Plan of Action Energy Saving in Built Environment
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1. Introduction

In the context of the European climate objectives of a 20% CO2 reduction in 2020, energy must also be saved in the built environment.

The built environment contributes 30% to the total energy consumption in the Netherlands, has great potential for savings and is therefore able to make an important contribution to the realisation of the climate objectives, also in the longer term. Considerable efforts will be required to achieve this. Property owners will have to be encouraged by a variety of means to adjust their behaviour and to improve the quality of their residential or commercial property. In addition to this, contractors, installers, insulation companies and energy companies must ensure their supply of products and services is appropriate. There is a large market for the construction and installation sector at the many property owners, both in the private and the professional market, which they are able to supply with advice, products and services aimed at improving the energetic quality of their building.

By focusing on energy savings in the built environment, the government wishes to ensure that people gain control of increasing housing expenses.

A decent and affordable home is a fundamental human need. The affordability of the property is not only determined by the level of the rent or mortgage, but also the energy expenses. Research shows that the proportion of energy expenses in the total living expenses continues to rise; the total living quote has therefore increased. 1

The energy prices rose substantially in the period 2000-2010. The gas price more than doubled, and the price of electricity increased by approx. 20%. This increase took place while, based on the energy labels issued, the energetic quality of the building supply only improved to a very limited extent.

Citizens can do a great deal themselves, to lower their energy bill. By changing heating behaviour, or installing insulation or improving insulation, users or owners can ensure less energy is consumed. Insulating the building envelop of the property can easily save 20 to 30% of gas consumption. For an average household this will amount to approx. € 200 per year (source: MilieuCentraal.nl, 2010 price levels). Turning the thermostat down by 1 degree during the day will result in an average saving of € 50 on the annual energy bill of a household.

Reason enough to continue a strong focus on energy saving in the built environment during this government’s term. Energy saving is an important means to realise climate objectives, but also to combat the problems of increasing living expenses. Particularly in times of economic crisis and shrinking budgets, that constitutes a considerable challenge. The cabinet will make demands on other government institutions, market parties and consumer organisations to contribute and to implement the policy together.

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2. Current situation

In recent years, the Clean & Energy Efficient programme (Schoon & Zuinig) focussed particularly on the development of a structural market for energy saving measures by concluding agreements with market parties, both for new constructions and existing buildings. Annex 1 provides more detailed information on the agreements. A budget of € 121 million (budget Ministry of Housing, Spatial Planning & the Environment) was made available for the support of the agreements, which was used in recent years to create a diverse package of temporary stimulant schemes to help kick-start the desired market development. In total, more than 50,000 property owners received subsidies for customisation advice, almost 7,000 households applied for a Meer met Minder [More with Less] credit and approximately 100,000 households a subsidy on insulation glass. In addition to this, 15 innovative projects in utility construction received support via the ‘UKP NESK’ scheme (zero energy schoolbuildings and offices). The ‘Regeling verbetering binnenklimaat huisvesting primair onderwijs 2009’ [Scheme for improvement of interior climate of primary education buildings 2009] was launched, which made € 165 million (budget Ministry of Education, Culture and Sciences) available for primary and secondary schools to improve the interior climate and take energy saving measures. The various schemes are explained in more detail in annex 2.

The government programme Schoon & Zuinig [Clean & Energy Efficient] was evaluated in April 2010. The evaluation showed that the programme has not led to a departure from the trend, but that a movement has started, and insights have been gained which will provide a good basis the policy in future years.

- There are particularly interesting developments at a local level. Provinces and municipalities have picked up the challenge and have made a start on achieving energy savings. The market development aimed for seems to have been achieved at a local level with particular success, partly due to the use of subsidy schemes of the central government. A large-scale breakthrough has not yet been achieved.
- Housing corporations increasingly integrate energy savings in their strategic maintenance plans.
- Local business seem to be difficult to reach through national programmes and campaigns; local campaigns are what is needed. Most successes are realised at a local level.
- Research has shown that the behaviour of occupants and building users is an even more important factor than originally anticipated.

