Energinet.dk's rolle i fremtidens danske energiforsyning

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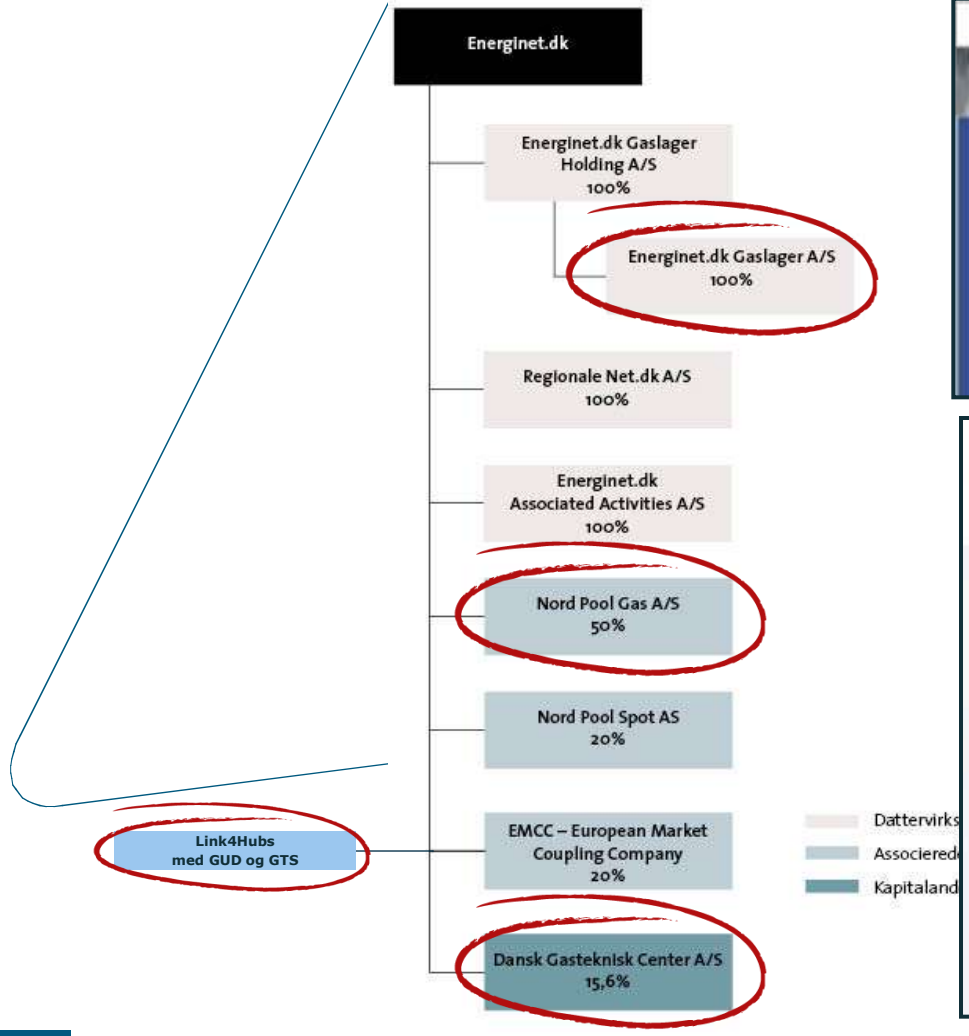
18. November 2011

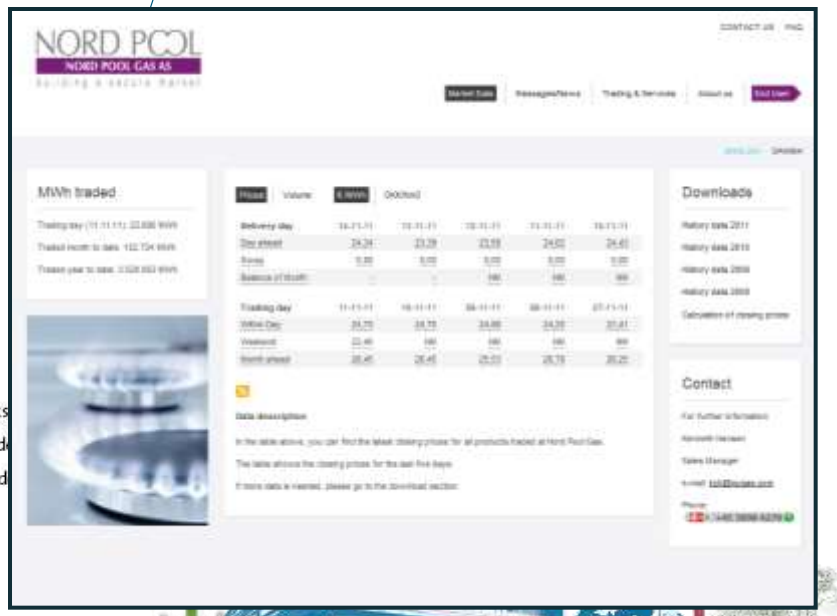
Hvad skal vi gennem i dag!

- Energinet.dk's primære roller udvides
- Alt er i forandring
- Fossil uafhængighed er fremtiden
- Og gassen er et vigtigt værktøj på vejen dertil

