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Assessment of climate change policies in the context of the European Semester

Country Report: The Netherlands

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The report provides an overview of current emission trends and progress towards targets as well as policy developments that took place over the period from February 2013 to November 2013.

Please feel free to provide any comments or suggestions to the authors through the contacts listed above.

Short summary

Background: The Dutch government employs a mix of policy instruments to address GHG emissions and energy intensity. The new Energy Agreement for Sustainable Growth (SER) features a set of broadly supported provisions which - if implemented - should reduce final energy consumption by 1.5%/yr and increase the share of renewable energies to 14% in the energy mix in 2020 whilst creating at least 15,000 new jobs.

Non-ETS emission reduction target: The 2020 target is -16% (compared to 2005 emissions) and non-ETS emissions were already reduced by 8% between 2005 and 2011. According to the latest national projections submitted to the Commission and when existing measures are taken into account, the target is expected to be reached with a margin of 1 percentage point: -15% in 2020 compared to 2005.

Key indicators 2011:

GHG emissions	NL	EU
ESD EU 2020 GHG target (comp. 2005)	-16%	
ESD GHG emissions in 2011 (comp.2005)	-8%	-9%
Total GHG emissions 2012 (comp.2005)	-8%	-12%
GHG emissions/capita (tCO ₂ eq)	11.7	9.0

→ **30% higher** per capita emissions than EU average.

GHG emissions per sector	NL	EU
Energy/power industry sector	33%	33%
Transport	18%	20%
Industry (incl. industrial processes)	19%	20%
Agriculture (incl. forestry & fishery)	14%	12%
Residential & Commercial	14%	12%
Waste & others	2%	3%

→ **Energy/power industry** sector followed by Industry, and Transport.

Energy	NL	EU
EU 2020 RES target	+14%	
Primary energy consumption/capita (toe)	4.9	3.4
Energy intensity (kgoe/1000 €)	147	144
Energy to trade balance (% of GDP)	-3.8%	-3.2%

→ **45% higher** per capita consumption, **approx. same** energy intensity, contribution of energy to trade **balance above** EU average.

Taxes	NL	EU
Share of environmental taxes (% of GDP)	3.9%	2.4%
Implicit tax rate on energy (€/toe)	192	184

→ **Higher** share of environmental taxes and **4% higher** implicit tax rate on energy than EU average.

Key policy development in 2013: A new round of Green Deal agreements was signed with businesses, provinces, municipalities and NGO's to promote environmentally friendly undertakings. A reduced VAT rate of 6% was applied for the placing of double glazing windows.

Key challenges: Transport emissions are stagnant with a slight upward trend recently and thus remain important to be addressed in the future. The renewable energy target formulated in the SER is considered realistic given that the additionally reserved budget is actually invested; however, the renewable energy support scheme (SDE+) favours technologies that already produce at a low price and therefore doesn't provide means to bring promising new technologies to market maturity. Estimations of final energy savings based on the agreed measures in the SER project only 22 to 60 PJ of savings by 2020, instead of 100 PJ as targeted in the agreement and do therefore demand further action.

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I Background on climate and energy policies

The Netherlands has been active in the field of climate policy for more than 20 years. The first formulation of a national climate change policy dates back to 1989. Awareness of climate change in the Netherlands is high due to the natural characteristics of the country. In particular, rising sea levels, floods, as well as the salinisation of arable land pose a threat to the country. Therefore, the Netherlands has in general been quite enthusiastic and active in developing mitigation and adaptation policies, such as the *Deltaprogramma* for flood protection and the prevention of salinisation.

The long-term goal for Dutch energy policy is “to switch to sustainable, low carbon energy supplies” (Dutch Government 2013a) by 2050. According to information provided by the government, the energy industry accounted for 7% of GDP in 2012 (Dutch Government 2013b). Being aware of the high carbon intensity of the Dutch economy, the Cabinet of Ministers strives towards a greening of the economy (BNR 2012).

In September 2013, the Energy Agreement for sustainable growth developed by multiple stakeholders including the Sociaal-Economische Raad was published singling out 10 pillars for action containing long-term as well as short- to mid-term agreements (SER 2013a). Already in 2011, the government published a sustainability agenda by identifying main priority areas, such as resources and product cycle, sustainable water and land use, food production, climate and energy, and mobility (Dutch Government 2013c). The greening of the economy is perceived as a chance to increase overall welfare and provide Dutch companies with a competitive advantage on the international market. According to government data from 2012, employment in the sustainable sector (*duurzame* sector) reached 10,000 jobs with revenue of € 3.3 bn per year (Dutch Government 2013b). In 2012, Dutch companies invested € 1 bn in energy efficiency and renewable energy, contributing to a CO₂ emissions reduction of approximately 765 kilotonnes per year (AgentschapNL 2013a).

The Dutch government employs a mix of policy instruments such as regulatory obligations, financial stimuli as well as voluntary and sector agreements to promote the use of renewable energy sources in the electricity and heat market (the main instrument is the SDE+ tariff system), stimulate energy savings in buildings and industry (e.g. investment support, revolving fund, Green Deals, Long-term Agreements) and introduce new modes of transport (e.g. research projects, pilot projects). While a concrete target has been set of 14% of energy coming from renewable sources by 2020, there is no explicit target for energy-efficiency increases in the building sector. This has been criticised by various stakeholders, since the sector has the potential for large energy savings.

2 GHG projections

Background information

In 2011, the Netherlands emitted 194.4 Mt CO₂eq (UNFCCC inventory 2011), 8% less than in 1990. The main emissions sources are energy supply and use. Emissions from energy supply increased by 18% between 1990 and 2011, reflecting a growing demand for heat and power. In comparison, emissions from energy use decreased by 11%,

mainly due to improved insulation that partly outweighed the increased energy use of the commercial sector. The sharpest increase in emissions was reported in the transport sector as a result of the growth in freight and passenger road transport, international aviation, and maritime transport. In contrast, emissions from industrial processes and agriculture decreased from 1990 to 2011 by more than 50% and 25%, respectively. However, emissions from horticulture are rapidly increasing (UNFCCC inventory 2011, EEA 2012, UNFCCC 2012). From 2011 to 2012 total emissions are expected to slightly decline with increases from energy supply and use (including transport) but with reduced emissions from industrial processes, agriculture and waste (EEA 2013c).

