BSP Model Commissioning Plan

Version 3.1

Commission plan for Balancing Service Provider (BSP) Model

- Purpose of this document is to describe on a high-level how the introduction of the BSP model affects
  - Imbalance Settlement model
  - the market participants' operations
  - eSett's interfaces
- This document describes:
  - main principles of the BSP model
  - the difference between technical go-live and business go-live
  - Online Service user interface
- This document is an initial commissioning plan, and it will be updated based on the updated information on the BSP model and input from the TSOs and market participants

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BSP Model

High level concept

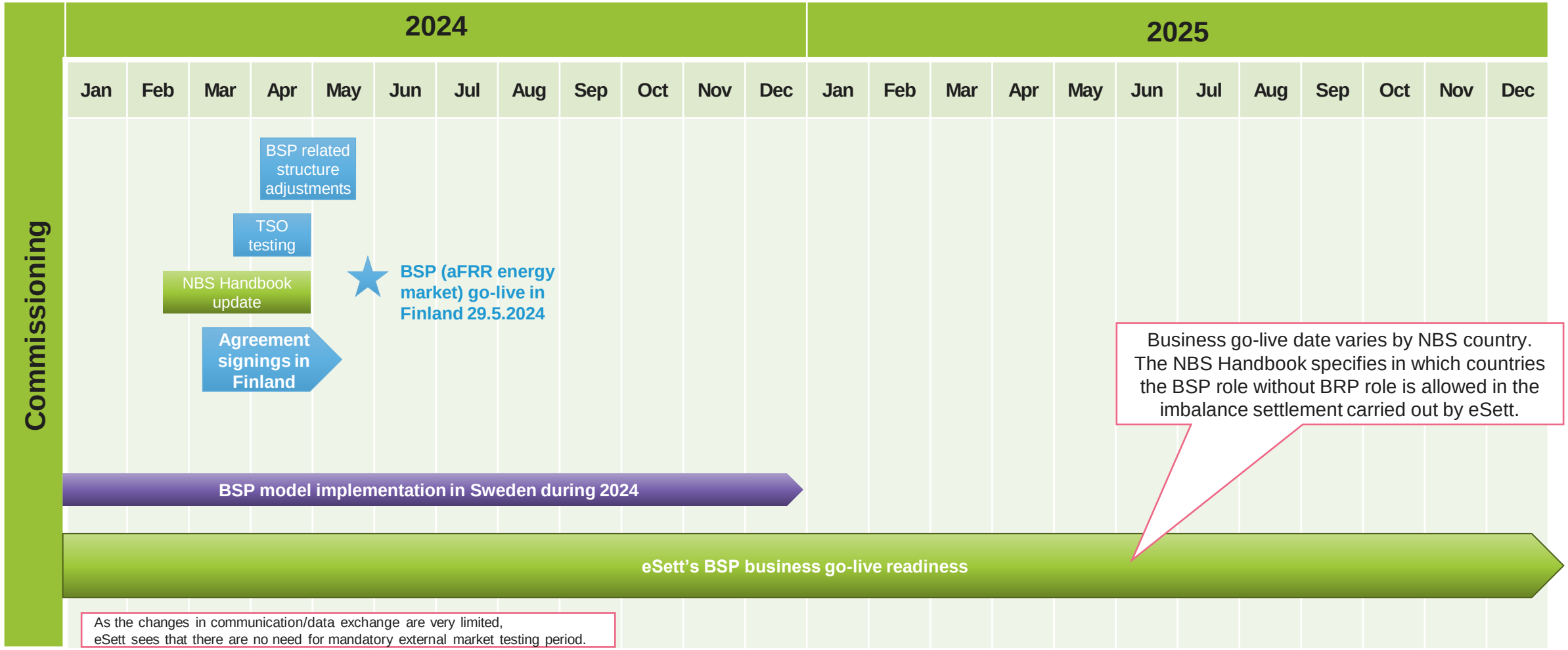
Overview

- Balancing Service Provider is a market role that maintain reserves and provide balancing services in regulation markets
- BRPs that deliver balancing services have a BSP role which allows them to continue to act on the balancing markets as before
- Mutual settlement solution in the NBS countries
  - TSOs report activated reserves and capacity reserves to eSett
  - The BSP will not be responsible for imbalances -> reported activated reserves will be calculated by eSett to imbalance adjustments and included in imbalance settlement of the BRP as today
  - In addition to BRP invoicing, eSett will be responsible for the invoicing of BSPs
  - The time of introduction of the BSP role in NBS countries will differ and the time schedule(s) will be specified in the NBS Handbook

Technical go-live and business go-live(s)

- The BSP technical go-live date was on 10.10.2022 00:00 CET
  - A BSP role created for the BRPs that deliver balancing services in any NBS country
  - No individual BSPs allowed at that point - each BSP needs to also have a BRP role in Nordic imbalance settlement
- The business go-live schedule will be separately decided for each country
  - After business go-live, individual BSPs are allowed to enter in the market settled by eSett
- The business go-live in different countries:
  - Denmark: TBD
  - Finland:
    - mFRR energy market 20.11.2023
    - aFRR energy market 29.5.2024
    - Norway: TBD
  - Sweden: BSP model implementation during 2024

BSP Commissioning Time Schedule



BSP Agreement

- eSett has published the balancing service provider agreement and it is visible in eSett's website.
- The BSP agreement will be used for the individual balancing service providers in Nordic countries when the transition to the BSP model will take place in each country.
- The agreement will not affect currently active balance responsible parties in imbalance and capacity settlement, as they can continue their operations under the current imbalance settlement agreements.
- Basically, the BSP agreement follows the same structure as the current imbalance settlement agreement, but it has been adjusted to fit the balancing service provider concept.