- There is great policy potential in improved enforcement of existing regulation and legislation such as the Energy Performance Coefficient for new construction and the Environmental Management Act for businesses.

The challenge for the market parties is to maintain the locally created market and to strengthen it and grab opportunities wherever they arise. After all, all parties involved can gain from investments in energy savings, because they offer returns by various means. It not only leads to a lower energy bill, but also improved comfort and an increase in property value.

The central government continues its aim to create optimal conditions.
3. Objectives of the plan of action

The objective of this plan of action is threefold:

- Contributing to the European objective of 20% CO2 reduction in 2020 by means of energy savings in the built environment. In spring, the state secretary for the environment will inform the Lower House regarding the reassessment of the climate policy.
- Using energy savings as a means to allow people more control of the increase in living expenses.
- Energy saving as a boost for the construction industry.
A significant policy effort is required to realise the European objectives. For the built environment, the deployment of the energy saving policy is to reinforce pre-existing developments with existing and new instruments, and additionally, to examine existing instruments and agreements and investigate where reinforcement or updates are required, within the available budget space.

The policy will be very much a public private partnership, in which the government and society act together to realise the set objectives. The government expressly calls on market parties to take their responsibilities and to grab opportunities wherever they arise. In turn, the central government will support public initiatives in the area of energy savings in buildings by means of legislation and regulation, encouraging innovations, setting down clear standards and requirements and setting the right example wherever possible.

In order to achieve the climate objectives, and to allow citizens and businesses to have more control of their energy expenses, the energy consumption of homes and utility buildings must be reduced. There are two means of achieving this: the behaviour of the user and the energetic quality of the building.

**Behaviour**

Various studies and experiences in practice have shown that the heating behaviour of users of buildings is even more important than was previously assumed. The government shall therefore aim more towards behavioural change of building users than has been the case until now. For that purpose, investments will be made into expanding knowledge regarding this, and partnerships will be sought with relevant parties from education, research and business in order to achieve effective behavioural change programmes.

In recent years, some experience has been gained in projects aimed at behavioural change, e.g. in Leeuwarden and Rotterdam. Following these experiences, a manual has recently been drawn up which can help municipalities and housing corporations to implement projects aimed at energy savings through behavioural change. First experiences are currently being gained in this area. The eventual aim is for municipalities and housing corporations to get involved with energy saving by means of behavioural change.

**Smart meters**

The so-called “smart meters”, energy meters which are able to provide feedback to the consumer, are important tools to achieve behavioural changes. Consumers with a smart meter are sent an overview with feedback on their actual use, six times a year. This allows them to adjust their energy consumption. In addition to this, smart meters offer opportunities for the development of additional services and products such as displays, which in turn can lead to more energy savings. The smart meter also plays a role in decentralised energy generation and forms a step in the development towards smart grids.

On 9 November 2010, the Lower House unanimously voted for the bill for the introduction of the smart meter in the Netherlands. There will be a vote on the bills in the Upper House on 22 February. The minister of Economic Affairs, Agriculture & innovation, responsible for the drawing up of this dossier, has committed to monitor the energy saving potential of the smart meter.

**Price incentive**

The central government has a price incentive as an instrument: the energy tax. It functions in a graduated way, is high by European standards, but has not yet led to large behavioural effects. The government therefore wishes to investigate how a non-tax based price incentive can be used to provide an effective contribution to energy savings in the built environment. I have asked my colleague at Economic Affairs, Agriculture & innovation to investigate the options for a non-tax-based financial incentive which is able to encourage the consumers to change their behaviour and to use energy more efficiently. This investigation is to be carried out in consultation with me and the minister of Finance.

