

# WKK-ontmoetingsdag

*Cogeneratie klaar voor de toekomst*

## Certificatie van groene brandstoffen



Dirk Focroul - Fluxys



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# Green gas: sales opportunity's

**COGEN**  
26 October 2023



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gas.be → fluvius. Sibelga ORES RESA fluxys

Competence center for (green) gas aspects: upstream, downstream and from infeed to client

 <p><b>Gas.be</b> Green gas</p>	 <p><b>Cerga</b> New appliances</p>	 <p><b>NGVA</b> Green mobility</p>	 <p><b>Labo</b> New appliances</p>
Promote natural gas and renewable gas to the market and policy	Quality label for installers and development of norms	Development of Gas for transport (CNG, bio-CNG, LNG, bio-LNG)	Lab for testing and accredit gas appliances




<https://greengasplatform.be/>


gas.be cerga ngva.be experga

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# Missions Gas.be

- 

Launch A++ technologies with a focus on hybrid solutions
- 

Foster the emergence of biomethane / carbon neutral gas production and usage projects in Belgium
- 

Promote (bio) CNG/LNG as an alternative fuel for heavy duty road transport
- 

Be ready for H<sub>2</sub>

**Je hybride warmtepomp, de slimste in huis.**

Heb je thuis nog geen hybride warmtesysteem? Ontdek alle voordelen op onze beursstand op de Bisbeurs van 7-15 oktober

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bouw- en interieur salon		2 3

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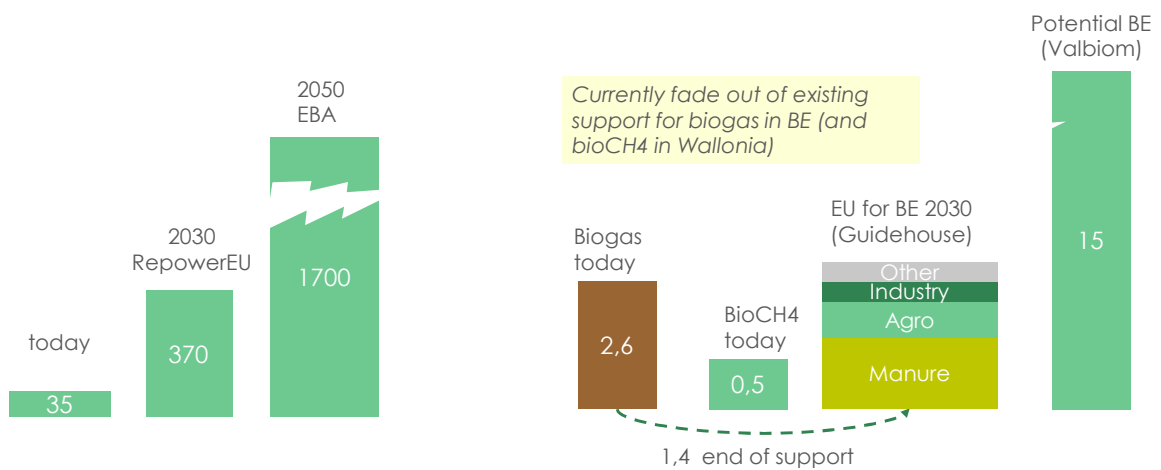
## Green Gas in EU and Biomethane in Belgium

- 1 Short recap biogas – biomethane in BE
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## Short recap on Biomethane in EU and Belgium in TWh

