



Netherlands Enterprise Agency

ODYSSEE-MURE



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Improved energy efficiency in Dutch industrial companies through applying regulations more strictly

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>> *Sustainable. Agricultural.
Innovative. International.*



Overview

- Dutch Voluntary Agreements
- Energy Agreement for Sustainable Growth
- Environmental Management Act
- Potential savings from a more strict application of regulations
- Two tools to ease the more strict application
- Industrial Voluntary Agreements and more strict application of regulations
 - Implementation of energy savings measures
 - Progress check
 - Tightened check of Energy Efficiency Plans
- Estimated impacts
- Conclusions



Dutch Voluntary Agreements

LTA and MEE covenant

- Long Term Agreements (LTAs)
 - LTA1: 1992; LTA2: 2000
 - LTA3: 2008
 - Non-ETS enterprises and others
 - Process efficiency, supply chain efficiency, renewable energy
 - Ambition 30% efficiency improvement in period 2005-2020 (equal to 1.5% annually)
- MEE covenant: 2009
 - ETS-enterprises
 - Process efficiency, supply chain efficiency



Dutch Voluntary Agreements

Voluntary Agreements Sectors

Textile industry

Financial service providers

Universities

Rubber and plastics industry

Carpet industry

Flour milling industry

Higher vocational education

Dairy industry

Tank storage companies

Waste water treatment regional water authorities

Non-branch related industry

Margarine, fats and oil industry

Coffee- roasting industry

Bricks and ceramic roof tile industry

University medical centres

ICT sector

Metallurgical industry

Rail sector*

Calcium silicate and autoclaved aerated concrete industry

Textile service companies

Surface treatment industry

Dutch feed industry**

Asphalt industry

Refrigeration and cold storage industry

Chemical industry

Cacaoindustry

Oil and gas production industry

Foundries

Potato processing industry

Fruit and vegetable processing industry

Meat processing industry

Soft drinks, waters and juices

Fine ceramics industry

MEE sectors

Metallurgical industry

Breweries

Glass industry

Chemical industry

Non-Branch-related industry

Refineries

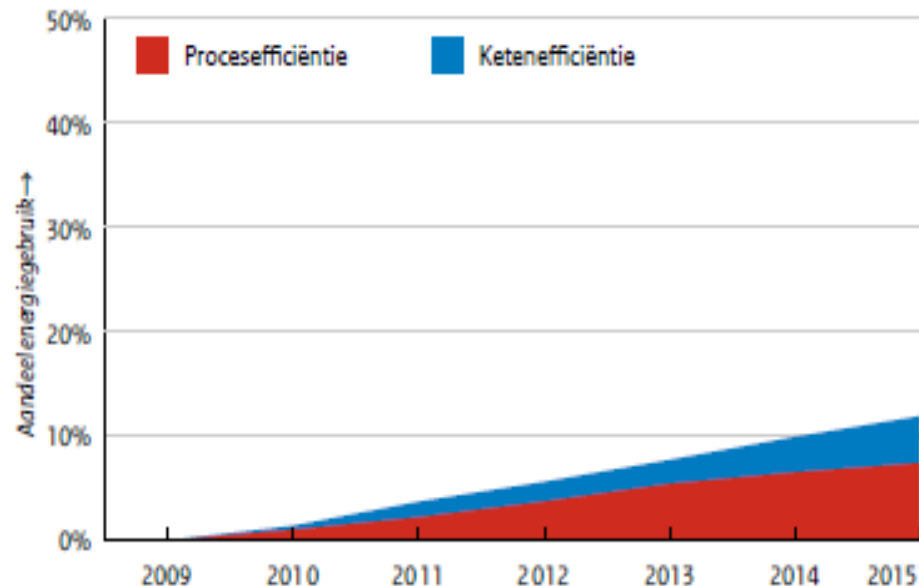
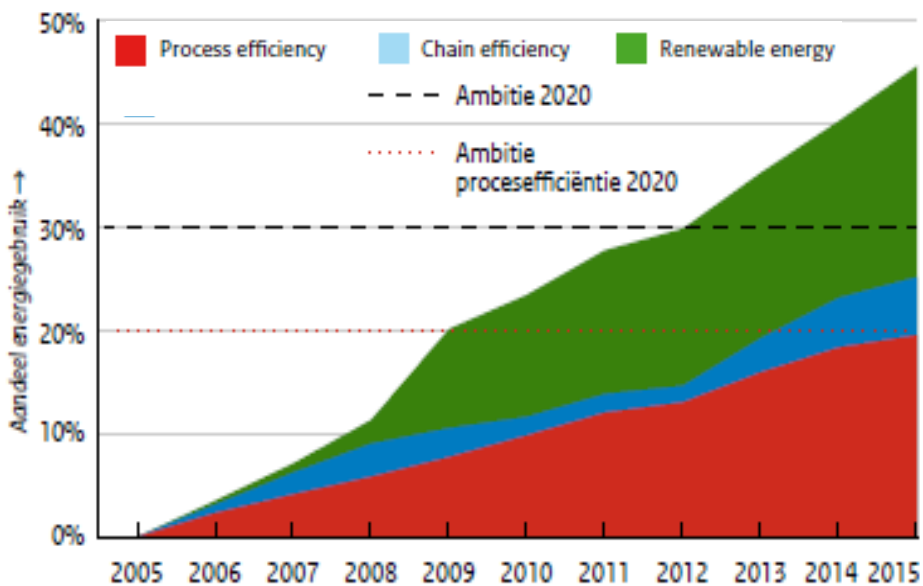
Paper and board industry