**User-friendly designs**

Another important aspect of occupants’ behaviour is related to the quality of the interior climate. New technologies to make homes more energy efficient are not always the easiest to use. Builders and suppliers will have to seek out new concepts and techniques where the occupant is central to the idea, and not the technology. The quality of the interior environment is an important condition in this process.

**Energetic quality of the building**

The adjustment of the living and heating behaviour is required to lower energy costs, but the energy demand can also be reduced in a more sustainable way, namely by improving the energetic quality of the building.
Blok-voor-blok [Block by block]
In order to gain more momentum in existing buildings, the government is focusing on a large scale approach towards existing buildings, under the name blok-voor-blok. The intention is to use standard packages, with a directing role at a local level, and money from the market (e.g. from institutional investors). Changes in the behaviour of occupants and users will also be part of this approach.

The plan is to start a pilot in the near future, with five projects. During the pilot phase, the approach will be tested, which has now been worked out in broad outlines. The central government will support this pilot with a small financial contribution for the process costs incurred. The knowledge and experience gathered in the pilot phase will be distributed for the purpose of other government organisations and market parties. The pilot is successful when it is proven that the blok-voor-blok approach is suitable for a national rollout. A closer investigation will be made whether the role of the central government is useful, or necessary.

Government buildings
The government will powerfully continue the rolemodel function of the central government both in new build, existing buildings and buildings that are to be renovated, wherever investments are cost effective and efficient. All this will be performed within the available financial options of the Government Buildings Agency (RGD). All publically accessible government buildings over 500m² in size are fitted with a visible energy label from 2013. From 2015 this will apply to buildings over 250 m² in size.
For the new buildings, the RGD will always be a phase ahead of the sharpening of the Energy Performance Coefficient with the aim of realising energy neutral buildings from the end of 2018. In comparison to the current construction methods, the required jump in quality is very significant. The RGD will investigate how the steps towards energy neutrality in government buildings can be phased most effectively. Particularly the question of costs demands special attention.
The knowledge and experience gained with this approach will be shared with the market by the RGD. In addition to this, the RGD will contribute to the scaling up of energy savings in new and existing utility buildings by stimulating innovations in technology, process and contract forms.

This rolemodel function also applies to other government organisations. The example role works very strongly, because the buildings of local governments are public. It allows citizens and business to see directly how energy savings works in practice. Agreements and plans of action will therefore be drawn up with other government organisations regarding an ambitious execution of their local example function and to take properties of municipalities, provincial governments and water boards up to at least energy label C level. User behaviour and effective configuration of equipment will play an important role in this process.

Agreements
The “more with less” agreement, energy saving in (existing buildings) the Lenteakkoord [Spring Agreement energy saving in new buildings] and the Energy Savings in Social Housing agreement will be examined in consultation with the agreement partners in the light of the changed objectives and the changed economic circumstances. The government values the continuation of this public private partnership.

Legislation and regulation
The government wishes to reduce the red tape for citizens and businesses and wishes to be a reliable partner in achieving policy objectives. The introduction of new regulation will be kept to a minimum during this government’s term of office. However, a small number of existing laws and regulations will require updating, partially in the context of European guidelines. An overview:

- Property evaluation system
A bill was submitted to the lower House for the amendment of the Property Evaluation System (WWS) for the rental sector (32302). This amendment is intended to stimulate investment in energy saving measures in rented properties: energetically high quality properties have a higher rental yield than energetically low quality properties. The bill will receive a plenary hearing in the near future.

- European guideline energy performance of buildings
The European guideline energy performance of buildings (EPBD) was revised at a European level in 2010. The revised EPBD 2010 (2010/31/EU) affects the entire energy saving in the built environment policy area. It affects both existing constructions and new constructions, both residential and utility construction. It regards requirements and checks on installation systems, an extension of the buildings energy label, the availability of energetic requirements and standards for new buildings, and the introduction of penalties to encourage compliance with the guideline.
The starting point for the implementation of this updated guideline is maximum energy savings in buildings versus a minimum increase in the administrative burden for citizens and businesses and of the implementation costs for government organisations. In accordance with the cabinet policy, this guideline will be implemented without a national heading on the legislation.
For existing buildings, the updated EPBD makes a cost optimal requirement of the insulation of the building envelop in case of renovations. This constitutes a
As a consequence of the update of the EPBD, a number of mandatory changes and additions will also be made to the buildings energy label:

1. The energy label is extended with a link to a website with more information on the recouping times and required investment for the measures advised on the energy label.

