JOINT BALANCING ZONE

Status 7 December 2017

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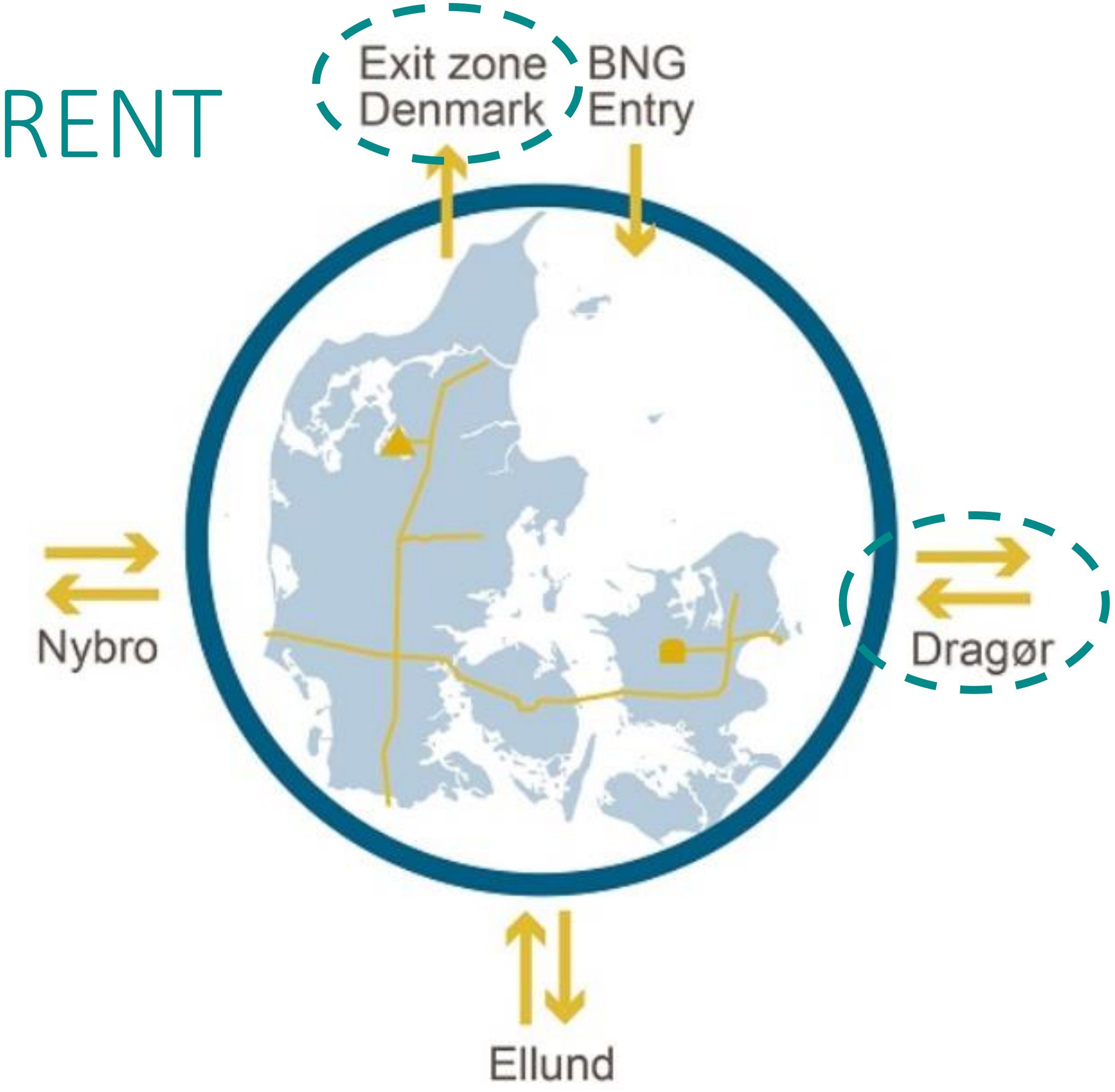
CONTENTS

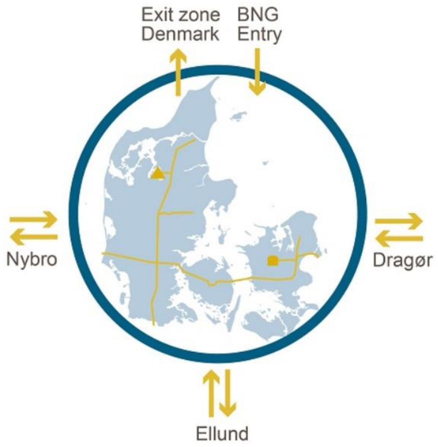
1: MARKET MODEL - CURRENT

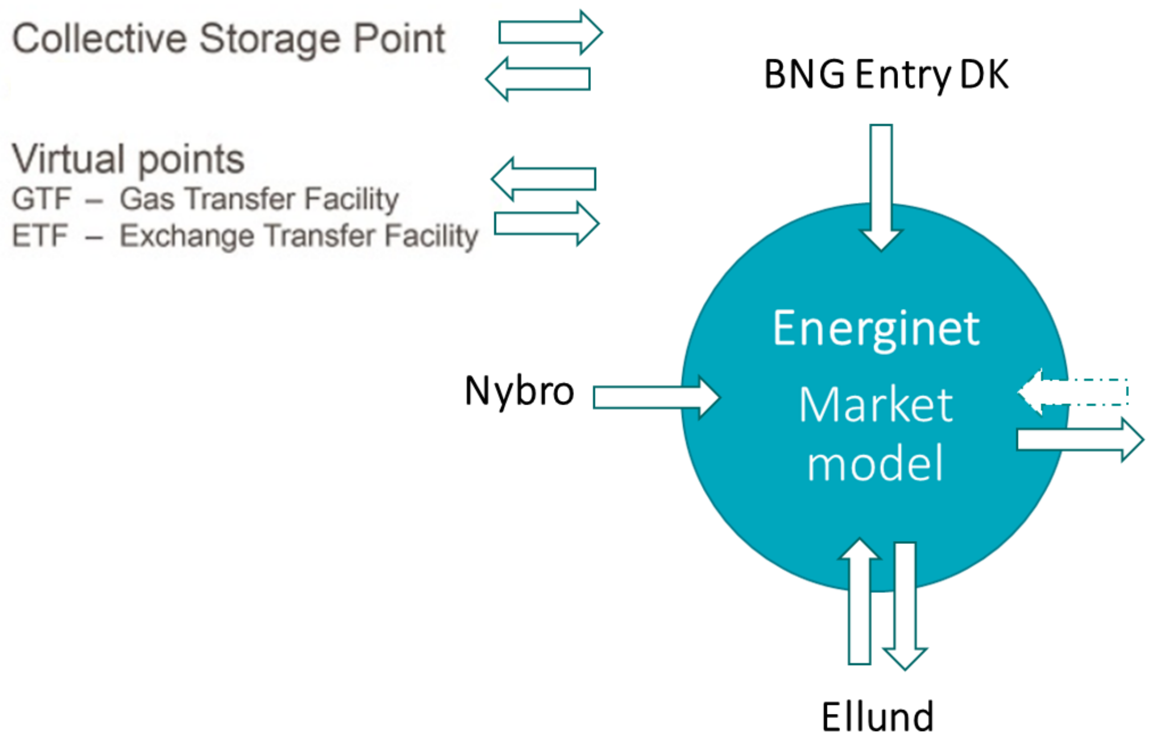
The current Danish Market Model



1: MARKET MODEL - NEW

The new Danish Market Model





1. Pooling exit capacity (SE and DK)

2. Allocation per shipper per hour:

<u>Zone SE:</u>
New SE portfolios (= net Swedish consumption, production and storage)

<u>Zone DK:</u>
Existing DMS and nDMS portfolios

<u>Virtual Exit Zone:</u>

[Exit Zone SE*]

[Exit Zone DK]

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

1: NEW MARKET MODEL - COMMENTS

What are the considerations and changes in relation to the new market model?

- Out: Dragør and Exit Zone Denmark
- In: Virtual Exit Zone
- Capacity currently bought at Dragør and Exit Zone Denmark must in future be bought in the Virtual Exit Zone
- The revenues from the Dragør and Exit Zone Denmark will both continue unchanged – but under the name Virtual Exit Zone

- Capacities currently for Dragør and Exit Zone Denmark will in 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.

