

Title of the measure:	NLD5 - The Environmental Action Plan of the energy distribution companies (Milieu Actie Plan, MAP)
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General description

In 1991 the energy distribution companies voluntarily introduced an environmental action plan (MAP) that should contribute to lowering green house gas emissions as asked for in the National Environmental Policy plan [?]. The first action plan aimed to achieve a yearly reduction in CO₂ emissions of 9 Mton in 2000, equivalent to energy saving of 10% across all sectors (reference 1990). In 1994 this goal has been broadened to a reduction of 17 Mton CO₂ per year after 2000.

The plan has been laid out by EnergieNed, the association of Energy Distribution Companies, based on the individual action plans of member companies. Each company was responsible for achieving its own plan and EnergieNed monitored the progress of the whole set of plans.

A major part of the programme costs was funded by an environmental levy on energy bills, amounting to between 0,5% and 2% in 1991. Later on in the scheme this levy has been raised. The maximal levy energy distribution companies could charge was 2,5 percent. This levy was ended in 2000 because the tax-like nature was found to be legally inappropriate for distribution companies.

The MAP consists of three consecutive programmes called MAP I, MAP II and MAP III

MAP I 1991-1994

MAP II 1994-1997

MAP III (also called MAP 2000): 1997-2000

During MAP I measures for the household sector were (goals):

- Energy economy lighting: aiming to replace 15 million bulbs with energy efficient ones, saving 0,6 Mton CO₂.
- High-efficiency boilers, aiming to install 100.000 per year, saving 210 million cubic meters gas per year.
- Insulation; aiming to implement 1.1 million insulation measures saving 350 million cubed m gas per year.
- Hot water installations, aiming to replace 80.000 electric water heaters with gas ones
- Solar boilers; installation of over 21,000 solar boilers.
- Energy-efficient showerheads; aiming to introduce 380,000.
- Optimisation of block heating systems
- Conversion to gas of oil-fired heating systems

Long-term measures were:

- Improved efficiency of electrical appliances
- Heat recovery systems/heat pumps.

During MAP II the measures for the household sector were aimed at:

- Thermal insulation: especially walls, windows, roofs and floors
- High efficiency boilers
- Good housekeeping: encouraging households to turn off lights and heating etc
- Energy efficient products: energy saving bulbs, water saving shower heads, energy saving white goods and replacement of electric boilers
- Better building practices (better planning of building sites, use of gas instead of oil, optimisation of collective heating systems use of energy teams)

During MAP III the measures were aimed at:

- Insulation (walls, glass, roofs, floors, integral (via the energy performance coefficient (see elsewhere))

- Heating (high efficiency boilers existing buildings, high efficiency boilers new buildings, low temperature systems, weather dependent systems)
- Energy saving appliances (freezer, refrigerators, dryers, dish washers, replacement electrical boilers, shower heads, standby electricity use of appliances)
- Good housekeeping (communication campaigns, advises, decreasing standby electricity use by changes in behaviour)

During the MAP III period also measures were taken to promote sustainable energy.

Measure Impact Level		
<input type="checkbox"/> low	<input type="checkbox"/> medium	<input checked="" type="checkbox"/> high

Impact evaluation (methods and results)

Methods

During the entire MAP period communicational as well as financial measures were taken. In 2001 the MAP has been evaluated (Berenschot, 2001). Based on preliminary results it has been concluded by EnergieNed that the goal has been reached: 17 million ton CO₂ has been avoided. The emission reductions are divided over the following sectors: households (25%), businesses (15%), application of combined heat production (CHP: 44%) and, sustainable energy (13,5%).

In (Jeeninga, 2002) it is explained why it is very difficult to attribute the savings mentioned above to the MAP. Most of the measures taken are the result of other stimulating measures. Jeeninga estimated the real effects of MAP at 18,5 PJ energy savings and 1250 kton CO₂ reduction. It has been attributed to insulation of existing dwellings (16 PJ and 0,9 Mton CO₂), high efficiency boilers in existing dwellings (1,4 PJ and 0.08 Mton CO₂), energy efficient lighting (1,1 PJe and 0,2 Mton CO₂) and other activities (0,05-0,1 Mton CO₂)

Results

Ex-post evaluation	1995	2000		
CO ₂ (kt)				
Energy (TJ)				
Ex-ante evaluation	1995	2000	2010	2020
CO ₂ (kt)		3100		
Energy (TJ)				

Interaction of measures

Mitigating interactions:

- none

Reinforcing interactions with:

- NLD1 (Energy TAX)

Historical data

References

- Jeeninga H. (ECN), Honig E.(RIVM), Dril A.W.N. van (ECN), Harmsen R.(ECN): *Effect van energie- en milieubeleid op broeikasgasemissies in de periode 1990-2000*, Petten (Netherlands), ECN-C--02-004 (<http://www.ecn.nl/library/reports/2002e/c02004.html>)
- Berenschot (2001): *Evaluatieonderzoek Milieu Actie Plan 1991-2000*, Eindrapport. Utrecht, 2001.