

# Commissioning Plan

## Profiled Consumption and Reconciliation

eSett Oy | 03.04.2023 (version 1.0)



# Commissioning Plan document

Purpose of this document is to describe on a high-level how eSett shall take over from Svenska kraftnät in Sweden

- reception of input data related to profiled consumption and reconciliation data from DSOs
- calculation of profiled consumption values for the imbalance settlement
- calculation and invoicing of reconciliation settlement
- reporting of profiled consumption and reconciliation related data to BRPs and DSOs.

This document describes what will change when eSett will take over the task from Svenska kraftnät in

- the market participants' operations
- eSett's interfaces
- the communication between market participants and eSett
- the transition period.

This document is an initial commissioning plan, and it will be updated based on the updated information on the project and input from the stakeholders.

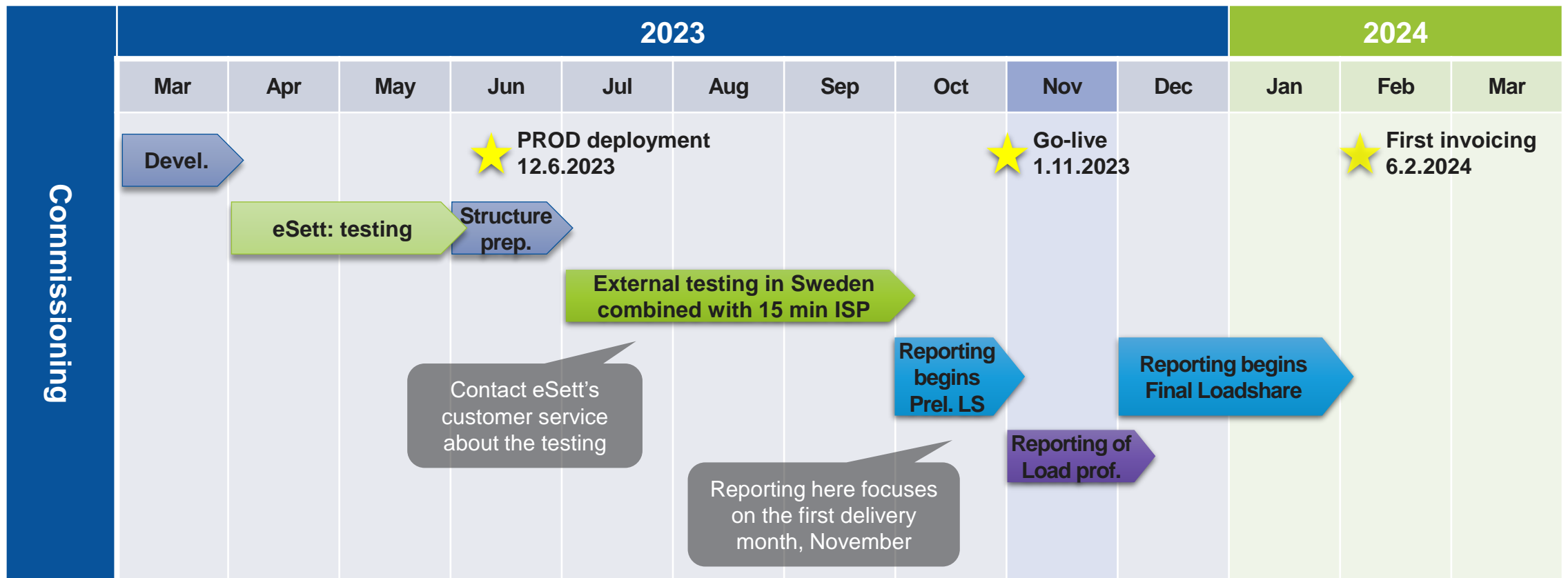
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# Change Log

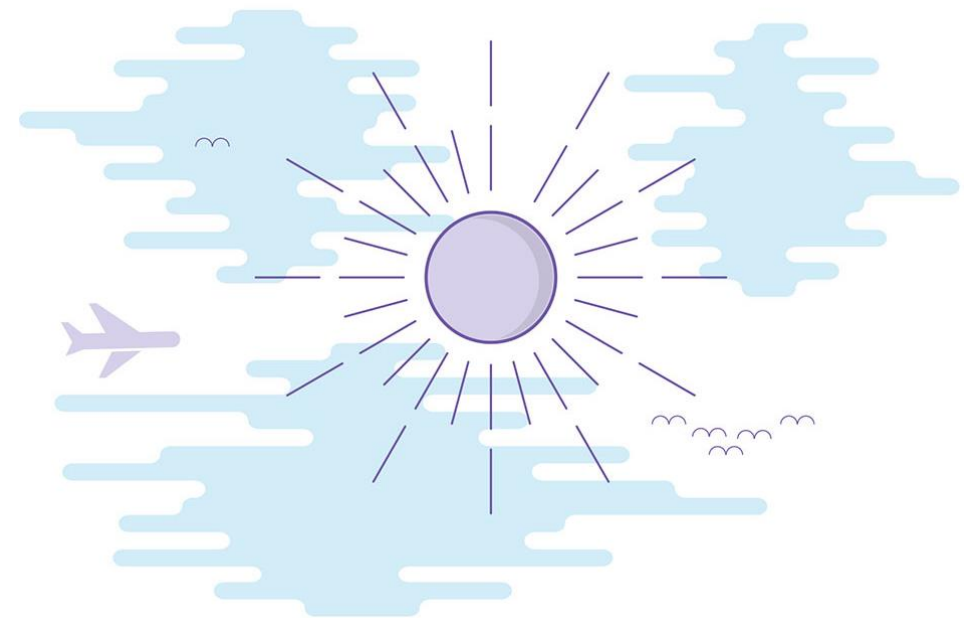
Date	Version	Change Log
03.04.2023	1.0	Initial version

