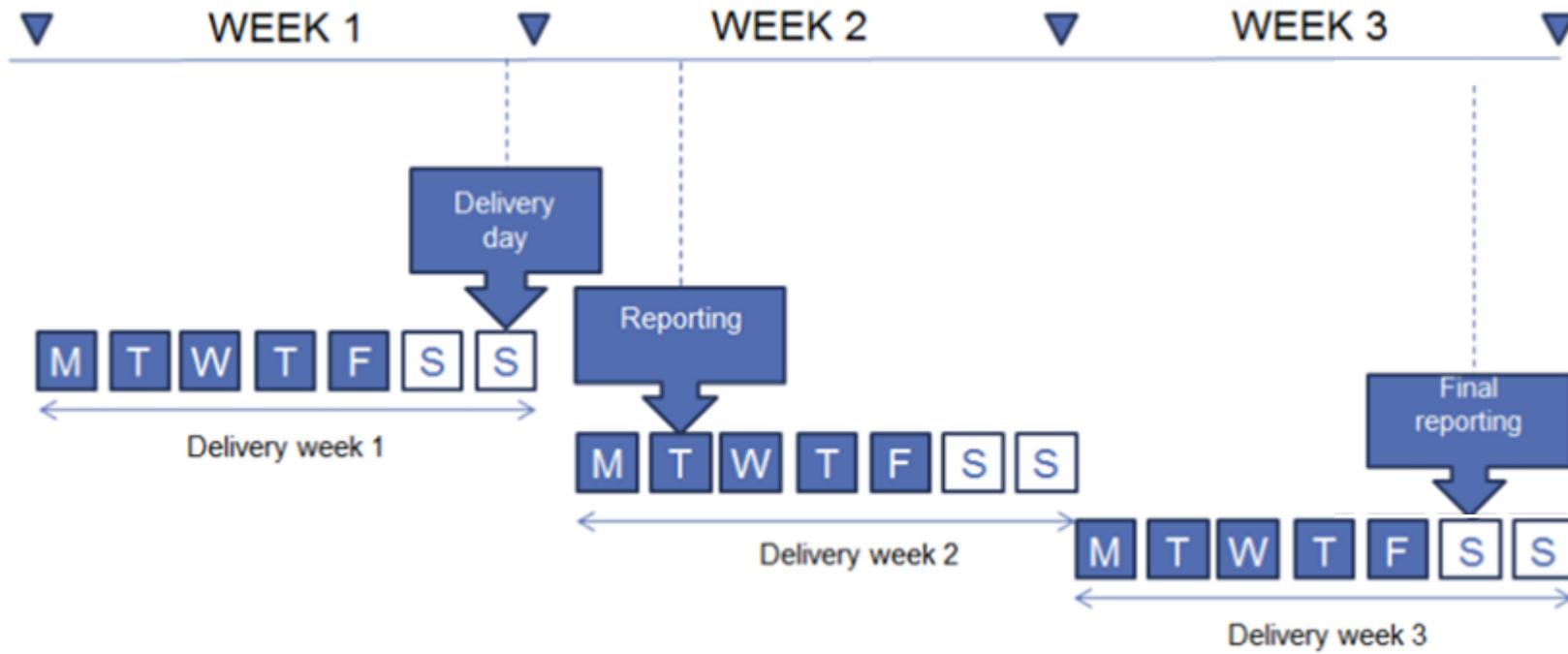


# Shortening the reporting period

Olli Vainikainen – Customer Committee 19.10.2023



# eSett's Reporting Period



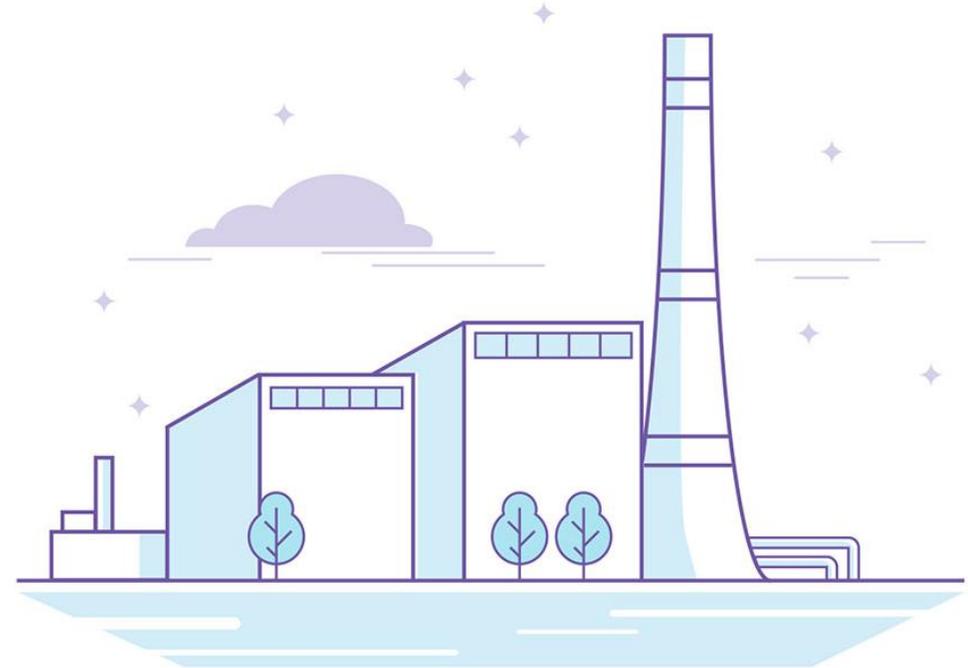
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2. Results of Study
3. Potential Invoicing Schedule Impact
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# Introduction – The Reporting Period

- Currently the reporting period lasts for maximum of 13 days from the delivery day for imbalance settlement related data
  - All reporting closes at 12:00 CET D-13
  - Reporting periods differ by type of data and by each country's national laws
- The reporting period determines the invoicing schedule: a shorter reporting period means a faster invoicing schedule
- Based on the data that eSett currently receives it is possible to identify:
  - When data is being reported
  - How data reporting differs per type, country, etc.
  - Where during the reporting period the data starts to remain relatively unchanged