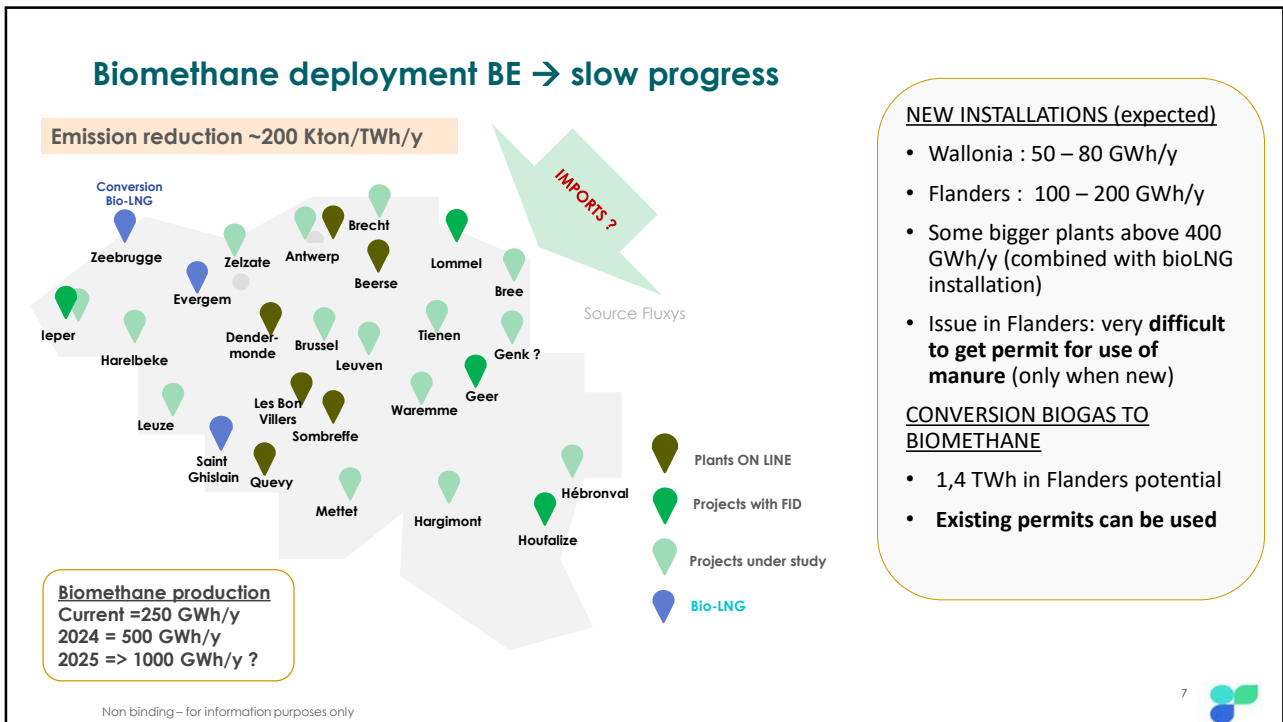


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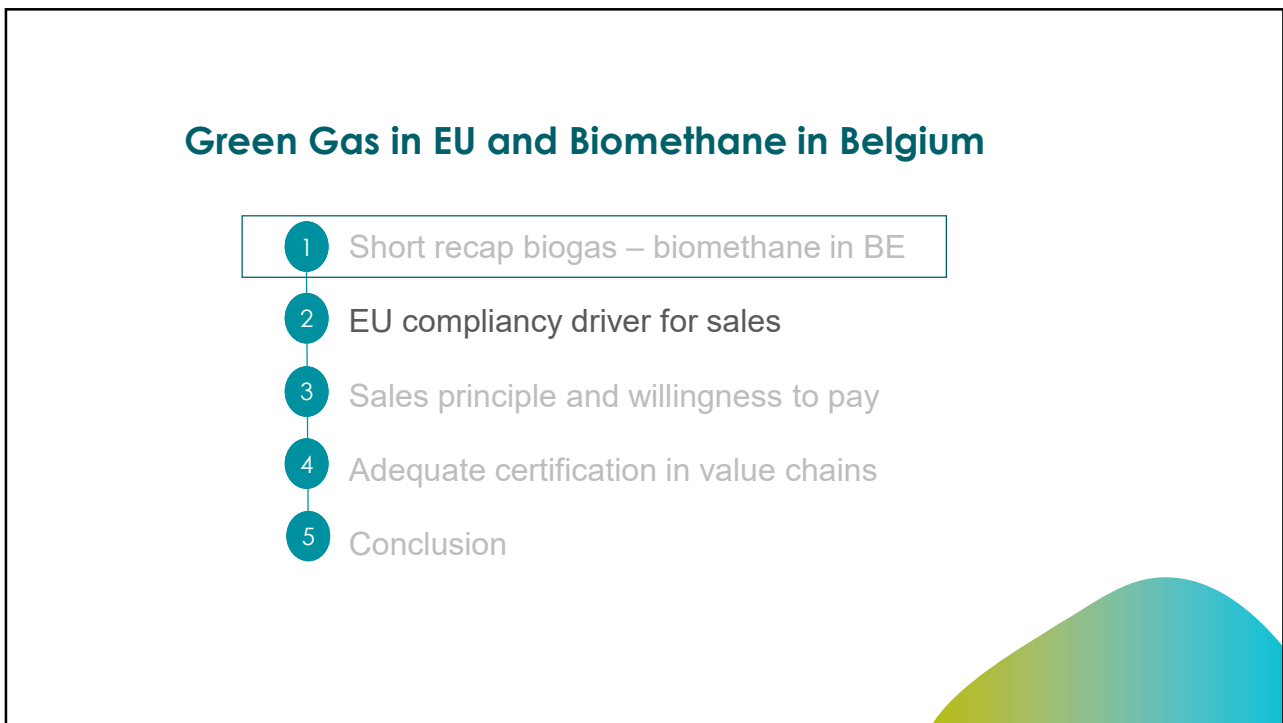
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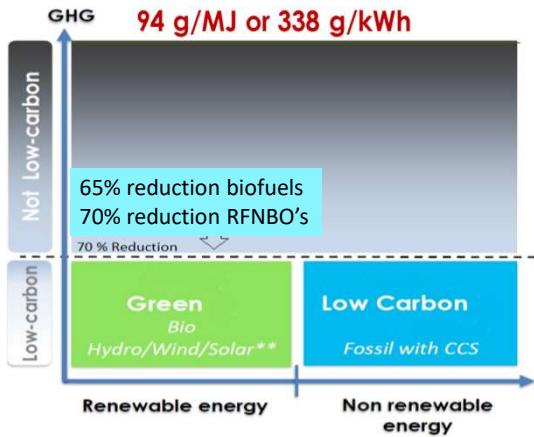
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## What are the main criteria for EU compliant green gasses

1. GHG reduction must be sufficient



2. GHG reduction of biomethane – RED II Annex VI (B)

EU ref 94gCO2eq/MJ	% reduction	gCO2eq/MJ
Garden waste	87%	12
Manure (+ avoided spreading)	143%	-40
Agro waste	81%	18
Sludge / waste water	74%	24

3. Advanced or not - RED II Annex IX (A)

- Waste from biomass (agro, industrial, municipal, forest ...)
- Manure and sewage sludge
- Algae (from cultivation)

**NOT** - used cooking oil (UCO) and animal fats

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## (Expected) targets – obligation in RED III - 2030

NEW

### RES target [LINK](#)

42.5% + 2.5% aspirational (can differ per member state)

### GHG target [LINK](#)

47% CO2 reduction for Belgium

DE 50% ; NL 48 % ; FR 47,5%

### Transport target [LINK](#)

14% GHG reduction **OR**  
29% renewable  
Advanced 5%  
1<sup>st</sup> gen fade out ?  
RFNBO 1%

### Industry ETS 1

1,6% RES increase /y  
RFNBO 42% of H2

### Aviation and Maritime

In ETS 1  
10% CO2 reduction  
10% RES

### Building and heating

in ETS 2  
49% indicative  
0,8% RES increase /y

Biomethane is illegible for most of the targets and when advanced (in transport can double count)

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NEW

## Biomethane for ETS

### 1. Existing MRR and RED II

- Since 2021 in EU (MRR directive) **biomethane with 65% GHG** can be used for ETS 1 reduction as a Zero Emission fuel
- the applicable ruling is **in force In Flanders since 2022 (VEKA)**  
→ test however was not successful (due to issues with acceptance of foreign biomethane)
- the applicable ruling is expected to be **in force In Wallonia as from 2023 (AWAC)**

