



GMR

2017-12-13

JBZ ROADMAP

Geir Sjöholm

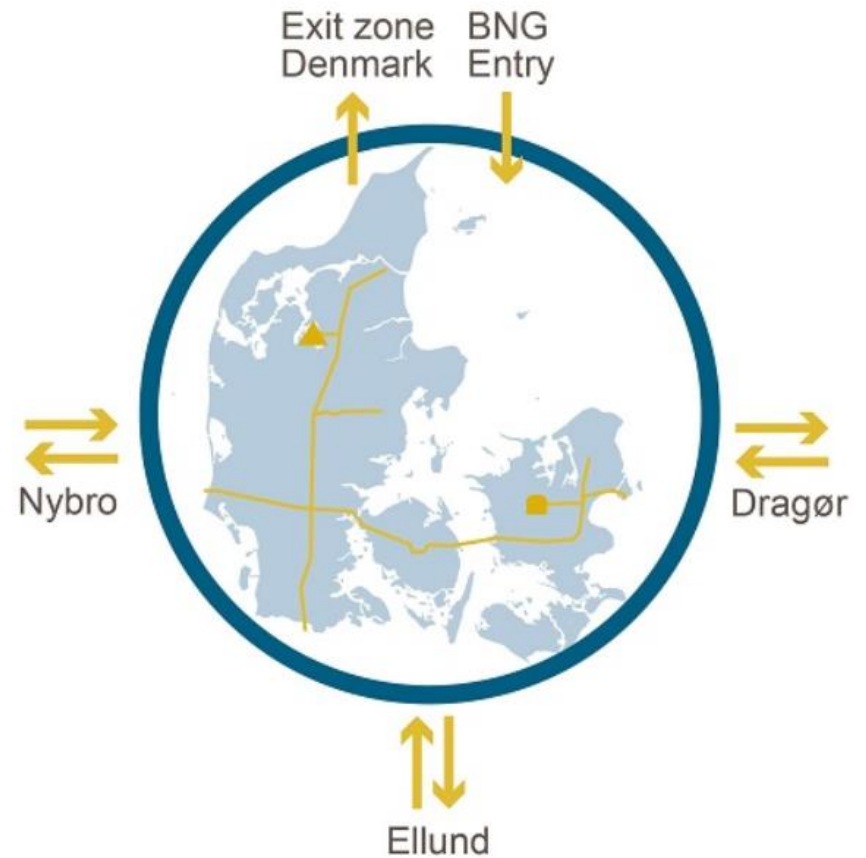
2017-11-16

BALANCING JBZ MODEL

- The main change in the Joint Balancing Zone (JBZ) model is that Dragør will no longer be an Border Point. The valve controlling the flow over the Dragør Border Point will be open and the gas will flow freely. The Swedish and Danish gas systems will be balanced as one joint gas system.
- In creating a JBZ between Sweden and Denmark there is not planned to be any changes in the Swedish capacity model.
- There will be changes to the current Danish capacity model.

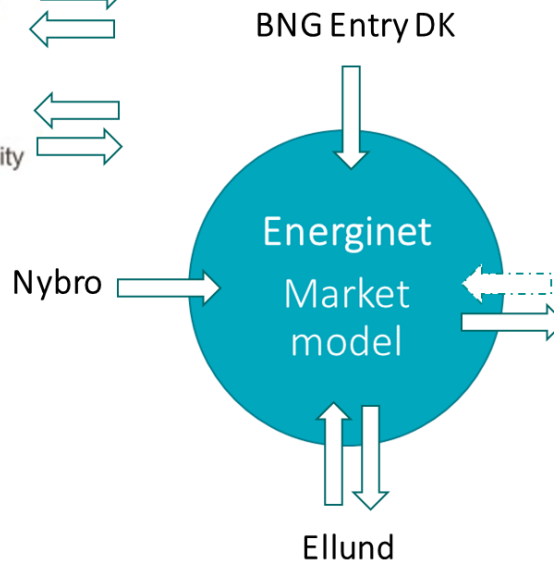
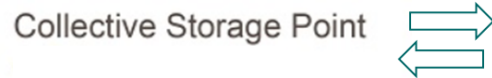
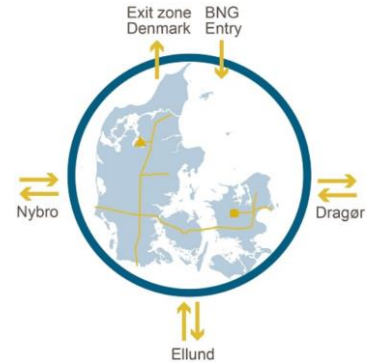
CURRENT DANISH CAPACITY MODEL

