



Information about Nordic Balance Settlement
to prospective Settlement Banks

Topics

1. About eSett Oy and the Nordic Imbalance Settlement
2. Invoicing, payments and collaterals
3. Role and requirements of Settlement Banks
4. Steps to become a Settlement Bank
5. Further information and contracts

eSett in brief

Headquarters
in Helsinki,
Finland

SETTLEMENT

For Balance Responsible
Parties (BRP) in Denmark,
Finland, Norway, and
Sweden.

Serves more
than **1,000**
electricity market
participants.

JOINTLY OWNED BY THE NORDIC TRANSMISSION SYSTEM OPERATORS (TSO) EQUALLY

Energinet, Denmark
Fingrid, Finland
Statnett, Norway
Svenska kraftnät, Sweden

YEAR 2024 IN FIGURES

Employee
turnover

4%

Number of
full-time
employees

23

Total settled
amount

EUR
1,889 million

Grade for
customer
services

4.4
out of **5**

Employee
Net Promoter
Score

84

Turnover

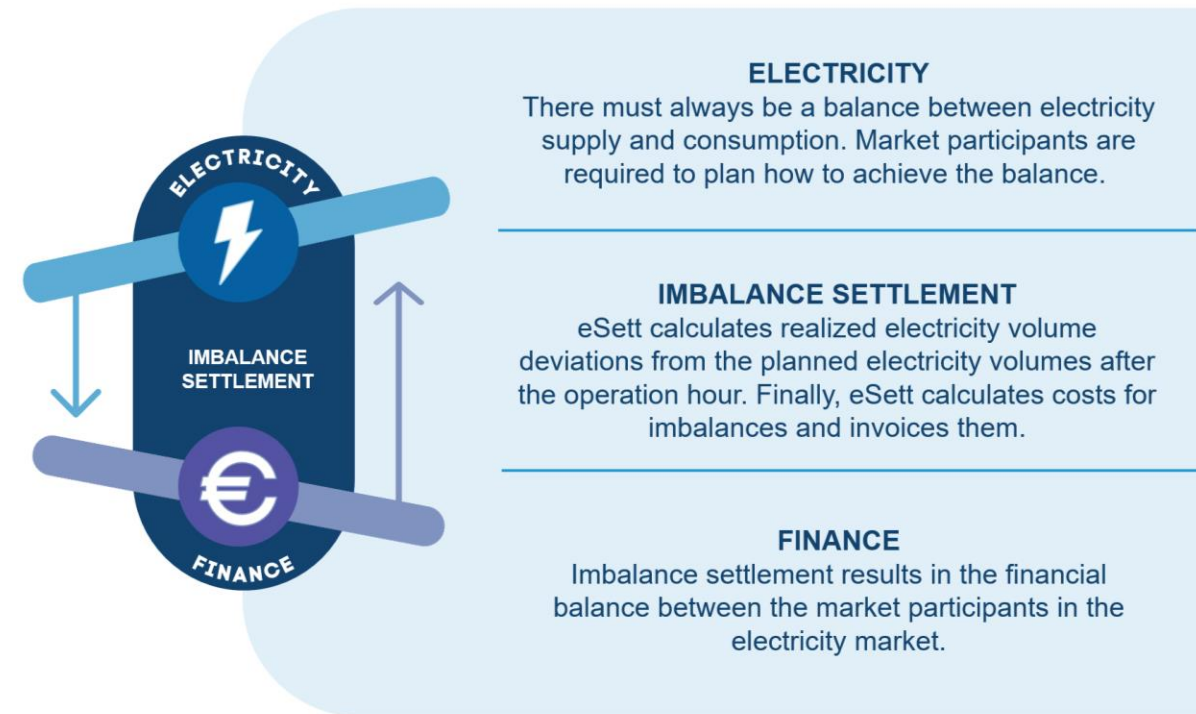
EUR
8.4 million

Availability of services

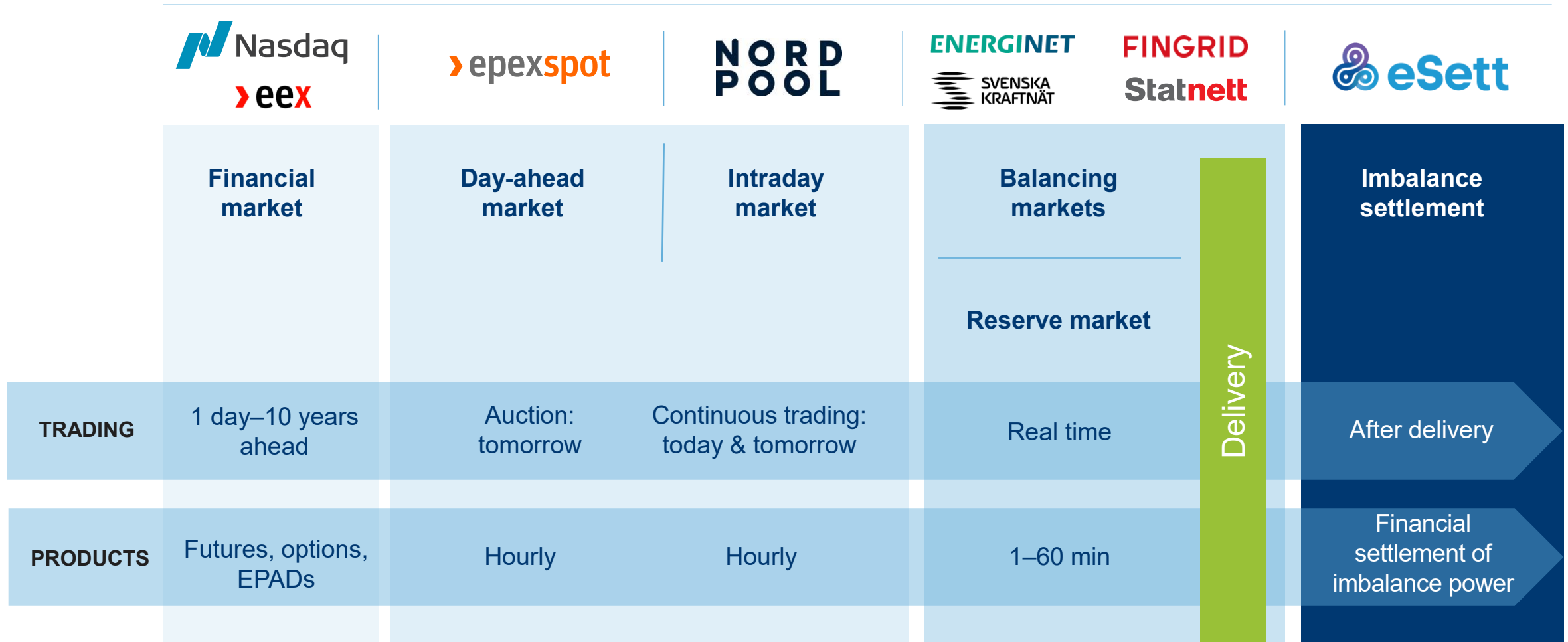
> 99.9%

NBS Model & NBS Handbook

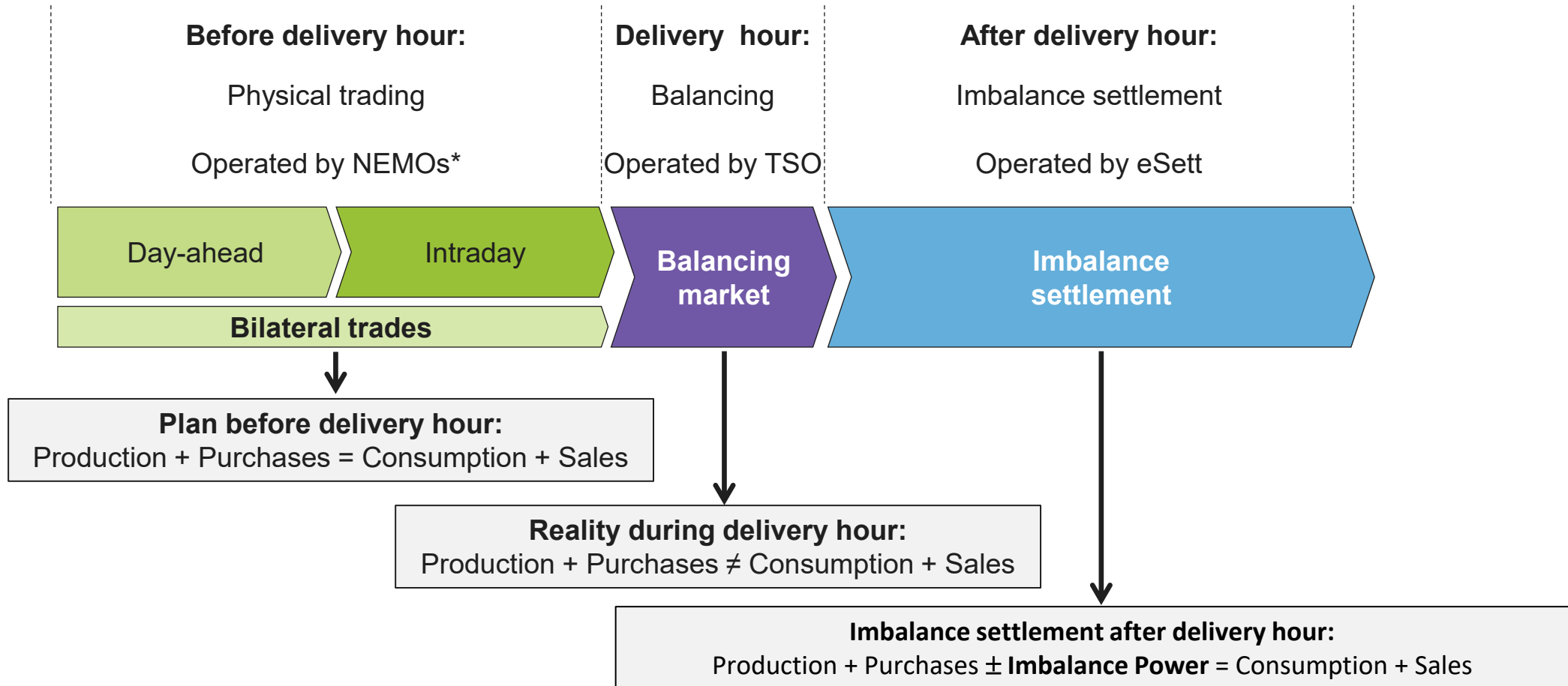
- **NBS model** describes how the imbalance settlement is done in the Nordics (Finland, Sweden, Norway & Denmark)
 - TSOs own the NBS model and make decisions about changes in the model
 - TSO Expert Group decides on the details of the model
 - Imbalance settlement is a natural monopoly and a necessary function in a commercial electricity market
 - The common Nordic Imbalance Settlement solution is supported by the governments and regulators in the Nordic countries and is regarded as an important step towards a fully functional common retail market.