# Commissioning time schedule



# Starting Points for the Go-Live

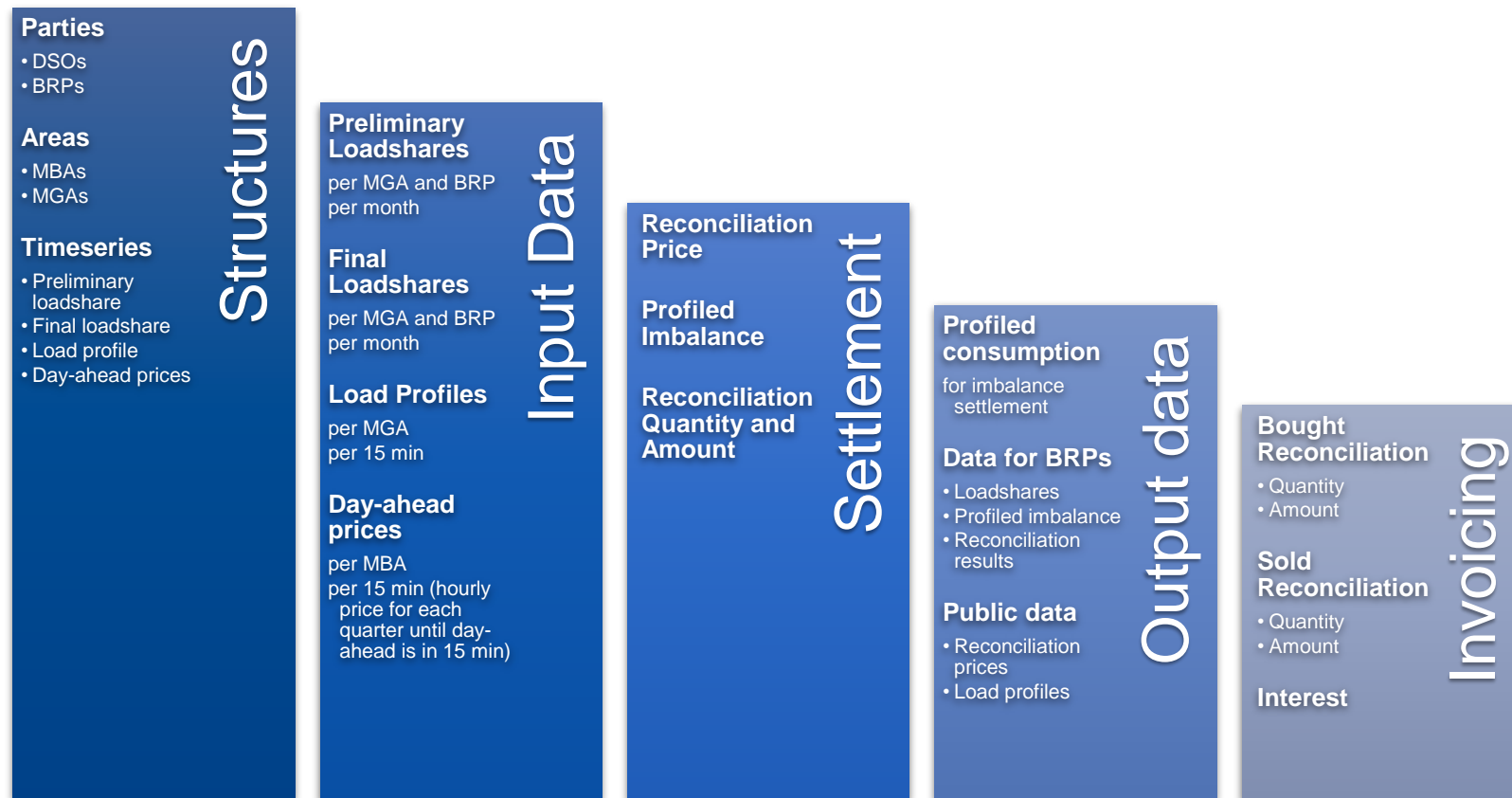
1. First delivery month to eSett is **November 2023**
  - Svenska kraftnät is still responsible for all delivery days in October
  - This means that there is a transition period where data needs to be sent to both eSett and Svenska kraftnät depending on the delivery period
2. Load profiles will be reported in 15 min for delivery days in November
3. Data flows will continue to follow the same format, but eSett will replace Svenska kraftnät as a recipient/sender
  - Ediel Id: 10000 → 71100
  - UTILTS: [ediel@ediel.svk.se](mailto:ediel@ediel.svk.se) → [inbox@service.esett.com](mailto:inbox@service.esett.com)
4. Reconciliation invoicing and schedule changes
  - Invoicing date will be 1st Tuesday after the reporting closes
  - Debit invoices will be direct debited two days after the invoicing
  - Credit invoices will be credited three days after the invoicing





