

DANISH BIOMETHANE REGISTRY & EUROPEAN RENEWABLE GAS REGISTRY (ERGAR)

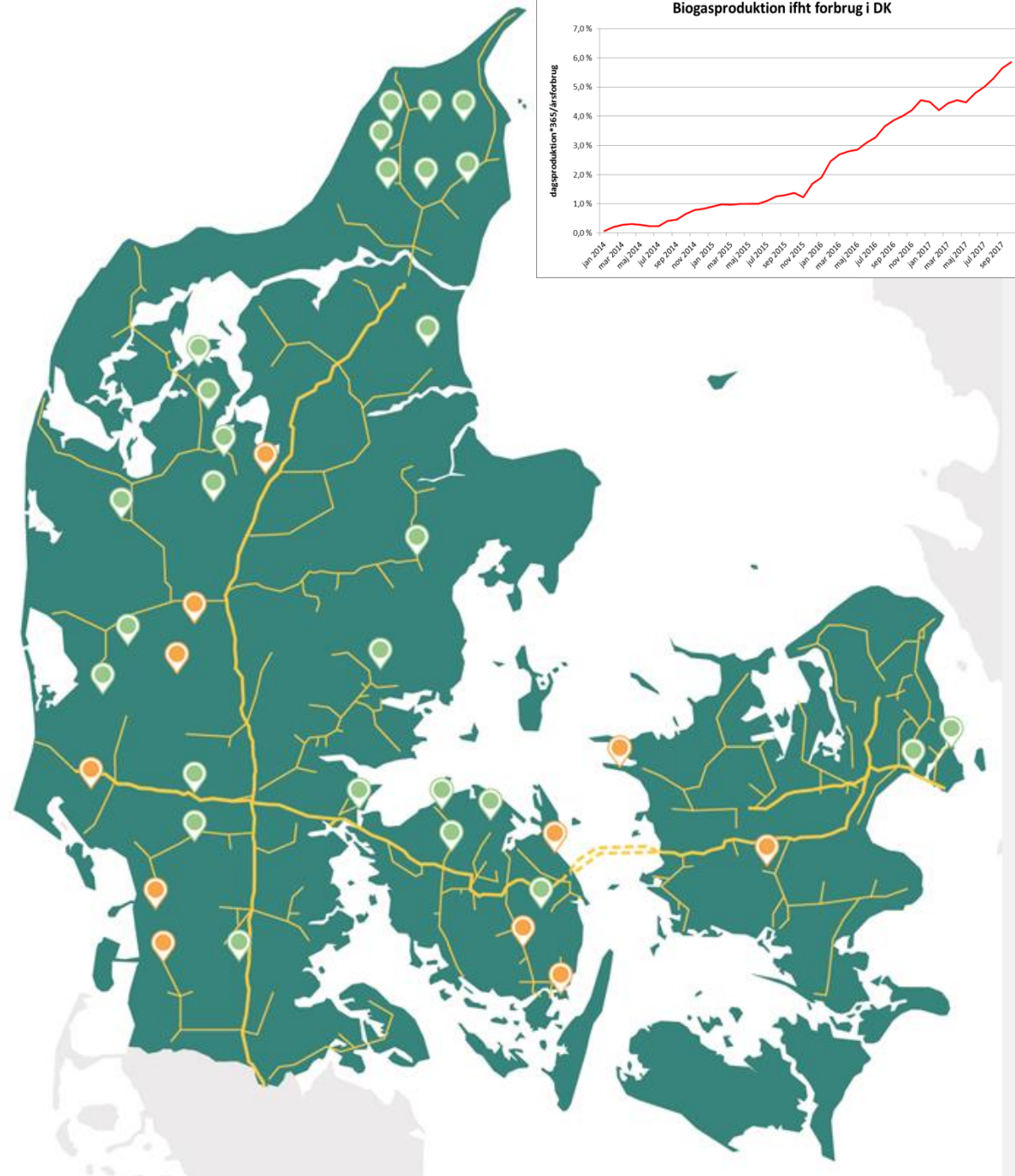
Jeppe Bjerg, Lead Development Manager
Svensk biogasregister?, Energigas, Sverige