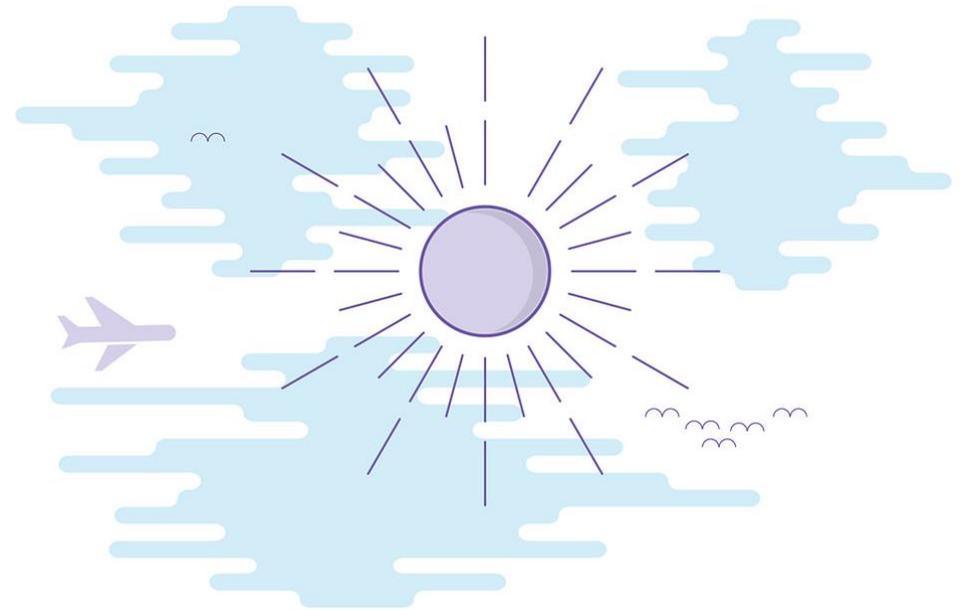
# Introduction – The Data Readiness Study

- Data Readiness – The amount and quality of input data that has been received by eSett
- Objectives of study:
  - Study Data Readiness within the open reporting window
  - Identify if it is possible to perform imbalance settlement on a sufficient level earlier than D-13 (based only on imbalance settlement data eSett receives)
- Original study was held during 21.11.2022-30.3.2023
  - Data was fetched each Monday and Thursday during the afternoon hours
  - Total number of days studied was 33

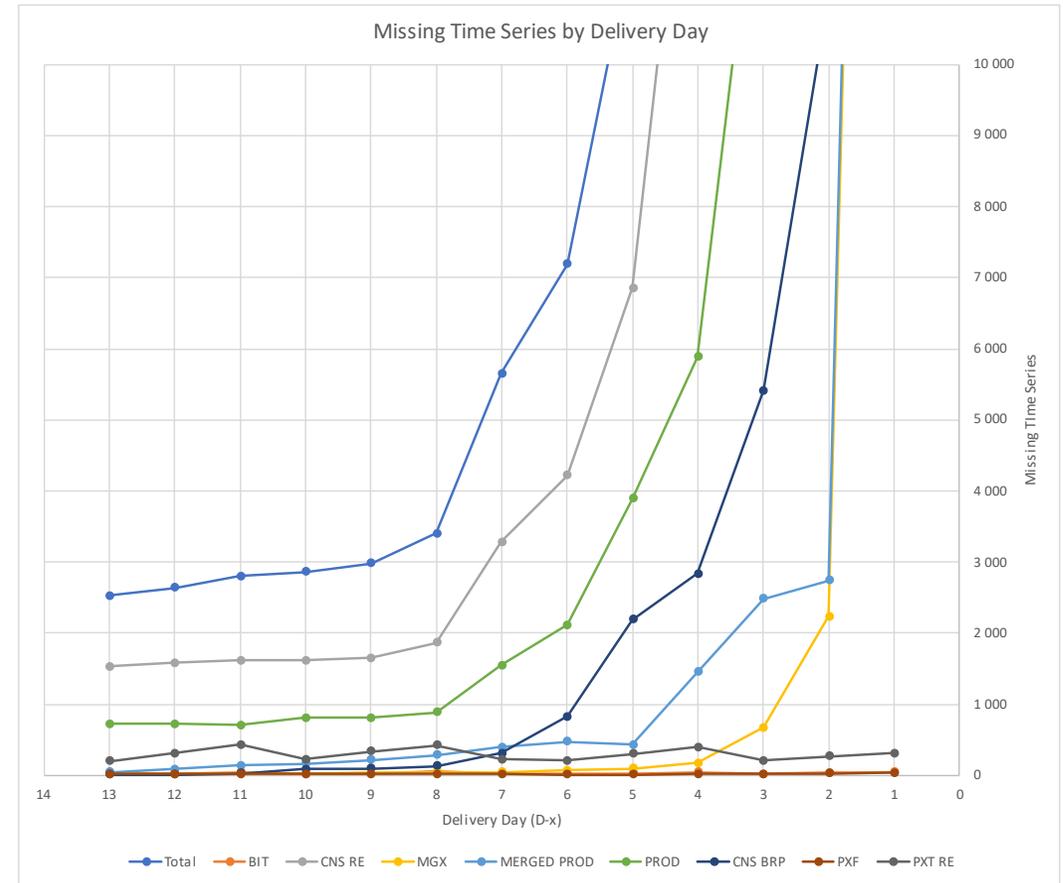
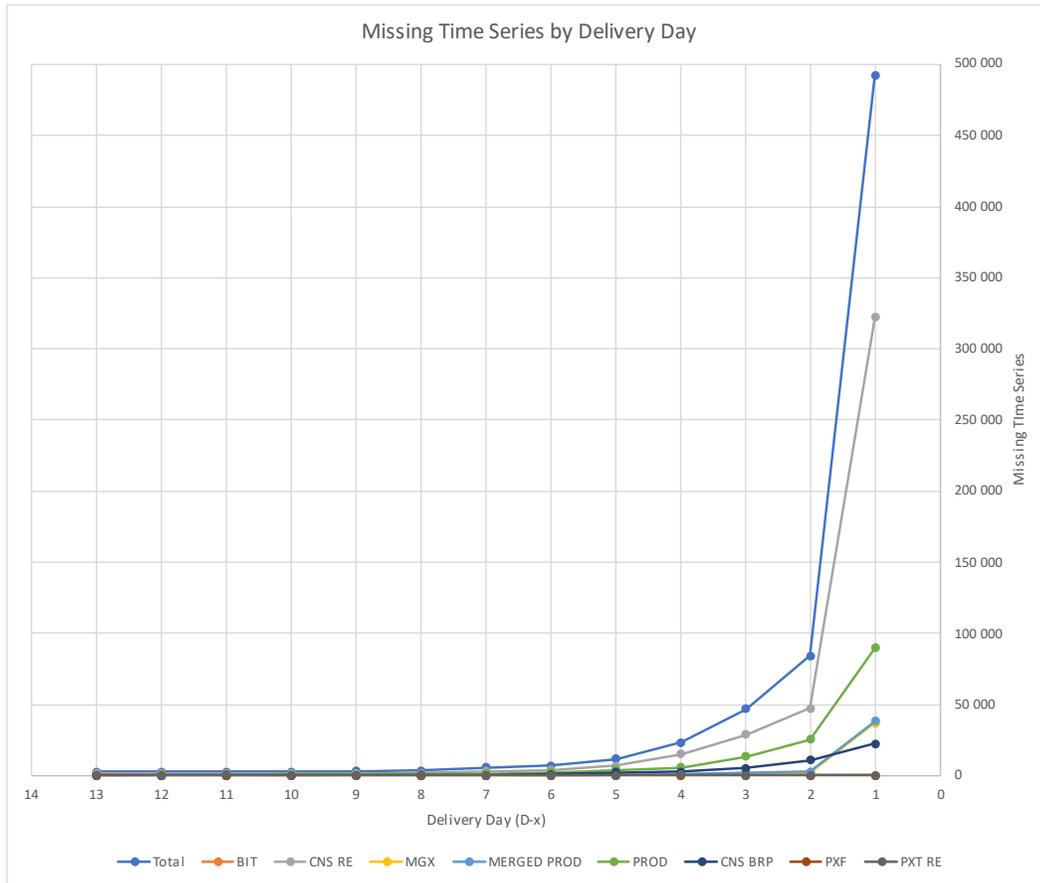


