015-10-27T22:00Z" />
  <Resolution v="PT1H" />
  <Interval>
    <Pos v="1" />
    <Price v="1" />
  </Interval>
  ...
  <Interval>
    <Pos v="360" />
    <Price v="1" />
  </Interval>
</Period>
</PublicationTimeSeries>
</PublicationDocument>

```

2.1.3.12 Consumption Imbalance

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"CIM"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" - for hourly data
"TimeInterval"	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-

	02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.
"BRP" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired BRP
"MBA" Optional	CODE – in v attribute CODING SCHEME – in CodingScheme attribute Code and Coding Scheme of desired MBA
"Currency"	<i>ISO Code of desired currency (EUR, NOK, SEK)</i> <i>Please note that default currency for settlement is EUR, amounts are recalculated to NOK and SEK using ECB rate, which can cause that in conclusion invoiced amount in NOK and SEK can slightly differ from amount provided by this DF.</i>

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<EnergyAccountReport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="urn:ediel:org:neg:esp:energyaccountreportddocument:1:0">
  <DocumentIdentification v="" />
  <DocumentVersion v="1" />
  <DocumentType v="A12" />
  <DocumentStatus v="A01" />
  <ProcessType v="A06" />
  <ClassificationType v="A02" />
  <SenderIdentification v="44X-0000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP" codingScheme="A01" />
  <ReceiverRole v="A08" />
  <DocumentDateTime v="2015-12-10T12:00Z" />
  <AccountingPeriod v="2014-01-01T00:00Z/2019-09-21T00:00Z" />
  <Domain v="10Y1001A1001A91G" codingScheme="A01" />
  <AccountTimeSeries>
    <SendersTimeSeriesIdentification v="v1" />
    <BusinessType v="B15" />
    <Product v="8716867000030" />
  </AccountTimeSeries>
</EnergyAccountReport>
```

```

<ObjectAggregation v="A01" />
<Area v="MBA" codingScheme="A01" />
<Party v="BRP" codingScheme="A01" />
<MeasurementUnit v="MWH" />
<Currency v="EUR" />
<Period>
  <TimeInterval v="2015-10-18T22:00Z/2015-12-10T23:00Z" />
  <Resolution v="P7D" />
  <AccountInterval>
    <Pos v="1" />
    <InQty v="0" />
    <OutQty v="0" />
    <SettlementAmount v="0" />
  </AccountInterval>
  ...
  <AccountInterval>
    <Pos v="31" />
    <InQty v="0" />
    <OutQty v="0" />
    <SettlementAmount v="0" />
  </AccountInterval>
</Period>
</AccountTimeSeries>
</EnergyAccountReport>

```

2.1.3.13 Production Imbalance

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"PIM"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data "P1D" – for daily aggregated data "PT1H", "PT60M" - for hourly data

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"TimeInterval"	<p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ</p> <p>System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00Z/2015-02-01T02:00Z" system will return data for January 2015 and February 2015.</p>
"BRP" Optional	<p>CODE – in v attribute</p> <p>CODING SCHEME – in CodingScheme attribute</p> <p>Code and Coding Scheme of desired BRP</p>
"MBA" Optional	<p>CODE – in v attribute</p> <p>CODING SCHEME – in CodingScheme attribute</p> <p>Code and Coding Scheme of desired MBA</p>
"Currency"	<p><i>ISO Code of desired currency (EUR, NOK, SEK)</i></p> <p><i>Please note that default currency for settlement is EUR, amounts are recalculated to NOK and SEK using ECB rate, which can cause that in conclusion invoiced amount in NOK and SEK can slightly differ from amount provided by this DF.</i></p>

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<EnergyAccountReport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="urn:ediel.org:neg:esp:energyaccountreportddocument:1:0">
  <DocumentIdentification v="" />
  <DocumentVersion v="1" />
  <DocumentType v="A12" />
  <DocumentStatus v="A01" />
  <ProcessType v="A06" />
  <ClassificationType v="A02" />
  <SenderIdentification v="44X-0000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP" codingScheme="A01" />
  <ReceiverRole v="A08" />
  <DocumentDateTime v="2015-12-10T12:00Z" />
  <AccountingPeriod v="2015-01-24T00:00Z/2016-08-21T23:00Z" />
  <Domain v="10Y1001A1001A91G" codingScheme="A01" />
  <AccountTimeSeries>
```