 - Each national TSO is still ultimately responsible for the balancing operations in their country but eSett will manage the settlement on their behalf.
- **NBS Handbook** describes the NBS model
 - Structures, metering, reporting, timings, imbalance calculation, pricing, invoicing, collaterals, communication, market monitoring etc.
 - NBS Handbook is an appendix of the Imbalance Settlement Agreement
 - Main agreement between eSett and Balance Responsible Parties
 - Unofficial translations available in Finnish, Swedish and Norwegian
 - <https://www.esett.com/handbook/>



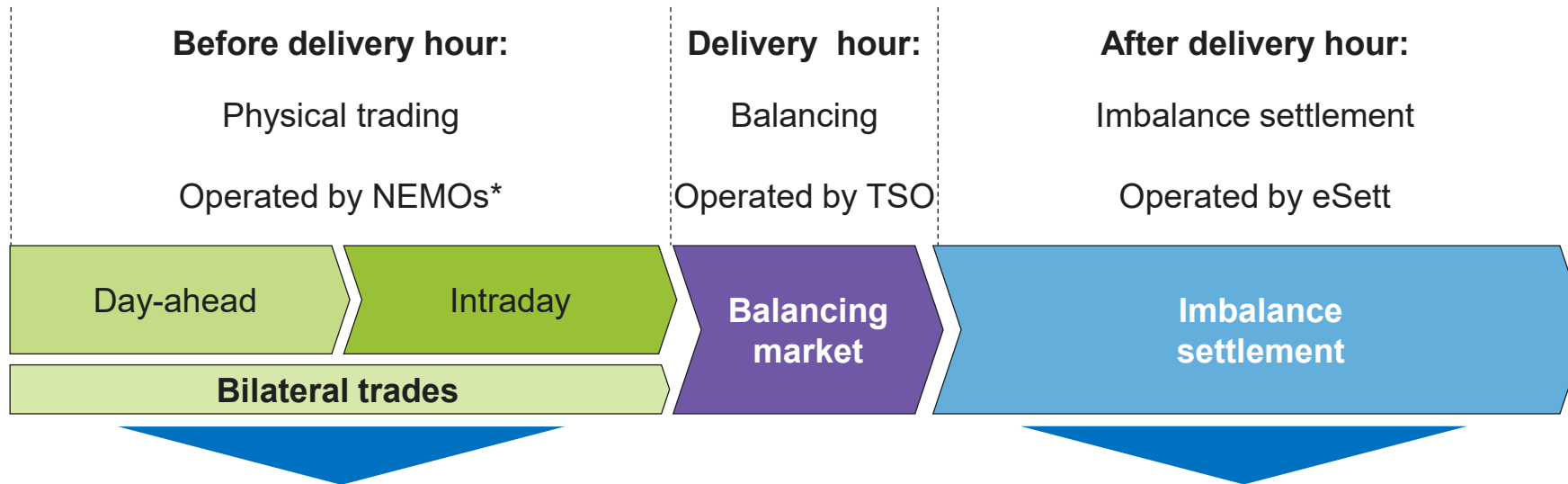
eSett's role in the Nordic electricity market