# Introduction – The Data Readiness Study

- What is analysed for Data Readiness:
  - Availability
    - Missing time series
  - Quality
    - Absolute MGA Imbalance per country
    - Absolute BRP Imbalance per country
- Also, the effect of 15 min data on Data Readiness has been examined and will be shown later in this presentation

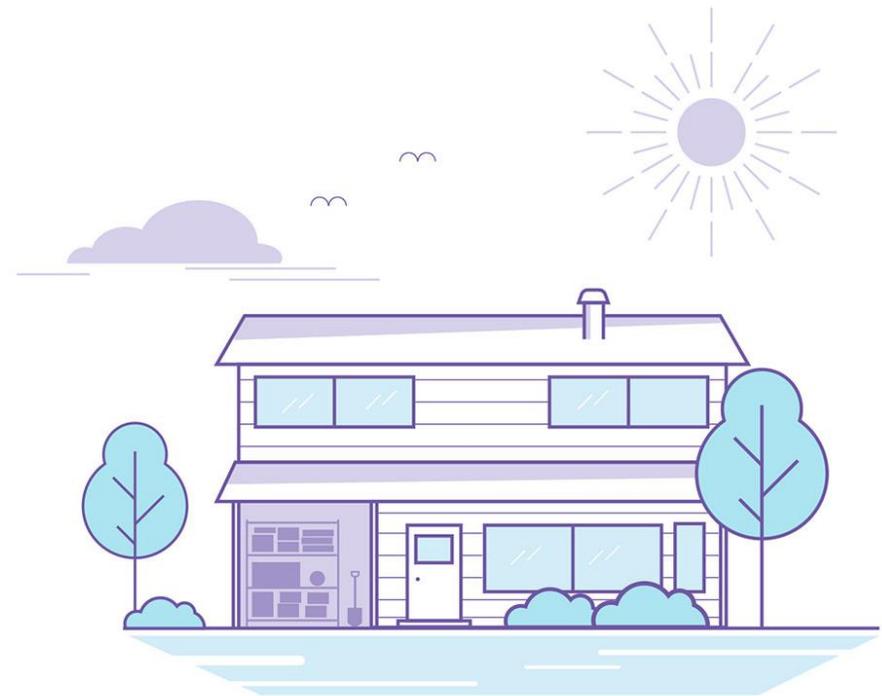


# Results – Missing Data

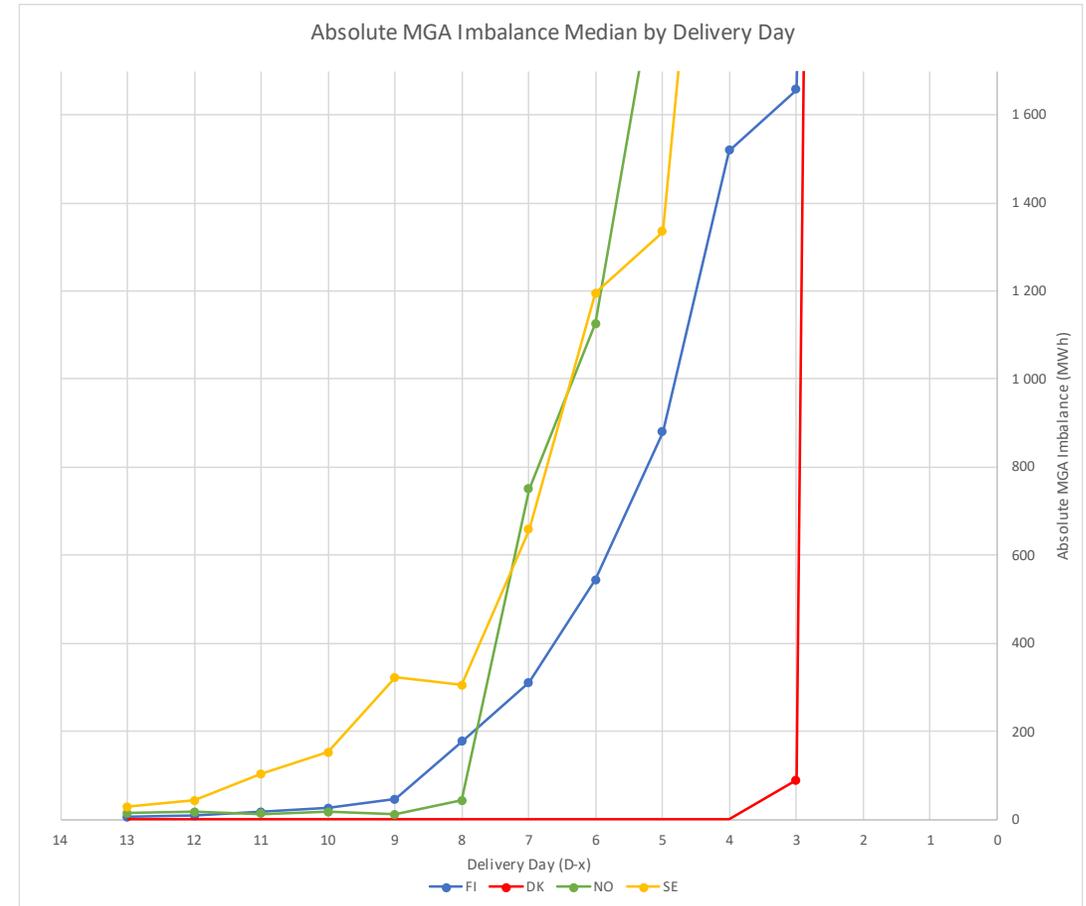
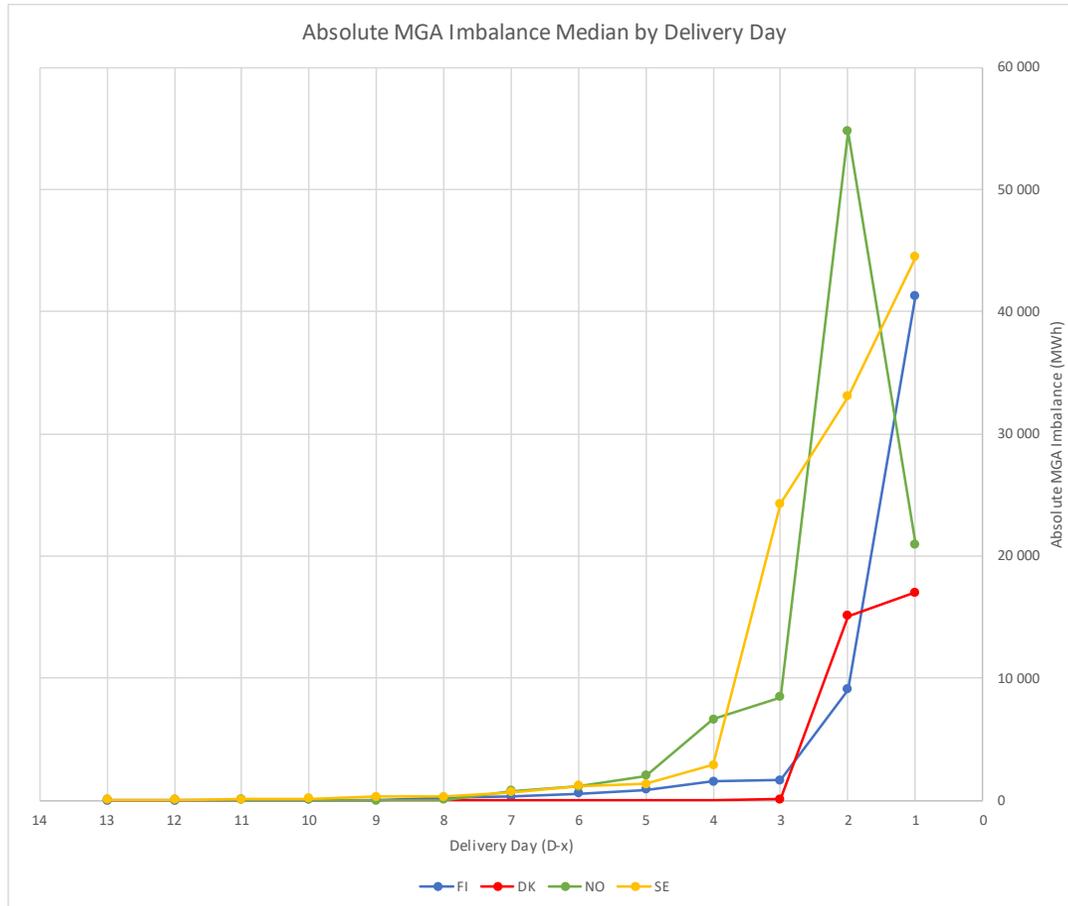