2. For buildings that already have an energy label and which are being sold or rented, the energy label class must be included in commercial advertisements.

3. The visible applying of the energy label in public buildings applies to all government buildings in public use, larger than 500m². In addition to this, buildings in frequent public use, such as shopping centres and hotels, must visibly display the energy label - if available due to sale or hire.

4. The updated guideline also ensures that one energy label for an entire complex can be issued if the complex with independent living units have collective heating. This also applies to a complex with dependent living units, for example a student complex. From 1 July, this complex only requires one energy label for the entire complex.

Another consequence of the update of the EPBD is that by 1 July 2012, an energy label will be introduced at the time of the transfer of a new building. This means that the energy label will be ascertained for every new building after transfer. The determining of the energy label is carried out under the same regime as the current energy label for existing buildings.

The buildings energy label serves as the basis for other policy instruments that stimulate energy savings in buildings. The introduction of the new energy label as of 1 January 2010 also means the time has now arrived to more firmly monitor its compliance. The intention is during this government’s term to introduce penalties for the absence of the energy label at the time of the renting or selling of a building. Proposals on this point are summarised in a separate letter sent to the Lower House previously (BO 196, no. 124).

Research carried out by the inspection of the Ministry of Housing, Spatial Planning & the Environment to support municipalities in the encouragement of energy savings in businesses have already been picked up. In consultation with the Ministries of Infrastructure and the Environment and the Interior and Kingdom Relations, the Association of Dutch Municipalities (Vereniging Nederlandse Gemeenten) and representatives of the industries involved what improvements can be achieved. A joint plan of action will be drawn up for this purpose.

EPC for newly constructed properties

On 1 January 2011 the EPC for newly built houses was sharpened from 0.8 to 0.6. In 2009 the EPCs for utility buildings were already sharpened by an average of 20%. The European policy is aimed at all new construction being energy neutral from 2020. To realise that goal, the EPC will be sharpened step by step in the period leading up to 2020. Consultation with market parties is required to assess what pace of the sharpening is feasible. In the context of its example function, the central government will ensure that all government buildings are already energy neutral from 31 December 2018.

Research has shown that the compliance and enforcement of the EPC for new buildings leaves much to be desired. New forms of self-regulation are sought for the improvement of the enforcement, in line with the advice from the Dekker Commission. In 2011, there will be an investigation into how the system of issuing energy labels at the time of the transaction can provide sufficient guarantee for compliance with the energy requirements for new constructions, in consultation with the Lenteakkoord parties and municipalities.

The energy performance of a building is calculated using a basic standard by 1 July 2012 for the calculation of the energy requirements for new constructions, in consultation with the Lenteakkoord parties and municipalities.
performance of buildings (both residential and non-residential, both new builds and existing constructions): The Energy Performance Buildings (EPG, NEN 7120). A process has now been started in Europe to arrive at one single European standard. The CEN (the appropriate European standards agency) was instructed to achieve this. Maintenance of running contracts with both the CEN and other members states is required to safeguard that a European standard does not form an intrusion of Dutch policy.

**Financial stimulants**

The government has decided to reduce the use of subsidies during this government’s term. The challenge now lies with market parties to take the market a step further, through creative solutions and new concepts.

In order to encourage this market development, the current central government scheme “More with less” will be continued for another year. € 10 million is made available for this purpose. The continuation of this scheme is particularly intended to create a transition period from a period with a great deal of central government support in the shape of subsidy schemes and tax advantages to a period where the market has to continue developing without financial support from the central government. Experience has shown that the central government incentive scheme “More with less” is a good stimulus for property owners to take energy saving measures.

