

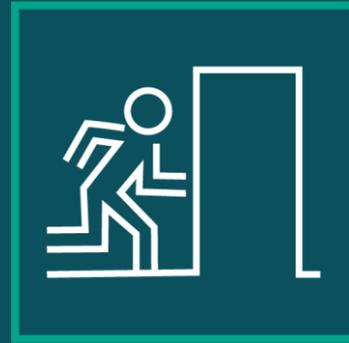


SHIPPERS' FORUM

15 September 2022



Safety Guide



Emergency Exits



Defibrillator



Gathering Point

PROGRAMME

13.00 Welcome – *Clement Johan Ulrichsen, Energinet*

13.10 Supply situation – *Christian Meiniche Andersen, Energinet*

13.25 Security of supply – *Jane Glindvad Kristensen, Danish Energy Agency*

13:45 BREAK

14.30 Baltic Pipe – *Christian Rutherford, Energinet*

14:55 Tariffs – *Nina Synnest Sinvani, Energinet*

15:05 New Back-end IT system Energinet – *Majken Willumsen, Energinet*

15:20 Recent developments in gas and hydrogen guarantees of origin – *Jeppe Bjerg, Energinet*

15:40 Final remarks – *Clement Johan Ulrichsen, Energinet*



WELCOME

Clement Johan Ulrichsen, Energinet

2022 – A YEAR OF CONSTANT CHANGE

MAJOR GAS MARKET DEVELOPMENTS



Record High Market Prices



Accelerated Biogas Production



EU Security of Supply



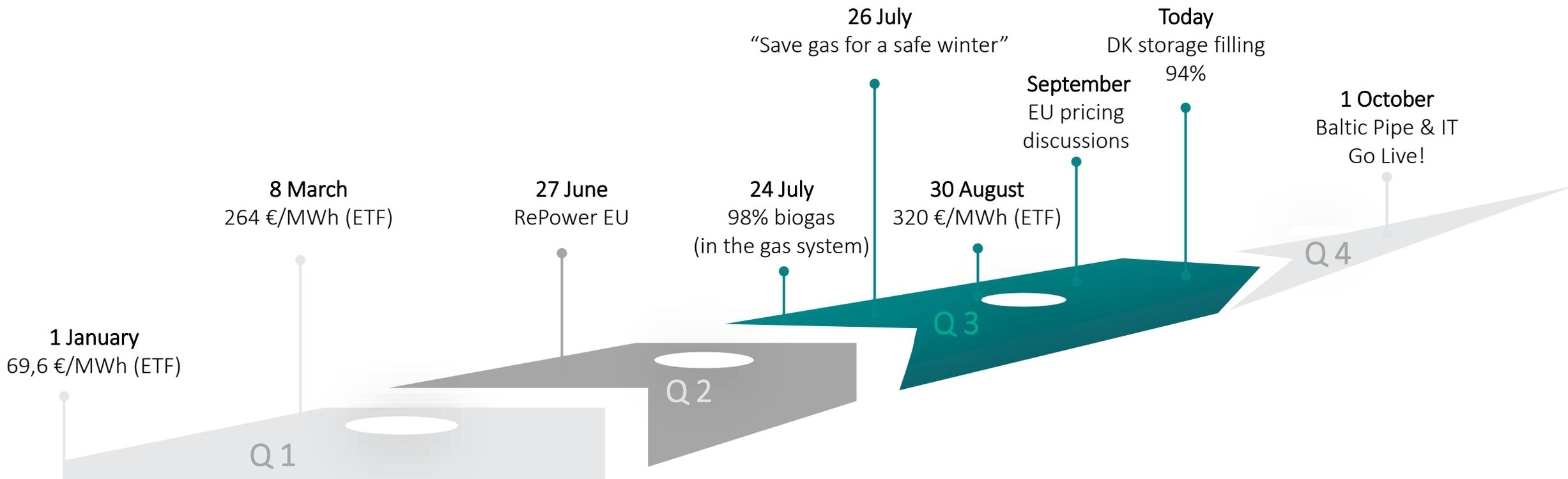
Gas Storage filled



Baltic Pipe



New Back-end IT



QUESTIONS



Contact: cju@energinet.dk



SUPPLY SITUATION

Christian Meiniche Andersen, Energinet

Topics



- European supply situation winter 2022/2023 and winter 2023/2024
 - ENTSOG yearly supply outlook
 - EU Storage filling
- Supply situation in Denmark 2022/2023
 - Tyra delay
 - Baltic pipe

EUROPEAN SUPPLY SITUATION WINTER 2022/2023 AND WINTER 2023/2024

*“Without immediate market/political reaction, most of the European gas storages would be depleted during the winter period and most Central Eastern European (CEE), North-Western (NW) and South-Eastern Europe (SEE) countries will not be able to fill storages during Summer 2023 to levels necessary to ensure security of gas supply for **Winter 2023/2024.**”*

[S00036-22 Yearly Supply Outlook 2022-2023 \(entsog.eu\)](#)



ENTSOG YEARLY SUPPLY OUTLOOK (JULY 2022)

“Additional LNG volumes available on the global market along with enhanced transmission capacities and optimised LNG terminal capacity utilisation can allow for an additional 12 billion cubic meters (bcm) (~130TWh) of imports in Winter 2022/2023, therefore reducing demand curtailment (provided they are available on the global market)”

“In the event of a mild winter, a demand reduction of approx. -15% ... and Member States cooperation would be required to mitigate the risk demand curtailment in EU countries. Furthermore, additional measures would be required to ensure sufficient storage inventory for Winter 2023/24.”



ENTSOG YEARLY SUPPLY OUTLOOK

2022/2023

STORAGE IN EU



EU have met the November target of 85% filling of storage but winter 2022/2023 and 2023/2024 is critical



Reduced EU demand and enhance supply to support a robust storage level end of winter 2022/2023



Avoid storage deterioration from year to year

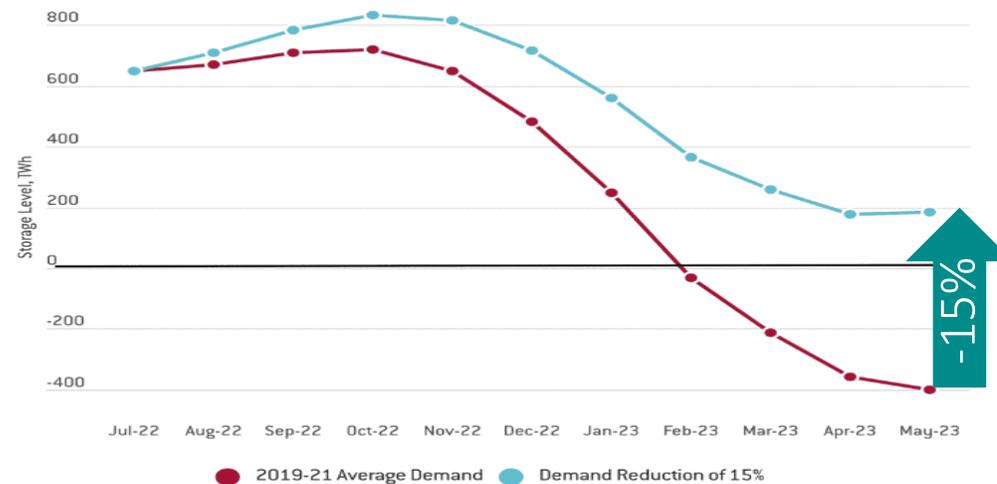
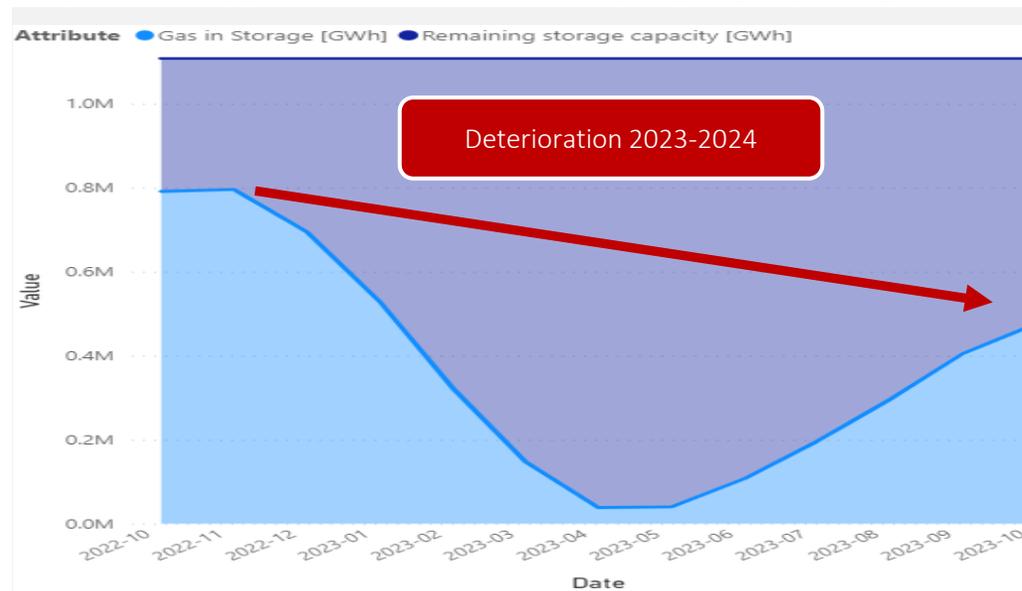