Progress on GHG target

There are two sets of targets to evaluate: 1) the Kyoto Protocol targets for the period 2008-12 (which has just ended) and 2) the 2020 targets for emissions not covered by the EU ETS.

Under the Kyoto-Protocol the emission reduction target for Netherlands for the period 2008-2012 has been set to minus 6 % based on 1990 for CO₂, CH₄ and N₂O and on 1995 for F-gases. An evaluation of the latest complete set of greenhouse gas data (for the year 2011; there is only preliminary data for 2012) shows the Netherlands' emissions have decreased by 8.8% since from the Kyoto base year to 2011 (EEA 2013a). This shows that the Netherlands are likely to meet its Kyoto target through domestic emissions reductions directly.

By 2020 the Netherlands needs to decrease its emissions not covered by the EU ETS by 16% compared to 2005 in accordance with the Effort Sharing Decision (ESD) ⁽¹⁾. The latest data (EEA 2013b) suggest that the Netherlands is presently on track. Emissions in 2012 were 4 percentage points (of the 2005 base year) below the Annual Emissions Allocation ⁽²⁾ for the year 2013. By 2020, national projections show that the Netherlands might just miss its target with existing measures (by 0.8 of a percentage point) but can surpass it with additional measures (see Table 1).

¹Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020.

²Commission decision of 26 March 2013 on determining Member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No 406/2009/EC of the European Parliament and of the Council. Online available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:090:0106:0110:EN:PDF>

Table I: GHG emission developments, ESD-targets and projections (in Mt CO₂eq)

	1990	2005	2010	2011	2012*	ESD target**		2020 Projections***	
						2013	2020	WEM	WAM
Total	211.8	209.5	209.2	194.4	192.7				
Non-ETS (% from 2005)		126.6	124.4	114.4	116.2 -8%	121.8 -4%	104.5 -16%	106 -15%	101 -19%
Energy supply (% share of total)	52.7 25%	67.7 32%	66.6 32%	62.4 32%					
Energy use (w/o transport) (% share of total)	71.4 34%	65.5 31%	73.2 35%	63.6 33%					
Transport (% share of total)	26.3 12%	35.0 17%	35.0 17%	35.2 18%					
Industrial processes (% share of total)	22.2 10%	15.8 8%	10.4 5%	10.4 5%					
Agriculture (% share of total)	22.6 11%	17.0 8%	16.6 8%	16.0 8%					

Source: UNFCCC inventories; EEA (2013b); Calculations provided by the EEA and own calculations.

* national proxies for 2012 emissions summarised by EEA (2013b)

** The ESD target for 2013 and for 2020 refer to different scopes of the ETS: the 2013 target is compared with 2012 data and is therefore consistent with the scope of the ETS from 2008-2012; the 2020 target is compared to 2020 projections and is therefore consistent with the adjusted scope of the ETS from 2013-2020. 2005 non-ETS emissions for the scope of the ETS from 2013-2020 amounted to 124Mt CO₂eq.

***Projections with existing measures (WEM) or with additional measures (WAM).

Legend for colour coding: green = target is being (over)achieved; orange = not on track to meet the target

Total greenhouse gas emissions (GHG) and shares of GHG do not include emissions and removals from LULUCF (carbon sinks) and emissions from international aviation and international maritime transport.

National projections of GHG emissions up to 2020, summarised by the EEA, need to be prepared by the Member States in accordance with the EU Monitoring Mechanism ⁽³⁾ every two years, and the latest submission was in 2013. Projections need to be prepared reflecting a scenario that estimates emissions reductions in line with policies and measures that have already been implemented (with existing measures, WEM), and an additional scenario that reflects developments with measures and policies that are in the planning phase (with additional measures, WAM) may also be submitted. In the following two tables, these measures - as outlined by The Netherlands as basis for their projections as of May 2013 - have been summarised with a focus on national measures and those EU instruments expected to reduce emissions the most ⁽⁴⁾. An update on the status of the policies and measures is included in order to assess the validity of the scenarios.

³ Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol.

⁴ The implementation of the EU-ETS has not been included. Other EU Directives have only been considered if they have been outlined in the projections as one of the main instruments to reduce GHG emissions.

Table 2: Existing and additional measures as stated in the 2013GHG projections

Existing Measures (only important national measures)		Status of policy in November 2013
Energy	Demonstration CCS projects	Since 2004, the Netherlands supports projects that capture and store CO ₂ under the seabed of the North Sea. In the framework of the K12-B CO ₂ Injection Project, 60.000 tonnes CO ₂ have been successfully stored since 2004. Another demonstration project called Rotterdam Opslag en Afvang Demonstratieproject (ROAD) plans to capture 1.1 million tonnes of CO ₂ per year as of 2015. Research on CCS technique is provided by the CATO-programme (MilieuCentraal n.d.).
	Energy investments allowance – EIA ()	Energieinvesteringsaftrek (IEA) is in place and allows for investment cost to be deducted from profits. Eligible investments can be retrieved from the energy list.
	Energy tax	The energy tax applies to natural gas and electricity and changes each year. The following rates apply from 1 January 2013. Natural Gas (without VAT) per m ³ : < 170.000 m ³ : € 0.1862 170.000 - 1 million m ³ : € 0.0439 1 million - 10 million m ³ : € 0.016 > 10 million m ³ : € 0.01 Electricity (without VAT) per kWh: 0 - 10.000 kWh: € 0.12 10.000 - 50.000 kWh: € 0.04 50.000 - 1 million kWh: € 0.01
	SDE+ (Stimulerend Duurzame Energieproductie) : Premium Tariff	Since 2012 the SDE+, former SDE, is the main support scheme for renewable electricity and heat production. The eligible technologies and tariffs are revised each year. The budget for 2013 is €3 bn. ⁵
Energy Efficiency	Ecodesign to improve energy efficiency of electrical equipment	An energy label is required for different electrical appliances such as refrigerators, freezers, washing machines, tumble dryers, washer-dryers, dishwashers, ovens, lamps, and air conditioners ⁶ .
	Voluntary agreement on energy efficiency with small and large firms: Implementing energy saving plans (energy management, saving projects)	Long-term agreements (meerjarenafspraken) have been concluded between individual companies, industries, and the competent authority. Currently, 1,160 companies concluded such agreements (status of December 2012). In 2011, LTAs generated energy efficiency improvements of 1.9% compared to 2010.

