

BSP Model

Technical go-live in eSett

September 20, 2022
We will start at 09:00 CET

Welcome!

- The webinar starts automatically.
- If you want to ask questions from the speaker during the webinar, you can do it via chat function.
- In case you encounter technical issues, inform us via the chat function.

BSP Model

Technical go-live in eSett

Kim Saarijärvi, Markus Flyktman

Agenda

- Where to find information
- Model changes and structures
- Messaging and Data Packages
- Online Service views



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- Balance Service Provider Model
- 15-minute Settlement
- New account model



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Balance Service Provider Model

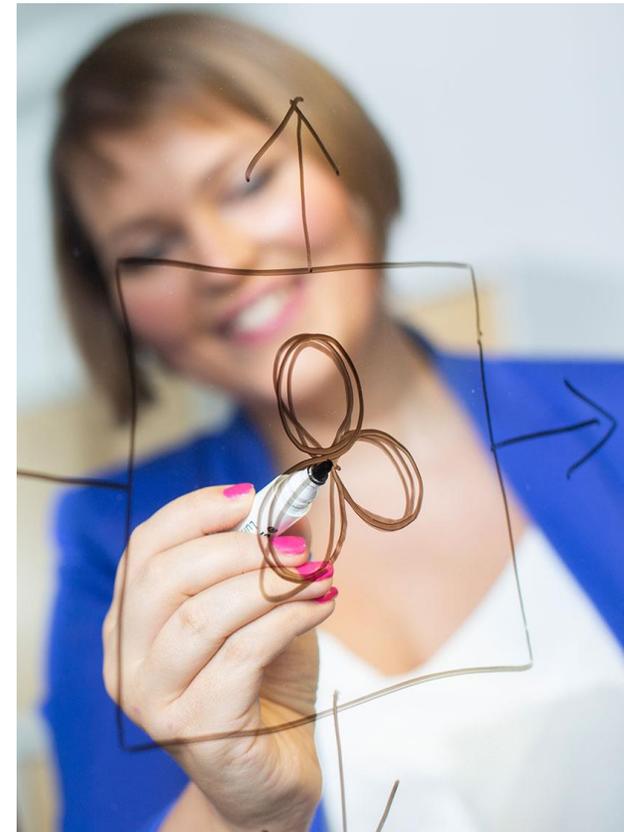
There is a plan to establish a new role in the Nordic Imbalance Settlement model called Balance Service Provider (BSP). BSPs are market participants which provide balancing energy or balancing capacity or both to the Transmission System Operator (TSO). BSPs, such as generators or demand facilities, balance out unforeseen fluctuations in the electricity grid by increasing or reducing their power output as requested by the TSO. Each balancing energy trade from a BSP is assigned to a Balance Responsible Party.

The Nordic TSOs are gradually taking the new role into use. eSett will carry out the invoicing of the BSP on behalf of the TSOs at least in some of the Nordic Imbalance Settlement countries. To get ready for this market change, eSett has initiated a project to provide these services.

The main changes are:

Commission plan for BSP Model

- Describes on a high-level how the introduction of the BSP model affects the Imbalance Settlement model, the market participants' operations and eSett's interfaces
- Describes upcoming changes when the BSP model will be taken into use:
 - main principles of the BSP model
 - the difference between technical go-live and business go-live
 - the visible technical changes in the operations between market participants and eSett
 - the changes on Online Service user interface
 - the summary of the changes in reporting of imbalance settlement results from eSett to BRP
- The document will be updated based on any updated information concerning the BSP Model



BSP version of the NBS Handbook

- The purpose of the Handbook is to support market participants in the planning and implementation of the new BSP model which will be applied from 10.10.2022
- The NBS Handbook is published on eSett's website under the page “NBS Handbook” and under the page “Balance Service Provider Model”.