Imbalance Settlement is a necessary function in a commercial electricity market

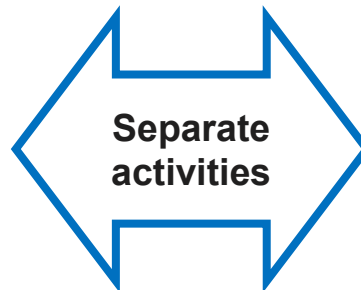


Imbalance Settlement is separate from the settlement of the physical trades



Settlement of physical trades:

- Day-ahead and Intraday trades settled by NEMOs
- Bilateral trades settled between the trading parties



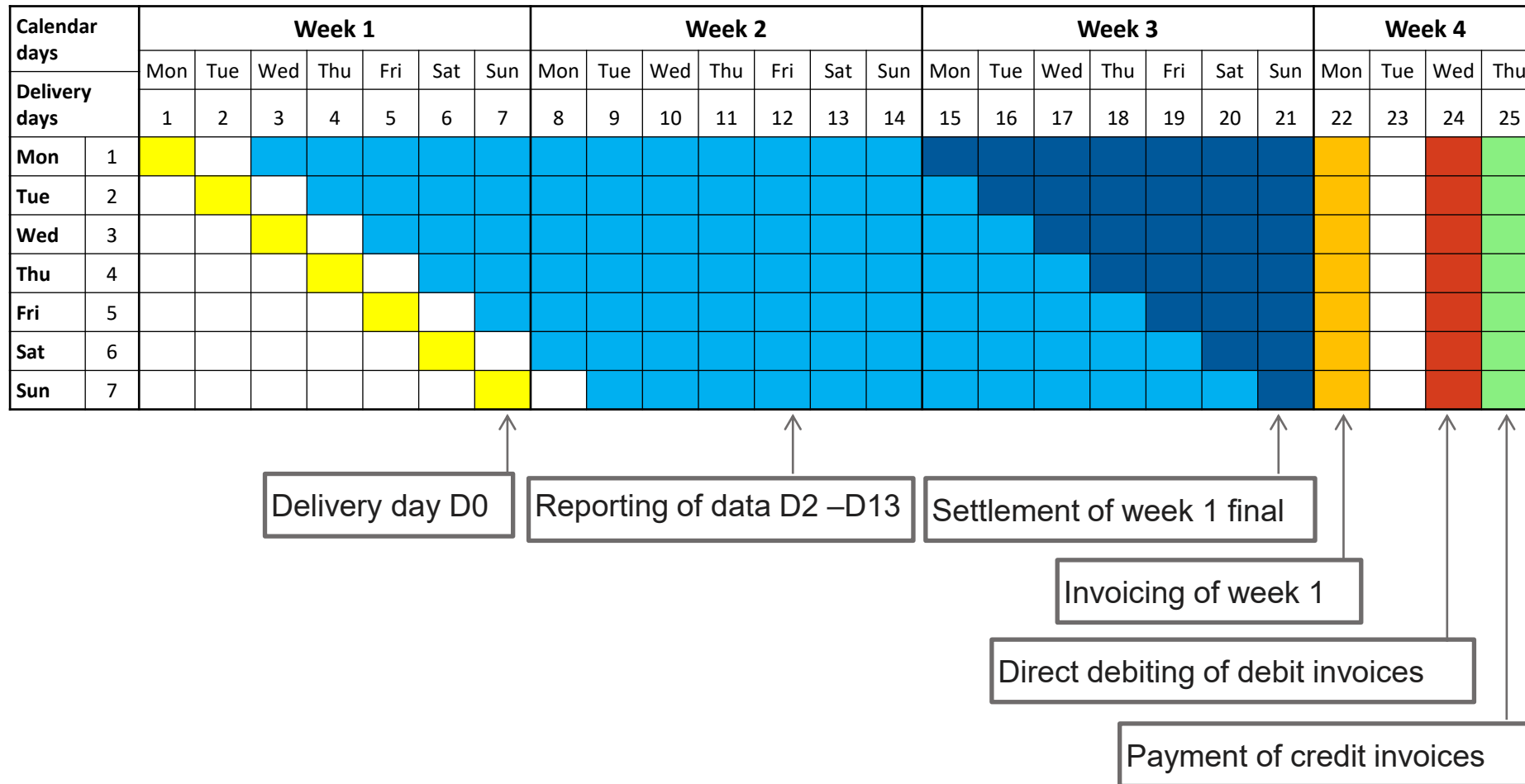
Imbalance settlement:

