National Plan

Towards nearly zero-energy buildings in The Netherlands

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>> Als het gaat om energie en klimaat
NL Agency

NL Agency is a department of the Dutch Ministry of Economic Affairs.

Implementation of government policy for sustainability, innovation, and international business and cooperation.

Contact point for businesses, (knowledge) institutions and government bodies for information and advice, financing, networking and regulatory matters.
Als het gaat om energie en klimaat

Market position

**Government**

- Policy definition
- Policy advice

**NL Agency, Energy and Climate**

- Policy implementation (intervention)
- Communication, results

**Enterprises and organisations**
History Building Codes

• 1978- 1988 National Insulation Program,
  - 1,5 million existing dwellings (30% stock)
  - requirements thermal insulation in Building code for new buildings

• 1990-1994 EP determination methods (Dutch standards)
  – Update 3-5 Years, new technology

• 1995 EP requirements in Building legislation
  – Update 3-5 year

• 2000 -2003 EP Advice and subsidy program
  – 600.000 dwellings

• 2003-2006 EPBD development tools (EU directive)

• 2006 > Implementation Energy Label
  – 2.300.000 labels on the market (30 % stock)
method to set the EPC value (NEN 5128 for dwellings and NEN 2916 for nrl buildings) since 1995.
The road to 2020
Residential sector

Energy Performance Standard (EPN)

2015: EPC 0.4
2018: EPC 0.2
2020: EPC 0

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The road to 2020
Non Residential sector

Energy Performance Standard (EPN)

2015: 50% 2007
2018: EPC 0
2020: EPC 0
Feasibility study

- Reference buildings representing building stock

- Calculation savings/costs measures (NL pay-back in life time)

- Sharpening EP requirement every 3-5 years depending on new technologies and energy prices
Legislation process

Decision of government (decree)
- Internal document (Feasibility study)
- Consulting building sector
- 1st draft document
- EU judgement if text is according to EU directive
- 2nd document
- Publication in official governmental newspaper/journal
- Preparation building owners (6 months)
- Operational (implementation in building code)
Buildings as energy saver; example of the potential,

A typical Dutch dwelling used in 1980
natural Gas
In 1990 through obligatory insulation
In 1993 EPC using full market potential
In 1995 introduction EPC obligatory 1.4
In 2000 EPC 1.0
In 2006 EPC 0.8
In 2011 EPC 0.6
In future EPC 0.4 (2015)

Meanwhile the technology for zero energy buildings is available and being proved in pilots
Energy demand
Space heating

Energy Performance Standard (EPC) since '95

Natural gas consumption [m3/y]
Energy demand
Space heating

Energy Performance Standard (EPN-EPC)

Energy Performance Standard (EPG-EPC) from Sept. 2011

Natural gas consumption [m3/y]
Improvements EPN > EPG

- Higher degree of accuracy
- New techniques (biomass, micro power, solar,..)
- Power generation by area / zone (including Renewables)
- Additional integrated standard for determining air flow / ventilation
- European standards taken into account

> necessary for calculating NZEB performance
Interim observations and conclusions

- The calculation method is **future proof** and will be implemented Sept. 2011
- The **steps in legislation are set** and communicated to all relevant parties
- The **techniques** to meet the goal near zero energy buildings **are available**
- The political will is there

But......

**Will the market be ready for 2020 on time?**
**Is it affordable.....?**
National Programmes and activities on the road to 2020

- Energy Saving Programme Build Environment (NL Agency)
- EPBD / recast EPBD (NL Agency)
- Various Renewable Energy Programmes incl. RES (NL Agency)
- Various Innovation Programmes (focussing on product and system innovations) UKS-NESK (NL Agency)
- Innovation Programme “Energie-Sprong” (SEV)
- Kennishuis: Knowledge Centre NZEB (NL Agency)
- Negotiated Agreement Buildings sector “Lente-akkoord”
- Smart metering and smart grits

Will the market be ready?
Is it affordable.....?
Is it affordable.....?
Is it affordable.....?

sets of measures NZEB and total costs
Is it affordable.....?

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Is it affordable.....?
Is it affordable.....?

Existing financial instruments in the Netherlands

SDE: Incentive scheme for sustainable energy production

Subsidy scheme Sustainable Heating

Green loans

Subsidy scheme for Energy Performance Advice

Bank guarantees for loans meant for energy saving measures

Lower VAT rate for insulation of roof, wall and floor

Subsidy scheme for pilot projects energy neutral towards 2020
Is it affordable.....?

Is it affordable..... not to go for NZEB’s ?
The Netherlands

In 2020....
Thank you for your attention

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