BSP model business go-live in Finland

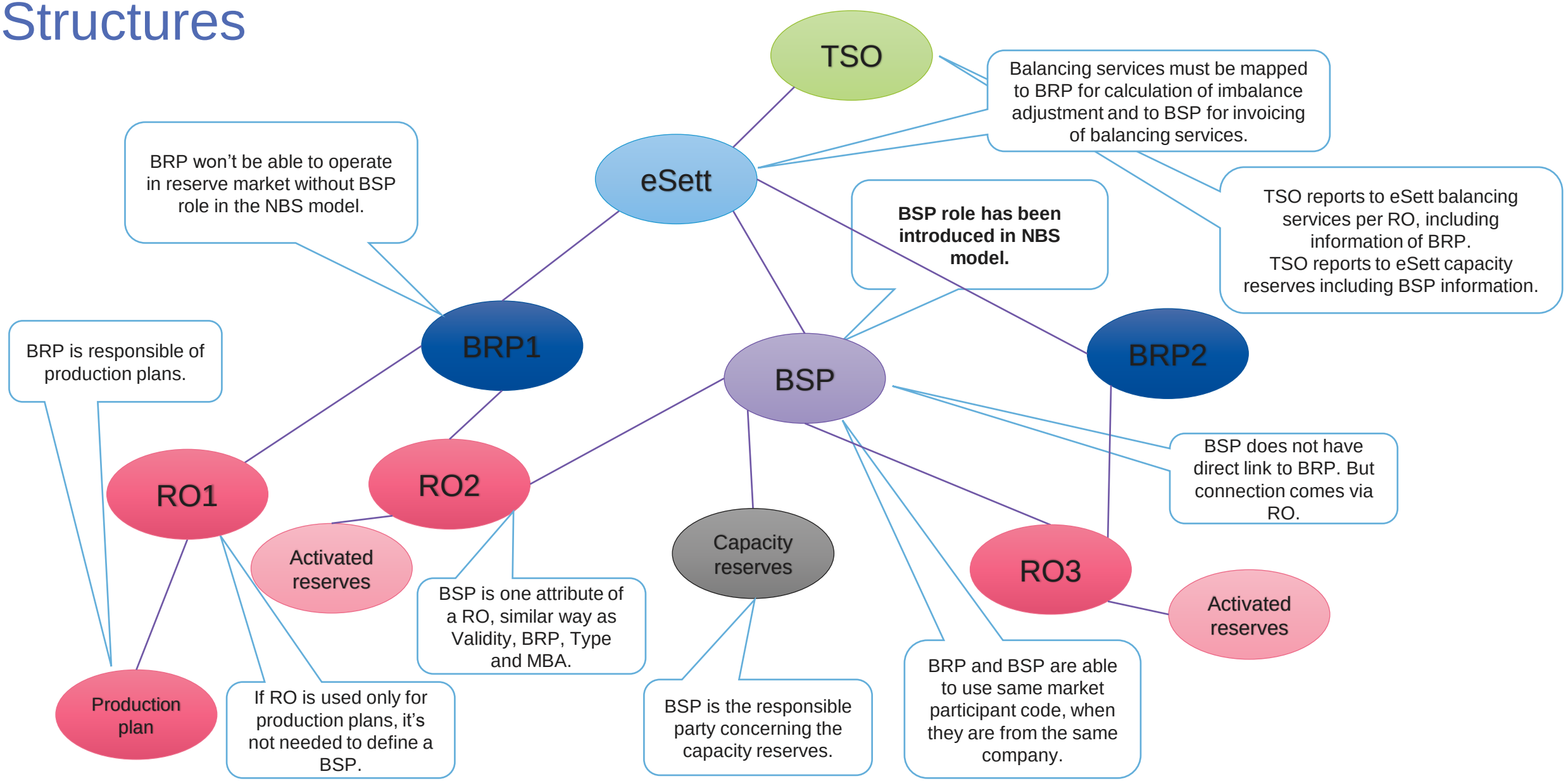
Next slide affects Finnish BSPs active in the mFRR energy market and in the future also in the aFRR energy market