Lov om Energinet.dk

Energinet.dk datterselskaber og andre aktiviteter





Udviklingen sker i hele værdikæden

LNG skibe i Hirtshals

Udvidelse af Lille Torup

Opkobling mod Norge

Biogas produktion

Udvidelse af Stenlille

Nye kraftværker i Sverige

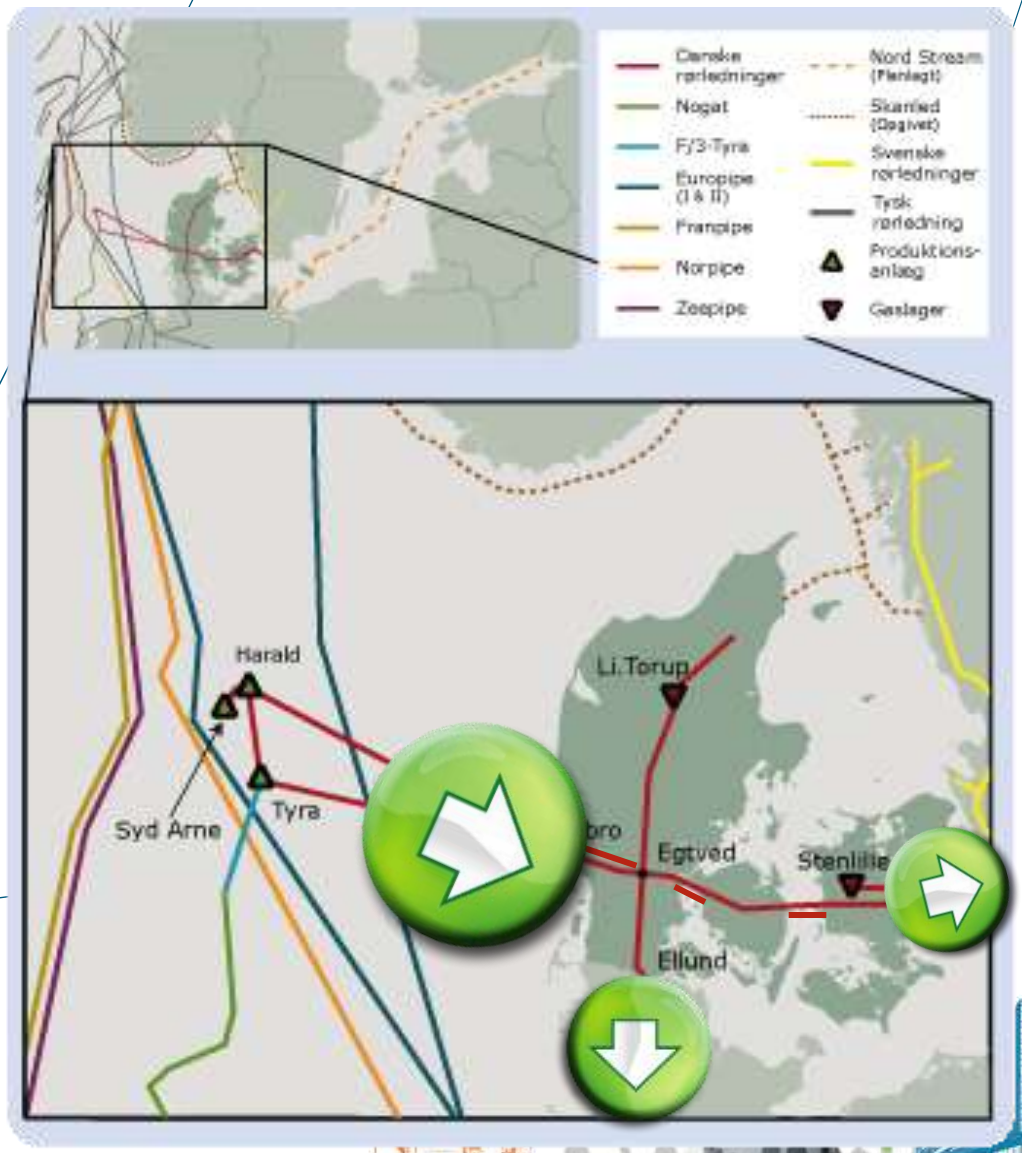
Ellund-Egtved udvidelse

Energinet.dk vil deltage i alle relevante dele… 2

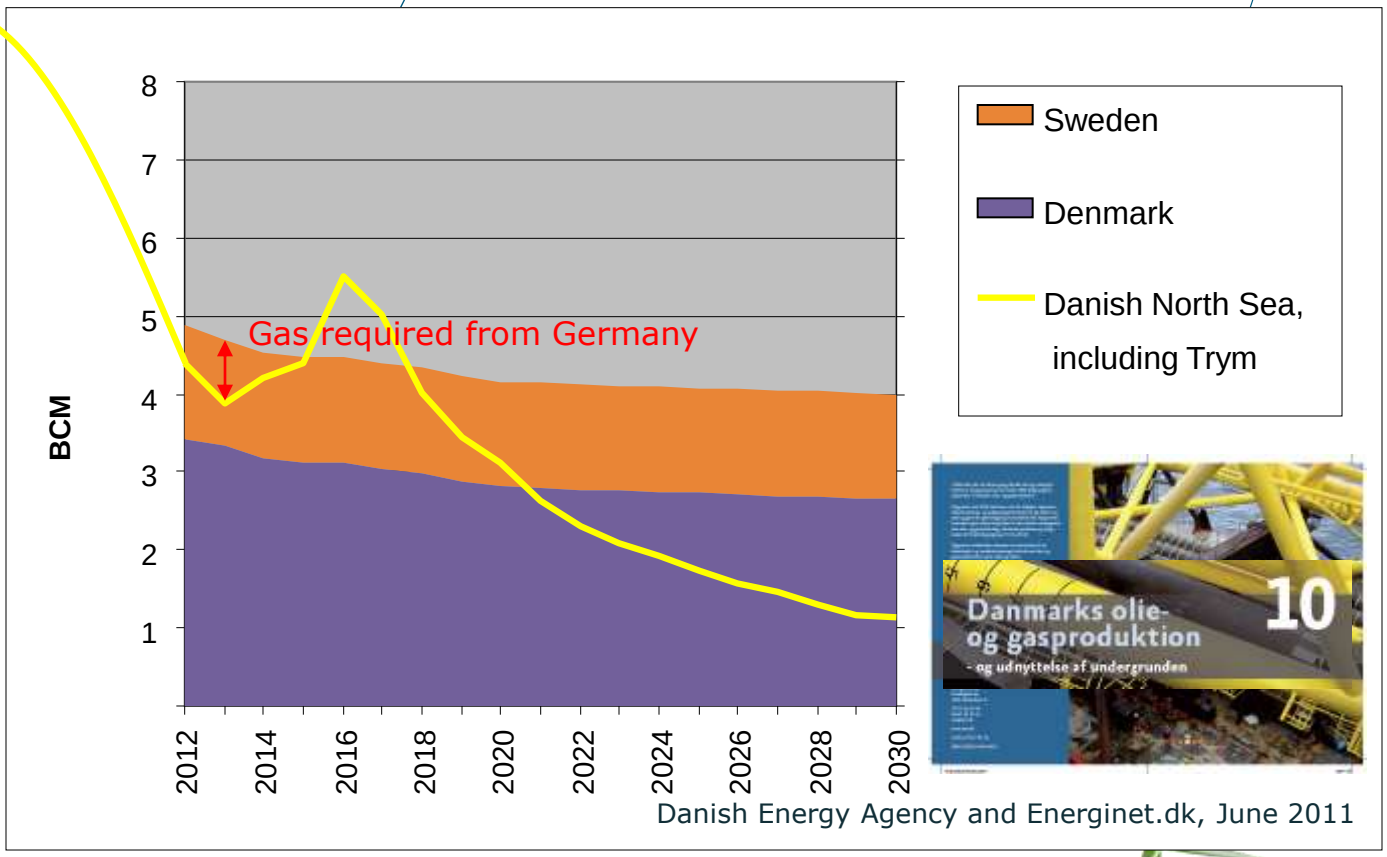
Den fulde tekst
Bekendtgørelse af lov om Energinet.dk
ENERGINET DK
EL
GAS
ANLÆG OG PROJEKTER
KLIMA OG MILJØ
FORSKNING
JOB
Nyheder
Service og drift
Engrosmarked
Detailmarked
Driften af elsystemet
Systemydelser for el
Værker
Vindmøller
Mikro VE
Forskrifter
Udvikling af elsystemet
Strømafbrydelse
Datahub
Selvbetjening
Elselskaber i forhandling med Energinet.dk om salg af el-infrastruktur
Ejerne af landets ti regionale eltransmissionsselskaber indleder nu forhandlinger med statens transmissionsselskab, Energinet.dk, om salg af de regionale transmissionsnet.
§ 3. Energinet.dk varetager statens købepligt i medfør af § 35 i lov om elforsyning og § 34 i lov om naturgasforsyning.