20 June 2018



BIOMETHANE STATUS

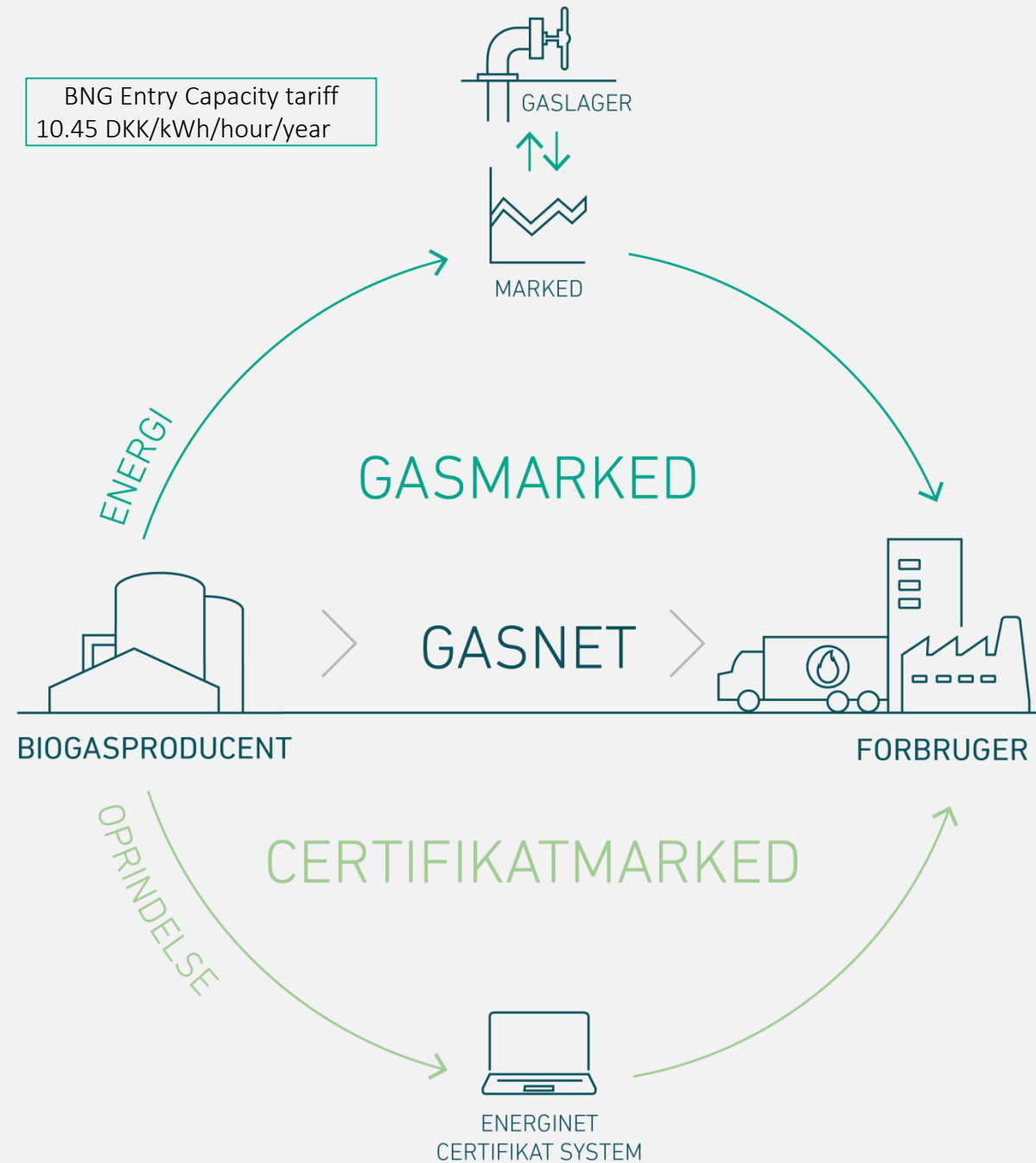
- 1st commercial plant grid connected in 2014
- 28 plants grid connected
- 6,7% December 2017
up to 8-10% December 2018
- Biomethane in transmission grid
- Next green gases in pipeline
- Marked model being developed



BIOMETHANE MARKET MODEL

Accomplished 2017: Improved framework for green gas on grid

- ✓ Strengthened stakeholder involvement
 - ✓ Green Gas Forum
 - ✓ DSO collaboration
- ✓ New certificate platform
- ✓ Biomethane end use applications
 - ✓ Emission Trading Scheme
 - ✓ Renewable Power GoO
 - ✓ Transport Fuel – blending obligation
 - ✓ Voluntary market - sector declaration
- ✓ Developing a european biomethane marked?
- ✓ Increased integration with gas marked – shippers, balancing?