1: NEW MARKET MODEL - TARIFFS

What are the TARIFF considerations and changes in relation to the new market model?

- The tariff methodology will not change due to JBZ
- The new market model under JBZ is not expected to have any significant impact on tariffs
- The revenues from the Dragør 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

1: NEW MARKET MODEL – SHIPPER

What are the changes for the SHIPPER in relation to the new market model?

- The new Market Model offers the shippers more flexibility:

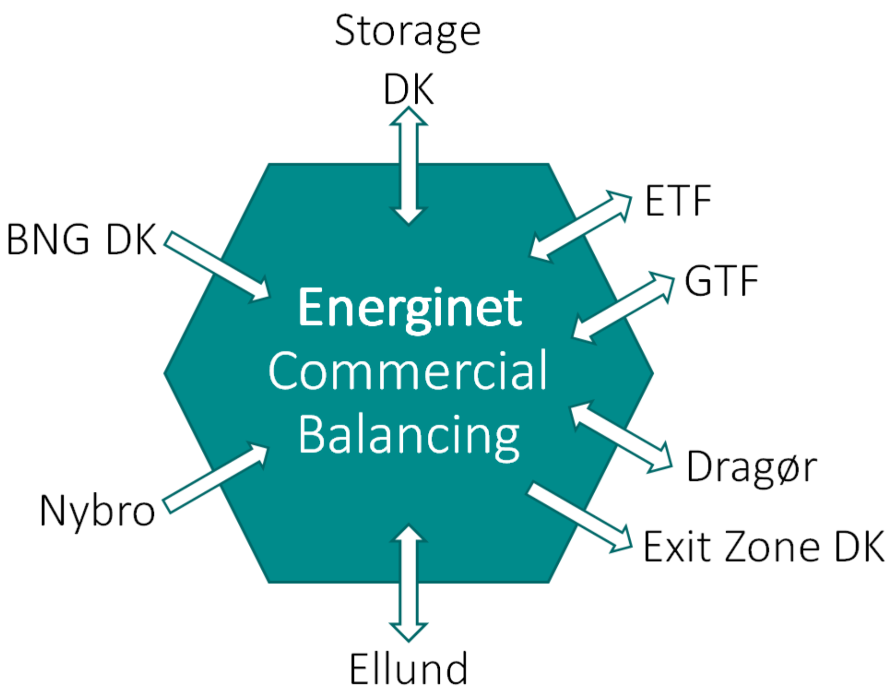
  1. Deadlines: For Capacity bookings – for Swedish gas consumption - will become more flexible as they will follow the current process in the Danish Exit Zone and not CAM/PRISMA deadlines
     - Eg yearly capacity can be booked until 17:00 the day before the gas day

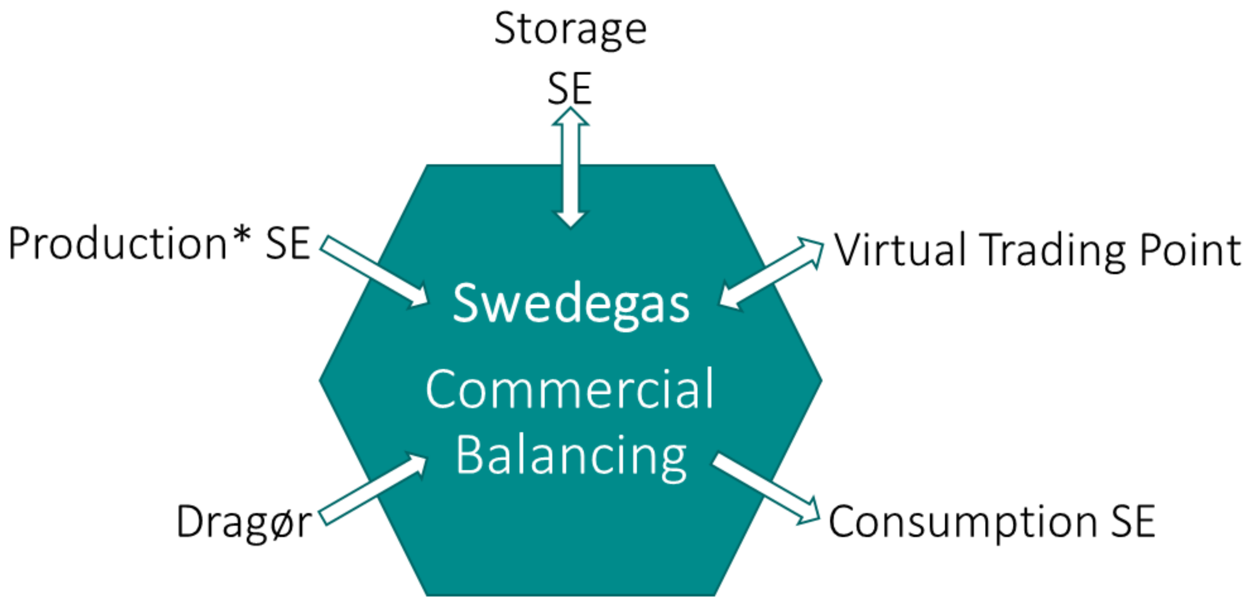
  2. Size of Capacity bookings: The method currently applied in the Danish Exit Zone will also be applied for the Swedish gas consumption (overrun charge)
     - This means that a shipper that has a flow higher than his capacity will be charged for the missing capacity
     - The charge is for daily capacities, which are 1.4 compared to the yearly capacity of 1.0

  3. Nominations?

2: COMMERCIAL BALANCING

The current Danish and Swedish Commercial Balancing



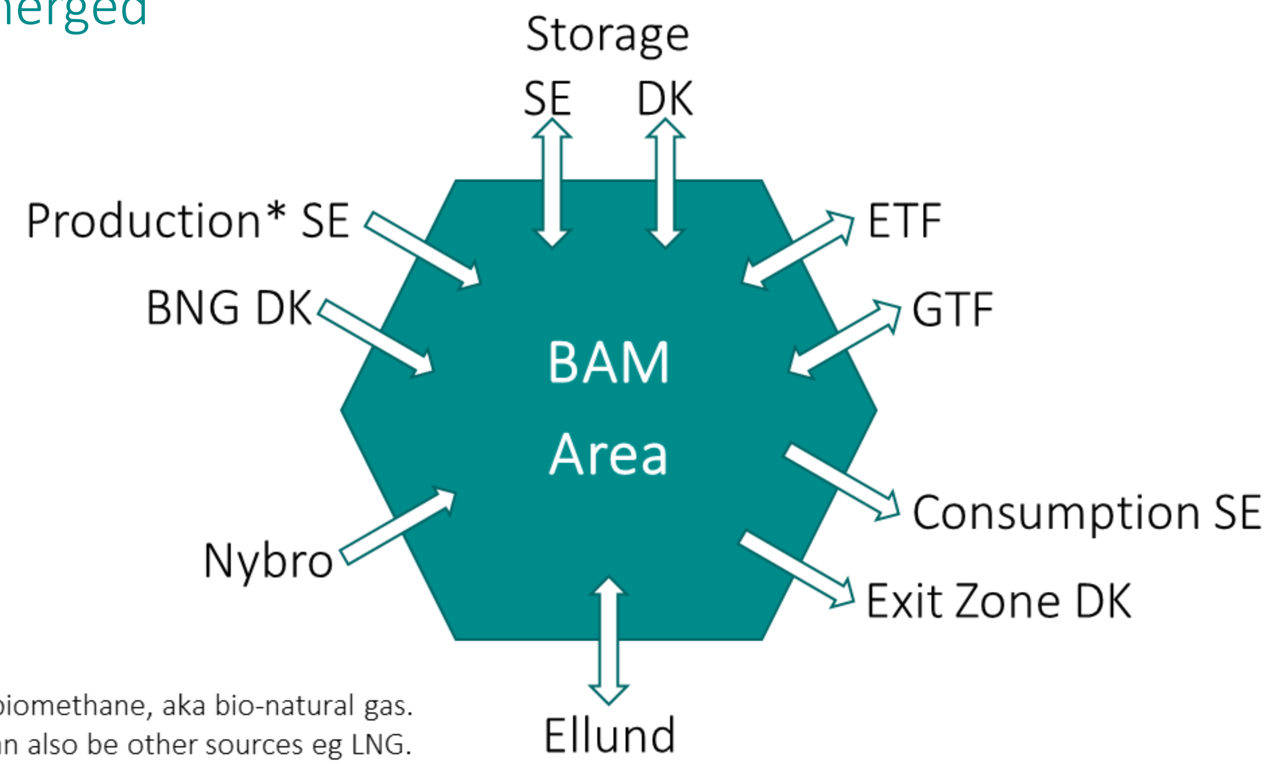


*Today only biomethane, aka bio-natural gas.
In future it can also be other sources eg LNG.