- Introduction to the current Danish Capacity Model



NEW DANISH CAPACITY MODEL

- Suggested changes



1. Pooling exit capacity (SE and DK)
 2. Allocation per shipper per hour:
- Zone SE:
 New SE portfolios (= net Swedish consumption, production and storage)
- Zone DK:
 Existing DMS and nDMS portfolios

Virtual Exit Zone:
 [Exit Zone SE*]
 [Exit Zone DK]

* From Sweden there can also be booked interruptible capacity in reverse direction (as Dragør today).

NEW DANISH CAPACITY MODEL- CHANGES

- What are the considerations and changes with the new Danish capacity model?
 - Out: Dragør Border Point and Exit Zone Denmark
 - In: Virtual Exit Zone
 - Capacity currently bought at Dragør Border Point and Exit Zone Denmark shall in future be bought in the Virtual Exit Zone
 - The revenues from the Dragør Border Point and Exit Zone Denmark will both continue unchanged – but under the name Virtual Exit Zone
- Capacities currently for Dragør Border Point and Exit Zone Denmark will in the future be pooled in the Virtual Exit Zone.
 - Exit Zone Sweden is bidirectional – capacities can be booked both entry and exit – as today
 - Exit Zone Denmark is only exit - as today.

NEW DANISH CAPACITY MODEL- TARIFF

- What are TARIFF considerations and changes with the new capacity model?
- The tariff methodology will not change due to JBZ
- The new capacity model under JBZ is not expected to have any significant impact on tariffs
- The revenues from the Dragør Border point and Exit Zone Denmark will both continue unchanged – but under the new name Virtual Exit Zone
- No transfer of tariff revenues from the Danish to the Swedish market - or the reverse

NEW JBZ MODEL – BALANCE ADMINISTRATORS

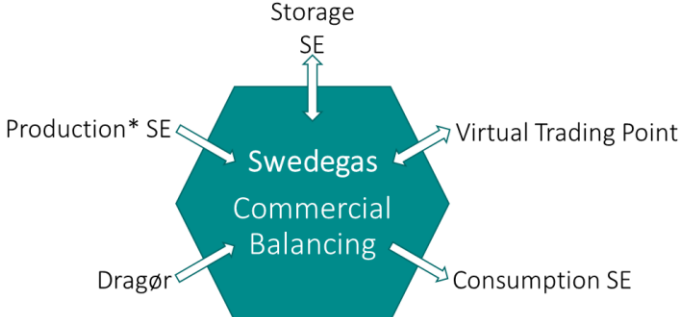
- What are the changes for the Swedish Balance Administrators with the new JBZ model?

There are two benefits in the new JBZ Model:

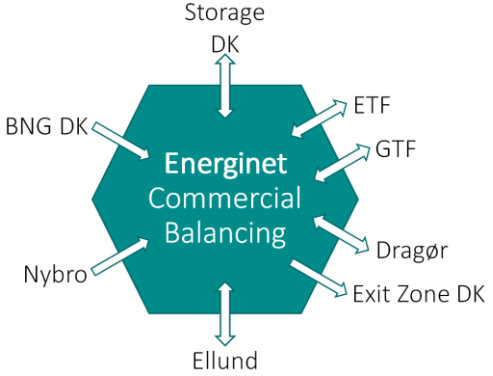
1. **Deadlines:** For Capacity bookings – for Swedish gas consumption - will become more flexible as they will follow the current process in the Danish Exit Zone and not CAM/PRISMA deadlines
2. **Size of Capacity bookings:** The method currently applied in the Danish Exit Zone will also be applied for the Swedish gas consumption (overrun charge)
 - This means that a Balance Administrators, which has a flow that is higher than his capacity, will be charged for the missing capacity
 - The charge is for daily capacities, which are 1.4 compared to the yearly capacity of 1.0