Business GLs in Finland

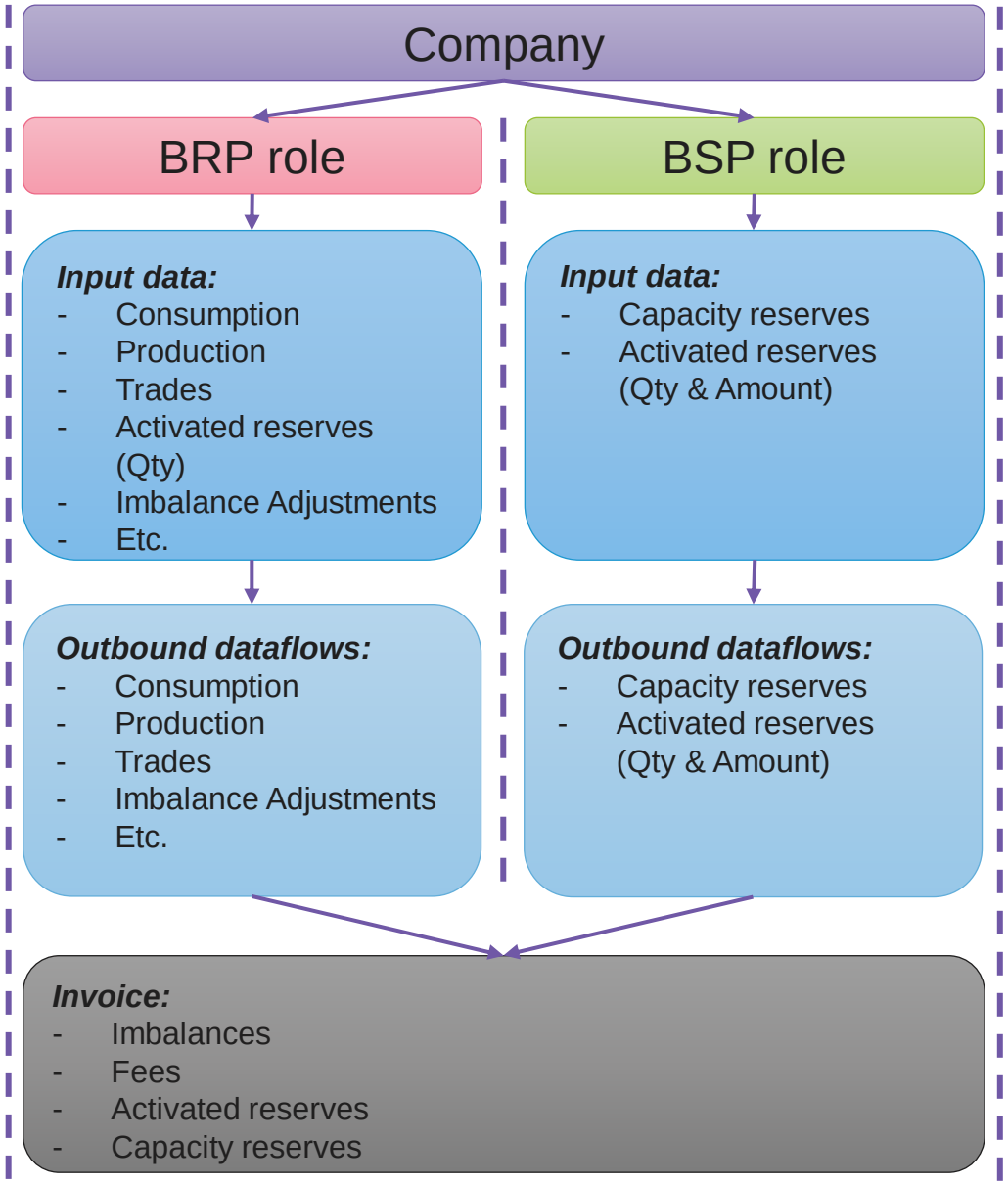
- BSP model business go-live in Finland for aFRR energy market will take place on 29.5.2024
- BSPs which are currently active in Finnish mFRR energy market are now settled and invoiced via eSett
  - Go-live took place on 20.11.2023 00:00 CET
- BSP needs to sign the following agreements:
  - Balancing Service Settlement Agreement with eSett
  - Pledged cash account agreement with eSett and settlement bank
  - Renewed Balancing Market Agreement with Fingrid Oyj