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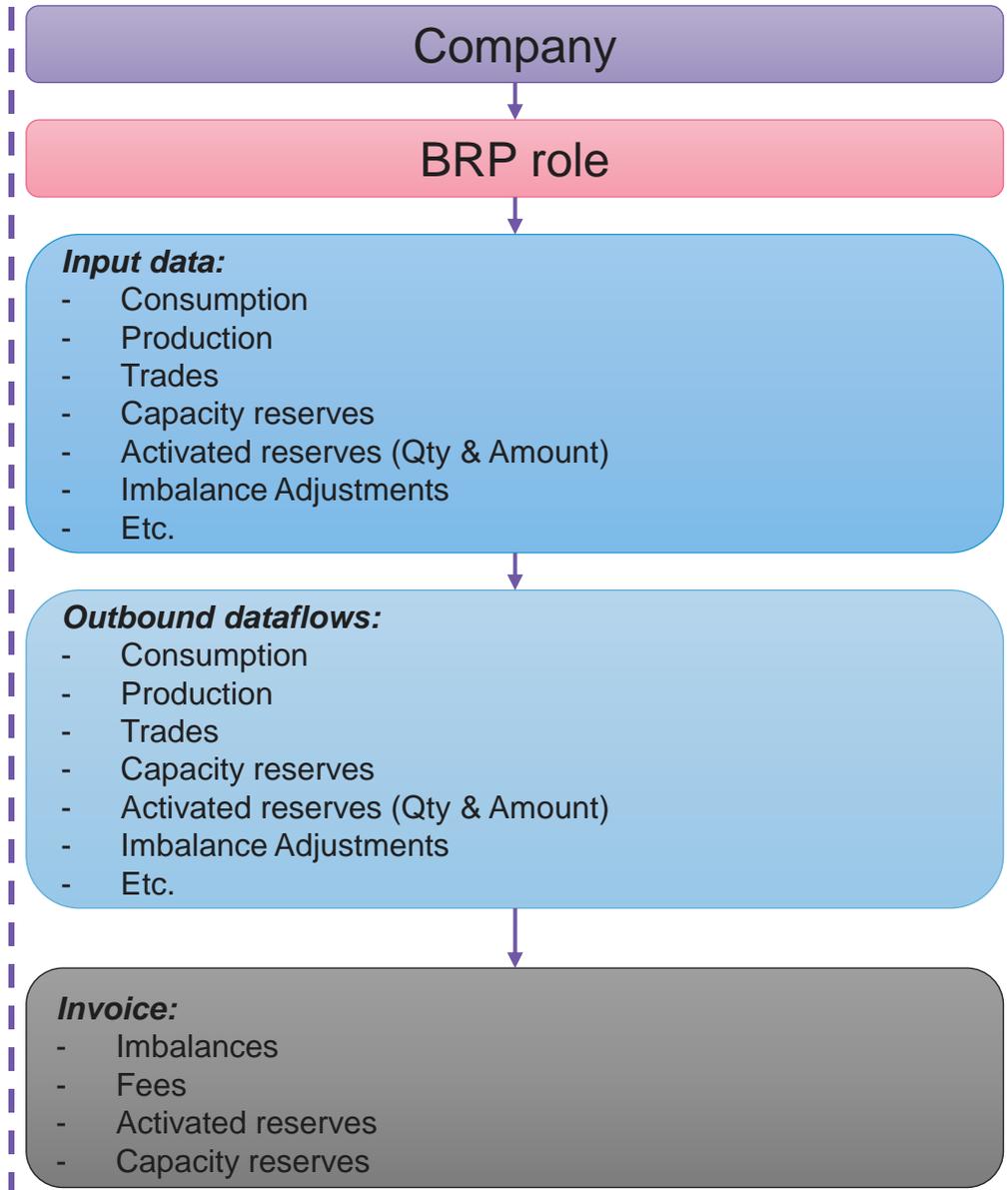


General

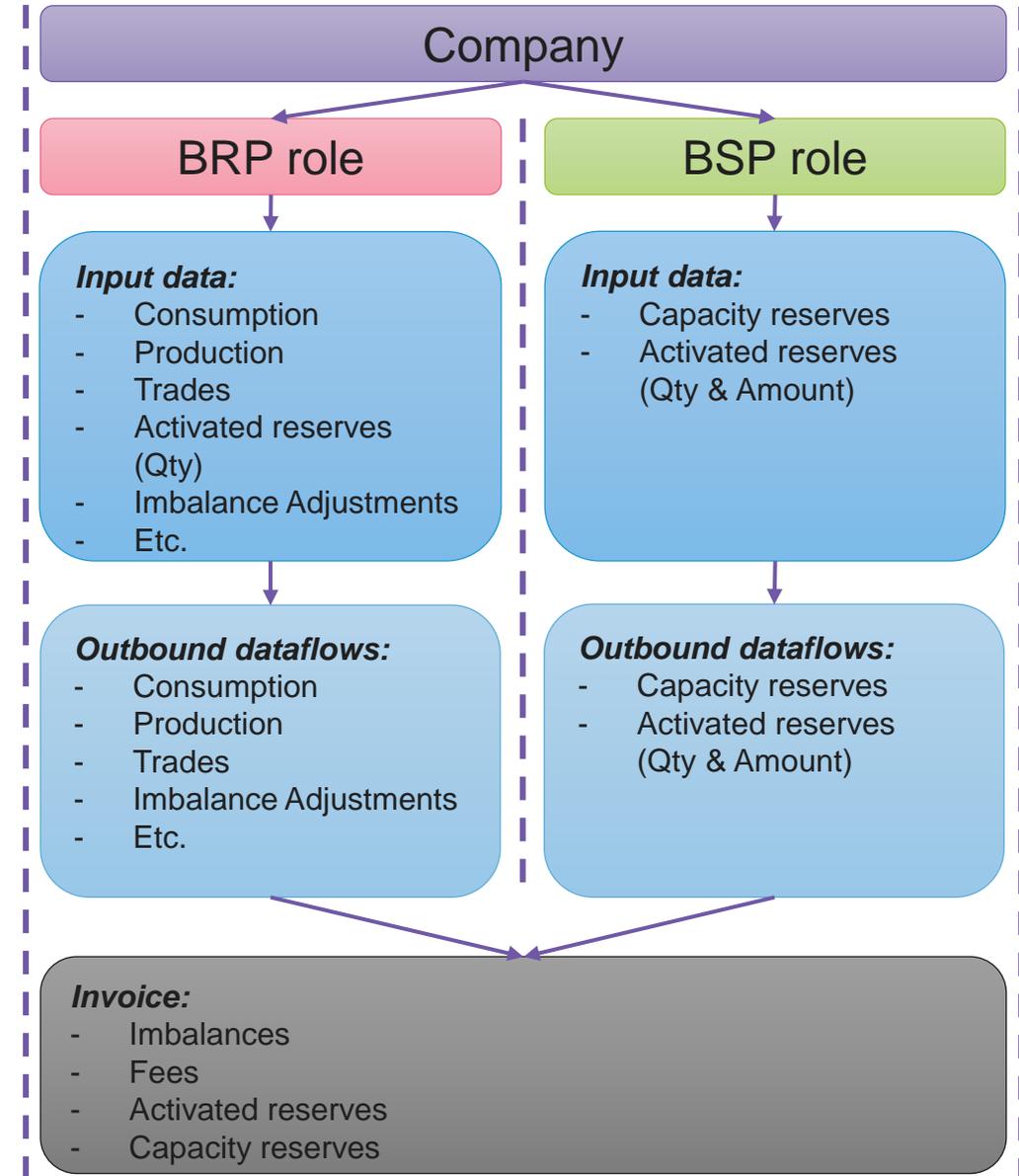
- The BSP technical go-live date will be on **10.10.2022 00:00 CET**
- This implemented BSP model is affecting **only for TSOs, and BRPs** which have valid activated and/or capacity reserves in the imbalance settlement carried out by eSett.
- The business go-live schedule is still open
 - The go-live date will be separately decided for each country
 - After business go-live, individual BSPs are allowed to enter in the market settled by eSett
- More information can be found from our project website:
 - [Website](#)
 - [Commissioning plan](#)
 - [Draft of NBS Handbook including the BSP model](#)