Figure 1: EU Storage/Demand scenarios without Russian gas imports (Bruegel, 2022)



DENMARKS' SUPPLY SITUATION 2022/2023

Infrastructure

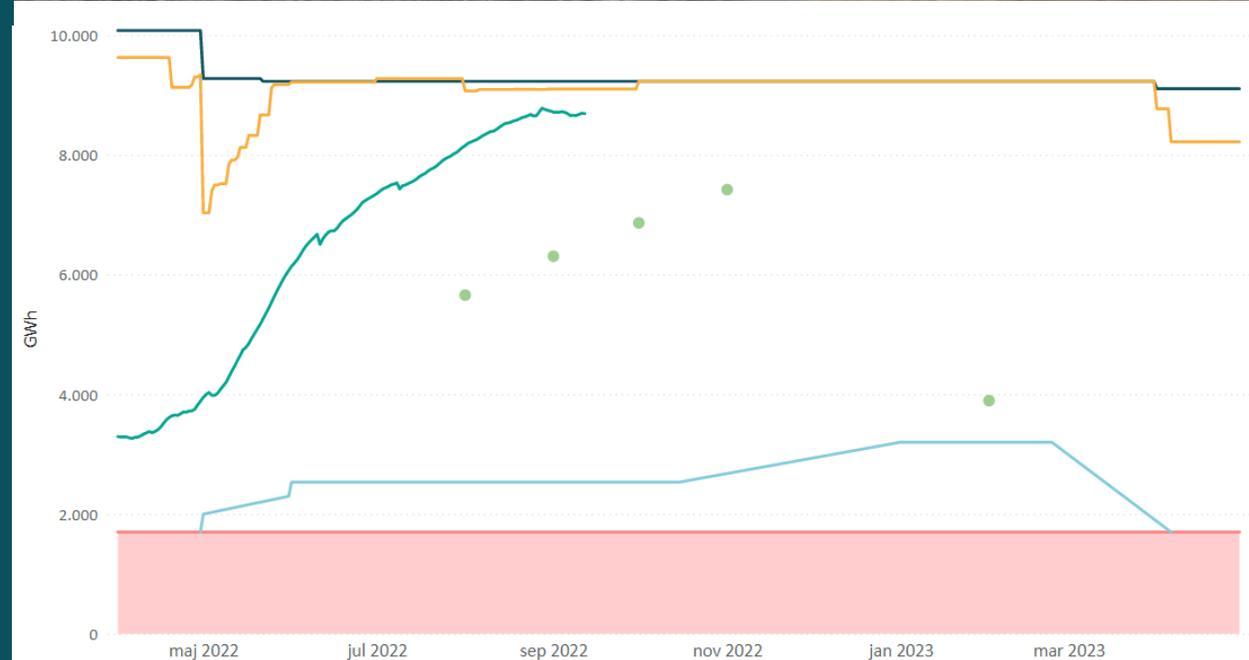
- Tyra-production – first gas winter 2023/2024
- Baltic Pipe brings Norwegian gas to Denmark and Polen 1. October

Storage

- Danish storage level is 94%
- Storage capacity is +90% booked for next storage year (2023/2024)

[CALL FOR TENDER TO SUPPLY INDIVIDUAL FILLING REQUIREMENTS | Energinet](#)

- Deadline for bid submission is 27 September 2022 at 12.30 (CEST).



SUPPLY SITUATION IN DENMARK 2022/2023

- Denmark is closely connected to Europe and shares a severe supply situation with little or no Russian gas
- Europe supply cannot meet demand without demand reduction even in a normal winter
- Even with a 15% demand reduction a cold winter could lead to supply disruptions in Europe

Security of supply relies on the market to act prior to a worsening of the European supply situation



QUESTIONS



Contact: can@energinet.dk



Gas Security of Supply

Shippers Forum
15 September 2022

Jane Glindvad Kristensen



THE SITUATION NOW

- Instability on energy markets and high energy prices.
- Solidarity in the EU and well functioning energy markets are key to energy supply.
- **Electricity:** High demand (extremely hot summer). Low supply (Hydro, nuclear and high gas prices). Neighboring countries are considering switching on coal plants as well as closing international connections.
- **Heat:** Shortage in some types of biomass
- **Gas:** Volatile market. Russia has reduced gas flows to the EU. No flow in Nord Stream 1.
- **Oil:** Stability. The Danish market will be supplied.

Message from the Energy Agency:

Stable energy supply today, but the situation is serious. The coming winter can be difficult. We expect that it is possible to supply all electricity and gas consumers throughout the winter – without curtailment – but everyone will have to save energy.



STATUS IN DENMARK

Gasflow to Danmark

- On 20 June 2022, Denmark declared Early Warning (the first crisis level) due to reduced gas flow from Nord Stream
- Denmark continues to import gas from Germany corresponding to demand (consumption + storage filling + export).

Upcoming commissionings:

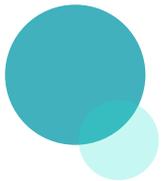
- The reopening of the Tyra field will be delayed by approx. six months until winter 2023/2024. Production from other sources may possibly increase, but the delay worsens the supply situation for the next winter.
- New pipeline transporting gas from Norway to Poland via Denmark. Partial capacity from 1 Oct. 2022 and full capacity on 1 Jan. 2023. Part of the capacity is available to Danish gas companies.

Biogas production

- Biogas production accounts for almost 30% of Denmark's gas consumption in 2022.
- Climate agreement on green electricity and heat 2022 advances and increases biogas production: second tender of 150 million DKK a year. Regulation of methane emissions from production.