ETS 1 price is now just under 100 €/ton CO<sub>2</sub>eq  
avoided cost 20 €/MWh

- **If Biomethane is supported, support must be decreased with ETS value**

### 2. New MRR and RED III (2025?)

- **Maritime and aviation included in ETS 1** (existing ETS) → rulings remain
- **Free allowances** will be further **reduced** (except for Carbon Leakage sectors)

ETS 1 price expected to be between 100 - 120 €/ton CO<sub>2</sub>eq

- **for buildings and transport ETS 2** will become applicable

ETS 2 price expected to be capped at 45 €/ton CO<sub>2</sub>eq or 9 €/MWh

- Discussion in Belgium on who is competent for ETS 2 (as non-ETS is almost abandoned)

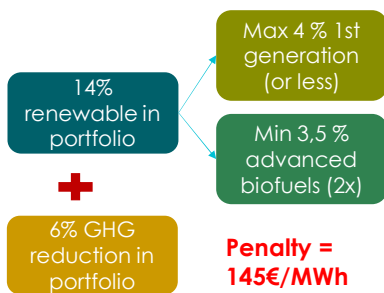
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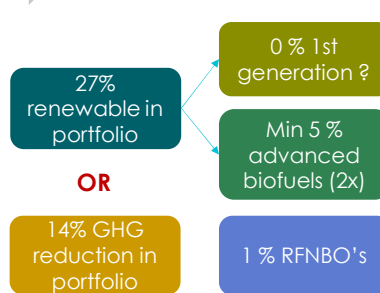
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## Transport: transposition of RED II in Belgium

### RED II obligations:



### RED III obligations (Draft)



- BioCNG and bioLNG must be reported as from 2022 by fuel suppliers and accounts in BE **biofuel register** → **future registration in UDB**
- Biomethane (source) is in 90% of the cases advanced biofuel
- **Biomethane may not be supported with operational support**

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NEW

introduction of Bio-tickets (FAPETRO)

“Brandstofwet” (Min. Vanderstraete)  
Still RED II

published 15 September 2023 → applicable 2024

“Decreet duurzaamheid” (Min. Katthabi)  
Still RED II - FQD

published 12 January 2022 → applicable 2022.

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## Drivers in specific memberstates

### Mixing obligations:

NEW

Netherlands :  
20 % - penalty 200 €/MWh  
Only Dutch BioCH4  
[\[LINK\]](#)

NEW

France  
XX % - penalty 100 €/MWh  
Only French BioCH4  
With specific certificate  
[\[LINK\]](#)

### Transport obligation

Germany  
27% CO2 reduction  
Penalty 670 €/ton CO2  
EU BioCH4 since 2023

Netherlands HBE  
Today only Dutch bioCH4  
but expected to be opened  
to EU

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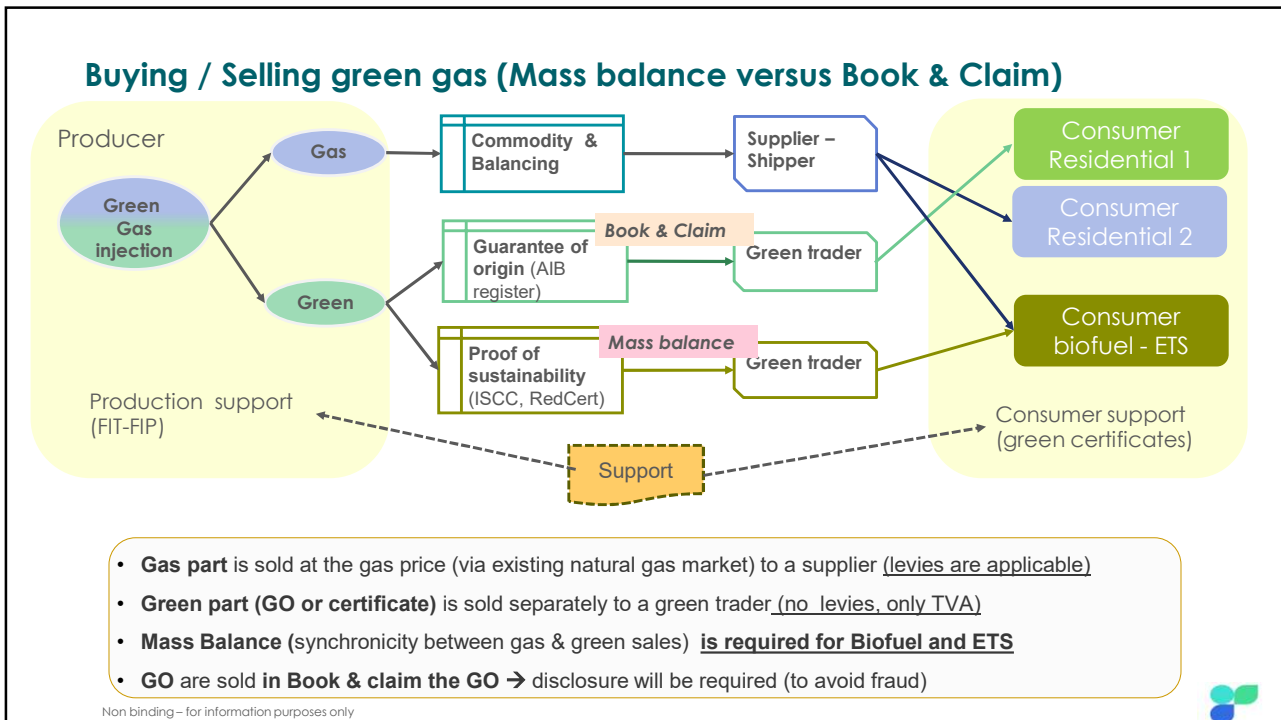