BSP in the NBS model

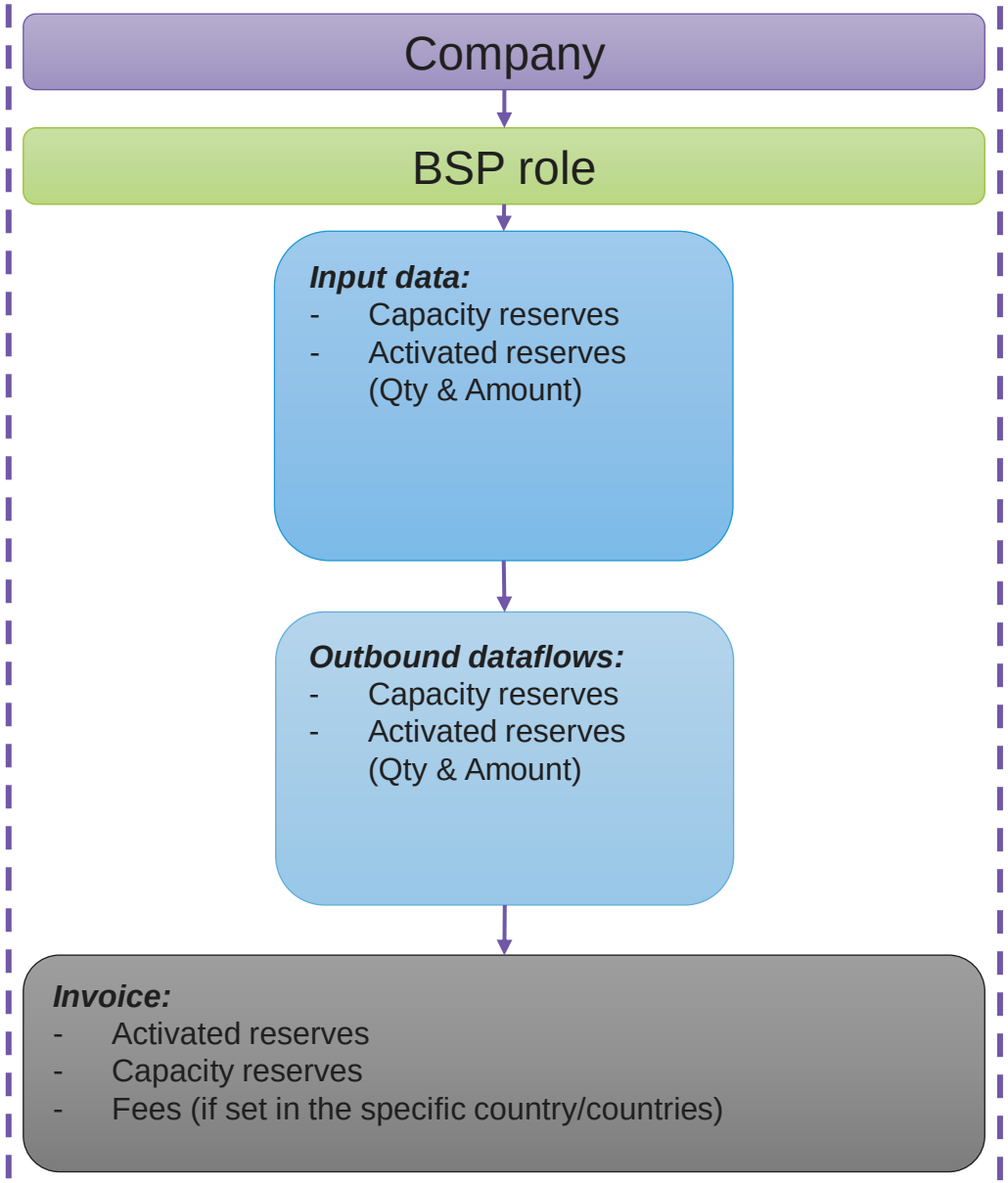
Structures


TSO
Balancing services must be mapped to BRP for calculation of imbalance adjustment and to BSP for invoicing of balancing services.
eSett
BRP won't be able to operate in reserve market without BSP role in the NBS model.
BSP role has been introduced in NBS model.
TSO reports to eSett balancing services per RO, including information of BRP.
TSO reports to eSett capacity reserves including BSP information.
BRP1
BSP
BRP2
BRP is responsible of production plans.
RO1
RO2
BSP does not have direct link to BRP. But connection comes via RO.
Activated reserves
Capacity reserves
RO3
Activated reserves
BSP is one attribute of a RO, similar way as Validity, BRP, Type and MBA.
Production plan
If RO is used only for production plans, it's not needed to define a BSP.
BSP is the responsible party concerning the capacity reserves.
BRP and BSP are able to use same market participant code, when they are from the same company.

A company with the BRP and BSP role



A company with the BSP role

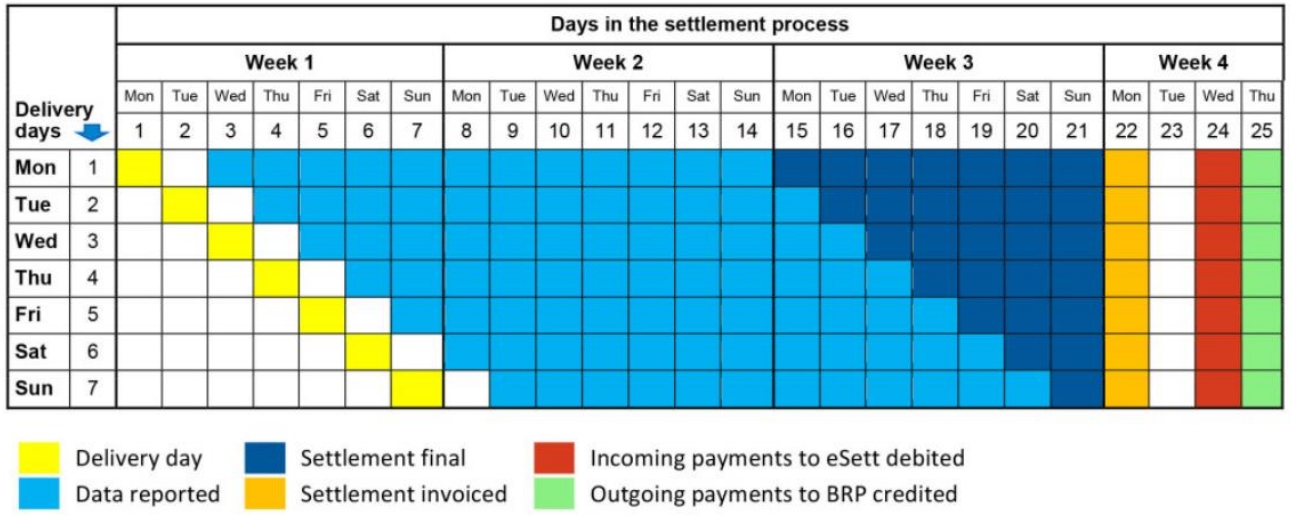


eSett
New BSP role
in NBS model
Introduced after BSP business go-live date

BSP Invoicing and Fees

Please notice, individual BSPs are introduced after the BSP business go-live date