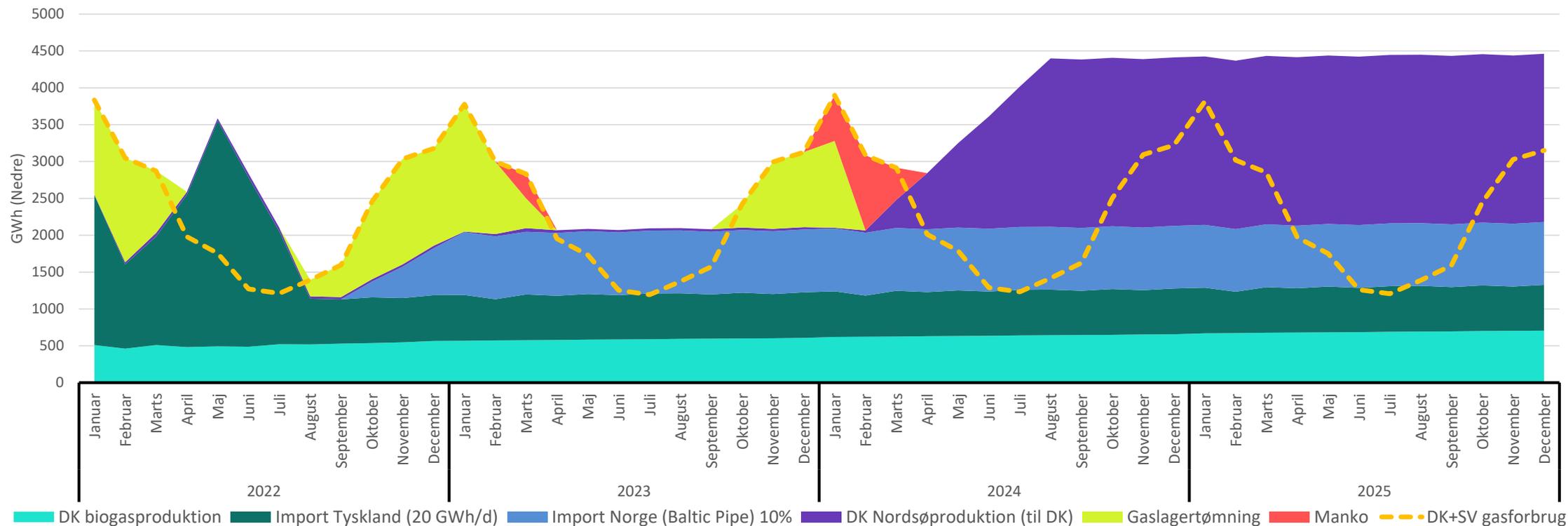
Gas storage

- The Danish storage is approx. 95% filled. Denmark met the EU's target for 1 Sept. 2022, where the requirement was 68% and is expected to meet the 80% requirement by 1 Nov. 22.



SCENARIO: EQUAL DISTRIBUTION AND REDUCED IMPORTS

Russia shuts off the gas





ACTIONS RELATED TO THE EMERGENCY PLAN

ENERGY SAVINGS

Campaign focusing on savings of gas consumption

UPDATE OF THE EMERGENCY PLAN

Adjustments to be able to handle EU Alert

Including how a 15% saving can be achieved

Deadline: 31. oct. 2022

NON-PROTECTED CUSTOMERS

Dialogue on critical consumption regarding the operationalization of the emergency plan

Dialogue on savings opportunities

NEW EMERGENCY PLAN

New emergency plan focusing on handling long-term crises

Deadline: march 2023



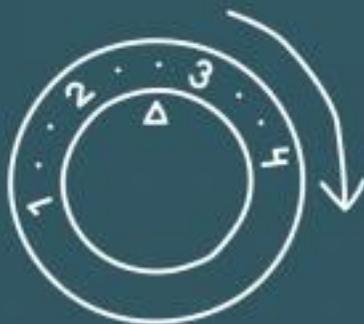
ENERGY SAVINGS



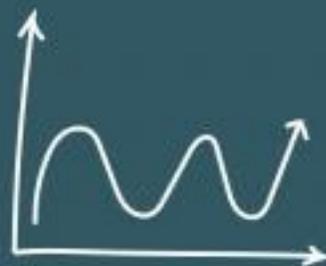
Spar på energien



Spar på
strømmen



Skru ned
for varmen



Brug strømmen,
når den er billigst



Begræns brug
af varmt vand

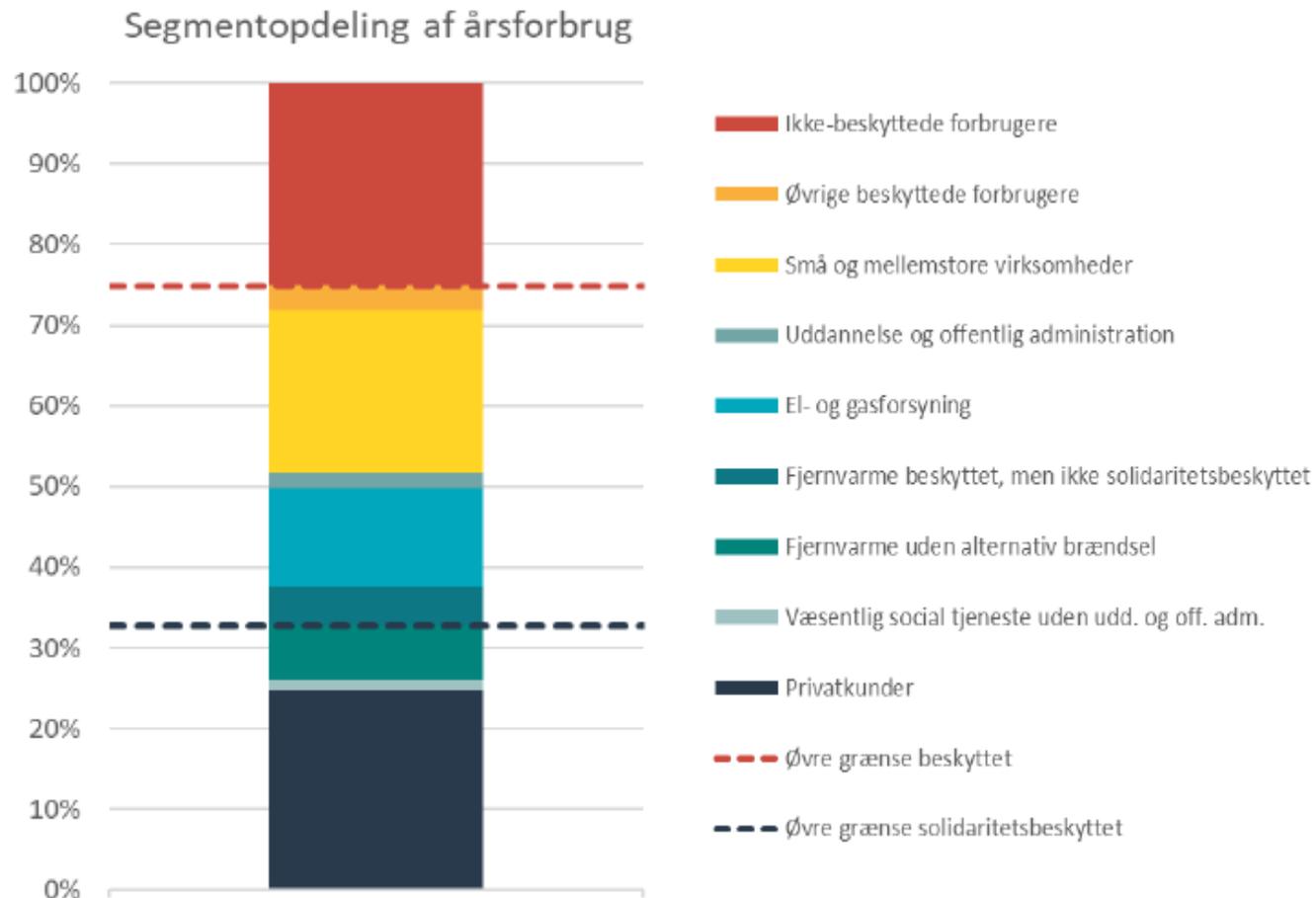
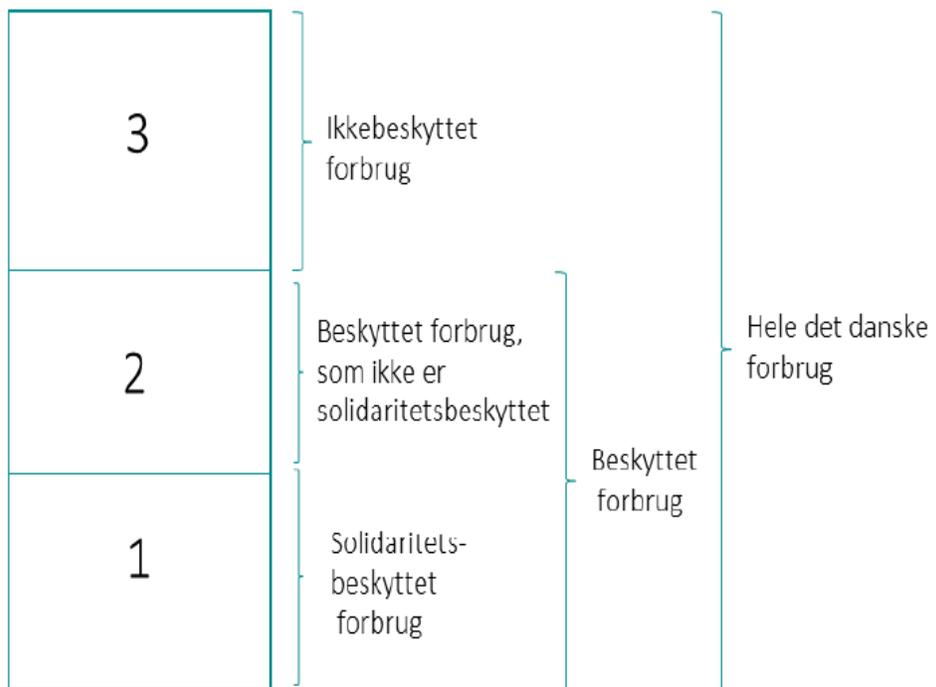