COMMERCIAL BALANCING - CHANGE

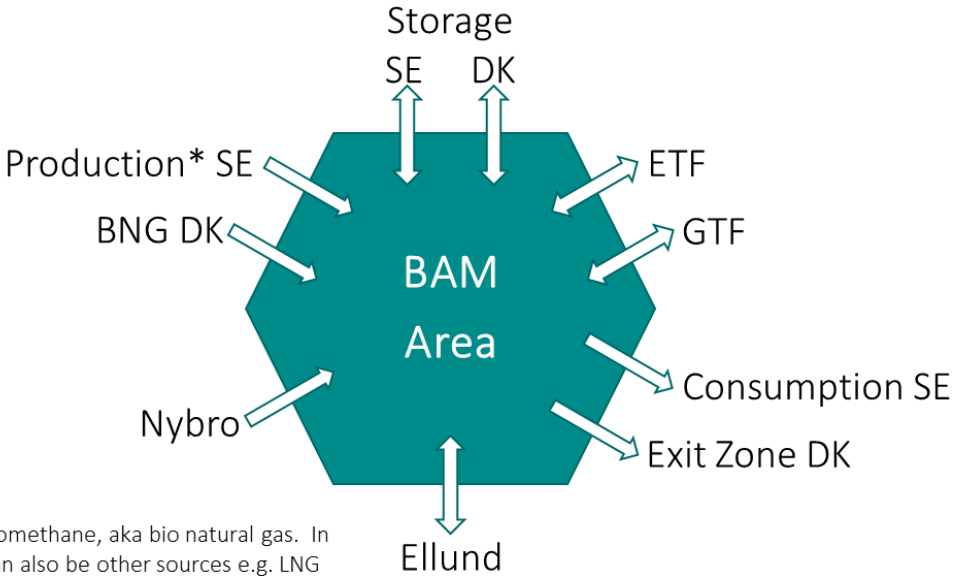
Today



*Today only biomethane, aka bio-natural gas. In future it can also be other sources eg LNG.



Under JBZ



*Today only biomethane, aka bio natural gas. In the future it can also be other sources e.g. LNG

