



SIKKERHEDSGUIDE



NØDUDGANGE



HJERTESTARTER



SAMLINGSSTED

# WELCOME TO SHIPPERS' FORUM

7 December 2017

*Clement Johan Ulrichsen*

# AGENDA

- 12-13      *Lunch and networking*
- 13.00      Welcome  
*Clement Johan Ulrichsen, Energinet*
- 13.10      General Information:  
*Christian Allan Rutherford & Signe Louise Rasmussen, Energinet*
- 13.25      Status on Ellund  
*Michael Kleemis, Gasunie Deutschland*
- 13.55      Status on the Security of Supply Situation without Tyra 2019-2022  
*Christian Meiniche Andersen & Christian Allan Rutherford, Energinet*
- 14.10      *Coffee break and networking*
- 14.45      Tariffs  
*Nina Synnest Sinvani, Energinet*
- 15.00      Baltic Pipe/Open Season Status  
*Christian Allan Rutherford & Julie Frost Szpilman*
- 15:10      Joint Balancing Zone  
*Poul Johannes Jacobsen*
- 15:25      Market Development on the Danish Gas Market  
*Julie Frost Szpilman, Energinet*
- 15:35      New Features on ETF  
*Anders Cassøe, Gaspoin Nordic*
- 15:55      End of programme

# WELCOME TO NEW SHIPPERS



3 Shippers out of 9 newly registered in 2017

# EC “...REFUSE TO SEE GAS ONLY AS BRIDGE FUEL”

The EC to analyse green gasses and power-gas synergies/barriers in 2018 towards a gas sector reform in 2020



# SECURITY OF GAS SUPPLY 2017

Report sneak peak – publication 12 December 2017

- High security of gas supply in Denmark – today and after Tyra has been rebuild
- Gas consumers will be supplied as today during the rebuild of Tyra but the gas system will be less robust

## Present year

- Lower gas storage volume
- New security of supply regulation (EU)
- More biogas in the Danish gas grid

**Future developments:** Rebuild of Tyra, joint balancing zone Denmark and Sweden, Baltic Pipe



# GENERAL MARKET INFORMATION

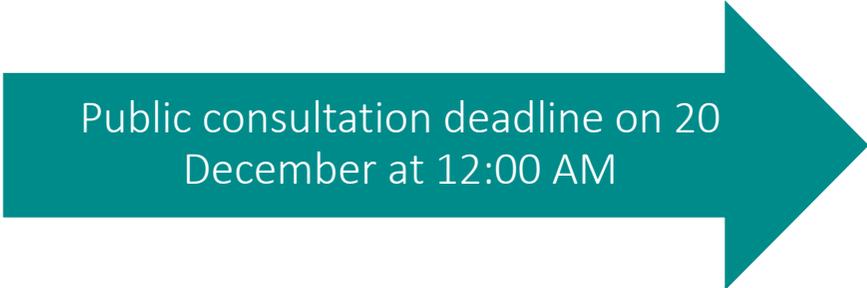
Signe Rasmussen & Christian Rutherford

# RULES FOR GAS TRANSPORT VERSION 17.0

Enter into force on 1 January 2018

The changes are:

- Surrender of capacity at Dragør and Ellund includes roll over to daily capacity
- Introduction of capacity conversion: conversion of unbundled to bundled
- Adjustment of capacity sold via Nybro to the newly updated auction calendar (ENTSO-G)
- Abolition of credit insurance coverage (Credit approval process)



Public consultation deadline on 20  
December at 12:00 AM

[Anmodning@energinet.dk](mailto:Anmodning@energinet.dk)

# NEUTRAL GAS PRICES AND IMBALANCE PRICES

Public Data: Download prices via our self-service portal [Energinet Online](#)

➔ From manual process to automatic upload on day-to-day basis

- Daily neutral gas prices / daily imbalance prices
- Monthly neutral gas prices

## Public data in general

- Work-in-progress: General improvements of data
- Un-validated data to be validated

The screenshot shows the Energinet Online portal. A red box highlights the 'Public download' link in the navigation menu, with a red arrow and the number '1' pointing to it. Below this, a red box highlights the search filters in the 'Download list' section, with a red arrow and the number '2' pointing to it. A third red box highlights the 'Format' column in the table, with a red arrow and the number '3' pointing to it.

Document Type	Start date	End date	Format	Approved
Daily balancing gas price	01-11-2017	30-11-2017	[Excel icon]	01-12-2017 09:54
Monthly neutral gas price	01-10-2014	30-11-2017	[Excel icon]	01-12-2017 07:00
PRISMA product exchange rates	01-10-2017	30-09-2018	[Excel icon]	23-08-2017 08:24

Records on page 10

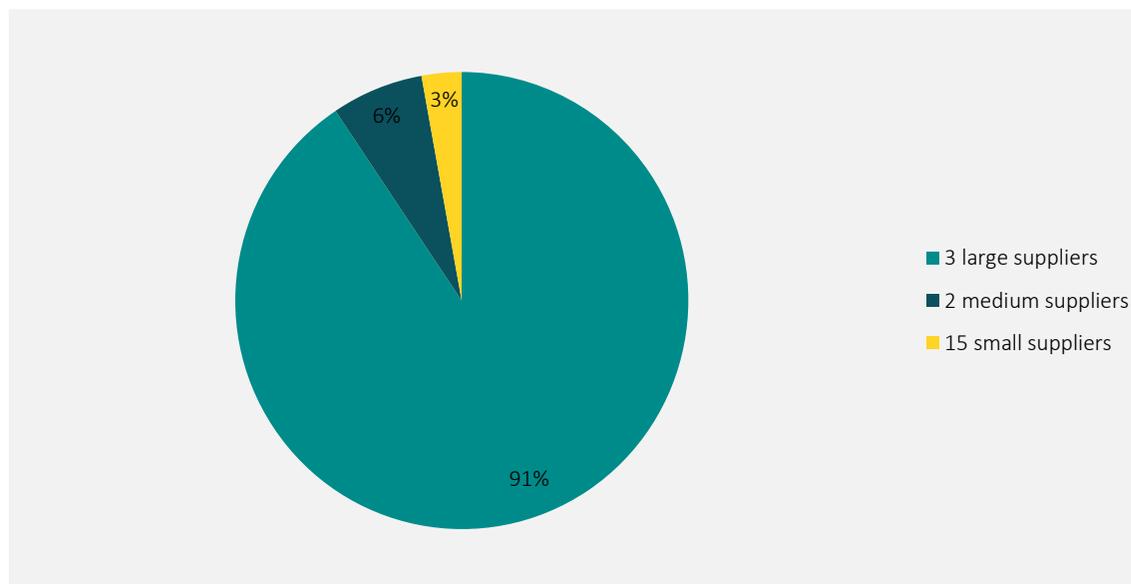
# RETAIL MARKET 2016

Retail Market Report on [webpage](#) (Danish Only)

## Players on the retail market:

- 4 Distribution companies
- 19 suppliers
- 2,303 DMS
- 409,353 NDMS

## Market shares for gas suppliers - Based on consumption (volumes)



# CHANGE OF EIC CODE AT ELLUND

Announcement send via e-mail in October 2017

**What:** Change of EIC code at Ellund

**How:** Nomination for Ellund via XML files must include new EIC

**When:** 31 January 2018 between 12:00 CET and 12:30 CET.

**Who:** [backoffice@energinet.dk](mailto:backoffice@energinet.dk)

## Change of EIC on Ellund on 31 January 2018 between 12:00 CET and 12:30 CET

Anmodning (Naturgas)

 Du videresendte denne meddelelse den 19-10-2017 10:17.

Sendt: on 04-10-2017 12:44

Til:  Anmodning (Naturgas)

Dear shipper,

Energinet has been informed of a discrepancy for the EIC at the interconnection point Ellund by ENTSO-G. For the time being Energinet uses the EIC 21Y---A001A002-8 which should be replaced by EIC 21Z0000000000260. **On 31 January 2018 between 12:00 CET and 12:30 CET Energinet will change the EIC in our systems.** The change of EIC will affect shippers who send nominations for Ellund via XML files since your nominations must include the new EIC after 12:30 CET.

Energinet offers a test period between 1 November 2017 and 19 January 2018. In that period shippers can send nomination in their test environment to Energinet. Questions related to the test can be addressed to [backoffice@energinet.dk](mailto:backoffice@energinet.dk)

Nomination received with the old EIC code after 31 January 2018 will be redirected to the correct EIC for a shorter period.

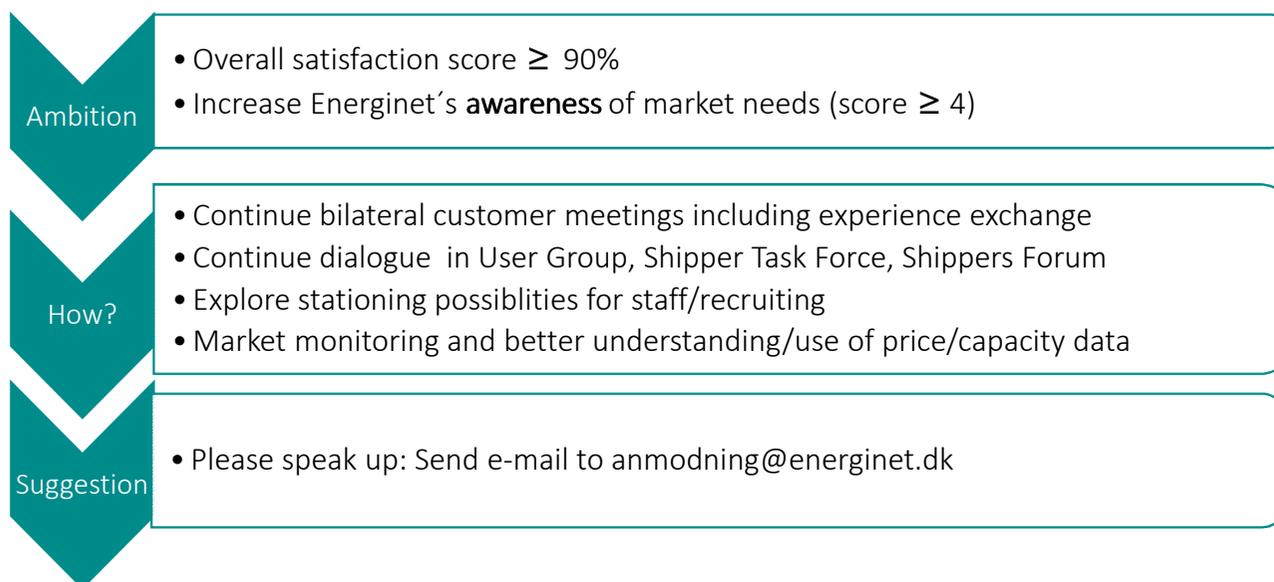
Kind regards,

**ENERGINET**

Energinet  
Pederstrupvej 76  
2750 Ballerup  
+4570102244  
[www.energinet.dk](http://www.energinet.dk)

# CUSTOMER SATISFACTION SURVEY 2016

## Follow-up on action plan



### Customer satisfaction survey 2018

- Continue to have focus on the subjects in the plan from 2016 (Focus on customer dialogue)
- CSS format for 2018 may be different from the past: Re-thinking setup

## CROSS-BORDER TRADE OF CERTIFICATS ↔ GERMANY

Cooperation with German Energy Agency: Deutsche Energie-Agentur (DENA)  
based on credibility and documentation of key elements – 1st October 2017

### Information on the certificate of:

- Country of origin
- Production period
- Biomass (type of plant)
- Production device
- Owner of the plant
- Support
- Counted towards the exporting country's target for share of energy from renewable sources in gross final consumption of energy under the Renewable Energy Directive article 3



### Precautionary principle

- Max 10 transactions per month within time frame
- Quarterly check of import/export volumes
- Yearly check of registered plants and account holders in the registries
- Cradle to grave test a non specified number of certificates
- Only biogas produced in Germany

# MEET US AT E-WORLD IN FEBRUARY 2018

Book a meeting by sending e-mail to [anmodning@energinet.dk](mailto:anmodning@energinet.dk)

Energy across borders is a strategic goal for Energinet in the years to come. Visit our stand at E-world 6 - 8 February 2018.



Read more at our [webpage](#)

# TYRA: ELLUND IS KEY

Capacity at Ellund is crucial to the Danish supply during the Tyra shutdown in 2019-22

- Energinet launched a project on the Tyra shutdown supply situation in summer 2016
- Many initiatives have been – and are being – considered
- Optimisation of capacity in Ellund is a very crucial initiative among those
- Common project with Gasunie Deutschland
  - Technical
  - Operational
  - Market

Our starting point 18 months ago...

Future supply and demand situation (Tyra)

Shippers Forum, 16 June 2016

Claus Møller Petersen, Energinet.dk

ENERGINET/DK

## Initiatives under consideration

- Minor physical amendments to the transmission system
- The storage facilities
- Evaluation of the emergency set-up
- Daily operation
- Involvement of market participants -> Christian

# Energinet's Shippers' Forum

## Status on Capacity towards Denmark

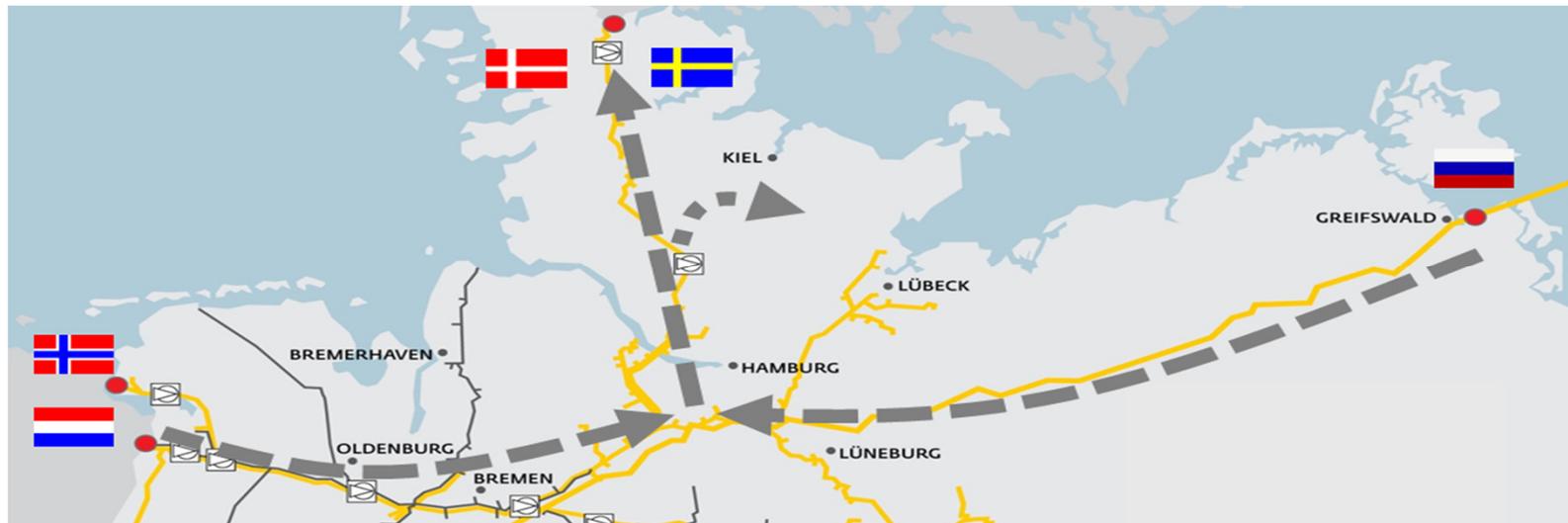
Gasunie Deutschland Transport Services GmbH - Dr. Michael Kleemiß