UPDATE OF THE EMERGENCY PLAN

- As a preventive measure, the EU calls for 15% savings in all countries
- New crisis level in gas: EU Alert
- The EU can demand savings in all countries in a Union Alert situation
- The EU has a very strong focus on the consequences of curtailment of industry for the industrial supply chains – in the individual countries and across countries. Economy, employment, security of supply
- The emergency plans must be updated and reflect the new Union Alert with market-based tools that can be used to reduce national gas consumption
- Deadline: 31 October 2022



PROTECTED AND NON-PROTECTED CUSTOMERS





NON-PROTECTED CUSTOMERS

Dialogue on minimum consumption, conversions, alternative supply etc

- Detailed knowledge on the minimum need for gas among non-protected customers in an emergency situation.
- Addendum to the emergency plan
- Deadline in november



NEW EMERGENCY PLAN

Includes the above mentioned initiatives, but it will also include:

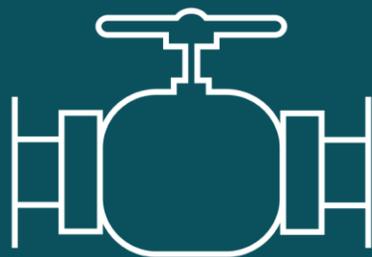
- Clear distinction between technical incident and volume incident
- Dialogue with market actors – shippers and suppliers
- Storage
- Deadline: March 2023



Tak for i dag

BREAK



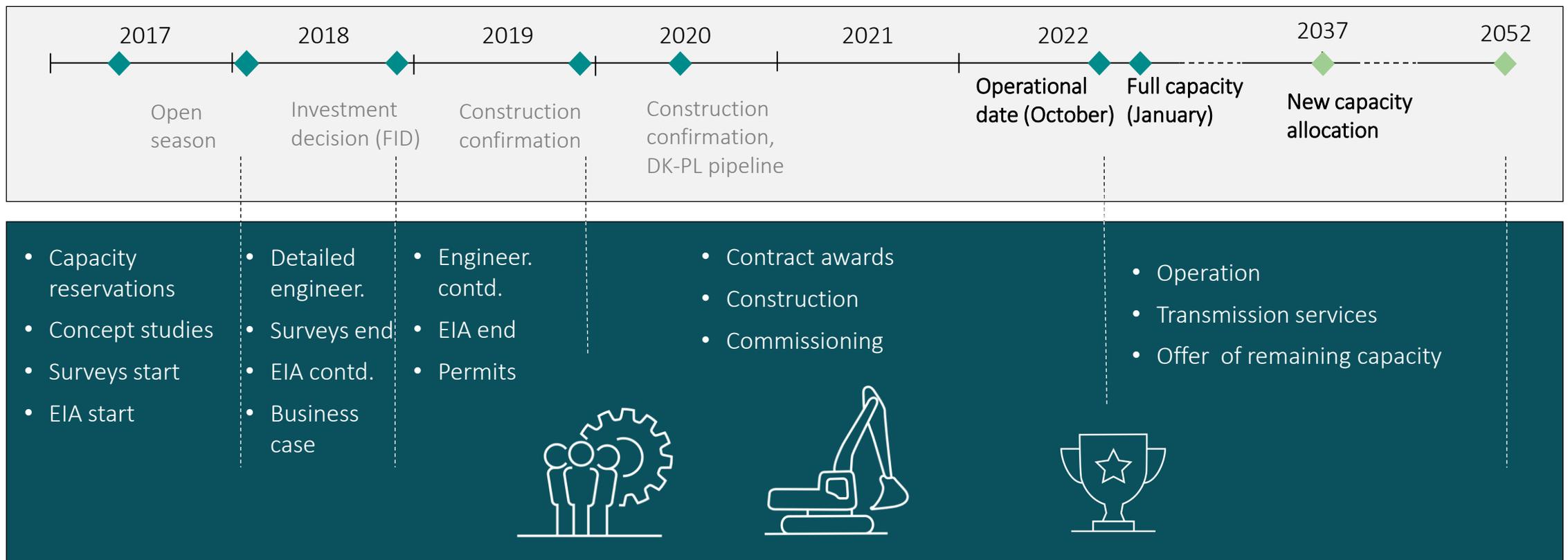


BALTIC PIPE IS MOVING ON

Christian Rutherford, Energinet

BALTIC PIPE PROJECT – CLOSE TO OPERATION

Half a month before we reach 1 October 2022



BALANCING – TEST AND MESSAGES

Status on test, data and nomination guide

Test status:

- Possible to test towards Virtimo (TEST)
- Possible to test message types:
- NOMINT, ACNOW, NOMRES, IASB and allocations
- Test is possible until 22 September

Data for Individual Accumulated Shipper Balance (IASB):

- Energinet is working on creating a data set example for the IASB
- Will be announced via Gas News when ready

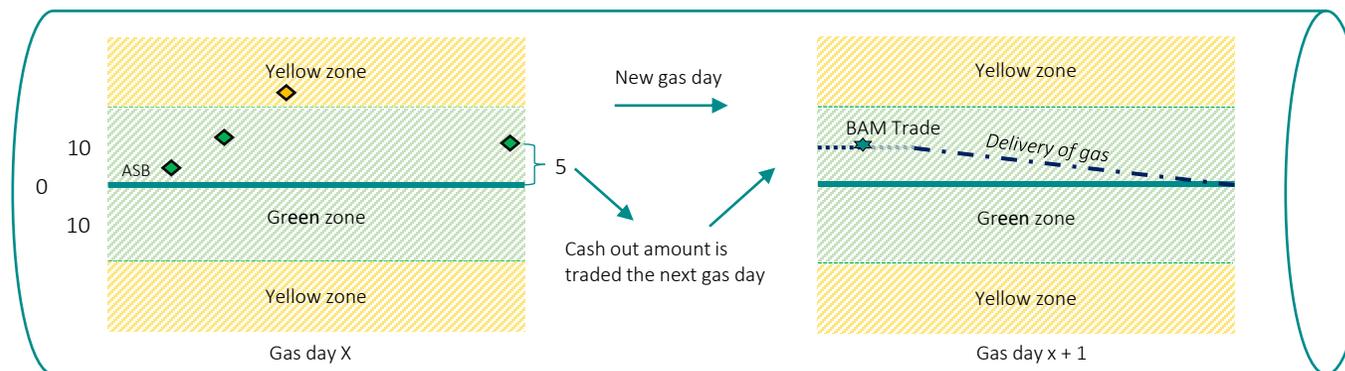
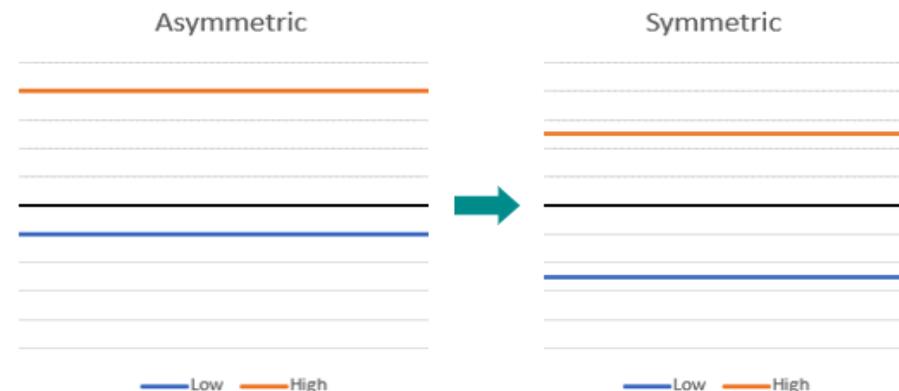
Nomination guide:

- Nomination guide has been updated: [Secure Communication | Energinet](#)
- Message for S-max and new table for nominations towards Nordion has been added
- Plus other minor updates

BALANCING - GREEN ZONE AFTER 1 OCTOBER

Symmetric green zone will result in larger trading activity by the Balance Area Manager (BAM)

1. Asymmetric green zone removed
2. Symmetric green zone introduced
3. Supports the market, especially in the first hours
4. Cash-out amount will be traded on the next gas day within-day (outside yellow zone trading window)
5. BAM will trade every day before noon

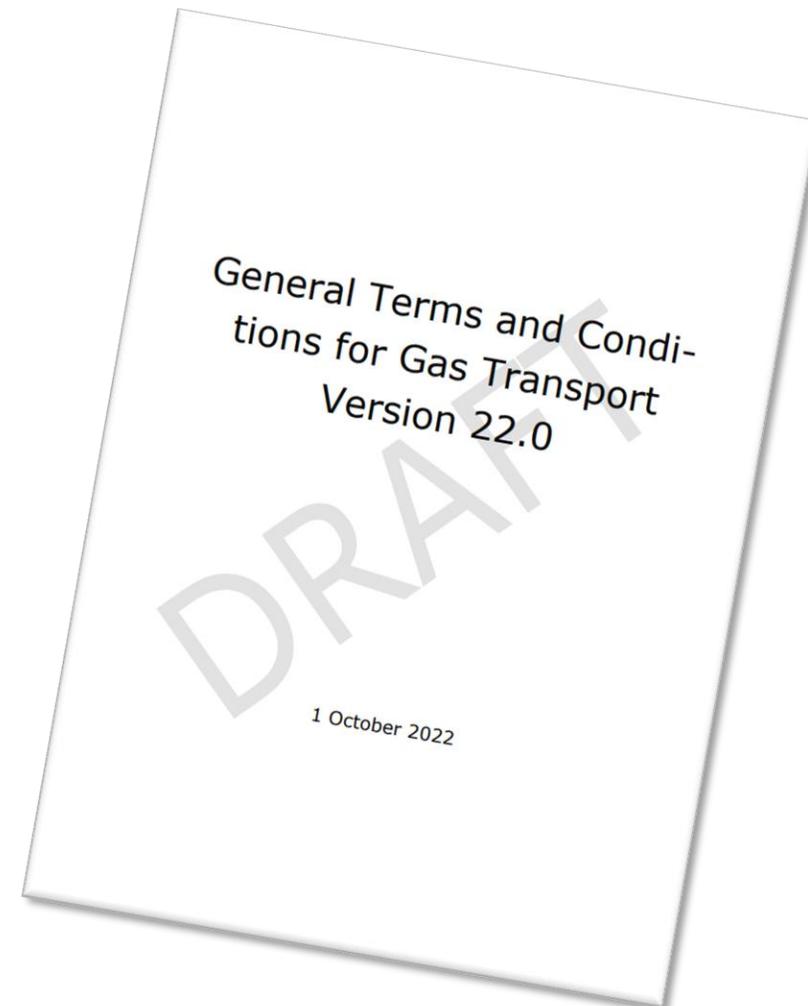


GENERAL TERMS & CONDITIONS FOR GAS TRANSPORT 22.0

Effective 1 October 2022

Significant changes:

- Register of Players will be maintained manually in the near future
- All capacity will be marketed at either the PRISMA or the GSA platform – both auctions and first come first serve (FCFS)
- Minor changes to capacity periods and deadlines for FCFS
- Changed manual procedure for capacity booking
- New balancing model introduced
- Distribution system operator data obligation in terms of DMS introduced
- Commodity charge and balance charge discarded
- All capacity assignment and transfer moved to either the PRISMA or the GSA Platform



GENERAL TERMS & CONDITIONS FOR GAS TRANSPORT 22.0

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 - Minor changes to Capacity periods and deadlines for FCFS
 - Changed manual procedure for capacity booking
 - New balancing model introduced – see separate presentation
 - DSO data obligation in terms of DMS introduced
 - Commodity Charge and Balance Charge discarded
- Capacity for FAXE will be marketed at the GSA Platform. All other capacity will be marketed at PRISMA.
 - Capacity assignment and transfer thereby also moved to either the PRISMA or the GSA Platform

GENERAL TERMS & CONDITIONS FOR GAS TRANSPORT 22.0

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 - **Minor changes to capacity periods and deadlines for FCFS**
 - Changed manual procedure for capacity booking
 - New balancing model introduced
 - DSO data obligation in terms of DMS introduced
 - Commodity charge and balance charge discarded
- All point offered as FCFS will follow the same capacity periods and deadlines
 - Possibility for an annual product to commence the first gas day of any given month
 - Quarterly product to commence on either the first gas day of January, April, July or October

GENERAL TERMS & CONDITIONS FOR GAS TRANSPORT 22.0

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 - Minor changes to Capacity periods and deadlines for FCFS
 - **Changed manual procedure for capacity booking**
 - New balancing model introduced – see separate presentation
 - DSO data obligation in terms of DMS introduced
 - Commodity Charge and Balance Charge discarded
- Manual capacity booking only possible in the event of IT disruption
 - For manual booking of capacity please send an email to kontrolcentergas@energinet.dk
 - Email must be sent by a capacity user

GENERAL TERMS & CONDITIONS FOR GAS TRANSPORT 22.0

Effective 1 October 2022

Following appendices discarded:

App. 6b-F Online Access Agreement

- Only Shippers will have access to the new Energinet Online Portal

App. 7 – Capacity Order

- Process for manual capacity booking changed
- For manual capacity booking send email to kontrolcentergas@energinet.dk
- Email must be sent by a capacity user