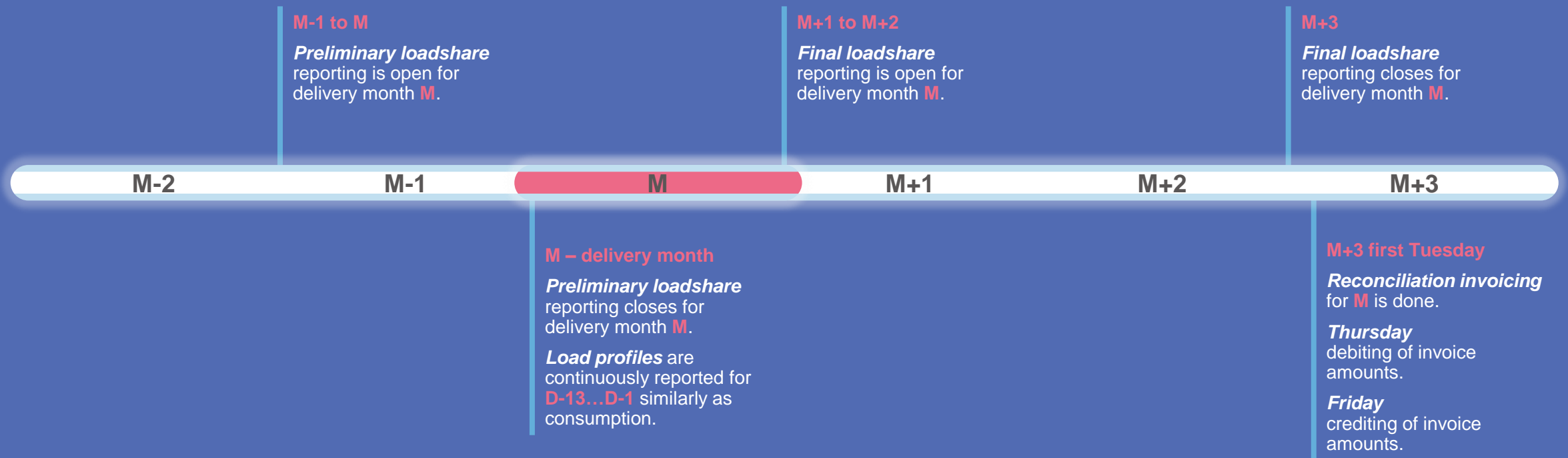
# Reconciliation Model

# Reconciliation Model

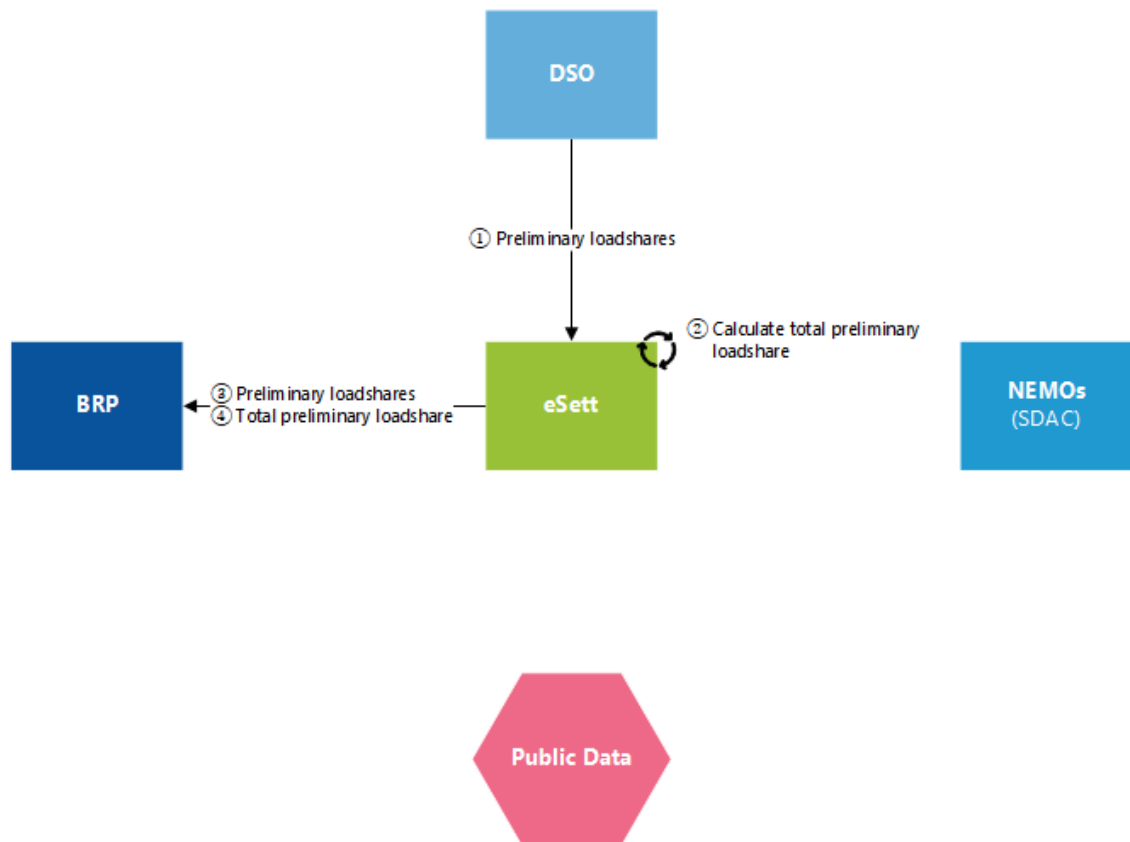




# Reconciliation Time Schedule

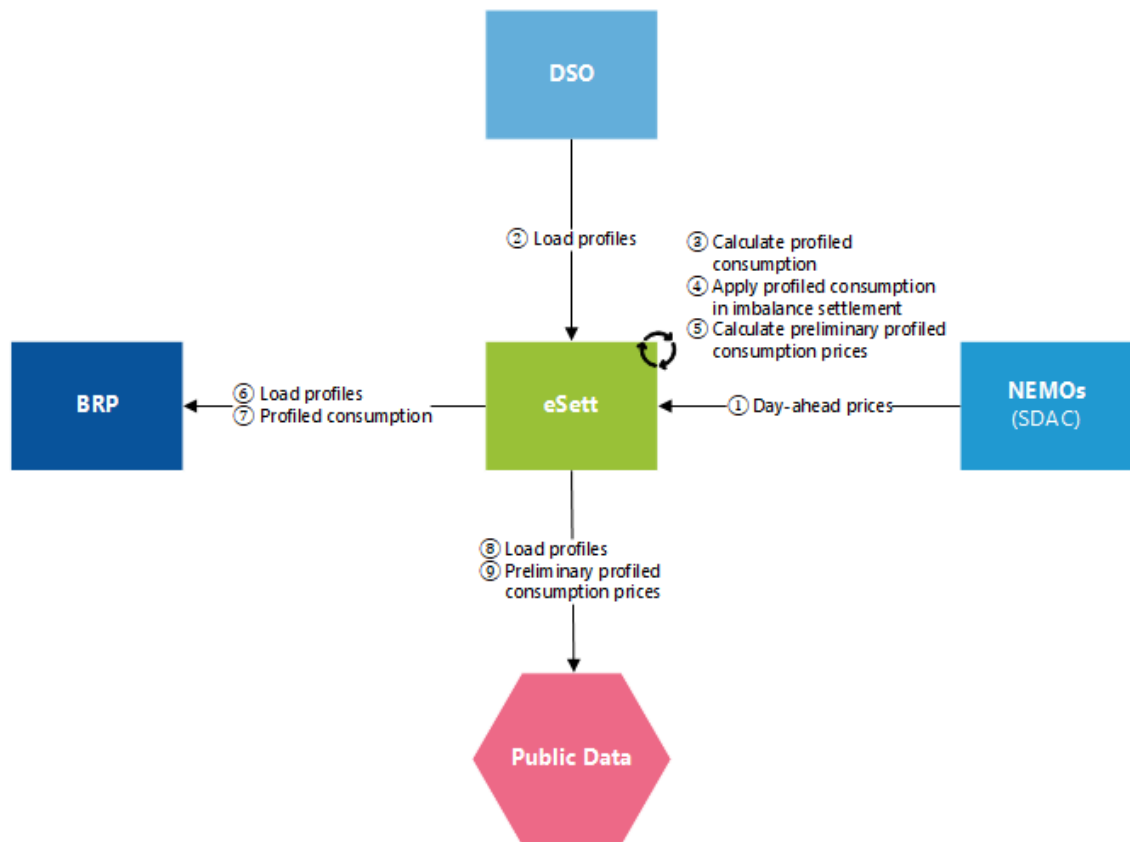


# Process steps and flows – Before delivery month



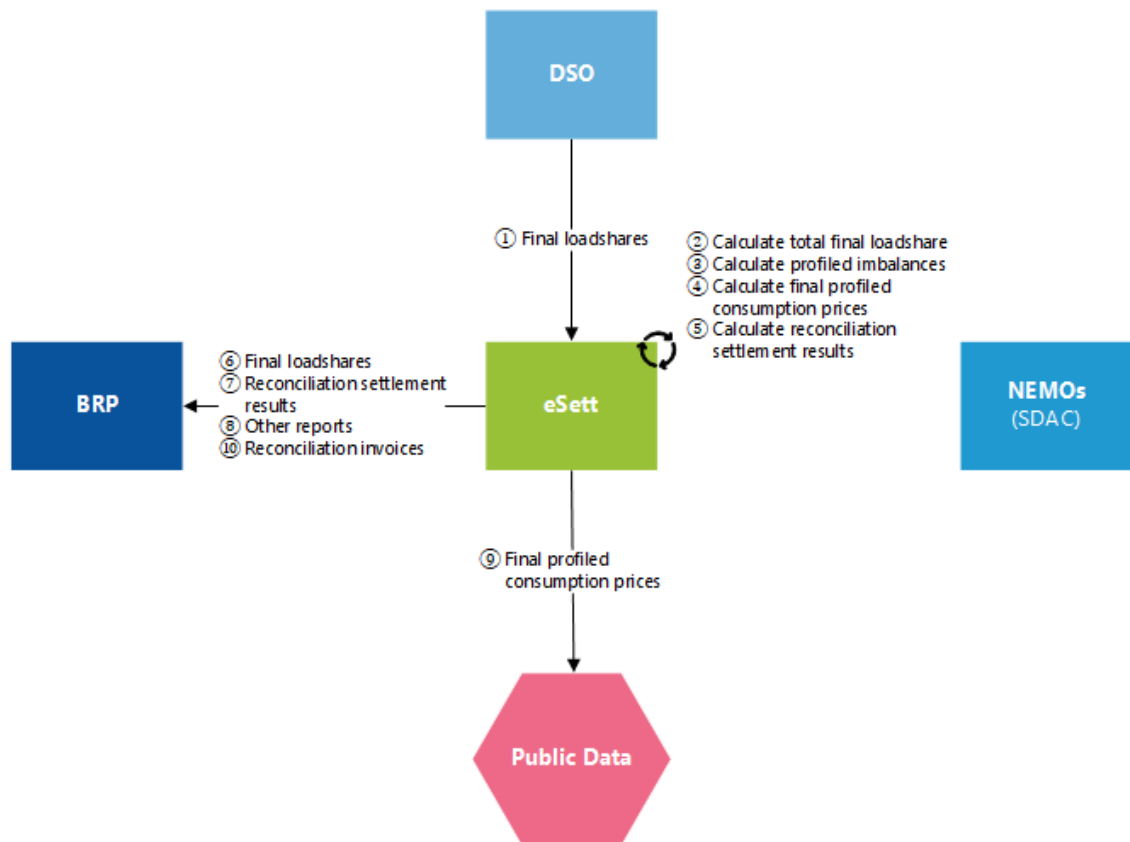
- ① Preliminary loadshares per BRP and MGA – monthly value for the next month. (UTILTS)
- ② Calculation of total preliminary loadshare per MGA – monthly value for the next month.
- ③ BRPs preliminary loadshares per MGA (general and losses) – monthly value for the next month. (UTILTS)
- ④ Total preliminary loadshares per MGA – monthly value for the next month. (UTILTS)

# Process steps and flows – During and shortly after delivery month



- ① Day-ahead prices for the next day – 15 min values. (SPCI, Publication Market Document (CIM))
- ② Load profiles per MGA – 15-minute values for the open settlement period (D-13...D-1). (UTILTS)
- ③ Calculation of profiled consumption values per BRP and MGA (general and losses) from preliminary load shares and load profiles – 15-minute values.
- ④ Applying the calculated profiled consumption values into the consumption MECs for the imbalance settlement.