The continuation of the central government incentive scheme “More with less” and potential financial support for the block by block approach do not constitute policy intensification; budget of the Ministry of the Inferior and Kingdome Relations which had already been allocated will be used.

In addition to the agreements and the block by block approach there is also opportunity for new initiatives and concepts from other government organisations and market parties. The government expressly invites them to become involved in this process. In the summer, this will be elaborated in more detail in consultation with the Minister of Economic Affairs, Agriculture and Innovation in the context of the Green Deal for the built environment.

**Innovation**

A departure from the trend is required to realise more energy savings in the long term. Innovations are required to allow such a departure from trend. The innovation programme Energiesprong [Energy Leap] stimulates these innovations and aims for a reduction of 50% of energy consumption in the built environment in 2030 (in comparison to 1990).

The priorities in this programme are:
- Accelerated development and introduction in the existing construction industry of scalable energy saving packages with high energy performances.
- Accelerated development in the market of energy saving concepts with an integrated approach towards design and implementation. These are necessary in the realisation of higher ambitions in new construction and existing construction (chain integration).
- Involving user aspects and user friendliness in the design of energy efficient buildings.

Projects which are actually aimed at acceleration and innovation may apply for support in the context of the Innovation Agenda Built Environment (IAGO). Part of the budget of the IAGO-I (€ 30 million) and IAGO-II has already been invested. For the residual part, proposals are made in the period up to and including 2014, aimed both at residential and utility construction as well as area development.

**Knowledge transfer and monitoring**

Knowledge transfer is an important instrument in the policy. The transfer of knowledge and experience allows government organisations, market parties and citizens to quickly develop an approach and take energy saving measures.

The duties of NL Agency are continued in this area, fitting in within the financial options. There will also continue to be a role for MilieuCentraal as an independent service desk for consumers. Within the Energiesprong innovation programme, knowledge development and knowledge transfer also take a central role. Both aspects are crucial to make the leap in innovation in the construction industry.

During the most recent government’s term, various monitoring projects were initiated following the agreements on energy saving in the built environment, which are processed in a monitor model for existing buildings and a long term monitor for new constructions. The monitor model for existing construction (“More with less”) which is implemented in 2011, maps out the energy savings realised on the basis of the measures taken in the existing construction. This monitor is a growth model and is potentially set up as a monitor for the entire built environment. It thereby forms an important instrument for the central government and the market in striving towards a structural market for energy saving. Another important instrument is the registration of energy labels. This database could grow into the central monitor for the energetic quality of the building stock in the Netherlands.
More with less Agreement
The “More with less” programme (2008) is a joint initiative of the Central Government (ministries of Housing, Spatial Planning and the Environment as well as Economic Affairs), housing corporations (Aedes), construction companies (Bouwend Nederland), the installation sector (UNETO-VNI) and the energy companies (EnergieNed and VME). For the period leading up to 2020, the objective of this programme is to make 3.2 million existing buildings 20 to 30% more energy efficient. An evaluation of the Programme Clean and Energy Efficient in the spring of 2010 showed that progress had been made towards the target realisation, but that there is no departure from the trend.

Agreement Energy Savings in the Social Rental Sector
This agreement (2008) is between the Central Government (ministries of Housing, Spatial Planning and the Environment), Aedes and the Woonbond. The aim is securing the engagement of the corporations in realising energy saving objectives. Corporations own approx. 2.3 million homes and have now made step towards making these homes more energy efficient. More than half of their homes has now been provided with labels, and there is a good basis for a more comprehensive approach. The changes in the Property Evaluation System are currently being processed by the Lower Chamber but has not yet been confirmed, and links the assessment of the maximum rental value to the energy performance of the property.

