

Certification & tracking of green gas

Prices, cross border transportation & steps towards a
European wide regulation

Jeppe Bjerg, ERGaR President



Stream B:
Innovations for gas going green
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Content

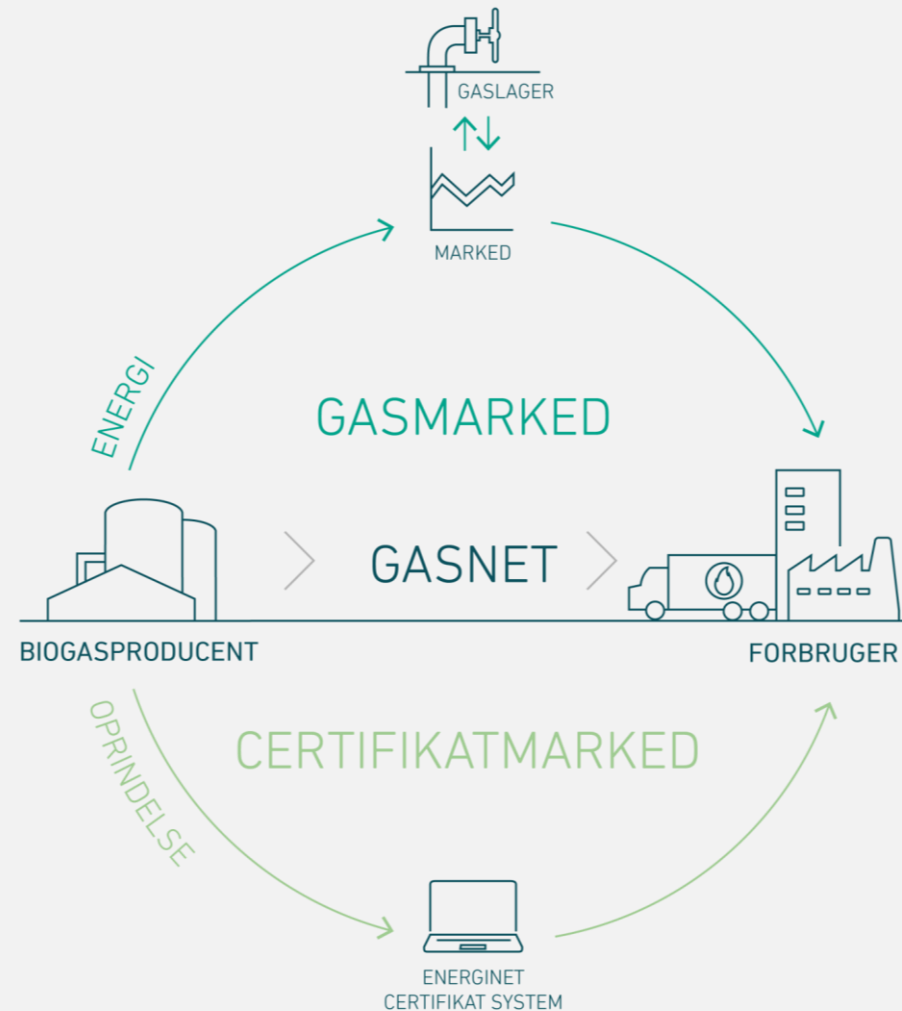
- What is a GO system?
- Why do we need a cross border solution?
- What is ERGaR?
- REDII – towards a EU wide GO regulation

WHAT IS A GO SCHEME?

Danish renewable gas scheme

- ✓ Danish end use applications
 - ✓ Emission Trading Scheme
 - ✓ Domestic heating & voluntary market
 - ✓ Renewable Power GO
 - ✓ Transport fuel – blending obligation

- ✓ European trade
 - ✓ Export
 - ✓ Bilateral with Germany
 - ✓ ERGaR



Why do we need cross-border trade of renewable gas – and a platform?