⁵ Regeling van de Minister van Economische Zaken van 4 februari 2013, nr. WJZ/13010648, houdende aanwijzing van categorieën van productie-installaties voor de stimulering van duurzame energieproductie in het jaar 2013

⁶ RICHTLIJN 2005/32/EG VAN HET EUROPEES PARLEMENT EN DE RAAD van 6 juli 2005 betreffende de totstandbrenging van een kader voor het vaststellen van eisen inzake ecologisch ontwerp voor energieverbruikende producten en tot wijziging van Richtlijn 92/42/EEG van de Raad en de Richtlijnen 96/57/EG en 2000/55/EG van het Europees Parlement en de Raad

	More with Less Covenant and incentives (Meer met Minder): Voluntary agreement with installation branches, energy companies and buildings	It is a joint initiative by the government, construction, installation, and energy companies focusing on energy efficiency and reduction of energy consumption to realise energy savings in existing private properties and private rental houses. It includes support programmes provided by different regions, etc.
Transport	Fiscal policy (more favourable tax regime) for efficient cars	Implemented. When registering a new passenger vehicle or motorcycle, a tax has to be paid calculated on the basis of absolute CO ₂ emissions. The lower the CO ₂ emissions, the less tax is paid—in some cases even tax exemptions apply. Consumers are thus encouraged to buy environmentally friendly cars.
	Transport biofuels act: Obligation of a certain percentage of biofuels in the fuel mix	The suppliers of fuels are required to ensure that the percentage of biofuels in fuel mix is 4.25% for 2011, 4.5% for 2012, 5.0% for 2013, and 5.5% for 2014 ⁽⁷⁾ .
	Impact of the EU CO ₂ standards for new vehicles passenger cars (130 g/km in 2015)	Standard will be enforced by 2015. Average CO ₂ emissions for newly registered cars was 118.5 g/km in 2012 compared to 166.7 g/km in 2006. Despite reduced average emissions per vehicle, the overall emissions in this sector grew due to an increase of the overall number of passenger cars (ING Economisch Bureau 2013).
Other non-ETS sectors	Covenant agricultural sector: voluntary agreement on clean and efficient ago sectors incl. energy efficiency and renewables in agriculture	Covenant for a clean and economical agricultural sector in place since 2008. The goal is a reduction of CO ₂ emissions by 6.2 mega tonnes per year. Since 2008, an efficiency increase between 2 and 3 % per year was reached (SER 2013a). However, no information on overall reductions in absolute terms have been traced.
	Subsidy for energy efficiency in horticulture	Also in 2013, the Ministry for Economy, Agriculture and Innovation offers subsidies for new energy efficient installations and measures in the horticulture sector. The budget is € 2.25 million for 2013. Applications can be handed in between 15 August until 16 September 2013. Companies that received funding in prior years are not eligible for the subsidy (Dutch Ministry for the Economy 2013a).

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013

Additional Measures (only important national measures)		Status of policy in November 2013
Other non-ETS sectors	Sector emission trading (particularly in the agriculture sector)	The energy agreement for sustainable growth (Energy Agreement) contains the introduction of individual emission benchmarks for the glasshouse horticulture sector by enhancing the stimulus for energy savings and efficiency increases. This policy is expected to enter into force by 2015 (Van Der Valk 2013).

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013

⁷ Besluit van 18 april 2011, houdende regels omtrent de inzet van energie uit hernieuwbare bronnen ten behoeve van bepaalde vormen van vervoer (Besluit hernieuwbare energie vervoer)

As of September 2013, all policies and measures contained in the WEM scenario are ongoing. Most of them have been in place for some years. No new measures were implemented in 2013. It can thus be assumed that the Netherlands will achieve the emission reductions outlined in the WEM scenario and consequently slightly miss its 2020 target.

Only one important measure is to be mentioned in the WAM scenario. The basis for the sectoral emission trading has been set with the 2013 Energy Agreement but implementation will not start before 2015. If this measure is implemented successfully, the Netherlands could reach its 2020 target.

3 Evaluation of National Reform Programme 2013 (NRP)

In April of each year, Member States are required to prepare their National Reform Programmes (NRPs), which outline the country's progress regarding the targets of the EU 2020 Strategy. The NRPs describe the country's national targets under the Strategy and contain a description of how the country intends to meet these targets. For climate change and energy, three headline targets exist: 1) the reduction of GHG emissions, 2) the increase of renewable energy generation, and 3) an increase in energy efficiency⁽⁸⁾.

The Dutch reform programme acknowledges the need for continuous efforts to reduce CO₂ emissions, stimulate renewable energy as well as support energy efficiency. In this respect long-term strategies, roadmaps and action plans are currently being elaborated or have been agreed upon, such as the Energy Agreement (SER 2013a) and the Strategy on climate policy en route to 2020 (Dutch Ministry of Transport and the Environment 2011). Policy actions as set out in the NRP focus on energy savings, renewable energy and transport. In the field of energy efficiency, a revolving fund is planned to stimulate household investment in energy saving measures.

In the following table, the main policies and measures as outlined in the NRP of April 2013⁽⁹⁾ have been summarised, and their current status (implemented, amended, abolished, or expired) is given, with specifics on latest developments.

