



Netherlands Enterprise Agency

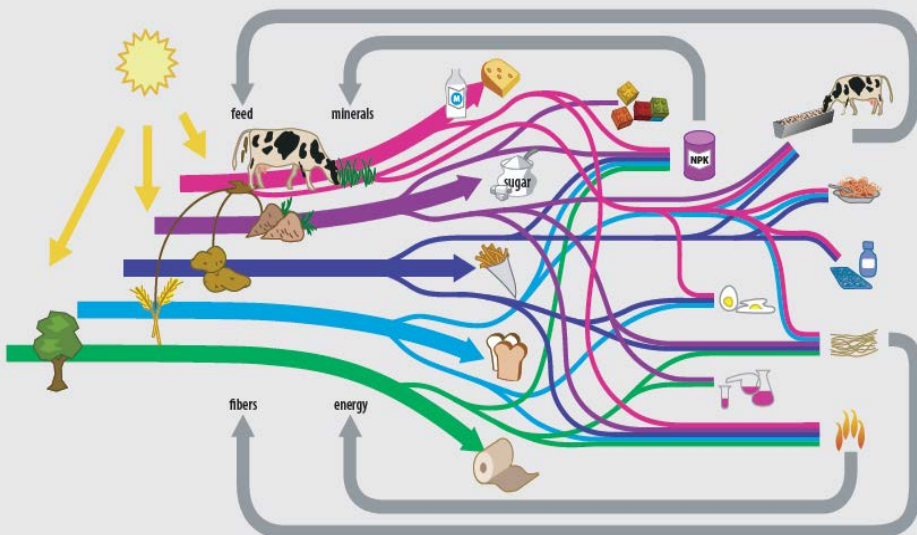


# Biofuels as part of Renewable Energy policy in the Netherlands

Timo Gerlagh

Beijing, 7 April 2018

IEA Bioenergy task 39





# The Netherlands

17 million inhabitants  
on 40.000 sq. km

46.073 US\$ GDP/Cap

390 municipalities

Consumption fuels 11 Mton

Consumption biofuels: 0,4 Mton

Production biofuels: 1,9 Mton

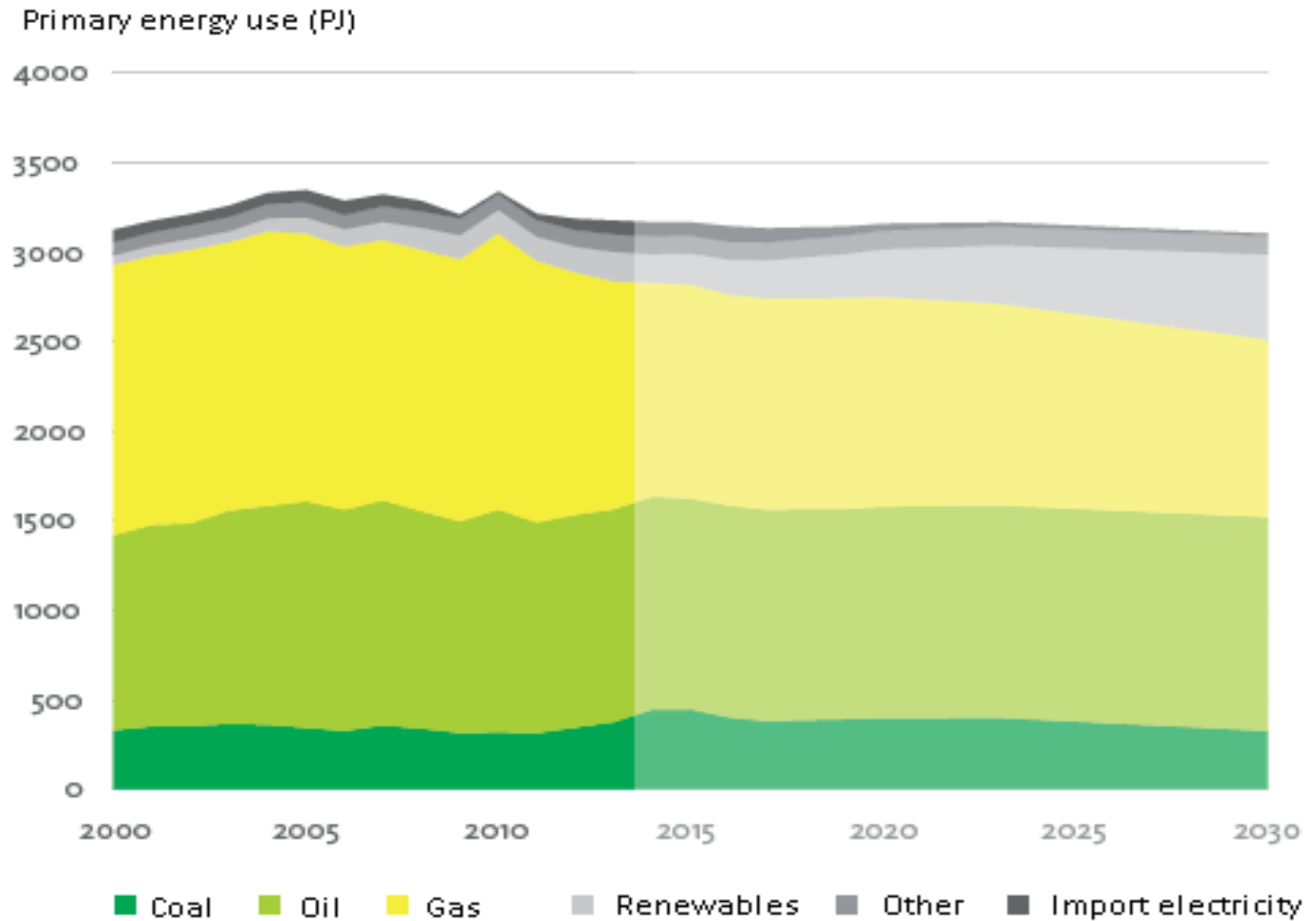


- Delta downstream large European rivers, 2/3 of the country below sea level
- Surrounded by industrialized area's of Belgium, Germany





# Primary energy use





# Newspaper 30 March 2018



Our main source of natural gas will be closed in 2030

Reason:

- Too much impact of the gas extraction (earthquakes)



# Indicative Contribution of R.E. opti



Source	2013	2020	2023
Wind on sea	3,1	27,0	60,0
Wind on land	20,6	54,0	63,0
Solar PV	0,9	11,6	12,4
Cofiring	6,1	25,0	25,0
Waste Incineration	13,3	11,7	12,0
Biomass CHP	3,5	13,6	18,0
Biomass Heat	19,0	31,6	34,1
<b>Biofuels</b>	<b>18,0</b>	<b>35,6</b>	<b>34,6</b>
Renewable Heat	6,1	36,3	46,3
TOTAL	105,5	261,6	335,4
Percentage R.E.	4,4%	14%	16%

For Biomass:  
2013: 59,9  
2020: 117,5  
2023: 123,7



Doubling the amount of biomass in 4 years



# Obligation for fuel suppliers 2020

	Energy	CO2-red	Double counting	Energy content PJ
EU RED 10%	10% 44 PJ		Y	>22
EU FQD		6%	N	31 *(
Energy Agreement				36
<b>Netherlands</b>	<b>16,4%</b>		<b>Y</b>	<b>36</b>