Current situation, a company with the BRP role

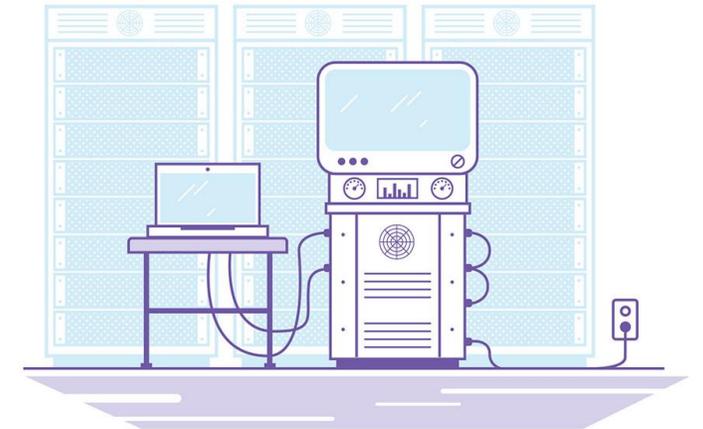


Situation after BSP technical go-live



What the technical GL means from structure point of view?

- eSett created for all BRPs that have activated reserves and/or capacity reserves a BSP role for that specific country where the BRP is active
 - In practice it means BSP role and BSP branch
 - Structure info, like market party code, contact person etc., were taken based on the BRP information
 - Start date: 10.10.2022 00:00 CET for all BSPs
- RO-BSP relation created starting from 10.10.2022 00:00 CET and BSP is same as RO's BRP
- All Activated reserves got also a BSP structure information starting from 10.10.2022 00:00 CET
 - BRP will continue normally as a structure information
- All Capacity reserves' BRP attribute replaced by the BSP attribute
 - In practice all current time series were terminated to timestamp 9.10.2022 24:00 CET and same, but new ones with market party BSP, created starting from 10.10.2022 00:00 CET
- Activated & capacity reserves' data package subscriptions will be added to the BSP side reflecting the BRP's subscription selection(s)



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BSP data on Online Service

- Data packages:

Name	Format	Frequency	Period from ⓘ	Period to ⓘ	Granularity	Subscription	
Tertiary Replacement Reserves (RR)	BSP Activated Reserves	Daily	D-14	D-1	Hourly	Inactive	☰
Primary Frequency Containment Reserves (FCR)	BSP Activated Reserves	Daily	D-14	D-1	Hourly	Active in CET	☰
Secondary Frequency Restoration Reserves (FRR)	BSP Activated Reserves	Daily	D-14	D-1	Hourly	Inactive	☰
Secondary Frequency Restoration Reserves (FRR) – contracted reserves	BSP Capacity Reserves	Daily	D-14	D-1	Hourly	Active in CET	☰
Tertiary Replacement Reserves (RR) – contracted reserves	BSP Capacity Reserves	Daily	D-14	D-1	Hourly	Inactive	☰
Primary Frequency Containment Reserves (FCR) – contracted reserves	BSP Capacity Reserves	Daily	D-14	D-1	Hourly	Inactive	☰
Imbalance prices per Market Balance Area (MBA)	Prices	Daily	D-14	D-1	Hourly	Active in CET	☰