- ⑤ Calculation of preliminary profiled consumption prices per MBA from day-ahead prices and load profiles – monthly value.
- ⑥ Load profiles per MGA – 15-minute values for the closing settlement period (D-14...D-1). (UTILTS)
- ⑦ Profiled consumption values per BRP and MGA (general and losses) – 15-minute values.
- ⑧ Load profiles per MGA/MBA – 15-minute values.
- ⑨ Preliminary profiled consumption prices per MBA/country – monthly value.

# Process steps and flows – After delivery month



- ① Final loadshares per BRP and MGA – monthly value for the next month. (UTILTS)
- ② Calculation of total final loadshare per MGA – monthly value.
- ③ Calculation of profiled imbalance per BRP and MGA – monthly value.
- ④ Calculation of final profiled consumption prices per MBA from day-ahead prices and load profiles – monthly value.
- ⑤ Calculation of reconciliation purchase and sales quantity and amount per BRP and MBA – monthly value.
- ⑥ BRPs final loadshares per MGA (general and losses) – monthly value. (UTILTS)
- ⑦ Reconciliation purchase and sales quantity and amount per BRP and MBA – monthly value. (UTILTS)
- ⑧ Other data packages. (UTILTS)
- ⑨ Final profiled consumption prices per MBA/country – monthly value.
- ⑩ Reconciliation invoices.