## Tyra shutdown

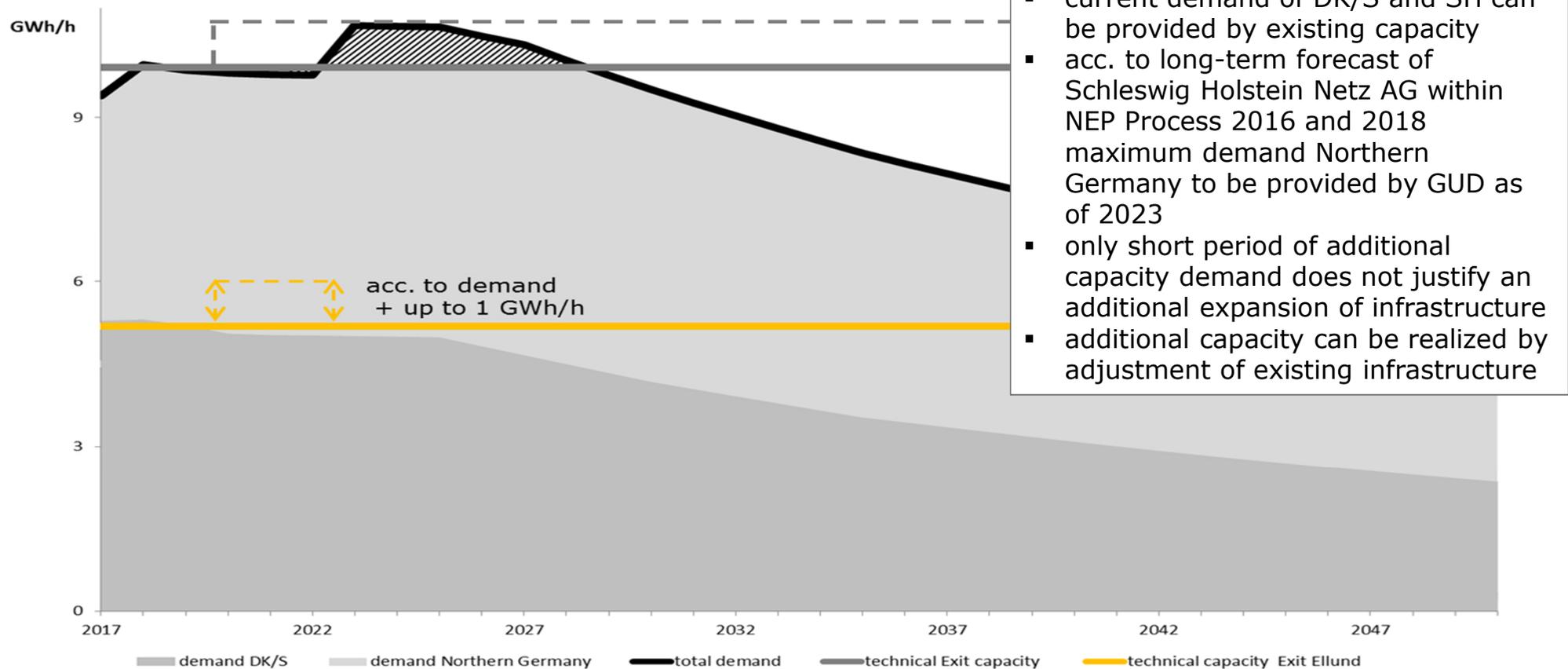
- Energinet and GUD are always working closely and intensively together as adjacent network operators
- Energinet and GUD have now intensified this good cooperation in order to facilitate the possibility of higher gas flows at the interconnection point Ellund during Tyra shut down period
- The following aspects have been particularly analysed:
  - avoidance of flow interruption as much as possible
  - thorough a regular coordination of shutdown planning
  - analysis of potential for additional capacity provision

## Demand / Supply Situation



- Diversified supply sources to satisfy demand DK / S
- New infrastructure with NEL pipeline and loop towards DK incl. CS Quarnstedt in operation
- But competitive capacities towards DK / S and Northern Germany

## Demand / Supply Situation

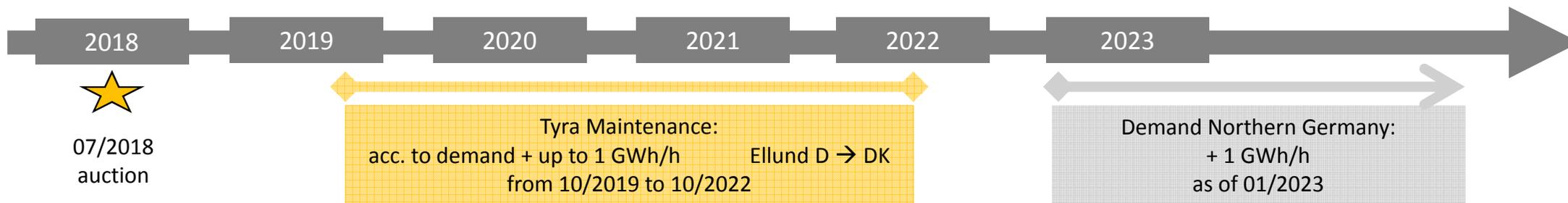


## Capacity demand in DK and Schleswig Holstein

Additional demand for Denmark and Sweden during period of Tyra maintenance

Decreasing demand when production field Tyra will be in operation again

Simultaneous increasing demand in Schleswig-Holstein



- Only if demand is proved via auction in 2018 for yearly products, adjustment of existing infrastructure can be realised earlier and capacity can be provided from 10/2019 to 10/2022 at Exit Ellund
- After 10/2022 capacities have to be allocated to exits in Northern Germany

## Auction of capacities Exit Ellund

- period 10/2019 – 10/2022
- yearly products
- bundled products
- free allocable capacities within GASPOOL market area
- offer of capacities in yearly auction July 2018
- successful auction enables capacity provision for the period of Tyra maintenance

Thank you for your attention!

**Dr. Michael Kleemiß**

Manager Marketing

Gasunie Deutschland Transport Services GmbH

Pelikanplatz 5

30177 Hannover

[www.gasunie.de](http://www.gasunie.de)

# TYRA 2019-2022

## Status on the security of supply situation

*Christian Meiniche Andersen & Christian Allan Rutherford,  
Energinet*



# REMIT 24 NOVEMBER 2017

**Message type:**
**Previous ID:**

Company:

**ACER code:**

Asset type affected:

Name of asset affected:

Incident occurred at:

Start time of capacity change:

Ending time of capacity change:

Duration uncertainty:

Causes:

Flow capacity reduction:

Available flow capacity:

**Remarks/additional information**

This message is generated on behalf of all members of DUC. Maersk Oil today informed the Danish Minister for Energy, Utilities and Climate that DUC has conditionally decided to implement the full reconstruction of the Tyra field facilities as described in the field redevelopment plan approved by the Danish Energy Agency on 24 October 2017.

DUC's decision is conditional upon the final adoption by the Danish Parliament of draft Bill no. L 17, introduced in Parliament on 4 October 2017, before or on 31 December 2017.

**Update**

1999

Maersk Olie og Gas

()

Offshore gas production

Tyra East platform/field

01-11-2019

01-07-2022

**Maintenance**

95000 MWh/day

In accordance with the agreement between DUC and the Danish Government signed 23 March 2017, DUC has with its decision presupposed that the government obtains the adoption of the necessary and presupposed legislative amendments, including also draft Bill no. L 42 to amend the Subsoil Act etc., in a way that is satisfactory in accordance with the provisions of the agreement.

The legislative process for draft Bills no. L 17 and no. L 42 can be followed on the website of the Danish Parliament.

The shut down 1 November 2019 of the Tyra East and Tyra West facilities means that no gas is delivered from the Tyra-Nybro pipeline from that date.

It is expected that the total flow capacity reduction of approx. 95,000 MWh/day will take place gradually starting circa 1 March 2019:

- Circa 1 August 2019 the flow capacity will be reduced to approx. 77,000 MWh/day;
- Circa 1 September 2019 the flow capacity will be reduced to approx. 65,000 MWh/day; and
- Circa 1 October 2019 the flow capacity will be reduced to approx. 27,000 MWh/day.

If the schedule is revised, this message will be updated.

Signed JLN

## WHAT IS NEW?

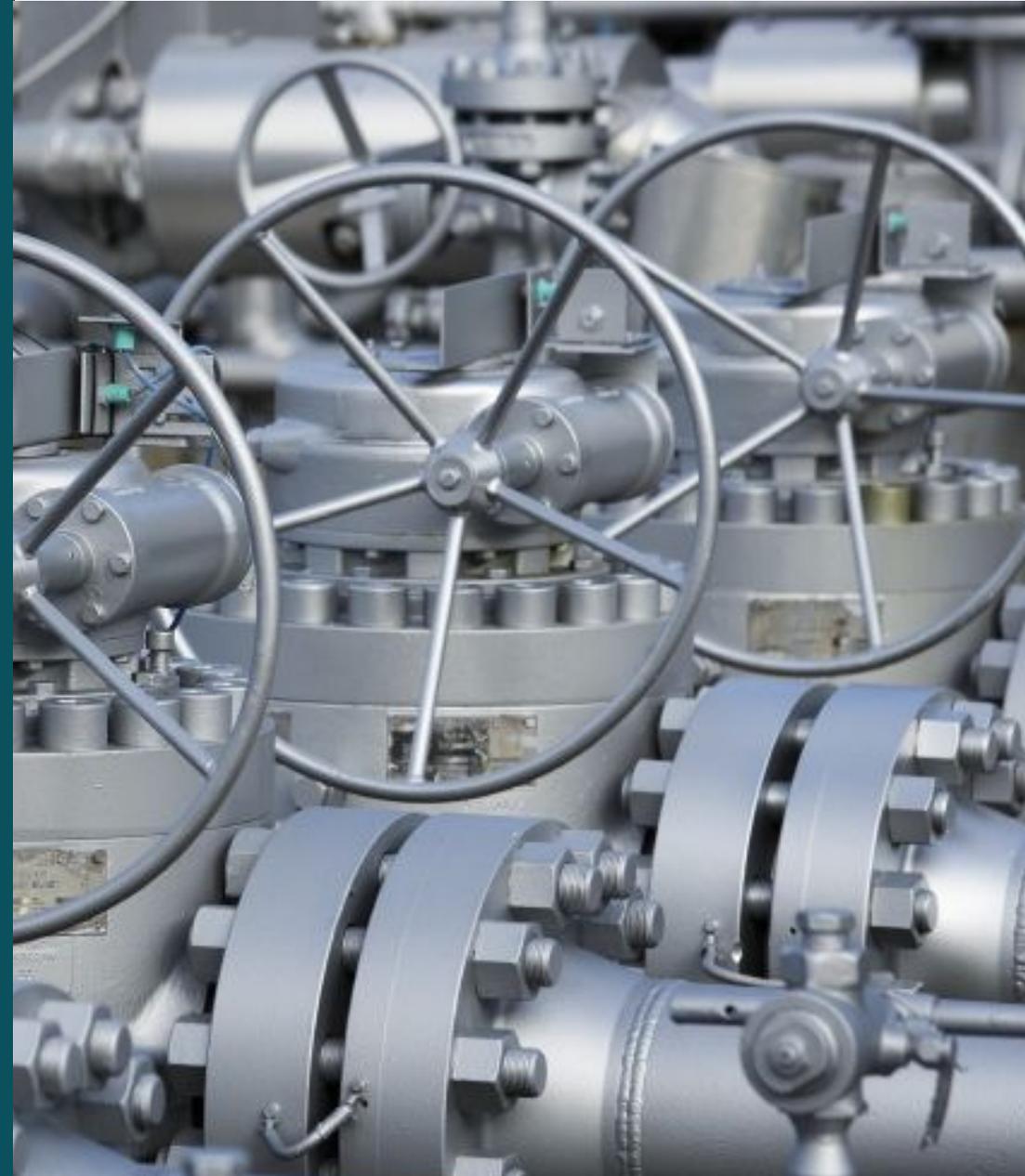
1. No gas is supplied in Nybro 1 November 2019 - 1 July 2022 - extra 5 month without Tyra production

(previous 1 December 2019 – 1 March 2022)

2. From 1 March 2019 production is reduced gradually from 95.000 MWh/day (7.9 million m<sup>3</sup>/day) :
  - 1 August to approximately 77,000 MWh/day (6.4 million m<sup>3</sup>/day)
  - 1 September to approximately 65,000 MWh/day (5.4 million m<sup>3</sup>/day)
  - 1 October to approximately 27,000 MWh/day (2.2 million m<sup>3</sup>/day)

# ADDITIONAL ENTRY CAPACITY ELLUND

- Long term capacity at Entry Ellund to be offered in July 2018 at PRISMA
- to support supply to Denmark during the Tyra shutdown
- Construction of this additional infrastructure capacity is expected to be conditional on shipper bookings



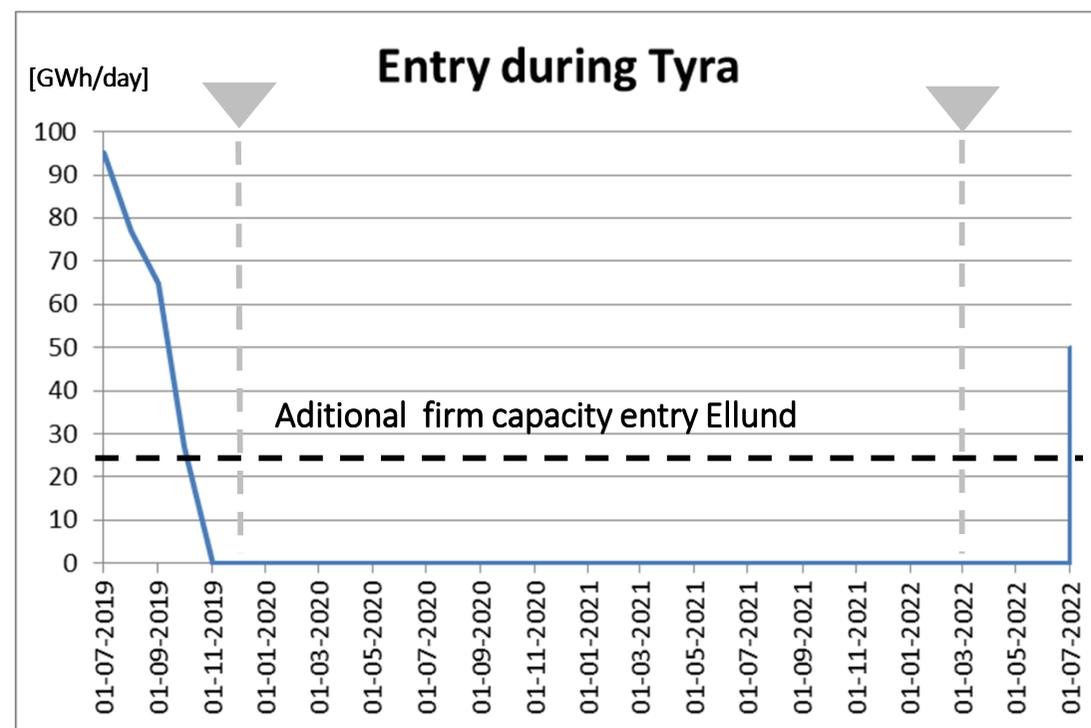
# SUPPLY SITUATION DURING TYRA RENOVATION

## 1. 2019-2020

- Early reduction of Tyra production leads to less time/entry-capacity to fill the storage 2019/20
- Extra capacity at Ellund supports the possibility to fill storage before Tyra shut-down

## 2. 2020-2023

- Extra capacity at Ellund supports supply during Tyra renovation and possibility to fill storage before winter and
- Late start of Tyra production reduces the injection period in order to prepare for winter 22/23





# TYRA – MARKET

Shippers' Forum 7 December 2017

*Christian Rutherford*

# PROCESS & STATUS

## Energinet's suggestions for the first User Group in March 2017

### Output from first User Group

#### WORKING GROUP – SECURITY OF SUPPLY

Comments made under the brainstorming session

- Filling requirements could be a tool for securing a seasonal profile for commercially stored gas. The price for this should be market based and the price level will depend on market situation
- The use of storage and the market will be different. The use of storage will be more driven by seasonal demand and hence there are not the same room for using storage for short-time arbitrage
- A suggestion was that Energinet to look in to selling surplus Emergency storage in the spring when (and if) the market lags gas – and in the beginning of the injection season Energinet can buy back the gas. Maybe Energinet can make an auction to lend it out for x months? (eg. March to July)
- Flow commitments in Ellund – options bought on beforehand, so no cost for activating. Some concerns about incentives and possible abuse
- Energinet should look in to possibilities for gasification solutions for delivery in few years
- Energinet should look in to demand side regulation products
- A concern was raised that it is unclear what will happen in the market in case of Emergency. Energinet should make up some case material and make it more clear to the market, including responsibilities for market players and for Energinet.

