

A decorative graphic on the left side of the slide, consisting of a complex, interconnected network of thin grey lines forming various geometric shapes and polygons, resembling a wireframe or a network diagram.

# 2<sup>ND</sup> EMERGENCY WORKSHOP

Rules & practice

*Ballerup 7 March 2019*



HOST



EMERGENCY  
EXIT



DEFIBILLATOR  
(AED)



MEETING POINT

# AGENDA

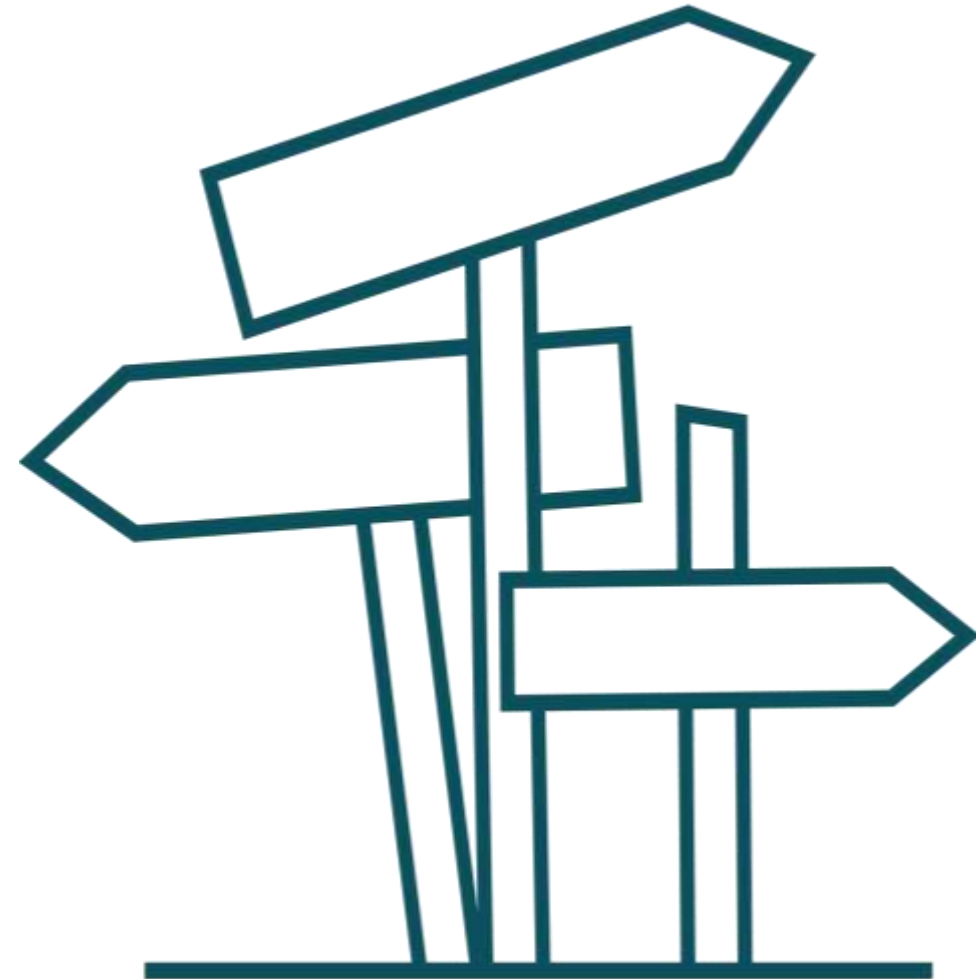
## Part 1 - information (40 min)

- Introduction and purpose
- New balancing rules
  - Details on calculation of Adjustment Step 2
  - Details on balancing prices in Emergency
- Crisis levels and tools

## Part 2 – Case (40 min)

- 20 min preparation, 20 min discussion

## Wrap up and questions (10 min)



# PROCES – MARKET CONSULTATION & USER GROUPS

Measures based on thorough involvement of the market

**The market has been consulted on a number of occasions:**

- 3 user groups (Spring 2017, Autumn 2017 and Summer 2018)
- 2 Emergency Workshops (Winter 2018 and today)
- 1 consultation by Energinet on market measures (Summer 2018)
- 1 consultation by DUR on Energinet's change towards balancing measures (Summer 2018)
- 1 consultation by DUR on method approval of Energinet's changes towards balancing measures (Winter 2018/2019)