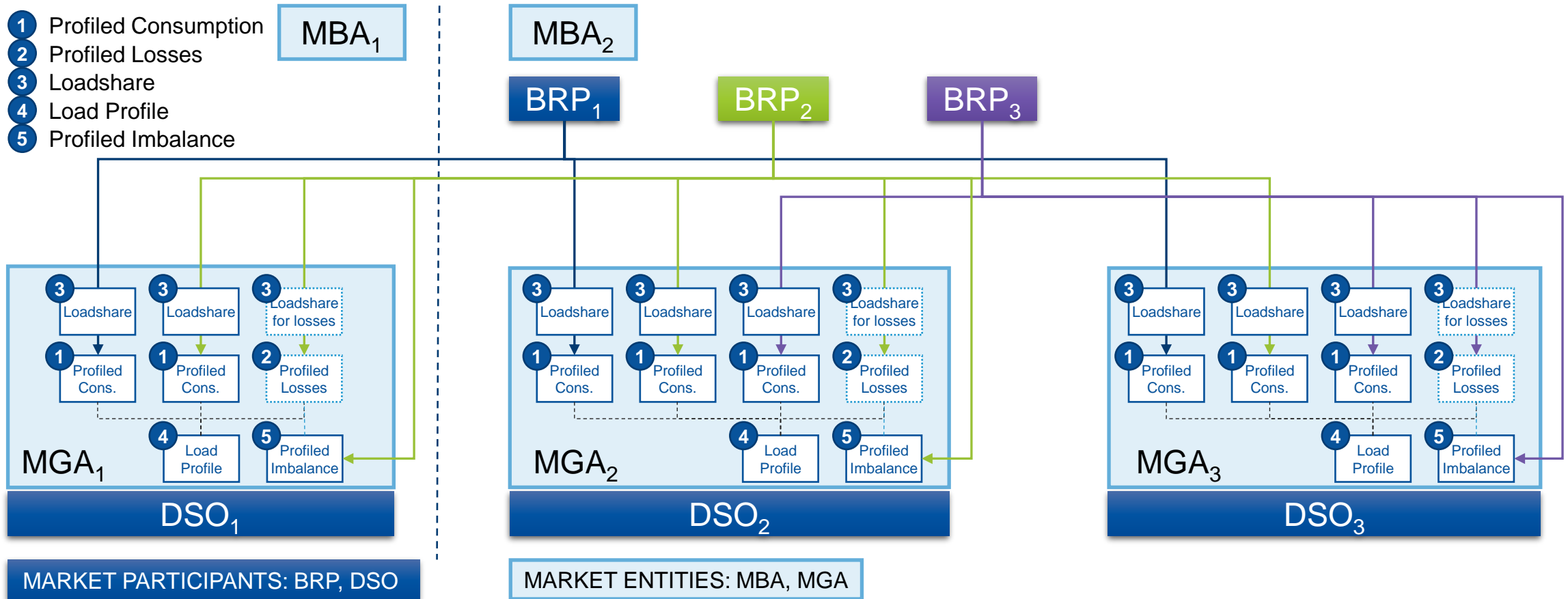
# Reconciliation Structures



# Related time series structures

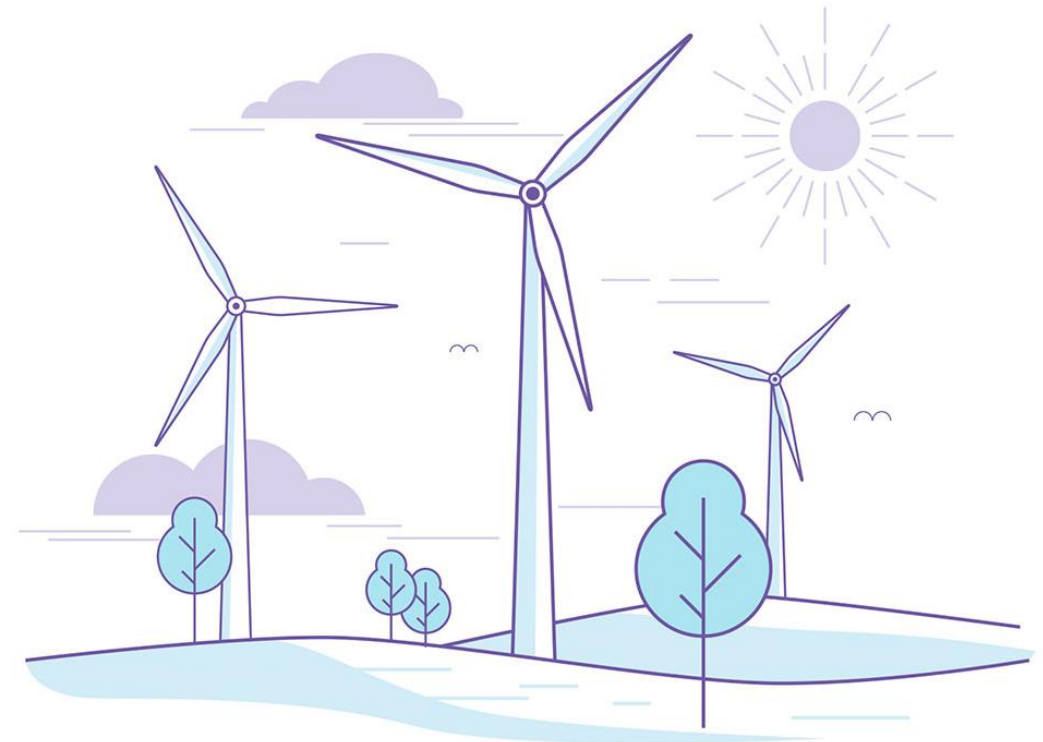
Name	Description
<b>Preliminary and Final Loadshare</b>	<ul style="list-style-type: none"> <li>Loadshares are divided into preliminary and final timeseries, and also to types: general and losses. Preliminary loadshare is an estimation of BRP's total non-metered consumption within an MGA during the month. Final loadshare is an meter reading of BRP's total consumption within an MGA during the month.</li> <li>Loadshare structures automatically follow the existing Profiled Consumption MECs.</li> </ul>
<b>Load Profile</b>	<ul style="list-style-type: none"> <li>Load profile is per MGA. It is the sum of all non-metered consumption within the MGA.</li> <li>Load profile is automatically created as first profiled consumption MEC is created for MGA, and terminated as last profiled consumption MEC is terminated within MGA.</li> </ul>
<b>Profiled Consumption</b>	<ul style="list-style-type: none"> <li>Profiled consumption per MGA per BRP is used in imbalance settlement. Profiled Consumption is divided into the following types: general and losses. Profiled consumption per MGA is calculated from the preliminary loadshare of the BRP and load profile of the MGA.</li> <li>Managing of Profiled Consumption MEC moves from eSett to DSOs.</li> </ul>
<b>Profiled Imbalance</b>	<ul style="list-style-type: none"> <li>Calculated difference between the sum of monthly load profile and the total final loadshare of one MGA. The sum should be close to zero if reported load profile and final loadshares are correct. Profiled imbalance is included into the reconciliation quantity of the BRP that is responsible for the losses within the MGA.</li> <li>Automatically created 'output timeseries' for each MGA.</li> </ul>