- One attribute (receiver role) will be changed/added in the dataflows due to the BSP model:

BRS/document	Change	New value
NEG ERRP Reserve Allocation Result document	One new <i>Receiver Role</i> attribute	A46 (Balancing Service Provider)

- BRS documentation [link](#)

Example of xml change in Online Service

```

<?xml version="1.0" encoding="utf-8"?>
<ReserveAllocationResultDocument xsi:schemaLocation="urn:ediel.org:neg:errp:reserveallocationresultdocument:1:0 ur
<DocumentIdentification v="doc8a4316e0a48cd91b60ccbdb008ab4" />
<DocumentVersion v="1" />
<DocumentType v="A38" />
<ProcessType v="A30" />
<SenderIdentification v="44X-00000000004B" codingScheme="A01" />
<SenderRole v="A05" />
<ReceiverIdentification v="987654321" codingScheme="A10" />
<ReceiverRole v="A05" />
<CreationDateTime v="2022-01-01T00:00:00Z" />
<ReserveBidTimeInterval v="2022-01-01T00:00Z/2022-01-01T22:00Z" />
<Domain v="10Y1001A1001A91G" codingScheme="A01" />
<AllocationTimeSeries>
  <TimeSeriesIdentification v="123456789" />
  <TenderingParty v="123456789" codingScheme="A10" />
  <BusinessType v="A10" />
  <AcquiringArea v="10YFI-1-----U" codingScheme="A01" />
  <ConnectingArea v="10YFI-1-----U" codingScheme="A01" />
  <MeasureUnitQuantity v="MWH" />
  <Currency v="EUR" />
  <MeasureUnitPrice v="MWH" />
  <ReserveObject v="123ABC" codingScheme="NFI" />
  <Direction v="A01" />
  <Period>
    <TimeInterval v="2022-01-01T00:00Z/2022-01-01T23:00Z" />
    <Resolution v="PT1H" />
    <Interval>
      <Pos v="1" />
      <Qty v="0" />
      <SettlementAmount v="0" />
    </Interval>
    <Interval>
      <Pos v="2" />
      <Qty v="0" />
      <SettlementAmount v="0" />
    </Interval>
    .....
    <Interval>
      <Pos v="24" />
      <Qty v="0" />
      <SettlementAmount v="0" />
    </Interval>
  </Period>
  <Reason>
    <ReasonCode v="Z31" />
  </Reason>
</AllocationTimeSeries>
</ReserveAllocationResultDocument>

```

New receiver role "A46"