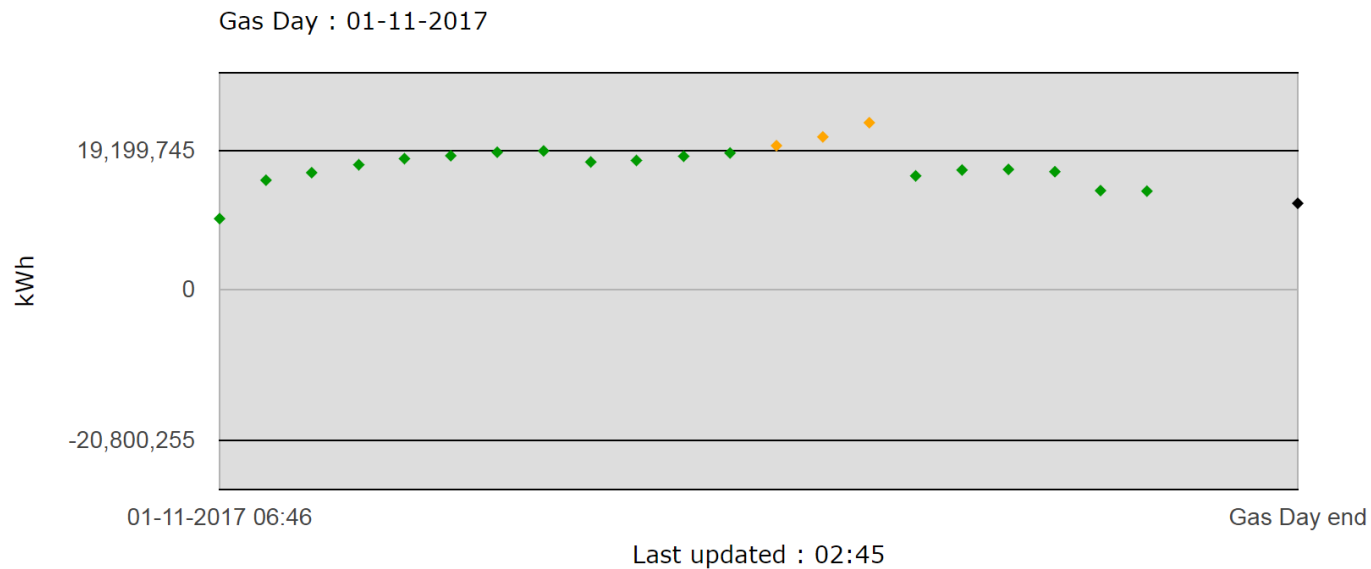


NEW COMMERCIAL BALANCING

- What are the considerations and changes with the new commercial balancing?
- For the Shippers currently active in the **Danish** capacity will not experience any major change
 - The method used for calculating the **green band** is not changed, but the parameters included in the calculation will also include the Swedish system
 - During normal condition, the green band will increase as the linepack from Sweden is included
- The Balance Administrators currently active in the **Swedish** capacity will experience some changes
 - The free balancing account that they currently have will cease – due to EU regulation (Swedegas do not intend to apply for a exemption but strive for harmonization)
 - The Shippers currently active in the Danish capacity have gone through the same process
 - The experience shows that the positive aspects with the new commercial balancing regime is:
 - Full transparency - with the shippers balancing positions 5 times a day
 - Low cost (0,5% and 3% vs. 35%) for not being in balance

SYSTEM COMMERCIAL BALANCE CHART

- Green, yellow and black



INFORMATION PROVISIONING TO SHIPPERS

- The purpose is to help the shipper to balance

Before the Gas Day

At 13.00 on the Gas Day before the Gas Day, Energinet shall inform the Shipper about his expected offtake of Non-Daily Read Metering Sites for each Allocation Area for the following Gas Day based on a forecast.

During the Gas Day

General information

Before 06.45 on the Gas Day, Energinet shall on Energinet Online publish the **Green Zone** for the Gas Day in question. Starting at 6.45 on the Gas Day, Energinet shall **every Hour** on minute 45 until 02:45 on Energinet Online publish the **E(SCB)** (green or yellow dot) for the Gas Day.

INFORMATION PROVISIONING TO SHIPPERS

- The purpose is to help the shipper to balance

During the Gas Day

Shipper specific information

Energinet needs to inform the Shipper about deliveries from the Shipper's BNG Portfolio(s) for each Network Area, offtake from the Shipper's Consumer Portfolio(s) consisting of Daily Read Metering Sites for each Allocation Area and the offtake from Direct Site(s):

- Before 13.45 on the Gas Day, covering the interval from 06.00 to 12.00
- Before 16.45 on the Gas Day, covering the interval from 06.00 to 15.00
- Before 19.45 on the Gas Day, covering the interval from 06.00 to 18.00
- Before 22.45 on the Gas Day, covering the interval from 06.00 to 21.00
- Before 01.45 on the Gas Day, covering the interval from 06.00 to 24.00

INFORMATION PROVISIONING TO SHIPPERS

- The purpose is to help the shipper to balance

After the Gas Day

Shipper specific information

Based on Unvalidated Data Energinet.dk shall before 14.00 on the following Gas Day inform the Shipper of the Daily Imbalance Quantity allocated to the Shipper.