#### WORKING GROUP – RULES & INCENTIVES

Comments made under the brainstorming session

- Normal operation = no incentives
- Investigate demand side flex in market
- Carefull on filling requirements
- Reflection: storage is normally filled
- Red flag on if all storage is used
- Auction by Energinet to keep gas inventory level becomes too low
- Flow commitments at Ellund
- Idea: Entry Ellund as trading point
- German side: well-functioning UCTE
- Dialogue with adjacent TSOs
- Use of tools in Early Warning and if equally high prices in Germany
- Rethink emergency and filling requirements
- Energinet should ask themselves: when to step in as TSO
- Tools can give wrong incentives in market (incentive to provoke use of storage)
- There needs to be insecurity on when to utilise, to prevent speculation
- Tariff design: incentive to utilize capacity
- Remove safety margins on balancing
- Easier trade of secondary - PRISMA
- PRISMA should work perfectly
- Should we make emergency even more expensive (to incentivise to avoid)

#### WORKING GROUP –

## Input for second User Group in October 2017

### OVERVIEW OF POSSIBLE MEASURES

**ENERGINET**

Normal

Challenged

#### Information and analysis:

- Minimal storage filling (MSF)
- Emergency workshop
- Analysis (Swedish market, price elasticity for Danish end consumers, general analysis of prices and flows)

#### Capacity utilization - Ellund:

- Implicit auctions
- PRISMA Secondary – more products
- Interruptible within-day nomination
- Secure optimal utilization - general
- Interruptible capacity

#### Seasonal emergency storage:

- Seasonal emergency storage (option)

#### Balancing:

- General balancing rules analysis

1

3

#### Balancing:

- Review of rules for imbalance prices
- Removal of price limits for imbalance prices (10% and 35% rules)

2

4

#### Concept for commercial interruptible consumers:

- Analysis and possible change of concept in the Tyra context

#### Gas flow incentives (options):

- Ellund entry as trading point (local) context
- Ellund entry flow commitments
- Auction to keep gas in storage
- Option for Energinet to buy balancing gas in Germany

#### Balancing:

- Review of rules of increased incentive charge in Early Warning (option)

#### Dynamic short-term tariffing:

- Dynamic short term tariffs in case of crisis (option)

Green: decided measures

Yellow: uncertain measures

Blue: to be discussed today

# OVERVIEW OF EXPECTED MEASURES

Status 7 December 2017

	Normal	Challenged
Improvement	<p><b>Information and analysis:</b></p> <ul style="list-style-type: none"> <li>• 1.1 Minimal storage filling (MSF)</li> <li>• 1.2 Emergency workshop</li> <li>• 1.3 Market analysis and surveillance</li> </ul> <p><b>Capacity utilization - Ellund:</b></p> <ul style="list-style-type: none"> <li>• 1.4 PRISMA Secondary – more products</li> <li>• 1.5 Interruptible capacity &amp; WD nomination</li> <li>• 1.6 Congestion management</li> </ul> <p><b>Emergency storage vs. filling requirements:</b></p> <ul style="list-style-type: none"> <li>• 1.7 Analysis of mix &amp; offer</li> </ul>	<p><b>Concept for commercial interruptible consumers:</b></p> <ul style="list-style-type: none"> <li>• 3.1 Analysis &amp; possible change of concept in the Tyra context</li> </ul>
Incentive	<p><b>Balancing:</b></p> <ul style="list-style-type: none"> <li>• 2.1 Review of imbalance prices &amp; price caps</li> </ul>	<p><b>Balancing:</b></p> <ul style="list-style-type: none"> <li>• 4.1 Review of increased incentive charge in Early Warning (option)</li> </ul>

# ALMOST "BUSINESS-AS-USUAL"

3 main focus areas:

1. Communication

- Development of Minimal Storage Filling concept, to update market on supply situation

2. Market analysis and market surveillance

- General strong focus on market analysis and market behavior

3. General improvements

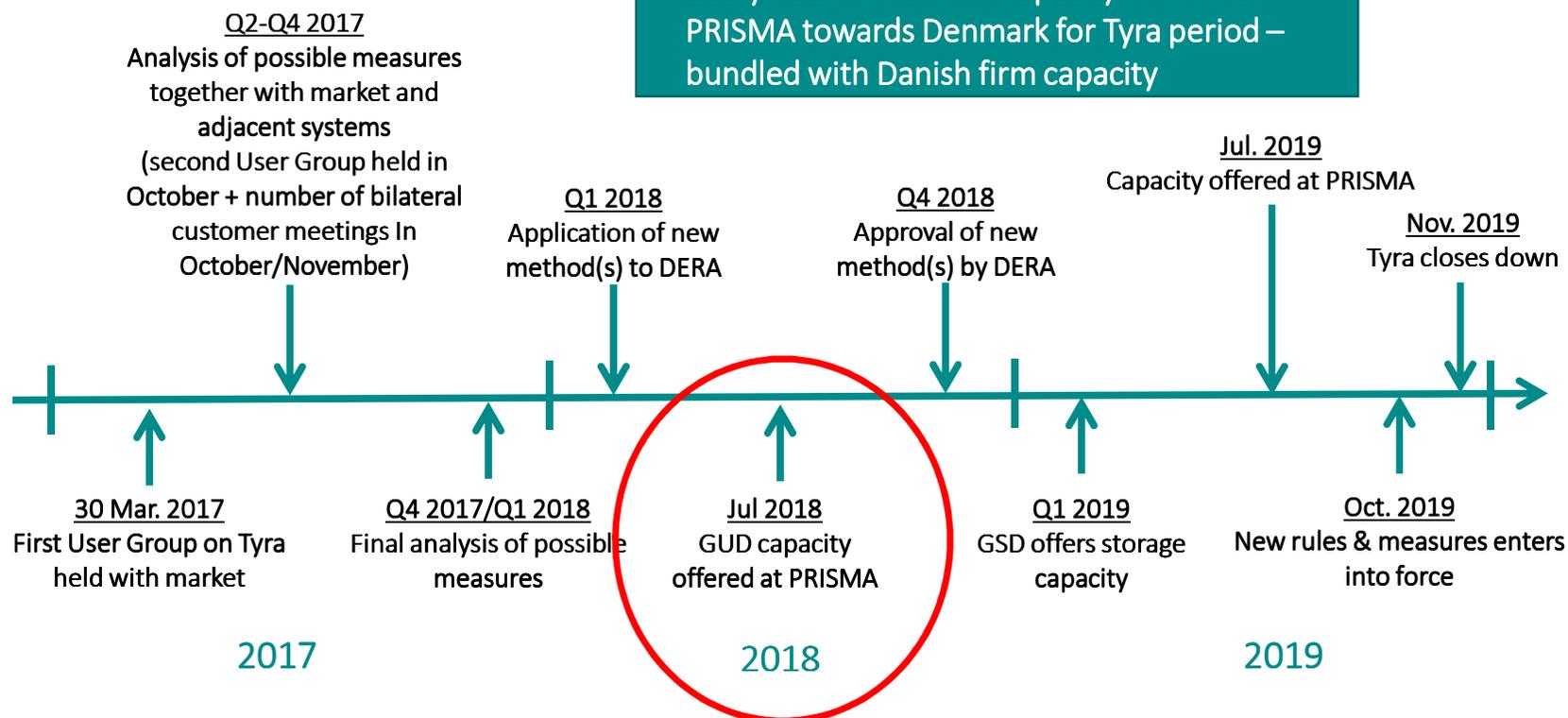
- Strengthen Ellund commercially to secure optimal flow
- Optimise balancing model, based on new situation



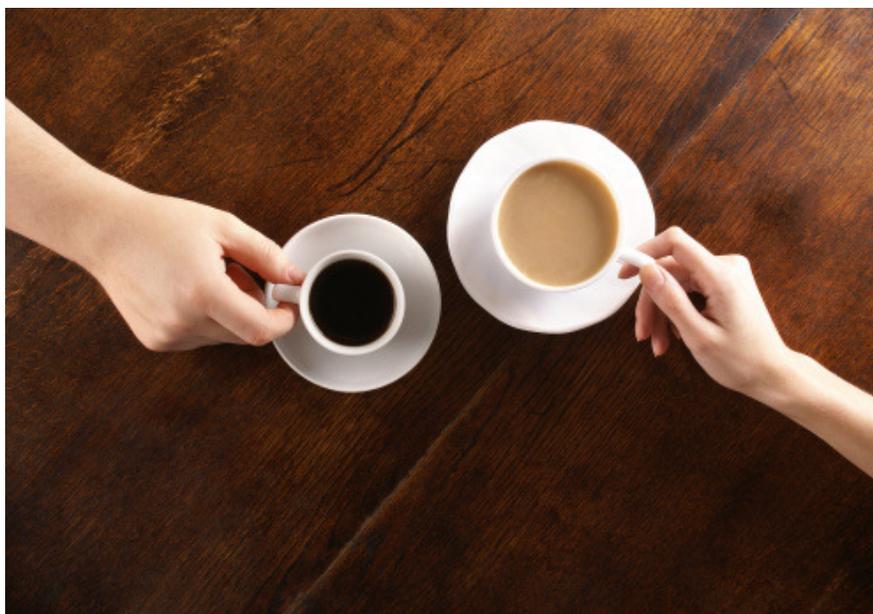
# ANTICIPATED TIMELINE FOR TYRA – MARKET DEVELOPMENT

Important dates:

- Emergency workshop planned for 25 January 2018 (more information will follow)
- 2 July 2018: GUD firm capacity offered at PRISMA towards Denmark for Tyra period – bundled with Danish firm capacity



# COFFEE BREAK AND NETWORKING



An abstract geometric pattern on the left side of the slide, composed of thin teal lines forming a complex, interconnected network of triangles and polygons, resembling a stylized map or a network diagram.

# TARIFFS

Status on TAR NC and future tariffs

*Nina Synnest Sinvani*

# AGENDA

- TAR NC implementation:
  - Key points
  - Early Compliance
  - Timeline and Consultation
- Expectations for the future

## KEY POINTS

The tariff methodology will be implemented 1st October 2019

- Uniform tariffs (same tariffs in both entry and exit points)
- 100 % Storage Discount
- Capacity-/commodity-split possible with a twist

# CAPACITY-/COMMODITY-SPLIT

Baltic Pipe and Tyra shutdown has resulted in an update of the forecasted cost base



# EARLY COMPLIANCE

What does it mean and how to implement?



## Early compliance with publication requirements

**ENTSOG's TP**

Dec 2017: tariffs applicable for the current gas year (1 Oct 2017 – 1 Oct 2018)

- Reserve prices for all MS
- Flow-based charges for MSs whose tariff period is other than one year or other than January to December

**TSO/NRA website**

By the end of 2017: applicable revenue information per Art. 30(1)(b) for the current tariff period for MSs whose tariff period is other than one year or other than January to December

- The material that needs to be published is:
  - Forecast and technical capacity
  - Flows
  - Target revenue
  - Information on assets and depreciation
  - Capacity-/commodity-split
  - Entry-/Exit-split
  - Intra-system/cross-system-split

# WHERE AND HOW?

On the Transparency Platform and [www.energinet.dk](http://www.energinet.dk)

**ENERGINET TRANSMISSION SYSTEM OPERATOR FOR GAS**  
IDK1001A1001A246

**CONTACT**  
Name: Christian Allan Rutherford  
Phone: +45 4972362  
E-Mail: [ca@energinet.dk](mailto:ca@energinet.dk)  
Homepage: [www.energinet.dk](http://www.energinet.dk)

**Applied capacity model:** Entry-Exit  
Gas Day: 6:00 - 6:00  
Balancing Model: Daily  
Capacity Allocation Mechanism: First Come-First-Served / Auction

**LINKS**  
[Tariff Information page](#)  
[Capacity Information page](#)  
[State Capacity Information page](#)  
[Access Conditions page](#)  
[Contractual Documents page](#)  
[Maintenance page](#)

**Points** Zones Balancing Info Tariff Info Capacity Info General Info

From	Operator	Exit	Entry	Operator	To
Denmark	Energinet	Dragor	Dragor	Energinet	Denmark
Sweden	Swedegas	Dragor	Dragor	Swedegas	Sweden
Denmark	Energinet	Ellund	Ellund	Energinet	Denmark
Denmark	Energinet	ELLUND	ELLUND	Energinet	Denmark
GASPOOL	GUD	ELLUND	ELLUND	GUD	GASPOOL
NGC	OGE	ELLUND	ELLUND	OGE	NGC
Denmark	Energinet	GTF (Bilateral Trading Point)	GTF (Bilateral Trading Point)	Energinet	Denmark
Denmark	Energinet	GTF (Bilateral Trading Point)	GTF (Bilateral Trading Point)	Energinet	Denmark
Denmark	Energinet	Lille Torup	Lille Torup	Energinet	Denmark
Denmark	Energinet	Lille Torup	Lille Torup	Energinet	Denmark
Storage	Gas Storage Denmark	Lille Torup	Lille Torup	Gas Storage Denmark	Storage
Denmark	Energinet	Lille Torup	Lille Torup	Energinet	Denmark

## TARIFFS AND FEES ON THE DANISH GAS MARKET

Energinet pursues a "break-even" price policy and offers competitive rates.  
All transportation tariffs, emergency supply payments and other fees related to the payment of transportation in the gas transmission system are included in our current list of tariffs.