# Results – Missing Data

- Total amount of missing time series that eSett has does not drastically change in the last days of the reporting window
- Consumption and production values make up most of the missing values

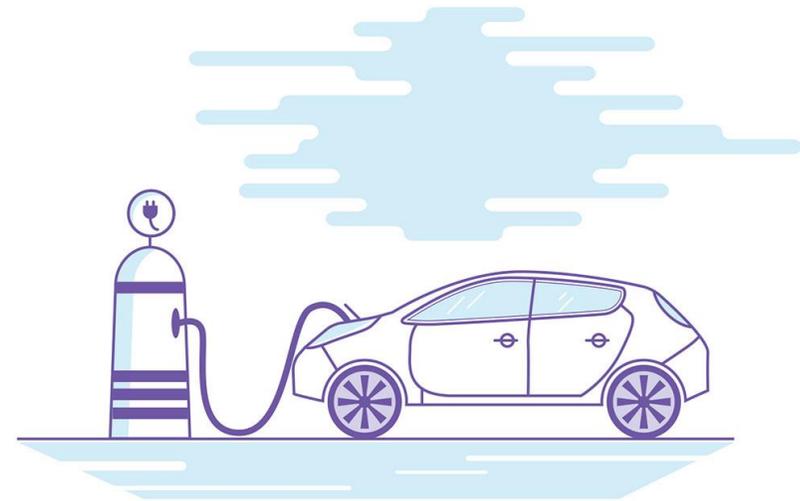


# Results – MGA Imbalance

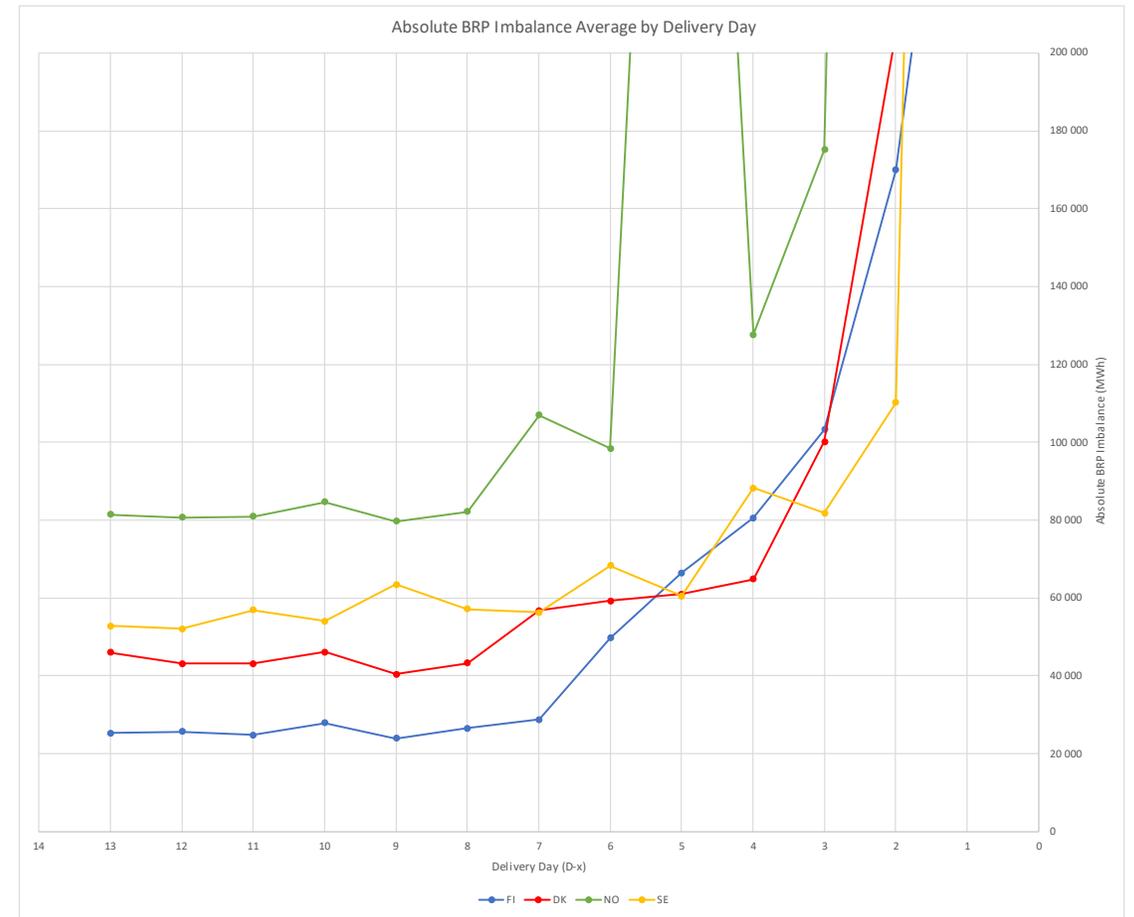
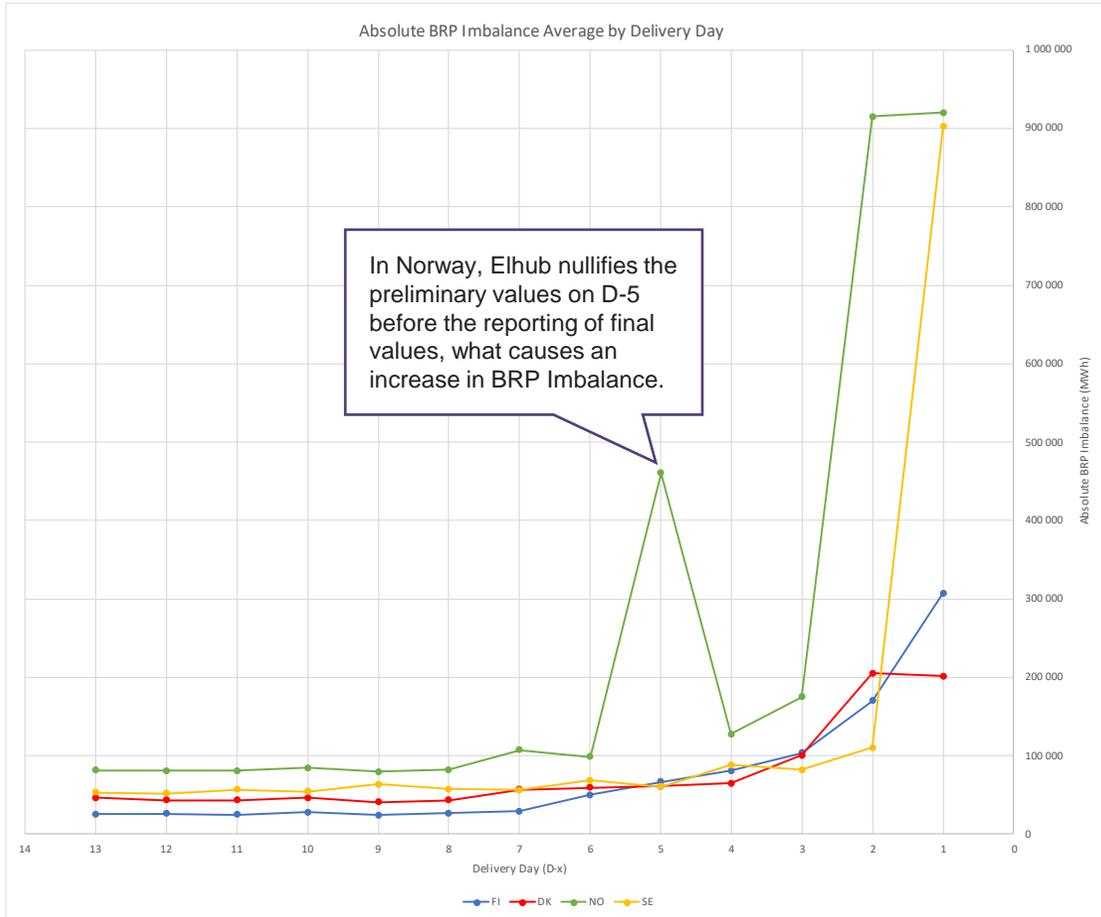


# Results – MGA Imbalance

- MGA Imbalance is highly variable, which makes analysis of it's data quality a bit more difficult. Therefore, median values were analyzed instead of the average value of the data set
- It can be said that MGA Imbalance in each country stays relatively stable after the eight day of reporting. There is some variance in this between the countries