- Imbalance settlement is the settlement of **differences** between the physical trades and the actual production and consumption (=imbalances).
- Imbalance settlement also includes the invoicing of certain fees as well as the settlement of reserves activated by the TSO in the balancing market.

A high-angle photograph of a large solar farm. Rows of dark blue photovoltaic panels are installed in a field, stretching towards a line of green trees in the distance. The sun is low on the horizon to the left, creating a bright glow and long shadows. A semi-transparent blue rectangle is overlaid on the middle of the image, containing the text.

Invoicing, payments and collaterals

The imbalance settlement results are invoiced and settled ~3 weeks after the delivery day



Settlement weekly activities

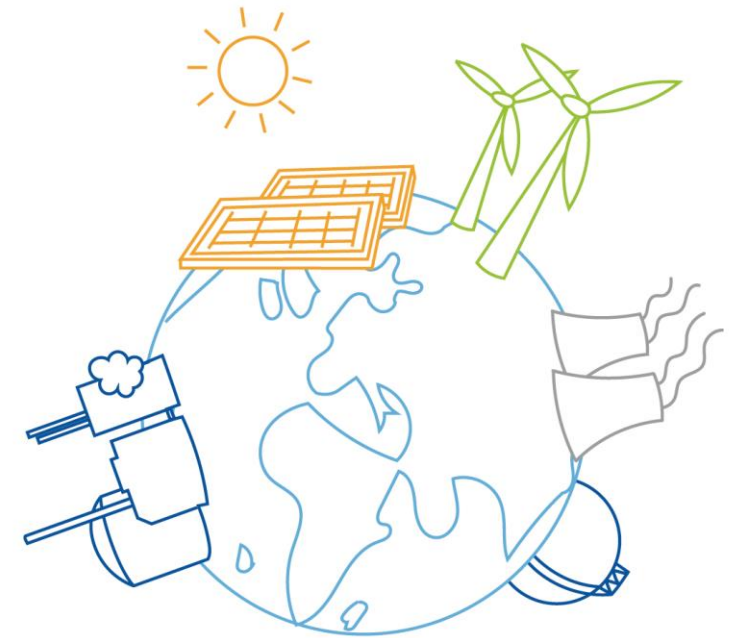
Weekday	Activities
Monday	<ul style="list-style-type: none"> The settlement of the last day (Sunday) to be included in the invoicing round is finalized eSett calculates currency positions, makes FX forwards and converts invoice amounts (explained in section 8.8) eSett issues debit and credit notes to BRPs and BSPs by 13 CE(S)T eSett calculates and communicates updated collateral requirement to BRPs and BSPs by 13 CE(S)T BRP or BSP provides sufficient balance on settlement account for settlement of next invoice if it is a debit note. Required amount to be deposited onto the settlement account during Monday so that it is included in Monday's closing balance
Tuesday	<ul style="list-style-type: none"> BRP or BSP posts any additional collateral to meet the updated collateral requirement by 11 CE(S)T: <ul style="list-style-type: none"> Cash collateral to be deposited onto the settlement account On-demand guarantees to be provided to eSett BRP or BSP to contact eSett if there are any issues with the invoice eSett issues corrected invoice if there was an error that eSett is responsible for
Wednesday	<ul style="list-style-type: none"> eSett debits the settlement account of the BRPs and BSPs that received debit notes
Thursday	<ul style="list-style-type: none"> eSett makes payments to BRPs and BSPs that received credit notes BRPs and BSPs receive the payments for their credit notes on their settlement accounts (provided that they have agreed with their settlement bank about receiving same-day-value payments)

!NOTE!