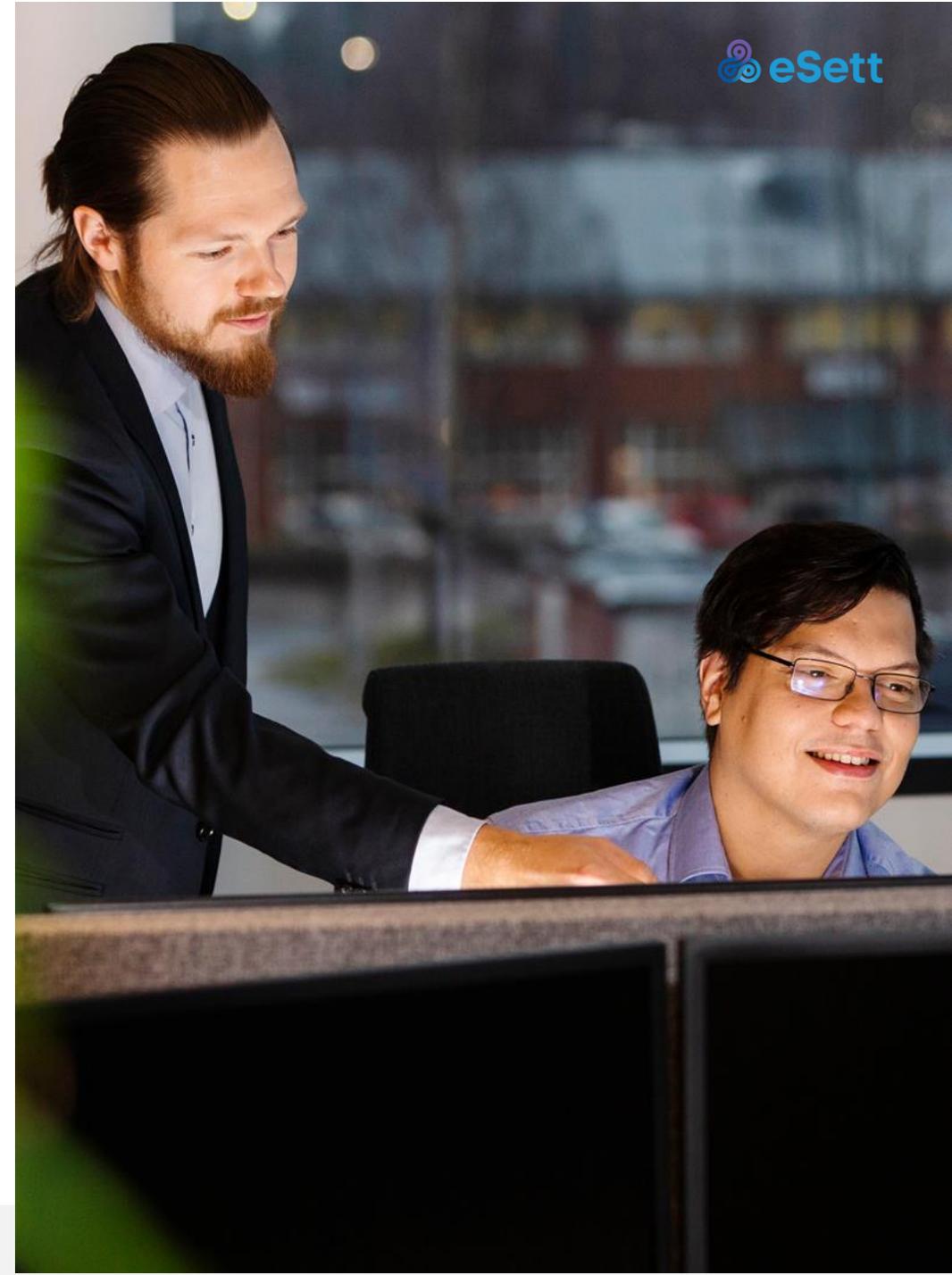
```

<?xml version="1.0" encoding="utf-8"?>
<ReserveAllocationResultDocument xsi:schemaLocation="urn:ediel.org:neg:errp:reserveallocationresultdocument:1:0 ur
<DocumentIdentification v="doc8a4316e0a48cd91b60ccbdb008ab4" />
<DocumentVersion v="1" />
<DocumentType v="A38" />
<ProcessType v="A30" />
<SenderIdentification v="44X-00000000004B" codingScheme="A01" />
<SenderRole v="A05" />
<ReceiverIdentification v="987654321" codingScheme="A10" />
<ReceiverRole v="A46" />
<CreationDateTime v="2022-01-01T00:00:00Z" />
<ReserveBidTimeInterval v="2022-01-01T00:00Z/2022-01-01T22:00Z" />
<Domain v="10Y1001A1001A91G" codingScheme="A01" />
<AllocationTimeSeries>
  <TimeSeriesIdentification v="123456789" />
  <TenderingParty v="123456789" codingScheme="A10" />
  <BusinessType v="A10" />
  <AcquiringArea v="10YFI-1-----U" codingScheme="A01" />
  <ConnectingArea v="10YFI-1-----U" codingScheme="A01" />
  <MeasureUnitQuantity v="MWH" />
  <Currency v="EUR" />
  <MeasureUnitPrice v="MWH" />
  <ReserveObject v="123ABC" codingScheme="NFI" />
  <Direction v="A01" />
  <Period>
    <TimeInterval v="2022-01-01T00:00Z/2022-01-01T23:00Z" />
    <Resolution v="PT1H" />
    <Interval>
      <Pos v="1" />
      <Qty v="0" />
      <SettlementAmount v="0" />
    </Interval>
    <Interval>
      <Pos v="2" />
      <Qty v="0" />
      <SettlementAmount v="0" />
    </Interval>
    .....
    <Interval>
      <Pos v="24" />
      <Qty v="0" />
      <SettlementAmount v="0" />
    </Interval>
  </Period>
  <Reason>
    <ReasonCode v="Z31" />
  </Reason>
</AllocationTimeSeries>
</ReserveAllocationResultDocument>

```

Information Service

- One attribute A46 (receiver/sender role) will be added to the Information Service dataflows
- BSP model affects three different Information Service data flows and data can be *searched* as follows:
 - Capacity reserves (CRE_INF):
 - Activated reserves (ACR_INF):
 - Imbalance Adjustment (IBA_INF):