⁸ There are specific targets for all MS by 2020 for non-ETS GHG emission reductions (see section 2) as well as for the renewable energy share in the energy mix by 2020 (see section 4, renewable energies). Specific energy efficiency targets will be defined (or revised) by the MS until the end of April 2013 in line with the methodology laid out in Article 3 (3) of the Energy Efficiency Directive (Directive 2012/27/EU).

⁹ All NRPs are available at: http://ec.europa.eu/europe2020/making-it-happen/country-specific-recommendations/index_en.htm

Table 3: Main policies and measures as outlined in the NRP, April 2013

Sustainable Energy Incentive Plus Scheme (SDE+)	
Status as stated in the NRP	Reformed in 2011
Status as per Nov 2013	In place. For this year, 500 applications for support have been handed in so far (status 3 September 2013). 499 applications have been accepted and granted the SDE+ subsidy (as of 28 November 2013) (AgentschapNL 2013b).
Description of policy or measure	The SDE+ constitutes the main support scheme for electricity and heat from renewable energy sources (Agentschap 2012). The support is allocated in 6 stages on a 'first come, first serve' basis. In each round the tariffs increase. However, late bidders run the risk of being rejected due to a lack of funds. The allocated budget for 2013 is €3 bn but shall increase until reaching €3.8 bn in 2020. Applications for SDE+ 2013 can still be handed in until 19 December 2013 ¹⁰ .
Energy Investment Allowance	
Status as stated in the NRP	Implemented in 2011
Status as per Nov 2013	In place
Description of policy or measure	The Energy Investment Allowance (EIA) offers a tax benefit for companies registered in the Netherlands for investments in renewable energy plants. All eligible technologies can be retrieved from the energy list. In total, 17,000 applications have been submitted in the context of the EIA, a tax deduction scheme. Moreover, 84% of applications originated from SMEs. Regarding the approved projects, 80% of investments went into energy efficient techniques (AgentschapNL 2013a).
Revolving Fund for energy savings in buildings	
Status as stated in the NRP	Announced for 2013
Status as per Nov 2013	Under negotiation
Description of policy or measure	A total budget of €600 million of which €150 million are from the state budget (€50 million in 2013) and €450 million are co-financed by private parties. Currently, negotiations with banks are ongoing. So far, no detailed conditions of how to disburse the money have been published. The fund is directed towards landlords, owners, as well as tenants to finance energy-saving technology and measures with the help of low interest loans with a 12-year payback period (Dutch Ministry for the Interior 2013a). The measure is still subject to negotiations (Dutch Ministry of the Interior 2013b).

¹⁰ Regeling van de Minister van Economische Zaken van 4 februari 2013, nr. WJZ/13010648, houdende aanwijzing van categorieën van productie-installaties voor de stimulering van duurzame energieproductie in het jaar 2013

Blok voor Blok	
Status as stated in the NRP	Started in 2011
Status as per Nov 2013	Ongoing
Description of policy or measure	In total, 14 projects in 13 provinces have been launched in the framework of the Blok for Blok pilot programme (Blok voor Blok). With the joint effort of private actors, provinces, corporations and municipalities, the goal is to make at least 2,000 existing apartments profoundly energy efficient by 2014. The project implementation is organised in the form of a consortium in which partners cooperate and exchange expertise. The lessons learned shall then be extrapolated to a wider audience in order to make energy efficiency measures more effective (MilieuCentraal 2012).
Strategy on 'climate policy en route to 2020': Action Plan for Energy Conservation in the Built Environment	
Status as stated in the NRP	Published on 25 February 2011
Status as per Nov 2013	Ongoing
Description of policy or measure	The strategy for the building sector focuses on energy efficiency measures, energy performance obligations, and the use of renewable energy (Dutch Government 2011c). In this respect, a couple of support schemes are directed towards achieving these objectives, such as the 'Meer met Minder' programme.
Strategy on 'climate policy en route to 2020': measures in transport	
Status as stated in the NRP	Published on 8 June 2011
Status as per Nov 2013	Ongoing activities
Description of policy or measure	The strategy contains a combination of different policies, such as covenants for actions, legislation, subsidies, and fiscal stimuli (Dutch Government 2011b). For example, CO ₂ emission norms for passenger cars and vans. In the framework of the "Sectorconvenant Verkeer en Vervoer: Duurzaamheid in Beweging," measures such as the replacement of car fleet and efficiency increases in logistics by 2020 are envisaged.
Strategy on 'climate policy en route to 2020': CO₂ settlement system in the glasshouse horticulture sector	
Status as stated in the NRP	Published on 8 June 2011
Status as per Nov 2013	Ongoing activities
Description of policy or measure	The strategy contains a combination of different policies, such as covenants for actions, legislation, subsidies, and fiscal stimuli (Dutch Government 2011b). The Covenant for a clean and economical agricultural sector set up in 2008 has the goal of reducing CO ₂ emissions by 6.5 mega tonnes per year. Moreover, the platform sustainable horticulture aims to bring together government and industry in order to coordinate their actions. Since 2008, an annual efficiency increase of 2-3% per year has been reached. However, no information on overall reductions in absolute terms has been traced.

New round of Green Deals: Green deals with businesses, provinces, municipalities and nongovernmental organisations

Status as stated in the NRP To be implemented in 2012

Status as per Nov 2013 New agreements were signed

Description of policy or measure

In the areas of resources, biodiversity, water, sustainable mobility, renewable energy, and energy savings, the government stimulates the conclusion of green deals. Accordingly, the initiative must be profitable, and results must materialise within 3 years. Initiatives must trigger new economic activities or cost savings for companies and households. Green Deals provide no financial support; instead, the government aims to eliminate administrative barriers using specific government instruments and expertise. So far, about 150 green deals have been signed on topics such as the use of renewable energy in swimming pools and the production of bioplastic (Dutch Government 2013i).