2: COMMERCIAL BALANCING - CHANGE

New Commercial Balancing under JBZ

The two systems from the previous slide are merged



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

2: NEW COMMERCIAL BALANCING - COMMENTS

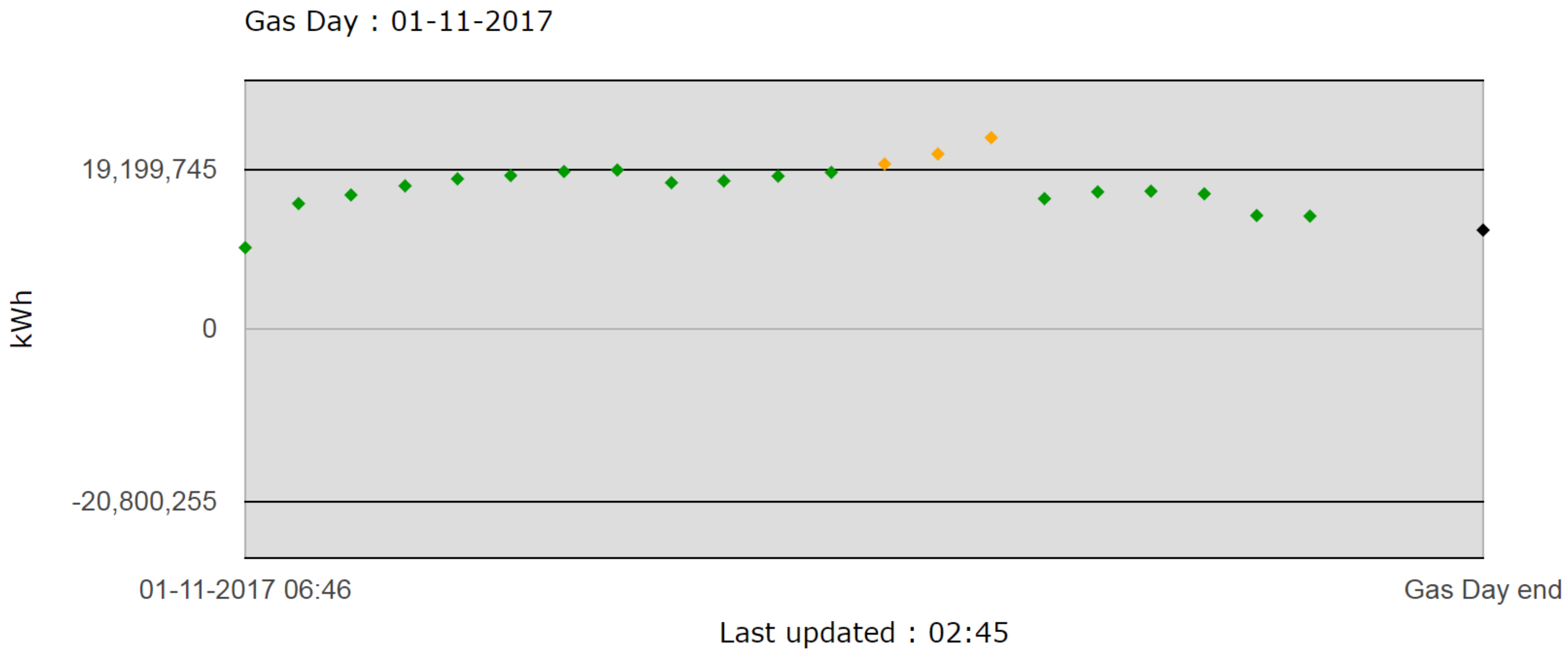
What are the considerations and changes in relation to the new commercial balancing?

- The Shippers currently active in the **Danish** market <u>will not</u> experience any major change
  - The method used for calculating the <u>**green band**</u> 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

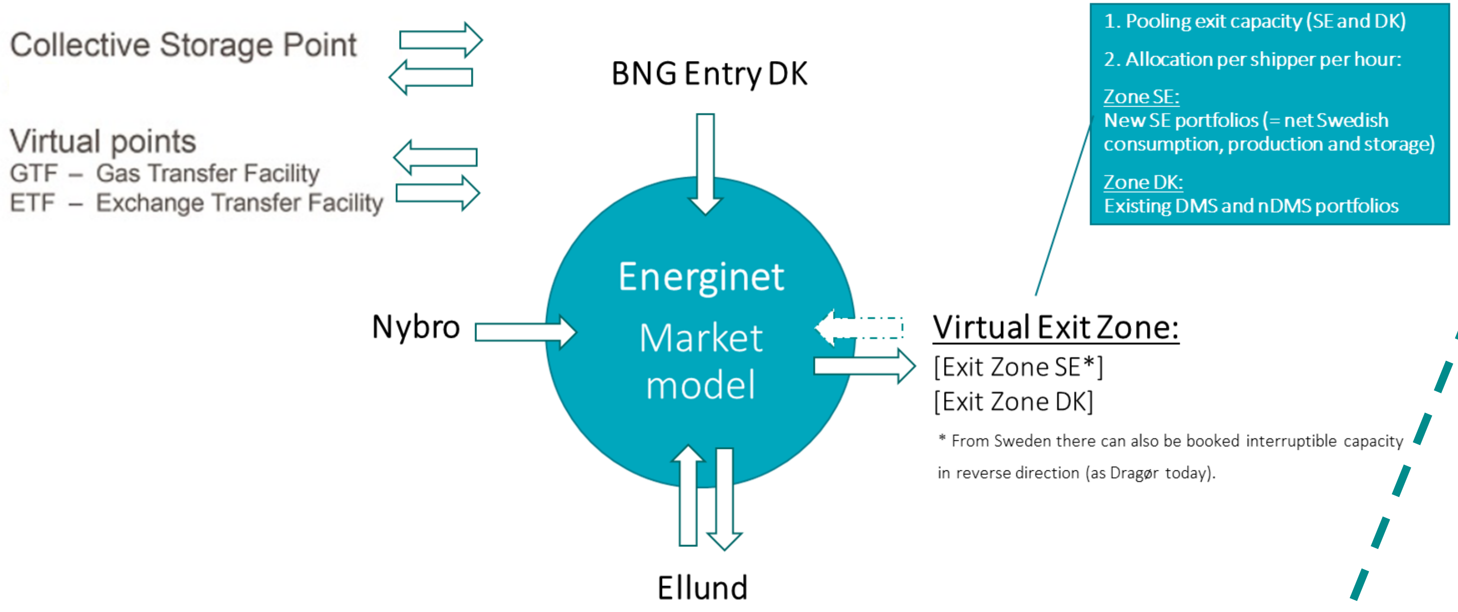
- The Shippers currently active in the **Swedish** market <u>will</u> experience some changes
  - The free balancing account that they currently have will cease – due to EU regulation
  - The Shippers currently active in the Danish market have gone through the same process
  - Experience shows that the positive aspects of 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