A holiday in the settlement interval (Mon – Thu) in any of the NBS countries shifts the activities on and after the holiday one business day forward. The Nordic calendar is available on Handbook Appendix 2

Collaterals

- eSett is the financial counterparty in the imbalance settlement towards all BRPs/BSPs and TSOs
 - Counterparty risk of eSett arises from the outstanding obligations of BRPs, i.e. from negative imbalances that have taken place but not been paid for yet
 - Each BRP must therefore provide collateral to eSett as security against the risk that the BRP is unable to fulfil its obligations towards eSett
 - Exceptions:
 - Denmark where Energinet (TSO) bares the risk
 - BSPs are not required to post collateral as of now
- Collateral demand is calculated with a dynamic model
 - Demand is calculated daily based on latest settlement data and prices
 - Demand is published on Mondays
 - Minimum collateral demand is EUR 40 000,00
 - Release of excess collateral upon request approved by eSett (Handbook 9.8)
- Collateral can be provided in the form of cash or an on-demand guarantee, or a combination of these
- At the termination of Imbalance agreement, eSett will release funds after all liabilities have been settled
- Settlement bank is not allowed to release any collateral funds without eSett's approval
- The Account Holder may not pledge the Pledged Cash Account to third parties even with priority after eSett.



Essential terms of On-Demand Guarantee

1 Currency can be DKK, EUR, NOK or SEK

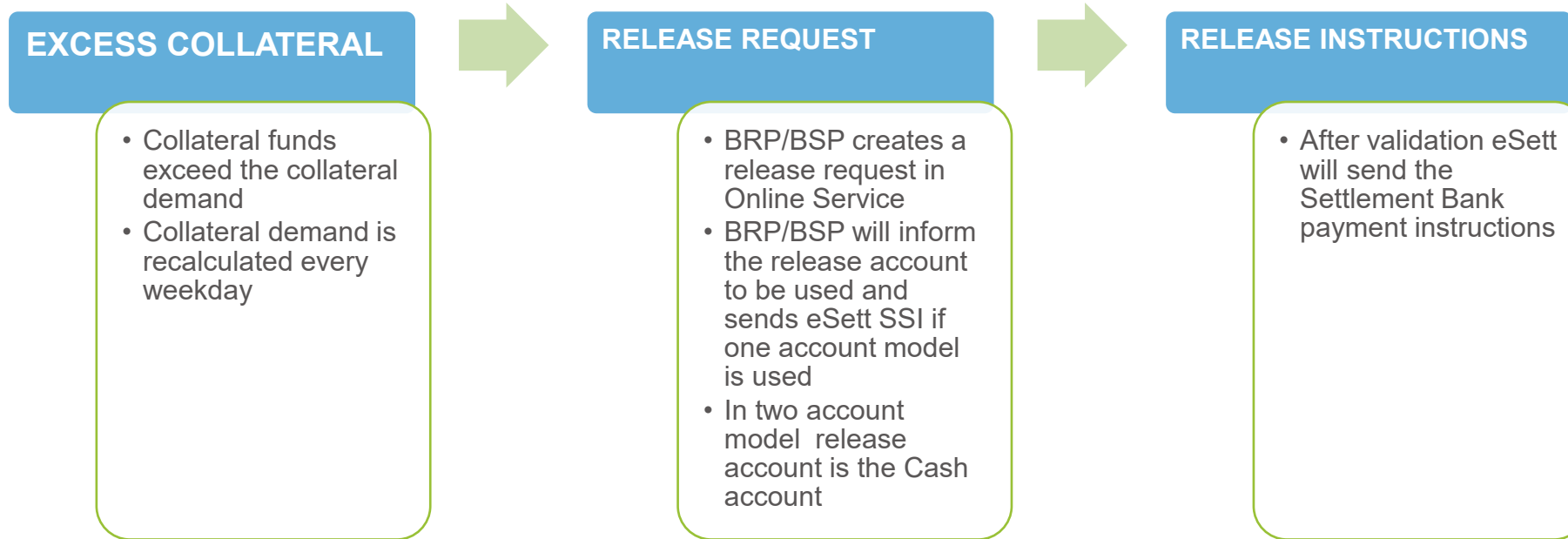
2 Payable on first demand

3 Payment within 3 banking days of demand

4 Continuing guarantee

- Can be terminated by bank with 3 months' notice
- Upon termination the guarantee remains valid for payment obligations incurred until the termination date until such payment obligations have been settled in full

Excess collateral release



Role and requirements of Settlement Banks

Role of Settlement Banks

1

Provision of cash accounts

2

Execution of "Request for Transfer" instructions from eSett according to the settlement schedule (MT101)