Local Climate Agenda 2011-2014

Status as stated in the NRP Ongoing

Status as per Nov 2013 Ongoing

Description of policy or measure

This instrument aims to facilitate knowledge and information exchange between the central government and local authorities in order to increase local community participation in the field of climate change and sustainability. Most local authorities implement their own policies and instruments to achieve the CO₂ reduction target. In 2013 and 2014, the focus is on two main tracks: on the one hand, focus is put on scaling up promising and inspiring environmental projects and the further optimisation of knowledge and expertise and on the other, strengthening the role of climate ambassadors for political agenda setting (Dutch Government 2013e). Based on a survey conducted by the Association of Dutch Municipalities (Vereniging van Nederlandse Gemeenten) published on 5 June 2013, the majority of municipalities that have set up a climate roadmap (in total 80% of all municipalities) are not on track to reach their set emission reduction targets due to a lack of funding. While 5% of municipalities have committed to additional investments, one-third watered down their targets or prolonged the timeframe for goal attainment. Two-thirds opted to implement more incentives for citizens and business, such as subsidies and loans (Milieuloket 2013).

Sustainable Mobility Scheme (Proeftuinen Duurzame Mobiliteit)

Status as stated in the NRP Implemented

Status as per Nov 2013 Will be phased out by 1 January 2014 (Overheid 2013)¹¹

Description of policy or measure

Using subsidies, the government supports the development of innovative and sustainable modes of transport, such as electric vehicles, the use of biogas and other biofuels (Dutch Government 2013l). The budget is €2.6 million.

¹¹ Besluit houdende vaststelling Subsidieprogramma Proeftuinen duurzame mobiliteit: rijden op biogas en hogere blends biobrandstoffen van 1 Juli 2011- Subsidieprogramma Proeftuinen duurzame mobiliteit: rijden op biogas en hogere blends biobrandstoffen

The New Driving	
Status as stated in the NRP	Implemented
Status as per Nov 2013	In place
Description of policy or measure	The programme "Het Nieuwe Rijden" is aimed at motorists, professional drivers and fleet managers to encourage more energy-efficient purchasing and driving (Dutch Government 2013k). The programme is an important policy in the framework of the Dutch climate strategy. The goal is a saving of 1 mega tonne of CO ₂ equivalent.

4 Policy development

This section covers significant developments made in key policy areas between February 2013 and November 2013. It does not attempt to describe every instrument in the given thematic area.

Horizontal Issues

Aiming at the transformation towards a green economy, the Netherlands passed a Sustainability Agenda published in 2011 setting out the main objectives and activities for stimulating green growth. The agenda defines the following priority areas: resources and product chains, sustainable water and land use, food, climate and energy, as well as mobility. In these areas, different instruments are being deployed. The Cabinet of Ministers aims to increase the competitiveness of the Dutch economy by reducing its dependence from fossil energy sources and environmental harm. The centrepiece of this national policy is the Energy Agreement for sustainable growth that has been elaborated by multiple stakeholders and the Sociaal-Economische Raad and published in September 2013 (SER 2013a). The agreed goals are for example an annual saving of 1.5 % in final energy consumption, totalling 100 PJ of energy savings by 2020; a share of renewable energy of 14% in 2020 and 16% in 2023; and a creation of at least 15.000 jobs (SER 2013b). The SER stipulates the following 10 pillars for actions containing long-term as well as short to mid-term agreements

1. energy savings within the built environment and improved energy efficiency in the commercial sector;
2. scaling up of renewable energy generation;
3. encouragement for local sustainable energy;
4. preparations for the energy transmission network;
5. a properly functioning EU Emissions Trading System (ETS);
6. coal-fired power stations and CCS (Carbon Capture and Storage);
7. mobility and transport;
8. employment and training
9. encouragement of commercialisation for growth and export;
10. financing of investments in sustainable energy

These pillars of action establish the basis in order to reach the goals of the Energy Agreement. ECN and Planbureau Leefomgeving (PBL) have been commissioned by SER to estimate the actual effects of the Energy Agreement and foreseen measures. Based on the agreed measures estimations project a final energy saving of only 22 to 60 PJ by 2020 demanding additional efforts. The target for renewable energy is considered

realistic given that the additionally reserved budget of € 375 millions actually invested (PBL 2013). Besides agenda setting and the formulation of policy goals in terms of greening the economy, the Netherlands employs a set of financial instruments to stimulate investments in energy efficiency as well as concludes sector agreements and green deals on certain energy savings targets.

In the framework of 'groen beleggen en financieren' (Green Loan) consumers can receive a tax benefit if they invest in a green fund. In return, banks offer green loans at lower interest rates to so-called 'green projects' using the extra liquidity generated by the consumers' investments. These projects need to have a positive environmental impact in the fields of nature, bio-agriculture, agriculture, sustainable resources, recycling, renewable energy, energy saving, sustainable construction, sustainable mobility, or the sustainable water cycle. In 2012, € 95 million were approved. The Ministry of Finance estimates increasing spending over the next years.

The MIA scheme offers a tax refund on environmental investment whereby up to 36 % of total investment costs can be deducted from the taxable profit. The Vamil scheme offers a voluntary depreciation on environmental investment. The eligible technologies are laid out in the environment list (¹²). The budget for 2013 is €125 million.

Additionally, Green Deals are signed to promote local and individual environmentally friendly undertakings. The Dutch government uses this instrument as a voluntary agreement between the government and private sector parties to facilitate emissions reduction measures. The total number of projects that have been supported by this programme is now 150; these include the use of renewable energy in swimming pools and the production of bioplastic. The state assists in reducing and or simplifying barriers created by legislation and administrative procedures (Dutch Government 2013d). In June 2013, a new Green Deal was signed by the Ministry of Infrastructure and the Environment and Public Works, the Ministry of Economic Affairs, the Ministry of Defence, ProRail and 17 other parties with the aim to stimulate sustainable track, land, water and road construction and the implementation of civil engineering projects in matters such as energy saving and resource efficiency (Dutch Government 2013f). In addition, a provincial budget was created aimed at achieving goals for 2020. The Province of Friesland created a budget in order to start the Fonds Schone Friesche Energie (FSFE). The complete budget for the funding is in total € 90 million. The main aim of the provincial budget is to invest in production of renewable energy or energy efficiency (Energie+ 2013a).