- **New renewable gas projects can be developed** where resources are available and costs are low.
- **Existing gas infrastructure is available to contribute** to European transition to a sustainable energy system
- **Renewable gas can be made available to gas consumers** throughout Europe - having excellent GHG characteristics and being competitive renewable fuel in e.g. transport.
- **Scale and liquidity** to green gas market development
- **Transparency, transparency, transparency**

ERGAR Vision & Mission



- **Vision:**
Renewable gas will be traded cross border in an increasingly integrated European market through the natural gas network reaching all end customer segments.
- **Mission:**
Building on national registries to establish an independent, transparent and trustworthy documentation scheme for cross border transfer and mass balancing of renewable gas injected into the European natural gas network securing the exclusion of double sale and double counting.
- **Status:**
Two cross border transfer systems under development
 - ERGAR MB scheme (Mass Balancing)
 - ERGAR GO scheme (Guarantees of Origin)
- Transfer hub in testing phase
- More info: www.ergar.org

25 members from 13 countries



Find out more @
www.ergar.org



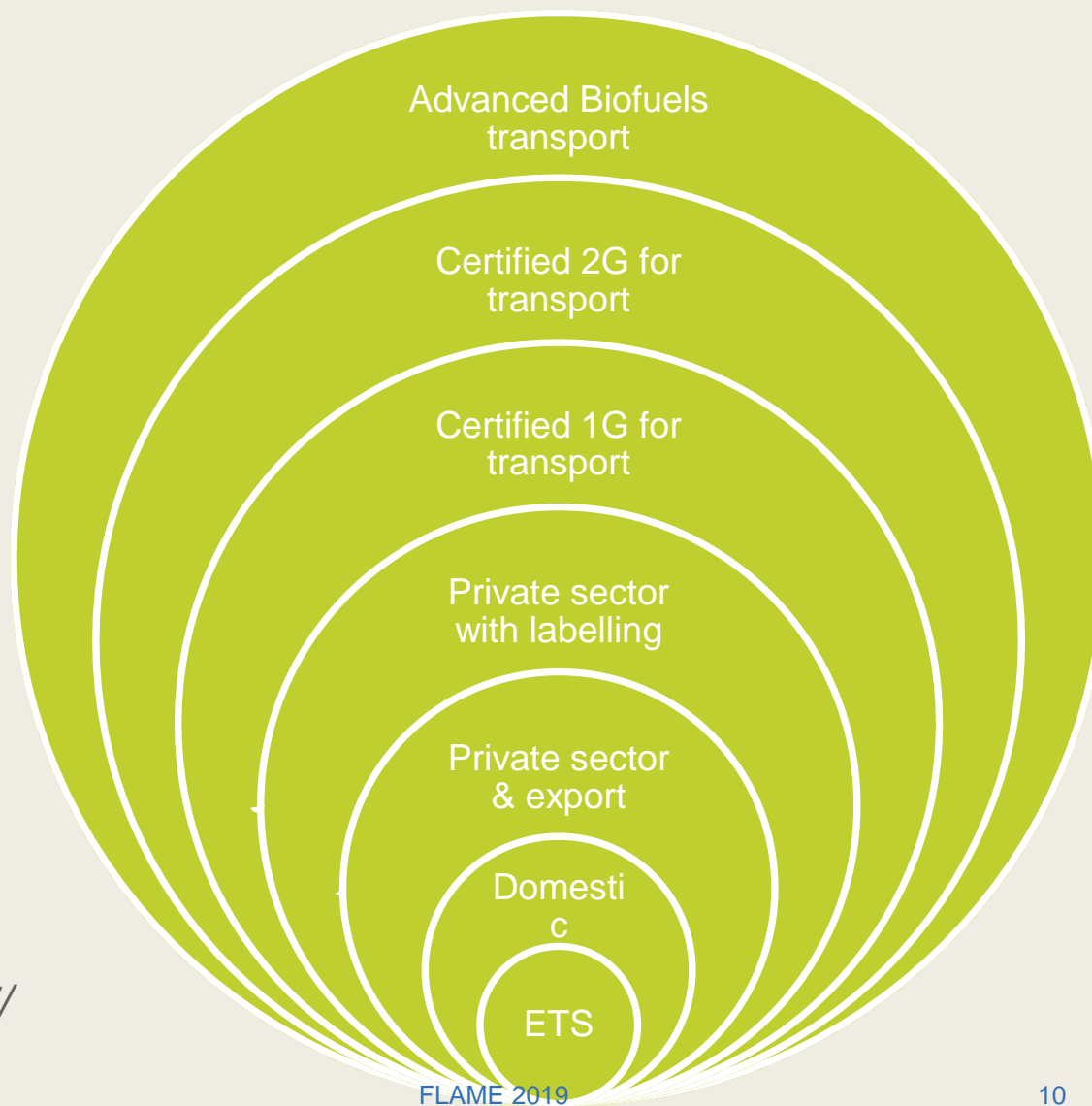
Two ERGAR schemes

Scheme title	ERGaR MB Scheme	ERGaR GoO Scheme
Character	to be recognised by the EC under RED as voluntary scheme	to be operated without recognition by the EC
RED II ready	according to Articles 27-30	according to Article 19
Use	biofuel for transportation	any
Methodology	mass-balancing	book and claim
Core document	ERGaR Proof of Origin	ERGaR Guarantee of Origin
	(ERGaR PoO)	(ERGaR GoO)
Transferability	Yes	Yes
Sustainability verification	mandatory according to the EU rules regarding biofuels	optional
Expected timeline	details under negotiation with EC	operational with ERGaR hub going online 2019
	resubmission to EC in Q2 of 2019	

Three pillars of ERGaR MB

1. **European natural gas network** (consisting of the transmission and distribution systems) **treated as single logistical facility** with regard to injected biomethane.
2. **Mass balancing of injected and withdrawn biomethane consignments** within the European natural gas network.
3. **Sustainability verification** (prior to grid injection) and **cross-border transfer of sustainability claims**.

Why do we need mass balancing?



/HMN 2017/

Price opportunities in Denmark based on alternative costs



Non-certified biomethane in ETS

- GO price: ~2 cent/m³



Non-certified biomethane outside ETS

- GO price: 6,5 - 15 cent/m³



Biomethane 1G RED certified

- GO price: 40 cent/m³ (1G ethanol substitution)
45 cent/m³ (1G FAME substitution)



Biomethane 2G RED certified

- GO price: 80 cent/m³ (2G ethanol substitution)
95 cent/m³ (2G FAME substitution)



Biomethane Advanced Biofuels (from 2020)