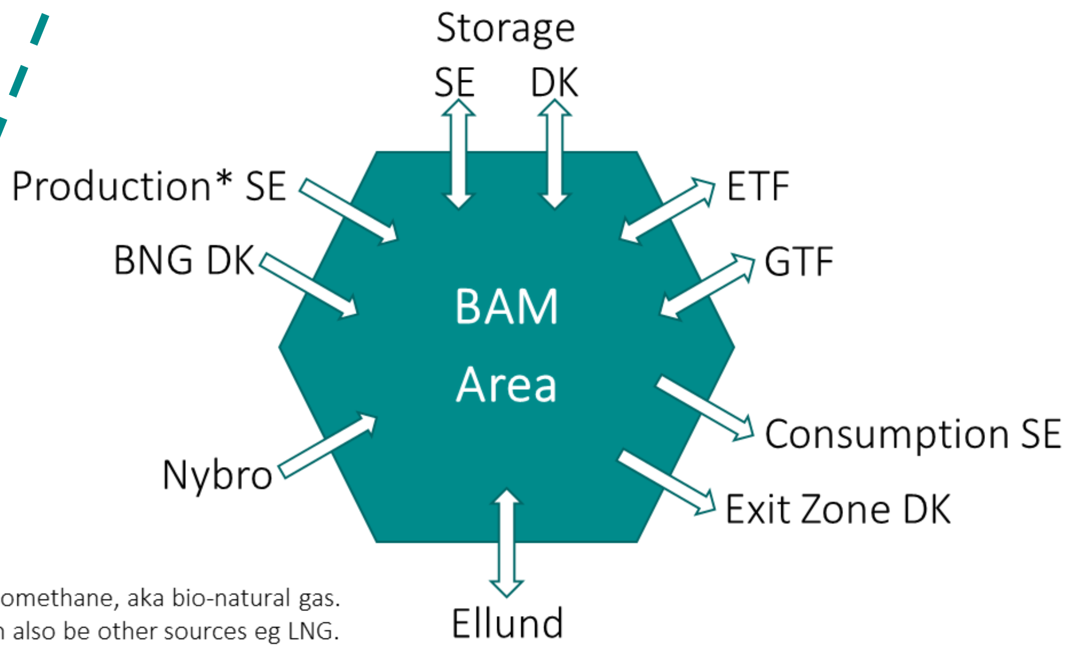
2: SYSTEM COMMERCIAL BALANCE CHART

Green, yellow and black



3: EXAMPLES

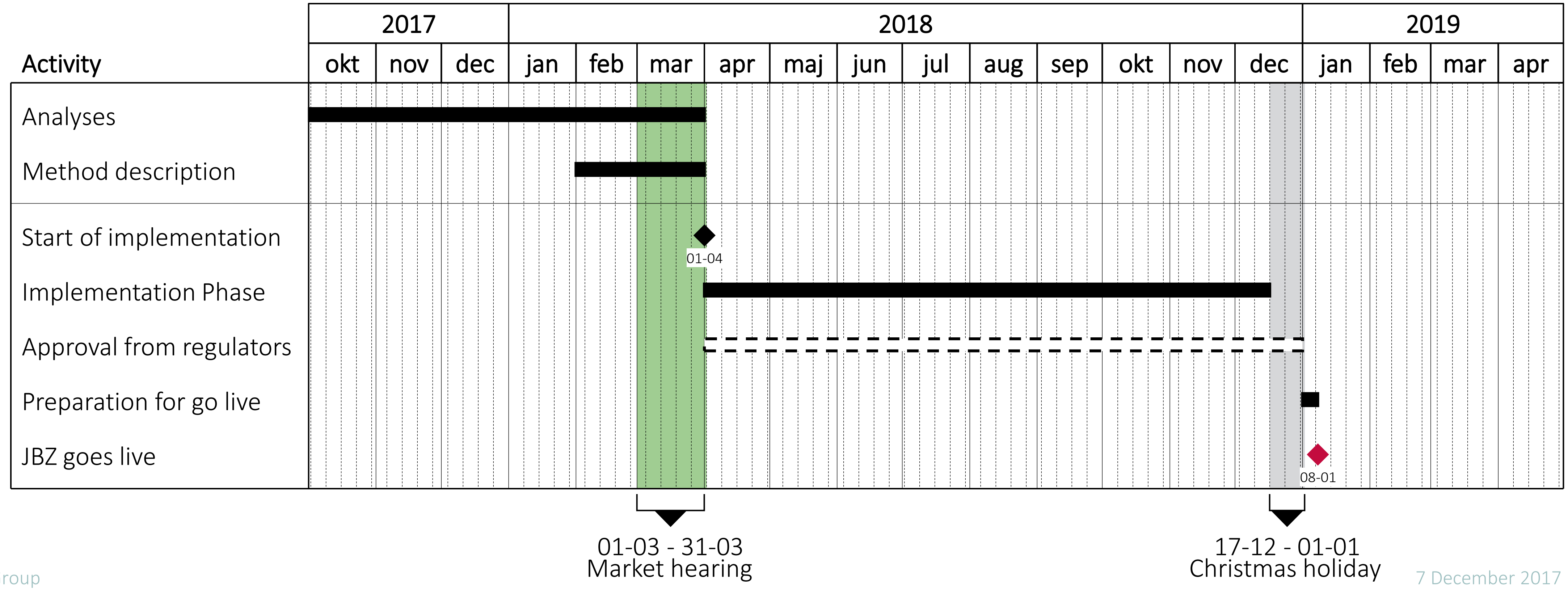




*Today only biomethane, aka bio-natural gas.
In future it can also be other sources eg LNG.

4: PRELIMINARY PROJECT PLAN

Project plan for the JBZ project



5: RESULTS FROM THE MARKET HEARING

Was also presented at Gasmarknadsrådet i Malmö, 13 September 2017

SWEDEGAS ENERGINET

BACKGROUND

Involvement of market players

- The questionnaire with open questions was send to Swedish and Danish market players.
- 10 replies were received
- Swedish, Danish and international nationality

DSO	BA	Shipper	Customer	Other
1	3	4	1*	1

* A combined answer from several customers

Questions

A joint balancing zone
▪ What do you see as pros and cons with a joint balancing zone for the Danish and Swedish gas market?
▪ What benefits and costs would you expect to incur if the joint balancing zone is implemented?

Concept model
▪ Do you have any considerations with regards to the main principles of the concept model?

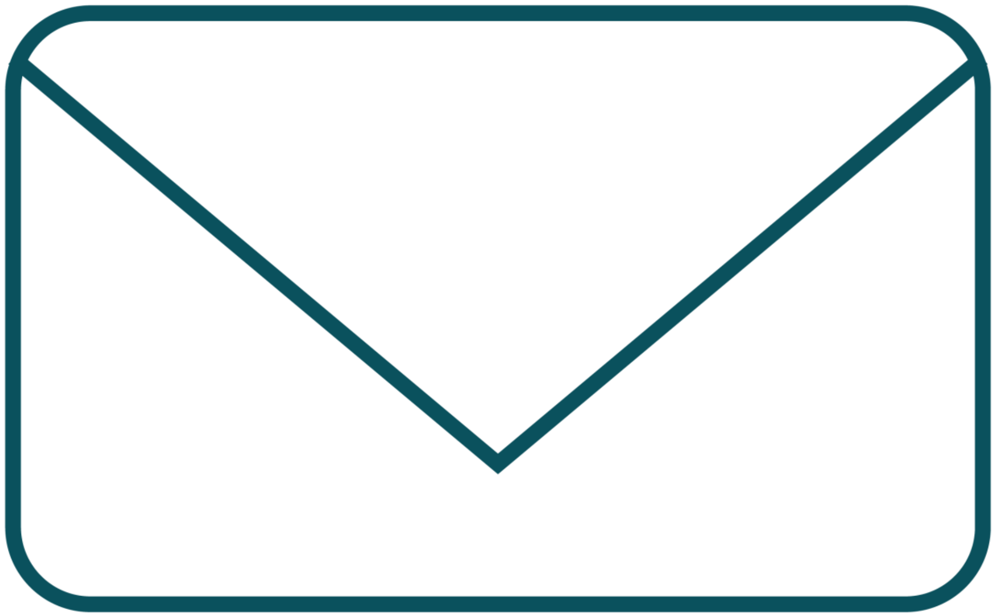
Tariff in Dragør
As the IP Dragør will be removed, it will no longer be possible to book capacity in Dragør. ▪ Do you have any considerations on the principles on how to allocate the missing revenue in Dragør proposed in the consultation material?

Other comments and remarks
▪ Additional comments and remarks?