```

<SendersTimeSeriesIdentification v="v1" />
<BusinessType v="B14" />
<Product v="8716867000030" />
<ObjectAggregation v="A01" />
<Area v="MBA" codingScheme="A01" />
<Party v="BRP" codingScheme="A01" />
<MeasurementUnit v="MWH" />
<Currency v="EUR" />
<Period>
  <TimeInterval v="2015-08-30T22:00Z/2015-12-09T23:00Z" />
  <Resolution v="PT1H" />
  <AccountInterval>
<Pos v="1" />
  <InQty v="0" />
  <OutQty v="0" />
  <SettlementAmount v="0" />
</AccountInterval>
...
<AccountInterval>
  <Pos v="744" />
  <InQty v="0" />
  <OutQty v="0" />
  <SettlementAmount v="0" />
</AccountInterval>
</Period>
</AccountTimeSeries>
</EnergyAccountReport>

```

2.1.3.14 MGA Imbalance

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"MIM"
"TimeResolution"	"P1Y" – for yearly aggregated data "P1M" – for monthly aggregated data "P7D" – for weekly aggregated data

	<p>“P1D” – for daily aggregated data</p> <p>“PT1H”, “PT60M” - for hourly data</p>
“TimeInterval”	<p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ</p> <p>System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: “2015-01-02T02:00Z/2015-02-01T02:00Z” system will return data for January 2015 and February 2015.</p>
<p>“MGA”</p> <p>Optional</p>	<p>CODE – in v attribute</p> <p>CODING SCHEME – in CodingScheme attribute</p> <p>Code and Coding Scheme of desired MGA</p>

Response example

```
<?xml version="1.0" encoding="utf-8"?>
<EnergyAccountReport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="urn:ediel:org:neg:esp:energyaccountreportddocument:1:0">
  <DocumentIdentification v="" />
  <DocumentVersion v="1" />
  <DocumentType v="A12" />
  <DocumentStatus v="A01" />
  <ProcessType v="A06" />
  <ClassificationType v="A02" />
  <SenderIdentification v="44X-00000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP" codingScheme="A01" />
  <ReceiverRole v="A08" />
  <DocumentDateTime v="2015-12-10T12:00Z" />
  <AccountingPeriod v="2014-09-01T00:00Z/2015-09-21T23:00Z" />
  <Domain v="10Y1001A1001A91G" codingScheme="A01" />
  <AccountTimeSeries>
    <SendersTimeSeriesIdentification v="v1" />
    <BusinessType v="B29" />
    <Product v="8716867000030" />
    <ObjectAggregation v="A01" />
    <Area v="MGA" codingScheme="A01" />
  </AccountTimeSeries>
</EnergyAccountReport>
```

```

<Party v="BRP" codingScheme="A01" />
<MeasurementUnit v="MWH" />
<Period>
  <TimeInterval v="2015-08-30T22:00Z/2015-09-21T23:00Z" />
  <Resolution v="PT1H" />
  <AccountInterval>
    <Pos v="1" />
    <InQty v="0" />
    <OutQty v="0" />
  </AccountInterval>
  ...
  <AccountInterval>
    <Pos v="529" />
    <InQty v="0" />
    <OutQty v="0" />
  </AccountInterval>
</Period>
</AccountTimeSeries>
</EnergyAccountReport>

```

2.1.3.15 Production per Production Unit Type and MGA

RequestedAttribute	RequestedAttributeValue
"DataFlow"	"GENERIC"
"DocumentType"	"PROD_MGA_PUT_HOUR"
"SenderIdentification"	TSO Code / Coding Scheme
"SenderRole"	A04
"TimeResolution"	YYYY-MM-DDTHH:MM:SSZ/YYYY-MM-DDTHH:MM:SSZ System will take into account also parts of the intervals. So for example if there are demanded monthly aggregated data for this interval: "2015-01-02T02:00:00Z/2015-02-01T02:00:00Z" system will return data for January 2015 and February 2015.
"MGA" Optional	CODE – in v attribute CODING SCHEME – in Coding Scheme attribute Code and Coding Scheme of desired MGA

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"PU_TYPE" Optional	Z05 Wind Z06 Hydro Z07 Consumption B14 Nuclear B20 Other B16 Solar Z04 Thermal Power
-----------------------	---

XML snippet example