# ACTIONS FROM LAST EMERGENCY WORKSHOP

Energinet need to be very clear and specific on how the balancing price regime will work during Emergency, also taking into account situations with no trades and prices at Gaspoint Nordic (e.g. because of empty supply side)

- **Action:** Energinet will develop detailed material on pricing regime in Emergency **DONE**
- **Action:** in the process of developing the material, Energinet will investigate if any amendments of the current regime are required **DONE**
- **Action:** Energinet will communicate price regime and possible amendments via Shippers' Forum, User Group and/or possible later Emergency Workshop **PURPOSE OF TODAY**

Energinet must be clear on which commercial tools and measures there is in the toolbox for each crisis situation, and how they are expected to come into play

- **Action:** a extensive description of all market tools will be included in the method document, which will be subject to market consultation during spring 2018, and afterwards issued to DERA for approval **DONE**
- **Action:** final toolbox will be communicatet at Shippers' Forum and User Group. **DONE**

# PURPOSE OF TODAY'S WORKSHOP

- To follow up on actions from Emergency workshop in 2018
- To present new rules on balancing prices, which have been approved by DUR
- To give an overview of emergency tools, primarily focusing on market measures
- To generally prepare for the Tyra redevelopment period





# NEW BALANCING RULES

# BALANCING MEASURES APPROVED BY DUR

3 new measures enter into force on 1 April 2019

## 1. Removal of price caps

- ~~• Marginal yellow zone trade prices (35 per cent)~~
- ~~• Neutral gas price (10 per cent)~~

## 2. New method: Adjustment step 2 price

- Highest alternative (Ellund or storage) calculated for each month
- Prices for coming months (April-September) listed

## 3. New method: Imbalance price in Emergency

- Highest day-ahead price during storage season at either GPN, NCG or GASPOOL
- Current season price: **29,806 EUR/MWh** (GASPOOL, 24 Sep. 2018)

Month in 2019	Incentive relative to Neutral Gas Price
April	10 pct.
May	5 pct.
June	5 pct.
July	5 pct.
August	5 pct.
September	5 pct.



# ADJUSTMENT STEP 2 - DETAILED

## Method for calculating percentages

- Percentages are calculated for each month before each gas year
  - In this case calculated for the last half of the gas year, because of timing of implementation
- Percentage calculated based on price of highest alternative of sourcing for the given month – maximum 10 per cent
  - For April the percentage is based on interruptible storage
  - For May-September the percentage is based on day-ahead price for capacity at Ellund (Open Grid Europe-Energinet tariffs)
- Percentage calculated based on conservative assessment of forward prices (Netherlands and Germany) – using price that is slightly lower than expected

Month in 2019	Incentive relative to Neutral Gas Price
April	10 pct.
May	5 pct.
June	5 pct.
July	5 pct.
August	5 pct.
September	5 pct.

# IMBALANCE PRICES IN EMERGENCY - DETAILED

As listed on price list from 1 April 2019

**Purchase price for balancing gas (shipper is long and thus has a positive imbalance):**

- *Lowest price of either 1) lowest trading price by Energinet in the yellow zone during the relevant gas day or 2) the relevant adjustment price (step 1 or 2)*

**Force majeure price (shipper is short and has a negative imbalance towards the Danish exit zone):**

- *The highest day-ahead Index set at either Gaspoint Nordic, GASPOOL or Net Connect Germany during the current storage year (1 May – 30 April)*

**Sells price for balancing gas (shipper is short and has a negative imbalance towards other points than the exit zone)**

- *Highest price of either 1) highest trading price by Energinet in the yellow zone during relevant gas day, or 2) the relevant adjustment price (step 1 or 2, where the neutral gas price is replaced by the Force Majeure price in the formula)*

# IMBALANCE PRICES DURING EMERGENCY

Scenarios	Imbalance	Delivers to	Imbalance price
Scenario 1	Positive	Exit Zone/Other <sup>1</sup>	Adjustment step 1 (anticipated)
Scenario 2	Negative	Exit Zone	Force majeure price
Scenario 3	Negative	Other	Force majeure price + adjustment step 1 or 2, OR marginal price