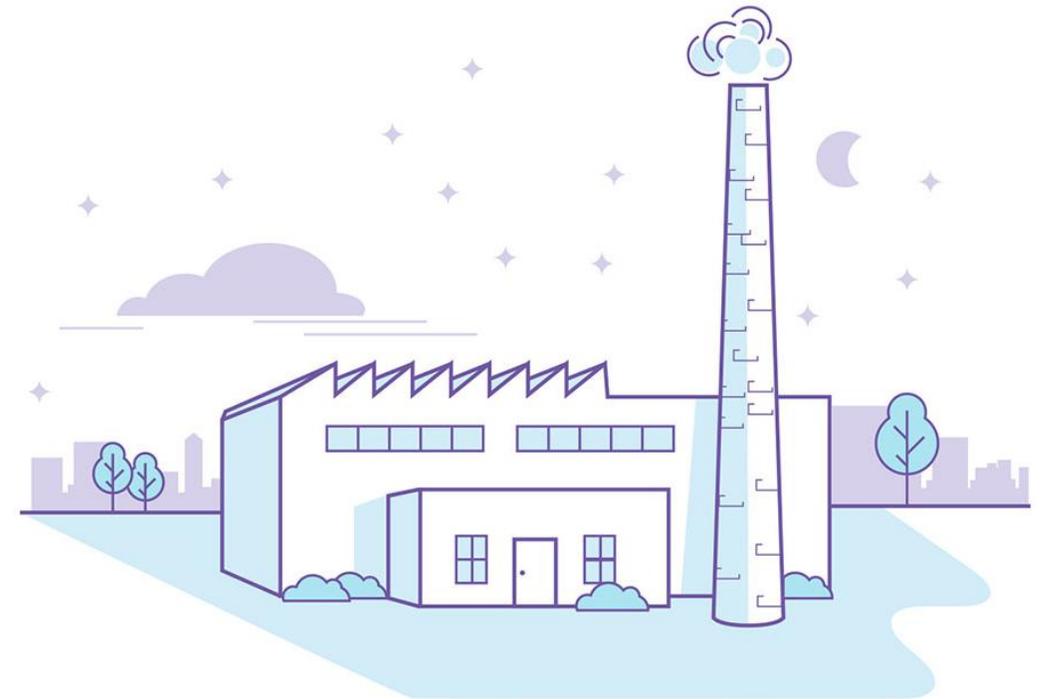


# Results – BRP Imbalance



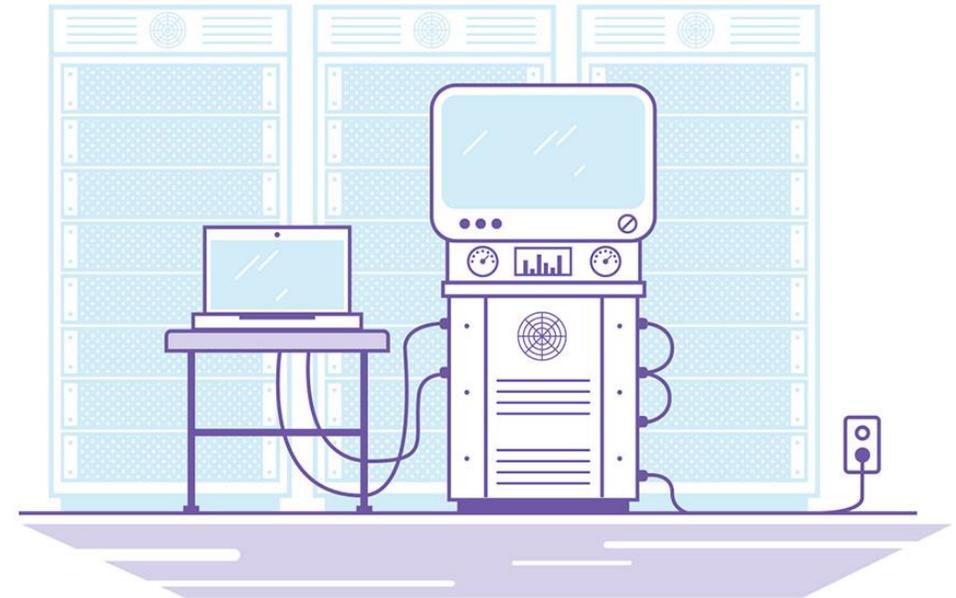
# Results – BRP Imbalance

- Absolute BRP Imbalance on country level is dependent on multiple things, but especially on the number of MBAs
- Absolute BRP Imbalance stays quite stable for the larger part of the reporting window in each country