- A weekly *BSP Fee* can be introduced for the BSPs
- BSPs will be invoiced on weekly basis, with same schedule as BRPs (activated reserves, capacity reserves, fees)



- Direct debit will be used also with companies which are operating only as a BSP role

Collateral requirement for BSPs

Please notice, individual BSPs are introduced after the BSP business go-live date

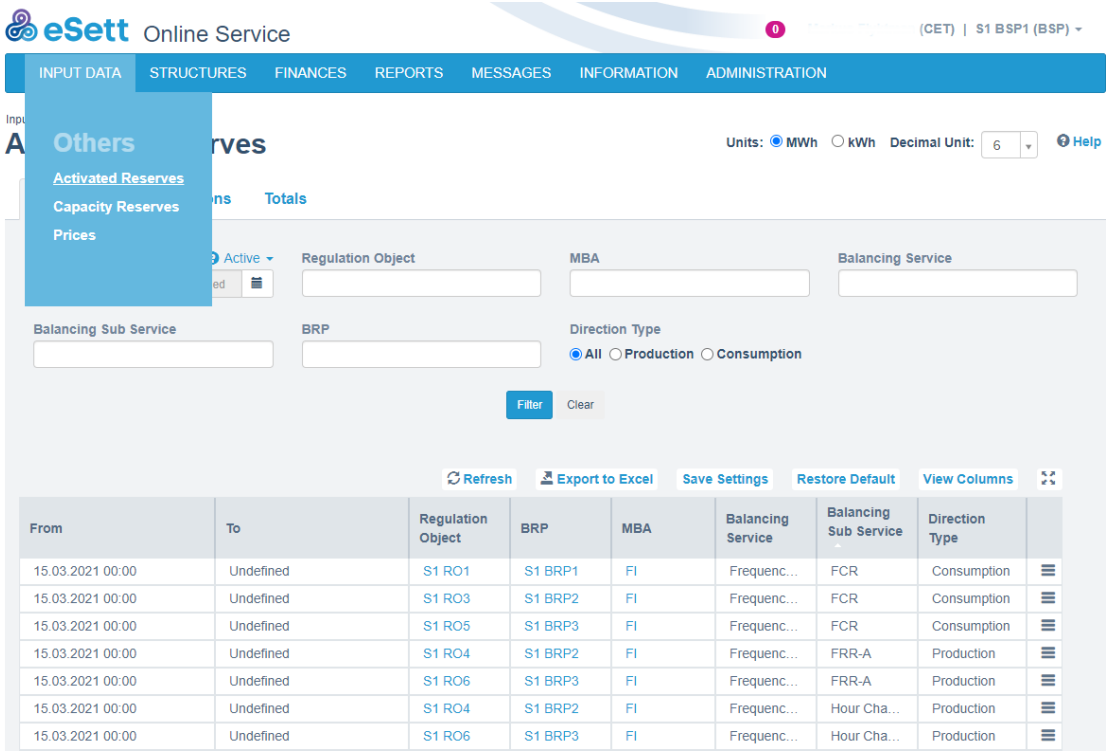
- eSett is the financial counterpart of the BSP invoicing which introduces a counterparty risk for eSett
- To manage the risk eSett can place collateral requirement for BSPs
- BSPs that act only in BSP role will have a risk-based defined and manually set collateral requirement
  - **Each country will define the locally used collateral regime**
  - The long-term goal is to develop a common Nordic collateral model
- Collateral for BSP which also act as a BRP is covered by the existing dynamic collateral requirement for the BRPs