In order to achieve the set goals for 2020, challenges and opportunities are also investigated. In October 2013, the Netherlands Organisation for Applied Scientific Research (TNO) released a report on the opportunities and challenges of developing a circular economy in the Netherlands. By examining the quantitative implications, the think tank proposes concrete actions, which take into consideration job creation and the environment. Doing so, the study differentiates between two cases of a circular economy: one focusing on abiotic materials (metal and electrical sectors) and another on biotic materials (waste streams of biomass). Based on TNO calculations, the added value from

¹²The environment list 2013 can be retrieved from www.agentschapnl.nl/sites/default/files/BrochureMilieulijst%202013.pdf

abiotic materials is estimated at €573 million per year and from biotic materials at €1 billion (Dutch Government 2013j).

Environmental Taxation

In the Netherlands, the share of total tax revenues that come from environmental taxes amounted to 10.15% in 2011. This is the second-highest value in the EU. In addition, environmental taxation revenues were equivalent to 3.89% of GDP in 2011; also the second-highest value among EU MS. The Netherlands has no explicit carbon tax in place. The implicit tax rate on energy was also among the highest in the EU in 2011, and amounted to €191.5 per tonne of oil equivalent. The energy intensity of the Dutch economy is close to the EU average. Although the implicit tax rate in the Netherlands is very high, the share of energy tax revenues in total tax revenues is moderate (Eurostat 2013a).

In the framework of the Green Growth Strategy of 2013 a further greening of taxation is envisaged. The Cabinet of Ministers argues that product prices and services shall stronger reflect the external costs to the environment and so influence consumption behaviour (Dutch Ministry for the Economy 2013b). So far, no concrete policy proposals and measures have been published. As of 1 January 2013 the reduced tax rate for red diesel has been abolished and the excise duty for LPG increased. Moreover, since 1 January 2013, a waste fee is charged instead of a packaging tax. Accordingly, companies that use more than 50,000 kg of packaging for their products are required to contribute to a waste fund in form of a charge depending on the sort of packaging and amount. The goal of the fund is to set up a waste management system, ensure waste monitoring and prevent packaging litter. The new regulation shall reduce administrative costs and complexity (Afvalfonds 2013).

Fossil fuels are subsidised in the Netherlands via energy tax exemptions for energy-intensive industries equal to € 2 bn per year (NRC 2012). Taxes on fossil energy sources such as coal (coal tax) and natural gas, electricity (both energy tax) and fresh water increase each year. Exemptions from coal tax can be applied for if coal is not used as source for energy.

Energy Efficiency

The Dutch economy is moderately energy intensive when compared with other EU Member States and only slightly below the EU average. Energy intensity decreased from 2005 to 2011 at a rate of 9%. Total energy consumption in 2011 decreased compared to 2005 by 3%. This development was even more positive in the time between 2010 and 2011 when energy consumption decreased by 6% and exceeded the EU average rate of 4% (Eurostat 2013a).

In the overall picture, the industrial sector has improved its energy efficiency through 2010, despite setbacks in the steel industry due to the tense economic situation since 2007. The chemical industry, which is responsible for half of the energy consumption of this sector, has been most successful by increasing its efficiency by 55% between 1990 and 2010. Agentschap NL reported in October 2013 that around 1000 energy-intensive companies have already concluded energy efficiency agreements with the Dutch government. In 2012, these companies have a combined saving of 12.4 PJ in comparison to 2011. This corresponds to the consumption of 190,000 households (AgentschapNL 2013c).

The Dutch households have increased their energy efficiency by 36% over the same period. Efficiency gains were mainly achieved from improvements in space heating (39%) and electric appliances (37%), which make up more than two-thirds of the total consumption, while the progress in other areas such as water heating and cooking was much slower (Odyssee 2012). According to a study published by Aedes (Union of Housing Association) in August 2013, the number of apartments achieving a green energy label (C or above) has increased more in 2012 than in previous years. In total, more than 250,000 apartments have a better energy label in 2012 than in 2011. According to the final report, the number of homes with an A or B label increased by 52% and 23% respectively (AEDES 2013). From 1 July 2014 onwards, also public buildings will be obliged to dispose of an energy label. The Ministry of the Interior and Kingdom Relations is expected to publish this obligation in January 2014 (Energie+ 2013b).

As announced by the Minister for Buildings, a revolving fund is planned to stimulate investments in energy efficiency measures in buildings (Dutch Ministry for the Interior 2013). A total budget of €600 million is foreseen of which €150 million are from state budget (€50 million in 2013) and €450 million shall be co-financed by private parties for 2014. On 18 October 2013, the Dutch Minister for Buildings Stef Blok announced that an agreement had been made with two private banks on their financial contribution to the Dutch Energy Efficiency Fund. Accordingly, Rabobank will contribute €175 million and ASN Bank will contribute €50 million. Together with €75 million in federal support, the fund now totals €300 million and will be used to stimulate investments in energy efficiency measures in buildings (Energie+ 2013c). The fund is directed towards landlords, owners, as well as tenants to finance energy saving technology and measures with the help of low interest loans with a 12-year payback period (Dutch Government 2013g).

Since 1 March 2013, a reduced VAT rate of 6% applies for the placing of double glazing. Other types of energy efficiency measures in buildings such as floor, roof, and wall cavity insulation were already eligible for the reduced tax. According to calculations from MilieuCentraal, the VAT rebate of insulation measures (and glass) equals approximately to €1,300 (MilieuCentraal 2013).