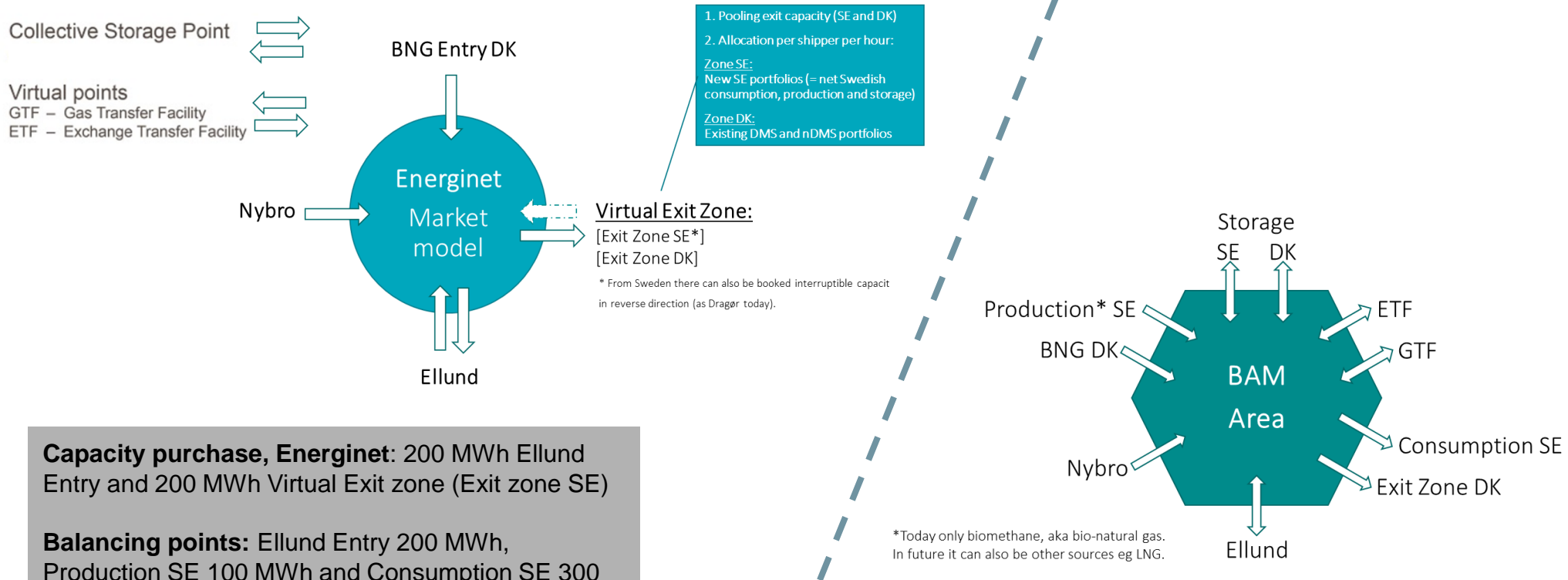
Based on Unvalidated Data Energinet.dk shall before 14.00 on the following Gas Day publish the Calculated Balance for the preceding Gas Day.

NEW REQUIREMENTS ON DSOS - WILL ENABLE NEW JBZ MODEL

- The Swedish DSOs need to report hourly data to Swedegas – in order to keep track of the hourly capacity use of each Balance Administrator
- The Swedish DSOs need to increase their data deliveries to Swedegas from 2 to 5 times a day, in order to inform the shippers of their individual off take in the JBZ

EXAMPLE

If a BA brings 200 MWh from Germany and 100 MWh from production in Sweden to Consumption in Sweden?