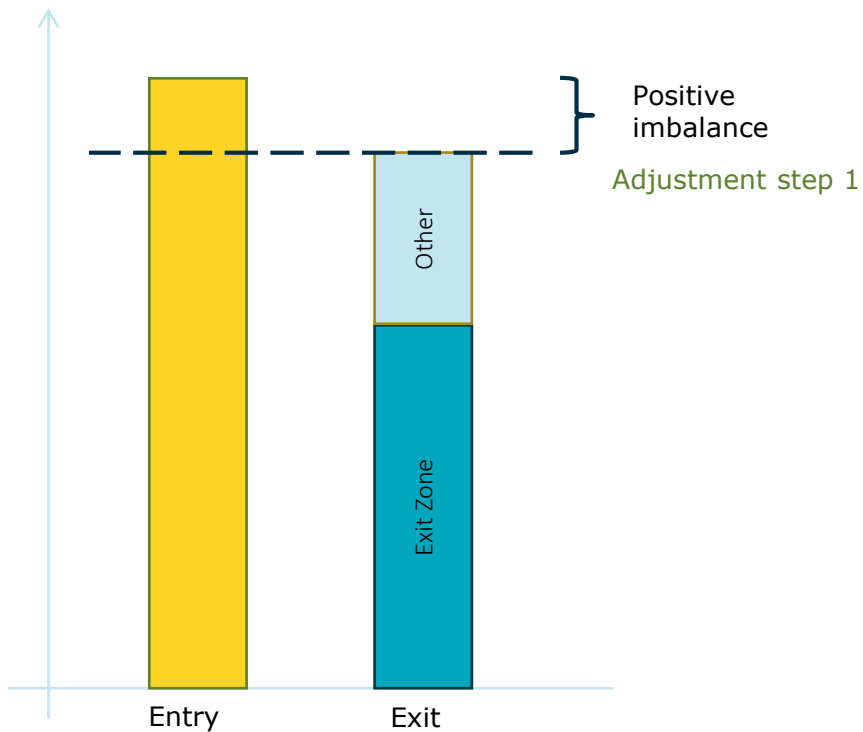
<sup>1</sup> Deliveries to everything other than the Exit Zone.

The expected imbalance prices stated above are listed on the current price list.