Besides the reduced tax rates and the planned revolving fund, support programmes such as “More with Less” and “Block for Block” are still in place and contribute to a reduction of energy consumption.

Renewable Energy

The share of renewable energy in total energy consumption in the Netherlands increased slightly between 2005 and 2011, but it is still fairly low at 4.3%. The expected proportion of renewable energy will increase from 4.6% (range 4.2 -5.0 %) in 2013 to 5.7% (5.1 - 6.3%) in 2015 (AgentschapNL 2013d).

Still, the Netherlands has much work to do before meeting its EU target of 14% by 2020. The original self-defined target, to increase the share of renewable energy to 16% by 2020, has been revised by the Rutte II cabinet in summer 2013 and pushed back to 2023. The electricity sector is in slightly better shape; the share of renewable sources in final electricity consumption increased by approximately 50% between 2005 and 2011, but at 9.8% it was still far below the EU-28 average of 21.8% (Eurostat 2013b).

According to the 2013 Energy Agreement (see above), the Dutch government agreed on a target for renewable energy of 14% of total energy consumption in 2020 and 16% in

2023 (SER 2013a). Estimations done by ECN and Planbureau Leefomgeving (PBL) considered this target to be realistic given that the additionally reserved federal budget of €375 million is actually invested (Planbureau voor de Leefomgeving 2013). According to information from ODE (Organisatie voor Duurzame Energie), the production of electricity from renewable energy amounted to 12.2 bn kWh in 2012. Compared to 2011, this is an increase of 10%. While the production of electricity from biomass remained at the same level as in 2011, electricity production from wind increased (ODE 2013).

SDE+ constitutes the main support scheme for electricity and heat from renewable sources and was last revised in 2012. Under the scheme, all technologies compete against each other for funding in six steps on a 'first come, first serve' basis. In each stage, a maximum base price (basisbedrag) is defined for each technology (also called "category"). This price represents the price of €ct necessary to produce 1 kWh electricity from renewable energy. The base price increases in each round. Electricity producers can decide at which stage they apply for subsidy taking into consideration that late bidders run the risk of being rejected due to a lack of funds. The budget for the support of renewable energy in electricity and heat production in the framework of SDE+ renewable energy will amount to € 3.5 billion in 2014, an increase of €0.5 billion compared to 2013 (AgentschapNL 2013e). In order to reach the share of 14% renewable energy production in 2020, the budget would have to increase to €3.8 bn (SER 2013a). According to Agentschap NL, projects worth €2.2 billion have been approved as of 3 October 2013. Applications for SDE+ 2013 can still be handed in until 19 December 2013 (AgentschapNL 2013f). The current scheme favours technologies that already produce at a low price. Accordingly, it has been criticised that new technologies, being relatively expensive, lack sufficient support and thus the chance for further cost-reducing development (Tonneyck 2013). Since it is a programme that is set up for one year, no relevant changes in the regulation were identified since the 2012 review.

Outside the SDE+ scheme, PV installations can receive subsidies under the *Lente Akkoord*. Accordingly, PV installations with a capacity of 0.601 kWp to 3.5 kWp are eligible for a subsidy of 15% of the investment cost. For installations with a capacity greater than 3.5 kWp, the support is calculated by multiplying the 15% of investment costs by 3.5 and then dividing by the actual capacity in kWp. The maximum subsidy is €650. The foreseen budget of €50 million for 2012 and 2013 was exhausted in August 2013. In total, the installed capacity amounts to a yearly electricity production of 315 GWh (AgentschapNL 2013g). In February 2013, the Ministry of Economy announced the allocation of an additional €43.35 million to fund measures to cover geological risks of drilling in geothermal energy projects. Applications had to be submitted by 14 June 2013 ⁽¹³⁾ (AgentschapNL 2013h).

The Energy Investment Allowance (EIA) offers a tax benefit for entrepreneurs registered at the Dutch tax office to write off investments in renewable energy plants. The eligible technologies are stipulated in the energy list (which includes all major renewable technologies). The amount of tax credit may be up to 41.5% of the total investments

¹³The regulation (Regeling van de Minister van Economische Zaken van 13 februari 2013, nr. WJZ/12043892, tot wijziging van de Subsidieregeling energie en innovatie ter wijziging van de voorwaarden in het programma Risico's dekken voor aardwarmte) was published in the Staatscourant on 21 February 2013

made in renewable energy or energy efficiency technologies within one year. The energy efficiency component covers industrial process improvements as well as building renovation for enterprises. The level of funding depends on the source of energy and type of technology. The budget for 2013 was €151 million. A study by ECN, Energie-Nederland, and Netbeheer Nederland released on 11 October 2013 analysed the effects of further government support for renewable energy sources on the energy market, energy facilities, smart grids, and the labour market. The study stressed the need for a long-term adjustment of the electricity grid in order to ensure its ability to handle the feed-in of renewable electricity. The energy transition and related innovation is estimated by the study to create 20,000 new jobs by 2017 (ECN 2013a).

Energy Networks

The Innovation Programme Smart Grids currently provides financing for 12 smart grid pilot projects, such as Cloud Power Texel and Couperous Smart grid. In order to be eligible for subsidy, the project is assessed on the basis of innovation, sustainability, project organisation, and economic feasibility. The project shall be implemented at the level of a residential district, city centre, industrial site, or office environment. The subsidy amounts to 40% of the additional costs (relative to the reference investment) but no more than €4 Mio per project ⁽¹⁴⁾.

On 22 November 2013, the Energy research Centre of the Netherlands (Energieonderzoek Centrum Nederland - ECN) announced signing the national Chain Agreement for Recycled Plastic (Ketenakkoord Kunststoffkringloop). The main aim of the agreement is to close the plastic recycling loop and get rid of visible waste in waters within the upcoming two years. (ECN 2013b).

Transport

Emissions from transport have increased between 1990 and 2011. While they have remained at almost the same level since 2005, an upward trend can be reported for 2011. The same holds for the proportion of these emissions among the Netherlands' total emissions. In 2011, their proportion has also increased and amounted to 18%. Thus, these emissions remain important to address in the future (Table 1).