FRONTPAGE > GAS > TARIFFS AND FEES ON THE DANISH GAS MARKET

**CURRENT TARRIFS**  
Current tariffs and fees for transport in the gas transmission system  
TARIFFS 1 OCTOBER 2017 >

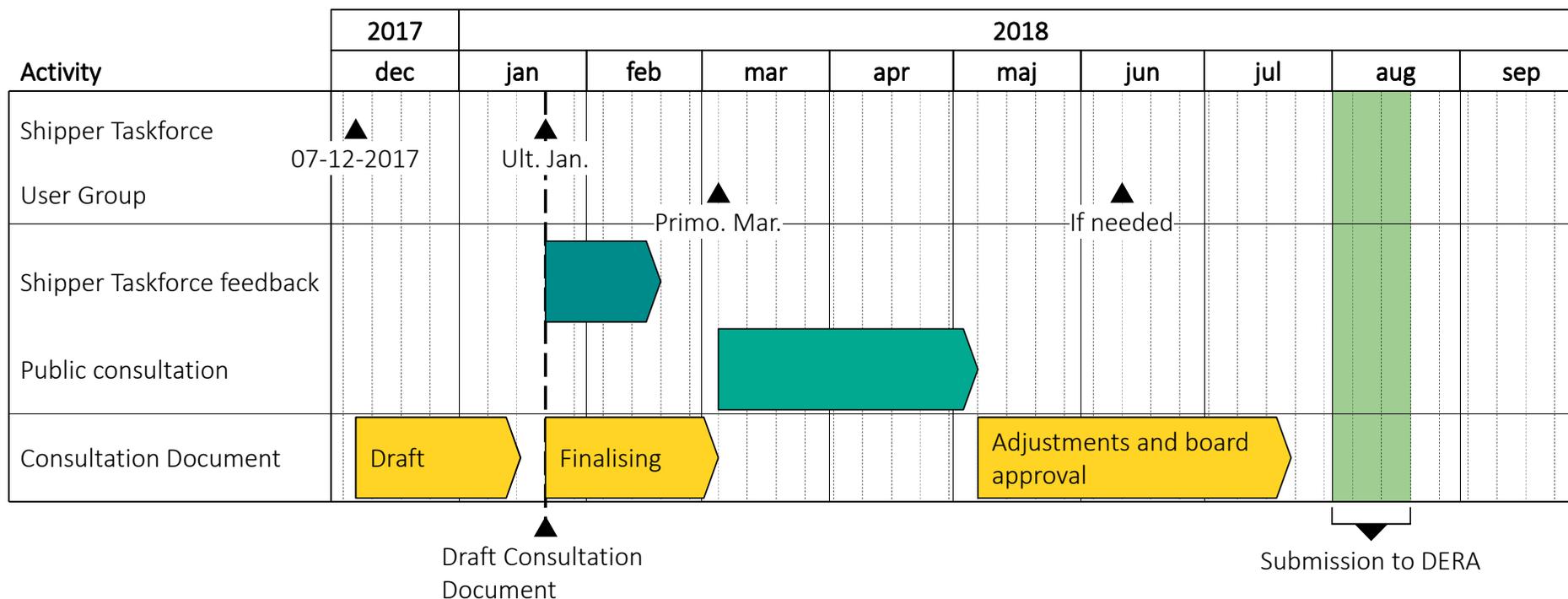
**HISTORIC TARIFFS**  
Historic tariffs and fees for transport in the gas transmission system  
HISTORIC OVERVIEW 2007-2016 >

### FUTURE GAS TARIFF METHODOLOGY

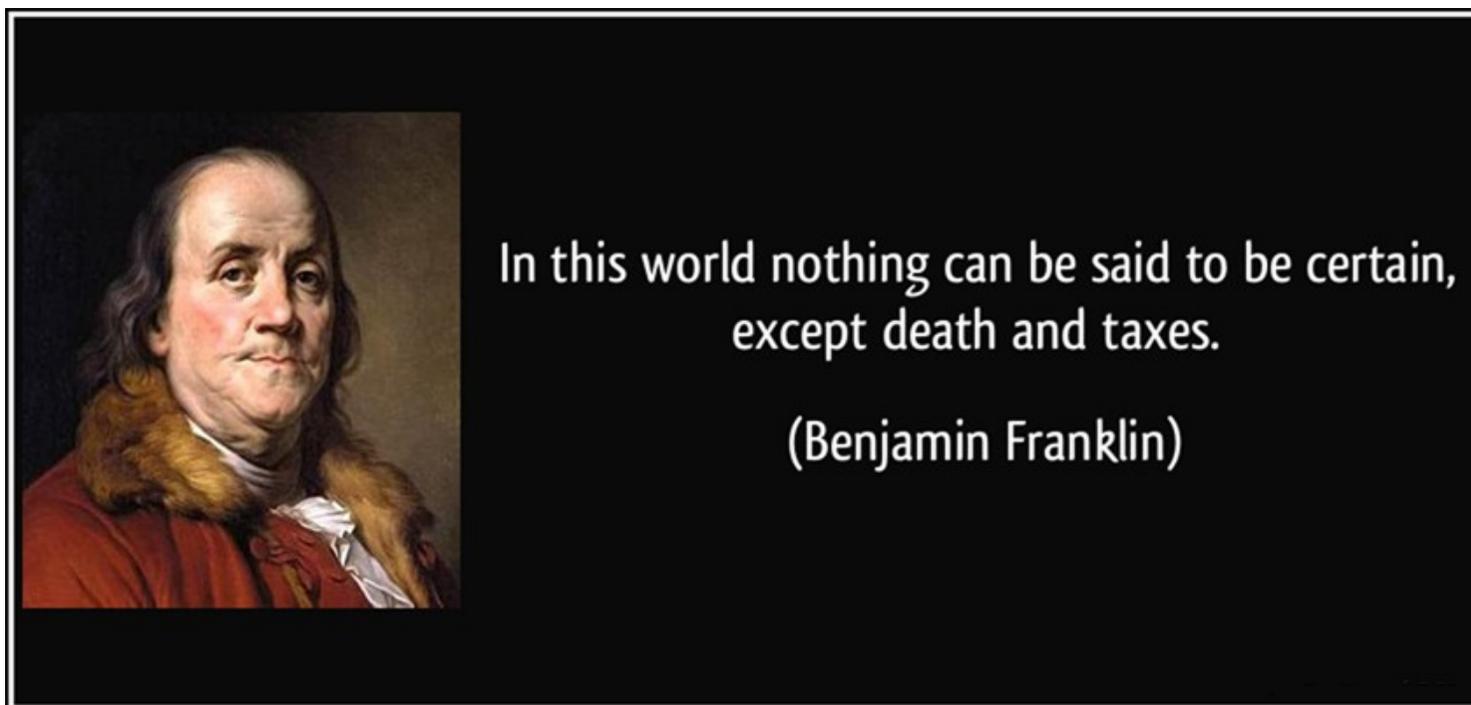
Influence on implementation of the network code on harmonised transmission tariff structure for gas - TAR NC - requires your involvement.  
Energinet has initiated a project prior to the implementation of the network code on 1 October 2019.

# CONSULTATION

## Timeline



## EXPECTATIONS FOR THE FUTURE

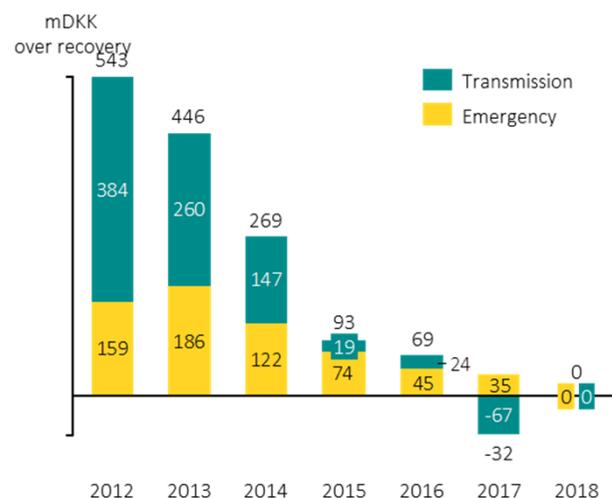


NOTE: All information in are indicative and subject to approval by DERA  
and Energinet board.

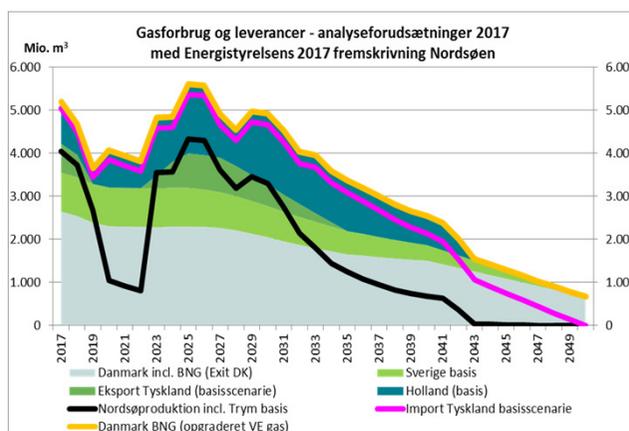
# THE COMING YEARS WILL BE TOUGH

The over recovery have been returned. The Tyra shutdown will cause significant changes in the flows and booked capacity and also an expected increase in OPEX

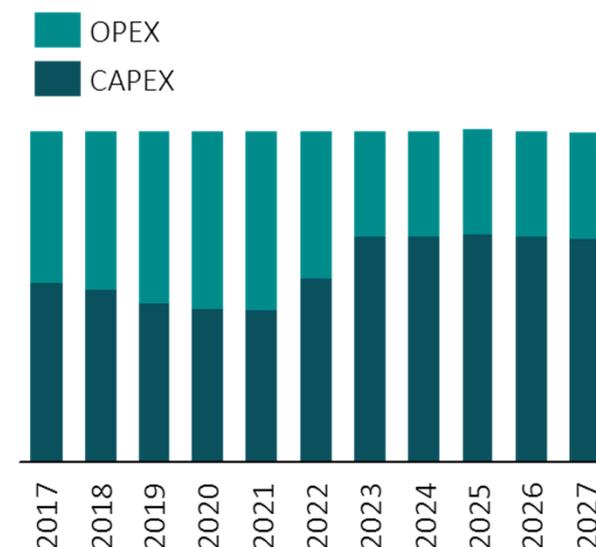
## Over recovery:



## Forecasted flow:

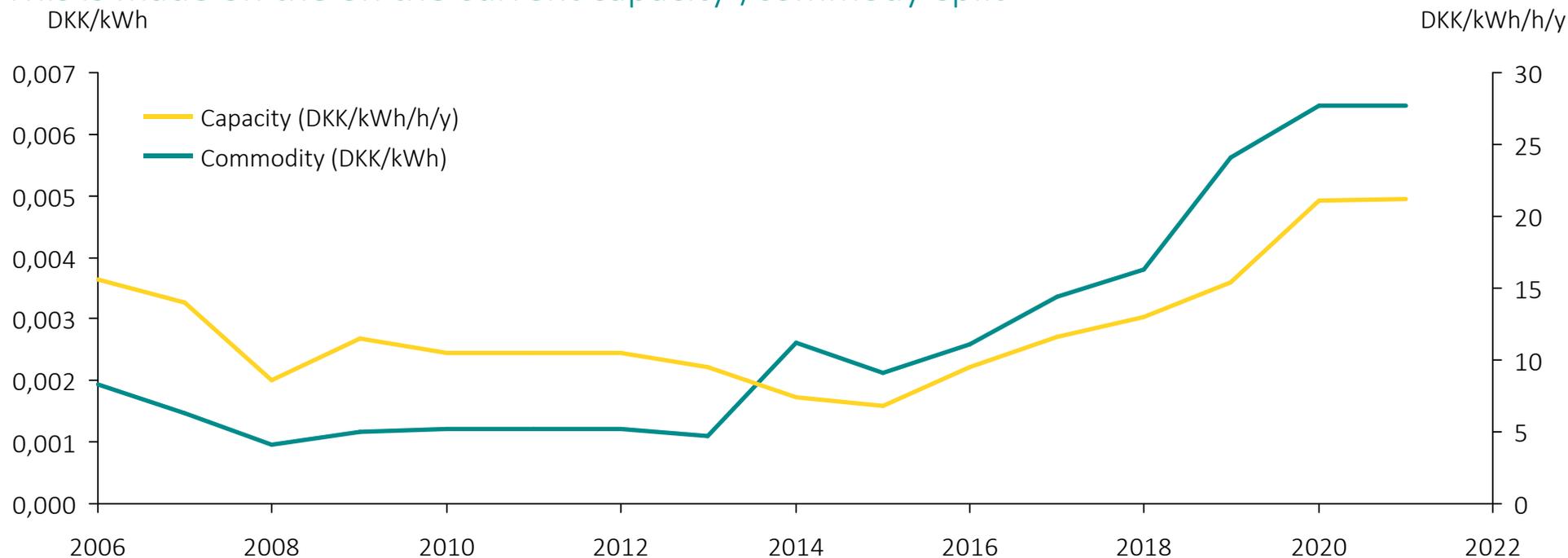


## Cost base:



# FORECAST

This is made on the on the current capacity-/commodity-split



NOTE: All information in are indicative and subject to approval by DERA and Energinet board.

# QUESTIONS

Nina Synnest Sinvani

Contact Tlf.: +45 2333 8902, mail: [nsy@energinet.dk](mailto:nsy@energinet.dk)



# BALTIC PIPE STATUS ON OPEN SEASON

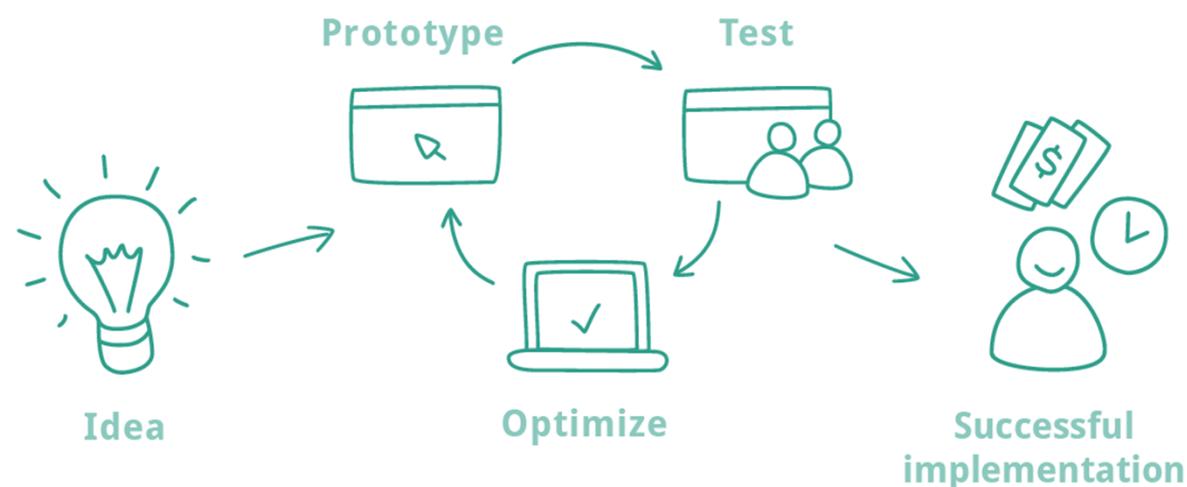
Shippers' Forum 7 December 2017



# THE OPEN SEASON 2017

On 7<sup>th</sup> December 2016 Energinet and GAZ-SYSTEM have launched the consultations of the Open Season documents.

Today, we are please to announce that the process is almost finalized and we have made a huge step forward in the Baltic Pipe Project implementation.