Dutch industrial Voluntary Agreements, results 2005 -2015

Voluntary Agreements

MEE Covenant





Energy Agreement for Sustainable Growth, 2013; 4 Overarching objectives

- An average energy efficiency saving of 1.5% per year (adding up to a reduction of 100 PJ by 2020).
- 14% share of renewable energy in the Netherlands' total consumption of energy by 2020.
- And 16% by 2023 (4.5% in 2013).
- Creating at least 15.000 additional jobs by 2020, of which a significant number to be created in the next years.



Energy Agreement for Sustainable Growth and industry

- For industries **non-ETS**: implementation and enforcement of the **Environmental Management Act** with an obligation to implement energy-saving measures with a payback period of 5 years or less
- **EU ETS** companies: to join with the Government in endeavouring to supplement the voluntary LTA on Energy Efficiency [MEE covenant] with a framework of company- specific (i.e. one-to-one) agreements



Environmental Management Act (EMA)

- Regulates the environmental impacts of organisations and
- Requires organisations to implement energy savings measures with a payback of 5 years or less
- A company with an annual energy use $> 75\,000\text{ m}^3$ of natural gas or $200\,000\text{ kWh}$, can also be forced to conduct an inspection for potential energy saving measures,
- Companies covered by the EU ETS are excluded from this requirement
- In practise competent authorities (municipalities and regional authorities) did not give priority to enforcing



Potential savings from a more strict application of the EMA

Industrial companies	Energy use (PJprim)	Potential energy savings related to more enforcement EMA (PJprim)	
		Low estimate	High estimate
In TA-3	237	11.9	23.7
Not in TA-3	50-75	5.0	11.3
Total	287-312	17	34



Two Tools to ease the more strict application of EMA

- List of tailored energy savings measures
 - tailored energy saving measures with a payback period of up to 5 years
 - easier for a company to research its potential for energy saving measures and
 - for the competent authorities to control whether the companies implemented the affordable measures
 - Up until now only for outside industry sector
- System of Energy Performance Assessment
 - organisation conducts an energy scan itself or with the help of a private service company or energy adviser.
 - By May 2016 only nine pilot EPKs



VA and tightening the implementation

- About 1 100 organisations in LTA-3 and MEE covenant
- Accounting for about 25 % of the Netherland's total energy.
- The LTA progress report (2014) indicated that about 20 % of the participants did not implement the energy savings measures included in their EEPs.
- Applying regulations more strictly would result in further energy savings.
- In 2015, the Government and the companies agreed to tighten the implementation of LTA-3 and the MEE-covenant.
 - introducing a declaration of progress related to the implementation of energy savings measures
 - More in depth control of the EEPs for the period 2017 2021.