Figur 5. Oversigt over nuværende og kommende infrastrukturprojekter.

Der var en gang hvor der var rigeligt med gas …

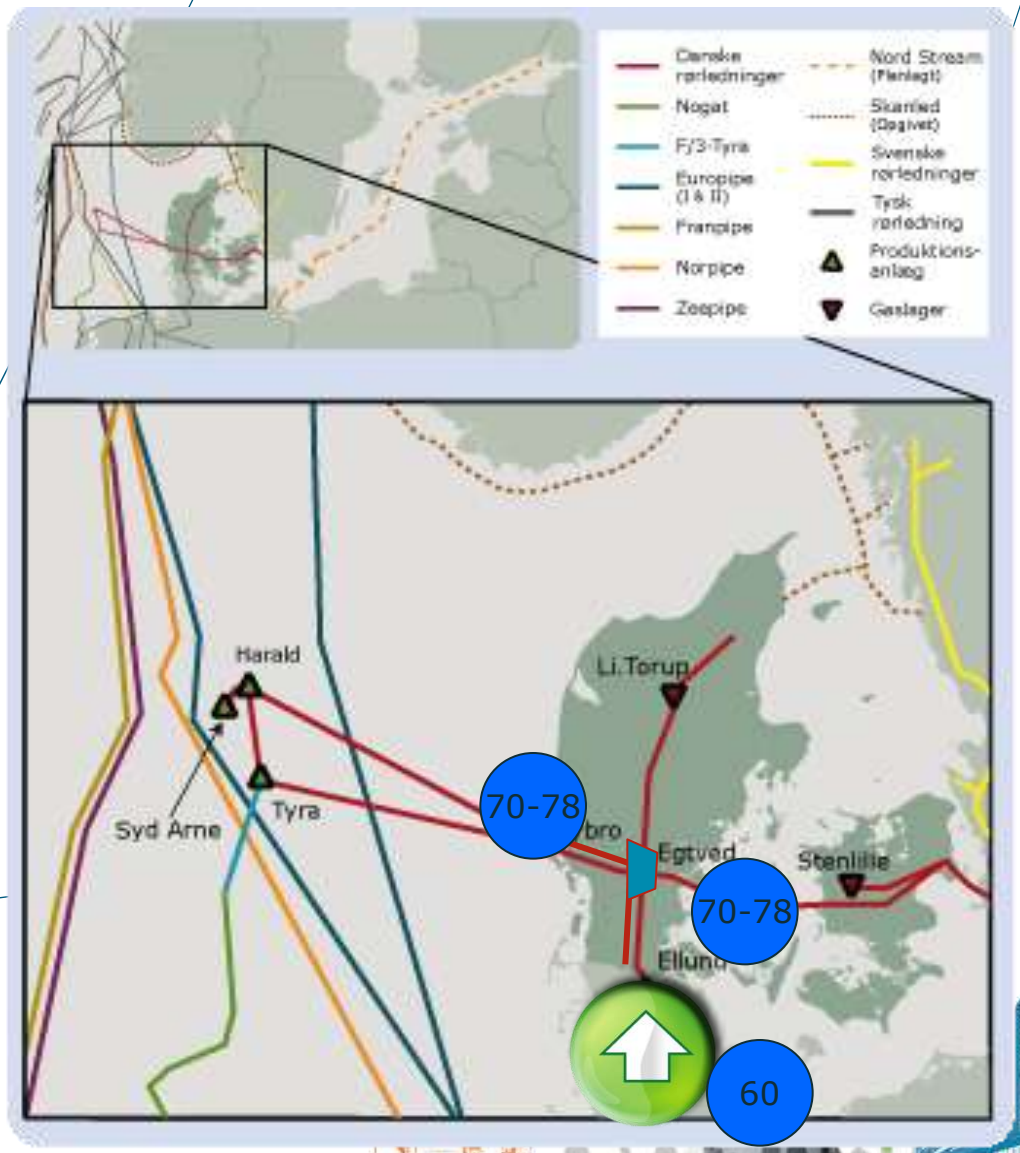


De danske gasreserver mindskes

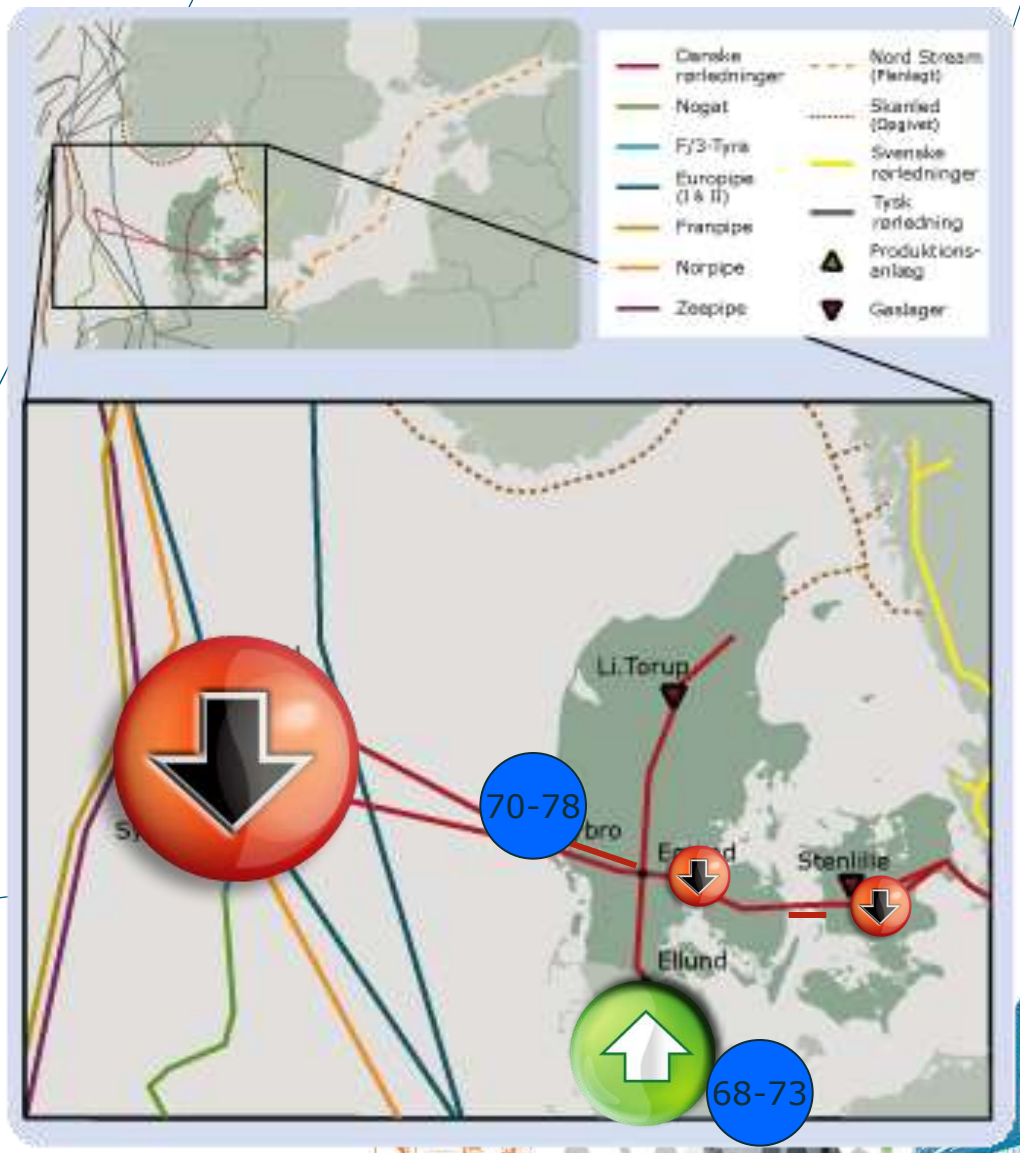


http://www.ens.dk/Documents/Netboghandel%20-%20publikationer/2011/Danmarks_olie_og_gas_produktion_2010.pdf

Derfor udvider Energinet.dk gassystemet

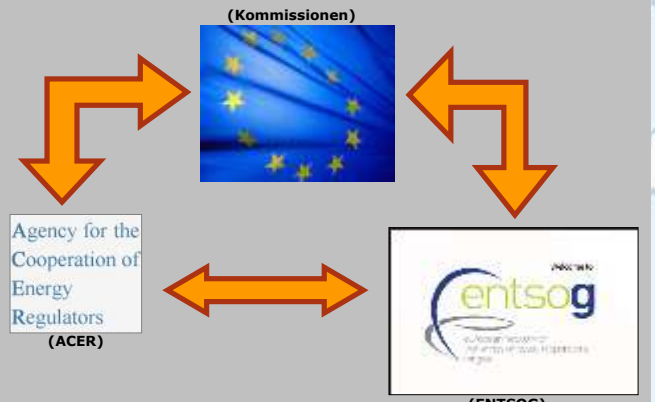


Men kritisk tryk 2011-2013



EU definerer rammer for markederne…

Den tredje energipakke kræver ny rolle fordeling



Internationalt

- Etableringen af ENTSOG (European Network of Transmission System Operators for Gas).
- Hovedformål:
  at forbedre de europæiske transmissionssystem-operatørers samarbejde og at videreudvikle rammerne for en fælles europæisk udvikling
- International fælles "Network Code", som kommer til at danne grundlag for de bestemmelser, der i fremtiden bliver skrevet i Regler for gastransport.

Unbundlede investeringer

- Uafhængige TSO'er overtager analyser og investeringsbeslutninger fra de kommercielle og bundlede selskaber
- Der etableres overordnede og fælles EU beslutnings-grundlag (TYNDP)

Kapacitetsprodukter og auktioner siden 1.10.2011

Available capacity and result of the auction - November 2011:

Capacity November 2011 KWh/h	Ellund Exit	Ellund Entry	Dragør Exit	Dragør Entry
Auction capacity available for monthly allocation	Firm: **3,378,931**	Interruptible level 3: **252,000**	Firm: **2,044,800**	Interruptible level 1: **600,000**
	Interruptible level 1: **684,432**		Interruptible level 1: **733,200**	
			Interruptible level 2: **497,389**	

Gassens har stadig signifikant rolle i EU

The Commission's energy infrastructure package

Reference: MEMO/11/710 Date: 19/10/2011

HTML: EN FR DE DA ES NL IT SW PT FI EL CS ET HU LT LV MT PL SK SL BG RO
PDF: EN FR DE DA ES NL IT SW PT FI EL CS ET HU LT LV MT PL SK SL BG RO
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MEMO/11/710