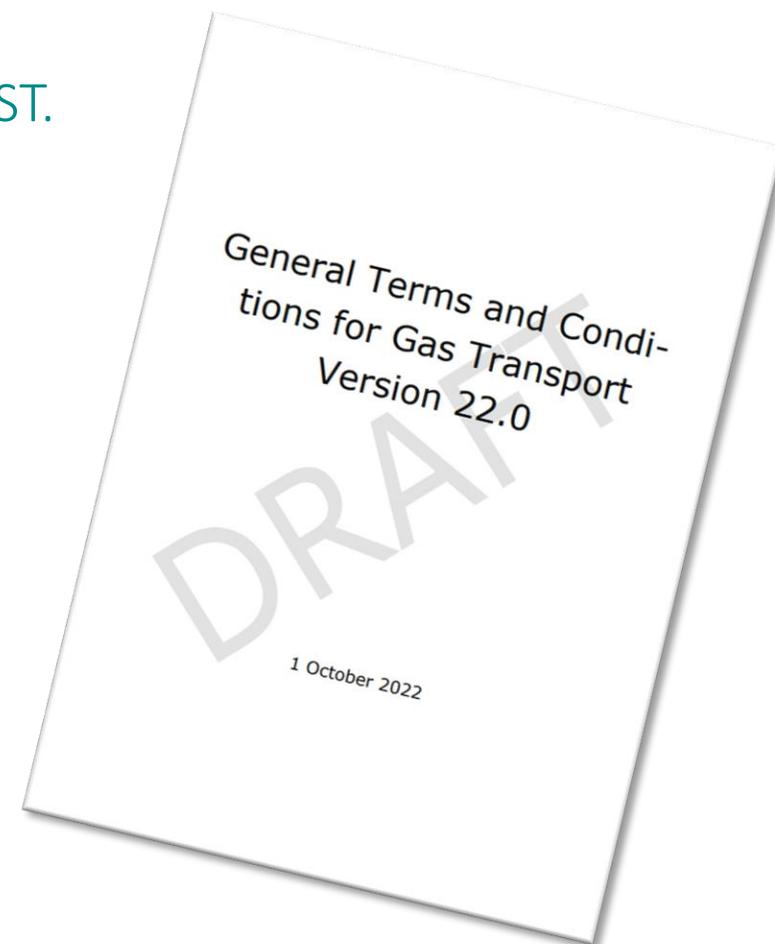
App. 10 Gas Market Message Agreement

- Energinet use ENTSOG Urgent Market Message (UMM) for publication of REMIT messages
- From 1 October UMM will also be used to inform shippers of operational issues effecting on the gas day

MARKET CONSULTATION

Deadline for comments 19 September 2022 17:00 CEST.

- Please send your questions or comments to gasinfo@energinet.dk
- Follow this link to the market consultation documents: [Market consultation on General Terms and Conditions for Gas Transport version 22.0](#)



QUESTIONS



Contact: cru@energinet.dk



TARIFFS

Nina Synnest Sinvani, Energinet

EMERGENCY TARIFFS

1ST OCTOBER 2022

	2021/2022	2022/2023	Pct.
Protected customers	0.00413	0.02008	386 %
Non-protected customers	0.00202	0.01046	418 %

The increase is the effect of the geopolitical situation, which has led to an increase in the cost of filling requirements.

Subject to approval of the tariff methodology for non-protected customers.





STATUS TRANSMISSION TARIFFS

The expectation is now:

- Public consultation end October/beginning of November
- User Group with Danish Utility Regulator

QUESTIONS



Contact: nsy@energinet.dk



NEW BACK-END IT SYSTEM 1 OCTOBER 2022

Majken Willumsen, Energinet

NEW BACK-END MARKET IT SYSTEM

Effective 1 October 2022

New system

- Due to need for a more up-to-date IT solution
- Energinet has bought a new back-end market system (IT)
- It is called CPX and is from a German provider named Sopra Steria

Earlier today

- The new balance model and changes in Terms and conditions for Gas transport status

This presentation

- Important information on the permanent changes to our online portal Energinet Online, messages to the market and where to find public data
- Important information on the go live weekend 1 and 2 October 2022 and the primo period invoicing

PERMANENT CHANGES

Effective 1 October 2022

The new back-end system also comes with a new Energinet Online portal

- All users will be migrated to the new Energinet Online, Receive a welcome email and use existing Azure ID (Next week)
- Important to try and log-in before 1 October because it is a weekend
- Content not fully migrated yet
- Shipper Administrators will be allowed to open new users in the new Energinet Online
- [Login - customerweb.energinet.dk](https://customerweb.energinet.dk)

PERMANENT CHANGES

Effective 1 October 2022

Player relationships

- Before: You could make the relationship online between gas supplier and shipper
- Now: Will be manual process where you send us an email to gasinfo@energinet.dk

Download historic data (Energy balances and invoices) from "old" Energinet Online period invoicing

Public Data – Energinet Data Services [Energinet Data Service](#) instead of Energinet Online

Urgent market messages on ENTSOG will be new messaging form for operational issues from Energinet

GO-LIVE WEEKEND 1 AND 2 OCTOBER 2022

Bookings, invoices and contacts

Booking

- ALL capacity is marketed at PRISMA or GSA
- Booking of FCFS monthly-and Day-ahead capacity to be booked via Energinet Online until and incl. 30-09-2022
- Booking of within-day capacity for the gas day 01-10-2022 can be booked via PRISMA from 30-09-2022 19.00

Invoicing

- Invoicing of primo period October 2022 will be invoiced in November 2022 – All else normal invoicing

Contact

- Extended opening hours in the weekend 1 and 2 October 2022:
 - Between 09.00 and 16.00 you can contact us on gasinfo@energinet.dk or +45 30923149 (Cathrine)
 - Outside these hours please as always contact Kontrolcenter Gas Kcg@energinet.dk or +45 70701961

