

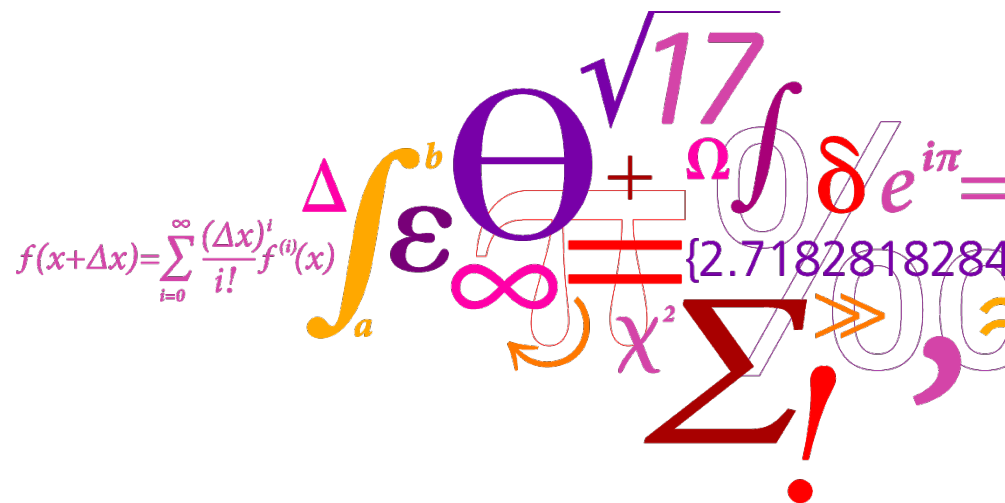


FutureGas

- Status for WP6: Markets and Regulation

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Cases in WP6

1 Power-to-Gas

- a) Hydrogen as power storage (Power-to-Gas)
- b) Hydrogen sent to the grid
- c) Upgrading (Power-to-Biomethane)

2 LNG

- a) Large scale commercial LNG
- b) Small scale, LBG

3 Renewable gases – Certificates

- a) An overall market model for the support of renewable gases
- b) Green certificates applied together with other tax- or support regulation

4 Gas in Transport (LNG/CNG)

- a) Land transport (blending demands)
- b) Maritime transport

5 Hybrid – electricity driven heat pumps backed by gas boiler

Contribution to cases	1) Power-to-Gas			2) LNG		3) RE support models - certificates and more		4) Gas in transport		5) Hybrid heating
	a	b	c	a	b	a	b	a	b	
DTU Management Engineering (DTU-ME)	X	X	X	X	X	X	X	X	X	X
HMN naturgas (HMN)				X			X	X	(X)	X
NGF Nature Energy (NGF)			X		X	X	X	X		
Danish Energy Association (DE)		X	X			X	(X)			X
Danish Gastrubition (DGD)	X		X					X		
Energinet	X	X	X	X	X	X	X	X	(X)	X
Danish Energy Agency (DEA)					X	X		X		
Florence School of Regulation (FSR)		X	X	X		X		X		
Exeter University (Exeter)				X	X		X		X	(X)
Delft University of Technology (TU Delft)	X						X	(X)		(X)

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Additional

- **We are applying and further developing a plant optimization model for biogas (Ida and Lise)**
 - Especially to evaluate different kinds of regulation
- **Regulation is being implemented in the Balmoral model**
 - Started but we have not reach that far
- **Visits**
 - Catherine Michell visited DTU in the late autumn 2017 and will expectedly come back in this autumn
 - Tara is visiting FSR 2 month this autumn