Lente-akkoord [Spring Agreement]
Agreement (2008) between the central government (ministries of Housing, Spatial Planning and the Environment) and the market parties (Bouwend Nederland, NEPROM and NVB) to build more and more energy efficiently. The objective of the Lente-akkoord is the improvement of the energy performance of new constructions by 25% in 2011 and 50% in 2015 (in comparison to the building requirements of 2007) with the intention of creating conditions for energy neutral new constructions in 2020. For this purpose, the Central Government regularly sharpens legislation and regulation. The industry organisations have implemented a knowledge transfer and stimulation programme for the businesses associated with them, in order to bring the improvements of the energy performance up to the desired level.

Long-term agreements service industry
The Long-Term Energy Efficiency Agreements (MJA3) with various sectors in the industry, the food, drink and tobacco industry and the service industry is an agreement aimed at the improvement of energy efficiency in medium large companies. Participants in the agreement are the companies, the central government and the Appointed Authority for the Environmental Management Act. For businesses participation means that they draw up energy savings plans, take measures and supply results for monitoring on an annual basis. The aim of the MJA3 is 2% energy savings per year (accumulating to 30% energy savings in 2020 in comparison to 2005).
Subsidy scheme for having customised energy saving advice drawn up. The customised advice gives personalised advice on what energy saving measures can be taken in the property, how much they cost and how much savings they achieve. A total of €10 million was available for the subsidy scheme in 2009 and 2010. The scheme has completely come to an end in 2010. In total more than 50,000 property owners received subsidies for the customised advice.

The central government scheme “More with less”, as an extension of the successful scheme set up as a pilot by the implementation organisation “More with less” – under the instruction of the Ministry for Housing. The minister for Housing made €15 million available in July 2010 for the implementation of the Central Government Premium Scheme. Property owners who implement energy saving measures and go up energy label steps receive a premium of €300 or €750. On 18 July 2010 a first batch of €5 million was released, which fully invested by November 2010. Just under 7,000 households made a reservation via their contractor or installer.

Subsidy scheme for insulation glass. Owner-occupiers and associations of owners were able to obtain grants for the purchase of insulation glass for properties built before 1995. In total, there was €50 million available for the full duration of the scheme, including execution costs. Of this, €30 million was available for 2009 and 2010 as an additional post for the crisis measures; the residual €20 million was available from the “More with less” budget. At the beginning of December, the available budget had been fully invested. Almost 100,000 households applied for a voucher for subsidy on insulation glass.

The energy saving credit for low interest loans is developed to overcome the threshold for the initial investment in energy saving measures. The Central Government guarantees loans provided by banks for energy saving measures, which means the interest on the loans can be reduced. In the period 2009 - 2011 up to €35 million (including execution costs) is invested in the guarantees. The demand for these specific loans has been strongly subdued, partly due to the economic crisis an the unattractive conditions attached to the (commercial) products offered by banks. The expectation is that between 2,000 and 4,000 loans will be provided in 2010. Mid 2011, an assessment will be made of how much money actually has to be reserved for the period after 2011. If any budget becomes available, proposals will be made for alternative energy saving measures.

Fiscal stimulation of renters: the temporary extension of the Energy investment tax deduction (EIA) for housing corporations and (part of the) private renters who improve properties by at least two label steps, or to energy label B. Concerns a measure from the crisis package. The temporary extension EIA has been terminated as of 1 December 2010. In autumn, the previous government announced a number of stimulus measures surrounding residential construction. The costs of these fiscal measures amount to €195 million and this is covered by the under spending of the temporary extension EIA.

Please note: In the rental sector, the energy efficiency of a property will start to play a larger role in determining the maximum rental price through changes in the property assessment system (wws). The maximum rent on a property will be linked to the energy label of the property. This change is aimed at stimulating landlords to take energy saving measures.

Fiscal stimulation through lowered VAT rate for insulating measures, as part of the crisis package, aimed at stimulating employment in the construction and installation industry.