3

Daily reporting of account balances and transactions to eSett (MT940)

1

Provision of Cash Accounts to the BRPs

CASH ACCOUNT MODEL:

1. Cash Account

- Used for posting for settlement of the BRP's/BSP's invoices
- Right of Disposal for eSett
- Can be part of cash pool or have a credit limit
- Customer can release funds independently

2. Cash Collateral Account

- Used for posting of cash collateral
- Pledge in favor of eSett

- Governed by Agreement on Right of Disposal of Cash Account and Cash Collateral
- Agreement template: [Cash and Collateral Account Agreement clean agreement](#)

SERVICE FEES:

- The BRP/BSP is responsible for all applicable service fees for the settlement bank services
- eSett is not responsible for any fees or costs incurred by the Settlement Bank
- Any pricing model can be applied to the settlement bank services, but settlement account cannot be used to cover the bank's service fees as all the funds need to be pledged to eSett

2

Execution of “Request for Transfer” instructions from eSett

- Instructions issued by eSett are forwarded by eSett’s bank (Nordea) to Settlement Bank as MT101 message (Same-Day-Value payment payment instruction CORT)
- Transfers to be executed by Settlement Bank in accordance with the “Request for Transfer” service defined by SWIFT
 - The Settlement Bank shall include, unaltered, at least the 35 first characters of any remittance information supplied in field 70 of the incoming MT101 message
- The Settlement Bank shall inform immediately eSett if it is, due to any reason, unable to execute a payment from a Cash Account as instructed by eSett

#	Message or transaction	Description	Deadline
(1)	Incoming Request for Transfer from eSett	Deadline for when an incoming Request for Transfer instruction sent by eSett through eSett’s bank shall be available to the Settlement Bank in order for deadline (2) to apply.	11:00 CET D+0
(2)	Outgoing payment transfer to eSett	Deadline for when a payment transfer from the Account Holder’s Cash Account to eSett’s account in response to a Request for Transfer instruction from eSett shall be available to eSett’s bank, provided that the incoming Request for Transfer instruction was available to the Settlement Bank by the deadline (1).	14:45 CET D+0

3

Daily reporting of Account Balances and Transactions

- For collateral monitoring and for ensuring orderly settlement of outstanding invoices, eSett needs to have up to date information about the balances and transactions on the BRPs'/BSPs' Cash Accounts
- The Settlement Bank shall make daily end-of-day transaction and balance reports on the BRPs'/BSPs' Cash Accounts available to eSett in the SWIFT MT940 format defined by SWIFT
- The MT940 reports will be retrieved from the Settlement Bank on eSett's behalf by eSett's bank
- When needed, the Settlement Bank shall also respond to eSett's enquiries concerning transactions and balances on a Cash Account during the day

Requirements of Settlement bank

1 Technical requirements for settlement banks:

- Bank domiciled in European Economic Area (EEA)
- Provide cash accounts in EUR, SEK, NOK or DKK. Account owner is BRP/BSP
- Member of SWIFT or operating through another SWIFT member
- Ability to execute Request for Transfer instruction / MT101 with Same Day Value according to eSett's schedule (CORT)
- Ability to include remittance information from incoming MT101 in outgoing payment
- Ability to report balances in MT940 format according to eSett's schedule