Example of xml change in Information Service

```

<?xml version="1.0"?>
- <soap:Envelope xmlns:urn="urn:entsoe.eu:wgedi:components" xmlns:inf="http://www.basse.eu/inform
  <soap:Header/>
  - <soap:Body>
    - <inf:GetData>
      - <inf:request DtdRelease="?" DtdVersion="?">
        <urn:DocumentIdentification v="1"/>
        <urn:DocumentType v="A25"/>
        <urn:SenderIdentification v="BRP01" codingScheme="A01"/>
        <urn:SenderRole v="A08"/>
        <urn:ReceiverIdentification v="BASSE" codingScheme="A01"/>
        <urn:ReceiverRole v="A05"/>
        <urn:CreationDateTime v="2015-07-20T00:00:00Z"/>
      - <urn:RequestComponent>
        <urn:RequestedAttribute v="Dataflow"/>
        <urn:RequestedAttributeValue v="ACR"/>
      </urn:RequestComponent>
      - <urn:RequestComponent>
        <urn:RequestedAttribute v="TimeInterval"/>
        <urn:RequestedAttributeValue v="2015-03-01T22:00:00Z/2015-11-02T22:00:00Z"/>
      </urn:RequestComponent>
      - <urn:RequestComponent>
        <urn:RequestedAttribute v="TimeResolution"/>
        <urn:RequestedAttributeValue v="PT1H"/>
      </urn:RequestComponent>
    </inf:request>
  </inf:GetData>
</soap:Body>
</soap:Envelope>

```

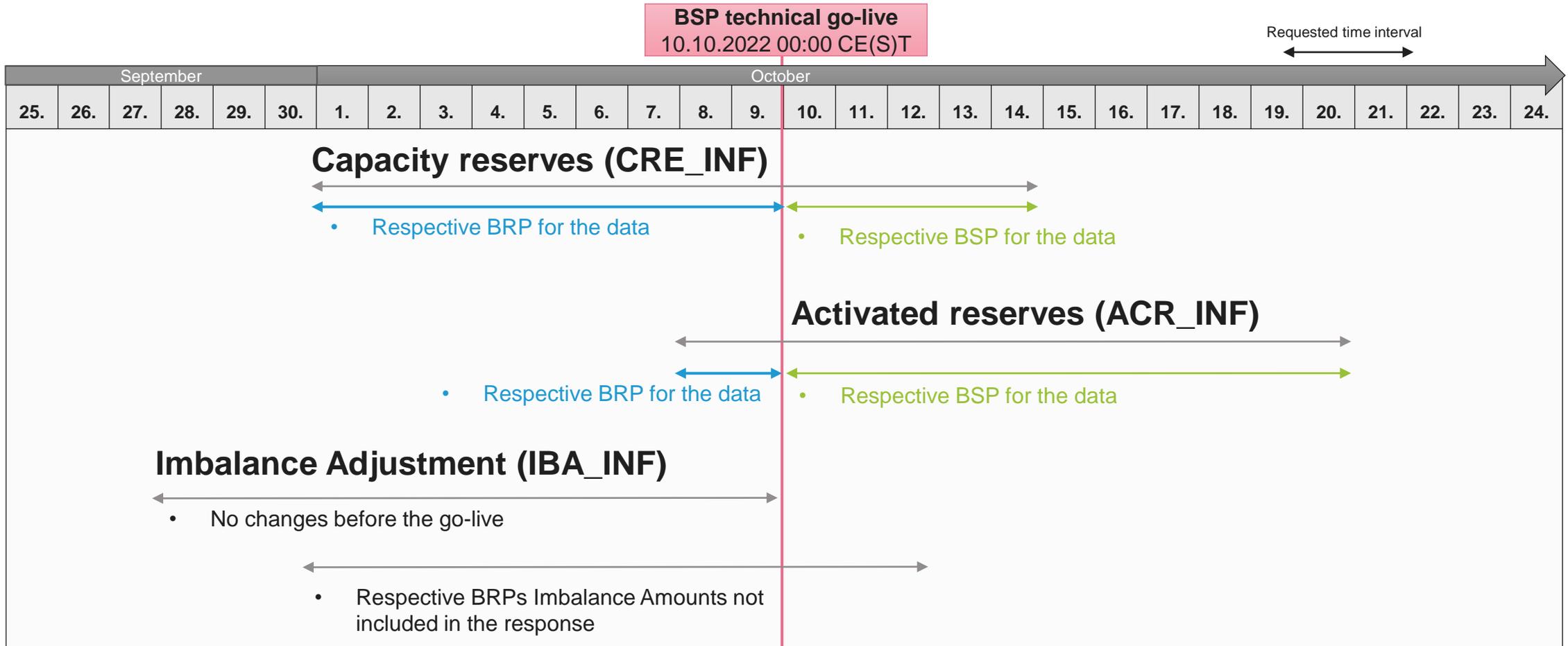
New sender role "A46" →

```

<?xml version="1.0"?>
- <soap:Envelope xmlns:urn="urn:entsoe.eu:wgedi:components" xmlns:inf="http://www.basse.eu/information-service-1.0"
  <soap:Header/>
  - <soap:Body>
    - <inf:GetData>
      - <inf:request DtdRelease="?" DtdVersion="?">
        <urn:DocumentIdentification v="1"/>
        <urn:DocumentType v="A25"/>
        <urn:SenderIdentification v="BSP01" codingScheme="A01"/>
        <urn:SenderRole v="A46"/>
        <urn:ReceiverIdentification v="BASSE" codingScheme="A01"/>
        <urn:ReceiverRole v="A05"/>
        <urn:CreationDateTime v="2022-10-10T00:00:00Z"/>
      - <urn:RequestComponent>
        <urn:RequestedAttribute v="Dataflow"/>
        <urn:RequestedAttributeValue v="ACR"/>
      </urn:RequestComponent>
      - <urn:RequestComponent>
        <urn:RequestedAttribute v="TimeInterval"/>
        <urn:RequestedAttributeValue v="2022-10-10T22:00:00Z/2022-10-15T22:00:00Z"/>
      </urn:RequestComponent>
      - <urn:RequestComponent>
        <urn:RequestedAttribute v="TimeResolution"/>
        <urn:RequestedAttributeValue v="PT1H"/>
      </urn:RequestComponent>
    </inf:request>
  </inf:GetData>
</soap:Body>
</soap:Envelope>