Progress check in the VA

- In 2014 and 2015, 22 and 34 participants respectively did not fulfil their energy saving obligations as specified in their EEPs →
 - no declaration of progress from RVO.nl.
 - did not fulfil their obligations in the LTAs or the EMA → the competent authorities can take action
 - No refund from tax return system
 - Before 2013, the energy intensive industries had an exemption from the energy tax. It was replaced by a tax return system ensuring only companies implementing the agreed energy savings measures (and have a declaration of progress) can receive a refund



Tightened check of draft Energy Efficiency Plans in the VA in 2016/2017

- Checklists include measures that other companies within a particular sector have taken. →
 - Demonstrate that a particular measure, not implemented earlier, is considered in the new EEP or
 - provide reasons why it is not planning to include it
- A balanced set of three types of measure should be incorporated:
 - affordable ones,
 - conditional ones and
 - provisional ones
- EEPs holding only conditional and/or provisional measures will **no** longer be approved



EU-ETS companies and additional company-specific agreements

- End of 2016
 - only three such agreements; not sufficient for additional 9 PJ as included in the Energy Agreement
 - Minister of Economic Affairs started preparing an obligation scheme for the individual companies in the MEE covenant that would start on 1 January 2018
- April 2017: Additional Agreement
 - Company specific agreements for in total 9 PJ
 - Exchange of savings between companies is possible
 - Private system of financial sanctions
 - Finance generated from sanctions will be used for energy saving measures



Estimated impacts in National Energy Outlooks

- National Energy Outlooks 2015 and 2016
- Inputs from among others:
 - monitoring activities for the LTA-3 and MEE covenant
 - the evaluation of the EASG in 2016
 - evaluation of the EPK pilots
- Estimated impacts:
 - Slow start
 - Targets will be reached by 2020
 - with exception of 9 PJ for company specific agreements



Estimated impacts by **2016**

	PJ
Improvements in the MEE-covenant	0
Improvements in the LTA-3	0
More strict control of the EMA (industry)	0.2 – 0.5
Company-specific agreements (one- to-one agreements)	0



Estimated impacts by 2020 in National Energy Outlooks 2015 and 2016

	EASG	NEV 2015	NEV 2016
	Target PJ	PJ 2020	PJ 2020
Improvements in the MEE covenant	0.5	0.1- 0.3	0.6- 1.7
Improvements in LTA-3	0.3	0.1- 1.5	0.4- 1.3
More strict control of the EMA (industry)	1-8	1.1- 4.9	1.7- 5.5
Company-specific agreements	9	0.3- 1.6	0.0- 1.3



Conclusions

- For the participants in industrial VA implementation of Energy Agreement resulted since 2014 in a more strict control of the implementation of energy saving measures
- As a consequence 22 and 34 participants (2014 resp. 2015) did not received a declaration of progress. This is less then 5% of the participants. While in 2013 about 20% of the participants did not implement the energy savings measures
- For these 22 and 34 companies it is not known whether
 - the competent authorities took action in line with the regulation for the Environmental Management Act or
 - did not got the refund of the tax return system



Conclusions (2)

- For the vast majority of the not- participating companies a more strict control of the EMA is now expected to start.
- The ex-ante energy savings targets (1-8 PJ) were not too optimistic compared with the indicated potential of between 9 PJ and 17 PJ
- It has not yet resulted in high additional energy savings: for the year 2016 less than 0.5 PJ is estimated.
- Projections for 2020 show the lower level of the target of 1 PJ will be reached and may be as high 5.5 PJ.
- The foreseen results are modest compared to the indicated potentials



Thank you for your attention

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Please visit www.odyssee-mure.eu

For further reading

- Policy brief
- Policy measures
- Energy Efficiency indicators