```

<DocumentIdentification v="51efd752c3574b9caf98a1a7f0de0188" />
<DocumentType v="PROD_MGA_PUT_HOUR " />
<SenderIdentification v="44X-00000000004B" codingScheme="A01" />
<SenderRole v="A05" />
<ReceiverIdentification v="10X1001A1001A38Y" codingScheme="EIC" />
<ReceiverRole v="A04" />
<CreationDateTime v="2017-02-06T14:00:16Z" />
<DocumentTimeInterval v="2017-02-01T22:00Z/2017-02-10T23:00Z" />
<TimeSeries>
  <TimeSeriesIdentification v="97e187e7628646d8901a5a26141fff37" />
  <BusinessDimensions>
    <BusinessDimension name="MGA" codingScheme="EIC" v="MGA11" />
    <BusinessDimension name="PU_TYPE" v="Z05" />
  </BusinessDimensions>
  <Period>
    <TimeInterval v="2017-02-02T23:00Z/2017-02-05T00:00Z" />
    <Resolution v="PT1H" />
    <Interval>
      <Pos v="1" />
      <Value name="Q" v="1005" />
    </Interval>
  </Period>
</TimeSeries>

```

2.1.3.16 MGA-MBA Relations

Parameter	Mandatory	Value
"DataFlow"	Yes	"ARE"
"TimeInterval"	No	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"	Yes	Country ISO code – in v attribute Permitted values: <ul style="list-style-type: none"> • FI • SE • NO <i>Coding Scheme attribute is empty</i>
-----------	-----	--

Response example

```

<NEGAreaSpecificationDocument
xsi:schemaLocation="urn:ediel.org:neg:masterdata:areaspecificationdocument:1:0 urn-ediel-org-neg-masterdata-
areaspecificationdocument-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:masterdata:areaspecificationdocument:1:0">
  <DocumentIdentification v="INFS-AREO-1" />
  <DocumentType v="Z11" />
  <ProcessType v="Z07" />
  <SenderIdentification v="44X-00000000004B" codingScheme="A01" />
  <SenderRole v="A05" />
  <ReceiverIdentification v="BRP10" codingScheme="A01" />
  <ReceiverRole v="A08" />
  <CreationDateTime v="2018-10-17T11:36:10Z" />
  <ValidityPeriod>
    <ValidityStart v="2015-08-31T22:00:00Z" />
    <ValidityEnd v="2026-12-31T23:00:00Z" />
  <AreaSpecificationDetails>
    <AreaIdentification v="10Y1001A1001A48H" codingScheme="A01" />
    <TypeOfArea v="Z01" />
    <RelatedArea>
      <AreaIdentification v="DF_MGA004" codingScheme="NFI" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
    <RelatedArea>
      <AreaIdentification v="DF_MGA001" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
  </AreaSpecificationDetails>
</NEGAreaSpecificationDocument>

```

```
<RelatedArea>
  <Areaidentification v="DF_MGA002" codingScheme="A01" />
  <TypeOfArea v="Z02" />
</RelatedArea>
<RelatedArea>
  <Areaidentification v="DF_MGA005" codingScheme="NSE" />
  <TypeOfArea v="Z02" />
</RelatedArea>
<RelatedArea>
  <Areaidentification v="DF_MGA006" codingScheme="NNO" />
  <TypeOfArea v="Z02" />
</RelatedArea>
<RelatedArea>
  <Areaidentification v="DF_MGA003" codingScheme="A10" />
  <TypeOfArea v="Z02" />
</RelatedArea>
<RelatedArea>
  <Areaidentification v="DF_MGA007" codingScheme="NDK" />
  <TypeOfArea v="Z02" />
</RelatedArea>
</AreaSpecificationDetails>
</ValidityPeriod>
<ValidityPeriod>
  <ValidityStart v="2014-12-31T23:00:00Z" />
  <ValidityEnd v="2026-12-31T23:00:00Z" />
<AreaSpecificationDetails>
  <Areaidentification v="10YNO-4-----9" codingScheme="A01" />
  <TypeOfArea v="Z01" />
  <RelatedArea>
    <Areaidentification v="MGA16" codingScheme="NFI" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
  <RelatedArea>
    <Areaidentification v="MGA17" codingScheme="NFI" />
```