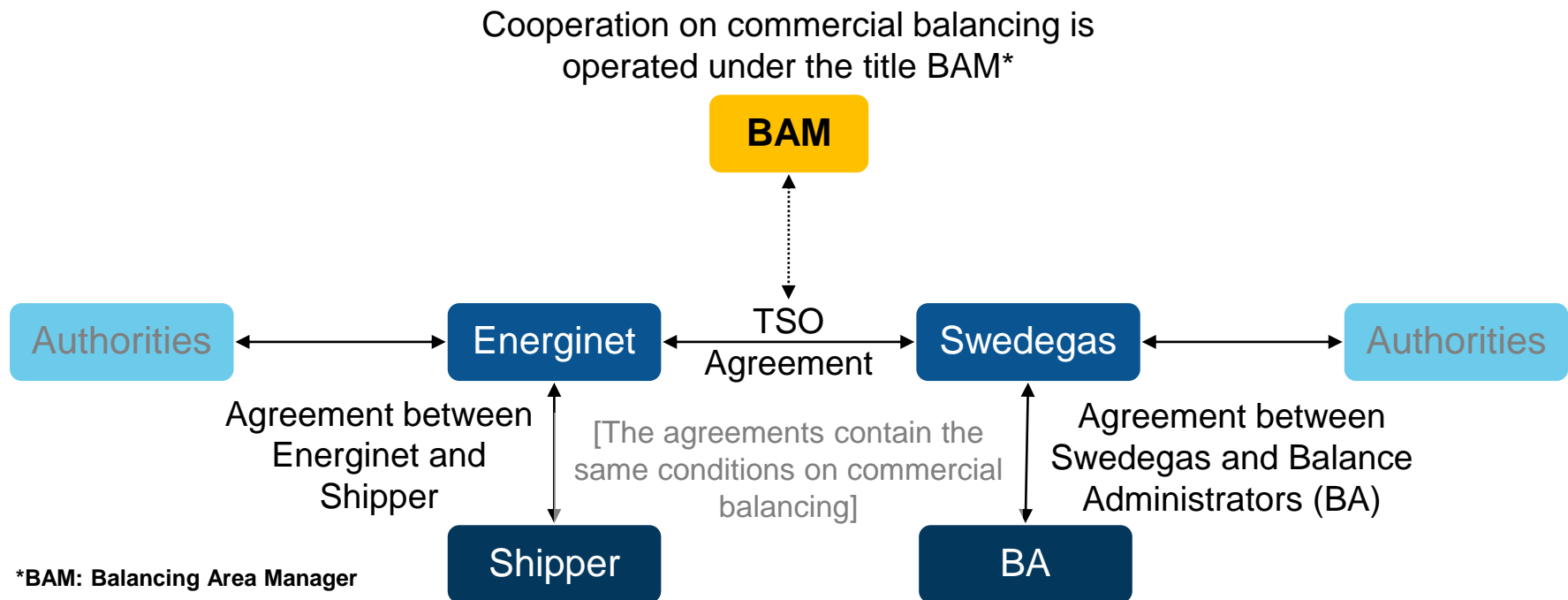


Capacity purchase, Energinet: 200 MWh Ellund Entry and 200 MWh Virtual Exit zone (Exit zone SE)

Balancing points: Ellund Entry 200 MWh, Production SE 100 MWh and Consumption SE 300 MWh

JBZ – PROPOSED CONTRACTUAL SETUP

- Swedegas and Energinet have been given the task of operating their national gas systems
- Swedegas and Energinet have as TSOs the agreements with the Shippers and Balance Administrators
- The two TSO agree on creating a Joint Balancing Zone that is operated by a common BAM



WHY CHANGE BALANCING MODEL NOW? WHAT'S IN IT (JBZ) FOR ME?

- NC BAL forces the Swedish capacity to change balancing model latest April 2019 when a daily "cash-out" model is needed
- Annual operational costs for balancing will be reduced:
 - Latest estimation is 2 - 3 m SEK lower
- Project costs will probably be lower than previously calculated:
 - Latest estimation is 4 – 7 m SEK
- In line with ACER/ENTSOG ambition to foster cross-border cooperation
- Suppliers will get easier access to more Balance Administrators
- Swedish Balance Administrators will get easier access to Danish capacity through virtual exit zone
- Swedish end customers get access to new suppliers more easily
- Increased SoS – higher pressure in the Swedegas gas system