# IMBALANCE PRICES DURING EMERGENCY

Scenario 1 – positive imbalance

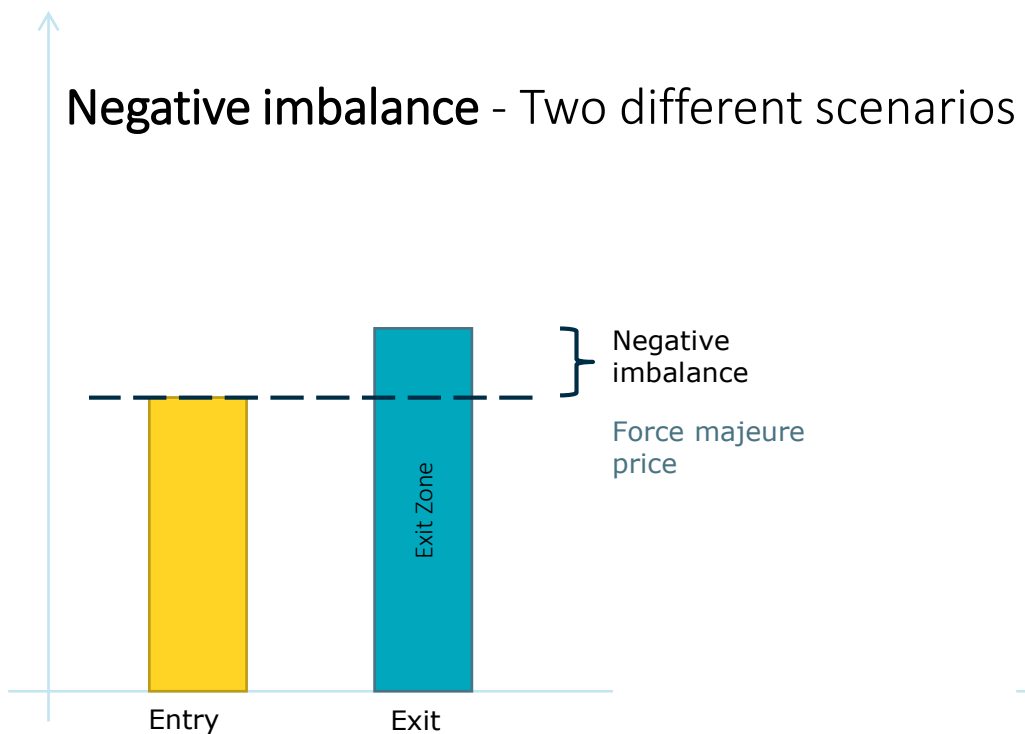


**Adjustment step 1**

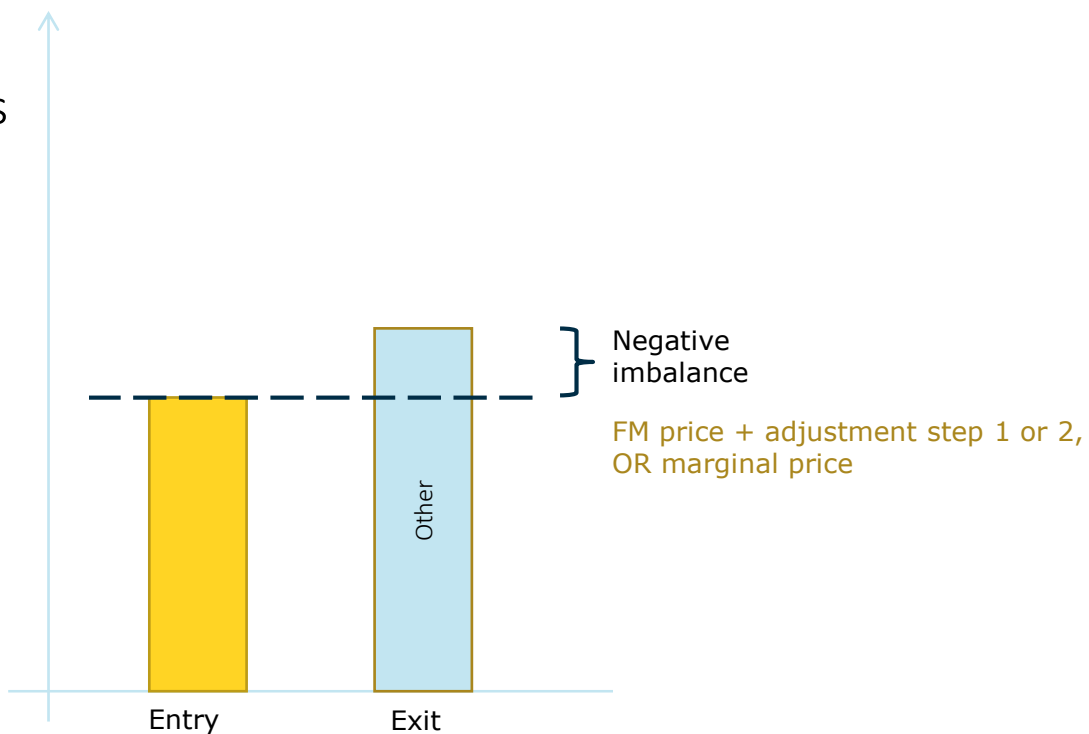
Neutral gas price minus 0.5 % of the neutral gas price.