```
<TypeOfArea v="Z02" />
</RelatedArea>
<RelatedArea>
  <ArealIdentification v="MGA11" codingScheme="A01" />
  <TypeOfArea v="Z02" />
</RelatedArea>
<RelatedArea>
  <ArealIdentification v="MGA13" codingScheme="A01" />
  <TypeOfArea v="Z02" />
</RelatedArea>
<RelatedArea>
  <ArealIdentification v="MGA12" codingScheme="A01" />
  <TypeOfArea v="Z02" />
</RelatedArea>
</AreaSpecificationDetails>
<AreaSpecificationDetails>
  <ArealIdentification v="10YNO-3-----J" codingScheme="A01" />
  <TypeOfArea v="Z01" />
  <RelatedArea>
    <ArealIdentification v="MGA18" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
  <RelatedArea>
    <ArealIdentification v="MGA14" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
  <RelatedArea>
    <ArealIdentification v="MGA15" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
</AreaSpecificationDetails>
<AreaSpecificationDetails>
  <ArealIdentification v="10YNO-1-----2" codingScheme="A01" />
  <TypeOfArea v="Z01" />
```

```
<RelatedArea>
  <AreaIdentification v="MGA05" codingScheme="A01" />
  <TypeOfArea v="Z02" />
</RelatedArea>
</AreaSpecificationDetails>
<AreaSpecificationDetails>
  <AreaIdentification v="10YNO-2-----T" codingScheme="A01" />
  <TypeOfArea v="Z01" />
  <RelatedArea>
    <AreaIdentification v="MGA06" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
</AreaSpecificationDetails>
</ValidityPeriod>
<ValidityPeriod>
  <ValidityStart v="2015-04-29T22:00:00Z" />
  <ValidityEnd v="2026-12-31T23:00:00Z" />
  <AreaSpecificationDetails>
    <AreaIdentification v="10YNO-1-----2" codingScheme="A01" />
    <TypeOfArea v="Z01" />
    <RelatedArea>
      <AreaIdentification v="MR_MGA202" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
  </AreaSpecificationDetails>
  <AreaSpecificationDetails>
    <AreaIdentification v="10Y1001A1001A48H" codingScheme="A01" />
    <TypeOfArea v="Z01" />
    <RelatedArea>
      <AreaIdentification v="MR_MGA203" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
  </AreaSpecificationDetails>
</ValidityPeriod>
```

```
<ValidityPeriod>
  <ValidityStart v="2015-12-31T23:00:00Z" />
  <ValidityEnd v="2026-12-31T23:00:00Z" />
  <AreaSpecificationDetails>
    <AreaIdentification v="10YNO-3-----J" codingScheme="A01" />
    <TypeOfArea v="Z01" />
    <RelatedArea>
      <AreaIdentification v="SC_MGA104" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
    <RelatedArea>
      <AreaIdentification v="MGA08" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
    <RelatedArea>
      <AreaIdentification v="MGA07" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
  </AreaSpecificationDetails>
  <AreaSpecificationDetails>
    <AreaIdentification v="10YNO-4-----9" codingScheme="A01" />
    <TypeOfArea v="Z01" />
    <RelatedArea>
      <AreaIdentification v="SC_MGA103" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
  </AreaSpecificationDetails>
</ValidityPeriod>
<ValidityPeriod>
  <ValidityStart v="2015-04-12T22:00:00Z" />
  <ValidityEnd v="2026-12-31T23:00:00Z" />
  <AreaSpecificationDetails>
    <AreaIdentification v="10Y1001A1001A48H" codingScheme="A01" />
    <TypeOfArea v="Z01" />
  </AreaSpecificationDetails>
</ValidityPeriod>
```

```
<RelatedArea>
  <AreaIdentification v="SC_MGA21" codingScheme="A01" />
  <TypeOfArea v="Z02" />
</RelatedArea>
<RelatedArea>
  <AreaIdentification v="SC_MGA12" codingScheme="A01" />
  <TypeOfArea v="Z02" />
</RelatedArea>
</AreaSpecificationDetails>
<AreaSpecificationDetails>
  <AreaIdentification v="10YNO-1-----2" codingScheme="A01" />
  <TypeOfArea v="Z01" />
  <RelatedArea>
    <AreaIdentification v="TP_MGA06" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
  <RelatedArea>
    <AreaIdentification v="TP_MGA13" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
  <RelatedArea>
    <AreaIdentification v="TP_MGA10" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
</AreaSpecificationDetails>
<AreaSpecificationDetails>
  <AreaIdentification v="10YNO-2-----T" codingScheme="A01" />
  <TypeOfArea v="Z01" />
  <RelatedArea>
    <AreaIdentification v="SC_MGA11" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
  <RelatedArea>
    <AreaIdentification v="SC_MGA20" codingScheme="A01" />
```