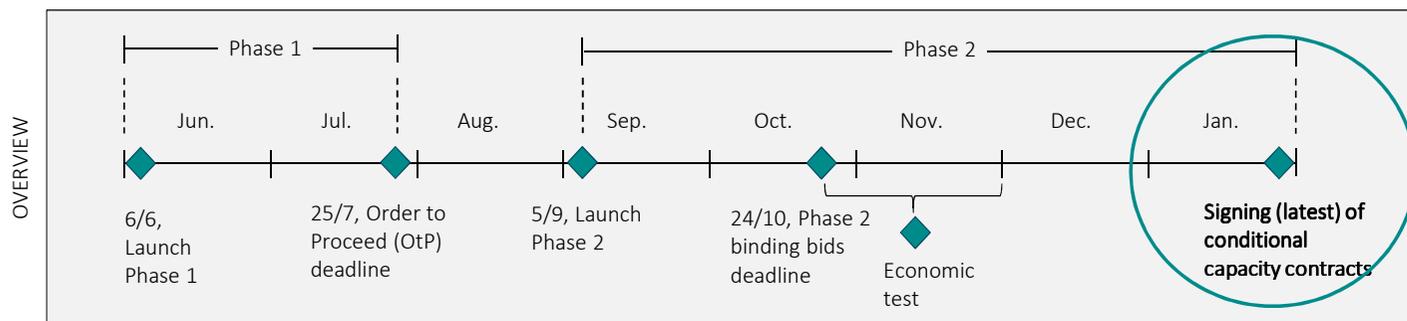


# THE OPEN SEASON 2017

Phase 1, Phase 2 and Economic Test are finalised  
 Last step is the contract signing

## Open Season Phase 1

## Open Season Phase 2



## FOCUS ON THE ECONOMIC TEST

Energinet and GAZ-SYSTEM were obliged to assess the economic viability of the project, and both operators achieved a positive result

- Polish ERO has approved the parameters for the Economic Test for GAZ-SYSTEM and determined the f-factor on 28 August, in accordance with the CAM NC
- Danish DERA approved the parameters for the Economic Test for Energinet and determined the f-factor on 28 November, in accordance with the CAM NC
- Hereafter both TSO's could perform the Economic Test based on the received bookings
- The Economic Test was positive for Energinet and GAZ-SYSTEM



# HOW MUCH CAPACITY HAS BEEN BOOKED?

Points offered – direct (bidirectional) access to Eastern European markets:

- A. North Sea Entry Point (Gassled/Energinet) (NO-DK)
- B. Interconnection Point: Interconnection Point Baltic Pipe (Energinet.dk/GAZ-SYSTEM) (DK-PL) (PL-DK)

Total booked capacity:

- North Sea Entry Point (NO-DK): 10,600 MWh/h
- Interconnection Point Baltic Pipe (DK-PL): 10,600 MWh/h
- Interconnection Point Baltic Pipe (PL-DK): 0 MWh/h



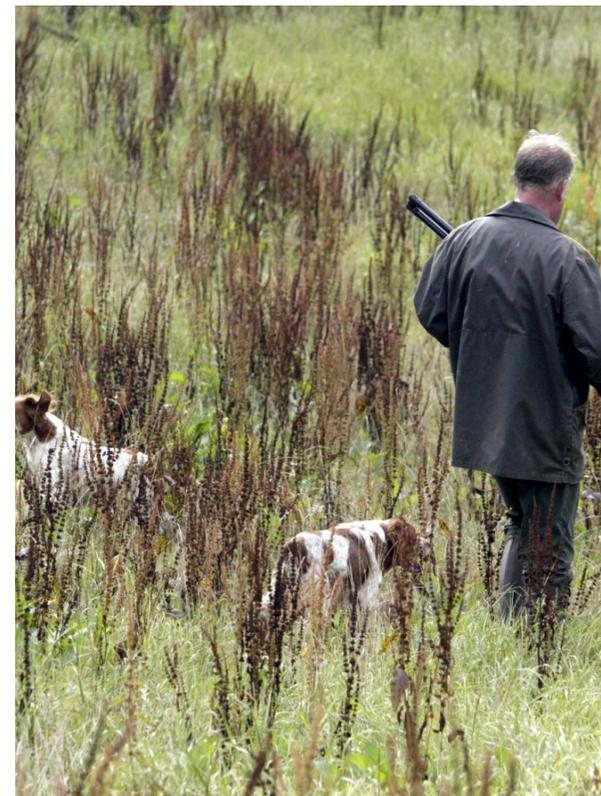
## END OF HUNTING?

GAZ-SYSTEM and Energinet conducted a procedure in which 90 per cent of the available technical capacity of the Baltic Pipe Project was made available.

10 per cent of the planned technical capacity has been reserved for a short-term products. It is expected that this capacity will be offered as part of regular auctions conducted by Energinet and GAZ-SYSTEM in accordance with the NC CAM regulation.

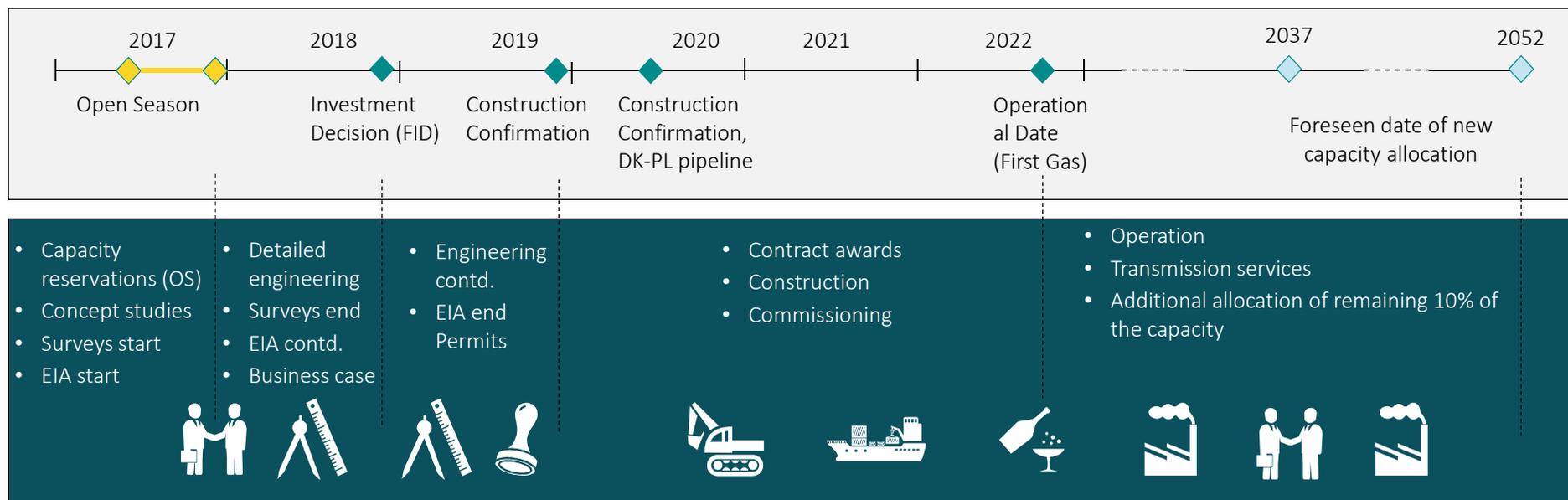
The same applies to the long-term capacity offered, but not allocated, as part of the 2017 Open Season.

All Shippers are welcomed to participate in the Baltic Pipe Project at later stage.



# BALTIC PIPE PROJECT - MILESTONE OVERVIEW

The business case and the FID will be based on Open Season capacity reservations and conceptual study costs. Once all permits are in place, construction will begin and the project will deliver First Gas in 2022



# SHIPPERS INVOLVEMENT BEFORE START DATE

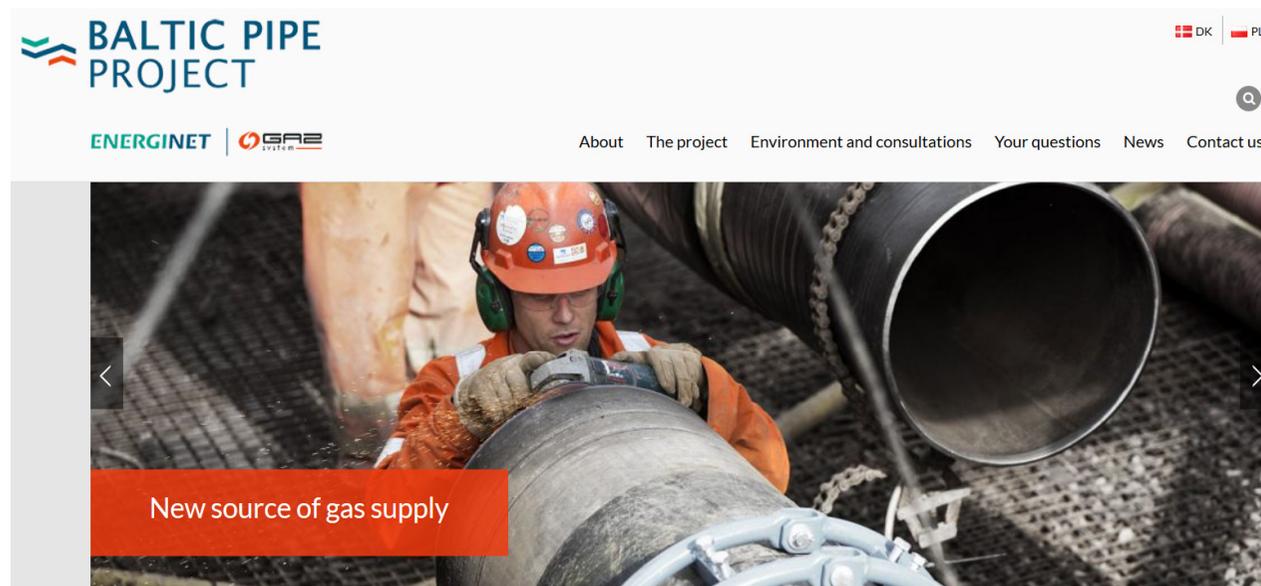
Energinet will regularly inform all market participants about the development of the Baltic Pipe Project prior to the Start Date

- Energinet will from Q1 18 host briefings about the development
- The briefings will be open for all market participants
- Following such briefings, OS 2017 capacity holders may have bilateral meetings with Energinet about the development if necessary
- The briefings are expected to take place once each quarter of the year



# NEW JOINT WEBSITE – AND COMMON LOGO

We are pleased to announce that our new website is now live: <http://www.baltic-pipe.eu>



Crossing borders for secure, affordable and sustainable energy

News

An abstract geometric pattern on the left side of the slide, composed of thin teal lines forming a complex network of interconnected triangles and polygons, resembling a stylized map or a network diagram.

# JOINT BALANCING ZONE

Status 7 December 2017

*Poul Johannes Jacobsen*

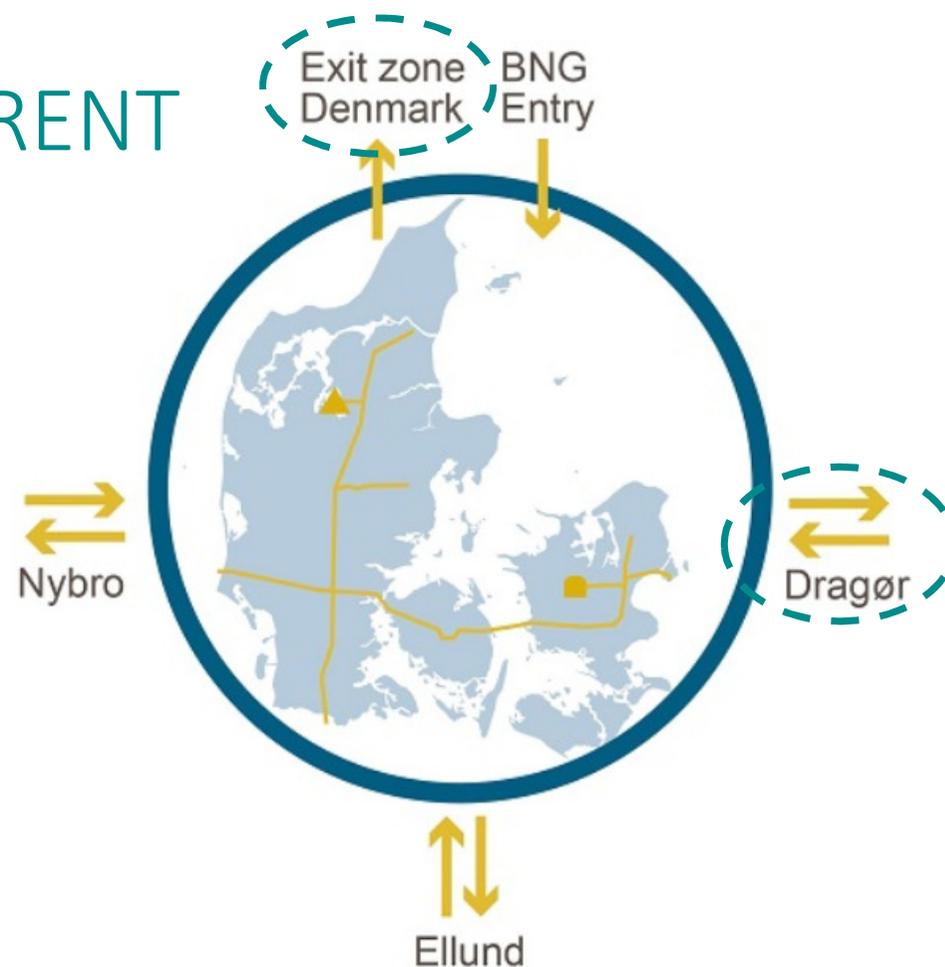
# CONTENTS

1. Market model - Changes
  - Tariffs
  - Impact on Shippers
2. Commercial Balancing
  - Impact on Shippers
  - Issues
3. Project Plan



# 1: MARKET MODEL - CURRENT

The current Danish Market Model



# 1: MARKET MODEL - NEW

## The new Danish Market Model

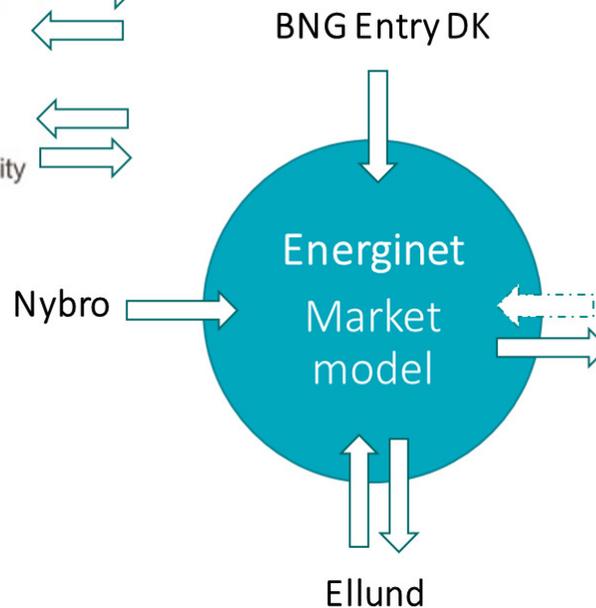
Collective Storage Point



Virtual points

GTF – Gas Transfer Facility

ETF – Exchange Transfer Facility



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

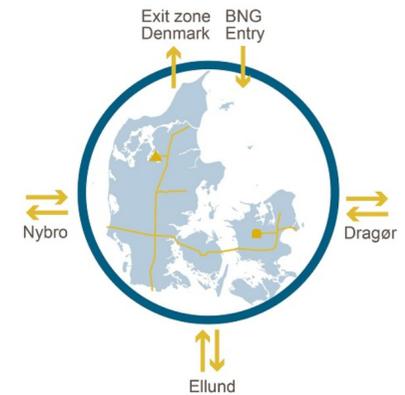
Virtual Exit Zone:

[Exit Zone SE\*]

[Exit Zone DK]

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

**ENERGINET**



# 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

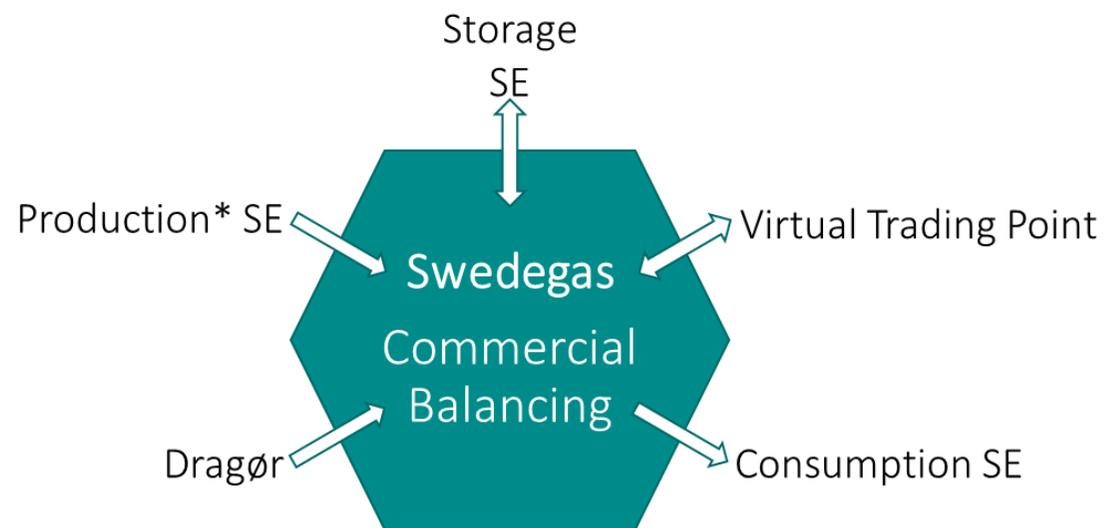
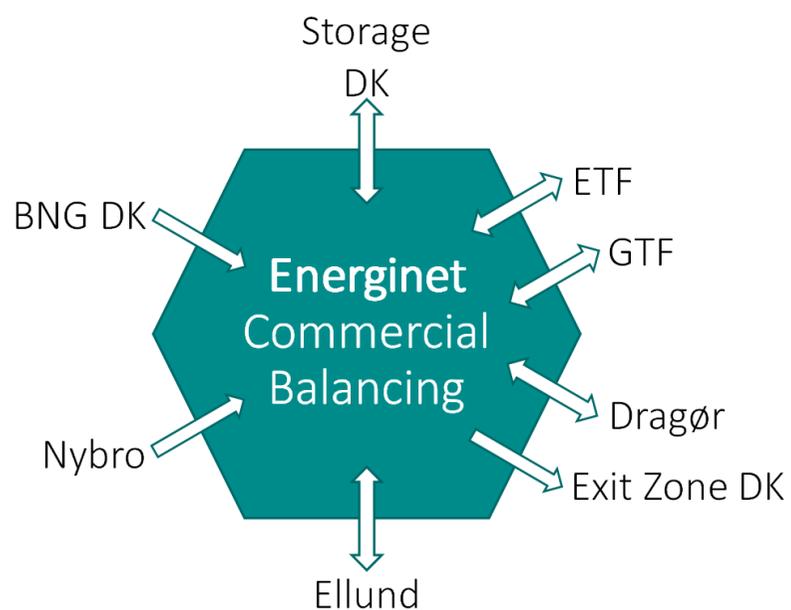
# 1: NEW MARKET MODEL – SHIPPER

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

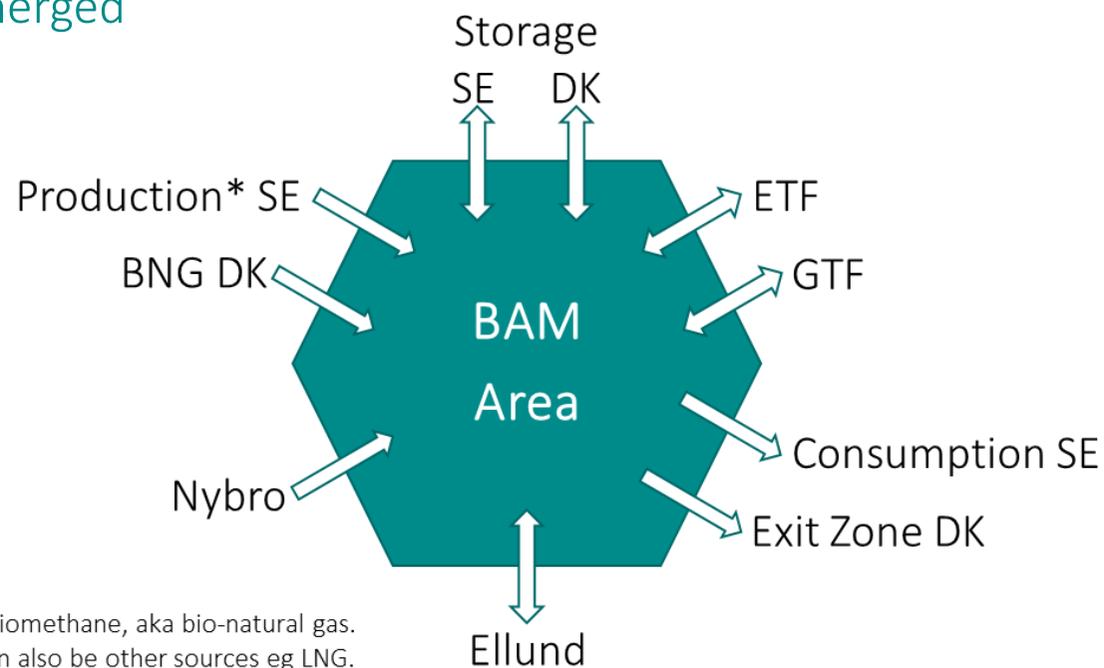


\*Today only biomethane, aka bio-natural gas. In future it can also be other sources eg LNG.

## 2: COMMERCIAL BALANCING - CHANGE

New Commercial Balancing under JBZ

The two systems from the previous slide are merged



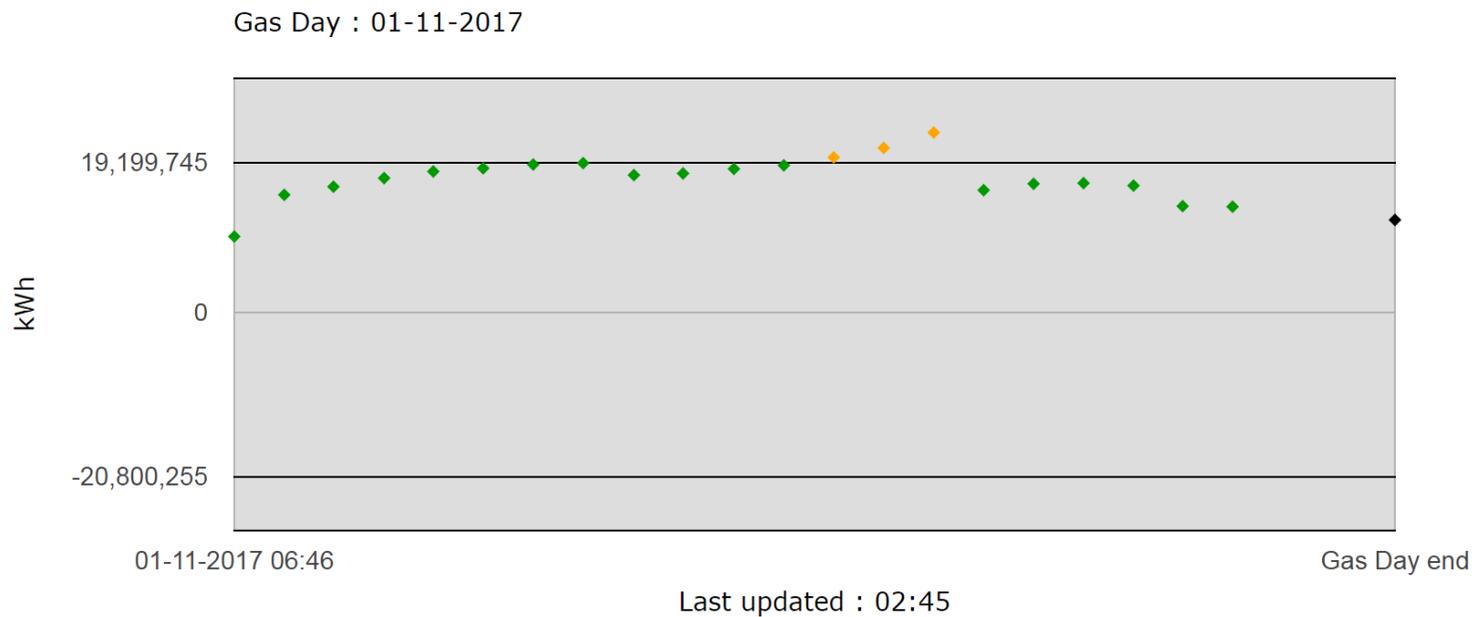
## 2: NEW COMMERCIAL BALANCING - COMMENTS

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

- The Shippers currently active in the **Danish** market 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 Shippers currently active in the **Swedish** market will 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

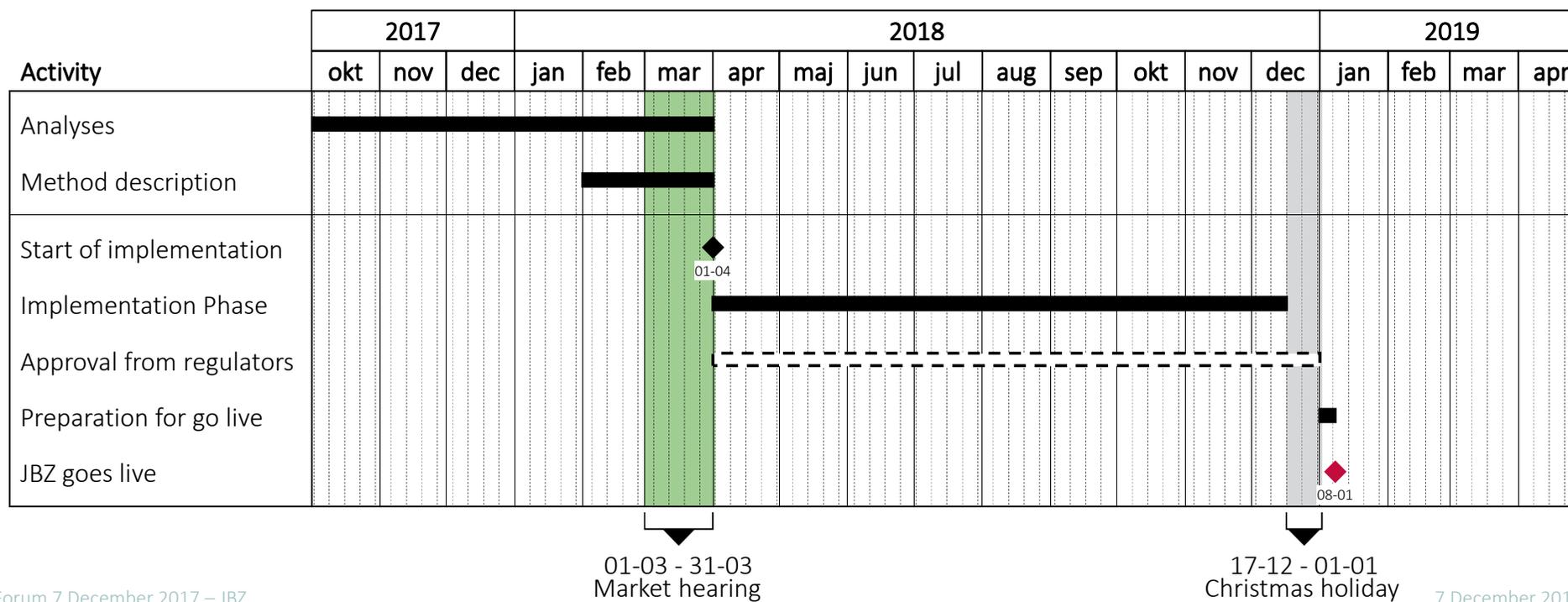
# 2: SYSTEM COMMERCIAL BALANCE CHART

Green, yellow and black



# 3: PRELIMINARY PROJECT PLAN

Project plan for the JBZ project



# QUESTIONS

Energinet

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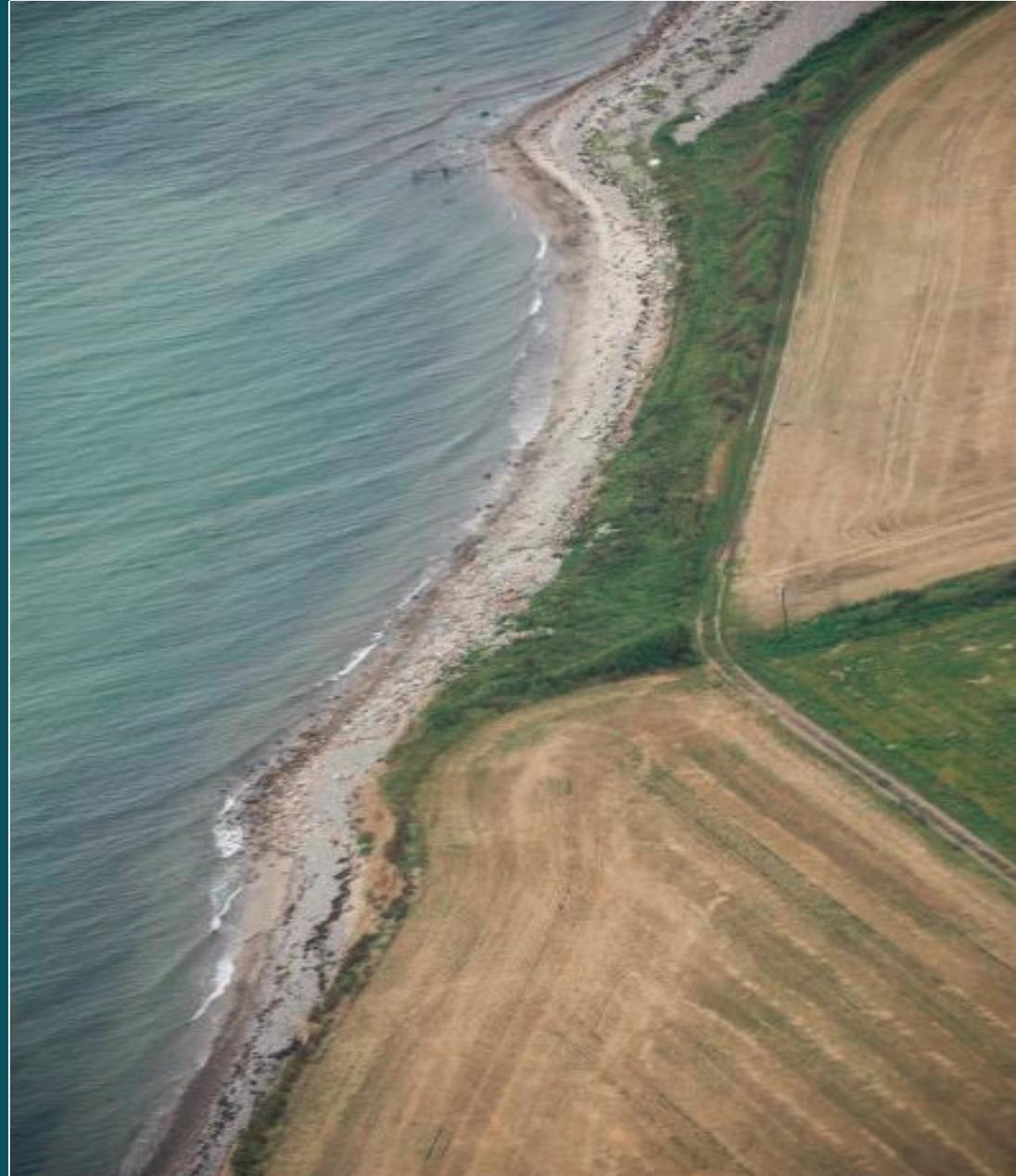
# ONE YEAR AFTER THE INTRODUCTION OF THE SNA