Average emissions for newly registered cars are very low in the Netherlands, with a level of 118.5 CO₂/km. The level is the 3rd lowest in the EU and has decreased at a higher rate than the EU average between 2005 and 2012 (Eurostat 2013a). Vehicle taxes in the Netherlands are only partly based on CO₂ emissions. The registration tax that is levied on passenger cars and motorcycles is based on the price of the vehicle, its CO₂ emissions, and a lump sum differentiating between diesel and petrol cars. An ownership tax for passenger cars is based on deadweight and fuel, but varies between the provinces. For buses, coaches and commercial vehicles, the tax is based on weight only (ACEA 2012). The Netherlands levies a time-based road toll for HVDs, with a weight of over 12t (CE Delft 2012).

¹⁴Regeling van de Minister van Economische Zaken, Landbouw en Innovatie van 27 mei 2010, nr. WJZ / 11034132, tot wijziging van de Subsidieregeling energie en innovatie in verband met proeftuinen intelligente netten

The Netherlands levies the highest excise duties in the EU on petrol. In contrast, diesel for transport is taxed at a strikingly lower rate (difference of around €320/1000 litres). This is still near the EU average but represents one of the most stringent differentiations between diesel and petrol (European Commission 2013).

In order to further increase emission efficiency, electric vehicles are supported. Under the framework of MIA/Vamil (tax refund on environmental investment), electric cars are eligible for support through the Action Plan Electric Mobility of 2011 if CO₂ emissions are lower than 50 grams per kilometre. The overall policy goal is 15,000-20,000 electric cars in 2015 and 1 million by 2025; in 2012 there were 4,000 registered electric vehicles in the Netherlands (Trouw 2012). The number of electric vehicles on Dutch roads is increasing. By the end of 2012, approximately 7,300 e-vehicles were registered and 8,000 charging points were installed (AgentschapNL 2013i). As a means to reduce the costs of constructing and operating charging infrastructure for e-vehicles in public space, the Task Force E-Team commissioned Movares to investigate the potential of using private household electricity connection points (so called 'Verlengde private aansluitpunt'). The study revealed that the use of private household electricity connection points for charging purposes is particularly suitable for longer charging periods and in residential areas with low parking pressure (Movares 2013).

Aiming at a reduction of emissions from scooters and mopeds, stricter controls of manufacturers of scooters and mopeds have been announced. In doing so, extra checks have been introduced. Random tests have revealed that official emission levels as indicated on paper are not met in practice. State Secretary for Infrastructure and the Environment Mansveld hopes to better control CO₂ emissions that are emitted in transport (Dutch Government 2013h).

Agriculture

The covenant for a clean and economical agricultural sector sets out the measures planned until 2020, containing concrete actions for various sectors, such as agriculture, horticultural field crops, and livestock. The goal is reducing CO₂ emissions between 3.5 and 4.5 mega tonnes per year besides an additional sector agreement worth a yearly reduction of 6.2 mega tonnes. By 2020, 200 PJ of renewable energy from biomass shall be produced each year. The covenant stimulated an efficiency increase of 2-3% per year so far (SER 2013a). The Dutch agricultural sector consumes about 140 PJ of energy per year, of which greenhouse horticulture accounts for 85%. Accordingly, this sector has the highest potential for energy savings and thus for emissions reduction. By 2020, this sector shall reduce its energy consumption by 11 PJ. Facilitated by the research and innovation programme "Kas als energiebron" and the financial support programmes Market Introduction of Energy Innovation (MEI) and Investment Subsidy in Energy Savings (IRE), companies in the field of greenhouse horticulture are stimulated to exchange best practices and expertise and innovation in the field of innovative energy systems, energy efficiency and the use of renewable energy. Besides the energy saving target, the sector aims to ensure new greenhouses are energy neutral by 2020. MEI offers a 40% subsidy for investments in innovative energy systems contributing to a reduction of CO₂ emissions and energy consumption. IRE offers an investment subsidy of up to 25% of eligible investment costs. For 2013, the budget for MEI is €9 million and for IRE it is €2.225 million (Dutch Ministry for the Economy 2013c).

Adaptation

In 2007, the Ministries of Housing, Spatial Planning and the Environment, of Transport, Public Works and Water Management, of Agriculture, Nature and Food Quality and of Economic Affairs jointly formulated the National Programme for Spatial Adaptation to Climate Change (¹⁵). The programme is based on three pillars, namely a) awareness raising, network formation, strategy development; b) knowledge development and dissemination, development of common view and c) adaptation instruments, provision of advice on measures and implementation.

According to an evaluation by Algemene Rekenkamer, the strategy has never been transposed into concrete actions or measures. Moreover, the report concludes that through a lack of coordination, delegation of competencies, as well as monitoring, the Netherlands in its current state is not well prepared to cover the risks of climate change adequately (Algemene Rekenkamer 2012 a). This holds especially for effects of climate change on public health, energy, transport and tourism. Aside from the adaptation programme Ruimte en Klimaat that was stopped already in 2010, the law called Deltawet, which focuses mainly on water safety, freshwater supply, and climate resilient urban development, no fundamental adaptation strategy is currently in place (Algemene Rekenkamer 2012b).

5 Policy progress on past CSRs

As part of the European Semester, Country Specific Recommendations (CSRs) for each MS are provided by the EU Commission in June of each year for consideration and endorsement by the European Council). The recommendations are designed to address the major challenges facing each country in relation to the targets outlined in the EU 2020 Strategy. In the following table, those CSRs that are relevant for climate change and energy that were adopted in 2013 are listed, and their progress towards their implementation is assessed.

No CSRs related to climate change and energy were issued for the Netherlands in 2013.

¹⁵The programme can be retrieved from www.climateresearchnetherlands.nl/gfx_content/documents/documentation/National_Adaptation_Strategy_The_Netherlands.pdf

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