```

Information service data flows



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BSP data on Online Service

- Activated reserves
 - Details, RO, MWh and EUR
- Capacity reserves
 - Details, MW and EUR

The screenshot shows the eSett Online Service interface. A blue sidebar menu is open, highlighting 'Others' and 'Reserves'. The main content area shows a table with columns: From, To, Regulation Object, BRP, MBA, Balancing Service, Balancing Sub Service, and Direction Type. The table contains data for various reserve types and their associated parameters.

From	To	Regulation Object	BRP	MBA	Balancing Service	Balancing Sub Service	Direction Type
15.03.2021 00:00	Undefined	S1 RO1	S1 BRP1	FI	Frequenc...	FCR	Consumption
15.03.2021 00:00	Undefined	S1 RO3	S1 BRP2	FI	Frequenc...	FCR	Consumption
15.03.2021 00:00	Undefined	S1 RO5	S1 BRP3	FI	Frequenc...	FCR	Consumption
15.03.2021 00:00	Undefined	S1 RO4	S1 BRP2	FI	Frequenc...	FRR-A	Production
15.03.2021 00:00	Undefined	S1 RO6	S1 BRP3	FI	Frequenc...	FRR-A	Production
15.03.2021 00:00	Undefined	S1 RO4	S1 BRP2	FI	Frequenc...	Hour Cha...	Production
15.03.2021 00:00	Undefined	S1 RO6	S1 BRP3	FI	Frequenc...	Hour Cha...	Production

The screenshot shows the 'Aggregations' tab in the eSett Online Service. It displays a detailed time series table for 'Balancing Sub Service' (Frequency Containment Reserve) with 'MBA' set to 'FI' and 'Direction Type' set to 'Consumption'. The table shows data for the period from 01.11.2021 to 05.11.2021, aggregated by hour. A dropdown menu is open, showing options for 'Up Amount', 'Up Quantity', 'Down Quantity', 'Up Amount', and 'Down Amount'.

Date	01.11.2021	02.11.2021	03.11.2021	04.11.2021	05.11.2021
00:00-01:00	-1 620,00	-1 260,00	-270,00	-1 170,00	
01:00-02:00	-1 350,00	-1 080,00	-2 520,00	-2 430,00	
02:00-03:00	-3 510,00	-2 250,00	-3 690,00	-2 430,00	-2 790,00
03:00-04:00	-3 690,00	-4 410,00	-4 140,00	-3 420,00	-3 150,00
04:00-05:00	-4 860,00	-4 050,00	-4 050,00	-5 400,00	-4 230,00
05:00-06:00	-5 040,00	-5 400,00	-6 120,00	-5 670,00	-5 670,00
06:00-07:00	-7 301,10	-6 131,10	-6 041,10	-5 861,10	-7 121,10
07:00-08:00	-6 480,00	-6 750,00	-7 290,00	-7 290,00	-7 740,00
08:00-09:00	-8 291,07	-8 381,07	-8 831,07	-8 381,07	-8 381,07
09:00-10:00	-9 180,00	-9 540,00	-9 900,00	-9 540,00	-8 910,00
10:00-11:00	-9 900,00	-9 360,00	-9 720,00	-10 620,00	-11 160,00
11:00-12:00	-10 080,00	-10 350,00	-11 070,00	-11 790,00	-11 340,00
12:00-13:00	-11 250,00	-11 880,00	-12 150,00	-12 150,00	-12 600,00
13:00-14:00	-12 060,00	-11 880,00	-12 060,00	-13 590,00	-13 410,00
14:00-15:00	-14 220,00	-14 130,00	-13 320,00	-14 490,00	-14 220,00
15:00-16:00	-14 760,00	-13 860,00	-13 860,00	-15 210,00	-15 480,00
16:00-17:00	-15 840,00	-15 210,00	-15 120,00	-15 750,00	-15 930,00
17:00-18:00	-16 740,00	-16 920,00	-17 370,00	-17 100,00	-15 750,00
18:00-19:00	-17 010,00	-17 190,00	-17 100,00	-17 460,00	-18 360,00
19:00-20:00	-17 910,00	-17 910,00	-17 820,00	-18 900,00	-17 820,00
20:00-21:00	-19 091,10	-18 911,10	-18 911,10	-19 361,10	-18 101,10
21:00-22:00	-19 698,90	-20 688,90	-20 148,90	-20 058,90	-20 238,90
22:00-23:00	-20 970,00	-20 070,00	-21 870,00	-21 420,00	-21 240,00
23:00-24:00	-21 150,00	-20 970,00	-20 970,00	-22 770,00	-21 150,00
Min	-21 150,00	-20 970,00	-21 870,00	-22 770,00	-21 240,00
Max	-1 350,00	-1 080,00	-270,00	-1 170,00	-540,00
Total	-272 002,17	-268 582,17	-274 342,17	-281 272,17	-277 582,17