# Example of structure elements and their relations



# Managing of structures

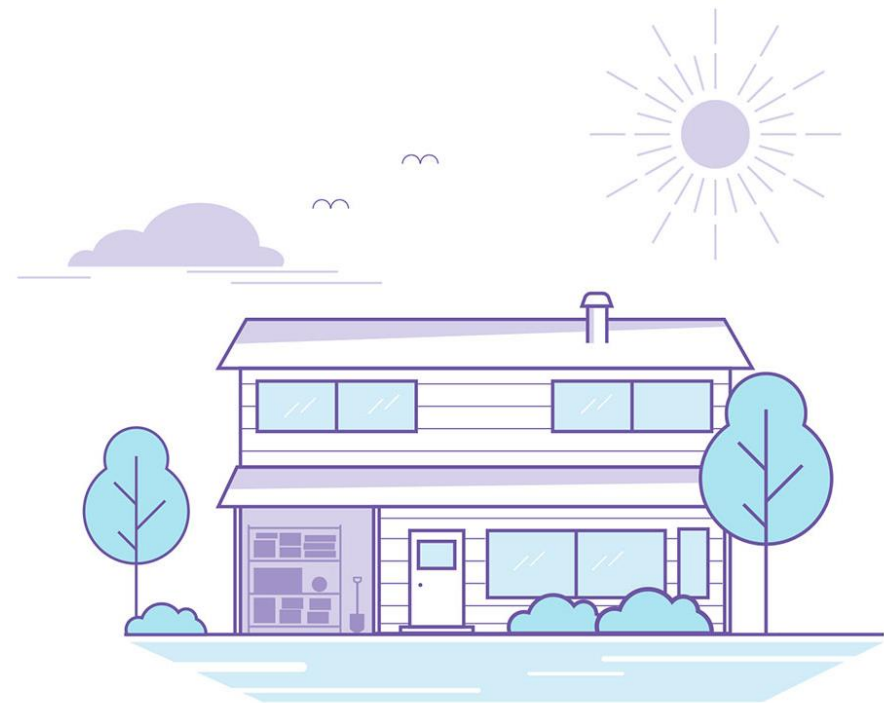
- Up-to-date structural information is essential for managing the reporting and other functions
- Profiled Consumption MECs are the “master data” for reconciliation structures
  - New or ending profiled consumption MEC automatically creates/terminates respective loadshares
  - First/last profiled consumption MEC automatically creates/terminates respective load profile
- Preliminary and Final Loadshares are automatically created based on valid profiled consumption MECs
  - Final loadshare may exist also without a valid Profiled Consumption MEC
    - Final loadshare is automatically created when DSO reports values for it and a preliminary loadshare doesn't already exist
    - It's handled in the calculations like there was a Profiled Consumption MEC, but with zero values
- Load Profile is automatically created whenever there is a valid Profiled Consumption MEC in the MGA





# Reconciliation structures – Reporting roles, responsibilities and times

- DSOs are responsible for keeping the Profiled Consumption MECs up-to-date
- Profiled Consumption is managed same way as Metered Consumption
- Profiled Consumption MECs follow same gate closures as Metered Consumption in Sweden
  - MEC changes needs to be done before each delivery month
- Profiled Imbalance is assigned to the BRP for losses in the MGA for the Reconciliation calculation



# Incoming Data to eSett



# Input Data in General

- Data flows
  - Preliminary loadshare from DSOs
  - Final loadshare from DSOs
  - Load profile from DSOs
- Everything is in SNT time zone
- Recipient changes from the current solution: Svenska kraftnät → eSett
  - Ediel Id: 10000 → 71100
  - UTILTS: [ediel@ediel.svk.se](mailto:ediel@ediel.svk.se) → [inbox@service.esett.com](mailto:inbox@service.esett.com)
- Load profiles will be reported with the 15-minute resolution starting from delivery day 1.11.2023
- Input Data will be displayed in Online Service if there are relevant structures
  - DSO: Read/write access
  - BRP: Read access





# Output Data



# Output data in general

- The sender changes from Svenska kraftnät to eSett, but otherwise nothing should change compared to current situation with Svenska kraftnät.
- Output data will be provided as UTILTS data packages.
  - Main recipient for data is BRP as most of the data comes from DSOs.
  - Managed by subscriptions in Online Service similarly as other data packages.
- Output Data (i.e. calculated results) will be displayed in Online Service if there are relevant structures
  - DSO: Read access
  - BRP: Read access