Focus on market development in the Danish  
gasmarket

*Julie Frost Szpilman*

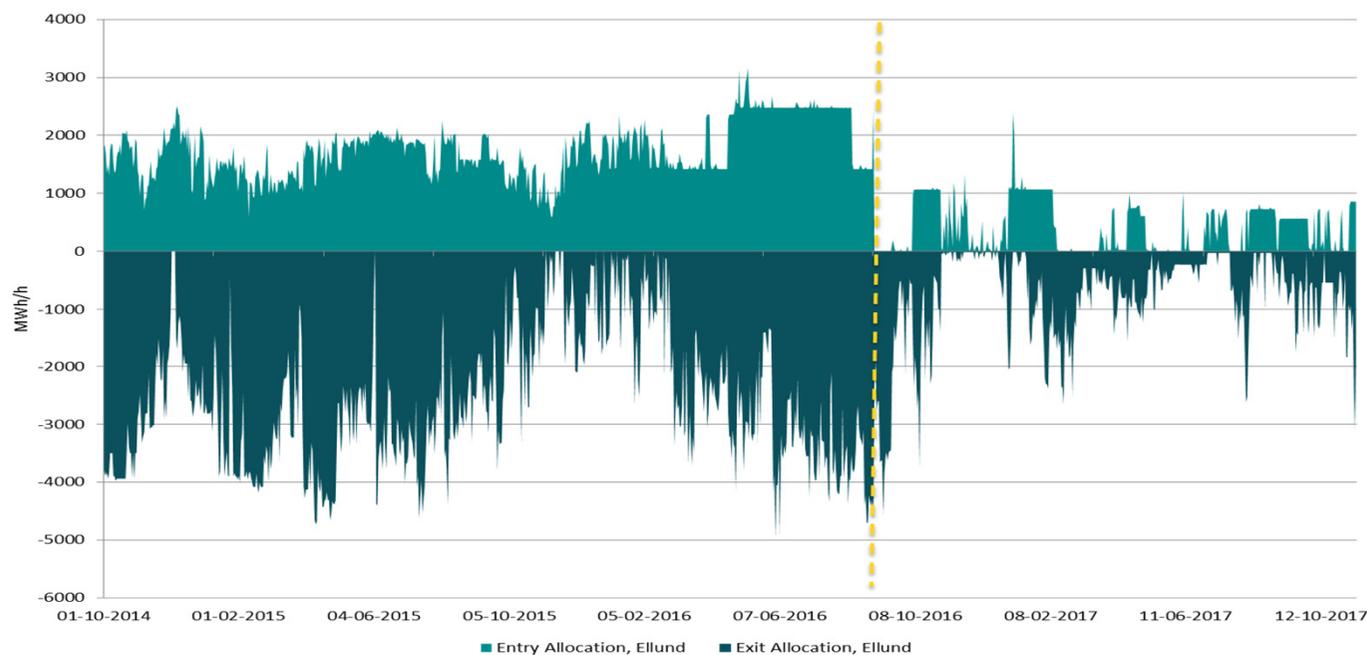
# WHAT IS SNA?

- SNA stands for "Special Nomination Arrangement"
- Introduced 1 September 2016
- Only relevant for interconnection points with commercial bottlenecks inside GUD. At the moment, only at Ellund
- If a shipper has long term bookings at GUD (from one quarter), the shipper can avoid the exit nomination by fixing the entry nomination the last Monday in the second month preceding the month of delivery
- This gives GUD the possibility to maximize the supply of firm capacity in the opposite direction



# WHAT IS THE EFFECT OF INTRODUCING SNA?

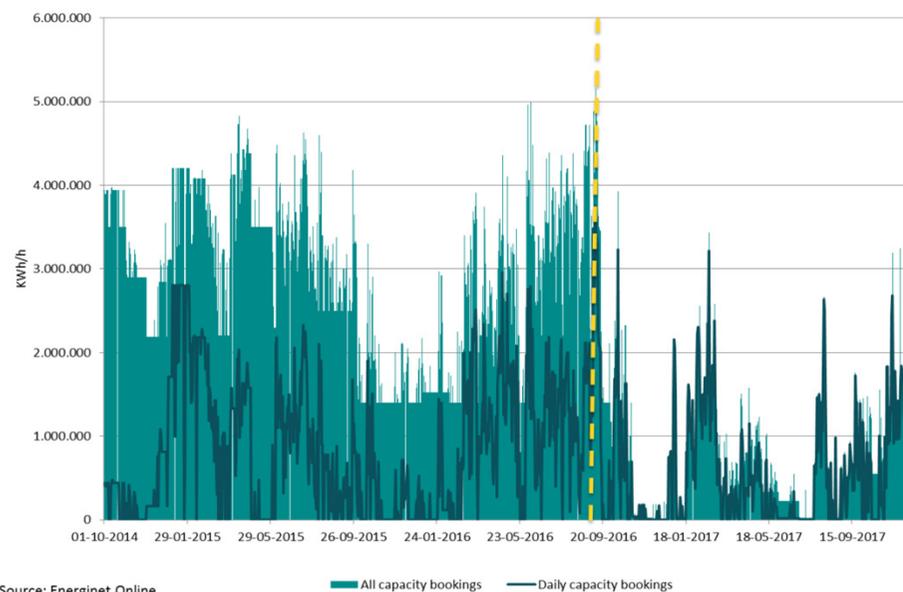
Since the introduction of the SNA, the interconnection point Ellund is less used



Source: Energinet Online

# SHORT TERM BOOKINGS NOW IN ELLUND

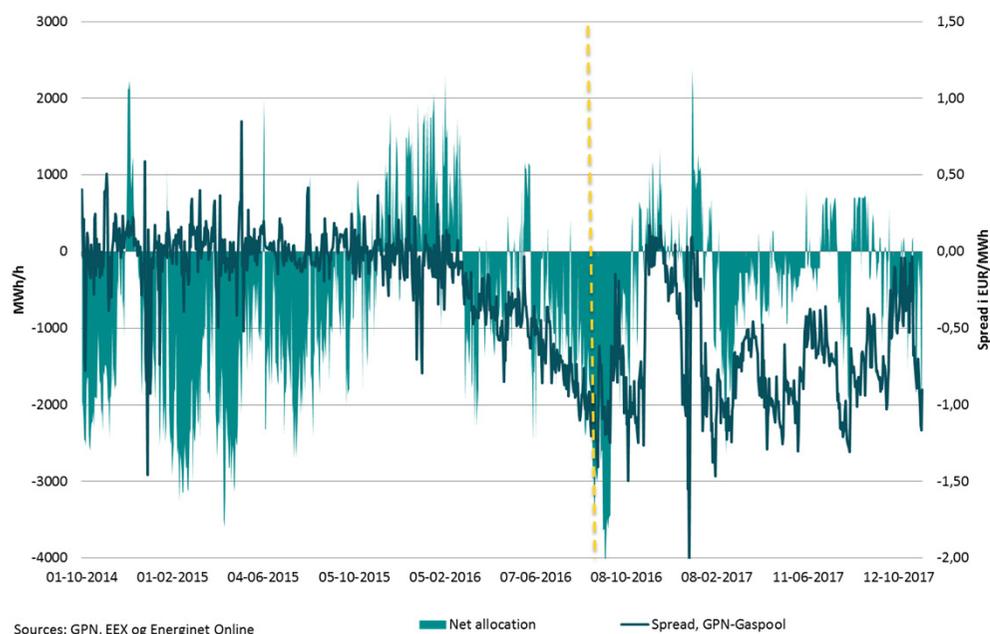
There has been a change in capacity bookings from long term to short term at Exit Ellund since the introduction of the SNA



- Since 1 September 2016, we mainly see daily capacity bookings
- It seems that the market only reacts on short term price signals

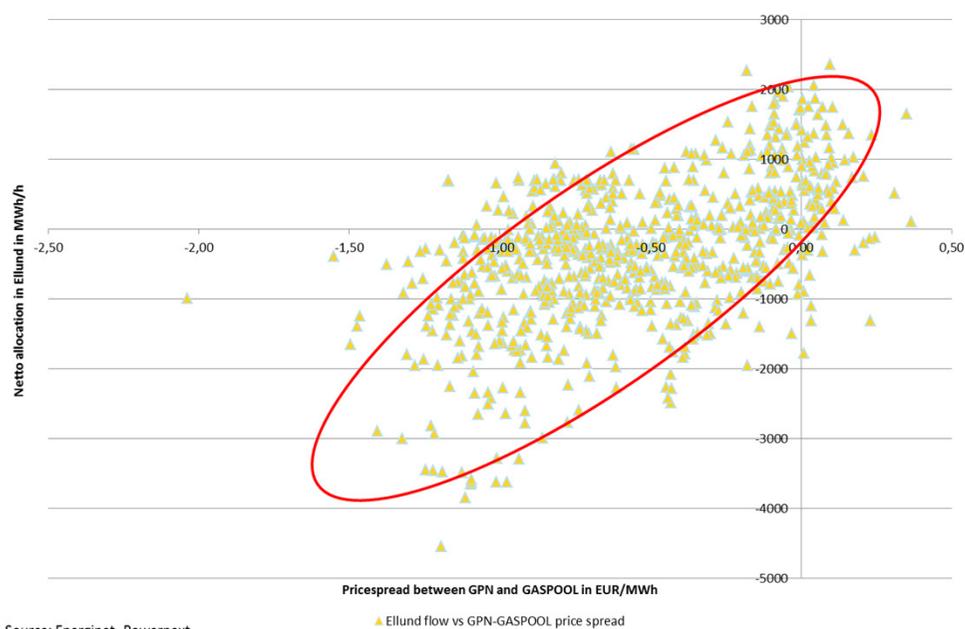
## NO BOTTLENECK GIVES "RIGHT" NET ALLOCATION

Both before and after the introduction of the SNA, the net allocation mostly follows the price spread between Gaspoint Nordic and GASPOOL



- There is plenty capacity southbound at Exit Ellund and Entry GUD
- Since January 2016, the price spread between Gaspoint Nordic (ETF) and GASPOOL has mainly been negative

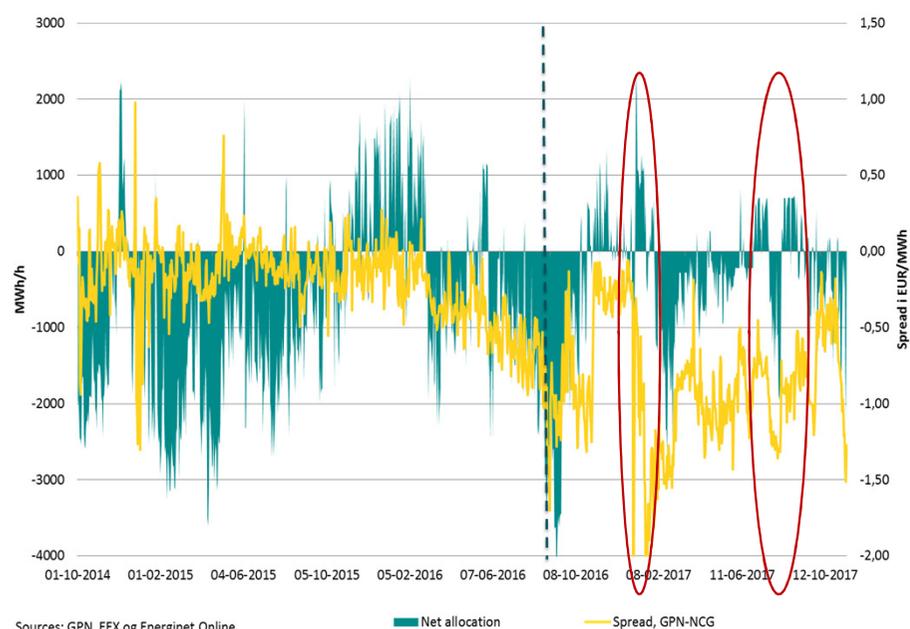
# THE MARKET REACTS TO SHORT TERM PRICE SIGNALS



Source: Energinet, Powernext

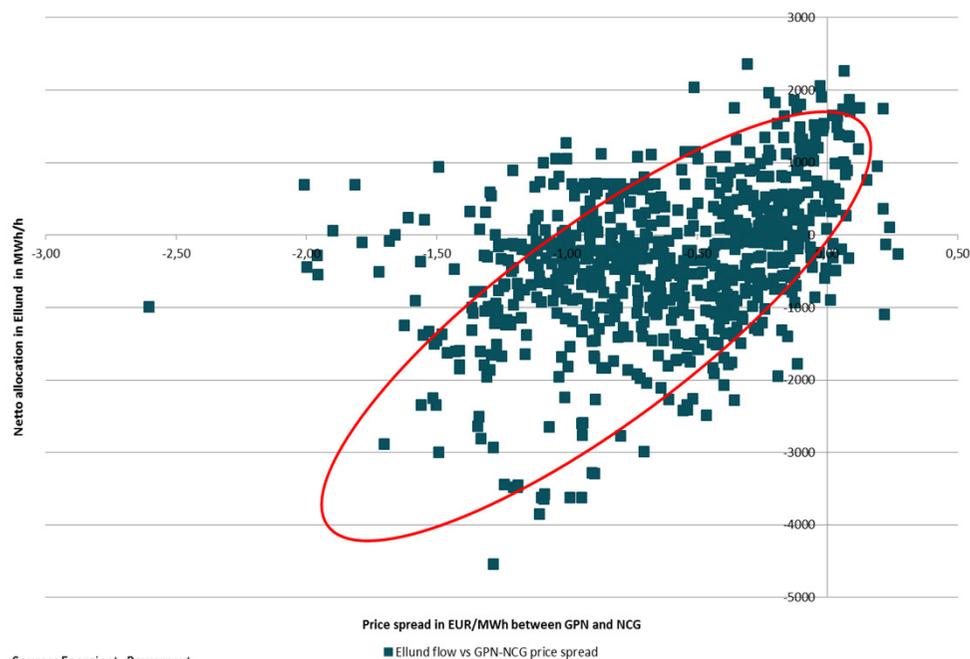
- The tariff for bringing gas out of Denmark and into GUD/Gaspool is currently around 1.1 EUR/MWh (capacity and volume) according to data from Energinet's website and the Transparency Platform.