- GO price: 70–100 cent./m³ (2G ethanol)
110 cent/m³ (AB-HVO)

Guarantees of origin under RED II: the principles

- “GOs issued for the purposes of the RED II have the sole function of showing to a final customer that a given share or quantity of energy was produced from renewable sources” (rec. 55)

=> disclosing tool

- “With a view to ensuring that a unit of renewable energy is disclosed to a customer only once, double counting and double disclosure of guarantees of origin should be avoided” (rec. 55)

=> no double counting/ no double disclosing

- GOs reflect and give to renewable energy “a market value, that should be taken into consideration for the relevant support schemes” (rec. 57)

=> double compensation to be avoided

- “GOs is not a support scheme under art. 2 of RED II and should be distinguished from green certificates used for support schemes” (rec. 55)

=> GOs ≠ green certificates

- “Guarantees of origin which are currently in place for renewable electricity should be extended to cover renewable gas. Extending the guarantees of origin system to energy from non-renewable sources should be an option for Member States. This would provide a consistent means of proving to final customers the origin of renewable gas such as biomethane and would facilitate greater cross-border trade in such gas. It would also enable the creation of guarantees of origin for other renewable gas such as hydrogen.” (rec. 59)

=> extension to renewable gas and non-RES

Obligations/options for MS

For the transposition MS should take into consideration the following:

- ❑ GOs as **one single mechanism** for disclosure of the origin of RES (art. 19 par. 1)

=> **Obligation**

- MS shall ensure that the origin of the energy from renewable sources shall be disclosed by one and only mechanism: the GOs
- No other mechanism allowed for disclosing the energy from renewable sources

- ❑ Extension of GOs to non renewable sources (art. 19 par. 1)

=> **Option**

- MS may allow the use of GOs to disclose energy from non renewable sources

Renewable gas GO perspectives..

- Present biomethane production: ~2 bcm (20 TWh)
- European natural gas consumption: ~550 bcm (5.500 TWh)
- Number of biomethane producing installations: ~540
- 5% share in NG consumption can be reached by building >5.000 new biomethane production facilities at total investment costs of >30 billion EUR
- Can this investment level be achieved merely through trading GOs?

Summing up

ERGaR :

- ✓ Is developing a transparent platform for **cross border transfer** of guarantees of origin for **grid injected renewable gas**
- ✓ **Builds on national biomethane registries** as issuing bodies
- ✓ Develops MB scheme **for transport use** and GO scheme **for other end uses**
- ✓ Expand to **other renewable gases** as these matures

THANK YOU

Jeppé Bjerg
President

More info:
www.ergar.org