# IMBALANCE PRICES DURING EMERGENCY

Scenario 2

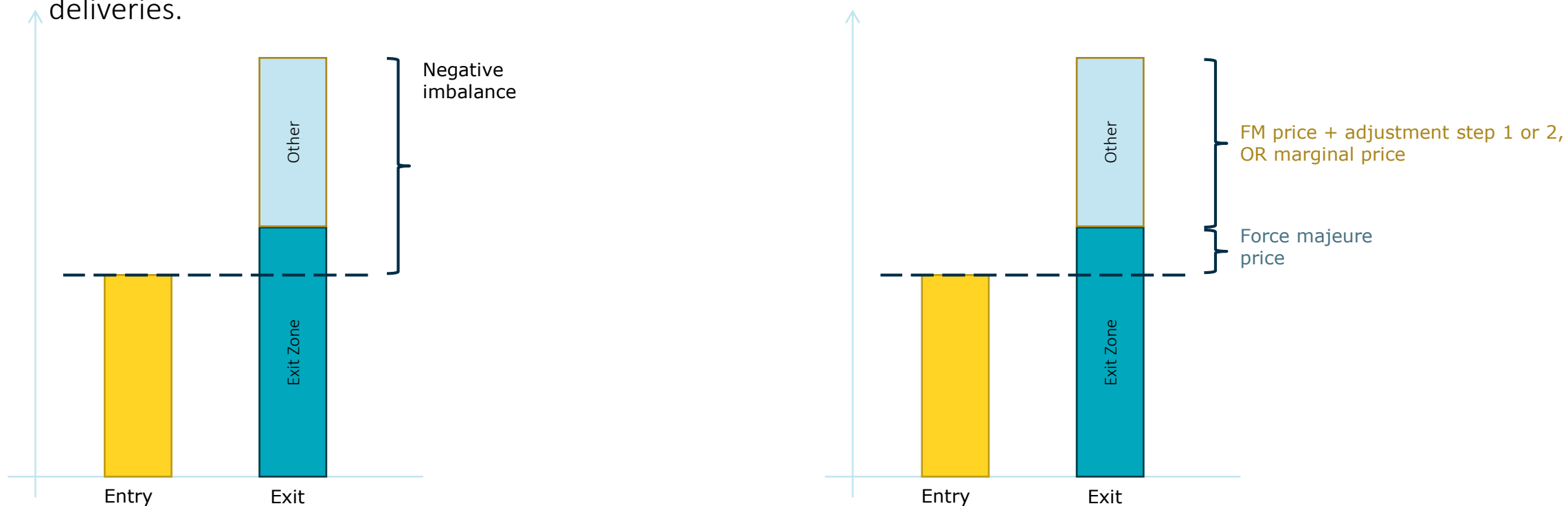


Scenario 3

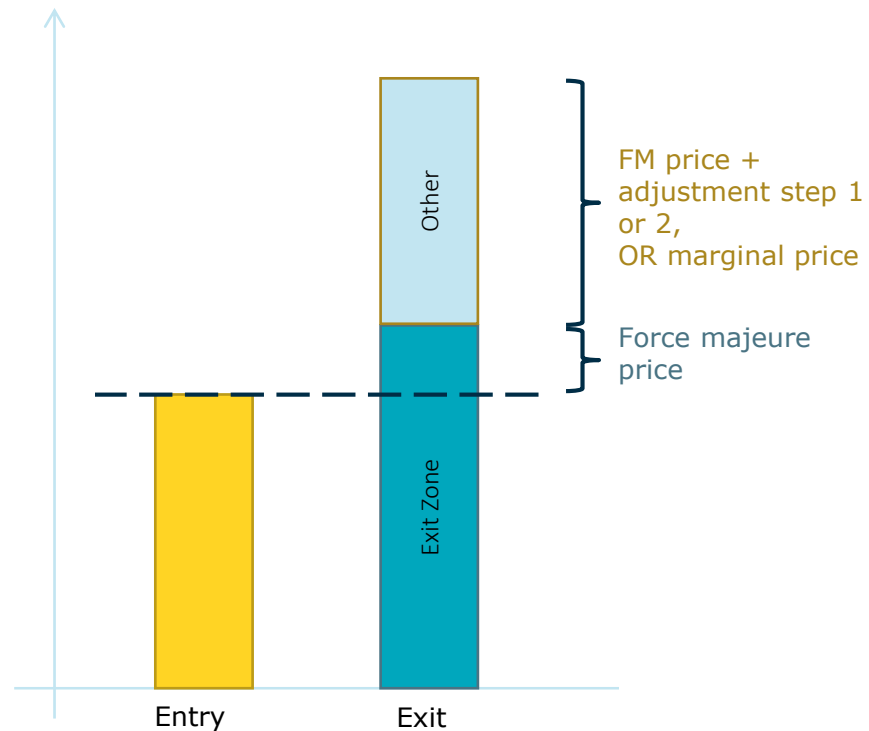


# IMBALANCE PRICES DURING EMERGENCY

Deliveries to the Exit Zone take precedence over other deliveries.