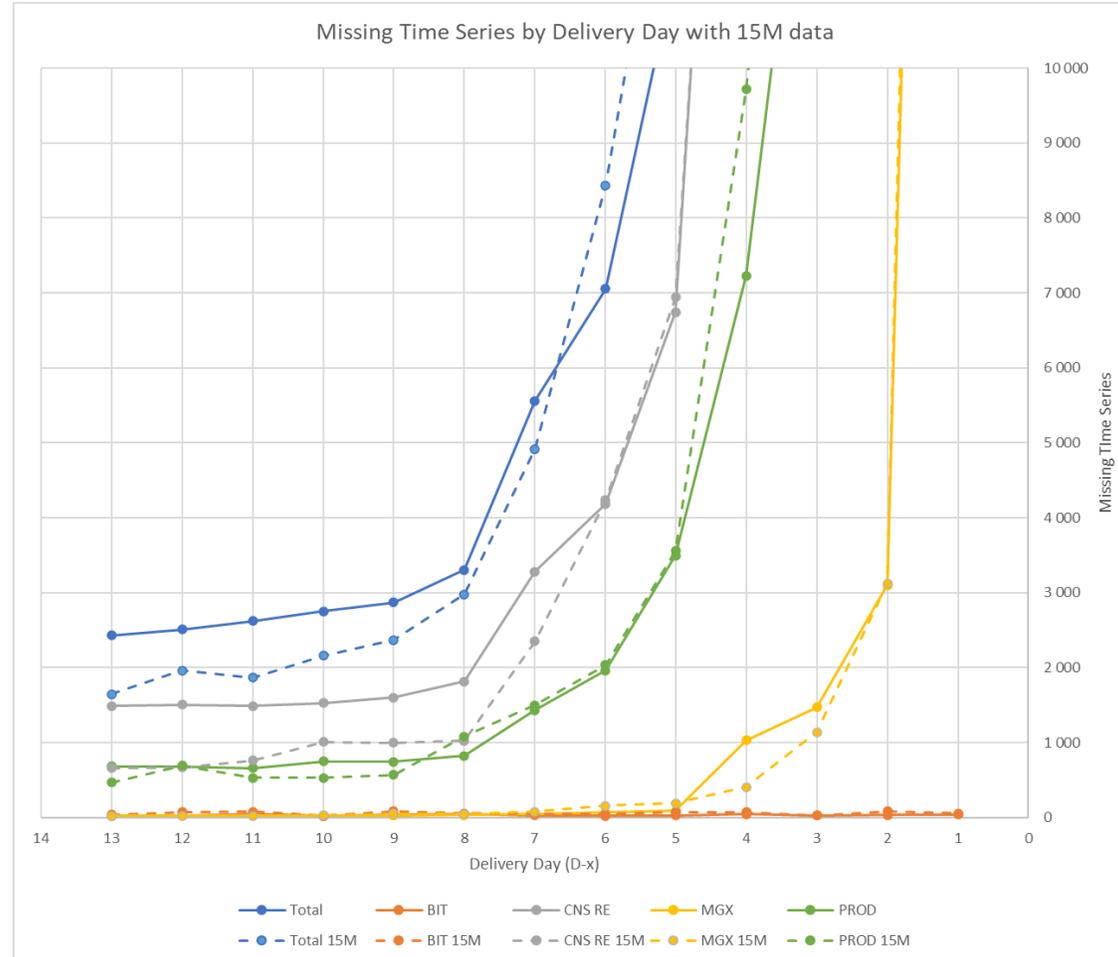


# Results – Impact of 15 min

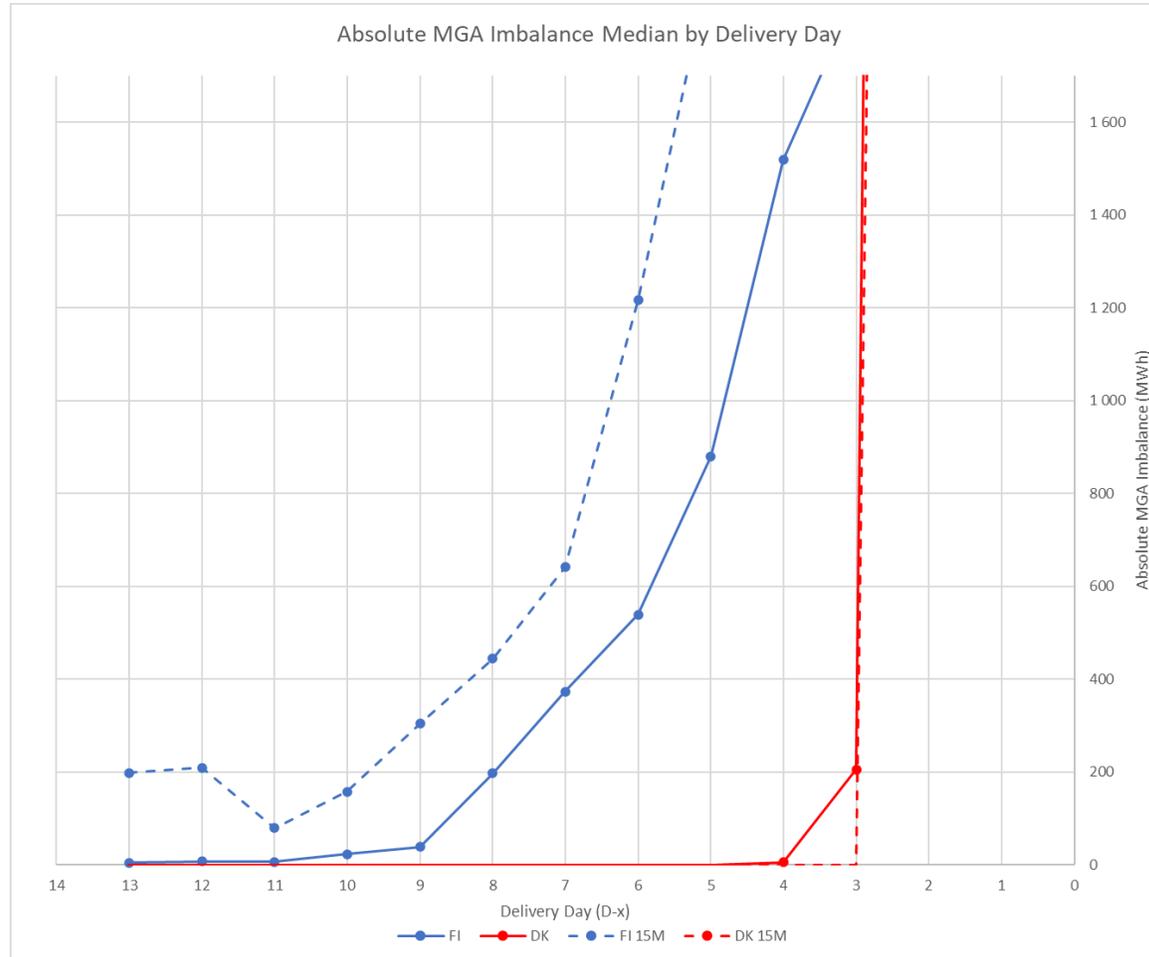
- 15 min imbalance settlement period has been in use in Denmark and Finland from 22.5.2023
- Therefore, it can be analyzed if 15 min data has had impact on Data Readiness