Brussels, 19 October 2011

The Commission's energy infrastructure package

Why do we need new pipelines and electricity grids?

Energy infrastructure – pipelines, electricity grids – are key to all our climate and energy goals.

To **increase the share of renewable energy** to 20 percent of our final energy consumption by 2020, we need to bring the energy generated by wind parks and solar power stations to the consumers. For this, we need a more **integrated and powerful network** than exists today.

To save 20 percent of our estimated energy consumption in 2020 via technology, we need **smart meters and smart grids**, which allow consumers to control exactly their power consumption and to save money and energy by changing their habits.

To secure gas supply also in the event of a crisis, we need to **diversify our sources** and new pipelines which bring the gas from new regions directly to Europe.

To have a functioning **internal market with competition** and fair and competitive prizes, we need the interconnections between member states, allowing companies to offer their energy in all member states.

How much investment is needed in the EU?

In the next ten years, **around Euro 200 billion (bn) are needed for the construction of gas pipelines and electricity grids.** More specifically: € 140 bn for high-voltage electricity transmission systems, storage and smart grid applications, €70 bn for gas pipelines, storage, Liquefied Natural Gas (LNG) terminals and reverse flow infrastructure (to allow gas to flow in both directions), and € 2.5 bn for CO2 carbon dioxide transport infrastructure.

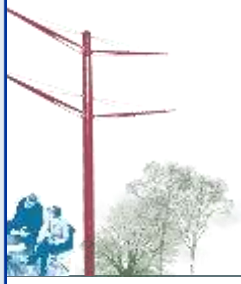
This means that current investment levels have to be increased considerably. Compared to the period 2000 to 2010, this would result in a 30% increase in investments in the gas sector, and a 100% increase in the electricity sector compared to the same period before.