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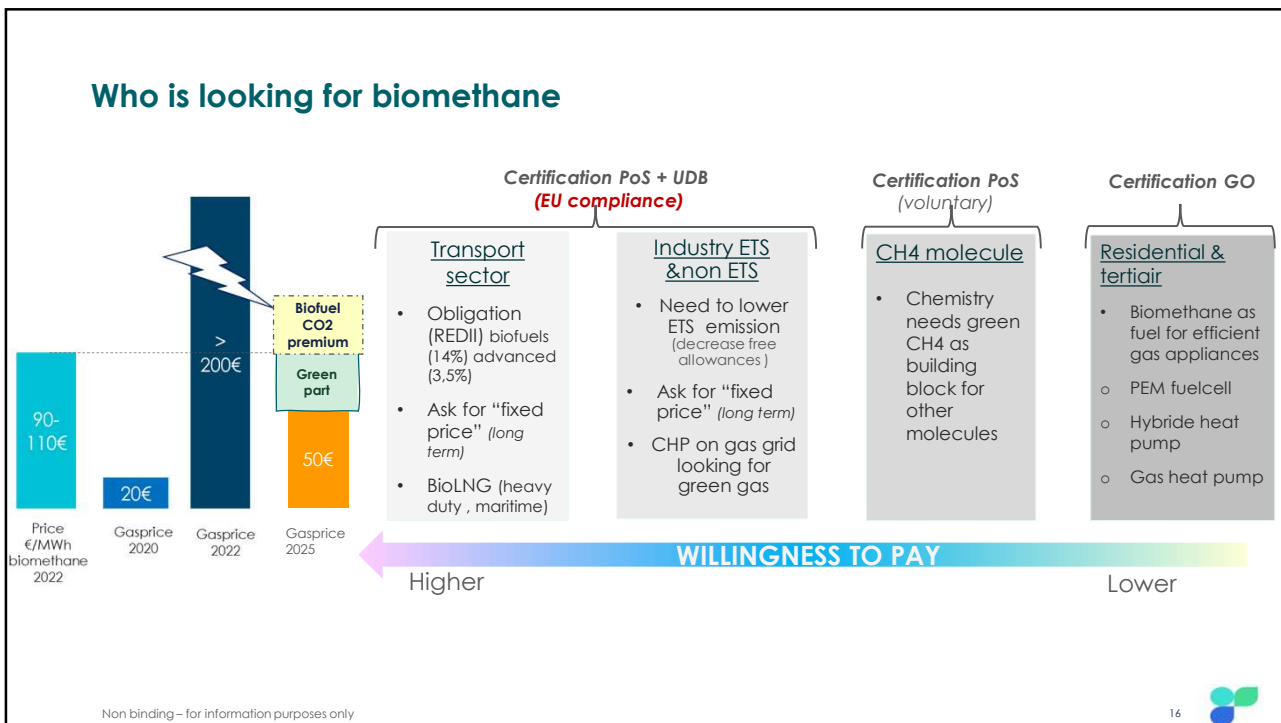
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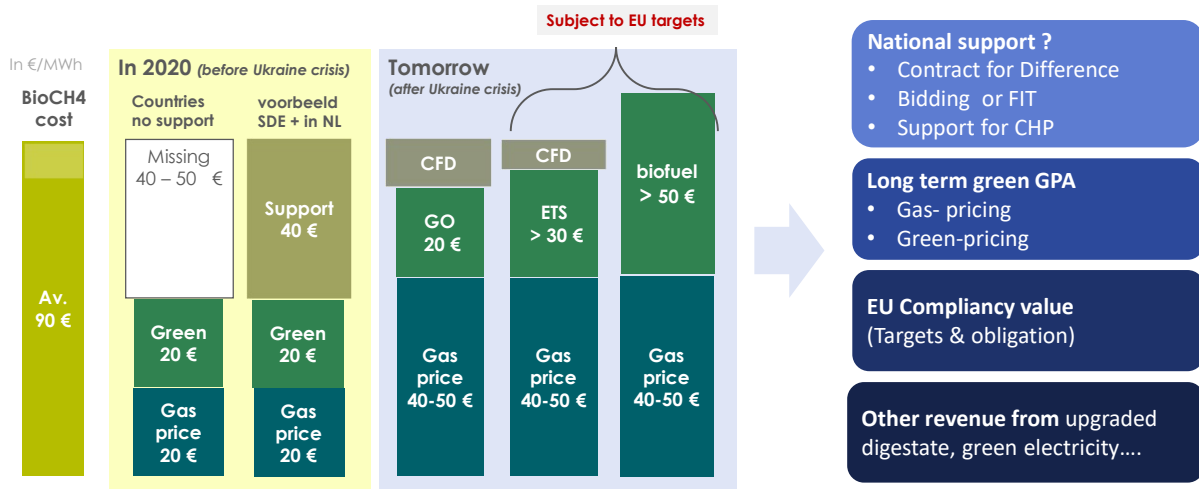
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## Sustainable biomethane prices for the future ?



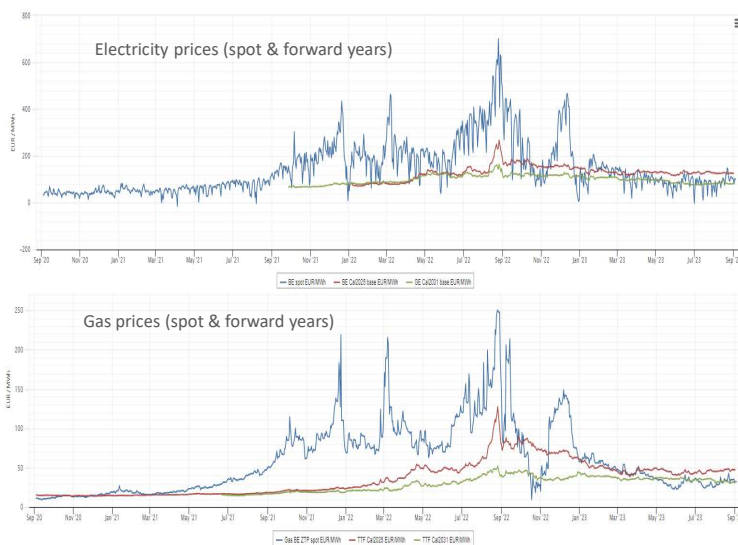
It is crucial for biomethane plants to have longer term commitments and arbitrage possibilities

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## Gross prices for gas and electricity in BE towards 2025 - 2030



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### Electricity prices

- Spot prices → high volatility
- Forwards 2025 evolving towards around 160 €/MWh