# IMBALANCE PRICES DURING EMERGENCY



## \*Early Warning, Alert or Emergency

In any of the three crisis levels, Energinet may increase the adjustment percentages up to 100 per cent for both adjustment 1 and 2.

The increase can be done separately for being long or short – by only increasing one side (e.g. only for being short), or by increasing with different percentages for being long or short

# CRISIS LEVELS AND TOOLS



# OFFICIAL OVERVIEW - CRISIS LEVELS AND TOOLS

## TOOLS IN THE DANISH SECURITY OF SUPPLY MODEL

### Crisis levels

● Normal

● Early Warning

● Alert

● Emergency

Operating balancing agreement, Distribution and withdrawal between the two storage facilities, Interruptible capacity in transit/entry points, Reduced capacity, Balancing gas

Increased unbalance payment

Commercially interruptible customers

Emergency storage and emergency withdrawal, Filling requirements, Full or partial interruption of non-protected consumers

# CRISIS LEVELS AND TOOLS

Crisis levels/crisis types	Capacity crisis	Volume/balancing crisis
Normal operation	<ul style="list-style-type: none"> <li>Reduced capacity</li> </ul>	
Early Warning	<ul style="list-style-type: none"> <li>Reduced capacity</li> </ul>	<ul style="list-style-type: none"> <li>Increased imbalance charges</li> </ul>
Alert	<ul style="list-style-type: none"> <li>Reduced capacity</li> <li>Commercial interruptibility</li> </ul>	<ul style="list-style-type: none"> <li>Increased imbalance charges</li> <li>Commercial interruptibility</li> </ul>
Emergency	<ul style="list-style-type: none"> <li>Reduced capacity</li> <li>Increased withdrawal capacity</li> </ul>	<ul style="list-style-type: none"> <li>Emergency storage (new pricing)</li> <li>Imbalances not allowed</li> <li>Increased imbalance charges</li> <li>Energinet may alter nominations</li> </ul>



# CASE - VOLUME/BALANCING - EMERGENCY

# DESCRIPTION OF SITUATION

- Energinet has declared Emergency due to insufficient supply from Ellund and storages (and South-Arne and biomethane) to cover Danish/Swedish demand (storages are commercially empty already in mid-february)
- Energinet declares emergency to be able to activate emergency gas in storage
- Prices at GPN are very high – between 100-150 Eur/MWh
- Because the storages are empty so early, Energinet must also activate part of the non-protected market (25 per cent) in Denmark and Sweden – emergency gas cannot cover the expected demand the coming months
- The situation is expected to last at least 2 months, before supply can cover demand, without use of emergency gas and shut-down of non-protected customers



# ASSUMPTIONS FOR DISCUSSION, BASED ON DESCRIBED SITUATION

# TEST OF ASSUMPTIONS

Please discuss the following assumptions in the groups

1. Only shippers with end-consumers will be short in the system
2. Shippers delivering towards end-consumers with fixed prices will secure their price risk through Eellund and storage capacity
3. Shippers delivering towards end-consumers with a floating GPN price index will not have the same degree of price risk, and thus will not secure their portfolio at the same level as in assumption 2
4. There will be end-consumers with a floating GPN price index that will be able to reduce their offtake
5. Shippers have an overview of its protected and non-protected consumer

# TEST QUESTIONS

Please discuss in group

1. What is the maximum marginal price in the yellow zone after 1 April 2019?
2. Which alternative costs are included when calculating the adjustment step 2 price?
3. Which shippers will pay the highest negative imbalance price in Emergency?
4. Which price index/indices are used when calculating the imbalance price in Emergency?
5. Who delivers gas to the end-consumers in Denmark in Emergency?

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# WRAP UP

Are we ready for Tyra Redevelopment?



# QUESTIONS



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