# UTILTS data packages

Data package	Frequency/Event	Granularity	Period	Available	Message example
Preliminary Loadshare per MGA per BRP per type (including Total Preliminary Loadshare per MGA)	Daily at 04:00	Month	M to M+1	BRP	S04-2
Load Profile per MGA	Daily at 04:00	15 min	D-14 to D-1	BRP & DSO	S01-1
Load Profiles per own MGA	Daily at 04:00	15 min	D-14 to D-1	BRP & DSO	S01-1
Final Loadshare per MGA per BRP per type	Daily at 04:00	Month	M-3 to M-1	BRP	S01-4
Profiled Imbalance per MGA	Daily at 04:00	Month	M-3 to M-1	BRP	S01-4
Reconciliation Quantity and Amount per MGA per BRP	Daily at 04:00	Month	M-3 to M-1	BRP	S01-4
Reconciliation Quantity and Amount per Country per BRP	Daily at 04:00	Month	M-3 to M-1	BRP	S01-4
Invoiced Reconciliation Quantity and Amount per MGA per BRP	Invoicing	Month	M-3 to M-3	BRP	S01-4
Profiled Consumption per MBA per BRP	Daily at 04:00	15 min	D-14 to D-1	BRP	
Profiled Consumption per MGA per BRP	Daily at 04:00	15 min	D-14 to D-1	BRP	
Profiled Consumption per MGA per BRP (month)	Daily at 04:00	Month	M-3 to M	BRP	S01-4
Reconciliation Price	Daily at 04:00	Month	M-3 to M	BRP	S01-4

# Public Data

eSett will publish following information in Public Data

- Load Profile per MGA
  - Load Profile per MBA
  - Load Profile per Country
  - Reconciliation Price per MBA
  - Reconciliation Price per Country
- Similar data as currently exists in Svenska kraftnät's Mimer
- Load Profiles:  
<https://mimer.svk.se/ConsumptionProfile/ConsumptionProfileIndex>
  - Reconciliation Prices:  
<https://mimer.svk.se/ProfileSettlementPrice/ProfileSettlementPriceIndex>

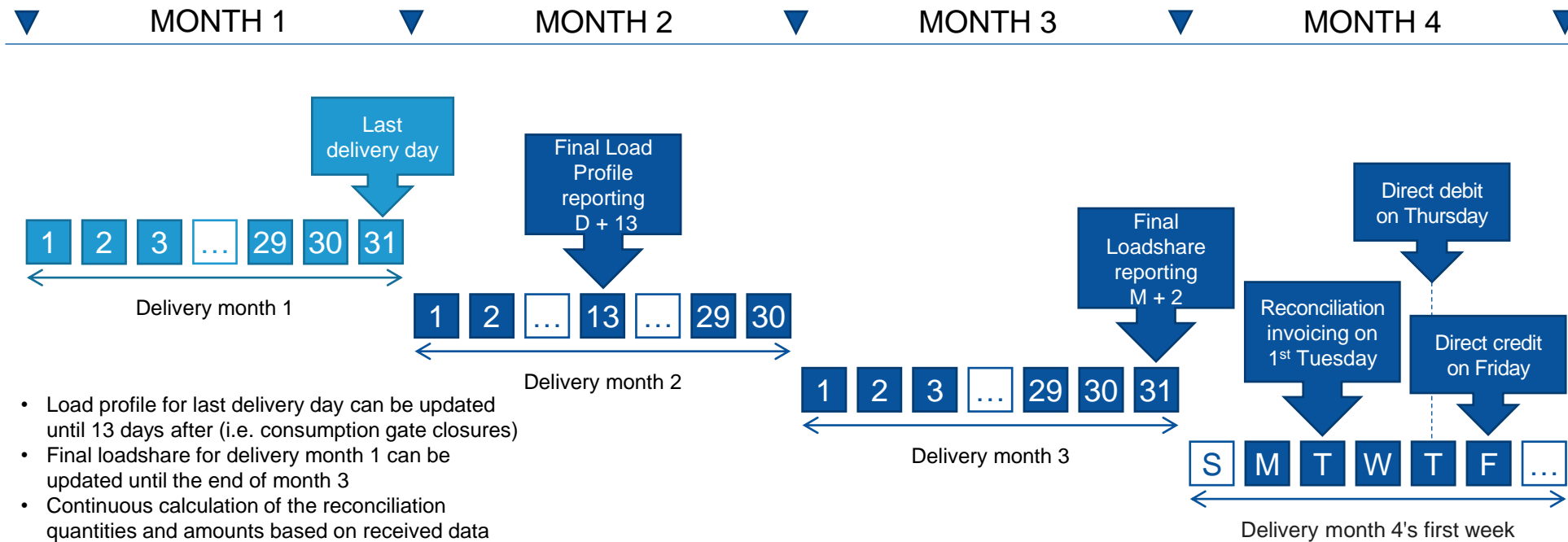




# Reconciliation Invoicing



# Invoicing time schedule example



# Notes about invoicing

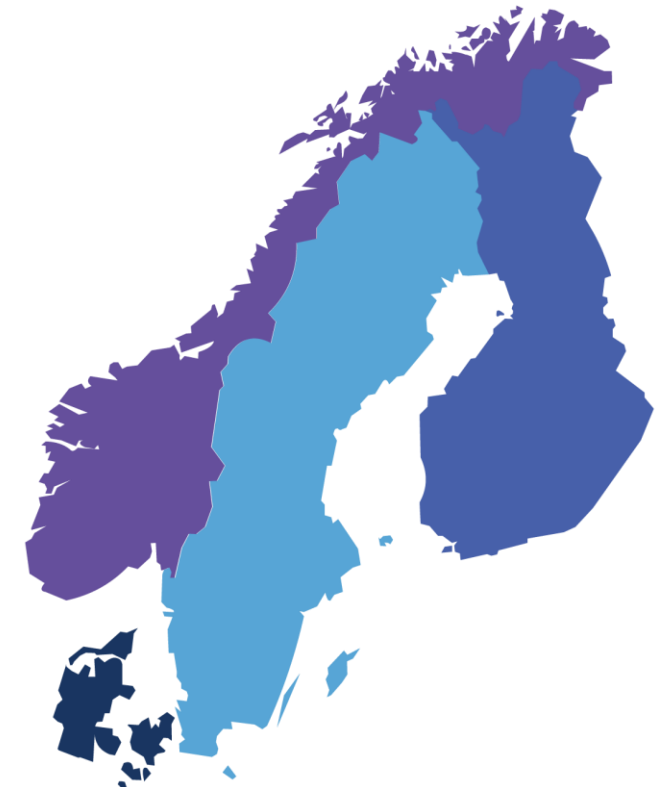
- Same Swedish BRPs with same customer numbers as is currently used for imbalance settlement
- Invoicing will be carried out in SNT time zone
- Direct debit/credit is used
  - Existing settlement accounts and invoicing currencies are used
- Svenska kraftnät provides the interest rate to eSett
  - Interest rate may change only twice per year on 1 January and 1 July
  - Interest is calculated for the days from the last imbalance settlement invoicing of the month until the reconciliation invoicing of the month.
  - E.g. interest for November 2023 is calculated for bank days from 18 December until 6 February 2024