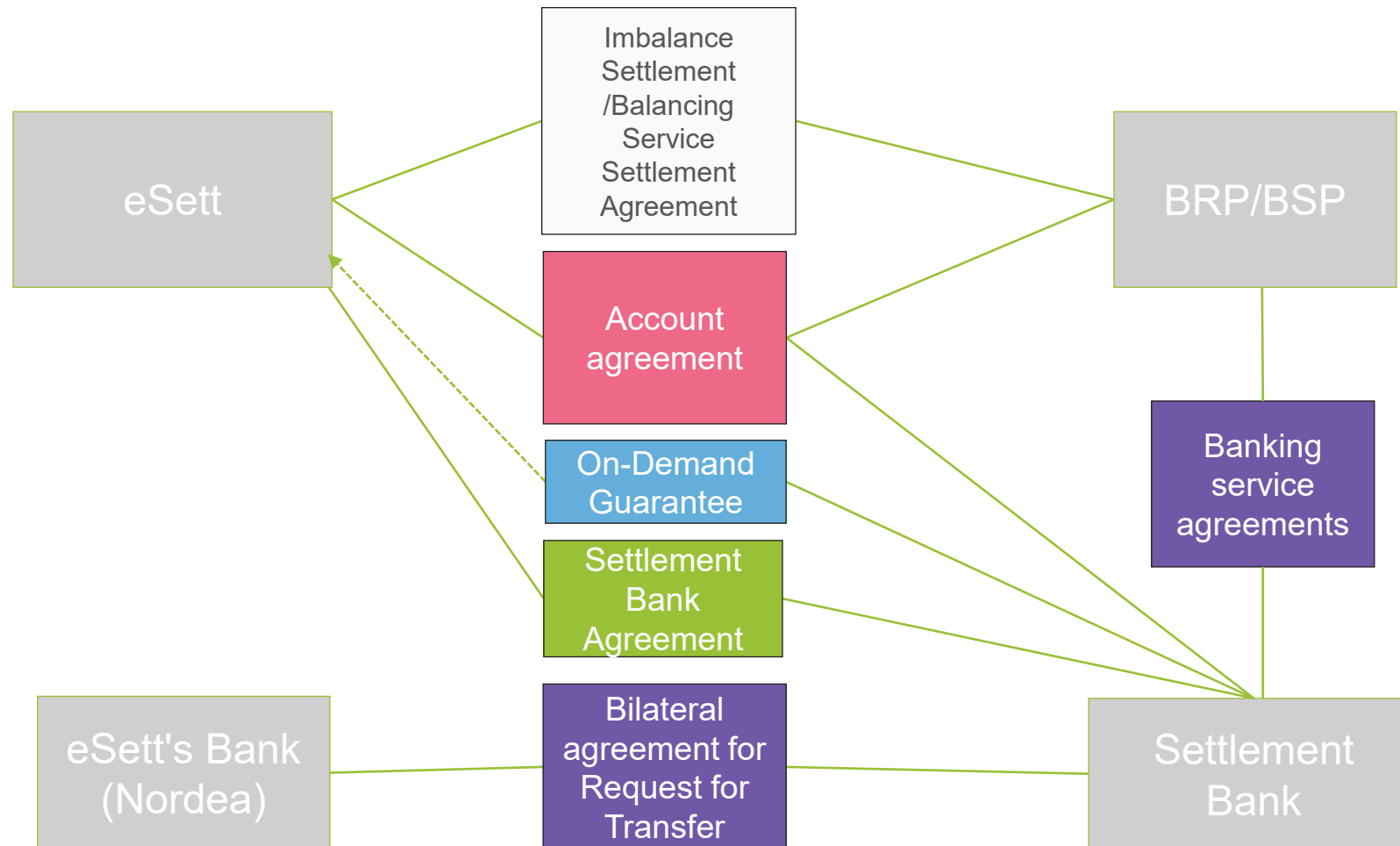
2 Rating requirements for settlement banks:

- Rating at least from one of the following:
 - Standard & Poor's: long term rating "A-"
 - Moody's: long term rating "A3"
 - Fitch: long term rating "A-"
- If the Settlement Bank is rated by several agencies, at least one of the ratings must be on the aforementioned level and the lowest rating must be at least BBB+ (Fitch, Standard & Poor's) or Baa1 (Moody's).

3 Contractual requirements for settlement banks:

- Settlement bank agreement
- Account agreement (one & two account models)
- Bilateral agreement with eSett's main bank (Nordea Finland)
- MT101, MT940
- Standard Settlement Instructions (with the one account model)
- Any necessary agreements between Settlement Bank and BRP/BSP

Contract structure for governing invoicing, payments and collateral in the Nordic imbalance settlement



Steps to become a settlement bank

1 Bank contacts eSett

- Contact to finance@esett.com
- Bank to appoint contact person for further communication

2 eSett and Nordea (main bank) reviews information about the bank's capability to operate in accordance with eSett's settlement model

- Settlement bank delivers completed Settlement bank questionnaire to finance@esett.com
- [Settlement bank questionnaire](#)

3 eSett confirms to the bank whether the bank can be approved as a Settlement Bank in the Nordic Imbalance Settlement

4 All necessary agreements signed with Settlement Bank

5 eSett performs end-to-end testing of Request for Transfer transaction and Balance Reporting together with selected BRP/BSP

6 eSett adds bank onto public list of approved Settlement Banks

Further information

- eSett's website www.esett.com
- [Handbook | Nordic Imbalance Settlement Model | eSett](#)
 - chapters 8 and 9
- [Settlement Banks | Nordic Imbalance Settlement Model | eSett](#)

Contact:

finance@esett.com



We settle, together!