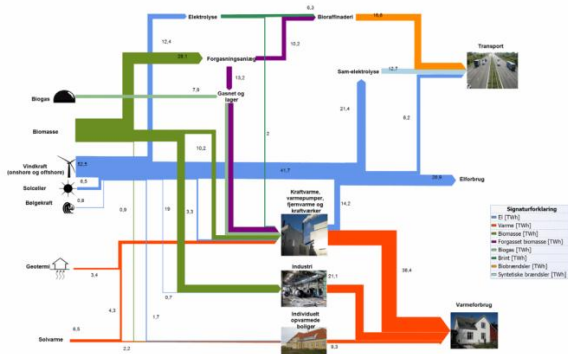




Grena Port. The upcoming fuel alcohol refineries (ethanol & methanol) will be located near the seaside.

In CEESA 100% Renewable Energy Scenario towards 2050 16,6 TWh methanol are allocated for transport. 6,3 TWh are made by electrolysis and the rest by gasification.



Source: <http://www.ceesa.plan.aau.dk/>

Why kill CEESA scenario in advance?

Wind is converted into pure methanol through an elegant process. The government likes the scenario. We do have the technology. It is known and proven. We want to produce now. What prevents us then? The answer: Taxes.

Renewable Methanol manufactured by carbon recycling.									
Turnover MDKK/y	412								
Heavy / Light process	I	II	I+II						
Electricity GWh/y	588	84	672						
	Basic DKK/kWh	Refund DKK/kWh	To be paid DKK/kWh		Electricity MDKK/y		On turnover I+II		
		I	II	I	II	I	II	MDKK	%
1 Electricity	0,3700			0,3700	0,3700	217,6	31,1	248,6	60,41%
2 Green surcharge	0,0030			0,0030	0,0030	1,8	0,3	2,0	0,49%
3 PSO	0,0591			0,0591	0,0591	34,7	5,0	39,7	9,64%
4 Energinet.dk	0,0760			0,0760	0,0760	44,7	6,4	51,1	12,41%
5 NRGi	0,0250			0,0250	0,0250	14,7	2,1	16,8	4,08%
6 Elsparesats	0,0094			0,0094	0,0094	5,5	0,8	6,3	1,53%
7 Energiavgift	0,6350	0,6350	0,6350						
8 Energisparebidrag	0,0060	0,0060	0,0060						
9 El-distributionsafg	0,0400	0,0100	0,0100	0,0300	0,0300	17,6	2,5	20,2	4,90%
10 Tillægsafgift	0,0610	0,0610	0,0310	0,0000	0,0300	0,0	2,5	2,5	0,61%
11 Energispareafgift	0,0640	0,0370	0,0000	0,0270	0,0640	15,9	5,4	21,3	5,16%
Electricity Total	1,3485	0,7490	0,6820	0,5995	0,6665	352,5	56,0	408,5	99,24%

Source: <http://www.starch.dk/methanol/energy/metanol.asp>

Electricity represents 60% of revenue. Taxes and contributions take the rest.

Upcoming fuel methanol refinery in Grena

George A. Olah, Alain Coopert, and C.K. Surya Prakash
Beyond Oil and Gas:
The Methanol Economy
Second Updated and Enlarged Edition



"Beyond Oil and Gas: The Methanol Economy" by Nobel Laureate George Olah et al. has been an inspiration and the government and the Commission's goal of phasing out fossil fuels are basic ideas behind the decision to build a renewable methanol refinery in Grena.

The methanol will initially displace gasoline by admixture and eventually by a separate application in fuel cells. The location next door to hveiti a/s creates industrial symbiosis. Even the neighbor's fermentation CO₂ is captured and becomes methanol. Location near seaside is ideal for receiving raw materials and shipping out finished products. It is the very same place submarine cables from Anholt Wind Mill Park run ashore. This results in near 100 % CO₂ emission savings.

Electrolysis capacity may be increased in order to operate at cheap hours only. We may even adapt capacity to output of wind power with no draw on the national grid.

Tax is the Process Inhibitor

Electricity cost leaves reasonable room for feasible operation, but various contributions and taxes eat up the entire profit. What's more, waste heat is imposed energy taxes, which prevents an otherwise sensible use for district heating. Energy taxes also impede meaningful cooperation with the neighbor.

There are energy taxes on the finished product. This should be charging enough. Energy taxes on raw materials and inputs are superfluous and kill sound and desirable initiatives. In Denmark the taxation is an obstacle to replacing fossil fuels for transport.

This barrier can only be removed politically.

So let's do something about it!