- 16 days during May-July 2023 were used in the analysis of 15 min impact and compared to the original Data Readiness study results



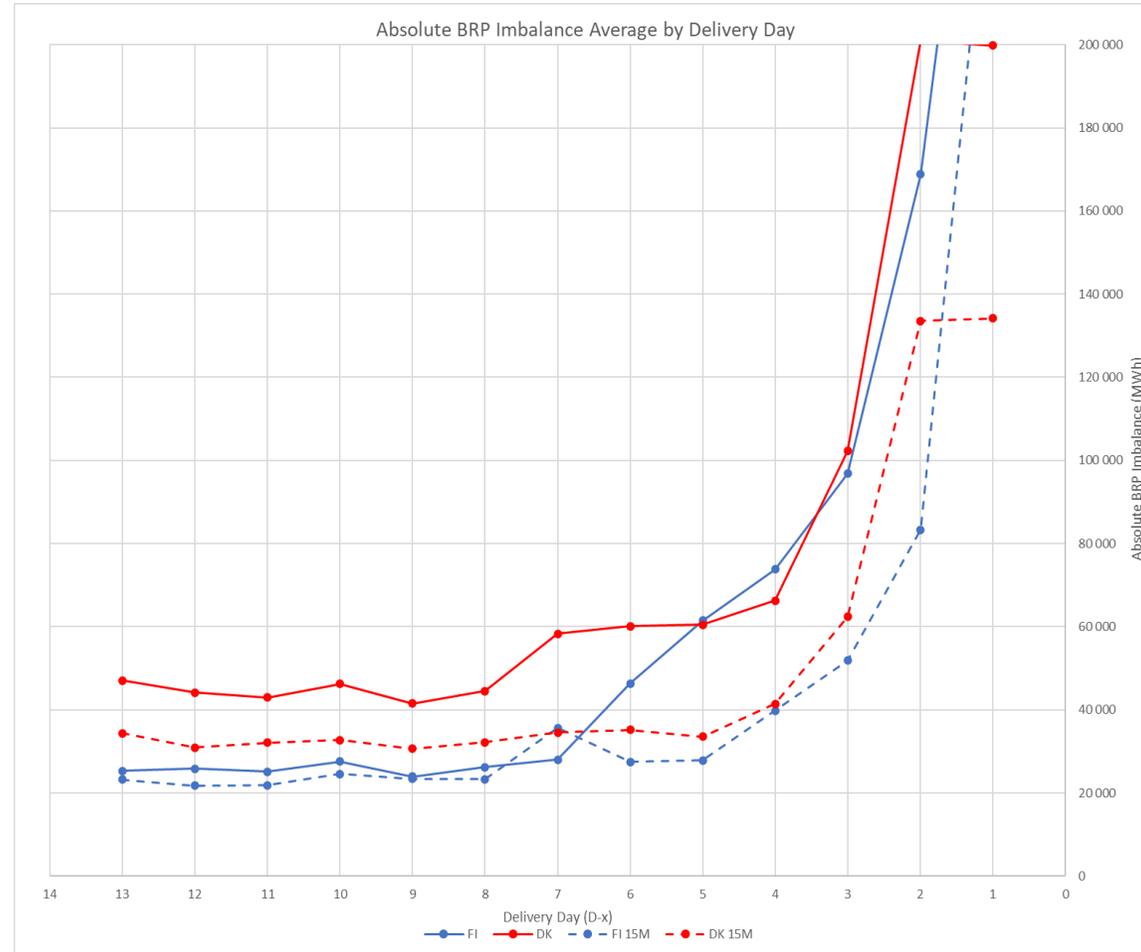
# Results – Impact of 15 min



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## Results – Impact of 15 min