QUESTIONNAIRE FEEDBACK

To present the feedback in a simple and visual way, the answer from each participant to the questions has been converted into one of the following four categories:

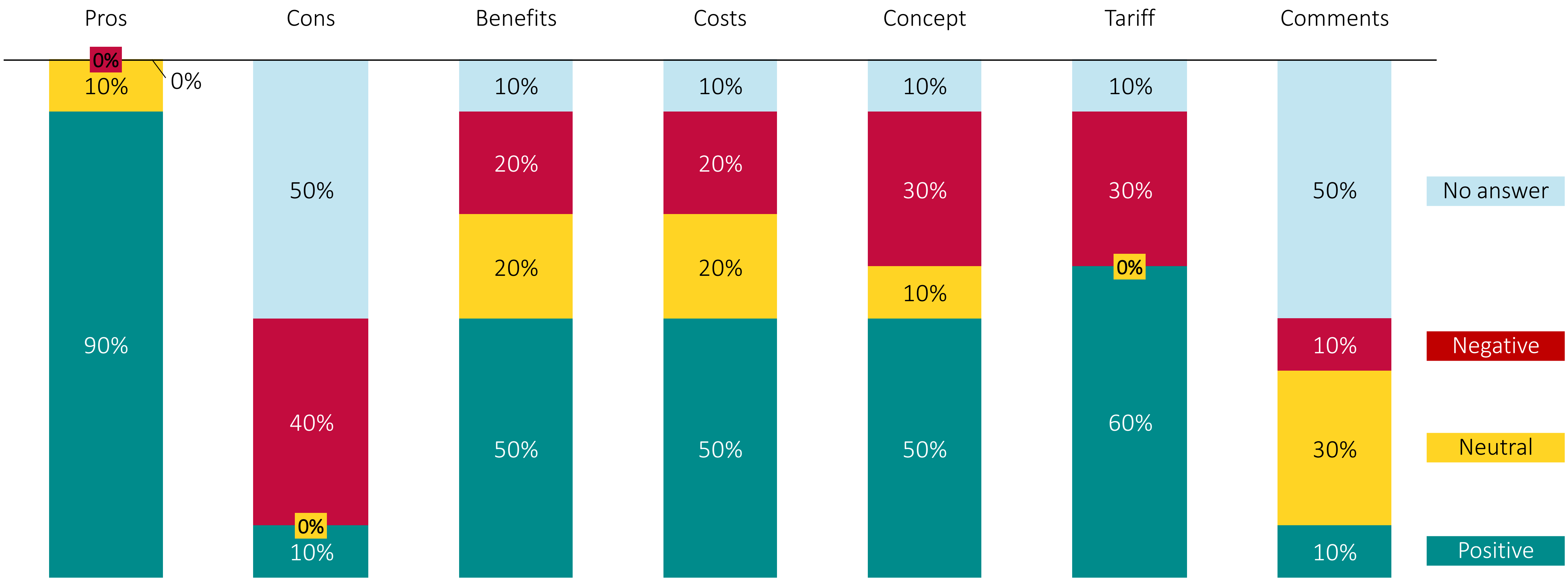
Positive
Neutral
Negative
No answer



THE BIG PICTURE IS POSITIVE

But, the general comment is that more information in needed!

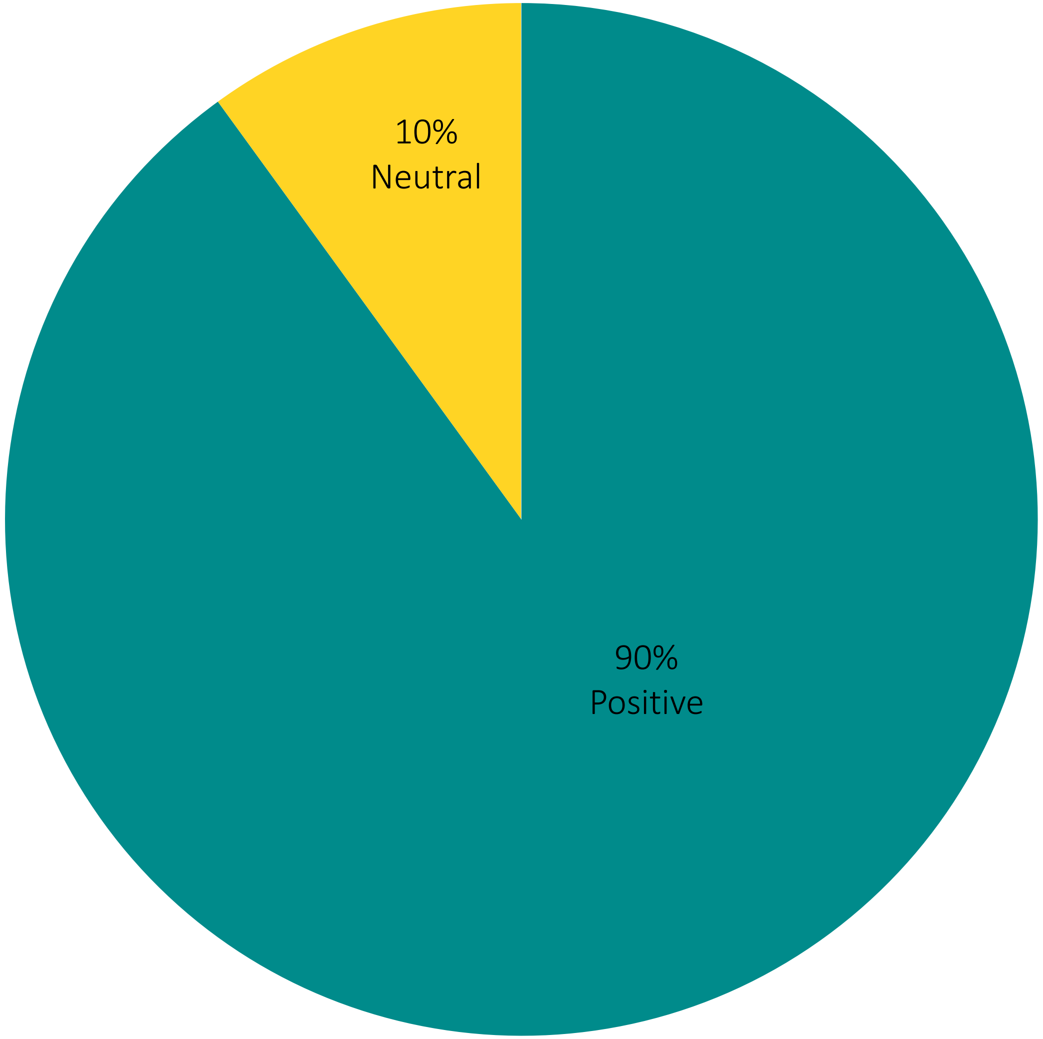
More detail information - also on the costs and benefits.



PROS WITH JBZ

"What do you see as **<u>pros</u>** and cons with a joint balancing zone for the Danish and Swedish gas market?"

- The majority of the market players see many pros, among others:
  - Increase of overall market efficiency
  - Imbalance might decrease
  - Strengthen the competition
  - Increase liquidity on WD market
  - Improvement of SoS