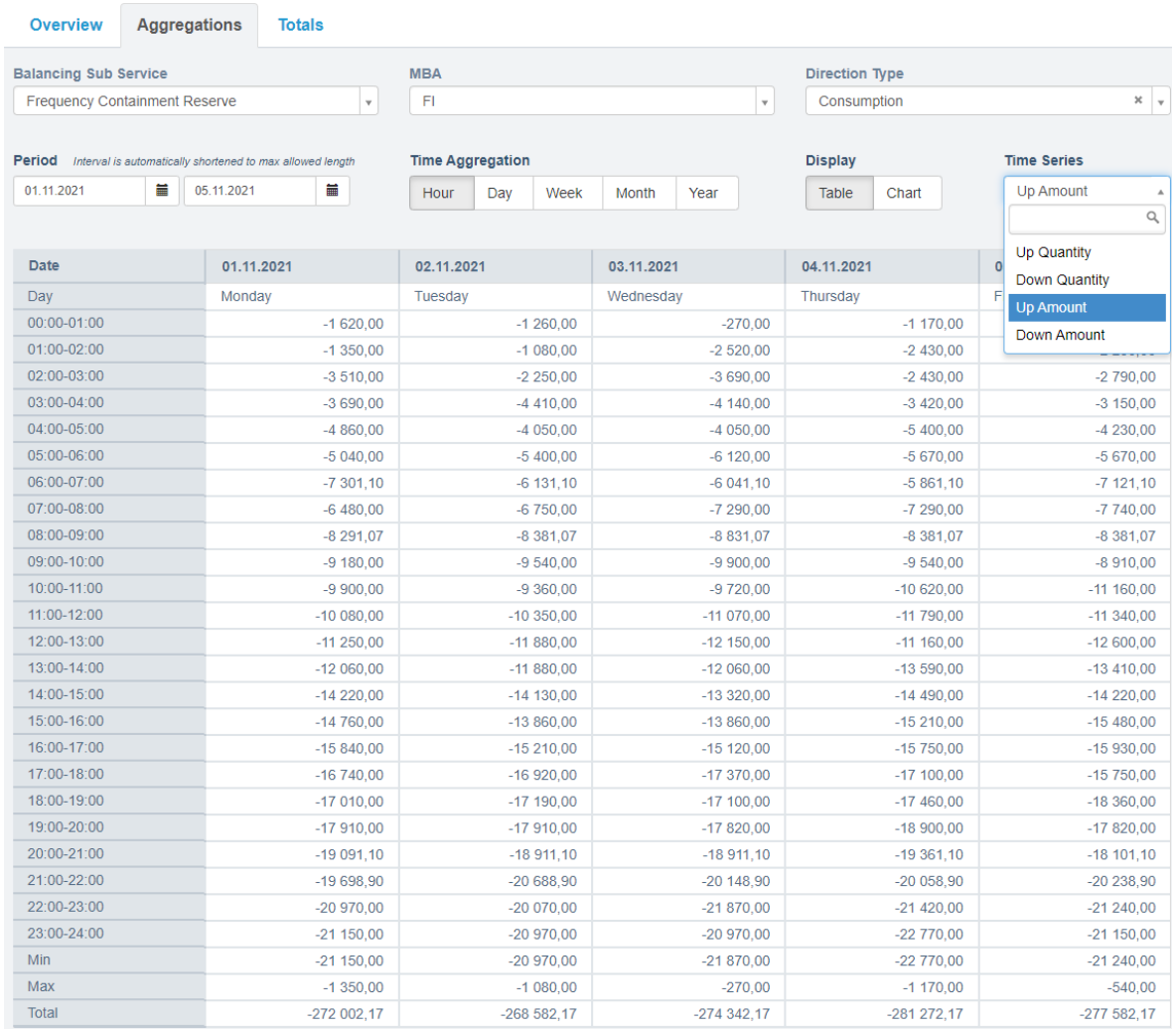
BSP role’s visibility in Online Service

BRPs having reserves will also have these views

BSP data on Online Service

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





Date	01.11.2021	02.11.2021	03.11.2021	04.11.2021	0
Day	Monday	Tuesday	Wednesday	Thursday	F
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	-11 160,00	-12 600,00
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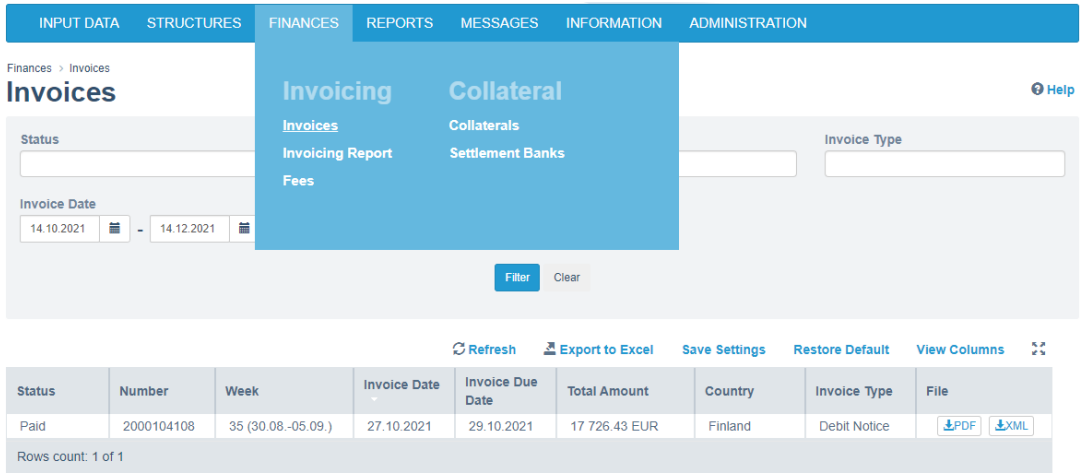
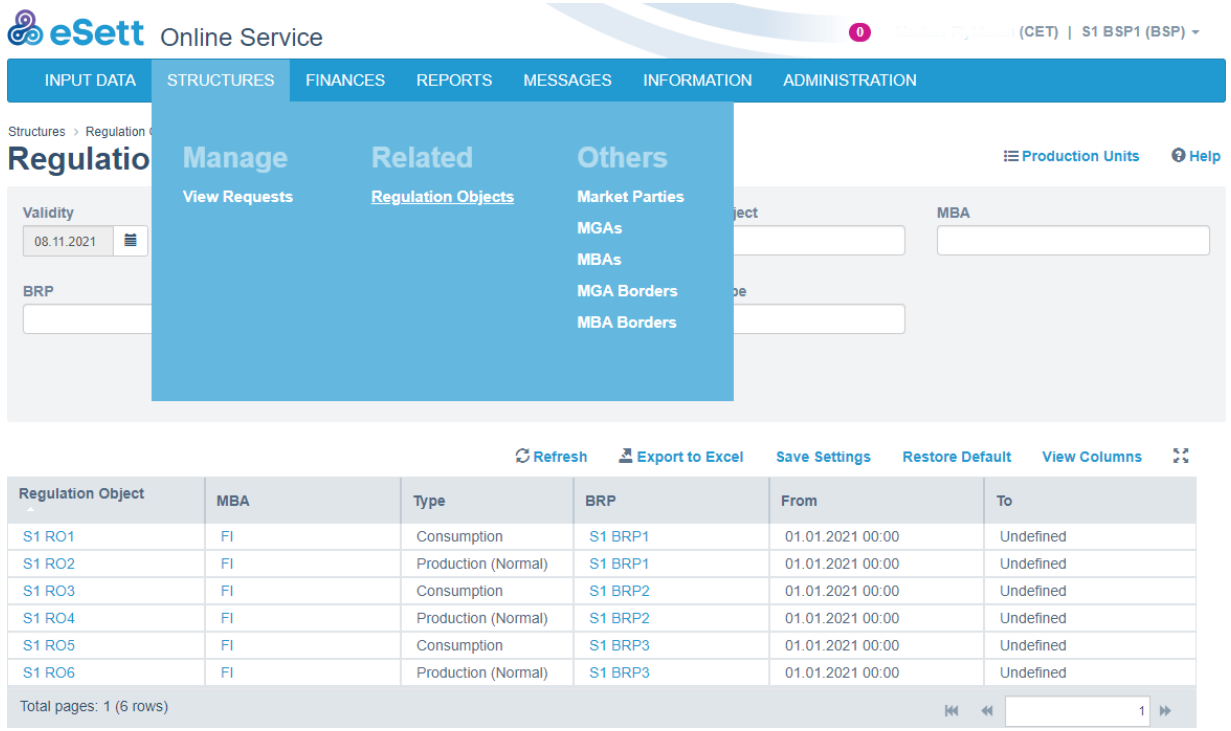
15:00-16:00	-14 760,00	-13 860,00	-13 860,00	-15 210,00	-15 480,00
16:00-17:00	-15 840,00	-15 210,00	-15 120,00	-15 750,00	-15 930,00
17:00-18:00	-16 740,00	-16 920,00	-17 370,00	-17 100,00	-15 750,00
18:00-19:00	-17 010,00	-17 190,00	-17 100,00	-17 460,00	-18 360,00
19:00-20:00	-17 910,00	-17 910,00	-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
- Invoices
- Fees
- Collaterals
- Messages
- Market structures





BSP data on Online Service

- Data packages:

Name	Format	Frequency	Period from	Period to	Granularity	Subscription
Imbalance prices per Market Balance Area (MBA) 15-minute	Prices	Daily	D-14	D-1	15-minute	Inactive