Why is there a need for the EU to become active?

It is estimated that the investments needed to achieve the 2020 goals will not be made or not be made on time, mainly because of two reasons:

1. Building permits take too long to obtain. Currently, it can take more than 10 years to build an overhead electricity line.

2. Not all the investments needed are commercially viable. Some electricity lines and gas pipelines may not be commercially viable because the **market alone does not offer a good return** on investment. It makes a difference if you plan a gas pipeline for a region where annual gas consumption is only about 10bcm, as in the case of the three Baltic States and Finland or for a country such as Germany where annual consumption is about 80 bcm. Still, these countries should be linked to



Vindstrøm og VE-gasser giver god balance

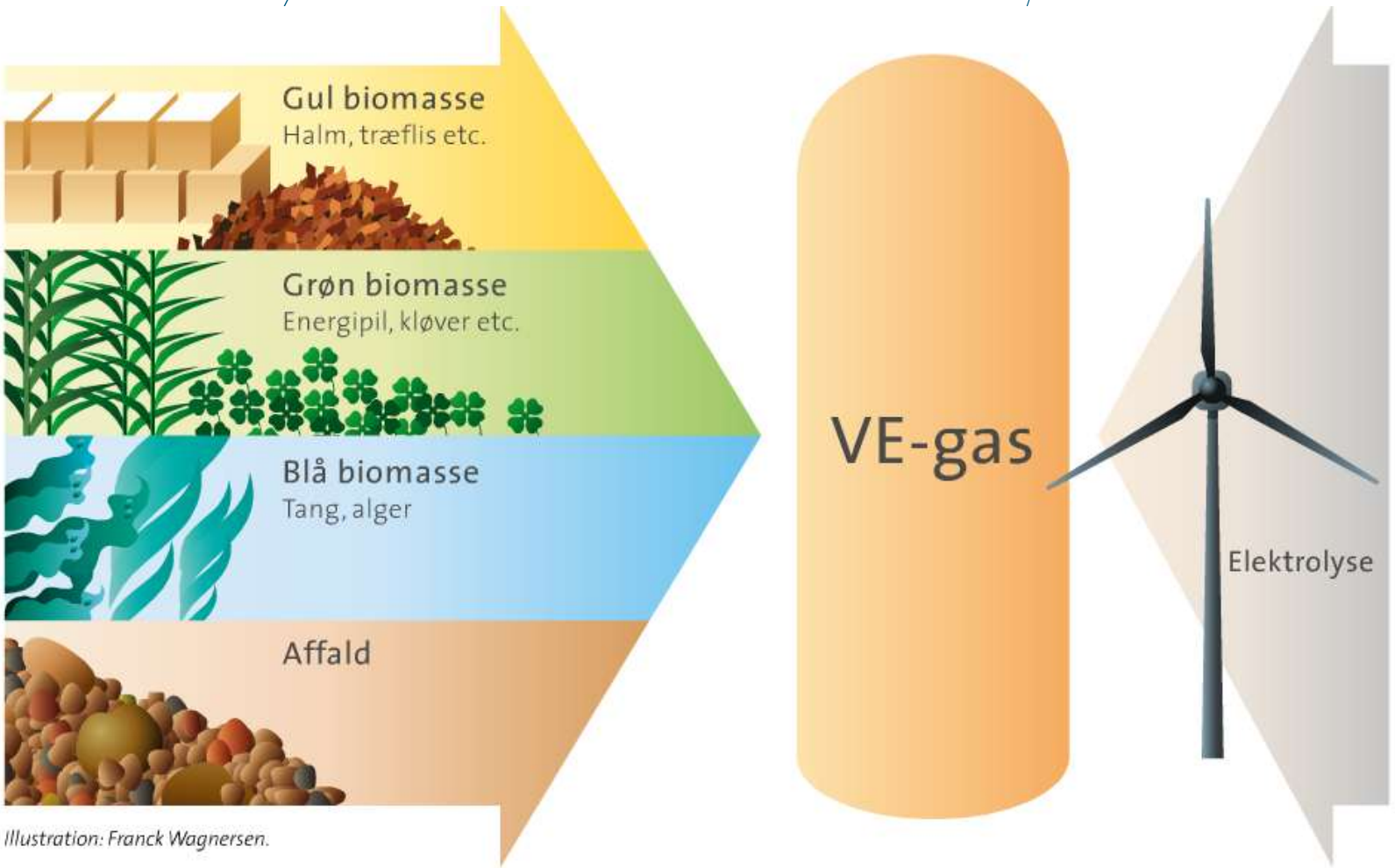
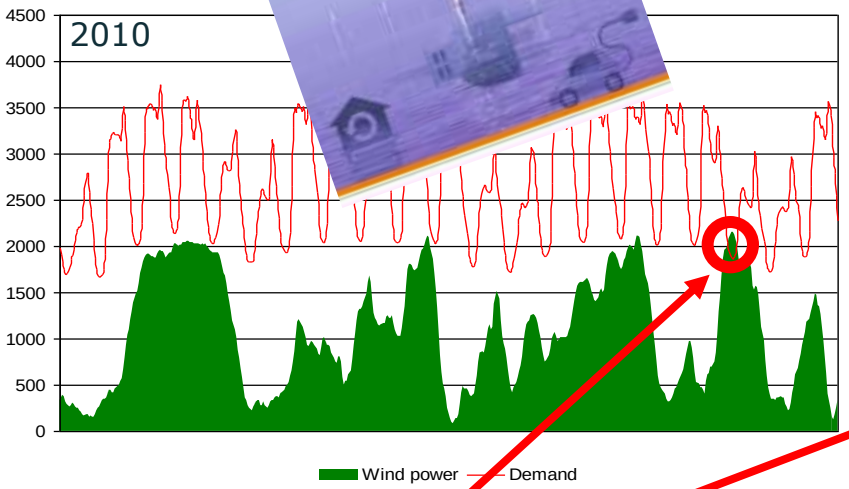
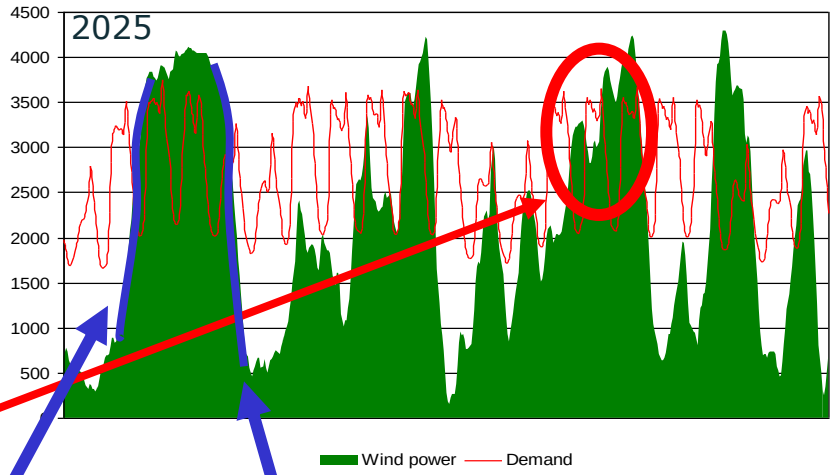


Illustration: Franck Wagnersen.