JBZ COSTS

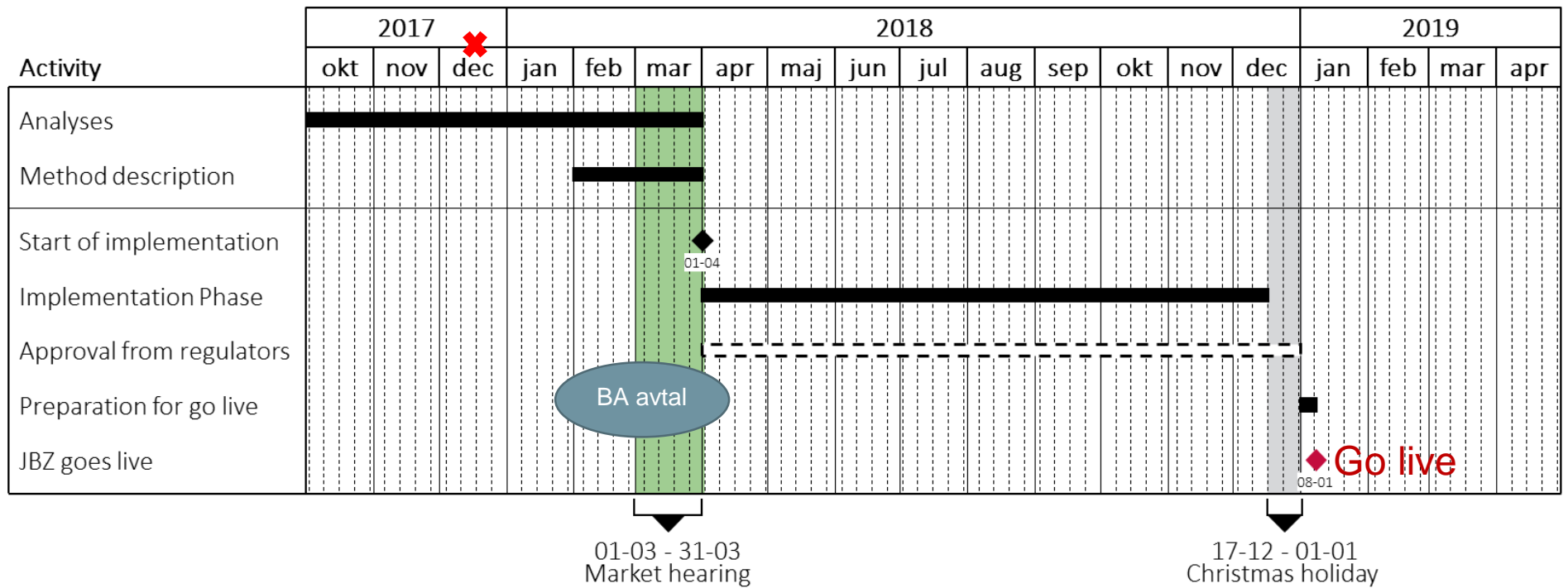
- More detailed Project and BAM operation costs is to be announced at market hearing in march 2018
- JBZ project ambition are to do "keep it simple"
 - Using existing IT-systems at Energinet
 - Compliance with Network Codes at minimum cost
 - Swedegas will have full insight in BAM balancing - and formally keep the overall responsibility for balancing

IMPORTANT CONDITIONS

- Swedegas and Energinet aim to make a common decision to implement the JBZ project *before* the approval from our respective NRA part. Due to long processing time (6 to 9 months for the NRA´s) players are encouraged to start preparations to be ready by the 8th of January 2019.
- Energinet and Swedegas are planning to start implementation phase during Q2 2018.

JBZ TIMEPLAN

Tyra
1 nov 2019



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The image features a serene sunset or sunrise over a body of water. The sky transitions from a deep blue at the top to a bright orange and yellow near the horizon, where the sun is partially obscured by clouds. The water in the foreground is dark blue. Overlaid on this scene is the text 'SWEDEGAS' in a large, white, bold, sans-serif font. Below it, the text 'SVVLEDUGAS' is written in a smaller, white, bold, sans-serif font. The text is centered horizontally and appears to be floating above the water.

SWEDEGAS
SVVLEDUGAS