DP Exchange Rates - Invoicing Results (BSP)	Exchange Rates – Invoiced	Exchange Rates Invoiced	D	D+6	Daily	Inactive
Secondary Frequency Restoration Reserves (FRR)	BSP Activated Reserves	Daily	D-14	D-1	Hourly	Active in CET
Primary Frequency Containment Reserves (FCR) – contracted reserves	BSP Capacity Reserves	Daily	D-14	D-1	Hourly	Inactive
Secondary Frequency Restoration Reserves (FRR) – 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	Inactive
Primary Frequency Containment Reserves (FCR) 15-minute	BSP Activated Reserves	Daily	D-14	D-1	15-minute	Inactive
Tertiary Replacement Reserves (RR) 15-minute	BSP Activated Reserves	Daily	D-14	D-1	15-minute	Inactive
Primary Frequency Containment Reserves (FCR)	BSP Activated Reserves	Daily	D-14	D-1	Hourly	Inactive
Tertiary Replacement Reserves (RR)	BSP Activated 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
Secondary Frequency Restoration Reserves (FRR) 15-minute	BSP Activated Reserves	Daily	D-14	D-1	15-minute	Inactive
DP Exchange Rates - Daily (BSP)	Exchange Rates – Daily	Daily	W-2	D	Daily	Inactive

Total pages: 1 (13 rows) 1

- BSP attribute (receiver role) added in the dataflows due to the BSP model:

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

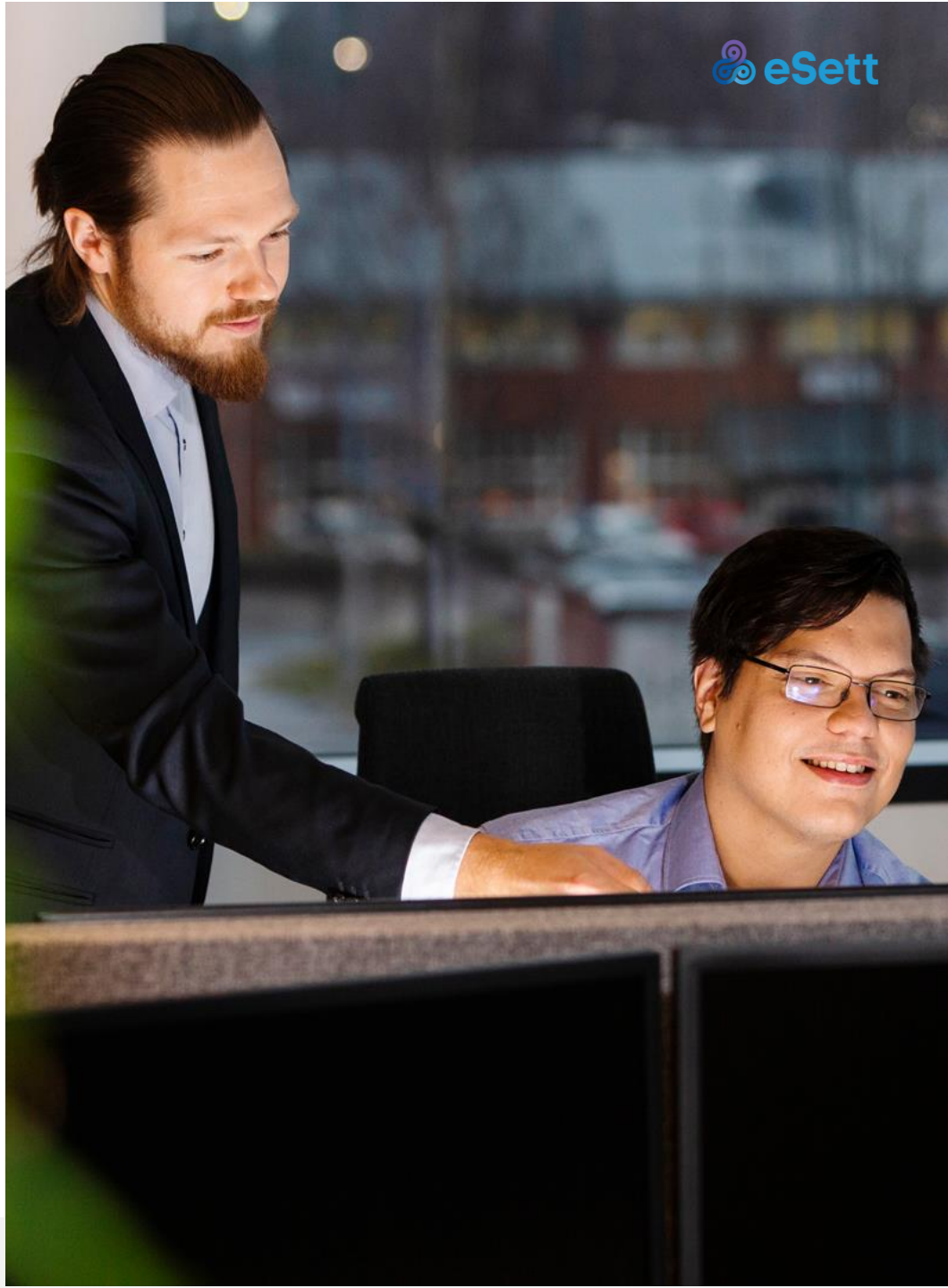
- BRS documentation link

BSP role and outbound messages

BRPs having reserves have effects based on these slides

Information Service

- Balance Responsible Party (BRP) receiver/sender role: A08
- Balancing Service Provider (BSP) receiver/sender role: A46
- Information Service data flows and data can be searched as follows:
  - Capacity reserves (CRE_INF):
    - Respective BRP for the data from the time interval before BSP go-live date (that are related to requesting BRP)
    - Respective BSP for the data from the time interval after BSP go-live date (that are related to requesting BSP)
  - Activated reserves (ACR_INF):
    - Respective BRP for the data from the time interval before BSP go-live date
    - Respective BSP for the data from the time interval after BSP go-live date
  - Imbalance Adjustment (IBA_INF):
    - Respective BRP's Imbalance Adjustment Amounts won't be included in the response if the end date for the request is after the BSP go-live date
    - No changes for the time interval before BSP go-live date



Example of an xml file in Information Service

BRP

```
<?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>
```

BSP

```
<?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="?">
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          <urn:DocumentType v="A25"/>
          <urn:SenderIdentification v="BSP01" codingScheme="A01"/>
          <urn:SenderRole v="A46"/>
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          </urn:RequestComponent>
        </inf:request>
      </inf:GetData>
    </soap:Body>
</soap:Envelope>
```

Change Log

Version	Date	Changes
1.0	24.05.2021	- First version of the BSP model commisioning plan released
1.1	10.11.2021	- Commissioning schedule updated - Screenshots added to BSP data on Online Service
2.0	01.04.2022	- Updated information about technical go-live date 10.10.2022 - Commissioning schedule updated - Updated layout and structure to give more informative overall picture - Added information about Information Service changes - Added examples about xml messages' changes - Added data package reporting examples around go-live
2.1	17.04.2023	- Updated information about Agreements
3.0	05.07.2023	- Updates related current situation in BSP model - Removed old technical go-live information - Commissioning schedule updated - Added a slide about BSP business go-live in Finland
3.1	17.1.2024	- Updates related current situation in BSP model - Updated the slide about BSP business go-live in Finland - Commissioning schedule updated

eSett
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