```
<TypeOfArea v="Z02" />
</RelatedArea>
</AreaSpecificationDetails>
</ValidityPeriod>
<ValidityPeriod>
  <ValidityStart v="2015-10-29T23:00:00Z" />
  <ValidityEnd v="2026-12-31T23:00:00Z" />
  <AreaSpecificationDetails>
    <AreaIdentification v="10YNO-2-----T" codingScheme="A01" />
    <TypeOfArea v="Z01" />
    <RelatedArea>
      <AreaIdentification v="MR_MGA201" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
  </AreaSpecificationDetails>
</ValidityPeriod>
<ValidityPeriod>
  <ValidityStart v="2015-11-19T23:00:00Z" />
  <ValidityEnd v="2026-12-31T23:00:00Z" />
  <AreaSpecificationDetails>
    <AreaIdentification v="10YNO-4-----9" codingScheme="A01" />
    <TypeOfArea v="Z01" />
    <RelatedArea>
      <AreaIdentification v="MGA_RUN" codingScheme="A01" />
      <TypeOfArea v="Z02" />
    </RelatedArea>
  </AreaSpecificationDetails>
<AreaSpecificationDetails>
  <AreaIdentification v="10YNO-2-----T" codingScheme="A01" />
  <TypeOfArea v="Z01" />
  <RelatedArea>
    <AreaIdentification v="MGA_NL1" codingScheme="A01" />
    <TypeOfArea v="Z02" />
  </RelatedArea>
</AreaSpecificationDetails>
```