BSP data on Online Service

- Regulation Object (RO) structural information
- Fees
- Messages
- Market structures

The screenshot shows the eSett Online Service interface. The top navigation bar includes 'INPUT DATA', 'STRUCTURES', 'FINANCES', 'REPORTS', 'MESSAGES', 'INFORMATION', and 'ADMINISTRATION'. The 'STRUCTURES' menu is open, showing 'Manage' (View Requests), 'Related' (Regulation Objects), and 'Others' (Market Parties, MGAs, MBAs, MGA Borders, MBA Borders). Below the menu, there are input fields for 'Validity' (08.11.2021) and 'BRP'. A table below displays the data for Regulation Objects.

Regulation Object	MBA	Type	BRP	From	To
S1 RO1	FI	Consumption	S1 BRP1	01.01.2021 00:00	Undefined
S1 RO2	FI	Production (Normal)	S1 BRP1	01.01.2021 00:00	Undefined
S1 RO3	FI	Consumption	S1 BRP2	01.01.2021 00:00	Undefined
S1 RO4	FI	Production (Normal)	S1 BRP2	01.01.2021 00:00	Undefined
S1 RO5	FI	Consumption	S1 BRP3	01.01.2021 00:00	Undefined
S1 RO6	FI	Production (Normal)	S1 BRP3	01.01.2021 00:00	Undefined

Total pages: 1 (6 rows)

Questions & Answers from the webinar 20.9.2022 (1/2)

Q: New BSP model will be applied from 10.10.2022. Is it applicable to Denmark region as well?

A: Yes, it will be applied in all four countries (Denmark, Finland, Norway and Sweden) which imbalance settlement is carried out by eSett Oy.

Q: If our company is intended to register as a BSP, should we be a BRP first to get access to the market? When can we start to register as a BSP?

A: After the BSP model technical go-live, the same agreements (Imbalance Settlement agreement, local Balance Agreement and Pledged Cash Account Agreement) are used as currently. So basically yes, the company will need to have a BRP role also. It is only after the BSP Business go-live date (which is defined by each country specifically) that the individual BSPs are allowed to enter in the market settled by eSett.

Q: Do BRP/BSP needs to subscribe for data packages or will get those automatically based on existing BRP role from 10.10.22?

A: eSett has done the subscriptions on behalf of the BSP based on the current subscriptions from the BRP side.

Q: Do You plan to share the presentation after the webinar?

A: Yes, the presentation and a recording of the webinar will be added to the project website later this week: <https://www.esett.com/projects/balance-service-provider-model>

Questions & Answers from the webinar 20.9.2022 (2/2)

Q: If you are BRP today and currently not active on the TSO-markets but plan to be soon and become BSP directly. Should you be active in the technical go-live to prepare for the BSP-role? Or could this be done quickly when becoming active?"

A: It is necessary to be an active BRP in the reserve market before or right after the technical go-live. Based on the current agreements from eSett's point of view, the BRP can also have a BSP role if needed. eSett can create rather quickly a new BSP role for an active BRP if/when the TSO indicates the need for a BSP role for certain BRP.

Q: In service provider role I can't see our customers' BSP-roles. Do we have to get POA for these roles?

A: It is not needed to get POA in this case. Service provider role will be added based on the current access rights as nothing is changing from access rights' point of view. Visibility will be available in the near future.

Q: Will Imbalance on BRP-side still include the activated reserves and amounts, after technical Go-live? To clarify, if one are only BRP today - there are no changes we need to take action on at the technical go-live?

A: Activated reserve quantities will be affecting same way to the imbalance adjustments and imbalance settlement calculation as currently from BRP side. Activated reserves quantities and amounts will be presented in the invoice same way as currently. What comes to the input data, Activated reserves quantities and amount will be presented under the BSP role which has been created to this same company as the BRP is linked.

Q: Does the BSP role need an own information service user to retrieve the data?

A: The same information service user can be used as for the BRP.

In case you need more information, please contact
eSett Customer Service

- Create Customer Service Request on www.esett.com/contact
- Send email to settlement@esett.com
- Call +358 10 501 8500



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