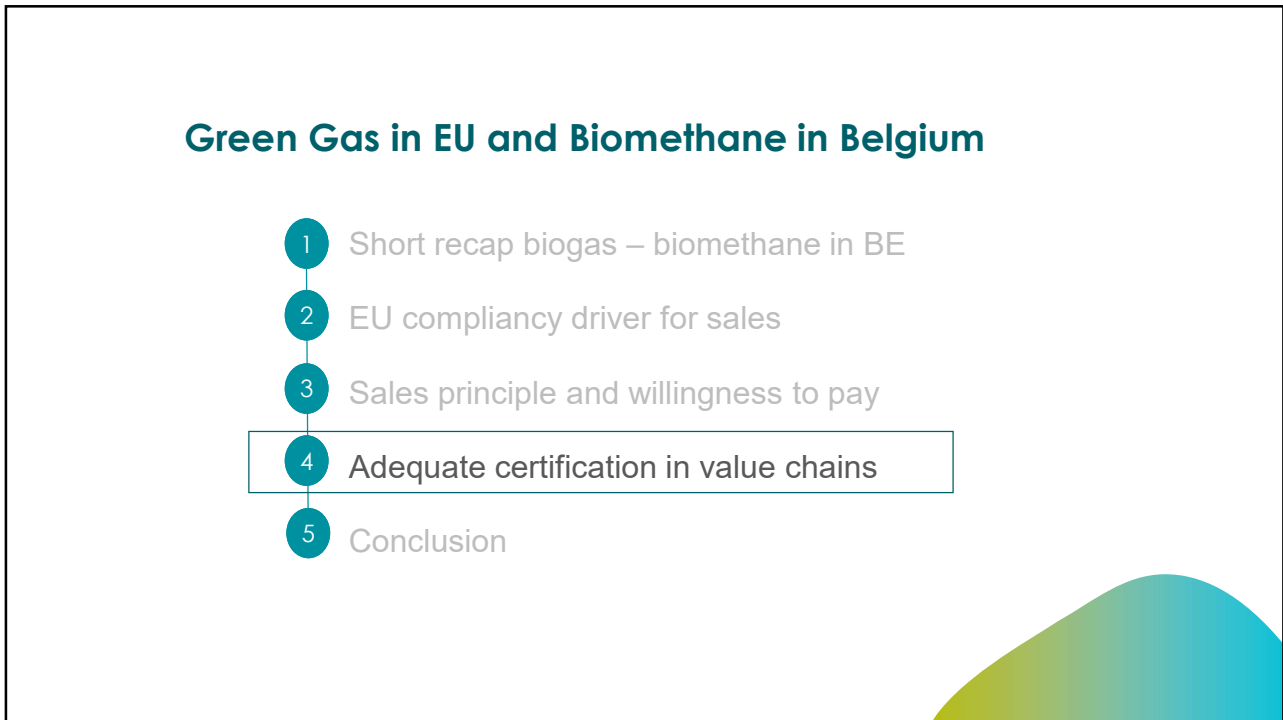
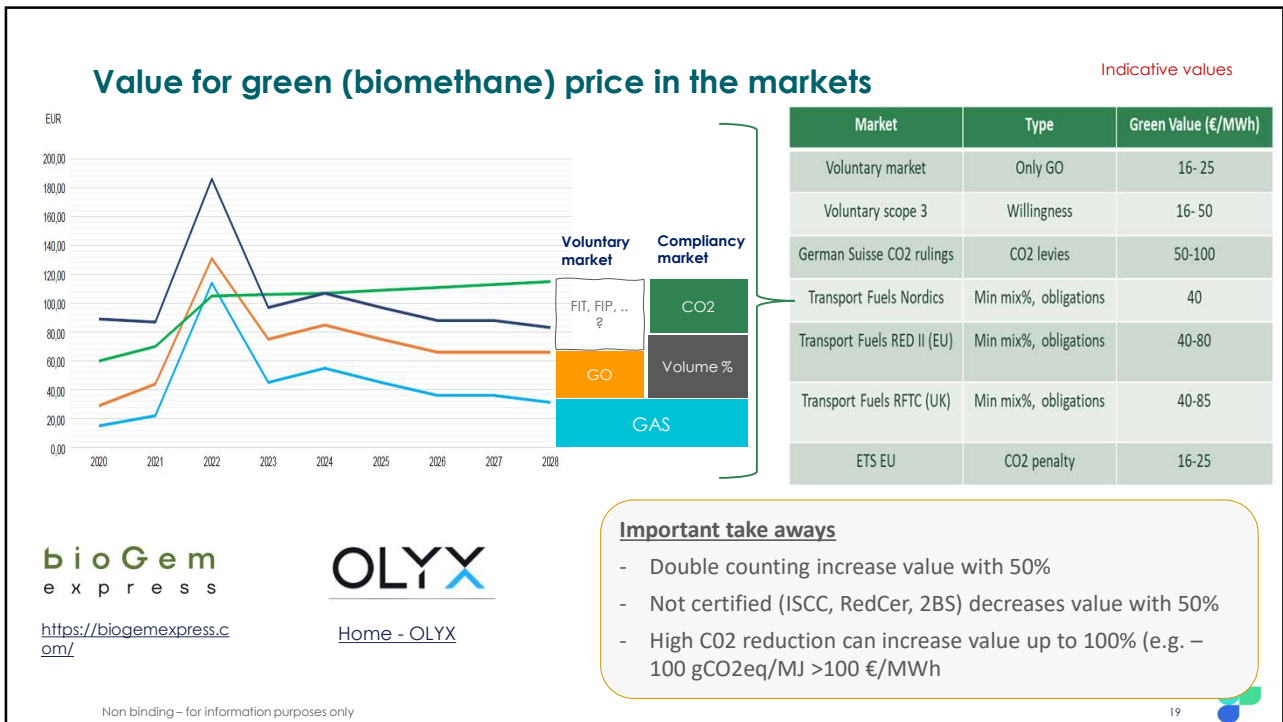
### Gas Prices