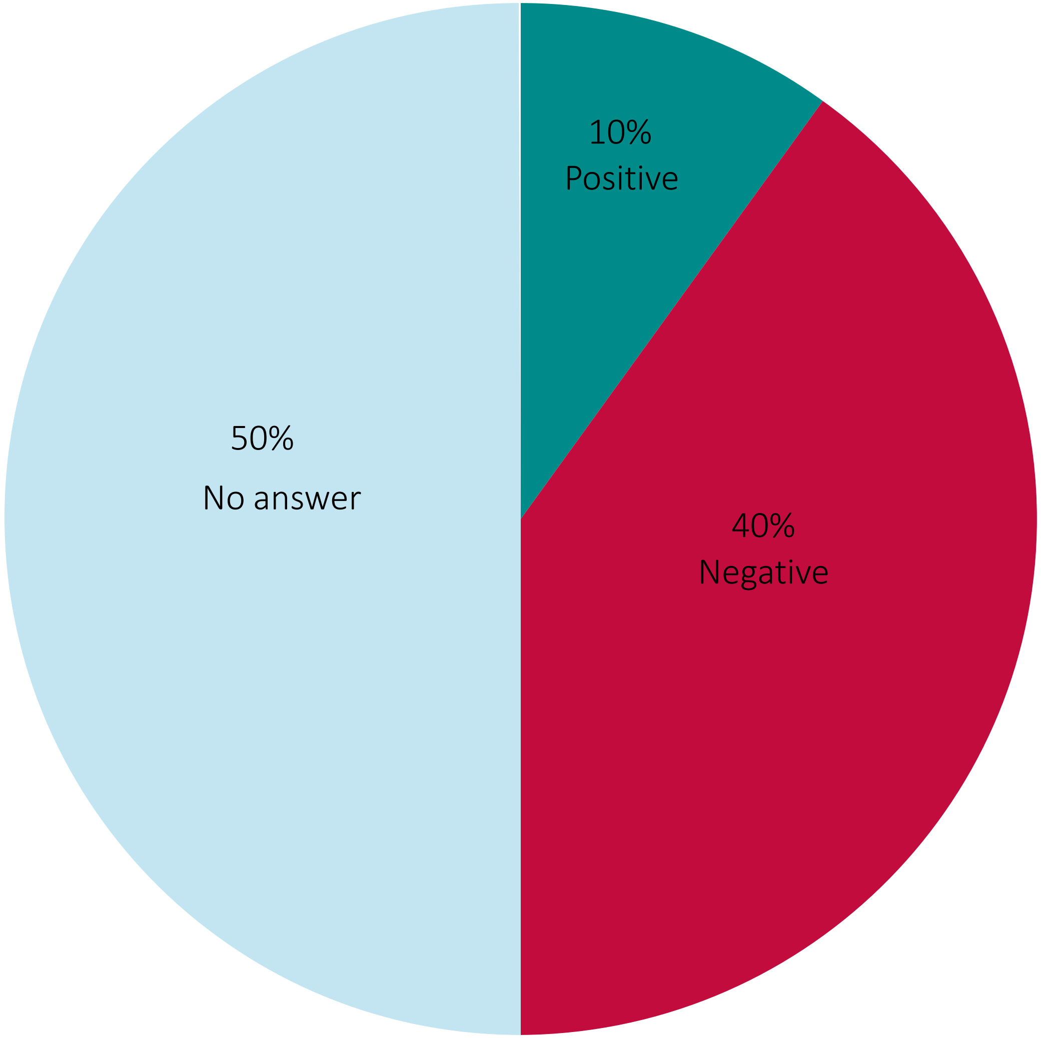


CONS WITH JBZ

"What do you see as pros and <u>**cons**</u> with a joint balancing zone for the Danish and Swedish gas market?"

Examples of what the market replied:

- Very early stage and many uncertain factors
- Risk of tariff increases

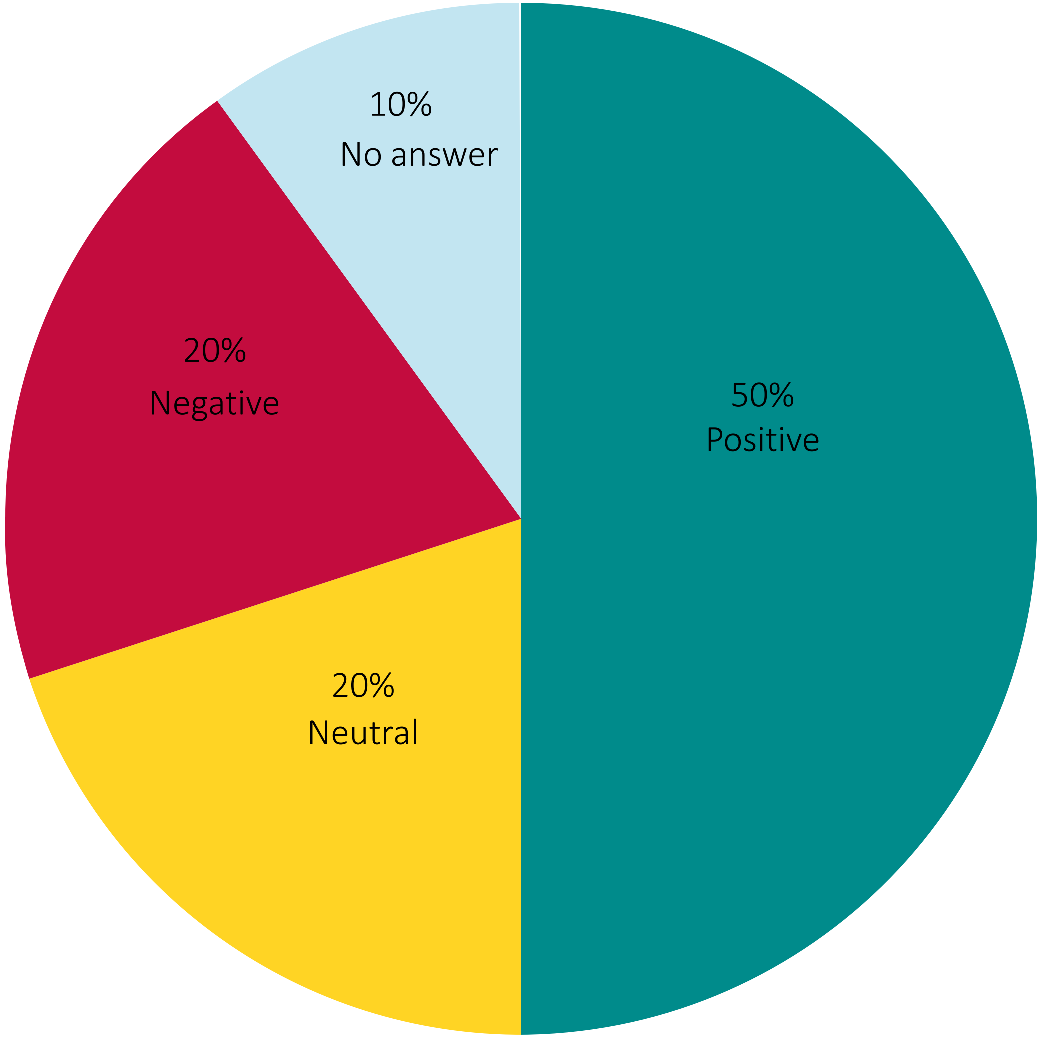


BENEFITS WITH JBZ

"What **benefits** and costs would you expect to incur if the joint balancing zone is implemented?"

Examples of what the market replied:

- "Less costs to deliver Gas to Sweden as Exit Dragör is not necessary anymore"
  - TSO comment: Energinet will be compensated for the tariff loss in Dragør Exit
- JBZ may attract new market players and improve competition