TRANSACTION DETAILS – CANCELATION REPORT **ENERGINET**

(DEMO)

Transaction details

Transaction Type:	Cancel
Transaction Date:	2017-01-23 15:23:22
Transaction Number:	2017012300002
Message to Receiver:	-

From	
Account Holder:	DONG Energy Salg & Service A/S
Account:	DB- DONG Energy Salg & Service A/S- 643002406722100016
Domain:	Denmark - Biogas
Street:	Teknikerbyen 25
Postal Code and City:	2830 Virum
Country:	Denmark

To	
Name of Beneficiary:	<u>Biogas seller</u>
Cancellation Purpose:	Cancellation for heating
Consumption Period:	2017-01-01 to 2017-01-08
Country of Consumption:	Denmark
Location of Beneficiary:	Fyn
Usage Category:	Commercial & Public use
Type of Beneficiary:	Energy supplier

Total

Total MWh:	660
Total Biomethane-GO:	660

BATCH INFO – CANCELATION REPORT (DEMO)

Certificate Number (From - To)	Volume Domain	Fuel, Technology	S/T Issuing Date	Production Period	Production Plant (GSRN, Estimated Annual Production, name)	Trading Schemes	Support Schemes
6430024065559 1001000000000 9681 To 6430024065559 1001000000001 0100	420 Denmark - Biogas	F01030200, T070000	S 2017-01-23	2017-01-01 To 2017-01-08	571515179101331756 1500000 MW Fredericia Spildevand A/S - 0001	Biomethane- GO	Production Support
6430024065559 1001000000001 0101 To 6430024065559 1001000000001 0340	240 Denmark - Biogas	F01030400, T070000	S 2017-01-23	2017-01-01 To 2017-01-08	643002406722000040 500000 MW Bio Plant No support	Biomethane- GO	No support

PLANT INFO – CANCELLATION REPORT (DEMO)

Production Plant public information

Production Plant Name:	Fredericia Spildevand A/S - 0001
Production Plant GSRN:	571515179101331756
Domain of Production Plant:	Denmark - Biogas
Estimated Annual Production, MW:	15000000
Date of Commissioning:	2011-08-01
Location of Production Plant:	7000 Fredericia, DK
Technology:	T070000 - Other
Fuel:	F01030200 - Renewable/Gaseous/Sewage gas
Investment support:	-
Production support:	Feed in subsidy (Production support)

Production Plant Name:	Bio Plant No support
Production Plant GSRN:	643002406722000040
Domain of Production Plant:	Denmark - Biogas
Estimated Annual Production, MW:	500000
Date of Commissioning:	2017-01-01
Location of Production Plant:	1234 City, DK
Technology:	T070000 - Other
Fuel:	F01030400 - Renewable/Gaseous/Gas from organic waste digestion
Investment support:	-
Production support:	-

CROSS BORDER TRADE

Agreement with German Biomethane Register
European Renewable Gas Registry

BILATERAL AGREEMENT WITH DENA ON CROSS BORDER TRANSFER

Transparent and documented cross border transfer

Information on certificate:

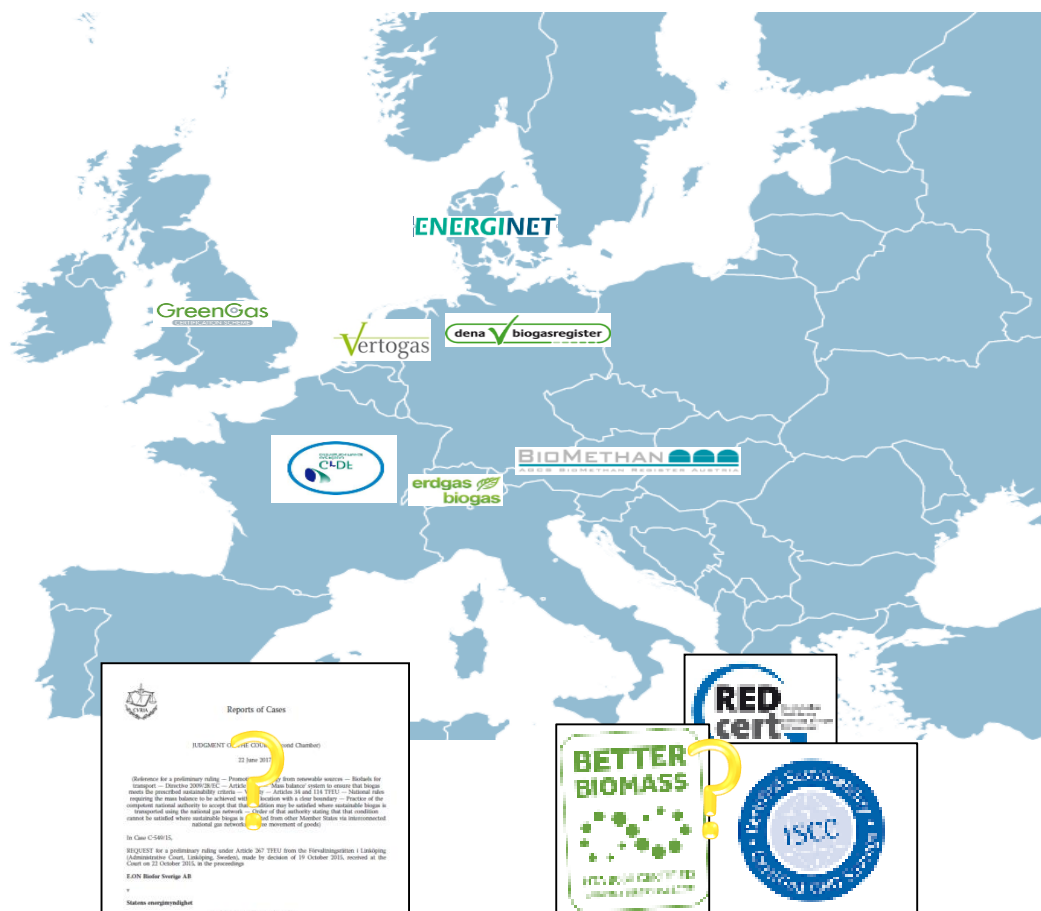
- Country of origin
- Production period
- Plant
- Owner
- Production support
- Counting towards national goal



Cautious implementation

- Quarterly control of import/export volumes
- Annual control of plants and account holders in registers
- “Cradle to grave” test of a number of transactions
- Limited to certificates from Danish and German plants
- Primarily for voluntary markets

EUROPEAN RENEWABLE GAS REGISTRY



Vision:

VE gas kan handles over grænser i et stadig mere integreret europæisk marked via gasnettet og kan anvendes i alle slutbrugersegmenter.

Mission:

På basis af nationale certifikatregistre er etableret et transparent og troværdigt dokumentationssystem for grænseoverskridende handel af VE gas tilført det europæiske gasnet. Et system der sikrer mod dobbelt salg og dobbelt måltælling af den grønne værdi.

Status:

- Ansøgt om frivillig ordning under RED for massebalance i Europæisk gasnet
- Arbejder på at udvide registre
- Etablerer transfer hub

THREE PILLARS OF ERGAR RED

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**.

SUMMING UP

ERGaR will:

- ✓ treat the European gas grid as a **single logistical facility**
- ✓ **rely on national biomethane registries** as issuing bodies for guarantees of origin
- ✓ apply the **mass balance approach** for transferring sustainability characteristics of biomethane consignments
- ✓ **avoid double counting and double selling**
- ✓ develop schemes **for transport and for other end uses**
- ✓ expand to **other renewable gases** as these matures

QUESTIONS



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