Behov for fleksibilitet for at integrere vinden…

… eskalerer allerede mod 2025

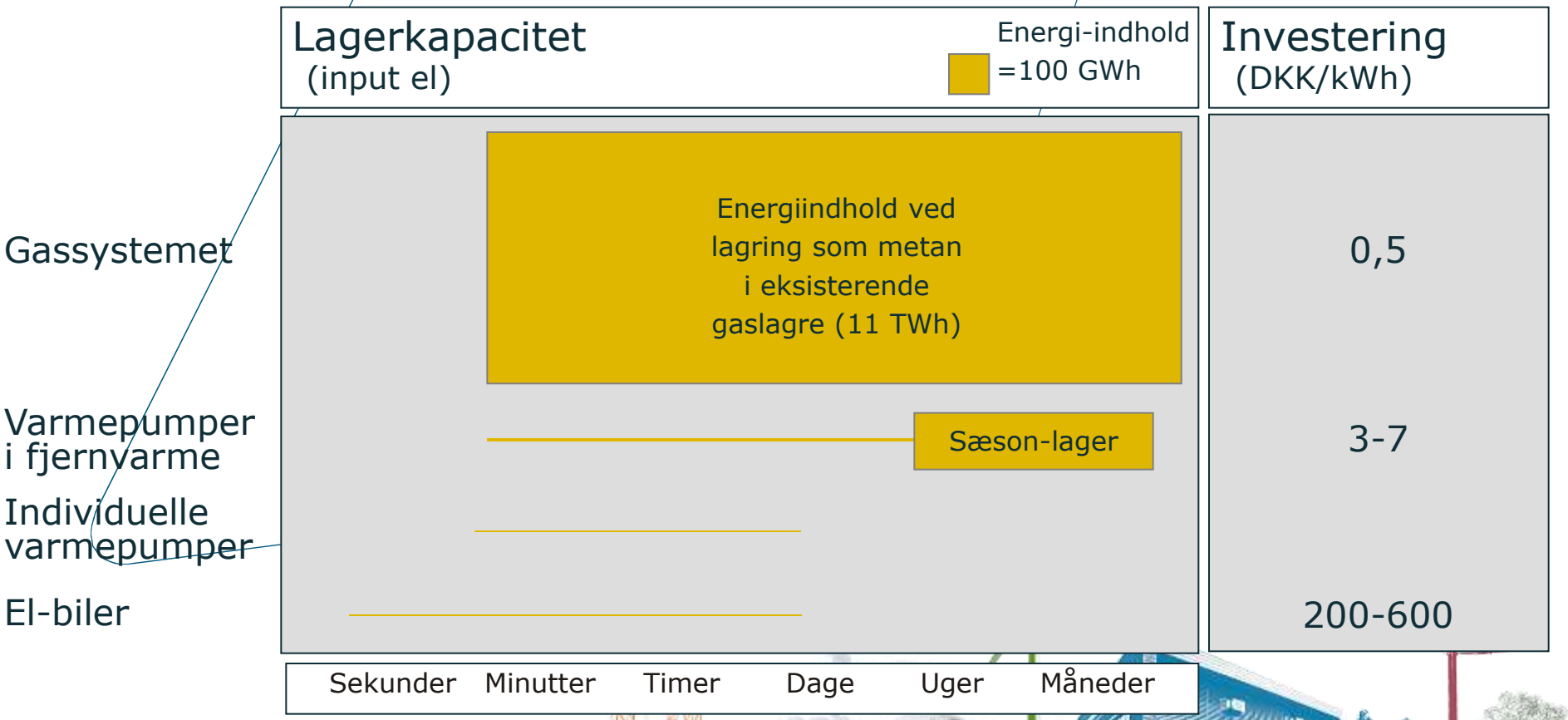




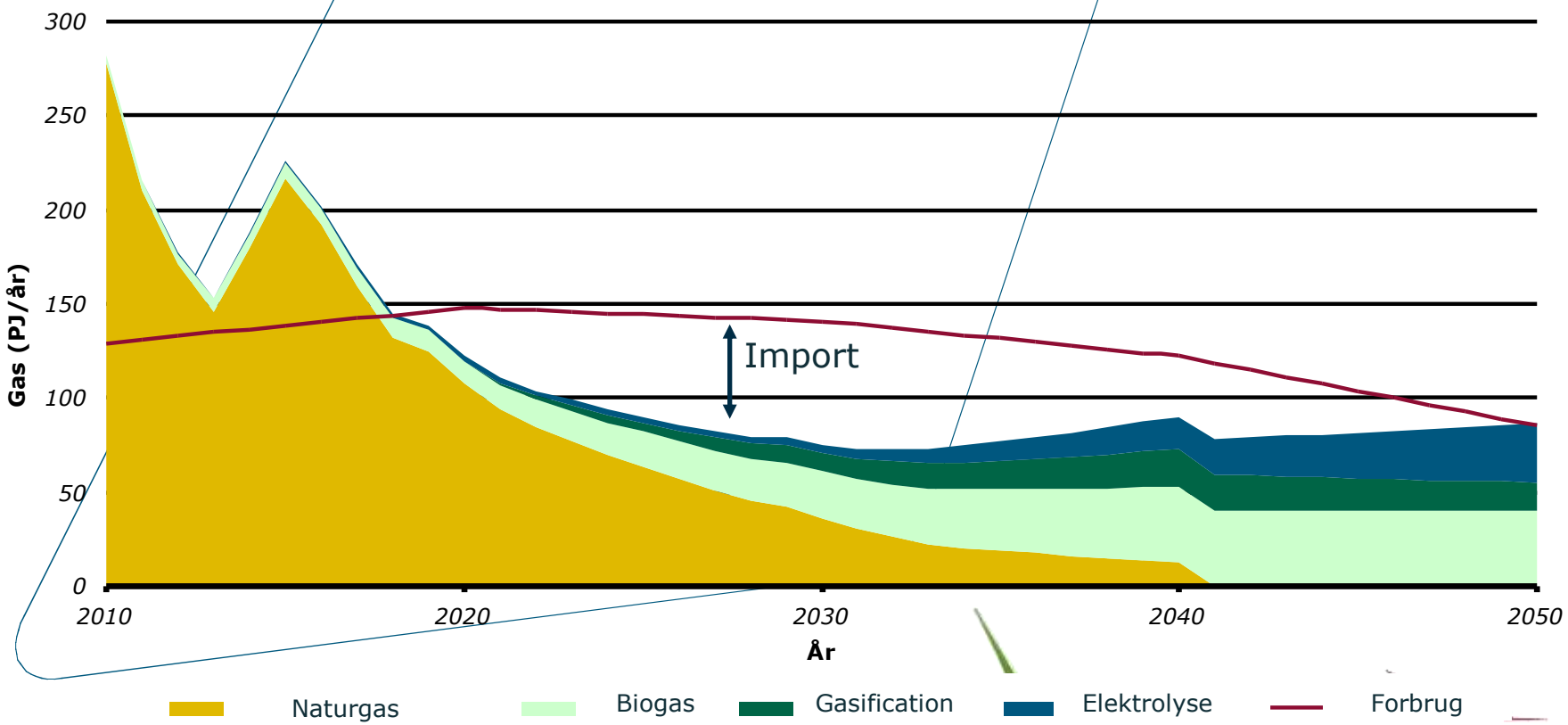
- Behov for lagring
- Behov for regulering (nedregulering og opregulering på få timer)