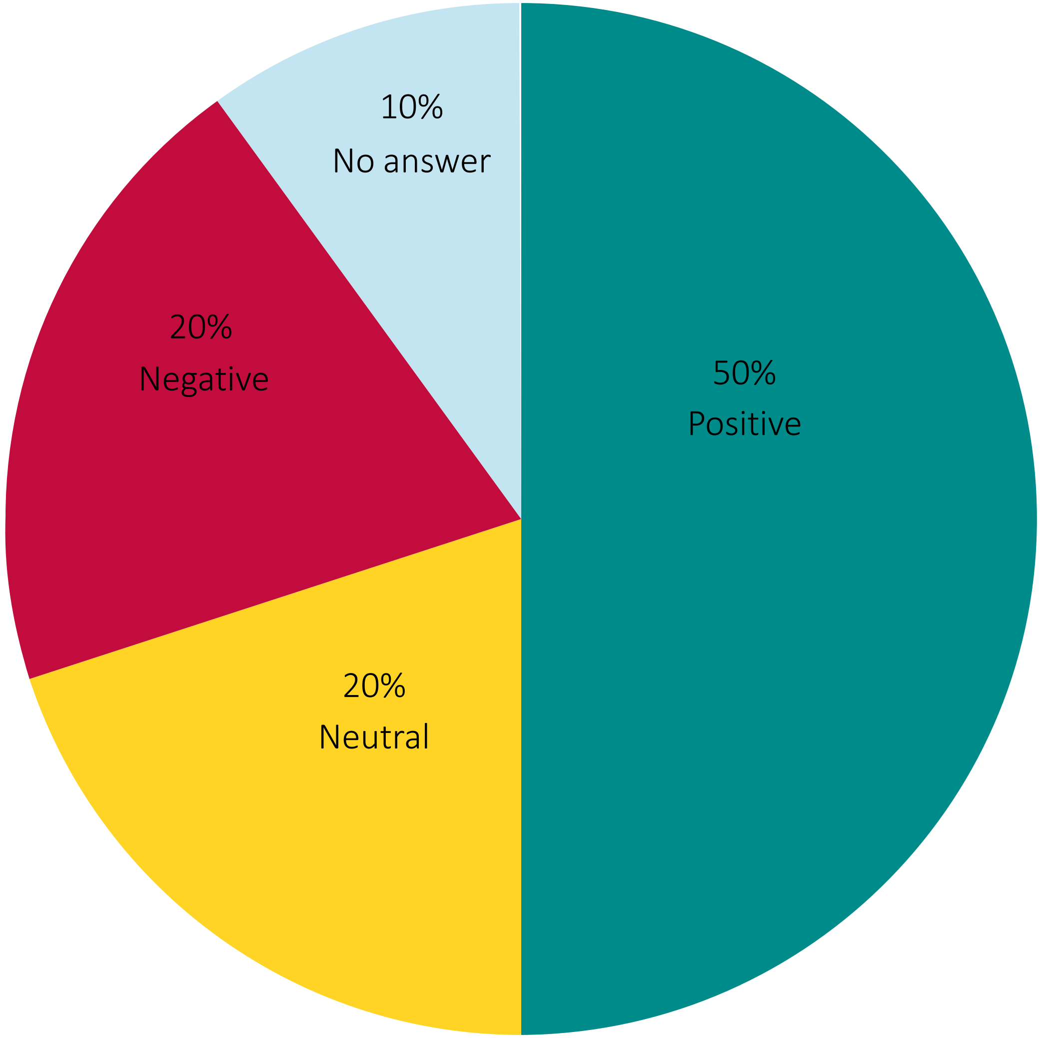


COSTS WITH JBZ

"What benefits and <u>costs</u> would you expect to incur if the joint balancing zone is implemented?"

Examples of what the market replied:

- "On the contrary the proposal outlines a need to raise prices towards the end customer, due to increased costs for the DSO. That is not a positive development for the Swedish gas market where the volumes are already declining".
- Cost and benefits needs to be more specified

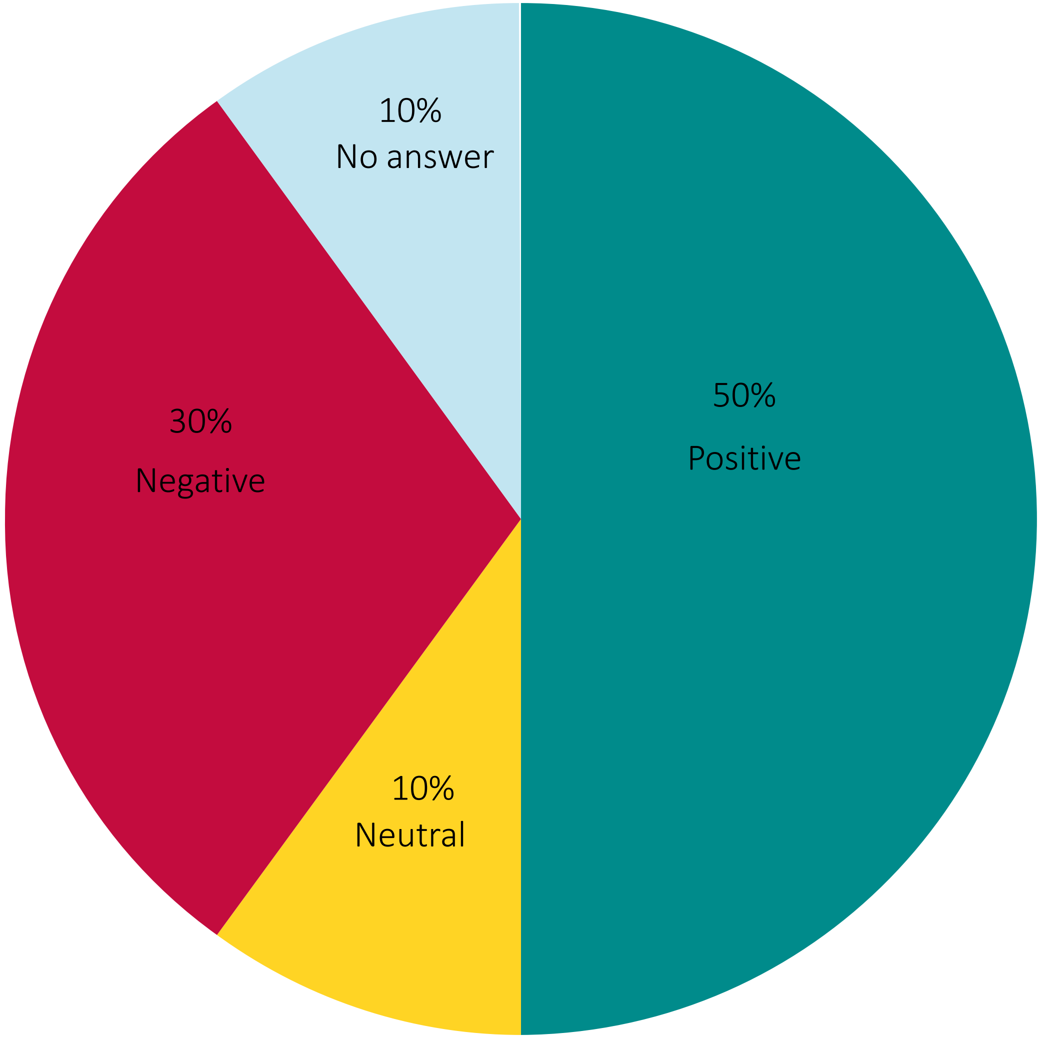


CONCEPT MODEL

"Do you have any considerations with regards to the main principles of the concept model?"

Examples of what the market replied:

- "The fact that SoS remain a national matter and that the Dragør flow is regulated in a SoS situation introduce uncertainly/risk".
- "Do not see that the system will lower costs for customers".
- Must be as simple and cost effective as possible
- "Considerations with regard to the benefits being given mostly to the Swedish customers and the cost being payed by the Danish customers".