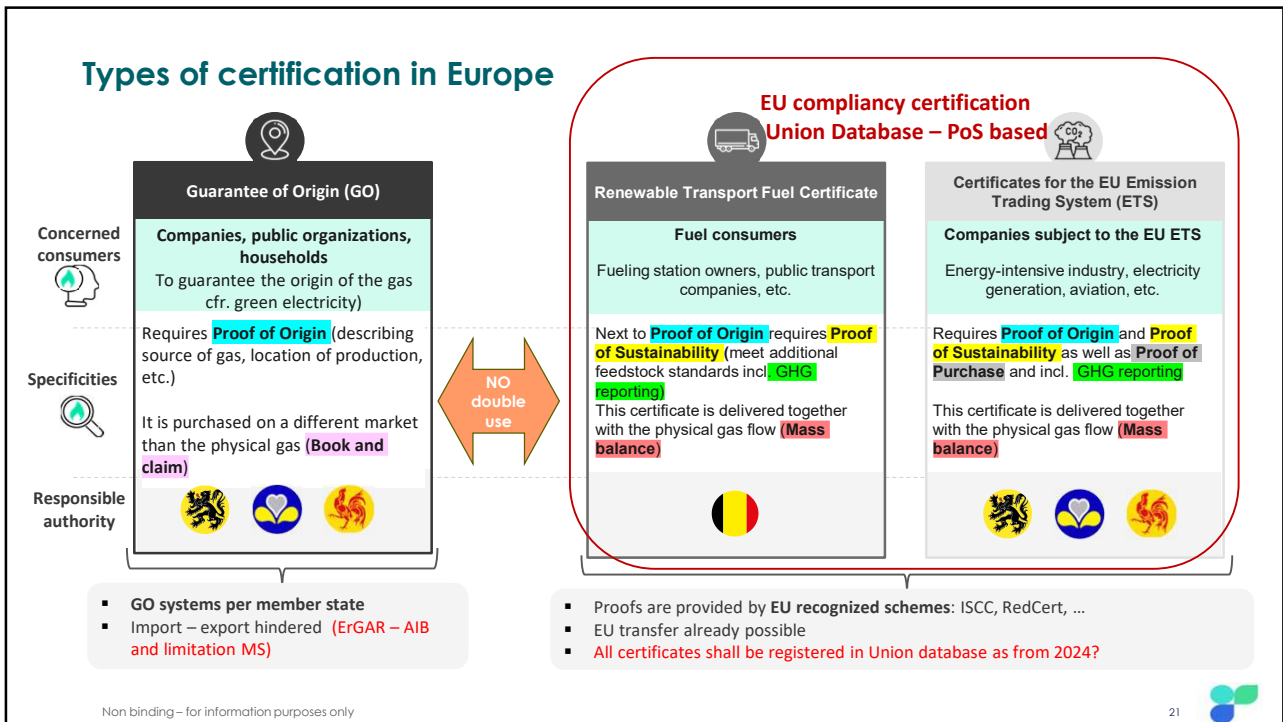
- Spot prices → high volatility
- Forwards 2025 evolving towards around 50 €/MWh

### Relation prices

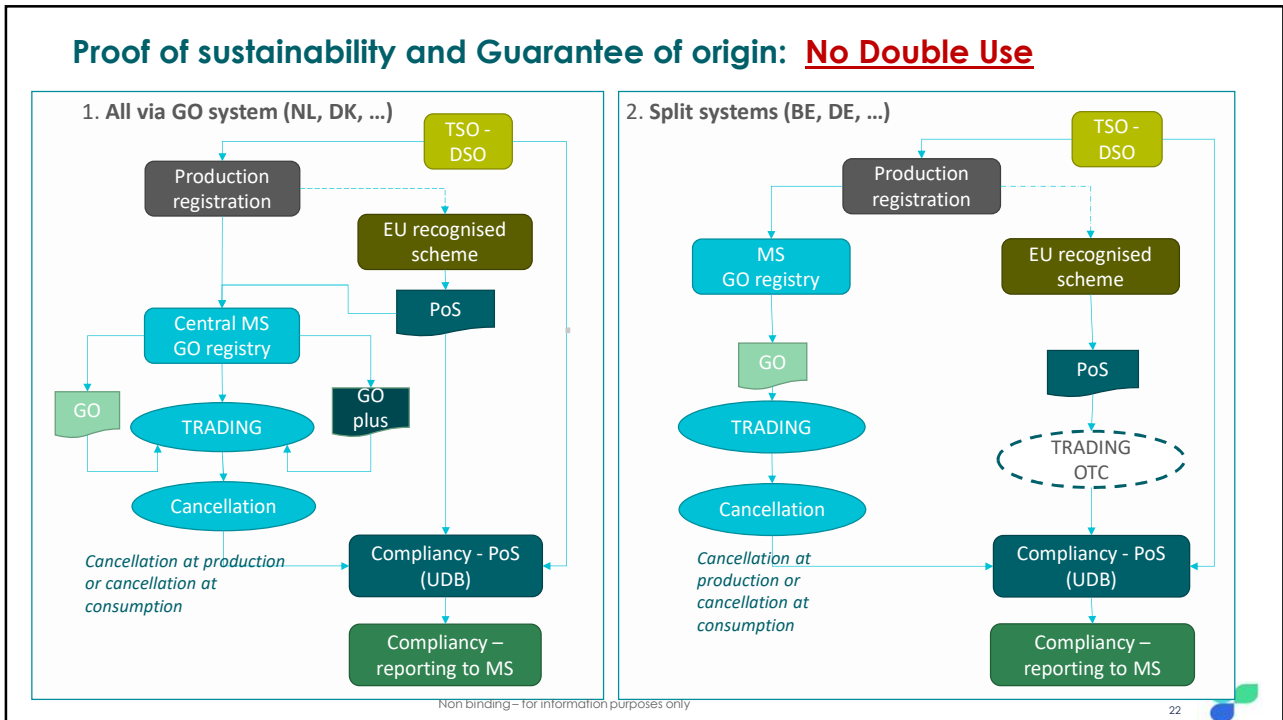
- Marginal production unit is CCGT on gas (typical 53% eff.)
- Clean spark spread formula @ 50€/MWh gas and 100 €/MWh CO2 → 190 €/MWh