```
<RelatedArea>
  <AreaIdentification v="MGA_DK1N" codingScheme="A01" />
  <TypeOfArea v="Z02" />
</RelatedArea>
</AreaSpecificationDetails>
</ValidityPeriod>
</NEGAreaSpecificationDocument>
```

2.1.4 Handling of Optional Parameters

Some of the request parameters of Information Service are marked as optional. If any of these parameters are left out of the request XML document, it is assumed that the sender wants to get information about all of the values, which are accessible to the sender.

E.g. when requesting Production hourly data, one can leave the Production Unit parameter out. The Information Service will then return values for all Production Units the sender is entitled to access. Please take into account that in this scenario the response might (especially for large service providers) surpass the limit for maximal response size. The preferred solution is then to query smaller time interval (e.g. one day instead of one week).

2.2 Web Service Channel

Following figure explains the composition of Web Service Request Interface.

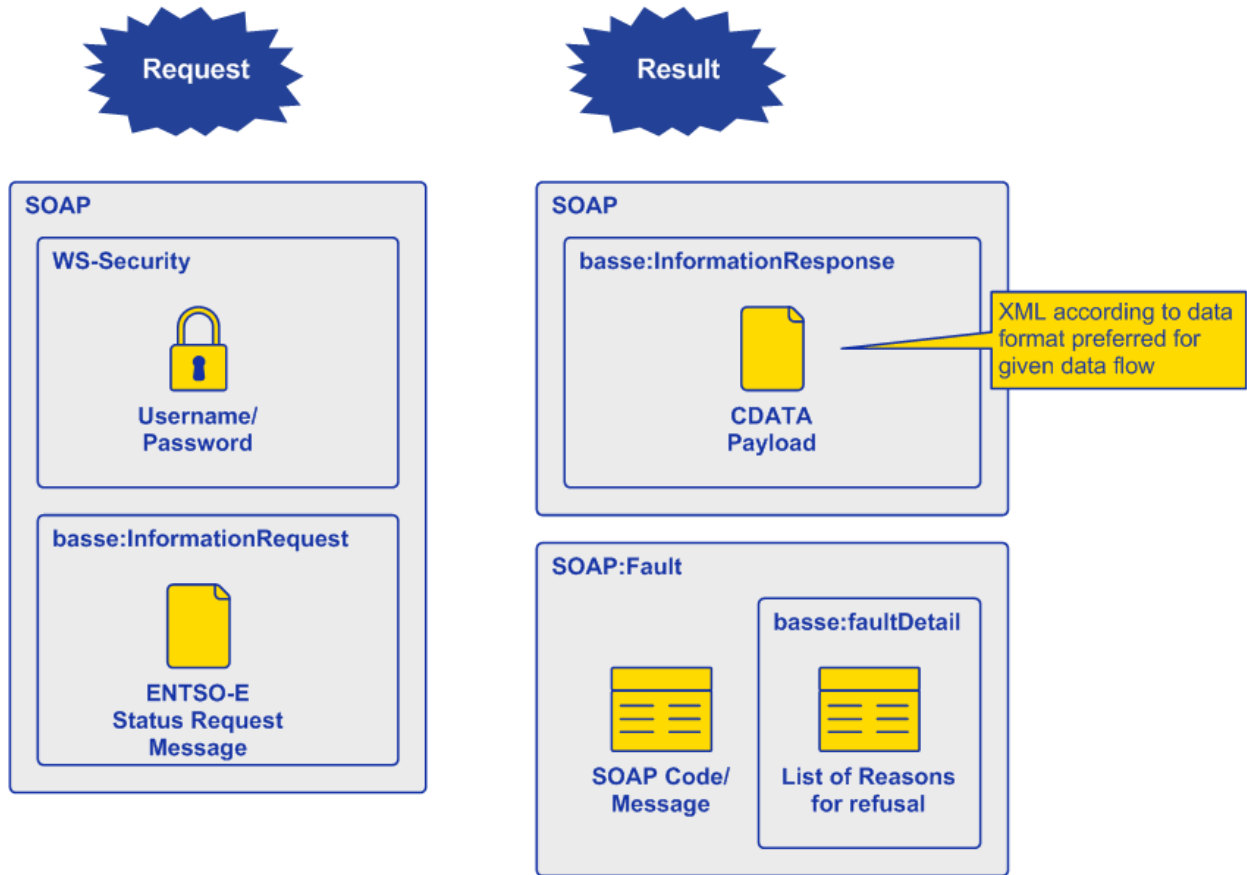


Figure 8: Physical Request Format

The request channel uses WS-Security envelope to transmit the user’s credentials. The request itself is then composed as ENTSO-E Status Request document.

The response is either the XML document in format defined by each Data Flow (see section above) 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 etc).

The channel uses common Request-Reply synchronous communication pattern.

2.2.1 Request Limitations

The technical configuration of Information Service allows setting following parameters to limit the usage. In case any of these limitations is exceeded by the caller of the Information Service; an appropriate exception is returned to the caller.

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 1 Market Participant per one minute. This throttles the communication with single Market Participant and protects Information Service against abnormal usage.

2.3 Usage Patterns

This section describes behaviour of the Information Service users (Market Participant Systems). The motivation is to ensure that Information Service will be used with respect to overall Balance Settlement System solution performance.

Information Service is expected to be used based on “events” distributed by Balance Settlement System Solution. These “events” might include outgoing e.g. data flows or reports, which are actively distributed from Balance Settlement System solution to Market Participant Systems.

Information Service is expected to be used on periodical basis with at most hourly frequency. Expected pattern is to fetch data after periodical gate closure times (hourly, daily, weekly, monthly or yearly).

Information Service is not expected to be frequently polled (with frequencies lower than 1 hour) for some data or event to appear in the system. All basic needs for outgoing data from eSett, shall be fulfilled by using data flows, reports or data packages.

Information Service is not expected to be directly used as a data source for any Market Participant located application (GUI, Reporting Engine, etc.). If there is need to display data fetched from Balance Settlement System, these data should be fetched and stored in Market Participant System – these stored data can then be used for other applications located in Market Participant’s premises.

2.4 Integration Procedure

This chapter describes the technical tasks which need to be performed in order to implement the integration.

The main prerequisite for integration is ability to create ENTSO-E Status Request Document (with parameters defined in 2.1.1) and process the returned Messages (of ENTSO-E or ebIX formats).

2.4.1 Web Service

Market Party System implements a WS Client and configures it with Information Service URL (provided by eSett) and sets WS-Security username/password to credentials provided by eSett. Market Party System uses this WS client to send Status Request Messages to Information Service and gets set of requested information contained in ENTSO-E or ebIX document (defined in 2.1.1).