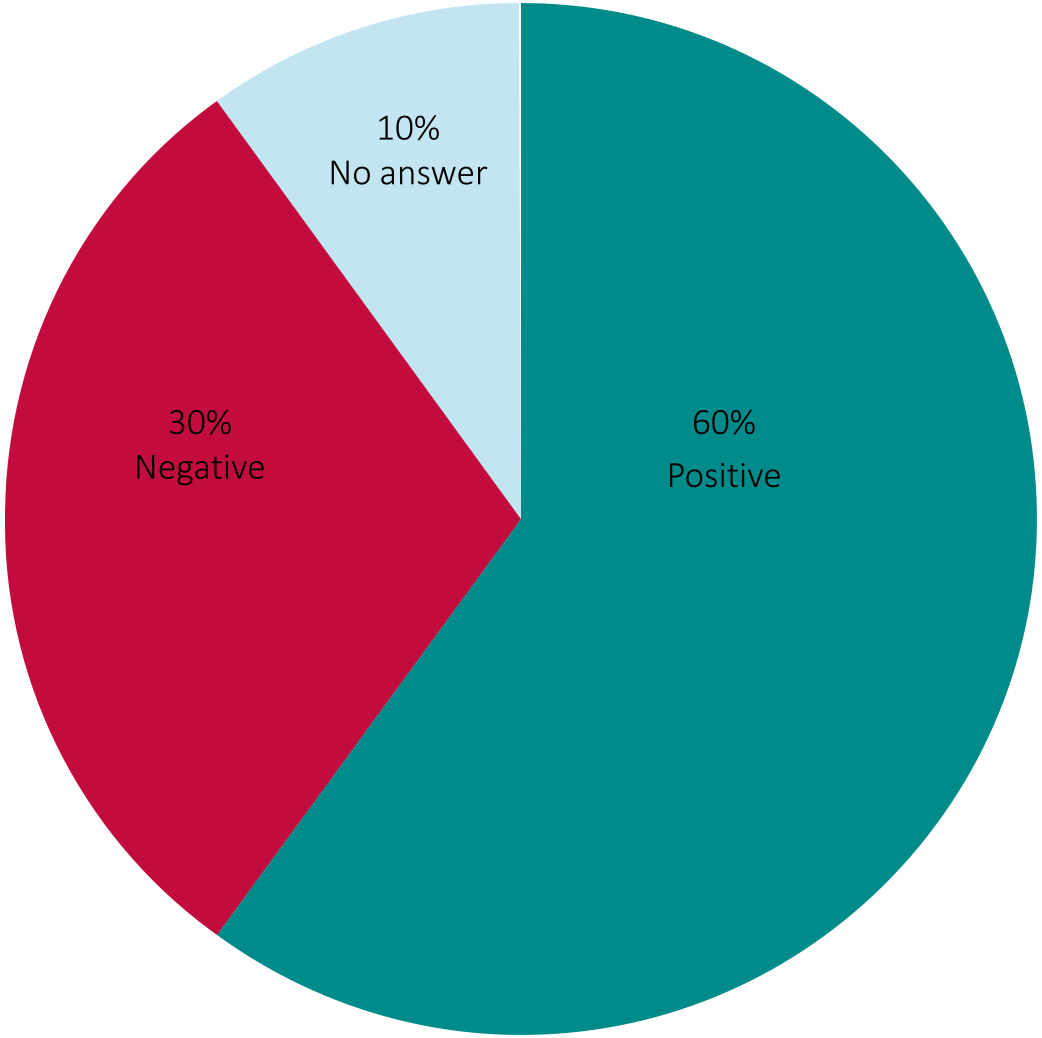
TARIFF IN DRAGÖR

"Do you have any considerations on the principles on how to allocate the missing revenue in Dragør proposed in the consultation material?"

Examples of what the market replied:

- "Since we are paying exit Sweden and some fee for compensating for lost revenue from Dragör capacity, we can not see that the system will lower costs for customers".

- "Benefits and cost are unfairly distributed."



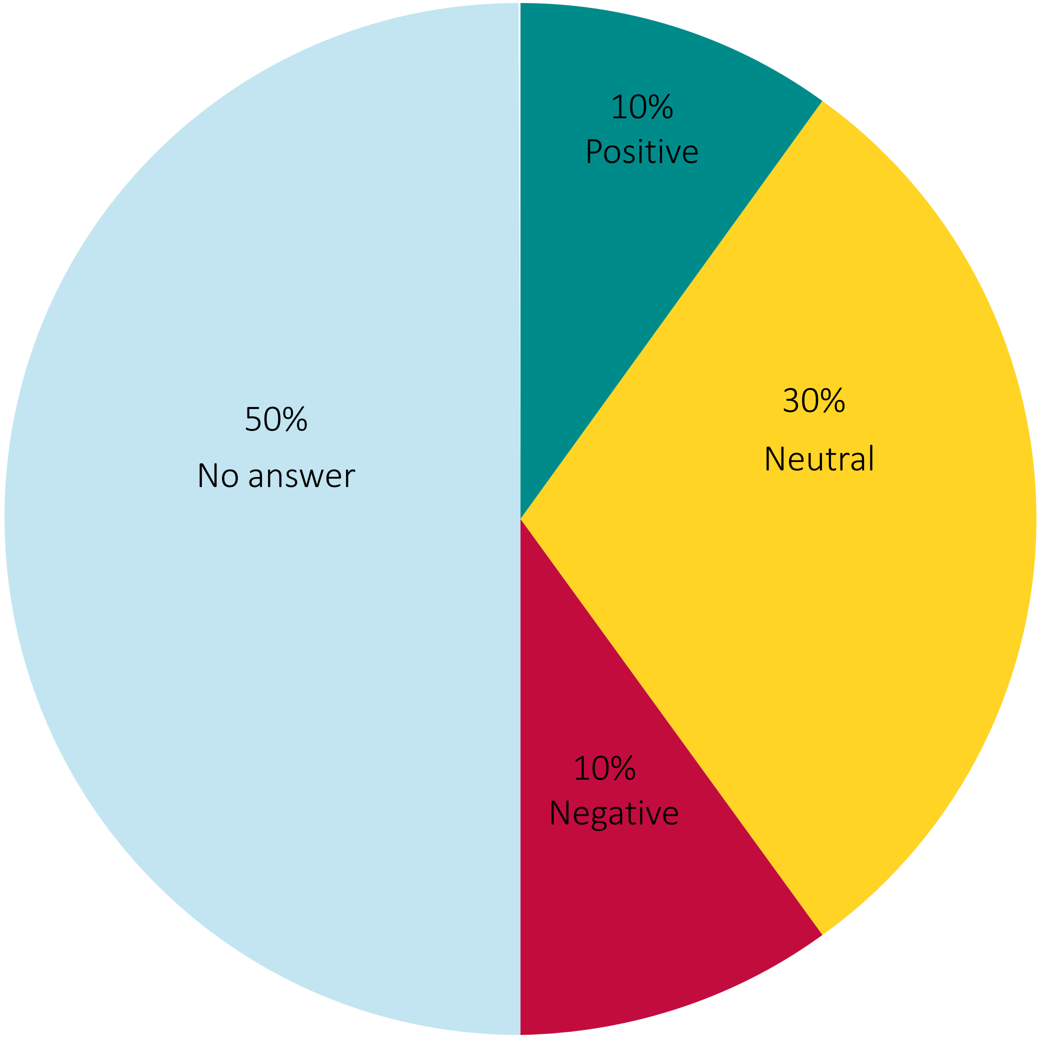
COMMENTS

"Other comments and remarks"

Examples of what the market replied:

- "We expect that Energinet and Swedegas will return to all participants, before they take a decision"

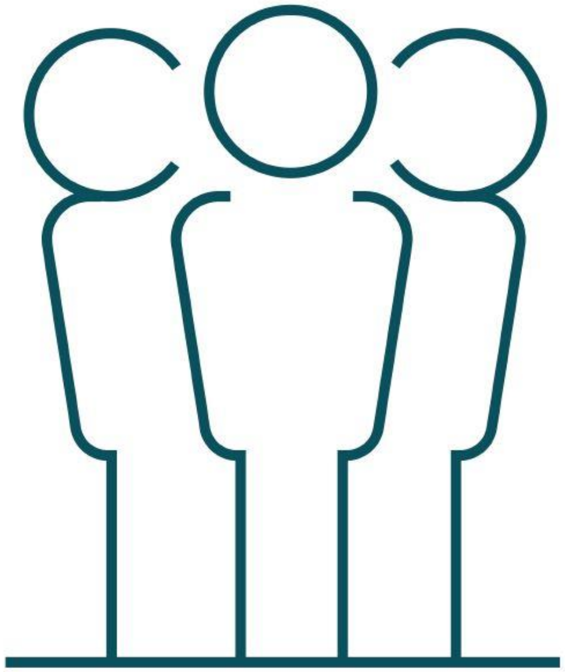
- "We expect to receive an articulate outline of benefits for us and our customers."



THANKS FOR YOUR REPLIES

Selected comments have been presented.

All comments will be taken into consideration in the future work.



QUESTIONS AND COMMENTS

JBZ - User group 7 December 2018

QUESTIONS AND COMMENTS

Question 1:

Do the changes to a Joined Balancing Zone area give access for Swedish Balancing Administrators to use GTF?

Answer: *Yes*

Question 2:

Is the tariff for the current Danish Exit zone the same as for Dragør to day?

Answer: *Yes*

Question 3:

Will there be a commodity charge for the Virtual Exit Zone?

Answer: *Yes, the commodity charge is applied to every exit points in the Danish market model as today.*

QUESTIONS AND COMMENTS

Question 4:

What happens if any revenue occurs for the BAM (Balancing Area Manager)?

Answer: *According to the BAL NC no revenue must occur to the TSOs.*

Question 5:

If a shipper or BA has commercial flows in both directions in the Virtual Exit Zone, how do you measure it (if there are no nominations)?

Answer: *The allocation at the Virtual Exit zone [SE] and in reverse direction, will be by the hour, on shipper level. It is the Allocated consumption in Sweden, adapted with the changes in Swedish storage and subtracted the Swedish production (biogas). A positive number is a flow towards Sweden and a negative number is a commercial flow towards Denmark. A shipper only has a commercial flow in one direction at a specific hour.*

QUESTIONS

Energinet

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