\*( assuming 85% emission reduction



# Implementation (Sub)targets RED

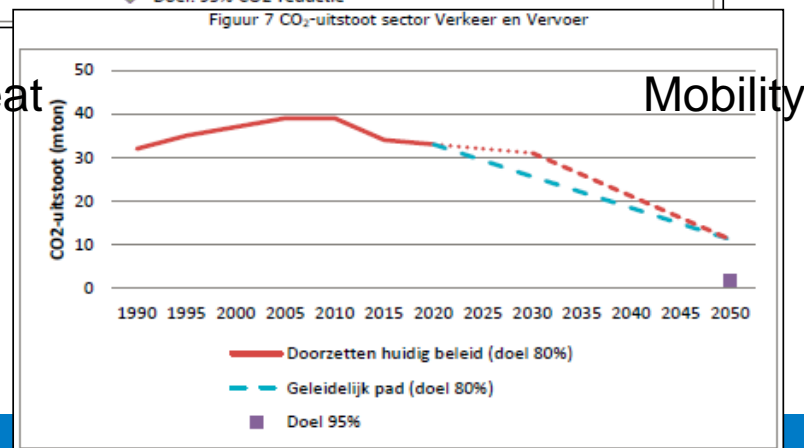
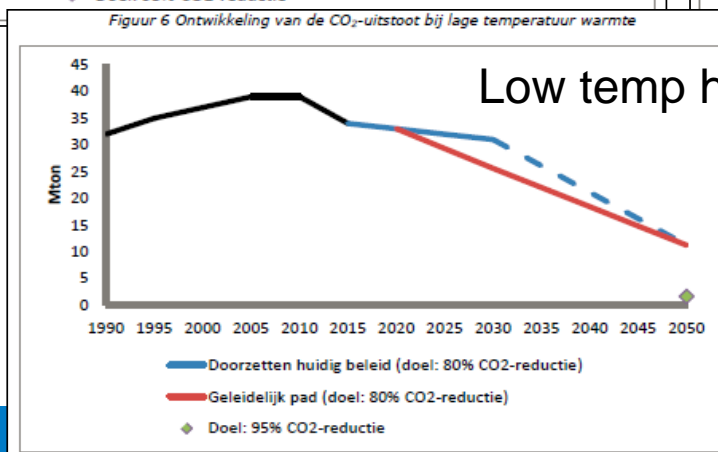
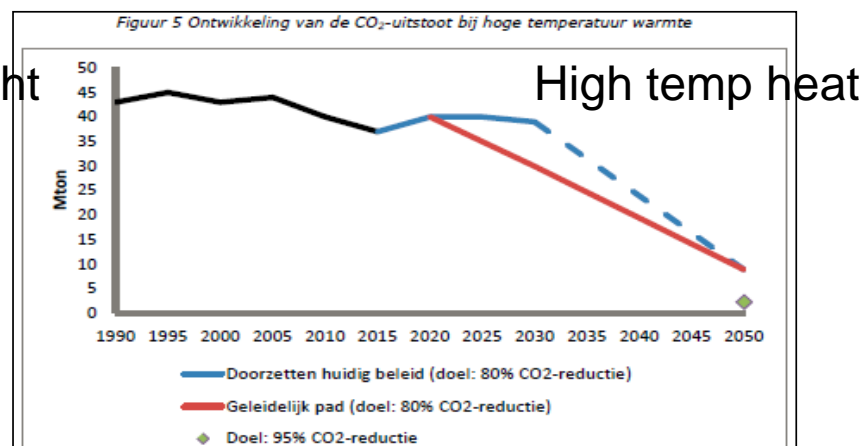
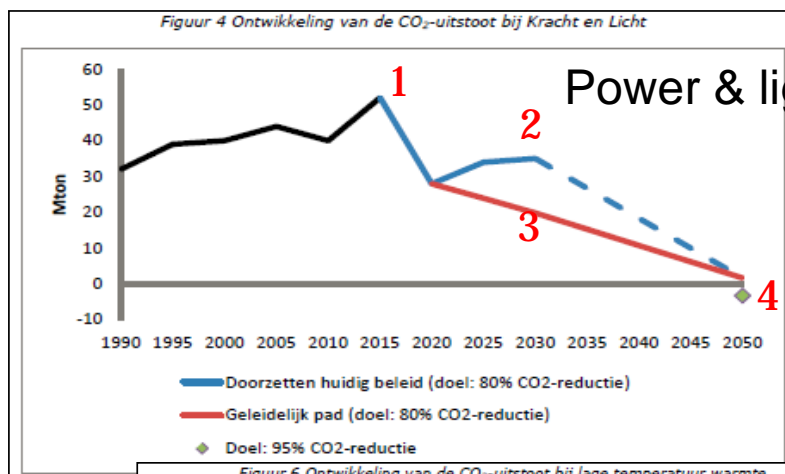
	2018	2019	2020
Overall	8,5%	12,5%	16,4%
Limit conventional *(	3%	4%	5% *(
Sub-target advanced ** (	0,6%	0,8%	1,0%

\*( Lower than the 7% in the EU-RED

\*\* ( Double counting considered.

# The Energy Agenda of 2017 – towards Climate neutrality in 2050

- Reduction pathways per 'energy function'
- From (1) current emissions, to (2) marginal reduction by 'current policy', to (3) realistic aims for 2030 and (4) 2050 targets.







# The coalition accord of 2017

- Cost effective CO2 reduction is 'single aim', no specifics for efficiency, renewables.
- High 'bottom line' ambition – 49% from 1990, 52,5 Mton down from 2017
- Indicative distribution suggests modest transition; 2/3 of reduction achieved by CCS and coal plant closure
- Much depends on a 'climate accord', to be hammered out in 2018.

Arena	Reduction in 2030 from today (Mton)	Measures
Industry	1 3 18	Recycling Process efficiency Carbon Capture and Storage
Transport	1,5 2	Tires, European norms, electric cars Biofuels and city measures
Buildings	3 2 2	Optimization energy consumption offices Insulation, heating networks and heat pumps Efficient new-build
Electricity	1 12 2 4 1	Efficient lighting Closing coal plants CCS in waste incineration plants Extra offshore wind parks Extra solar PV
<b>Total</b>	<b>52,5</b>	



## Future directions renewable energy transport

- Negotiations on RED2 (2020-2030) are ongoing.
- A shift in conventional biofuels towards low ILUC conventional biofuels.
- Innovation in advanced biofuels is being stimulated with financial instruments (DKTI).
- An increase of advanced biofuels is needed, an ambitious subtarget can achieve this.



Thanks for your attention!