**Price Ratio electricity / gas ≈ 3**

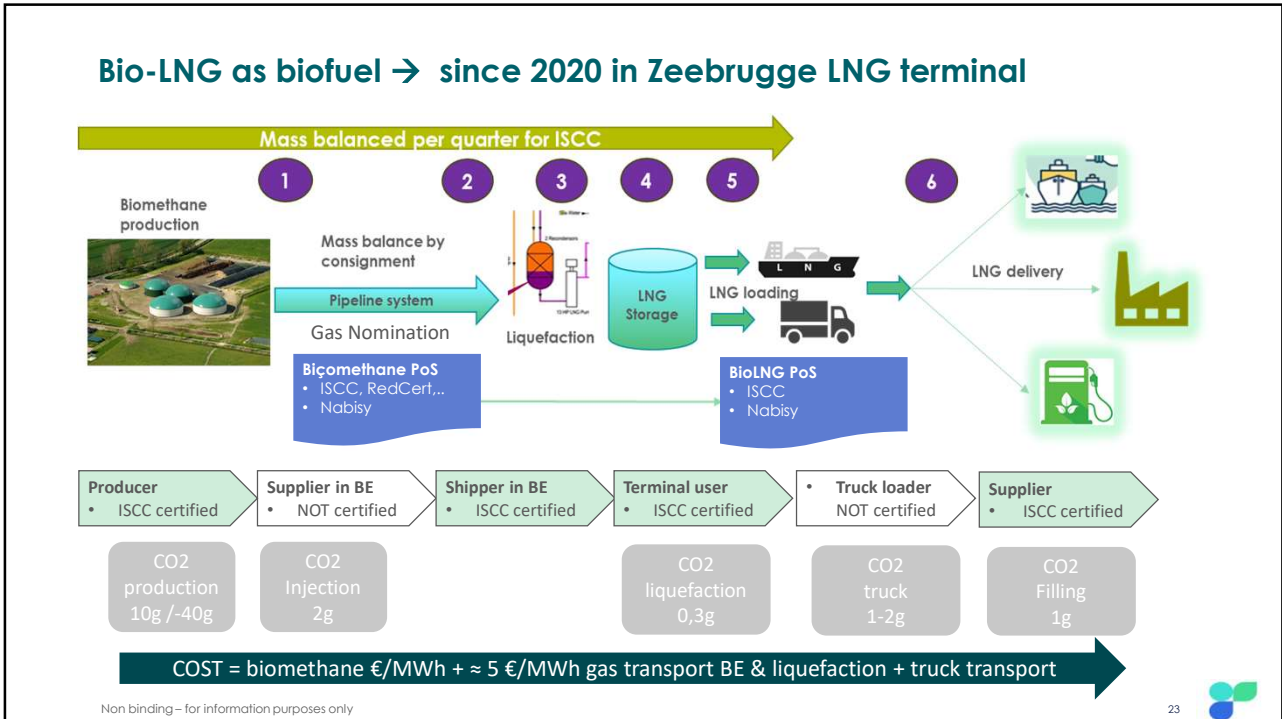




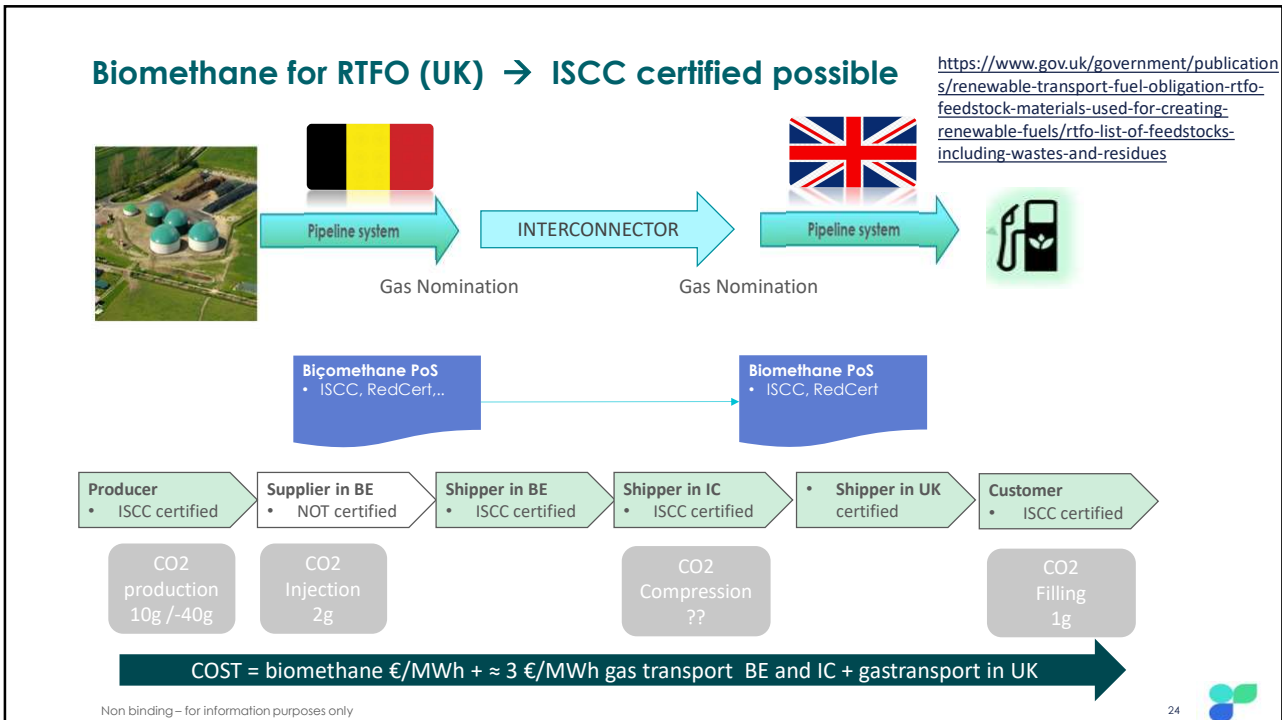
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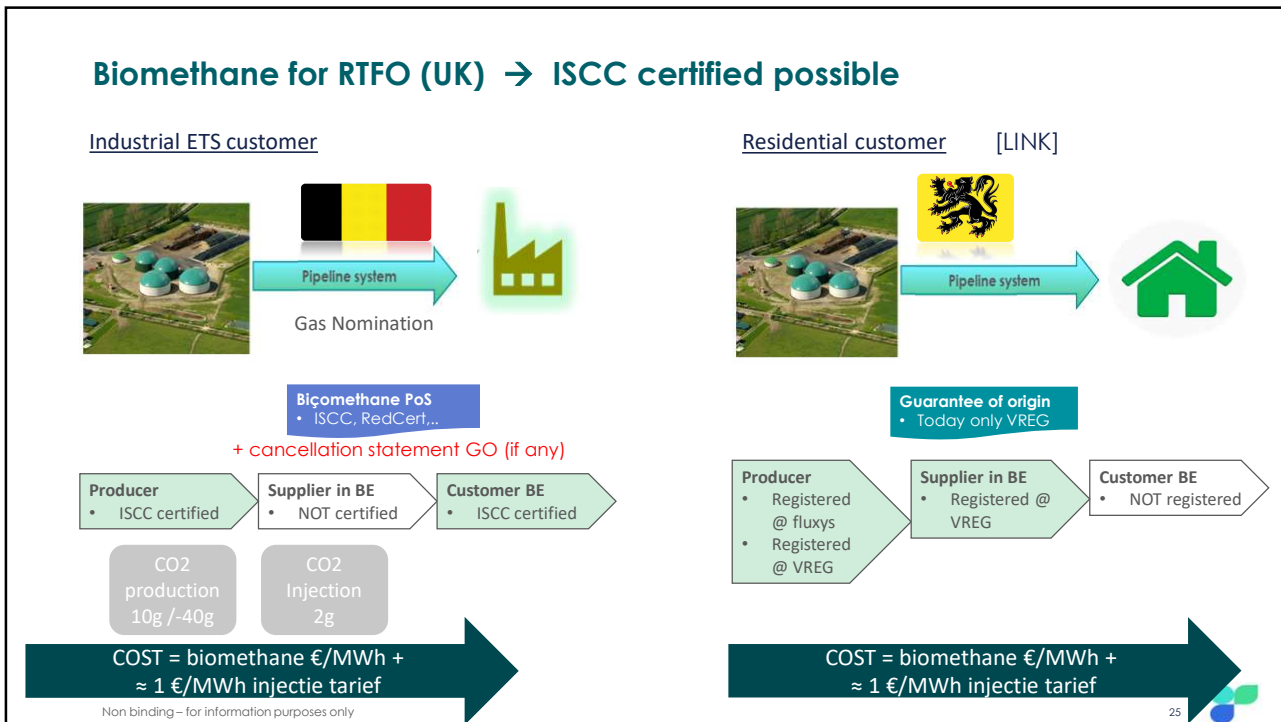