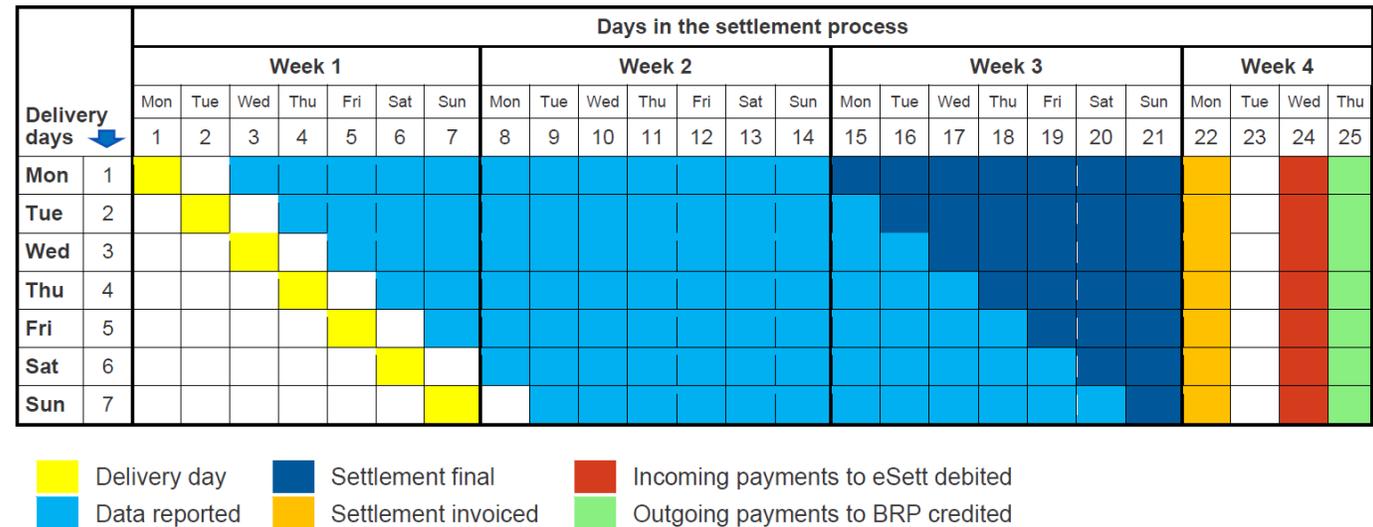
- 15 min values have not had much of an effect on the amount of missing values
- MGA Imbalance has increased in Finland during 15 min ISP, but this is due to some metering being still in 60 min. This leads to imbalance within the hour
- BRP Imbalance has seemed to have decreased with 15 min, but the data for 15 min values was gathered during the summer where imbalances are generally lower
- All in all, Data Readiness has not seemed to be greatly affected by 15 min data



# Invoicing Schedule Impact

- Based on the earlier results, Data Readiness is relatively stable for multiple days before the delivery day
- This would indicate that invoicing could be performed with an earlier reporting window than D-13
- Next few slides show hypothetical examples of invoicing schedules with shorter reporting windows

**Current invoicing schedule with D-13 reporting window:**



# Example 1: Invoicing Schedule on D-10 reporting window

- Invoicing done on Thursday 11 days after last delivery day of the invoicing week
  - Incoming payments to eSett on Monday
  - Outgoing payments from eSett on Tuesday
- Compared to current invoicing schedule:
  - Invoicing completed 4 days earlier
  - Reporting window narrowed down by 3 days

**Invoicing schedule with D-10 reporting window:**

		Week 1							Week 2							Week 3							Week 4	
		Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue
Delivery day		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mon	1	Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow				Red	Green
Tue	2		Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow				Red	Green
Wed	3			Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow				Red	Green
Thu	4				Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow				Red	Green
Fri	5					Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow				Red	Green
Sat	6						Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow				Red	Green
Sun	7							Yellow		Blue	Blue	Blue	Yellow				Red	Green						

<span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Delivery day	<span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span> Settlement final	<span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> Incoming payments to eSett debited
<span style="display:inline-block; width:15px; height:15px; background-color:cyan; border:1px solid black;"></span> Data reported	<span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Settlement invoiced	<span style="display:inline-block; width:15px; height:15px; background-color:green; border:1px solid black;"></span> Outgoing payments to BRP credited

# Example 2: Invoicing Schedule on D-8 reporting window

- Invoicing done on Tuesday 9 days after last delivery day of the invoicing week
  - Incoming payments to eSett on Thursday
  - Outgoing payments from eSett on Friday
- Compared to current invoicing schedule:
  - Invoicing completed 6 days earlier
  - Reporting window narrowed down by 5 days

**Invoicing schedule with D-8 reporting window:**

		Week 1							Week 2							Week 3						
		Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Delivery day		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Mon	1	Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow		Red	Green		
Tue	2		Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow		Red	Green		
Wed	3			Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow		Red	Green		
Thu	4				Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow		Red	Green		
Fri	5					Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow		Red	Green		
Sat	6						Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Yellow		Red	Green		
Sun	7							Yellow		Blue	Yellow		Red	Green								

Yellow	Delivery day	Dark Blue	Settlement final	Red	Incoming payments to eSett debited
Light Blue	Data reported	Orange	Settlement invoiced	Light Green	Outgoing payments to BRP credited

# Example 3: Invoicing Schedule on D-7 reporting window

- Invoicing done on Monday 8 days after last delivery day of the invoicing week
  - Incoming payments to eSett on Wednesday
  - Outgoing payments from eSett on Thursday
- Compared to current invoicing schedule:
  - Invoicing completed 7 days earlier
  - Reporting window narrowed down by 6 days

**Invoicing schedule with D-7 reporting window:**

		Week 1							Week 2							Week 3						
		Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
<b>Delivery day</b>		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Mon	1	Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Orange		Red	Green			
Tue	2		Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Orange		Red	Green			
Wed	3			Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Orange		Red	Green			
Thu	4				Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Orange		Red	Green			
Fri	5					Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Orange		Red	Green			
Sat	6						Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Blue	Orange		Red	Green			
Sun	7							Yellow		Blue	Blue	Blue	Blue	Blue	Blue	Orange		Red	Green			

- Delivery day
- Data reported
- Settlement final
- Settlement invoiced
- Incoming payments to eSett debited
- Outgoing payments to BRP credited

# Conclusions

- Based on this Data Readiness study, the quality and availability of input data eSett receives does not drastically change during the last days of the current reporting window
  - 15 min data has not seemed to affect the results
- Therefore, shortening the reporting window would seem to have a relatively low impact on imbalance settlement
- Operating on a tighter reporting window could allow invoicing to be concluded multiple days earlier
- Possible uncertainties:
  - Will correction of settlement results (bilaterally or by eSett) increase drastically when narrowing down the open reporting window?
  - How big of a workload would implementing a shorter reporting window be?
    - Legislation changes
    - Impact on all stakeholders' systems (eSett, TSOs, DSOs,...)





WE SETTLE, TOGETHER!