# HIGHER PRICE SPREAD MAKES IT ATTRACTIVE TO SEND GAS TO NCG, BUT ....



- Due to internal bottlenecks between the two market areas in Germany, the price spread between Gaspoint Nordic (ETF) and NCG is higher than between Gaspoint Nordic (ETF) and GASPOOL
- The tariff to bring gas out of Denmark and into OGE/NCG is currently also around 1.1 EUR/MWh (capacity and volume) according to Energinet's and OGE's website

## ...LIMITED CAPACITY MAKES IT DIFFICULT TO REACT



- As the capacity between Exit Ellund and Entry OGE is limited, it seems that the market cannot always react to attractive price spread.
- Therefore we have some outliers

# WE LISTEN

Please feel free to come with comments  
and ideas to new market analysis

Contact:

Julie Frost Szpilman, [jfs@energinet.dk](mailto:jfs@energinet.dk)

Or

Clement Ulrichsen, [cju@energinet.dk](mailto:cju@energinet.dk)





# PEGAS Futures migration to EUREX's T7

*November 2017*

pegas is the gas trading  
platform of eex group,  
operated by powernext

# Content

1. Technical model
2. Member Connectivity
3. Product offering
4. Functionalities

The Pegas logo consists of a blue chevron symbol followed by the word "pegas" in a lowercase, sans-serif font. The "p" and "e" are blue, while the "g", "a", and "s" are purple.

> pegas

pegas is the gas trading  
platform of eex group,  
operated by powernext

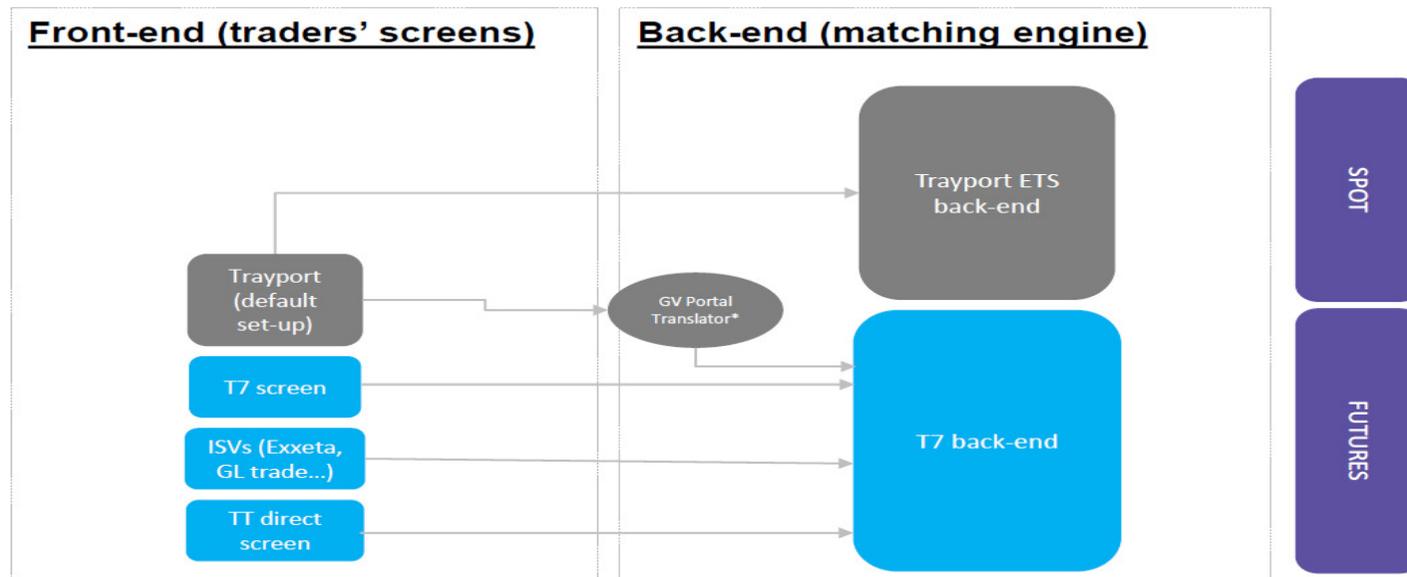
## Rationale for switching

- PEGAS Futures migration to T7 will ease the introduction of new products such as Options, which will be launched end February
- As an opened back-end system, T7 will facilitate the access to the gas market for some companies using various front-ends, bringing further liquidity to the PEGAS platform.
- It will also tighten the existing links between the PEGAS gas derivatives and the EEX power derivatives enabling them to be traded on the same platform, enabling common regulatory reporting solutions for customers, but also paving the way for products such as Spark spreads.

# Technical model when migrating to T7

As of December 8<sup>th</sup>, 2017

- PEGAS Futures back-end will switch to T7
- Traders will still need to use Trayport as a Back End to connect to PEGAS Spot markets
- Traders can also continue to use Trayport as Front End to connect to PEGAS Futures markets (especially to have all PEGAS products on the same screen), but can also use other frontends (T7, TT, or any allowed ISV)



# Member connectivity

## Connectivity impact for Spot only members :

- No changes for Direct Screen or TGW users.
- PEGAS Futures prices only available for Joule Direct users connected through GV Portal.

## Connectivity impact for Spot and Futures members :

- Direct Screen users need to switch to Joule Direct before go-live.
- No changes for TGW users except the “Broker code”.
- Possibility to use a different front-end but only for Futures.

## Connectivity impact for Futures only members :

- Direct Screen users need to switch to Joule Direct before go-live.
- No changes for TGW users except the “Broker code”.
- Possibility to use a different front-end.

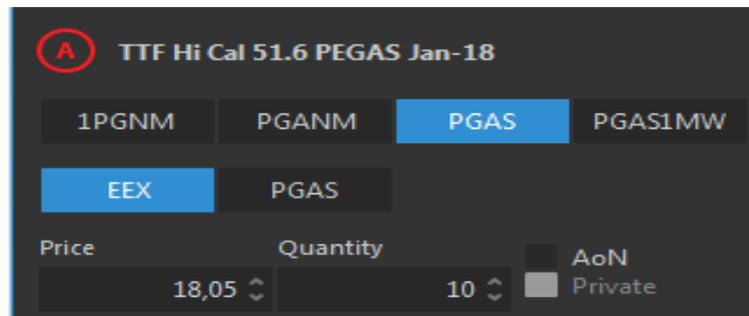
# Screen changes (1)

- For the spot contracts, there will be no changes
- For the futures contracts, the broker code to trade on PEGAS will be EEX.
  - Standard PEGAS contracts (Regulated market)
    - will be tradable with the PEGAS venue and the EEX code
    - will be tradable with the PEGAS venue and any broker code (for the OTC clearing stack)
  - Non-MTF and soon OTF products:
    - will be traded under the PGANM venue and the EEX broker code
    - will be tradable with the PGANM venue and any broker code (for the OTC clearing stack)
- Example of a screen:

		TTF Hi Cal 51.6*							
		Venue	Code	Qty	Bid	Ask	Qty	Code	Venue
↕	Mar-16	PGAS	EEX	30	12.050	12.100	30	TFS	PGAS
↕	DayAhead	PGAS	PGAS	30	12.050	12.100	30	PGAS	PGAS

# Screen changes (2)

The right image shows a full picture of all the PEGAS stacks and codes.



## Current view

	all other PEGAS hubs		WD only	CEGH VTP WD	
	Venue	Code		Venue	Code
SPOT	PGAS	PGAS		PGAWD	PGAS

Future (Rm)	PGAS	PGAS
Future 1MW (Rm)	PGAS1MW	PGAS
Future non-MTF	PGANM	PGAS
Future 1MW (non-MTF)	1PGNM	PGAS

	PSV	
	Venue	Code
Future Financial(Rm)	PGAS Fin	PGAS
Future Physical	PGAS Phys	PGAS
Future non-MTF	PGANM Phys	PGAS

## After T7 migration

	all other PEGAS hubs		WD only	CEGH VTP WD	
	Venue	Code		Venue	Code
SPOT	PGAS	PGAS		PGAWD	PGAS

Future (Rm)	PGAS	EEX
Future non-MTF	PGANM	EEX

	PSV	
	Venue	Code
Future Financial (Rm)	PGAS Fin	EEX
Future Physical (Rm)	PGAS Phys	EEX
Future non-MTF	PGANM Phys	EEX

# PEGAS Futures product offering (1)

## Gas Futures Outright

- **Additional maturities** will be introduced on all our delivery area.

	TTF	NCG	GPL	PEG Nord	TRS	ZTP	PSV	PSV Fin	CEGH	ETF	PXE	NBP	ZEE
<b>Month</b>	6	6	6	6	6	6	6	6	6	6	6	6	6
<b>Quarter</b>	11	7	7	7		7	7	7	7	7	7	7	7
<b>Season</b>	6	6	6	6		6	6	6	6	6	6	6	6
<b>Calendar</b>	6	6	6	6		6	6	6	6	6	6	6	6

*\* All Products will be available as Regulated Market and OTF (except PSV Fin)*

- **All products will be listed with 1 MW** or 1 MWh minimum quantity/volume tick (except for TRS, 10 MWh)
- **The Settlement Window** will be moved by 15 minutes (5:00 - 5:15 pm CET)
- **Settlement Prices** will be systematically computed for a standard batch of Products (corresponding to the existing PEGAS Futures offering before © 2017). For other tradable Futures contracts, Settlement Prices will only be computed for contracts with an open position

# PEGAS Futures product offering (2)

## Gas Futures Geographical Spreads

- Existing Spreads between delivery areas will be available for all listed Outright maturities, with a few exceptions at launch (see \*)
- Spreads between PEG Nord and MW quoted areas will not be available from the start by shall be introduced by mid-January

	NCG / TTF GPL / TTF PSV / TTF CEGH / TTF	GPL / NCG CEGH / NCG	CEGH / GPL	TRS / PEG Nord	PEG Nord / TTF PEG Nord / NCG PEG Nord / ZTP	PSV Fin / TTF PSV Fin / PSV	ZTP / TTF ZTP / NCG ZTP / GPL	ETF / TTF ETF / NCG ETF / GPL	ZEE / NBP	PSV / CEGH
<b>Month</b>	6	6	6	6	6*	6*	6	6	6	6
<b>Quarter</b>	7	7	7		7*	7	7*	7*	7	7
<b>Season</b>	6	6	6		6*	6	6*	6*	6	6
<b>Calendar</b>	6	6	6		6*	6	6*	6*	6	6

# PEGAS Futures product offering (3)

## Gas Futures Time Spreads

- At launch, Time Spreads will **be limited to 3 combinations** for each Product group :  
 ex: *M1xM2, M2xM3, M1xM3 for Month Futures, Q1xQ2, Q2xQ3, Q1xQ3 for Quarter Futures, etc.*
- Time Spreads shall **be extended to 6 combination** for each Product group around mid February.

## OTC Clearing

- Powernext's **OTC Web platform** will be maintained: <https://otc.pegas-trading.com/index.php>
- **Straight Through Process** (STP) technology will remain.
- Customer will also have access to **EUREX's Trade Entry Service system** (TES)

## Launch of Gas Options

- Following the T7 launch, it is planned to have Gas Options listed in February 2018

# Functionality changes with T7 (1)

## Order types and matching :

- “**Automatching**” of orders will be introduced, meaning that it will be possible to insert Limit Orders at the same price of an opposite order already in the orderbook. These orders will then be automatically matched
- “**All or none**” **functionality**, which enable a trading participant to prevent its orders from being partially executed, will not be available anymore after the migration to T7

## Functionality changes with T7 (2)

### Implied Spread transactions

- Venue Implied Prices: generated by the T7 back-end with guaranteed execution. Spreads are in “indirect aggression”: 1 deal on spread results in 2 trades.
  - Orders
    - A puts an ask on TTF at 10€
    - B puts an ask on NCG/TTF at 1€
    - C hits the implied order on NCG resulting at 11€
  - Transactions
    - B buys on TTF at 10€ from A
    - B sells at NCG at 11€ to C

### Special warning for Trayport users

- Trayport automatically generates locally on the Joule front-end implied prices that have a different behavior than the T7 generated implied:
- Trayport locally generated implied prices: generated by TGW – without guaranteed execution. Spreads are in “direct aggression”: 1 deal on spread results in 4 trades, with one being cancelled
  - Orders
    - A puts an ask on TTF at 10€
    - B puts an ask on NCG/TTF at 1€
    - C hits the implied order resulting at 11€
  - Transactions:
    - C BUYS the NCG/TTF from B at 1€ - cancelled
    - C SELLS the TTF to B at 10€
    - C BUYS the NCG from B at 11€
    - C BUYS the TTF from A at 10€

- **To Trayport users: We recommend you to use the Venue Implied Prices generated by the T7 back-end in order to benefit from the best service. Indeed, those implied prices have 2 advantages:**
  - the execution is guaranteed,
  - even if you are only allowed to trade on NCG, you will be able to trade implied prices coming from TTF. This is not possible in the case of native TGW implied prices.
- The PEGAS venue implied prices are displayed with the « EEX » Broker Code, while the locally generated implied prices of your Trayport front-end appears without any Broker code.

# Functionality changes with T7 (3)

## **Tradability**

- It will not be possible for Trayport users to differentiate the tradability of products. Everything will appear in red.
  - For traders who are active on all hubs or on the same hubs on broker screens and on PEGAS, the change will be minimal compared to today.
  - For your traders' comfort, we recommend you to align permissions between exchange and brokers trading on one given hub. The Powernext operation team will be at your service if you would like to quickly change some traders permissions.

## **Pre-trade Limits**

- Depending on the ISV you are using, some pre-trade limits may be available

## **Third Party Trading**

- Members will now be able to distinguish their activity type at the order level

## **Cross trading**

- As T7 does not prohibit a Member to enter two opposite-sides orders at the same price, self trading could be technically possible.
  - Possible to avoid trading between 2 traders of the same company on Trayport screen
  - Not possible today to avoid trading between 2 different companies
  - In case of unexpected self trading, market operations team can immediately cancel the deal

# Functionality changes with T7 (4)

## MIFID II compliance

- New fields for MiFID compliance on order entry
  - Algorithmic trading or not
  - Proprietary or Agent trading
  - Hedging transaction
  
- Transaction and position reporting done at group level

# Changes in the technical fee price list

## **Trayport users**

- No changes compared to today's price list.
- Spot and Futures traders will pay the same price

## **T7 users – Futures only**

- One single cost for Power and Gas (no additional costs for Gas Futures) but any access to the spot requires a Trayport license.

## **TT users – Futures only**

- One single cost for Power and Gas (no additional costs for Gas Futures) but any access to the spot requires a Trayport license.



Powernext SAS – Siège social  
5, Boulevard Montmartre 75002 Paris - SAS  
Registre du Commerce et des Sociétés de Paris n° 438.750.440 Capital 12 583 640 euros

pegas is the gas trading  
platform of eex group,  
operated by powernext

Thank you for your attention



We wish you a Merry Christmas and a  
Happy New Year 😊