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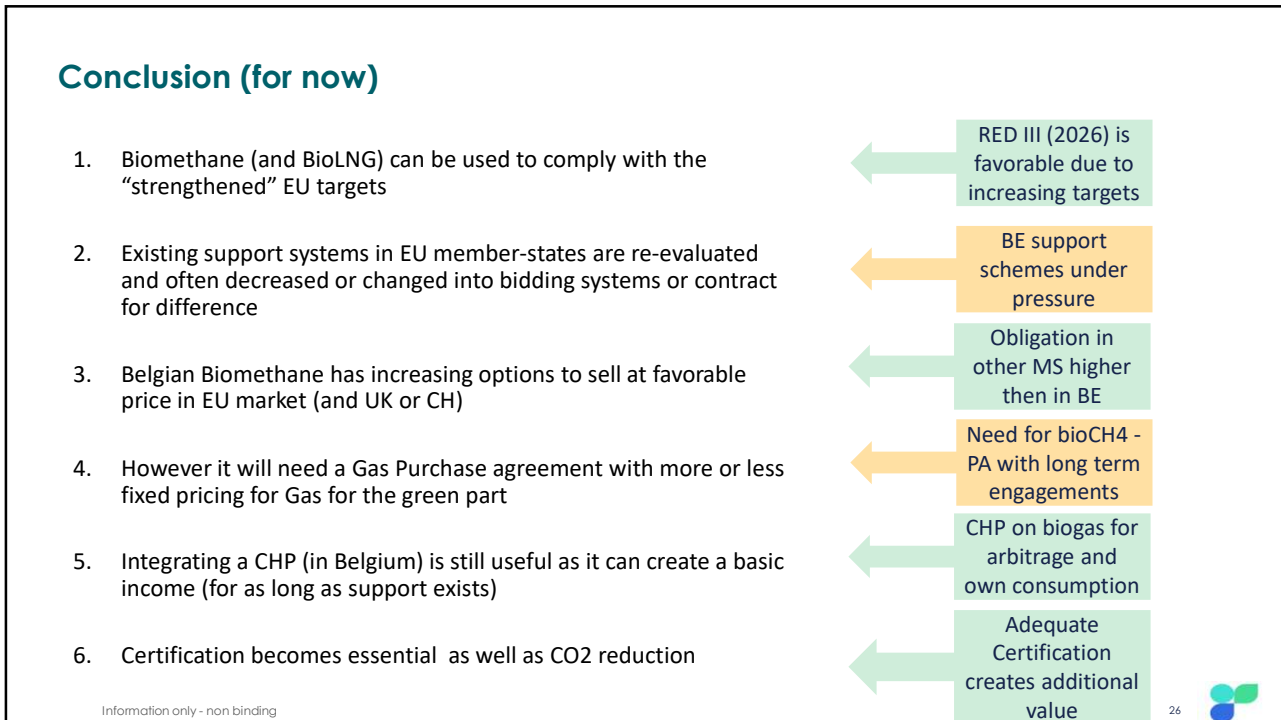
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**THANK YOU FOR ATTENTION**

**QUESTION TIME**