QUESTIONS



Contact: mwm@energinet.dk

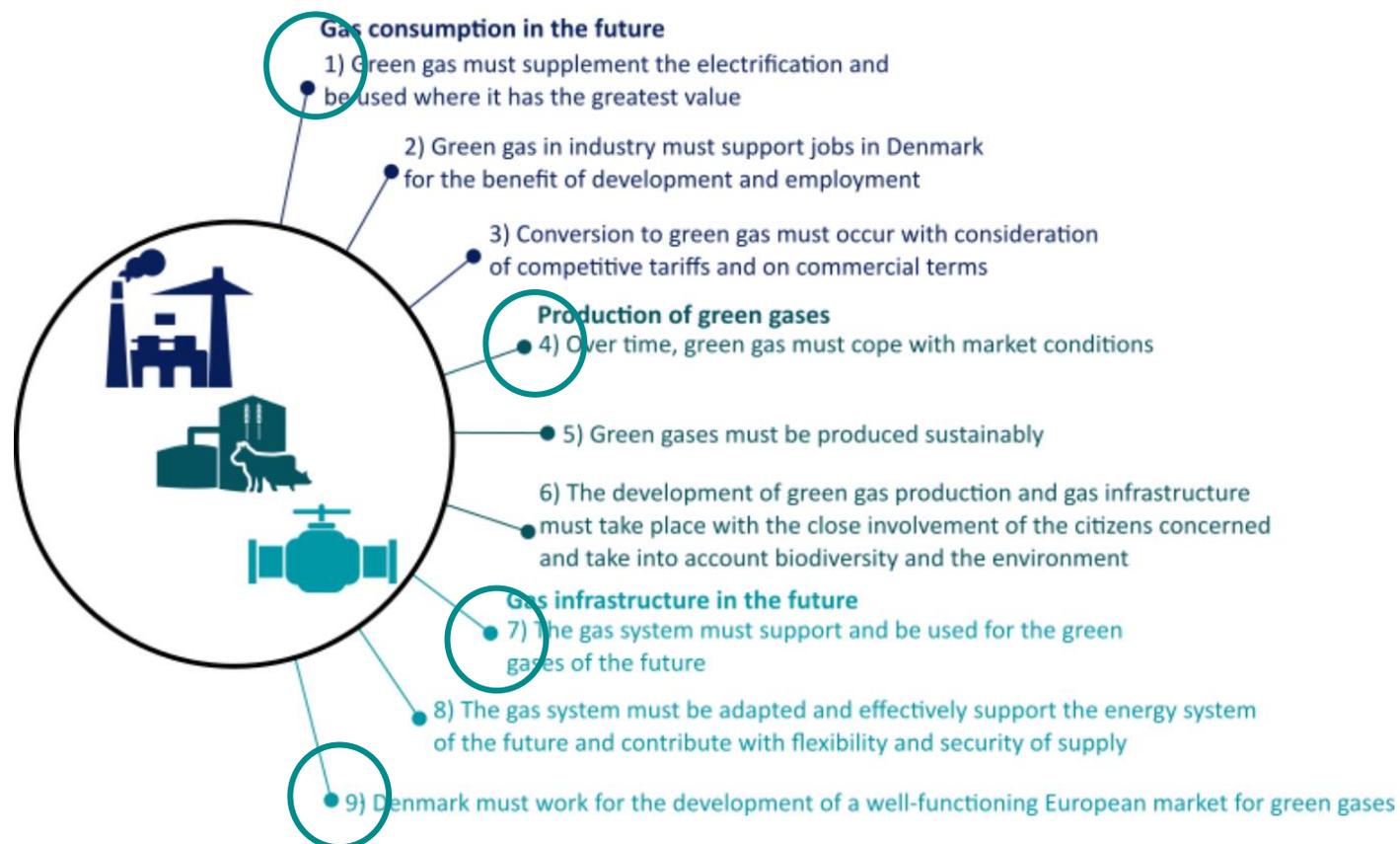


RENEWABLE GAS GUARANTEES OF ORIGIN

Lead Development Manager, Jeppe Bjerg, Energinet

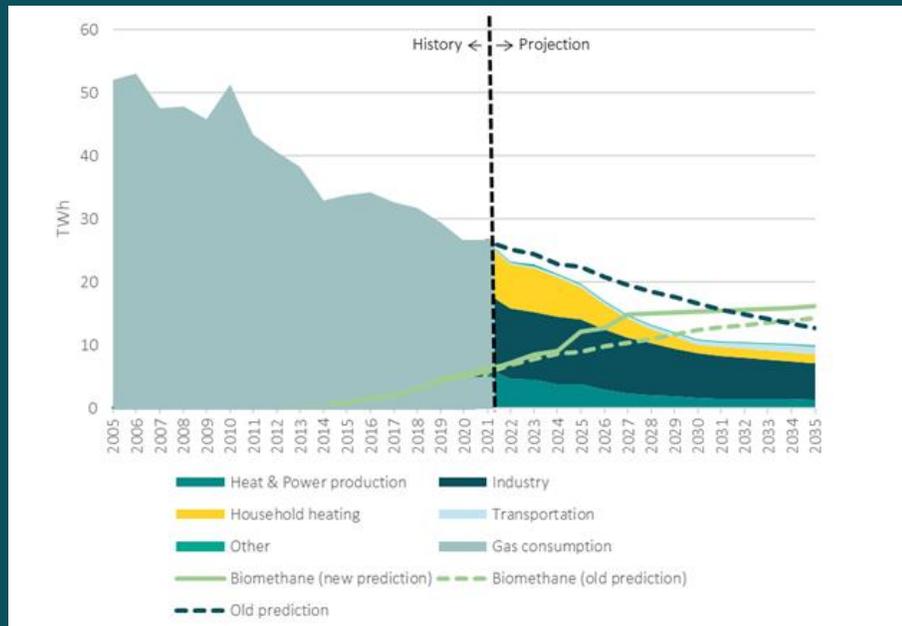
GOVERNMENT RENEWABLE GAS STRATEGY

Nine strategic objectives for a green gas system



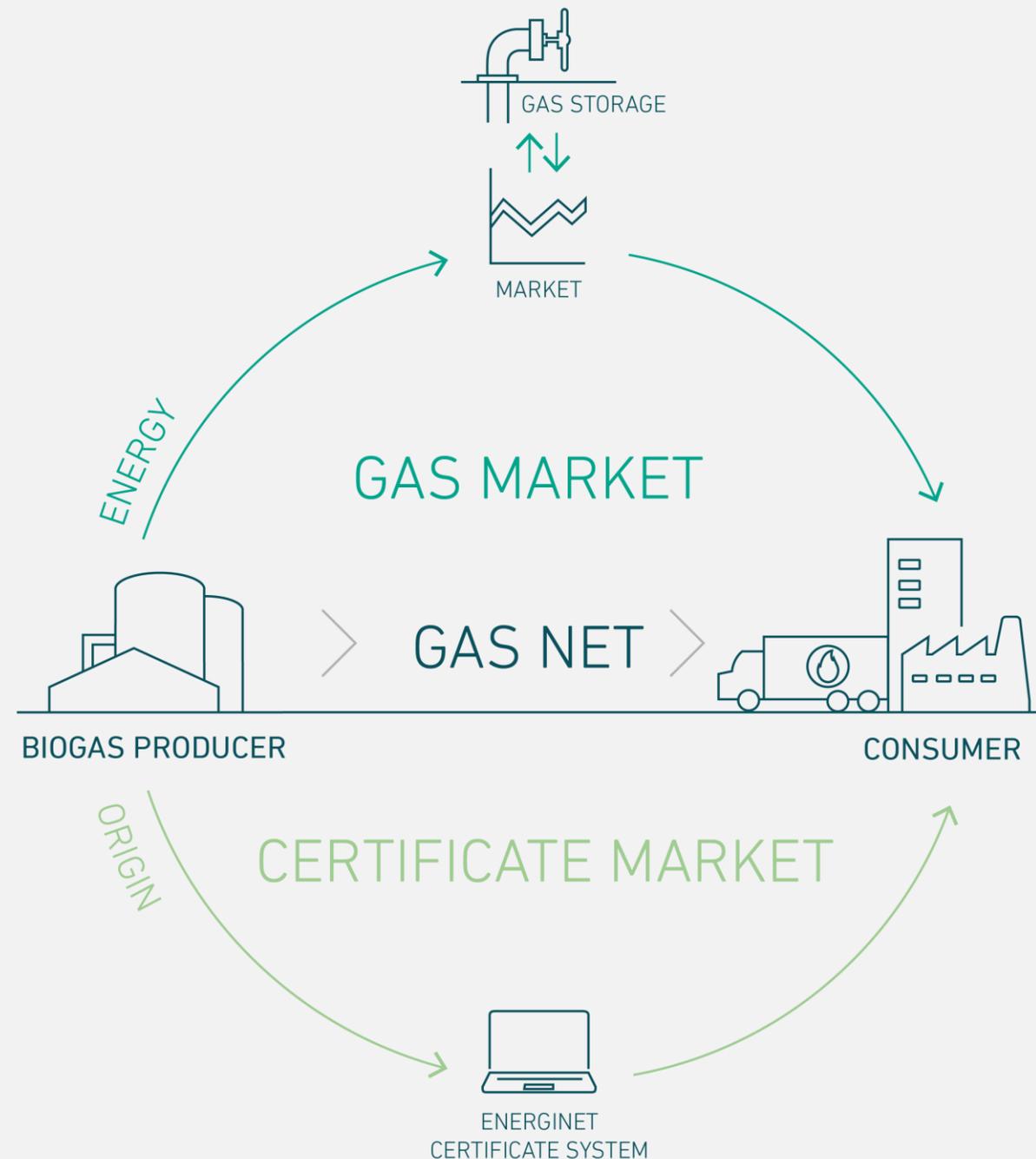
PLANTS AND PRODUCTION

- 52 plants are connected (status 15 August 2022)
 - 8 plants have an agreement to be connected
- Renewable gas share in Denmark:
- August 2022: 31%, 2030: > 70% (DEA)



GAS MARKET AND CERTIFICATE MODEL

- ✓ 2011 - Certificate registry established
- ✓ 2021 - Energinet appointed Issuing Body for Guarantees of Origin for renewable gases in gas system (2021)
 - ✓ Biomethane
 - ✓ (Methanisation)
 - ✓ (Hydrogen)
 - ✓ (LNG)
- ✓ New role of guarantees of origin being implemented
 - ✓ ETS, Fuel blending, RE targets in industry
- ✓ European market
 - ✓ Connecting to hubs – ERGAR & AIB (2022 & ?)
 - ✓ EU Union Database on renewable fuels (?)