Vinden kan lagres i gassystemet

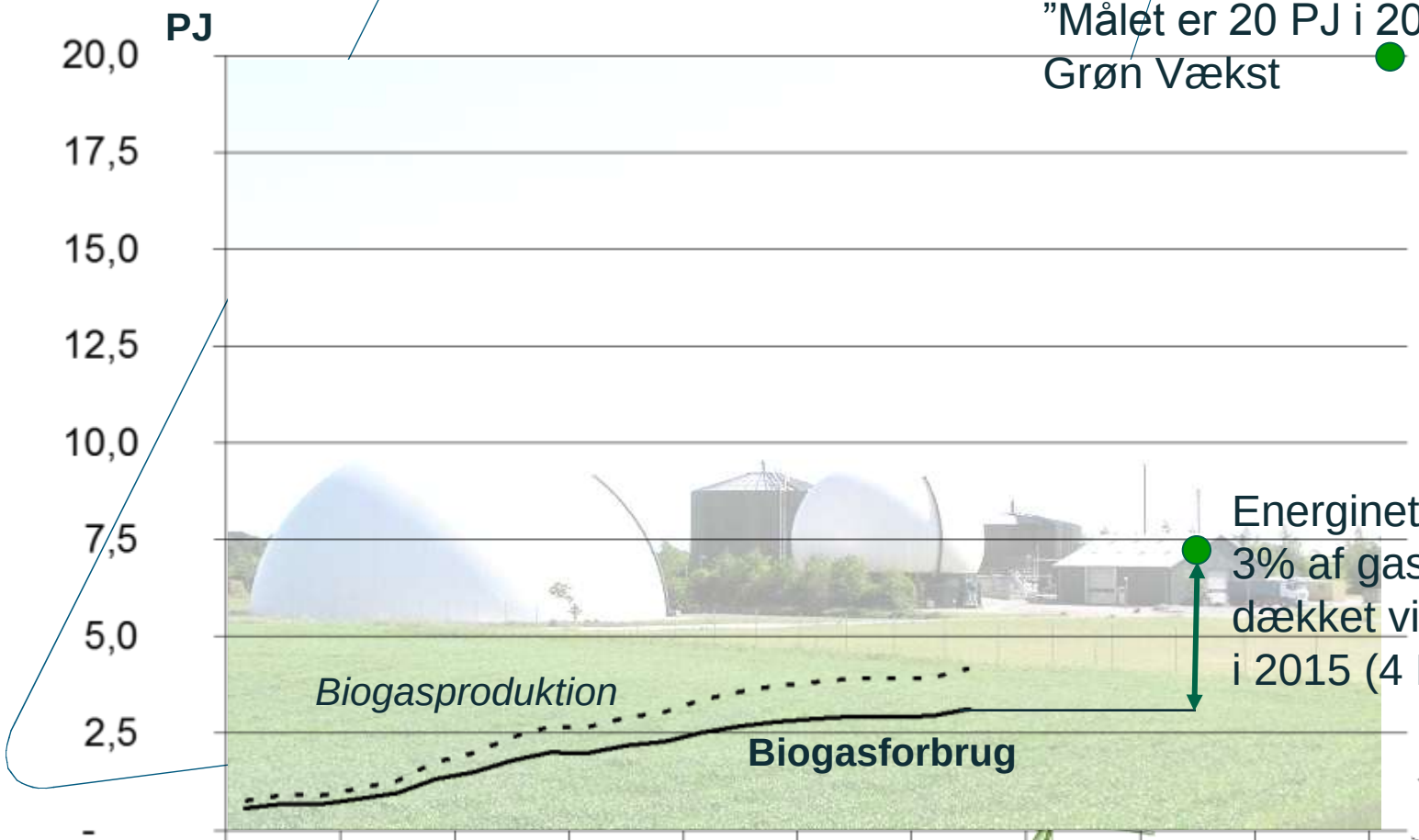
Behov i elsektoren (3,5 TWh)