# Invoice example

## Invoice for reconciled energy from eSett to BRPs in Sweden

	Quantity MWh	Price EUR or SEK	Amount EUR or SEK
<b>Sales by eSett</b>			
Sold reconciled energy	xxx	xxx	xxx
Interest on sold reconciled energy			xxx
<b>Purchases by eSett</b>			
Purchased reconciled energy	xxx	xxx	xxx
Interest on bought reconciled energy			xxx
<b>Total sales by eSett</b> (positive amount)			xxx
<b>Total purchases by eSett</b> (negative amount)			xxx
<b>VAT basis and VAT amounts</b> (Finnish VAT, Norwegian VAT or no VAT)			xxx
<b>Exchange rate used (if any) for converting amounts from EUR to local currency</b>			xxx

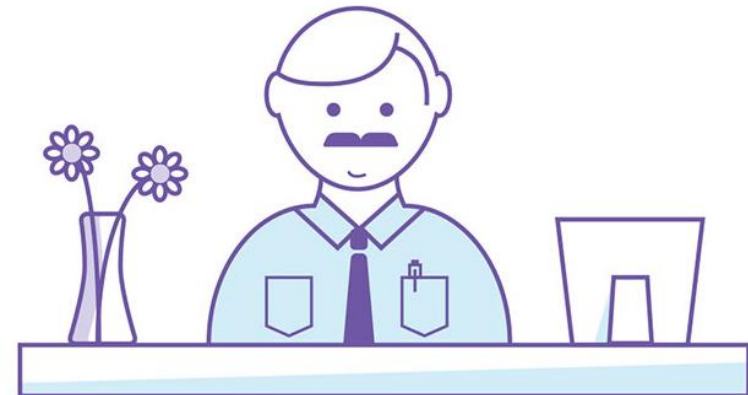


# Changes per market party



# Changes for eSett

- Updating system to fully support the existing model for Profiled Consumption and Reconciliation in Sweden
- Taking over the current tasks and responsibilities of Svenska kraftnät starting from delivery month of November 2023
- Displaying the input data and calculation results for profiled consumption and reconciliation in Online Service
- Publishing of load profile and price data in Public Data



# Changes for Svenska kraftnät

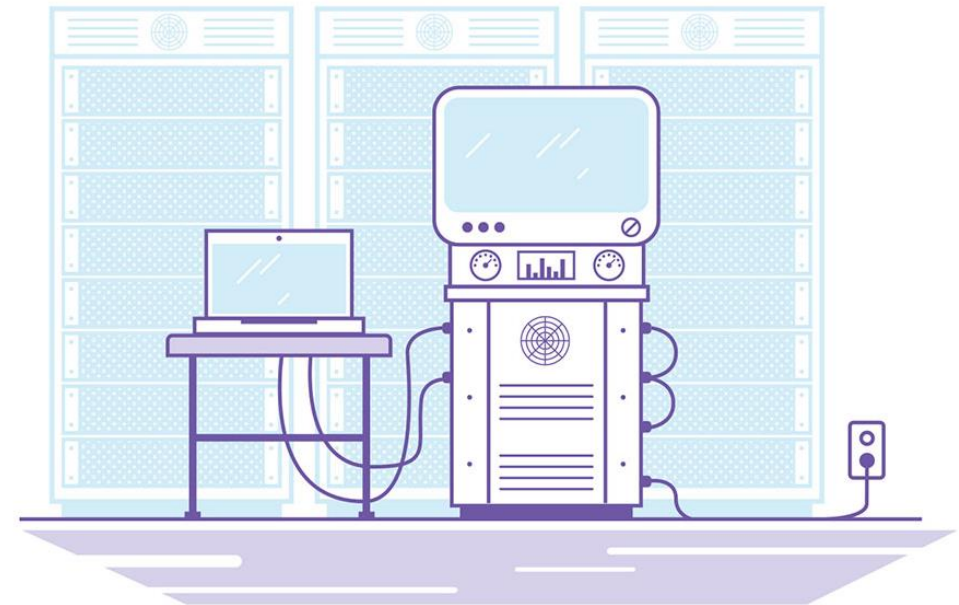
- Managing the current solution for delivery days until the end of October 2023
- Ending the reporting of Profiled Consumption values to eSett
- Handing over the management of Profiled Consumption MECs to DSOs
- Handing over the responsibilities to eSett for delivery days of 1 November and onwards





# Changes for DSO

- Management of Profiled Consumption structures in Online Service
- Readiness for 15-minute Load Profiles starting from delivery day 1.11.2023
- Change of recipient for reported data flows from Svenska kraftnät to eSett:
  - "Förbr.profil per kvart, rapportering"  
15 min Load Profile per MGA
  - "Prel. andelstal för förbr. per BR och NA"  
Preliminary Loadshare per BRP and MGA
  - "Prel. andelstal för förluster per BR och NA"  
Preliminary Loadshare Losses per BRP and MGA
  - "Slutliga andelstal för förbr. per BR och NA"  
Final Loadshare per BRP and MGA
  - "Slutliga andelstal för förluster per BR och NA"  
Final Loadshare Losses per BRP and MGA
- Receiving of load profile data from eSett instead of Svenska kraftnät
- Data will be available in Online Service



# Changes for BRP

- Data and invoices will be available in Online Service
- Updated invoicing schedule and processes
- Change of sender for related data flows (data packages) from Svenska kraftnät to eSett
  - See list [here](#)





# Questions, feedback and additional information

## eSett's Customer Service:

- [settlement@esett.com](mailto:settlement@esett.com)

## Svenska kraftnät

- Presentation in Ediel- och avräkningskonferensen 2022: [\*Aktuellt om Ediel 2022 \(.pdf\)\*](#) (in Swedish)

## Edielportalen

- Instructions: <https://www.ediel.se/Info/edielanvisningar> (in Swedish)







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