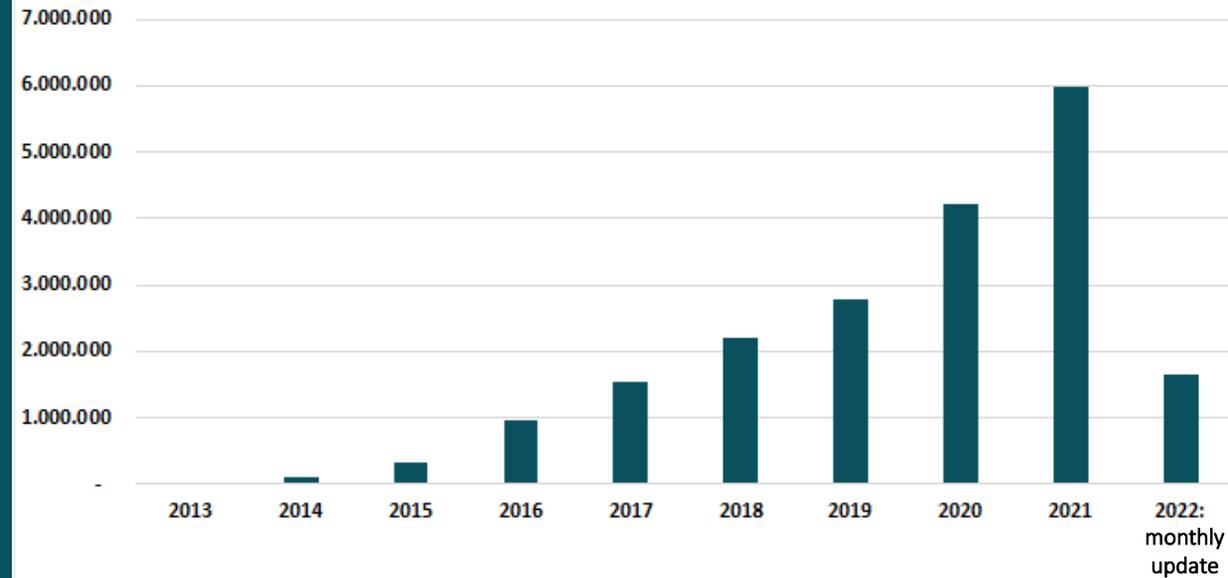


FACTS ABOUT GUARANTEES OF ORIGIN

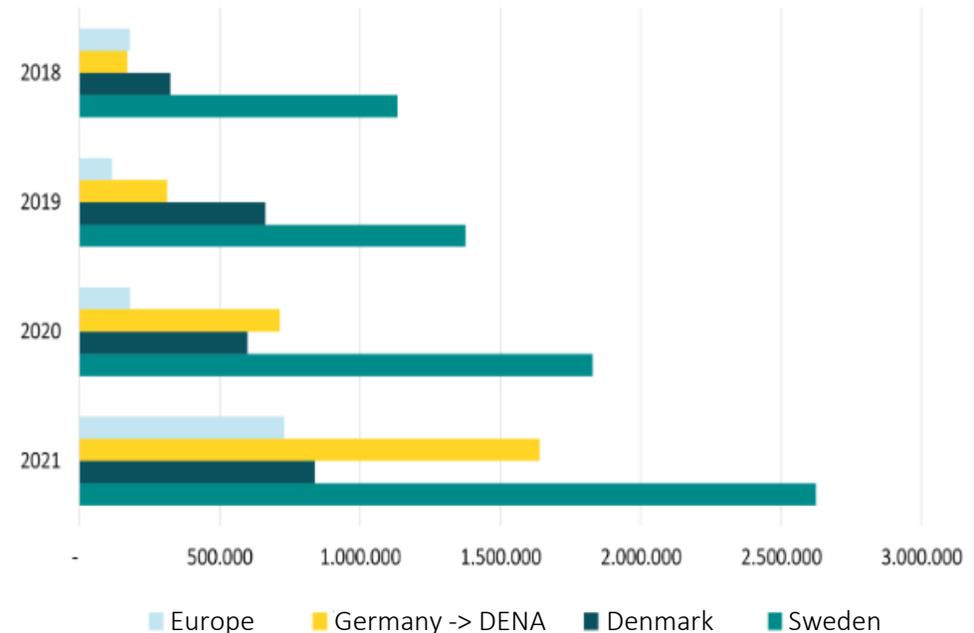
- 75 account holders
- 52 plants - plant and biomass data
- Annual audit of biomass reports from plant owners
- Annual audit of total sale per account holders
- Guarantees of origin issued for all injected gas
- Book & Claim system
- Most GOs are currently exported

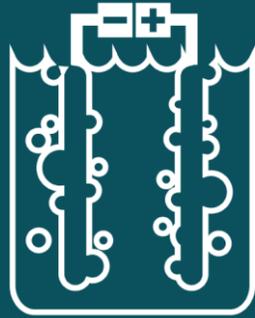
<https://en.energinet.dk/Gas/Biomethane/Statistics>

Issued GOs (1 MWh)



Number of certificates sold 2018-2021

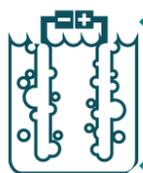




HYDROGEN

NATIONAL PTX-AGREEMENT

Highlights



4-6 GW electrolysis in 2030



Net export of green energy



€170 million in subsidies over 10 years



Holistic energy system planning



H2-infrastructure



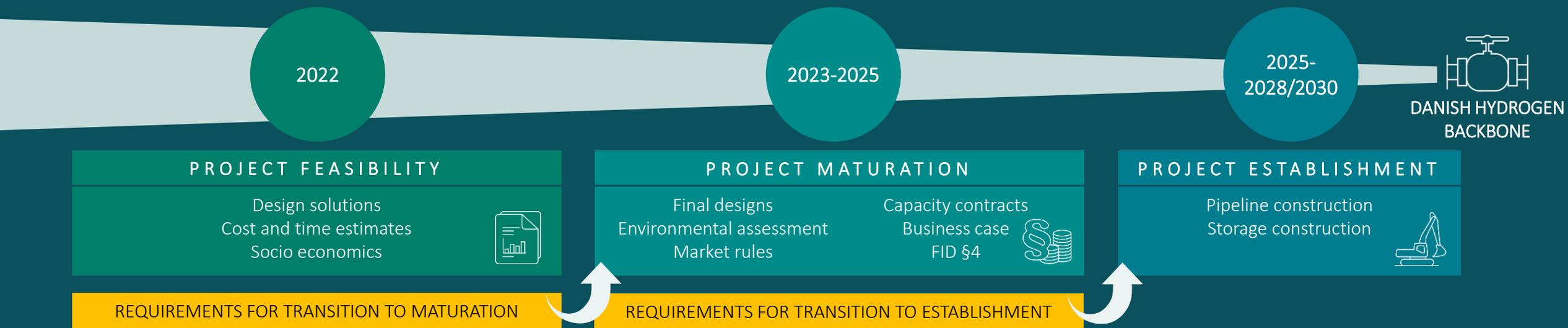
Fundamental reform of electricity tariffs

DANISH HYDROGEN PROJECTS

- Expected location and electrolysis capacity in 2030
- A total of 20 active hydrogen projects in Denmark
- Total electrolysis capacity of 5+ GW in 2030



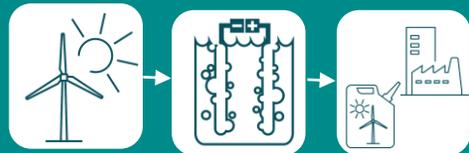
BACKBONE PROJECT PHASES



HYDROGEN GUARANTEES OF ORIGIN (GO) CRITERIA PROPOSALS

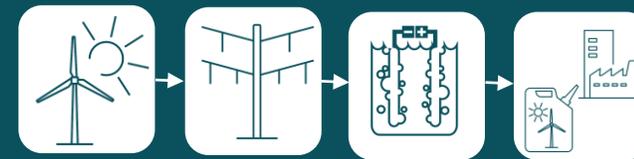
DIRECT LINE

- RE electricity and hydrogen production are (implicit) always in the same bidding zone and simultaneous.
- Electricity from the collective grid cannot be used



MONTHLY ELECTRICITY GO BALANCING

- H2 GO issued for measured physical production.
- H2 GO issued for renewable electricity used from same bidding zone
- Evidenced by cancelling corresponding electricity GOs



QUESTIONS



Contact: Jbg@energinet.dk



FINAL REMARKS

Clement Johan Ulrichsen, Energinet

QUESTIONS



Contact: cju@energinet.dk