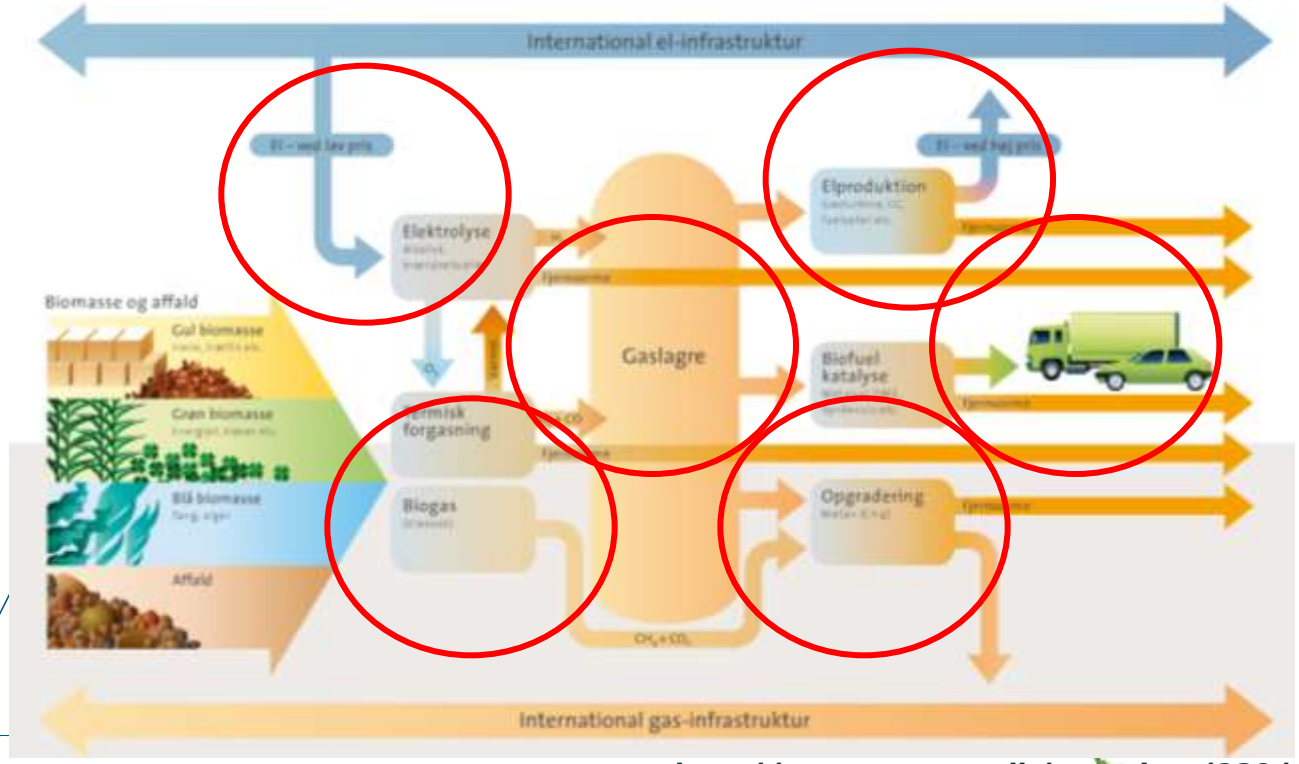


Gasforbruget forventes at falde lidt…



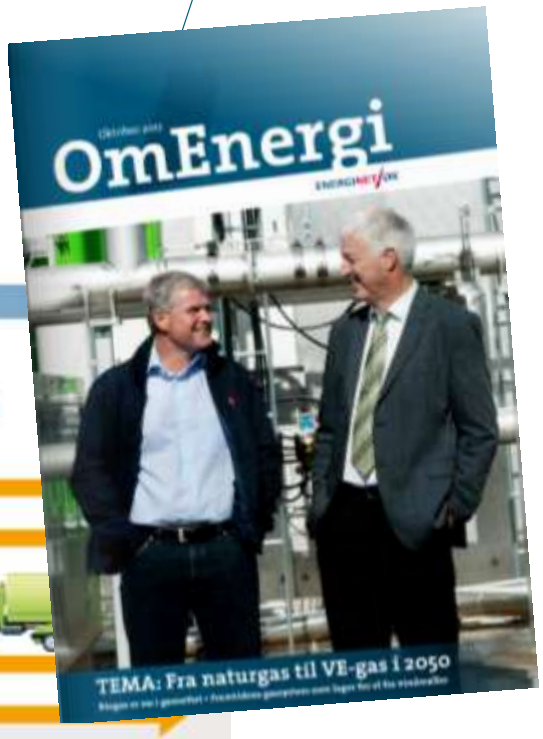
Biogas-potentialet

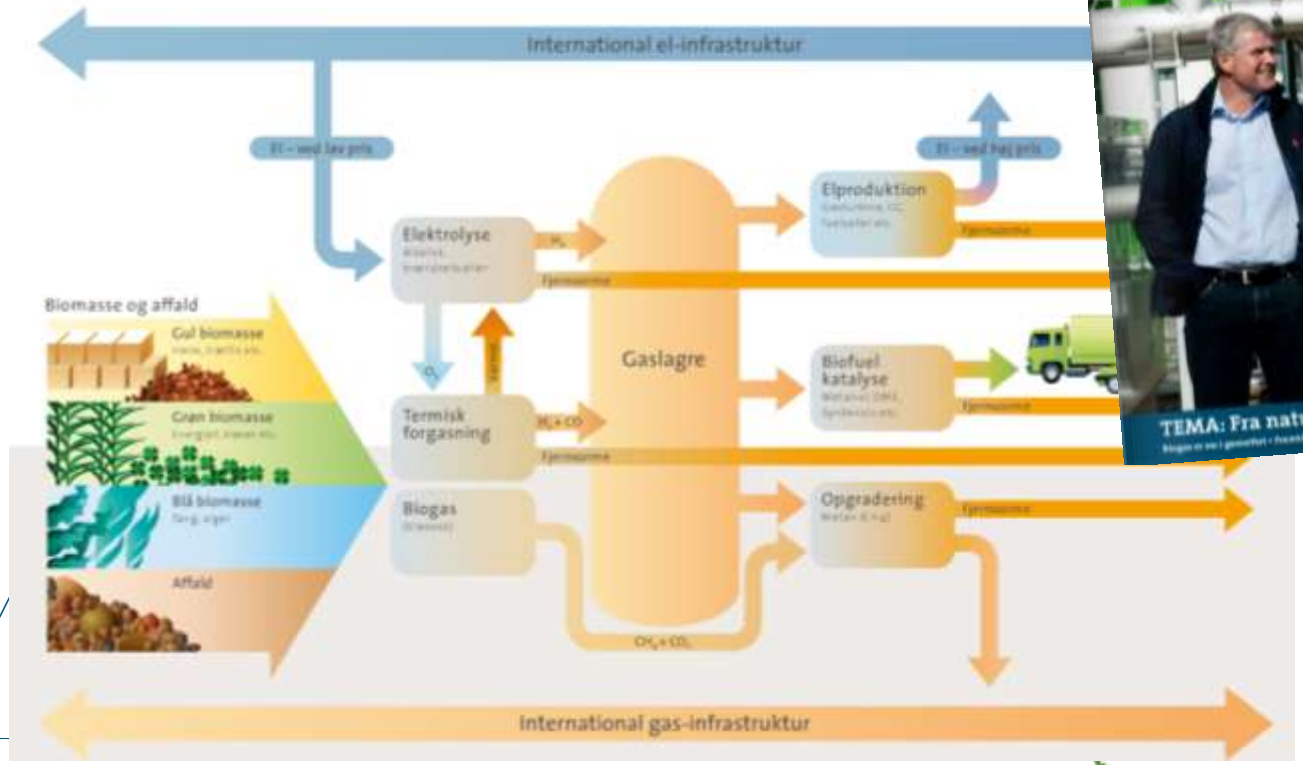




http://www.e-pages.dk/energinet/230/

Tak for opmærksomheden!





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